William A. Consodine and A. E. Britt. August 1945. Notes to Aid in the Discussion with Dr. Vannevar Bush Concerning the Captured German Scientists. [NARA RG 77, Entry UD-22A, Box 168, Folder 202.2 LONDON OFFICE: Combined Intell Disc.]

[...]

III. REASON FOR DETENTION

A. Security

In view of our impending operations, security was the initial and remains the paramount reason for their detention. Any publicity on TA, either foreign or domestic, at this critical period would be detrimental to overall security. This action is in alignment with the treatment accorded to other important German scientists who are being held for interrogation.

B. Fear of their falling into French hands

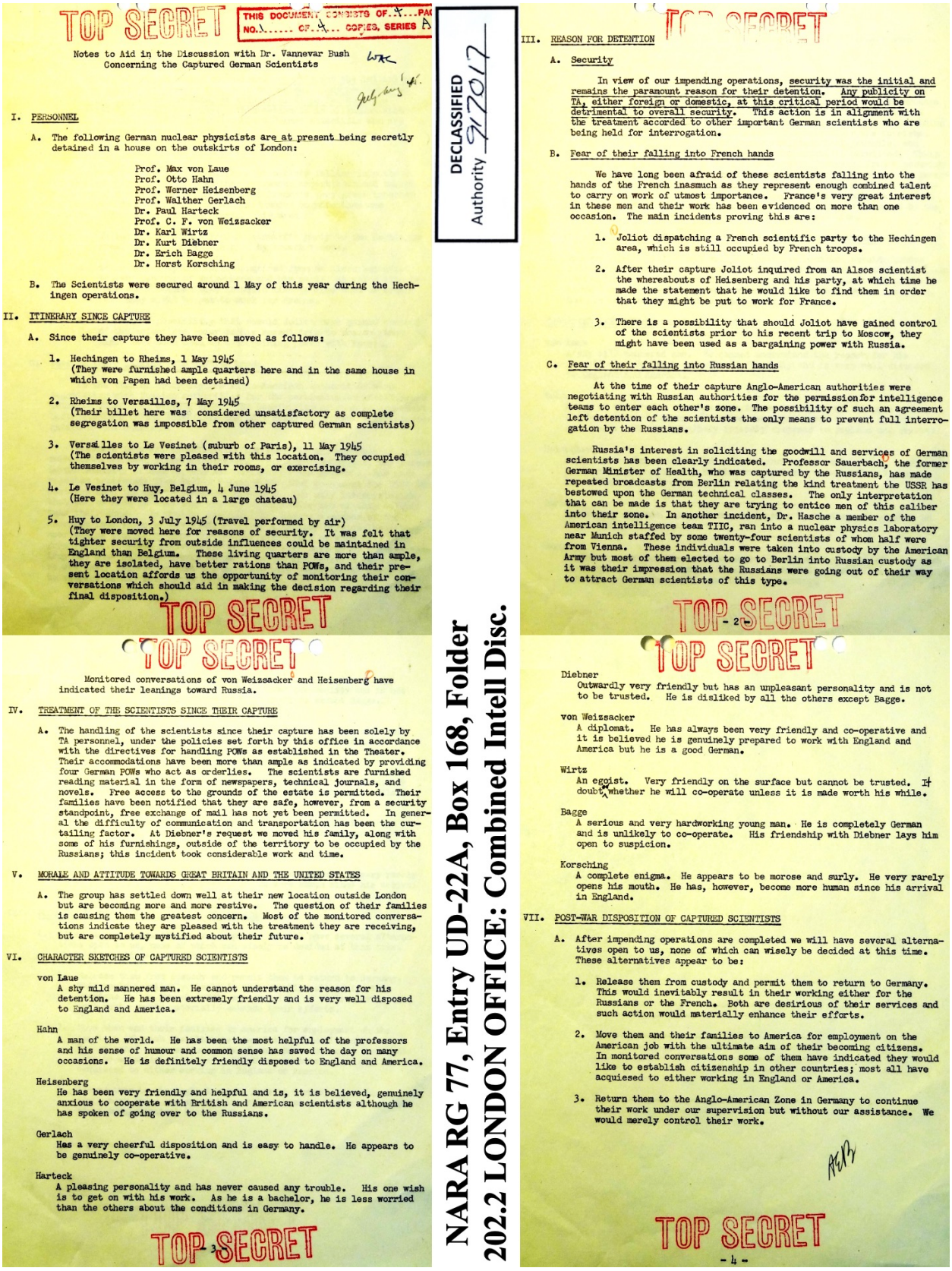
We have long been afraid of these scientists falling into the hands of the French inasmuch as they represent enough combined talent to carry on work of utmost importance. France's very great interest in these men and their work has been evidenced on more than one occasion. [...]

C. Fear of their falling into Russian hands

At the time of their capture Anglo-American authorities were negotiating with Russian authorities for the permission for intelligence teams to enter each other's zone. The possibility of such an agreement left detention of the scientists the only means to prevent full interrogation by the Russians.

Russia's interest in soliciting the goodwill and services of German scientists has been clearly indicated. [...]

[See document photos on p. 4802.]



TOP SECRET

THIS DOCUMENT CONSISTS OF...PAGES NO.1 OF...4... COPIES, SERIES A

Notes to Aid in the Discussion with Dr. Vannevar Bush
Concerning the Captured German Scientists

DECLASSIFIED Authority 912017

I. PERSONNEL

A. The following German nuclear physicists are at present being secretly detained in a house on the outskirts of London:

Prof. Max von Laue
Prof. Otto Hahn
Prof. Werner Heisenberg
Prof. Walther Gerlach
Dr. Paul Harteck
Prof. C. F. von Weizsacker
Dr. Karl Wirtz
Dr. Kurt Diebner
Dr. Erich Bagge
Dr. Horst Korsching

B. The Scientists were secured around 1 May of this year during the Hechingen operations.

II. ITINERARY SINCE CAPTURE

A. Since their capture they have been moved as follows:

1. Hechingen to Rheims, 1 May 1945
(They were furnished ample quarters here and in the same house in which von Papen had been detained)

2. Rheims to Versailles, 7 May 1945
(Their billet here was considered unsatisfactory as complete segregation was impossible from other captured German scientists)

3. Versailles to Le Vesinet (suburb of Paris), 11 May 1945
(The scientists were pleased with this location. They occupied themselves by working in their rooms, or exercising.

4. Le Vesinet to Huy, Belgium, 4 June 1945
(Here they were located in a large chateau)

5. Huy to London, 3 July 1945 (Travel performed by air)
(They were moved here for reasons of security. It was felt that tighter security from outside influences could be maintained in England than Belgium. These living quarters are more than ample, they are isolated, have better rations than POWs, and their present location affords us the opportunity of monitoring their conversations which should aid in making the decision regarding their final disposition.)

TOP SECRET

III. REASON FOR DETENTION

A. Security

In view of our impending operations, security was the initial and remains the paramount reason for their detention. Any publicity on TA, either foreign or domestic, at this critical period would be detrimental to overall security. This action is in alignment with the treatment accorded to other important German scientists who are being held for interrogation.

B. Fear of their falling into French hands

We have long been afraid of these scientists falling into the hands of the French inasmuch as they represent enough combined talent to carry on work of utmost importance. France's very great interest in these men and their work has been evidenced on more than one occasion. The main incidents proving this are:

1. Joliot dispatching a French scientific party to the Hechingen area, which is still occupied by French troops.

2. After their capture Joliot inquired from an Alsos scientist the whereabouts of Heisenberg and his party, at which time he made the statement that he would like to find them in order that they might be put to work for France.

3. There is a possibility that should Joliot have gained control of the scientists prior to his recent trip to Moscow, they might have been used as a bargaining power with Russia.

C. Fear of their falling into Russian hands

At the time of their capture Anglo-American authorities were negotiating with Russian authorities for the permission for intelligence teams to enter each other's zone. The possibility of such an agreement left detention of the scientists the only means to prevent full interrogation by the Russians.

Russia's interest in soliciting the goodwill and services of German scientists has been clearly indicated. Professor Sauerbach, the former German Minister of Health, who was captured by the Russians, has made repeated broadcasts from Berlin relating the kind treatment the USSR has bestowed upon the German technical classes. The only interpretation that can be made is that they are trying to entice men of this caliber into their zone. In another incident, Dr. Hasche a member of the American intelligence team TIIC, ran into a nuclear physics laboratory near Munich staffed by some twenty-four scientists of whom half were from Vienna. These individuals were taken into custody by the American Army but most of them elected to go to Berlin into Russian custody as it was their impression that the Russians were going out of their way to attract German scientists of this type.

TOP SECRET
- 2 -

TOP SECRET

Monitored conversations of von Weizsacker and Heisenberg have indicated their leanings toward Russia.

IV. TREATMENT OF THE SCIENTISTS SINCE THEIR CAPTURE

A. The handling of the scientists since their capture has been solely by TA personnel, under the policies set forth by this office in accordance with the directives for handling POWs as established in the Theater. Their accommodations have been more than ample as indicated by providing four German POWs who act as orderlies. The scientists are furnished reading material in the form of newspapers, technical journals, and novels. Free access to the grounds of the estate is permitted. Their families have been notified that they are safe, however, from a security standpoint, free exchange of mail has not yet been permitted. In general the difficulty of communication and transportation has been the curtailing factor. At Diebner's request we moved his family, along with some of his furnishings, outside of the territory to be occupied by the Russians; this incident took considerable work and time.

V. MORALE AND ATTITUDE TOWARDS GREAT BRITAIN AND THE UNITED STATES

A. The group has settled down well at their new location outside London but are becoming more and more restive. The question of their families is causing them the greatest concern. Most of the monitored conversations indicate they are pleased with the treatment they are receiving, but are completely mystified about their future.

VI. CHARACTER SKETCHES OF CAPTURED SCIENTISTS

von Laue
A shy mild mannered man. He cannot understand the reason for his detention. He has been extremely friendly and is very well disposed to England and America.

Hahn
A man of the world. He has been the most helpful of the professors and his sense of humour and common sense has saved the day on many occasions. He is definitely friendly disposed to England and America.

Heisenberg
He has been very friendly and helpful and is, it is believed, genuinely anxious to cooperate with British and American scientists although he has spoken of going over to the Russians.

Gerlach
Has a very cheerful disposition and is easy to handle. He appears to be genuinely co-operative.

Harteck
A pleasing personality and has never caused any trouble. His one wish is to get on with his work. As he is a bachelor, he is less worried than the others about the conditions in Germany.

TOP SECRET
- 3 -

Diebner
Outwardly very friendly but has an unpleasant personality and is not to be trusted. He is disliked by all the others except Bagge.

von Weizsacker
A diplomat. He has always been very friendly and co-operative and it is believed he is genuinely prepared to work with England and America but he is a good German.

Wirtz
An egoist. Very friendly on the surface but cannot be trusted. I doubt whether he will co-operate unless it is made worth his while.

Bagge
A serious and very hardworking young man. He is completely German and is unlikely to co-operate. His friendship with Diebner lays him open to suspicion.

Korsching
A complete enigma. He appears to be morose and surly. He very rarely opens his mouth. He has, however, become more human since his arrival in England.

VII. POST-WAR DISPOSITION OF CAPTURED SCIENTISTS

A. After impending operations are completed we will have several alternatives open to us, none of which can wisely be decided at this time. These alternatives appear to be:

1. Release them from custody and permit them to return to Germany. This would inevitably result in their working either for the Russians or the French. Both are desirious of their services and such action would materially enhance their efforts.

2. Move them and their families to America for employment on the American job with the ultimate aim of their becoming citizens. In monitored conversations some of them have indicated they would like to establish citizenship in other countries; most all have acquiesed to either working in England or America.

3. Return them to the Anglo-American Zone in Germany to continue their work under our supervision but without our assistance. We would merely control their work.

TOP SECRET
- 4 -

NARA RG 77, Entry UD-22A, Box 168, Folder 202.2 LONDON OFFICE: Combined Intell Disc.

Figure D.868: William A. Consodine and A. E. Britt. August 1945. Notes to Aid in the Discussion with Dr. Vannevar Bush Concerning the Captured German Scientists [NARA RG 77, Entry UD-22A, Box 168, Folder 202.2 LONDON OFFICE: Combined Intell Disc.].

Henry Maitland Wilson to John Anderson. 26 October 1945 [TNA FO 800/565].

ANCAM 453 26th October 1945

TOP SECRET AND PERSONAL.

Your CANAM 453.

Following for Sir John Anderson from Field Marshal Wilson.

I saw Groves yesterday morning and found him very difficult to move on this question. He seems completely convinced

(a) that all but one or two of the Group would certainly try to go to Russia

(b) that if they did they would be of the greatest value to the Soviet Government and

(c) that even if they did not go to Russia voluntarily some would almost certainly be kidnapped. (Groves alleged that there have been one or two cases of kidnapping of scientists already by the Russians in the American zone).

On the second point (b) he expressed the view that as a Group they were superior in all-round ability to the Group which had started the New Mexico laboratory.

2. Groves asked me whether it was not possible to treat some or all of these men as war criminals. I replied in the negative but he pressed for confirmation of this. Secondly, he asked whether it was not possible for some or all of them to be offered jobs in the United Kingdom. He asked to be assured on this point and said that in the meantime he would explore the possibility of employing them in the United States, though he did not seem to be very optimistic.

3. Groves is being very unreasonable on this question, but I do not quite follow what is to be gained by taking the matter up with the State Department; who will merely consult the War Department. My inclination would be to give Groves a week to reply about the opportunities in the United States. If there is no result we should then tell him that there are no grounds on which we can legally justify their continued detention (if this is indeed the case) and that we have no alternative to sending them back to the zones in Germany from which they came, in order to join their families. But I do not think that it would be right that we should do this unless, at the same time, special instruction were given to our security forces to pay special attention to these men with the object of preventing them escaping either to the Russian occupied zone or to Berlin. I see no reason why such instructions should not be issued.

[See photos on pp. 4804–4805. Field Marshal Henry Maitland Wilson was chief of the British Joint Staff Mission to Washington, DC (JSM Washington) from 1945 to 1947. In this lofty official capacity, he met with Leslie Groves on 25 October 1945 and reported it in this Top Secret encrypted cable the next day. His cable was addressed to Sir John Anderson, who was the chair of the U.K. Advisory Committee on Atomic Energy, as well as to several other top advisors in the British government.

Leslie Groves said the German scientists held at Farm Hall "were superior in all-round ability to the Group which had started the New Mexico laboratory" and were "of the greatest value," and he wanted to either employ them or prosecute them as war criminals. See also the 20 February 1946 memorandum from Groves below. These private admissions by Groves demonstrate that his public statements denigrating the German nuclear scientists and their work were knowingly false. If German nuclear scientists had not done anything of consequence during the war, Groves would not have had any reason to believe they were superior to the Manhattan Project scientists. Likewise, if German nuclear scientists had not done anything of consequence during the war, Groves would not have had any possible grounds on which to consider prosecuting them as war criminals.]

TNA FO 800/565

TOP SECRET CYPHER TELEGRAM

RECEIVED BY C.T.P.

IZ 10052
TOO 261657Z
TOR 261935Z

FROM:- J.S.M. WASHINGTON

TO:- CABINET OFFICES

ANCAM 453 26th October 1945

TOP SECRET AND PERSONAL.

Your CANAM 453.

Following for Sir John Anderson from Field Marshal Wilson.

I saw Groves yesterday morning and found him very difficult to move on this question. He seems completely convinced

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(c) that even if they did not go to Russia voluntarily some would almost certainly be kidnapped. (Groves alleged that there have been one or two cases of kidnapping of scientists already by the Russians in the American zone).

On the second point (b) he expressed the view that as a Group they were superior in all-round ability to the Group which had started the new Mexico laboratory.

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Figure D.869: Leslie Groves said the German scientists held at Farm Hall "were superior in all-round ability to the Group which had started the New Mexico laboratory" and were "of the greatest value," and he wanted to either employ them or prosecute them as war criminals [TNA FO 800/565, Henry Maitland Wilson to John Anderson, 26 October 1945].

-2-

meantime he would explore the possibility of employing them in the United States, though he did not seem to be very optimistic.

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T.O.O. 261657z

CIRCULATION.

Defence Office
Sir John Anderson
Mr. Nevile Butler
Sir E. Appleton
Mr. Frank
Mr. Akers
Mr. Rickett
Mr. Gorell Barnes

TNA FO 800/565

Figure D.870: Leslie Groves said the German scientists held at Farm Hall "were superior in all-round ability to the Group which had started the New Mexico laboratory" and were "of the greatest value," and he wanted to either employ them or prosecute them as war criminals [TNA FO 800/565, Henry Maitland Wilson to John Anderson, 26 October 1945].

John Weckerling. 6 February 1946 secret memorandum. [NARA RG 319, Entry NM3-47B, Box 991, Folder Implementation, General Policy & History]

MIL 920 6 February 1946

MEMORANDUM FOR THE COMMANDING GENERAL, ARMY SERVICE FORCES:

SUBJECT: Plans for Extended Exploitation of OVERCAST Personnel

1. In the event that governmental policies are promulgated that will permit long-term exploitation of German scientists with inducements such as legal status in the United States, possible transfer of families, patent protection, etc., it is desirable that the War Department be prepared to take immediate advantage of such a policy. It is requested that you submit lists of scientists, in the following categories, whose indefinite stay in this country appears to be in the national interest[...]

Leslie Groves. 20 February 1946 secret memorandum. [NARA RG 319, Entry NM3-47B, Box 991, Folder Implementation, General Policy & History]

20 February 1946

MEMORANDUM FOR THE COMMANDING GENERAL, ARMY SERVICE FORCES:
THRU: Chief, Personnel Division, Office Chief of Engineers.

SUBJECT: Plans for Extended Exploitation of OVERCAST Personnel.

1. Reference is made to memorandum for the Commanding General, ASF, subject as above, dated 6 February 1946, from Brigadier General John Weckerling, WDGS, MID G-2, reference MIL 920.

2. Government measures to encourage the long term exploitation of German scientists by the United States are desirable, particularly with reference to nuclear physicists and chemists who might be of some service to scientists in this country in the field of atomic energy.

3. There are a number of German scientists who might well be included for the policies and procedures set forth in reference memorandum. However, they do not fall within any of the categories listed in paragraph 1 of that memorandum. The atomic bomb was created without the direct exploitation of any German scientists. I suggest, therefore, a fifth category, defined as, those German scientists of outstanding ability in the field of nuclear physics and chemistry who, by their past reputation and present knowledge, would be of more value to the national interest of this country if they could be employed here rather than in any other country. A list of the men falling within such category is given below. In order for you to place them in the proper priority group, I have included a brief critical analysis of their relative merit. It should be borne in mind that strong opposition will be encountered in placing these men in American institutions best fitted to exploit their efforts. The Manhattan District does not want them because of obvious security reasons. However, it is extremely important that these persons be prevented from giving their services to a potential enemy of the United States.

PROFESSOR OTTO HAHN

He is one of the greatest living chemists in the field of radioactivity, and winner of the 1944 Nobel prize in Chemistry for the discovery of the fission of uranium. Hahn is not known to have been a Nazi and is apparently well disposed to both England and America.

PROFESSOR MAX VON LAUE

He never actively worked on the German nuclear physics project. However, he is or has been well disposed toward America. His son is presently in the United States Army and was formerly at Princeton. Von Laue is noted in the field of physical chemistry and X-ray diffraction as a top flight man. He is over seventy years of age.

PROFESSOR WALTHER GERLACH

Gerlach is an experimental atomic physicist of considerable ability but is a thorough Nazi and served as Goering's deputy in charge of the German atomic energy effort in its later stages. He is reported to feel like a defeated general because of the failure of the German nuclear project and has discussed suicide. He is not believed sympathetic to other countries but is essentially a German nationalist.

PROFESSOR W. HEISENBERG

He is a theoretical nuclear physicist, a Nobel prize winner and probably the present German leader in physics. He is particularly known for his work in quantum mechanics and nuclear theory. Although Heisenberg may not have been an active Nazi he is a patriotic German. It is conceivable that some persuasion might be necessary as he may desire to take his chances in Germany or England.

PROFESSOR P. HARTECK

He is a famous physical chemist who seems to have what has been characterized as an "American approach" to atomic energy problems, i.e.—he demonstrated a competence in the engineering phases of the work. He is not believed to have any profound political sympathies but has confined himself to his research work.

PROFESSOR C. P. VON WEIZSACKER

He is a first-class physicist and astro-physicist quite interested in philosophy and certain philosophical implications of his work. He is an opportunist and son of a diplomat. He is not believed to be a Nazi.

DR. K. WIRTZ

He is an experimental physicist, comparatively unknown prior to the German atomic energy project but the author, while on the project, of a number of worthwhile reports, particularly on pile theory. Wirtz is the sort who will go to another country if offered what he considers good terms.

DR. E. BAGGE

He is a fairly young, reasonably competent, experimental physicist who has done considerable work on isotope separation. Bagge is of humble origin, a serious, hard-working, completely German nationalist. He might work for another country.

H. KORSCHING

He is a rather obscure physicist who has done good work on isotope separation on the German energy project. He was probably a Nazi.

K. DIEBNER

He was Gerlach's administrative assistant on the German atomic energy project. He is not a particularly well known physicist although he has a pretty good grasp of the German project.

FREDERICK WEYGAND

He is a chemist and biologist and not a physicist. He is believed to be anti-Nazi and has been cooperative with American authorities. He has until recently been located in an American P/W camp. He has recently written the Rockefeller Foundation and requested a position with them.

DR. WERNER MAURER

He has been, until recently, in an American P/W camp but is presently on his way back to Germany. Maurer is a relatively young physicist who did considerable experimental work in Joliot's laboratory in Paris after the German occupation. He is unquestionably a reliable Nazi in addition to being an able young physicist.

DR. RUDOLPH FLEISCHMANN

He was, until recently, in an American P/W camp. He is a first-rate physicist formerly head of the Physical Research Division of the Medical Institute of the University of Strassburg and is generally considered to be an extreme Nazi. His particular field has centered around the application of induced radioactivity in the field of biological research.

PROFESSOR FRITZ G. HOUTERMANS

Houtermans is of Dutch extraction, grew up in Austria, lived in Germany until 1933 when he left because of the Nazi Party and worked at Cambridge University in England. He subsequently went to Kharkov, Russia, where he worked at the Kharkov Physico-Technical Institute. In 1937, as he was preparing to leave Russia, Houtermans, according to his own statement, was arrested by the NKVD on vague charges of counter-revolutionary activity for Germany. As a result of the intervention of Dr. R. A. Millikan of Cal. Tech., he was released in 1940 after preparing what he claims was a false confession of technical espionage which he framed in such a manner as to be obviously scientifically fallacious, but which satisfied the NKVD, who exiled him to Germany in spite of his requests not to be sent there. In Germany, Houtermans says he was immediately imprisoned by the Gestapo but was released after questioning as to why he had left Russia.

Houtermans' connection with the German nuclear physics project was not great, although he was in close contact with von Weizsacker and von Ardenne and worked with the latter on a cyclotron. Houtermans' official position was with the PTR (German Bureau of Standards) at Ronneburg, Thuringen, where he worked with counter-tubes. He was the first man in Germany to propose the fissionability of plutonium and wrote several memoranda on the subject, but little attention was paid to him in Germany.

L. R. GROVES,
Major General, U.S.A.

[Publicly, Leslie Groves agreed with Samuel Goudsmit's statements that the wartime German nuclear program was very small and very primitive, had never considered plutonium, and had never even tried to produce a fission bomb. Privately, Groves wrote this secret memorandum admitting that the German program had recognized the potential of plutonium very early on, had done "considerable work" on uranium isotope separation, and had a number of "nuclear physicists and chemists who might be of some service to scientists in this country in the field of atomic energy." Groves also warned that because of those scientists' "present knowledge," "it is extremely important that these persons be prevented from giving their services to a potential enemy of the United States."

This document also shows that in addition to the ten nuclear scientists who were held at Farm Hall, a significant number of German nuclear scientists were taken to the United States for extended interrogations in "American P/W camps." How many scientists were interrogated? Where are the reports on their interrogations? What did Groves learn from those interrogations or other intelligence sources that convinced him to write this secret memo, which contradicts what Groves and Goudsmit publicly asserted?]

Walter Trinks. Undated but probably summer 1945. [NARA RG 319, Entry A1-134B, Box ??, Folder XE098301 Trinks, Walter]

Dr. Walter Trinks
Int. No. 8-3448-M-AA
7th Coy.

TO THE AMERICAN COMMAND OF THE INTERNMENT CAMP? CIC-STAFF.

When I was imprisoned at Bad Aibling an American officer in an address asked German scientists and specialists to present themselves. Having presented myself I was told to give further written information on my altuition [education] and my career. Having been transferred to this camp I could not do so. I am a Physicist and have been employed with the OKH [Oberkommando des Heeres] until the end of the war in the research dept. of the office for arms [Heereswaffenamt] as referee for the physics of explosions and blasting. The tasks of that dept. included:

1st Research of physical phenomena at the explosion

2nd Augmentation of and defense against the effect of blasting materials through physical methods

3rd Research of difficulties and troubles.

4th The replacement of valuable raw materials.

During the war the principal labor was dedicated to the principle of hollow charges and its use in armour breaking amunition as F-I-7,5 cm grenade, HL(ABC), 10 cm G.Hl, rifle grenade, Panzerfaust and Panzerschreck, Panzerhandgrenade, Redcap, Magnetic H 3 and H 15.

At the end of the war I was occupied with experiments for producing extreme high pressures and temperatures, extreme velocities (up to 15 km/sec) and heavy swingings of the air [shock waves]. The practical use of these researches comprises:

1st for the war: the defense against V-weapons super- and atomic bombs by destroying them before they reach their target and the initiation of atomic bombs.

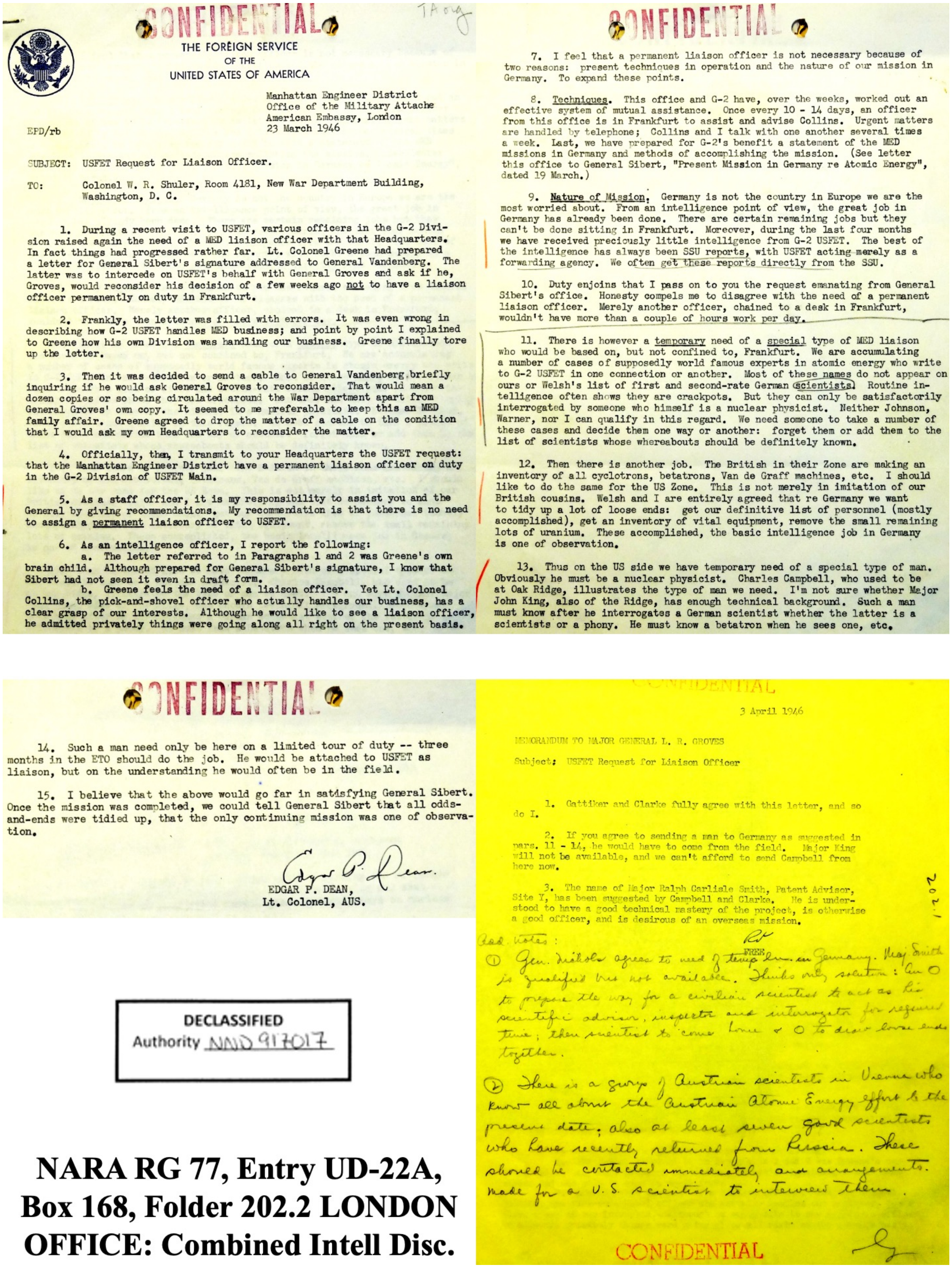
2nd for peacetime: the producing of artificial diamonds and the enriching of minerals and materials.

3rd for purely scientific research of special molecules and atoms under extreme pressures and temperatures.

I esteem these researches to be important and promising and therefore ask to be allowed to prosecute them at the service of the U.S.A.

[See document photos on pp. 4258–4259. Due to the number of English spelling and capitalization mistakes, this document appears to have been written in English by Trinks himself, not translated by a native English speaker. For ease of understanding, I have corrected most of the document's English mistakes in the above transcription.

Trinks was imprisoned by the U.S. Army from June 1945 to June 1946, and he informed them that "At the end of the war I was occupied with experiments for... the initiation of atomic bombs." Where are the detailed reports on his interrogations and everything he told U.S. officials about his wartime work? What exactly did he work on after the war, and for whom?]



CONFIDENTIAL

THE FOREIGN SERVICE
OF THE
UNITED STATES OF AMERICA

Manhattan Engineer District
Office of the Military Attache
American Embassy, London
23 March 1946

EPD/rb

SUBJECT: USFET Request for Liaison Officer.

TO: Colonel W. R. Shuler, Room 4181, New War Department Building, Washington, D. C.

1. During a recent visit to USFET, various officers in the G-2 Division raised again the need of a MED liaison officer with that Headquarters. In fact things had progressed rather far. Lt. Colonel Greene had prepared a letter for General Sibert's signature addressed to General Vandenberg. The latter was to intercede on USFET's behalf with General Groves and ask if he, Groves, would reconsider his decision of a few weeks ago not to have a liaison officer permanently on duty in Frankfurt.

2. Frankly, the letter was filled with errors. It was even wrong in describing how G-2 USFET handles MED business; and point by point I explained to Greene how his own Division was handling our business. Greene finally tore up the letter.

3. Then it was decided to send a cable to General Vandenberg briefly inquiring if he would ask General Groves to reconsider. That would mean a dozen copies or so being circulated around the War Department apart from General Groves' own copy. It seemed to me preferable to keep this an MED family affair. Greene agreed to drop the matter of a cable on the condition that I would ask my own Headquarters to reconsider the matter.

4. Officially, then, I transmit to your Headquarters the USFET request: that the Manhattan Engineer District have a permanent liaison officer on duty in the G-2 Division of USFET Main.

5. As a staff officer, it is my responsibility to assist you and the General by giving recommendations. My recommendation is that there is no need to assign a permanent liaison officer to USFET.

6. As an intelligence officer, I report the following:
a. The letter referred to in Paragraphs 1 and 2 was Greene's own brain child. Although prepared for General Sibert's signature, I know that Sibert had not seen it even in draft form.
b. Greene feels the need of a liaison officer. Yet Lt. Colonel Collins, the pick-and-shovel officer who actually handles our business, has a clear grasp of our interests. Although he would like to see a liaison officer, he admitted privately things were going along all right on the present basis.

CONFIDENTIAL

7. I feel that a permanent liaison officer is not necessary because of two reasons: present techniques in operation and the nature of our mission in Germany. To expand these points.

8. Techniques. This office and G-2 have, over the weeks, worked out an effective system of mutual assistance. Once every 10 - 14 days, an officer from this office is in Frankfurt to assist and advise Collins. Urgent matters are handled by telephone; Collins and I talk with one another several times a week. Last, we have prepared for G-2's benefit a statement of the MED missions in Germany and methods of accomplishing the mission. (See letter this office to General Sibert, "Present Mission in Germany re Atomic Energy", dated 19 March.)

9. Nature of Mission. Germany is not the country in Europe we are the most worried about. From an intelligence point of view, the great job in Germany has already been done. There are certain remaining jobs but they can't be done sitting in Frankfurt. Moreover, during the last four months we have received preciously little intelligence from G-2 USFET. The best of the intelligence has always been SSU reports, with USFET acting merely as a forwarding agency. We often get these reports directly from the SSU.

10. Duty enjoins that I pass on to you the request emanating from General Sibert's office. Honesty compels me to disagree with the need of a permanent liaison officer. Merely another officer, chained to a desk in Frankfurt, wouldn't have more than a couple of hours work per day.

11. There is however a temporary need of a special type of MED liaison who would be based on, but not confined to, Frankfurt. We are accumulating a number of cases of supposedly world famous experts in atomic energy who write to G-2 USFET in one connection or another. Most of these names do not appear on ours or Welsh's list of first and second-rate German scientists. Routine intelligence often shows they are crackpots. But they can only be satisfactorily interrogated by someone who himself is a nuclear physicist. Neither Johnson, Warner, nor I can qualify in this regard. We need someone to take a number of these cases and decide them one way or another: forget them or add them to the list of scientists whose whereabouts should be definitely known.

12. Then there is another job. The British in their Zone are making an inventory of all cyclotrons, betatrons, Van de Graff machines, etc. I should like to do the same for the US Zone. This is not merely in imitation of our British cousins. Welsh and I are entirely agreed that re Germany we want to tidy up a lot of loose ends: get our definitive list of personnel (mostly accomplished), get an inventory of vital equipment, remove the small remaining lots of uranium. These accomplished, the basic intelligence job in Germany is one of observation.

13. Thus on the US side we have temporary need of a special type of man. Obviously he must be a nuclear physicist. Charles Campbell, who used to be at Oak Ridge, illustrates the type of man we need. I'm not sure whether Major John King, also of the Ridge, has enough technical background. Such a man must know after he interrogates a German scientist whether the latter is a scientists or a phony. He must know a betatron when he sees one, etc.

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14. Such a man need only be here on a limited tour of duty -- three months in the ETO should do the job. He would be attached to USFET as liaison, but on the understanding he would often be in the field.

15. I believe that the above would go far in satisfying General Sibert. Once the mission was completed, we could tell General Sibert that all odds-and-ends were tidied up, that the only continuing mission was one of observation.

Edgar P. Dean
EDGAR P. DEAN,
Lt. Colonel, AUS.

DECLASSIFIED
Authority NND 917017

NARA RG 77, Entry UD-22A, Box 168, Folder 202.2 LONDON OFFICE: Combined Intell Disc.

CONFIDENTIAL

3 April 1946

MEMORANDUM TO MAJOR GENERAL L. R. GROVES

Subject: USFET Request for Liaison Officer

1. Gattiker and Clarke fully agree with this letter, and so do I.

2. If you agree to sending a man to Germany as suggested in pars. 11 - 14, he would have to come from the field. Major King will not be available, and we can't afford to send Campbell from here now.

3. The name of Major Ralph Carlisle Smith, Patent Advisor, Site Y, has been suggested by Campbell and Clarke. He is understood to have a good technical mastery of the project, is otherwise a good officer, and is desirous of an overseas mission.

RF
FREE

202.1

Add. notes:
① Gen. Nichols agrees to need of temp. lm. in Germany. Maj. Smith is qualified but not available. Thinks only solution: An O to prepare the way for a civilian scientist to act as his scientific advisor, inspector and interrogator for required time; then scientist to come home & O to draw loose ends together.

② There is a group of Austrian scientists in Vienna who know all about the Austrian Atomic Energy effort to the present date; also at least seven good scientists who have recently returned from Russia. These should be contacted immediately and arrangements made for a U.S. scientist to interview them.

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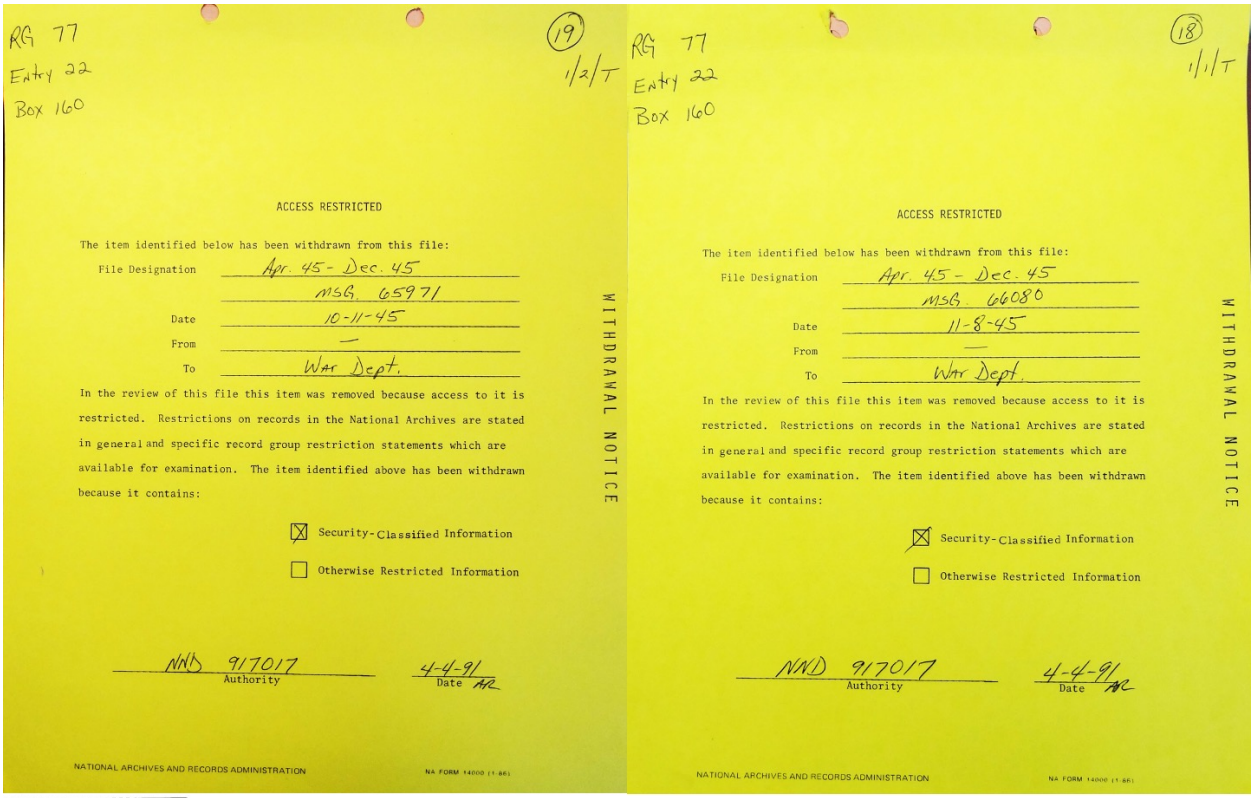
Figure D.871: If the wartime German nuclear program was so small and primitive, why did the U.S. keep investigating and discovering more and more information about scientists, sites, and equipment from that program a year after the war? Edgar P. Dean to W. R. Shuler, 23 March 1946. R. H. Free to Leslie Groves, 3 April 1946. Subject: USFET Request for Liaison Officer. [NARA RG 77, Entry UD-22A, Box 168, Folder 202.2 LONDON OFFICE: Combined Intell Disc.]



NARA RG 77, Entry UD-22A, Box 160

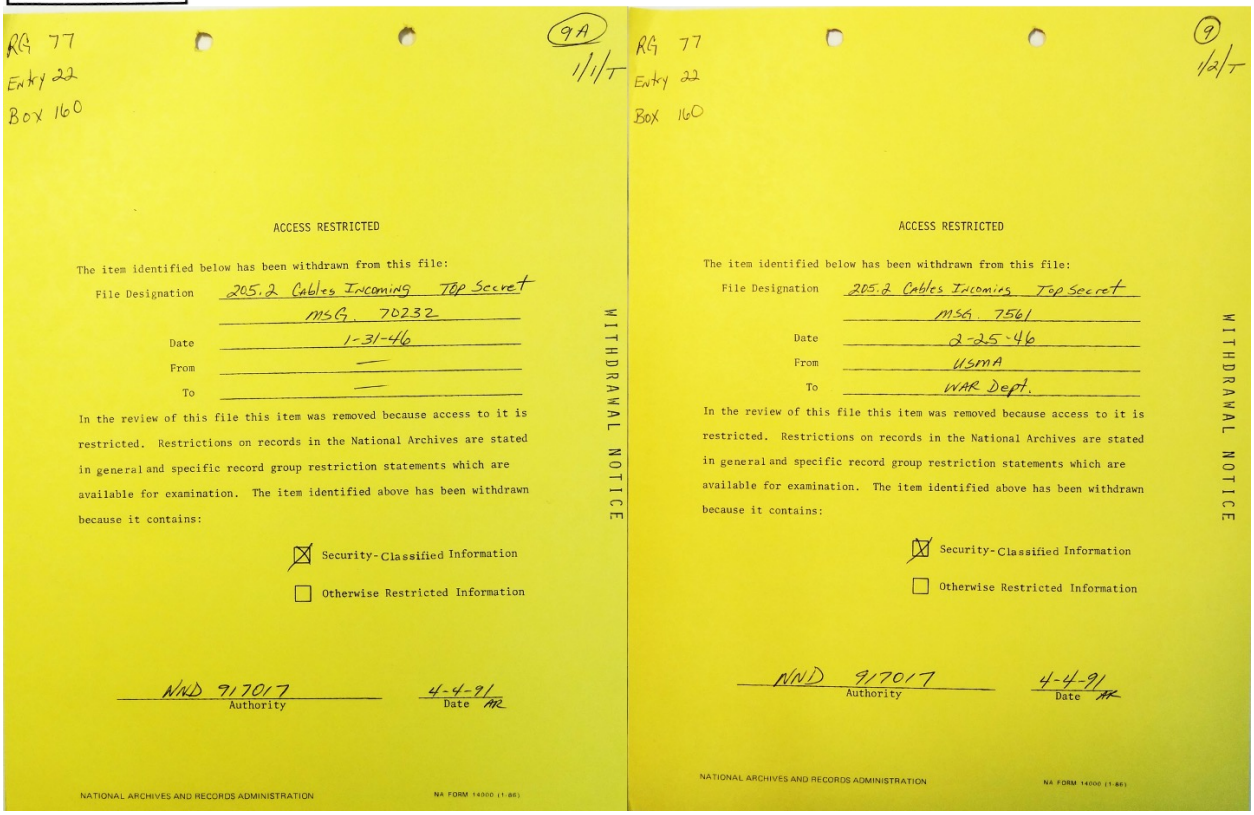
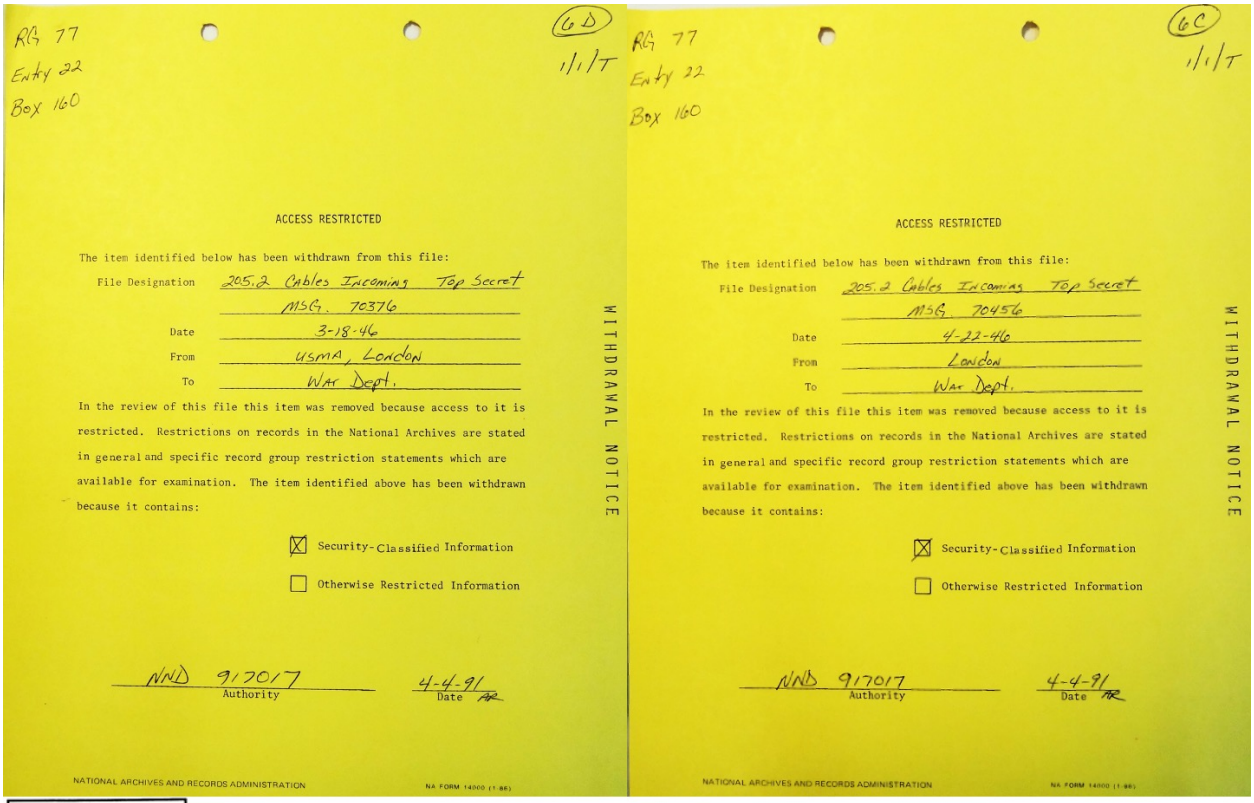


Figure D.872: Why do so many documents from the files of Leslie Groves related to the wartime German nuclear program remain classified and unavailable to the public, even after 75+ years? [NARA RG 77, Entry UD-22A]


RG 77
Entry 22
Box 160

(6D) 1/1/T

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation 205.2 Cables Incoming Top Secret
MSG. 70376
Date 3-18-46
From USMA, London
To War Dept.

In the review of this file this item was removed because access to it is restricted. Restrictions on records in the National Archives are stated in general and specific record group restriction statements which are available for examination. The item identified above has been withdrawn because it contains:

☒ Security-Classified Information
☐ Otherwise Restricted Information

NND 917017 Authority
4-4-91 Date AR

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION NA FORM 14000 (1-86)

WITHDRAWAL NOTICE

RG 77
Entry 22
Box 160

(6C) 1/1/T

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation 205.2 Cables Incomings Top Secret
MSG. 70456
Date 4-22-46
From London
To War Dept.

In the review of this file this item was removed because access to it is restricted. Restrictions on records in the National Archives are stated in general and specific record group restriction statements which are available for examination. The item identified above has been withdrawn because it contains:

☒ Security-Classified Information
☐ Otherwise Restricted Information

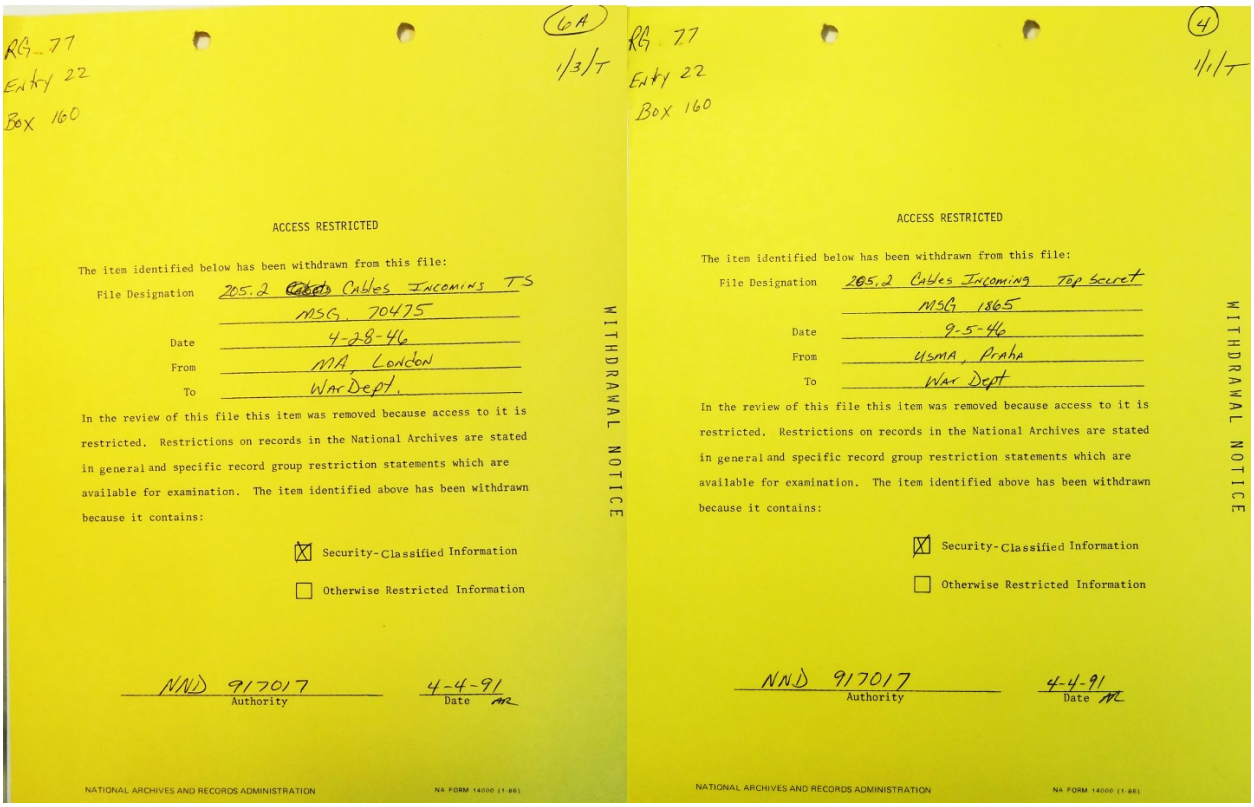
NND 917017 Authority
4-4-91 Date AR

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION NA FORM 14000 (1-86)

WITHDRAWAL NOTICE

DECLASSIFIED
Authority NND 917017

NARA RG 77, Entry UD-22A, Box 160


RG 77
Entry 22
Box 160

(6A) 1/3/T

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation 205.2 ~~Cables~~ Cables Incoming TS
MSG. 70475
Date 4-28-46
From MA, London
To War Dept.

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4-4-91 Date AR

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WITHDRAWAL NOTICE

RG 77
Entry 22
Box 160

(4) 1/1/T

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation 205.2 Cables Incoming Top Secret
MSG 1865
Date 9-5-46
From USMA, Praha
To War Dept

In the review of this file this item was removed because access to it is restricted. Restrictions on records in the National Archives are stated in general and specific record group restriction statements which are available for examination. The item identified above has been withdrawn because it contains:

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4-4-91 Date AR

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION NA FORM 14000 (1-86)

WITHDRAWAL NOTICE

Figure D.873: Why do so many documents from the files of Leslie Groves related to the wartime German nuclear program remain classified and unavailable to the public, even after 75+ years? [NARA RG 77, Entry UD-22A]

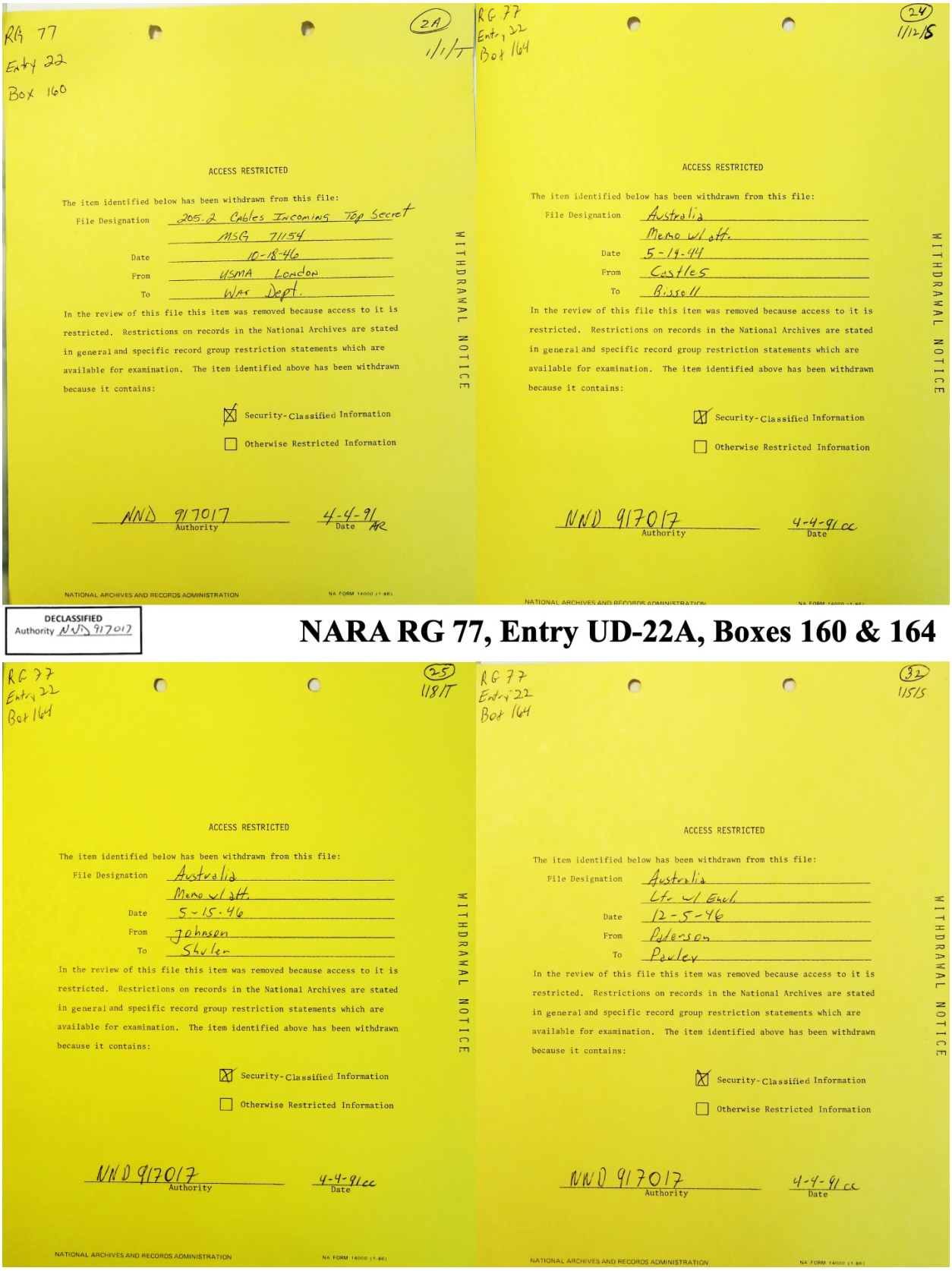


Figure D.874: Why do so many documents from the files of Leslie Groves related to the wartime German nuclear program remain classified and unavailable to the public, even after 75+ years? (Despite its name, the "Australia" folder is filled with German nuclear files. Either "Australia" was simply a code name or an otherwise empty folder was used to stored excess German files. [NARA RG 77, Entry UD-22A]

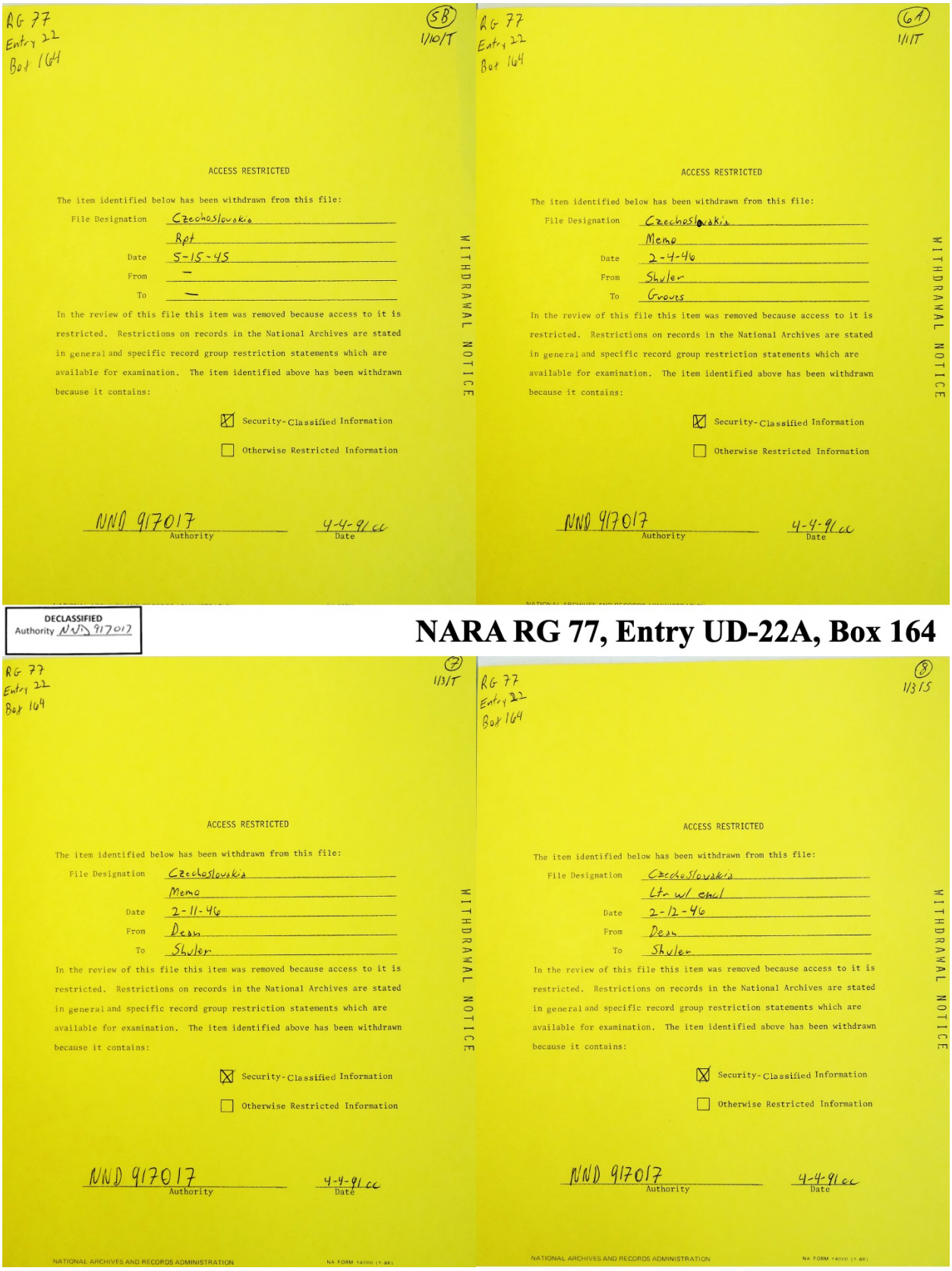
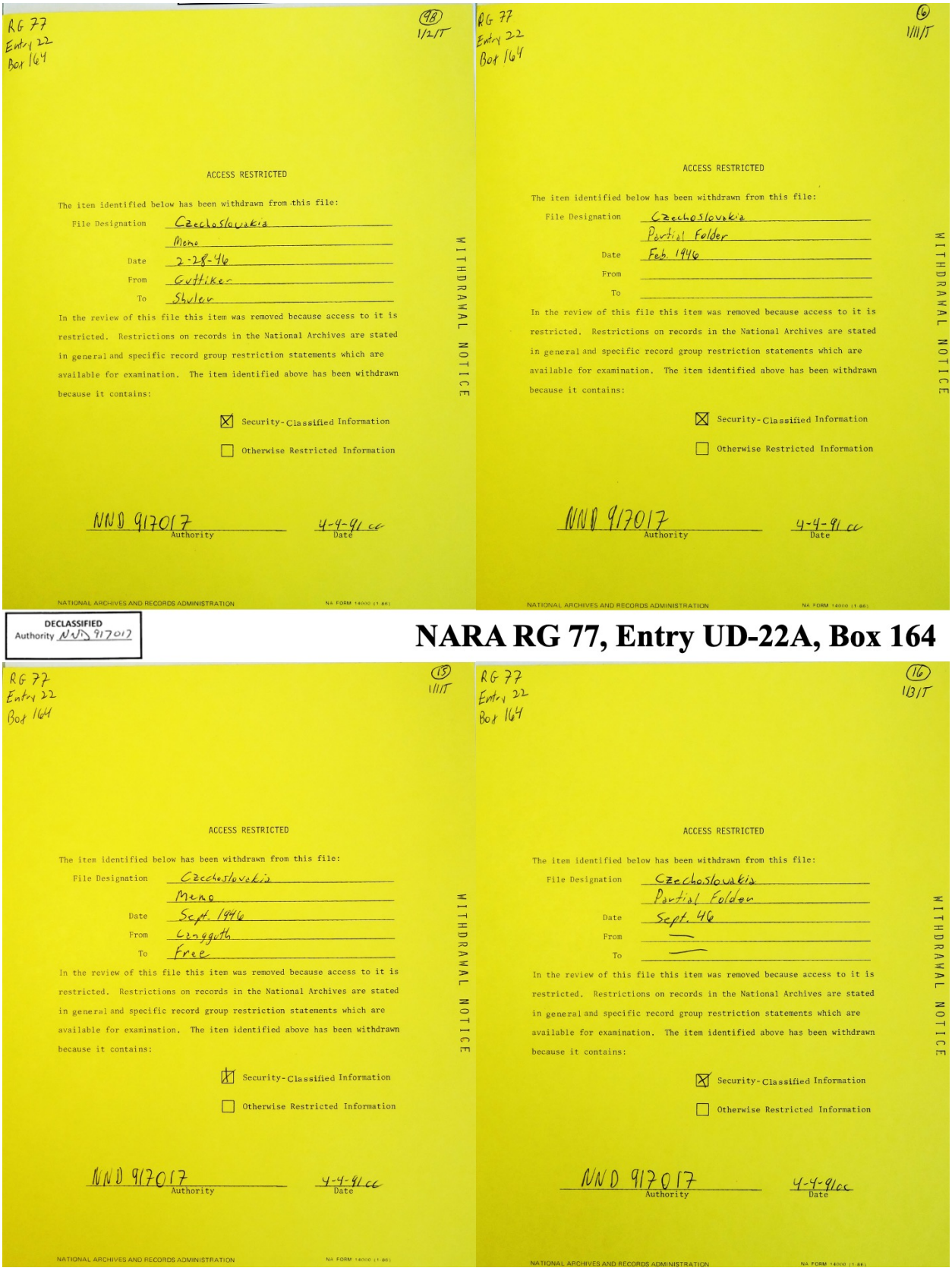


Figure D.875: Why do so many documents from the files of Leslie Groves related to the wartime German nuclear program remain classified and unavailable to the public, even after 75+ years? [NARA RG 77, Entry UD-22A]



RG 77
Entry 22
Box 164

(98)
1/2/T

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation: Czechoslovakia
Memo
Date: 2-28-46
From: Guttike
To: Styler

In the review of this file this item was removed because access to it is restricted. Restrictions on records in the National Archives are stated in general and specific record group restriction statements which are available for examination. The item identified above has been withdrawn because it contains:

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NND 917017 (Authority) 4-4-91 cc (Date)

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION NA FORM 14000 (1-86)

WITHDRAWAL NOTICE

RG 77
Entry 22
Box 164

(6)
1/11/T

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation: Czechoslovakia
Partial Folder
Date: Feb. 1946
From:
To:

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NND 917017 (Authority) 4-4-91 cc (Date)

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Authority NND 917017

NARA RG 77, Entry UD-22A, Box 164

RG 77
Entry 22
Box 164

(15)
1/11/T

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation: Czechoslovakia
Memo
Date: Sept. 1946
From: Czegguth
To: Free

In the review of this file this item was removed because access to it is restricted. Restrictions on records in the National Archives are stated in general and specific record group restriction statements which are available for examination. The item identified above has been withdrawn because it contains:

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NND 917017 (Authority) 4-4-91 cc (Date)

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WITHDRAWAL NOTICE

RG 77
Entry 22
Box 164

(16)
1/31/T

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation: Czechoslovakia
Partial Folder
Date: Sept. 46
From: —
To: —

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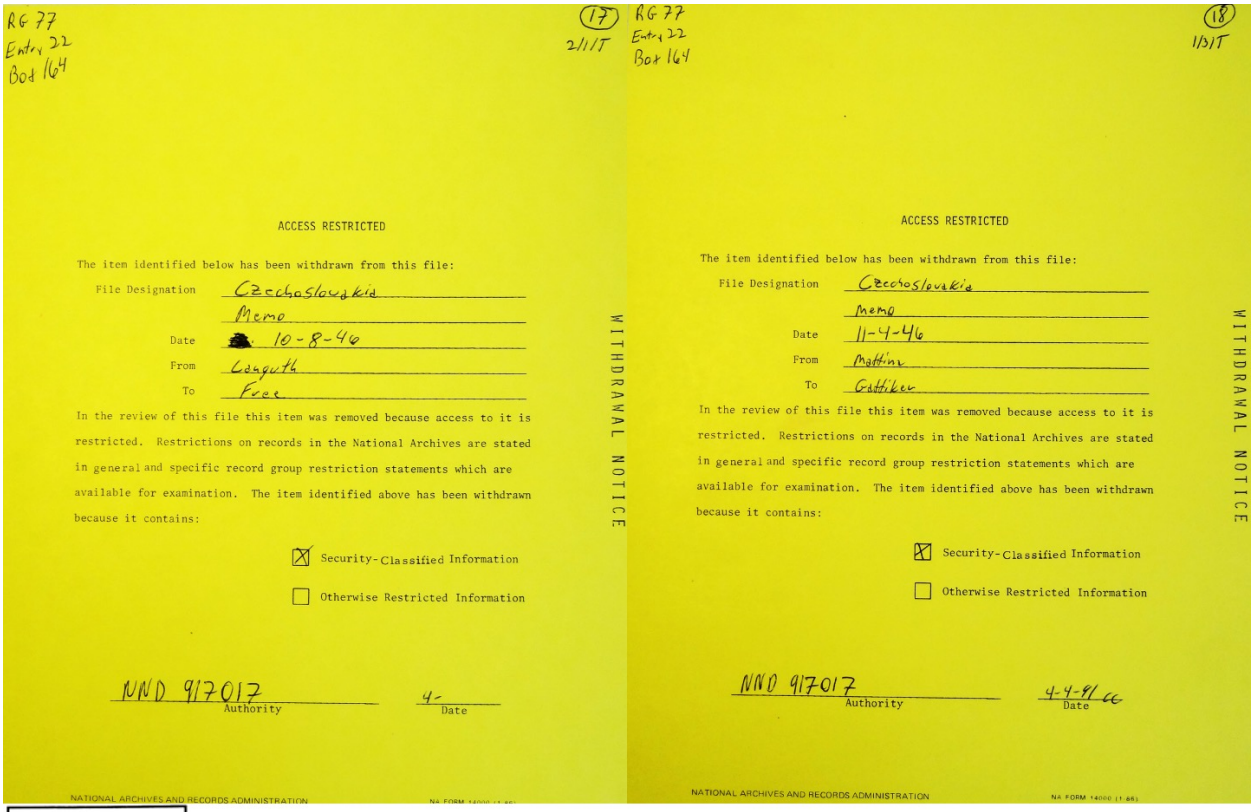
☒ Security-Classified Information
☐ Otherwise Restricted Information

NND 917017 (Authority) 4-4-91cc (Date)

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION NA FORM 14000 (1-86)

WITHDRAWAL NOTICE

Figure D.876: Why do so many documents from the files of Leslie Groves related to the wartime German nuclear program remain classified and unavailable to the public, even after 75+ years? [NARA RG 77, Entry UD-22A]



DECLASSIFIED
Authority NND 917017

NARA RG 77, Entry UD-22A, Box 164

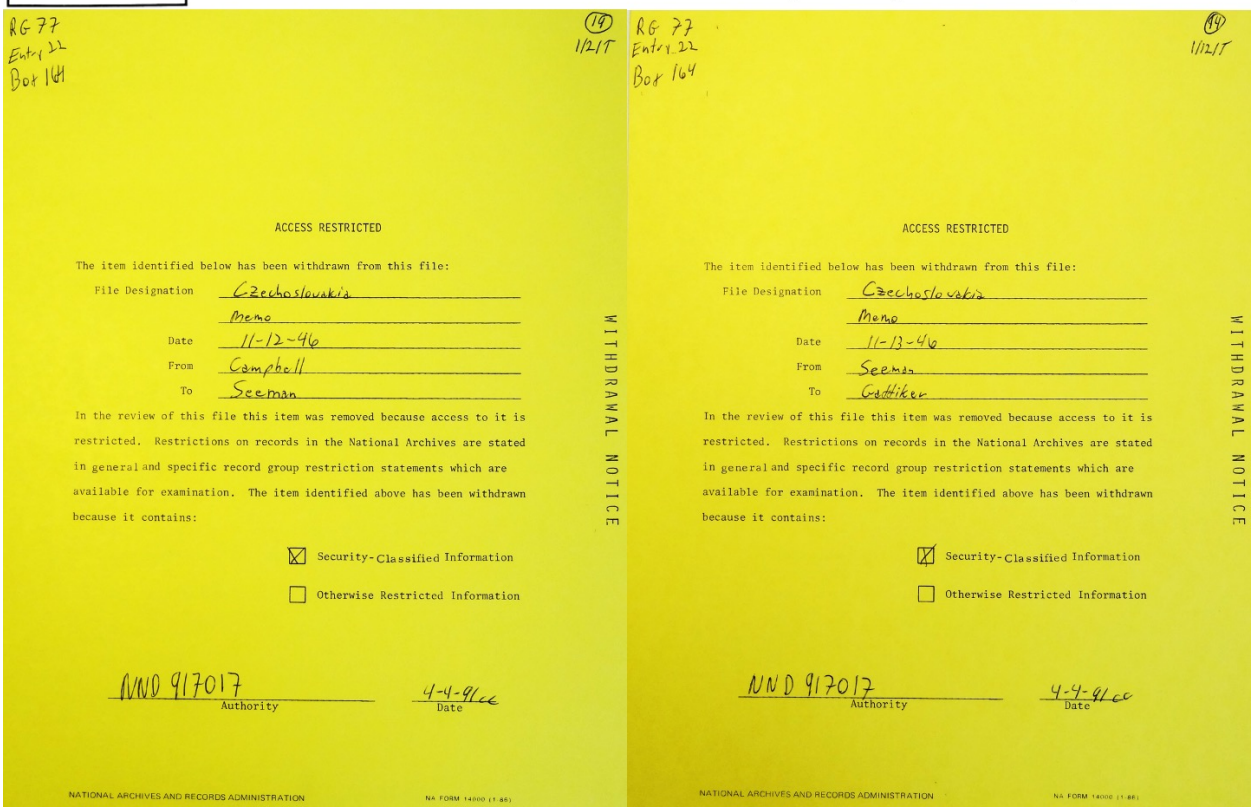
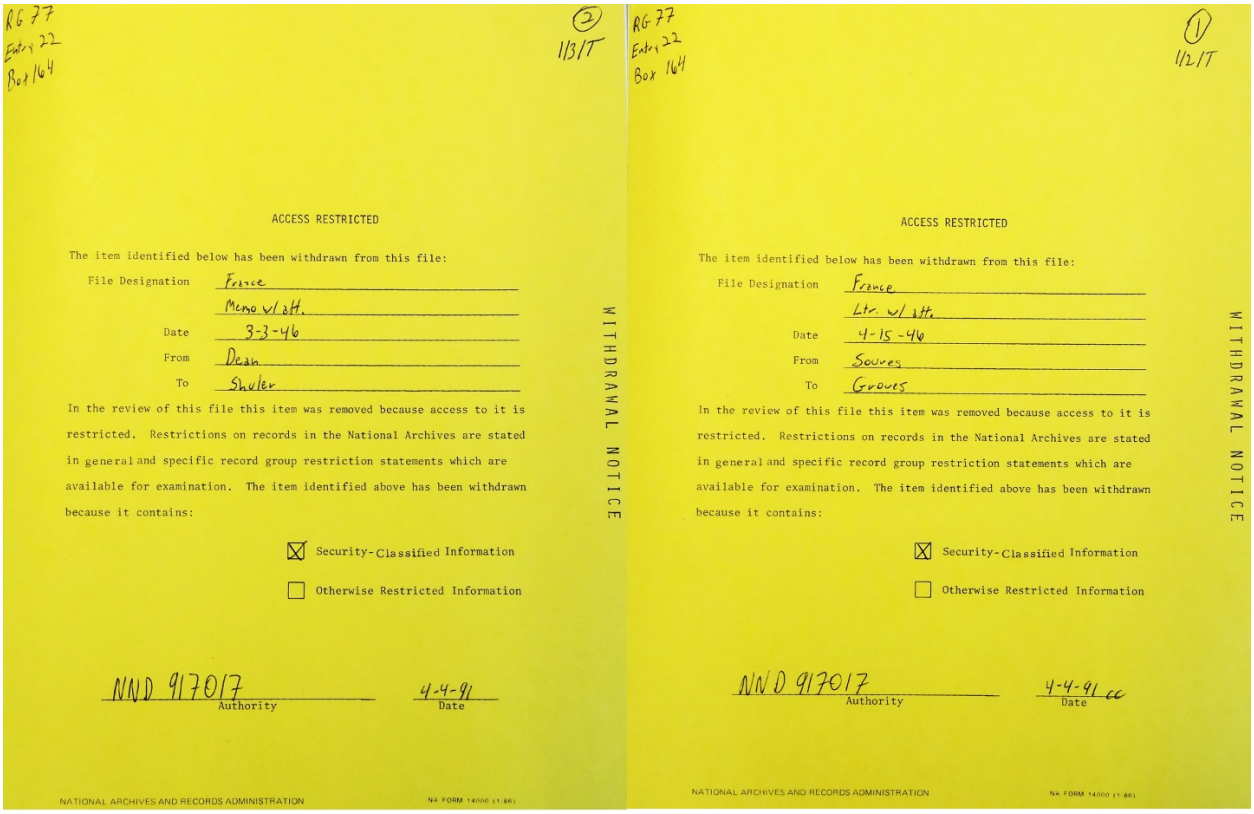


Figure D.877: Why do so many documents from the files of Leslie Groves related to the wartime German nuclear program remain classified and unavailable to the public, even after 75+ years? [NARA RG 77, Entry UD-22A]


RG 77
Entry 22
Box 164

(2) 1/3/T

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation: France
Memo w/att.
Date: 3-3-46
From: Dean
To: Shuler

In the review of this file this item was removed because access to it is restricted. Restrictions on records in the National Archives are stated in general and specific record group restriction statements which are available for examination. The item identified above has been withdrawn because it contains:

☒ Security-Classified Information
☐ Otherwise Restricted Information

NND 917017 Authority
4-4-91 Date

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WITHDRAWAL NOTICE

RG 77
Entry 22
Box 164

(1) 1/2/T

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation: France
Ltr. w/ att.
Date: 4-15-46
From: Soures
To: Groves

In the review of this file this item was removed because access to it is restricted. Restrictions on records in the National Archives are stated in general and specific record group restriction statements which are available for examination. The item identified above has been withdrawn because it contains:

☒ Security-Classified Information
☐ Otherwise Restricted Information

NND 917017 Authority
4-4-91 cc Date

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

WITHDRAWAL NOTICE

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Authority NND 917017

NARA RG 77, Entry UD-22A, Boxes 164 & 165

RG 77
Entry 22
Box 165

(11) 1/3/S

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation: Partial Folder
Date: 1944
From: —
To: —

In the review of this file this item was removed because access to it is restricted. Restrictions on records in the National Archives are stated in general and specific record group restriction statements which are available for examination. The item identified above has been withdrawn because it contains:

☒ Security-Classified Information
☐ Otherwise Restricted Information

NND 917017 Authority
4-2-91 AR Date

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

WITHDRAWAL NOTICE

RG 77
Entry 22
Box 165

(13) 1/2/S

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation:
Memo w/att.
Date: 4-24-44
From: Farver
To: —

In the review of this file this item was removed because access to it is restricted. Restrictions on records in the National Archives are stated in general and specific record group restriction statements which are available for examination. The item identified above has been withdrawn because it contains:

☒ Security-Classified Information
☐ Otherwise Restricted Information

NND 917017 Authority
4-2-91 AR Date

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

WITHDRAWAL NOTICE

Figure D.878: Why do so many documents from the files of Leslie Groves related to the wartime German nuclear program remain classified and unavailable to the public, even after 75+ years? [NARA RG 77, Entry UD-22A]

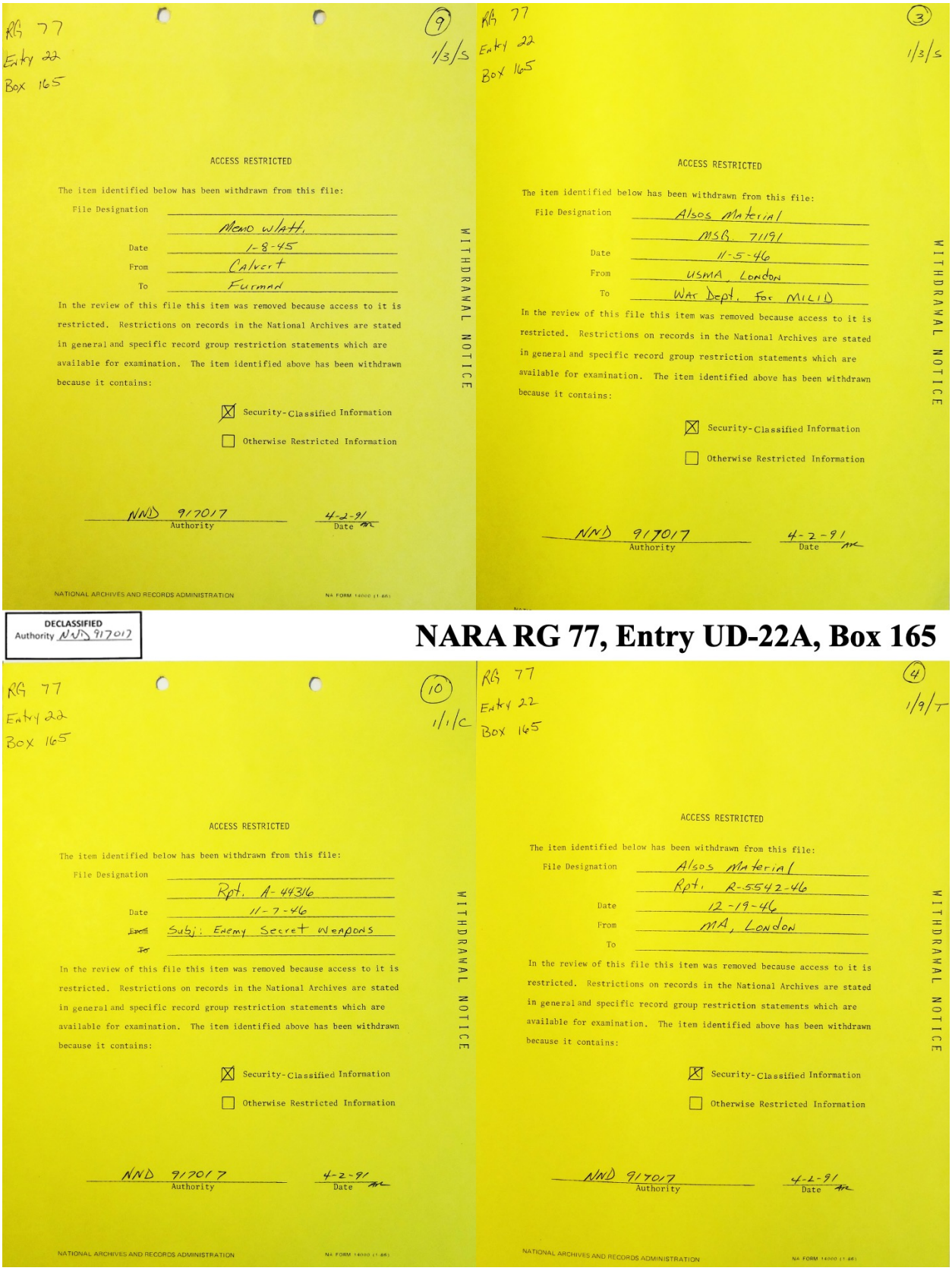
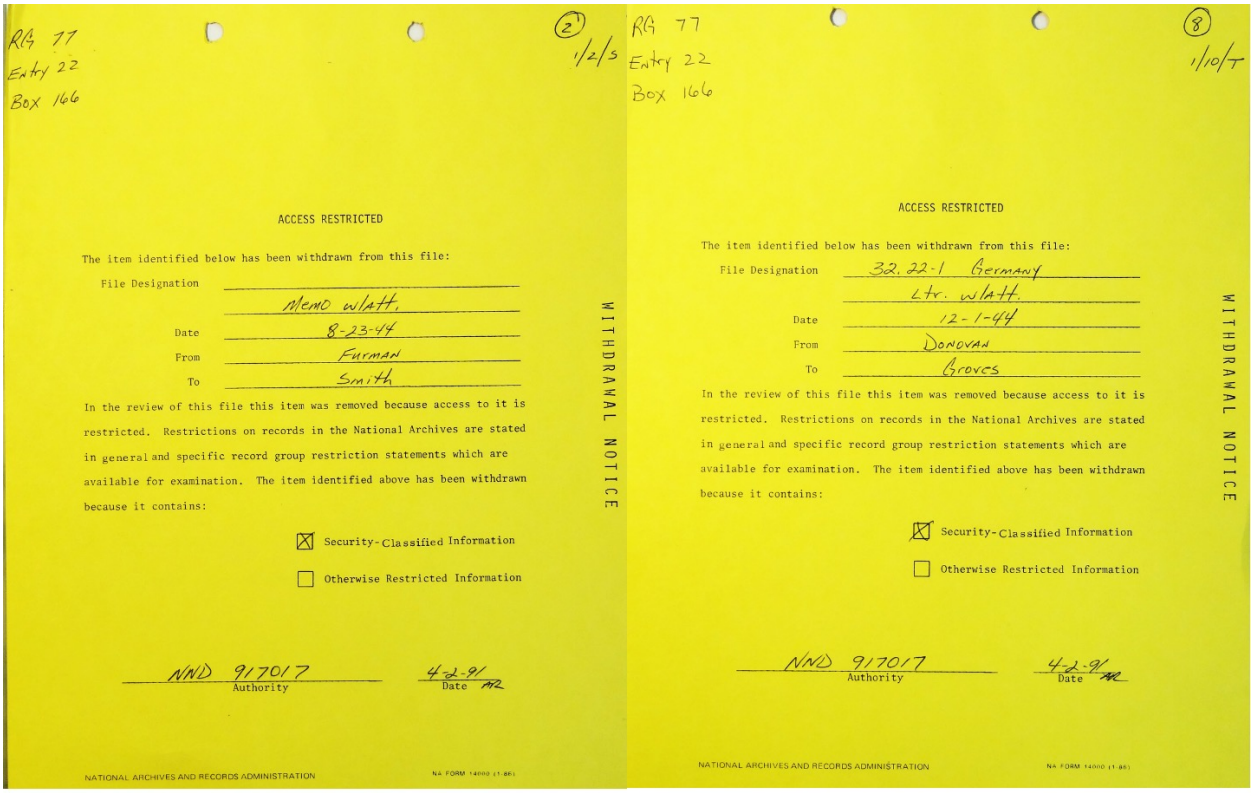


Figure D.879: Why do so many documents from the files of Leslie Groves related to the wartime German nuclear program remain classified and unavailable to the public, even after 75+ years? [NARA RG 77, Entry UD-22A]


RG 77
Entry 22
Box 166

(2) 1/2/s

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation: Memo w/att.
Date: 8-23-44
From: Furman
To: Smith

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☐ Otherwise Restricted Information

NND 917017 Authority
4-2-91 AR Date

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

WITHDRAWAL NOTICE

RG 77
Entry 22
Box 166

(8) 1/10/T

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation: 32.22-1 Germany; Ltr. w/att.
Date: 12-1-44
From: Donovan
To: Groves

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NND 917017 Authority
4-2-91 AR Date

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

WITHDRAWAL NOTICE

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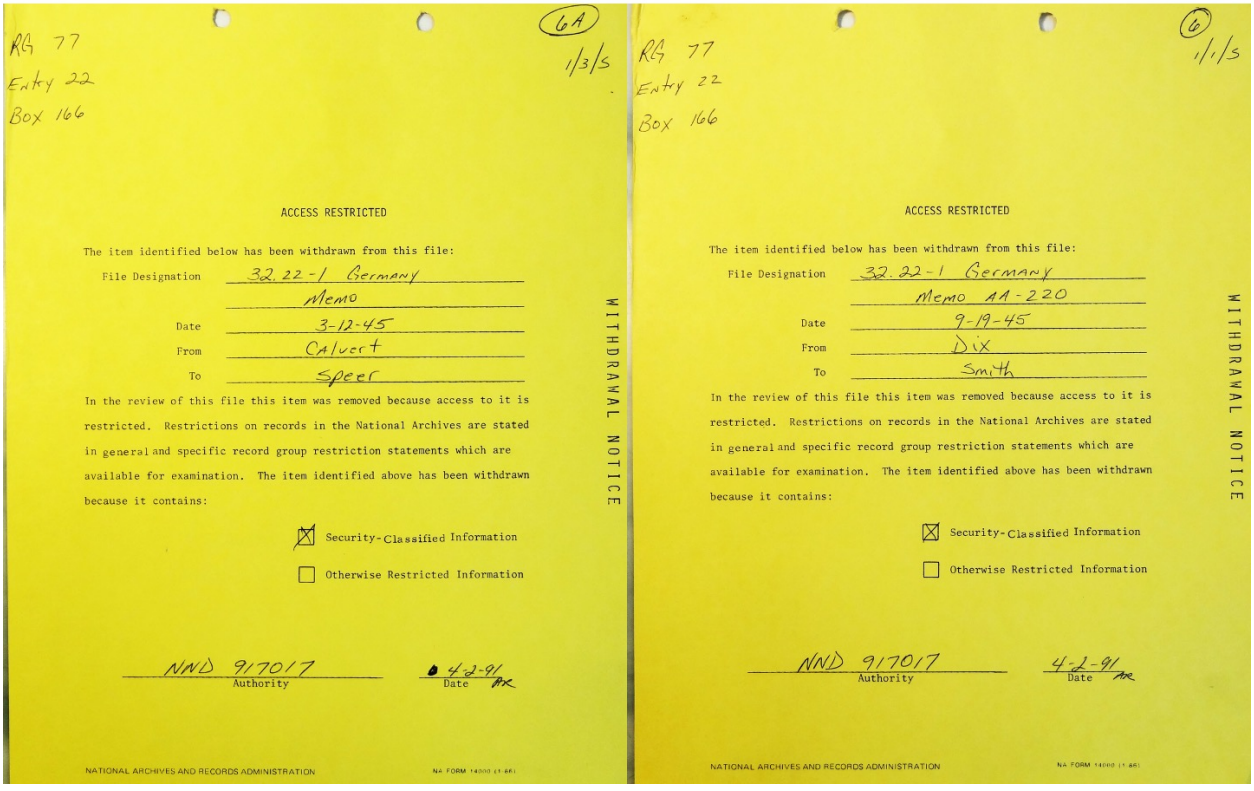
Authority NND 917017

NARA RG 77, Entry UD-22A, Box 166


RG 77
Entry 22
Box 166

(6A) 1/3/s

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation: 32.22-1 Germany; Memo
Date: 3-12-45
From: Calvert
To: Speer

In the review of this file this item was removed because access to it is restricted. Restrictions on records in the National Archives are stated in general and specific record group restriction statements which are available for examination. The item identified above has been withdrawn because it contains:

☒ Security-Classified Information
☐ Otherwise Restricted Information

NND 917017 Authority
4-2-91 AR Date

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

WITHDRAWAL NOTICE

RG 77
Entry 22
Box 166

(6) 1/1/s

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation: 32.22-1 Germany; Memo AA-220
Date: 9-19-45
From: Dix
To: Smith

In the review of this file this item was removed because access to it is restricted. Restrictions on records in the National Archives are stated in general and specific record group restriction statements which are available for examination. The item identified above has been withdrawn because it contains:

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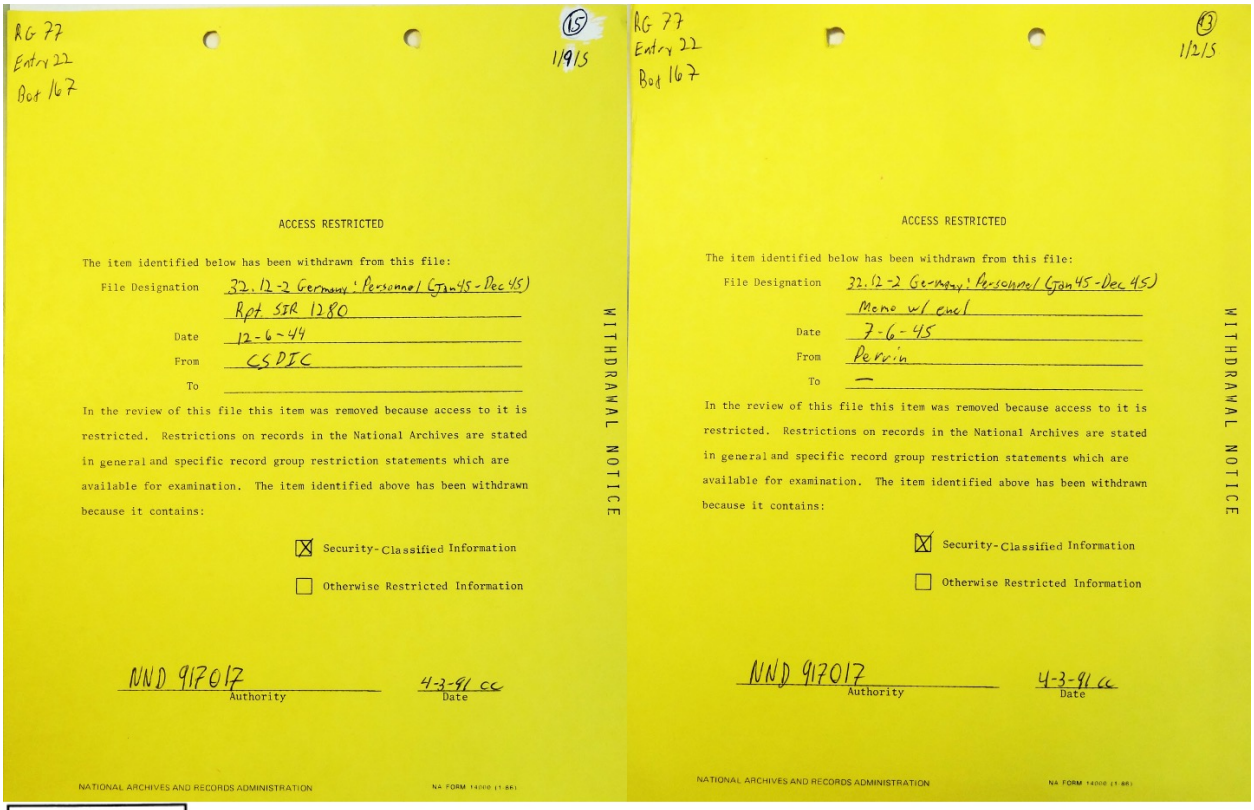
NND 917017 Authority
4-2-91 AR Date

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

WITHDRAWAL NOTICE

Figure D.880: Why do so many documents from the files of Leslie Groves related to the wartime German nuclear program remain classified and unavailable to the public, even after 75+ years? [NARA RG 77, Entry UD-22A]


RG 77
Entry 22
Box 167

(15)
1/9/15

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation 32.12-2 Germany: Personnel (Jan 45-Dec 45)
Rpt. SIR 1280
Date 12-6-44
From CSDIC
To

In the review of this file this item was removed because access to it is restricted. Restrictions on records in the National Archives are stated in general and specific record group restriction statements which are available for examination. The item identified above has been withdrawn because it contains:

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4-3-91 cc Date

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RG 77
Entry 22
Box 167

(13)
1/2/15

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation 32.12-2 Germany: Personnel (Jan 45-Dec 45)
Memo w/ encl
Date 7-6-45
From Pervin
To —

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☐ Otherwise Restricted Information

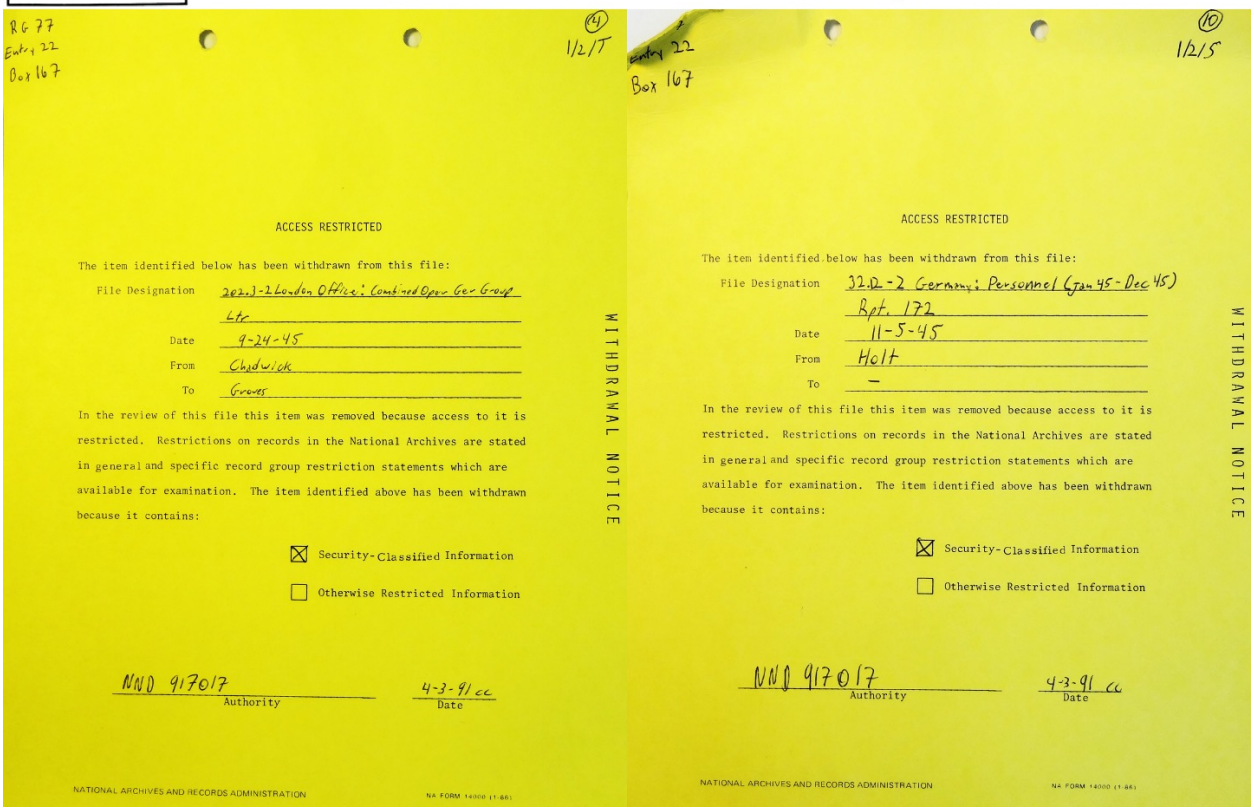
NND 917017 Authority
4-3-91 cc Date

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION NA FORM 14000 (1-86)

WITHDRAWAL NOTICE

DECLASSIFIED
Authority NND 917017

NARA RG 77, Entry UD-22A, Box 167


RG 77
Entry 22
Box 167

(14)
1/2/15

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation 202.3-2 London Office: Combined Opers Gen Group
Ltr
Date 9-24-45
From Chadwick
To Groves

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NND 917017 Authority
4-3-91 cc Date

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION NA FORM 14000 (1-86)

WITHDRAWAL NOTICE

Entry 22
Box 167

(10)
1/2/15

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation 32.2-2 Germany: Personnel (Jan 45-Dec 45)
Rpt. 172
Date 11-5-45
From Holt
To —

In the review of this file this item was removed because access to it is restricted. Restrictions on records in the National Archives are stated in general and specific record group restriction statements which are available for examination. The item identified above has been withdrawn because it contains:

☒ Security-Classified Information
☐ Otherwise Restricted Information

NND 917017 Authority
4-3-91 cc Date

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION NA FORM 14000 (1-86)

WITHDRAWAL NOTICE

Figure D.881: Why do so many documents from the files of Leslie Groves related to the wartime German nuclear program remain classified and unavailable to the public, even after 75+ years? [NARA RG 77, Entry UD-22A]

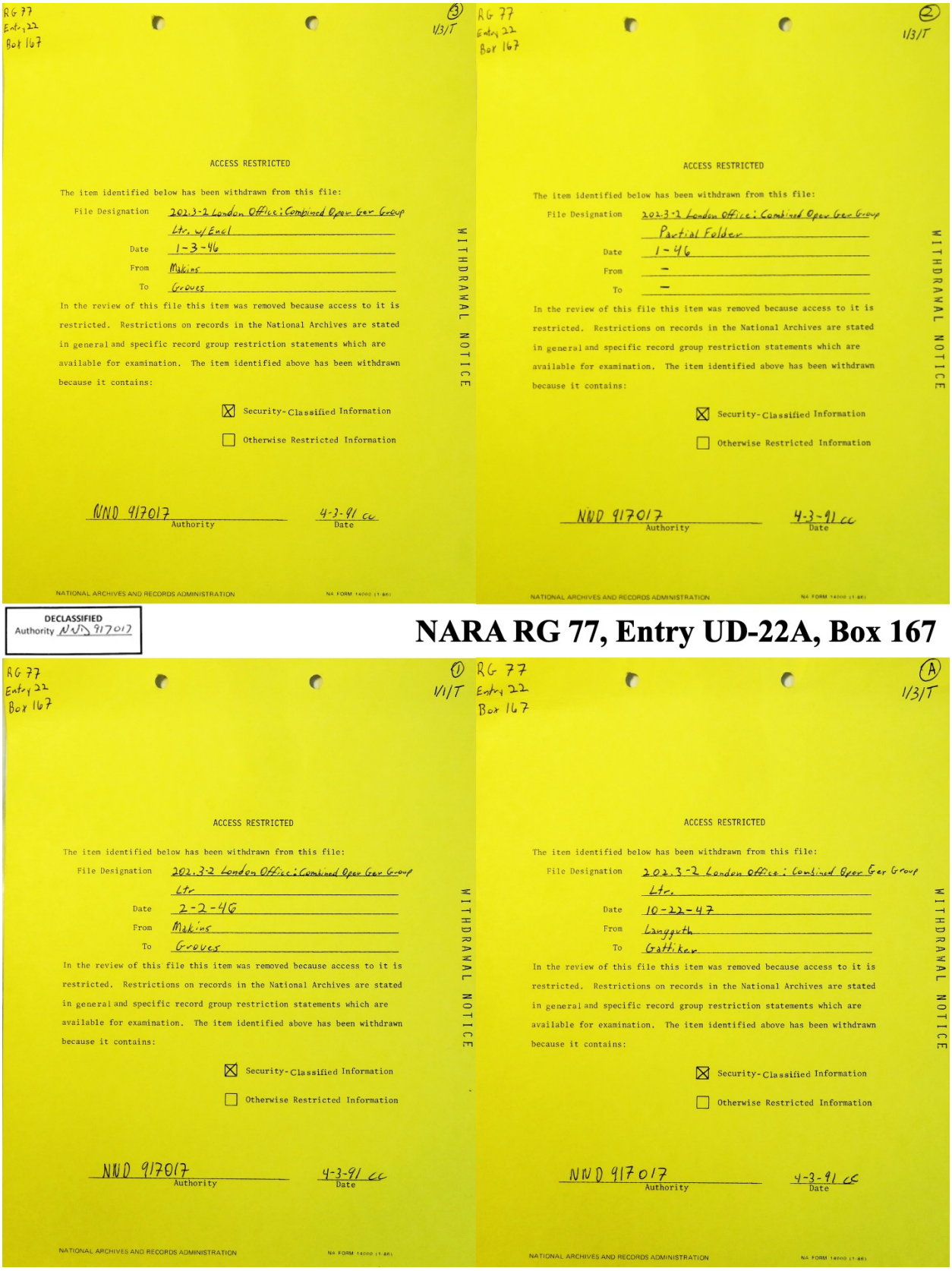
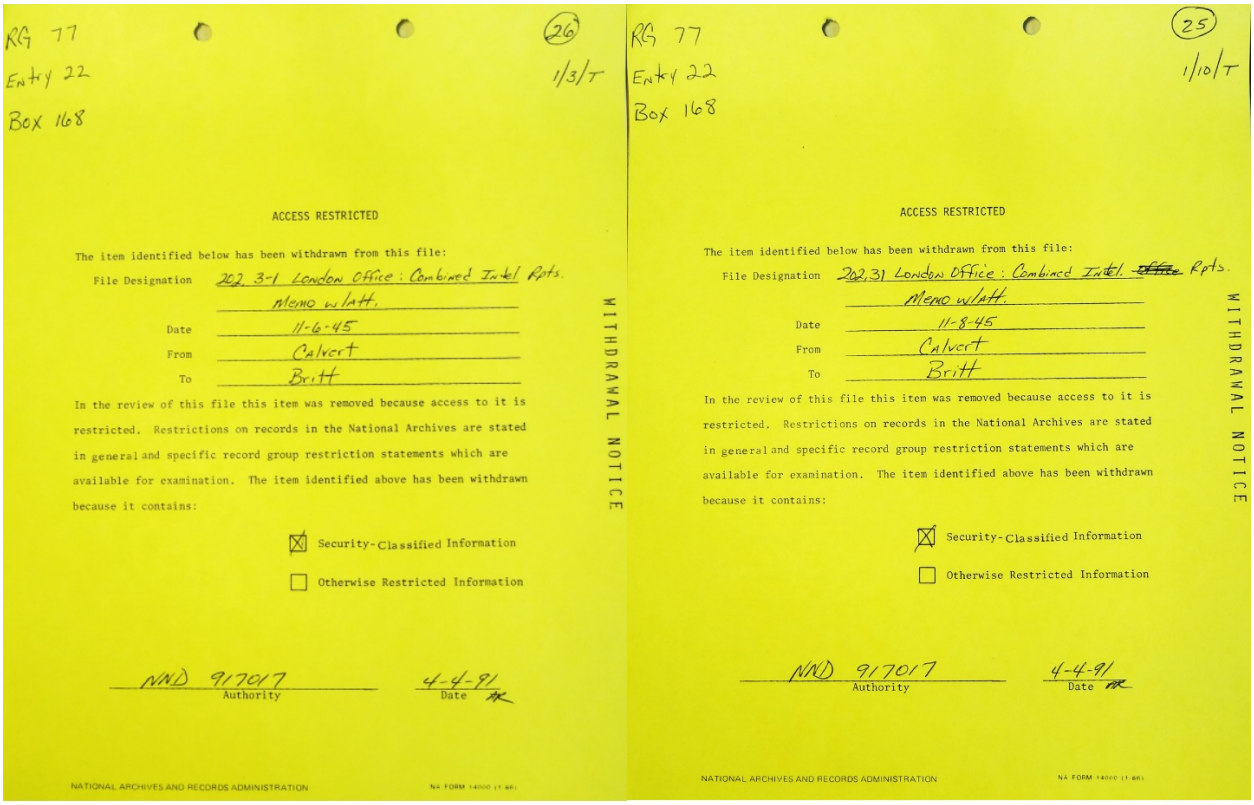


Figure D.882: Why do so many documents from the files of Leslie Groves related to the wartime German nuclear program remain classified and unavailable to the public, even after 75+ years? [NARA RG 77, Entry UD-22A]



NARA RG 77, Entry UD-22A, Box 168

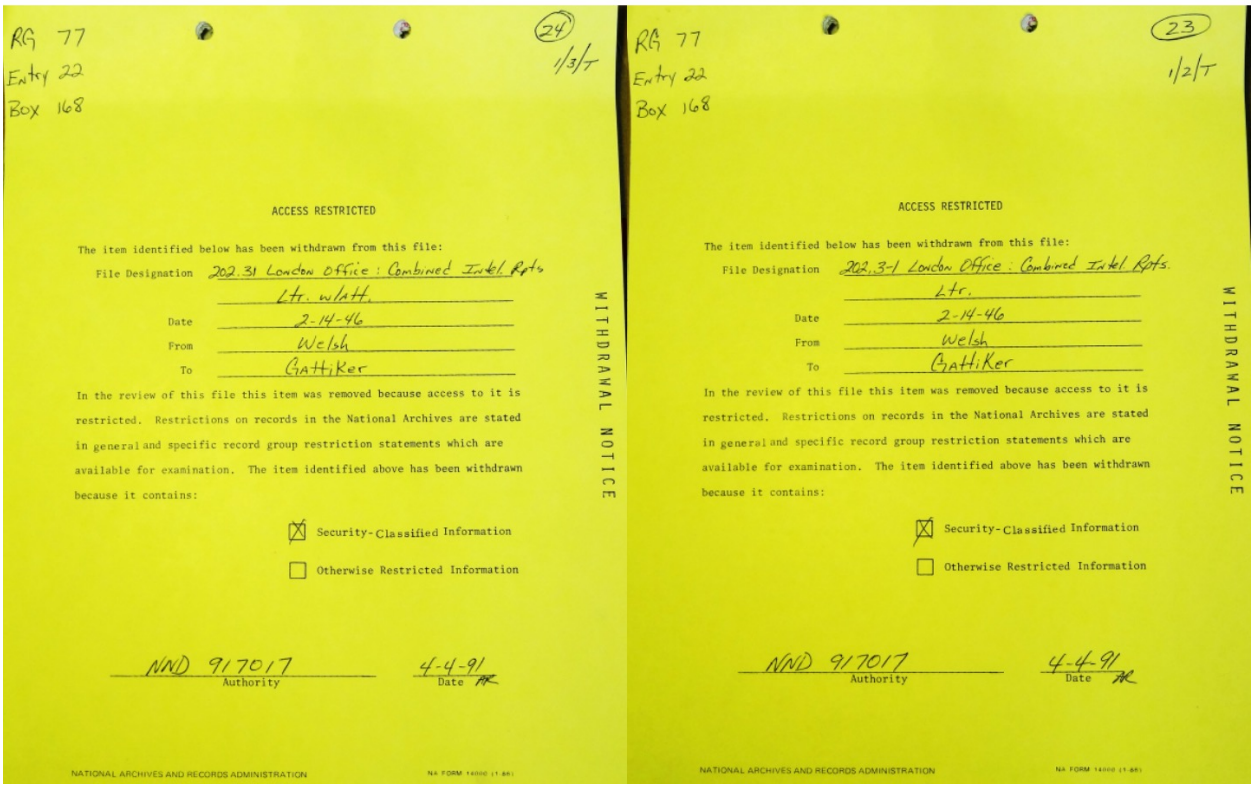
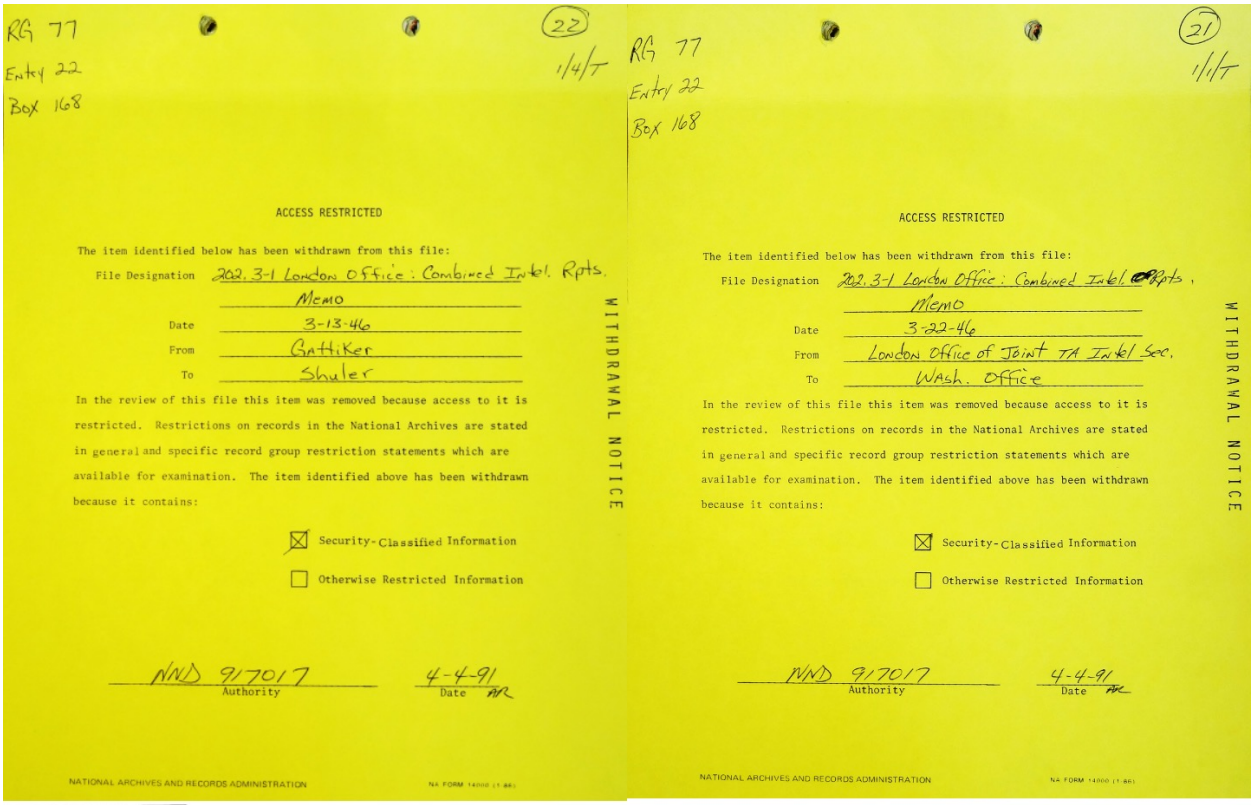


Figure D.883: Why do so many documents from the files of Leslie Groves related to the wartime German nuclear program remain classified and unavailable to the public, even after 75+ years? [NARA RG 77, Entry UD-22A]


RG 77
Entry 22
Box 168
22
1/4/T

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation 202.3-1 London Office: Combined Intel. Rpts.
Memo
Date 3-13-46
From Gattiker
To Shuler

In the review of this file this item was removed because access to it is restricted. Restrictions on records in the National Archives are stated in general and specific record group restriction statements which are available for examination. The item identified above has been withdrawn because it contains:

☒ Security-Classified Information
☐ Otherwise Restricted Information

NND 917017 Authority
4-4-91 Date AR

WITHDRAWAL NOTICE

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION NA FORM 14000 (1-86)

RG 77
Entry 22
Box 168
21
1/1/T

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation 202.3-1 London Office: Combined Intel. Rpts.
Memo
Date 3-22-46
From London Office of Joint TA Intel. Sec.
To Wash. Office

In the review of this file this item was removed because access to it is restricted. Restrictions on records in the National Archives are stated in general and specific record group restriction statements which are available for examination. The item identified above has been withdrawn because it contains:

☒ Security-Classified Information
☐ Otherwise Restricted Information

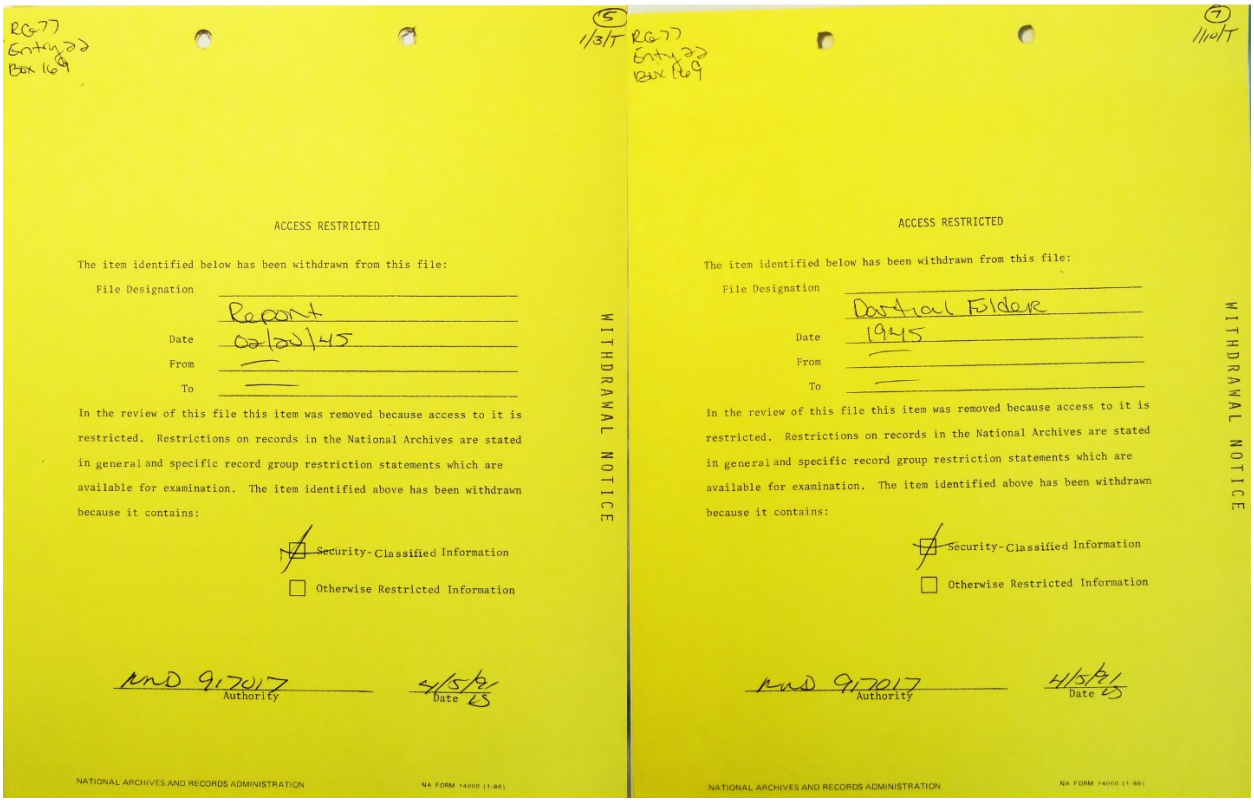
NND 917017 Authority
4-4-91 Date AR

WITHDRAWAL NOTICE

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION NA FORM 14000 (1-86)

DECLASSIFIED
Authority NND 917017

NARA RG 77, Entry UD-22A, Boxes 168 & 169


RG 77
Entry 22
Box 169
5
1/3/T

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation
Report
Date 02-20-45
From —
To —

In the review of this file this item was removed because access to it is restricted. Restrictions on records in the National Archives are stated in general and specific record group restriction statements which are available for examination. The item identified above has been withdrawn because it contains:

☒ Security-Classified Information
☐ Otherwise Restricted Information

NND 917017 Authority
4/5/91 Date LS

WITHDRAWAL NOTICE

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION NA FORM 14000 (1-86)

RG 77
Entry 22
Box 169
7
1/10/T

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation
Destroyed Folder
Date 1945
From —
To —

In the review of this file this item was removed because access to it is restricted. Restrictions on records in the National Archives are stated in general and specific record group restriction statements which are available for examination. The item identified above has been withdrawn because it contains:

☒ Security-Classified Information
☐ Otherwise Restricted Information

NND 917017 Authority
4/5/91 Date LS

WITHDRAWAL NOTICE

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION NA FORM 14000 (1-86)

Figure D.884: Why do so many documents from the files of Leslie Groves related to the wartime German nuclear program remain classified and unavailable to the public, even after 75+ years? [NARA RG 77, Entry UD-22A]

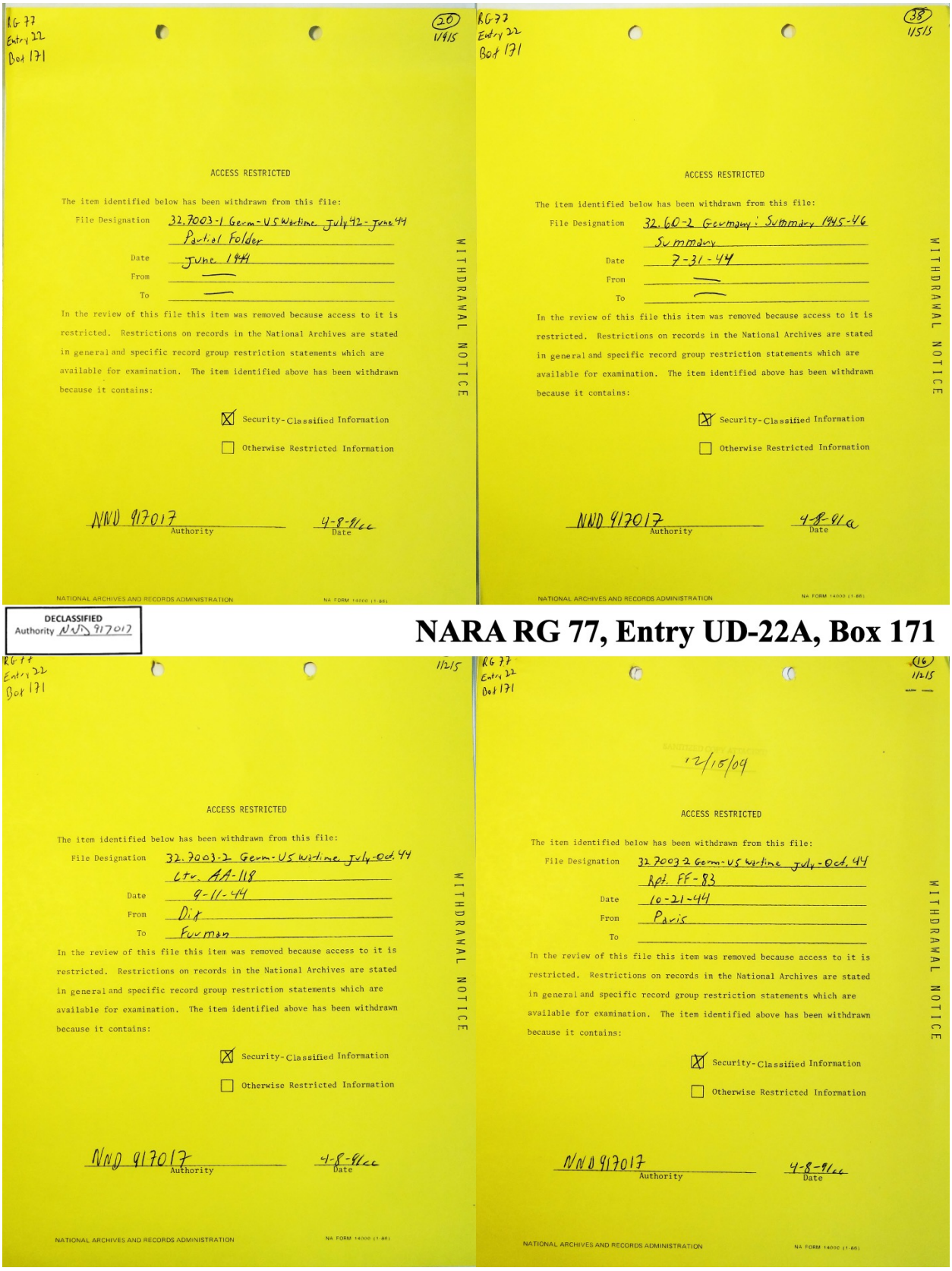
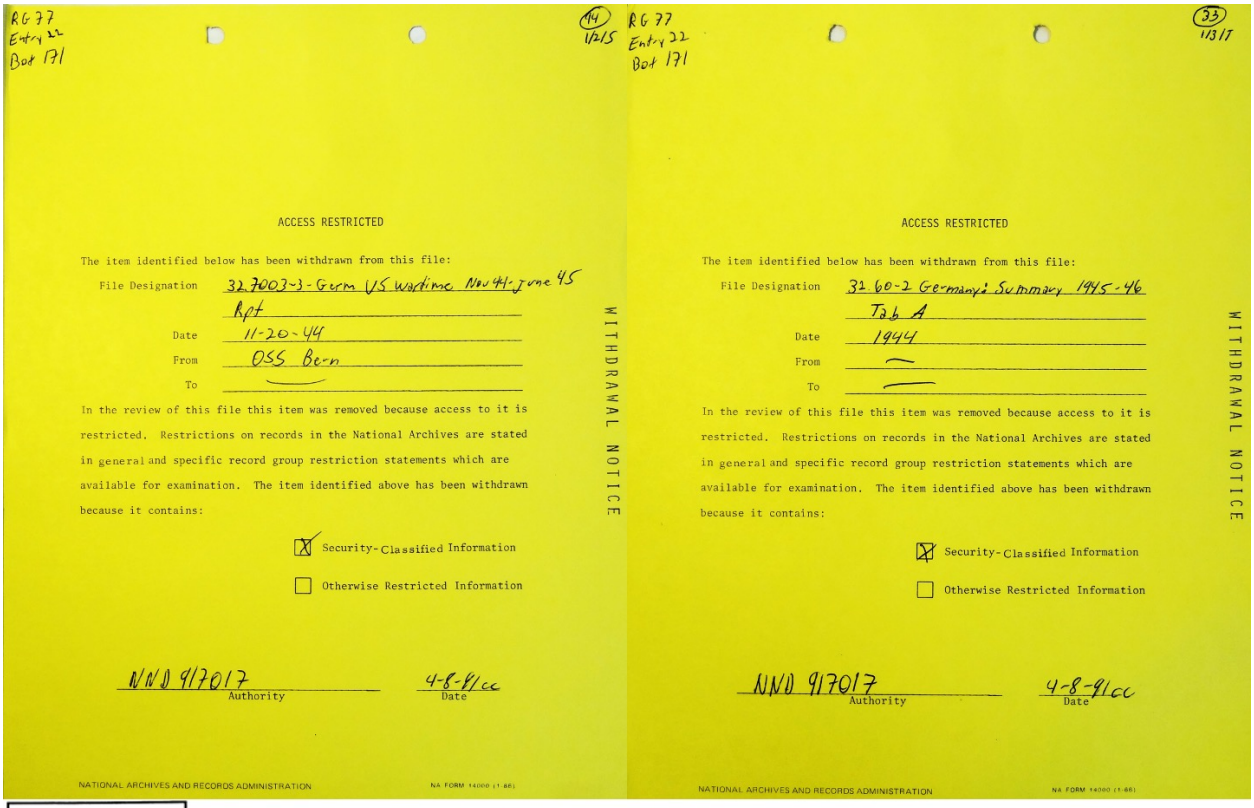


Figure D.885: Why do so many documents from the files of Leslie Groves related to the wartime German nuclear program remain classified and unavailable to the public, even after 75+ years? [NARA RG 77, Entry UD-22A]



DECLASSIFIED
Authority NND 917017

NARA RG 77, Entry UD-22A, Box 171

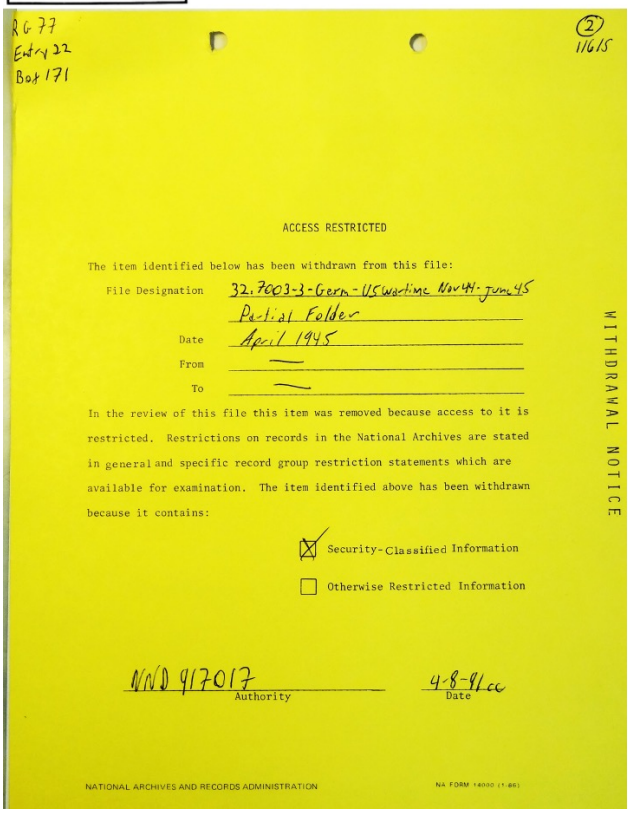


Figure D.886: Why do so many documents from the files of Leslie Groves related to the wartime German nuclear program remain classified and unavailable to the public, even after 75+ years? [NARA RG 77, Entry UD-22A]

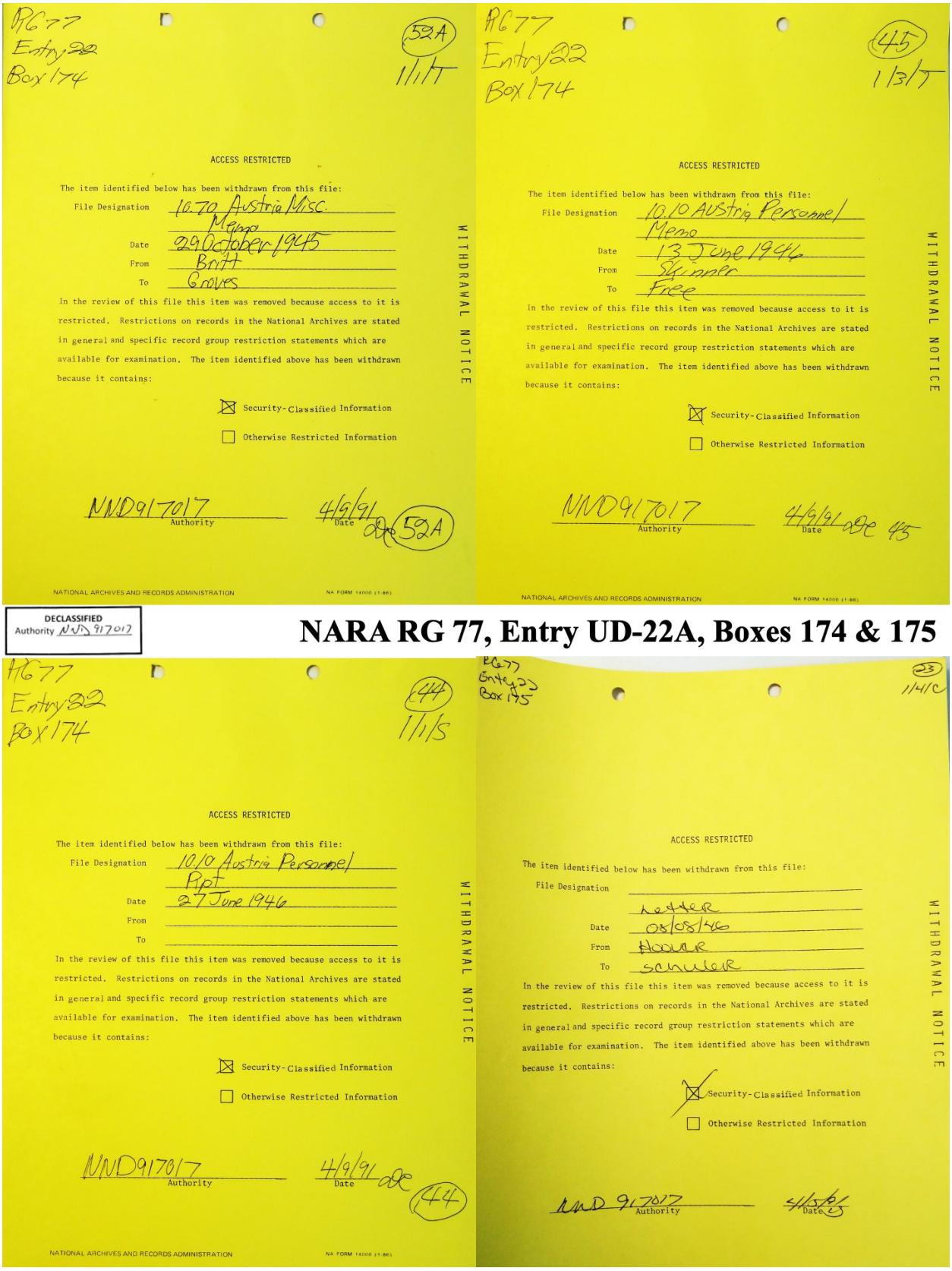
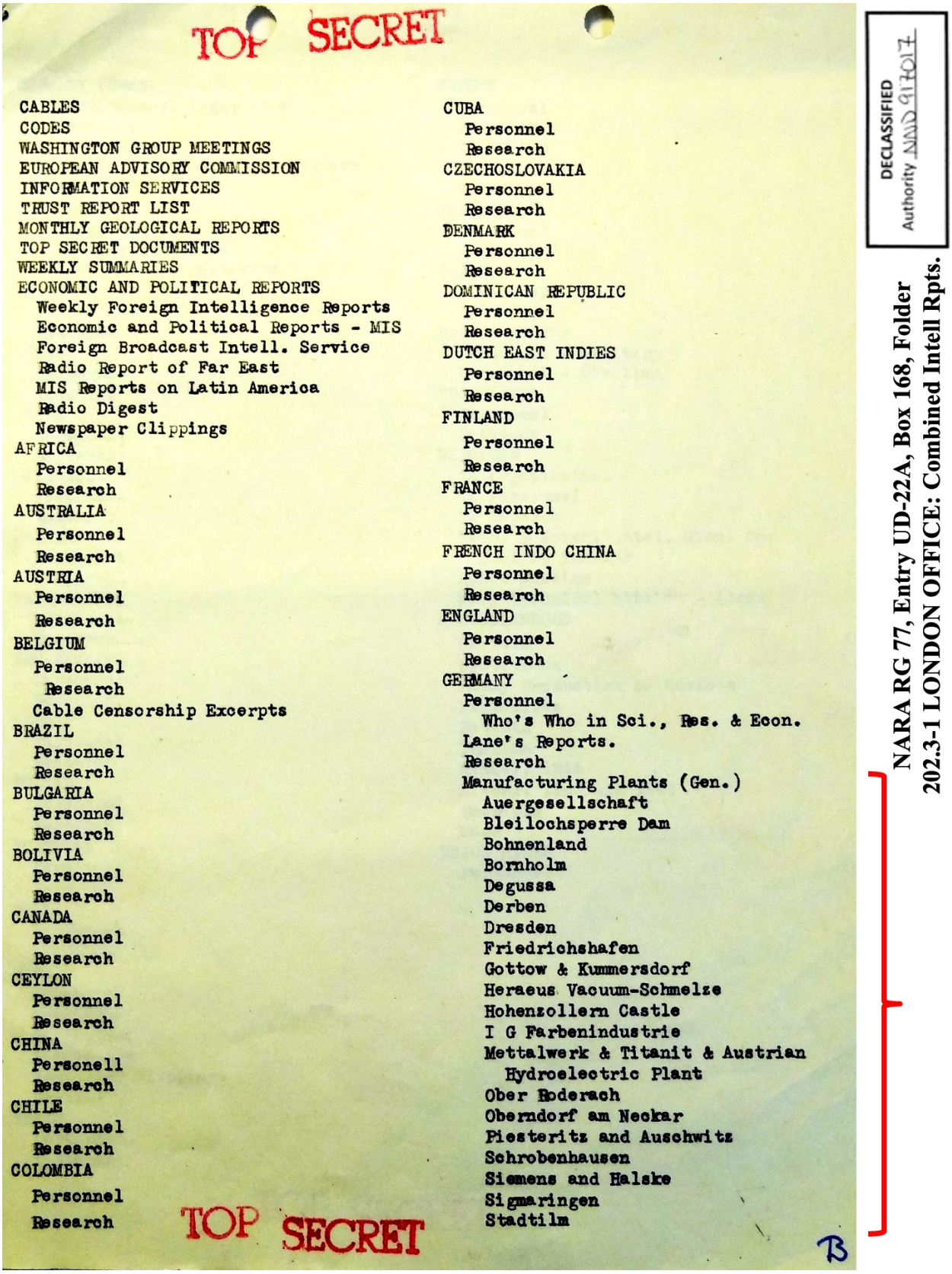


Figure D.887: Why do so many documents from the files of Leslie Groves related to the wartime German nuclear program remain classified and unavailable to the public, even after 75+ years? [NARA RG 77, Entry UD-22A]



TOP SECRET

CABLES
CODES
WASHINGTON GROUP MEETINGS
EUROPEAN ADVISORY COMMISSION
INFORMATION SERVICES
TRUST REPORT LIST
MONTHLY GEOLOGICAL REPORTS
TOP SECRET DOCUMENTS
WEEKLY SUMMARIES
ECONOMIC AND POLITICAL REPORTS
  Weekly Foreign Intelligence Reports
  Economic and Political Reports - MIS
  Foreign Broadcast Intell. Service
  Radio Report of Far East
  MIS Reports on Latin America
  Radio Digest
  Newspaper Clippings
AFRICA
  Personnel
  Research
AUSTRALIA
  Personnel
  Research
AUSTRIA
  Personnel
  Research
BELGIUM
  Personnel
  Research
  Cable Censorship Excerpts
BRAZIL
  Personnel
  Research
BULGARIA
  Personnel
  Research
BOLIVIA
  Personnel
  Research
CANADA
  Personnel
  Research
CEYLON
  Personnel
  Research
CHINA
  Personell
  Research
CHILE
  Personnel
  Research
COLOMBIA
  Personnel
  Research
CUBA
  Personnel
  Research
CZECHOSLOVAKIA
  Personnel
  Research
DENMARK
  Personnel
  Research
DOMINICAN REPUBLIC
  Personnel
  Research
DUTCH EAST INDIES
  Personnel
  Research
FINLAND
  Personnel
  Research
FRANCE
  Personnel
  Research
FRENCH INDO CHINA
  Personnel
  Research
ENGLAND
  Personnel
  Research
GERMANY
  Personnel
    Who's Who in Sci., Res. & Econ.
  Lane's Reports.
  Research
  Manufacturing Plants (Gen.)
    Auergesellschaft
    Bleilochsperre Dam
    Bohnenland
    Bornholm
    Degussa
    Derben
    Dresden
    Friedrichshafen
    Gottow & Kummersdorf
    Heraeus Vacuum-Schmelze
    Hohenzollern Castle
    I G Farbenindustrie
    Mettalwerk & Titanit & Austrian
      Hydroelectric Plant
    Ober Roderach
    Oberndorf am Neckar
    Piesteritz and Auschwitz
    Schrobenhausen
    Siemens and Halske
    Sigmaringen
    Stadtilm

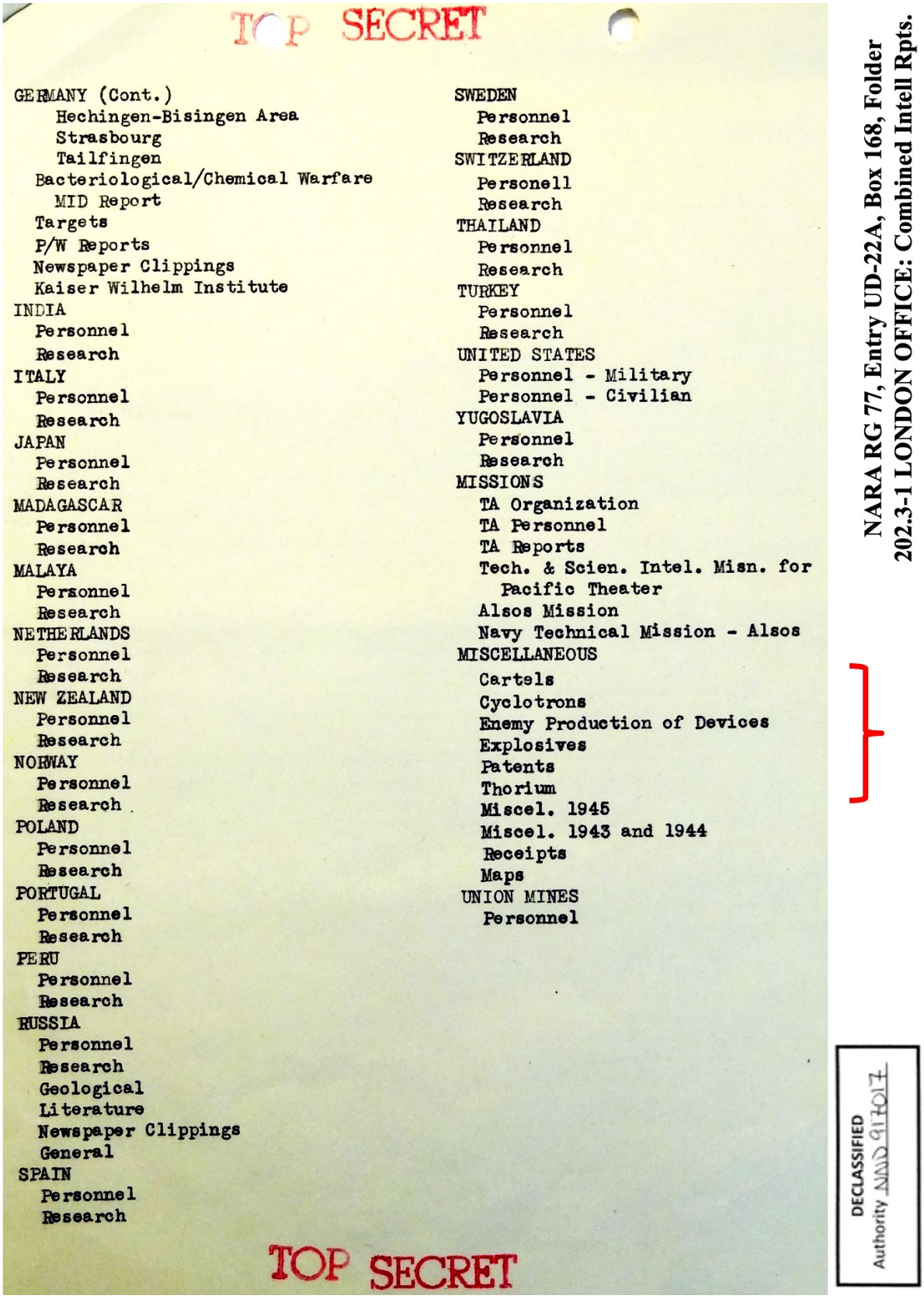
TOP SECRET

B

DECLASSIFIED Authority NND 917017

NARA RG 77, Entry UD-22A, Box 168, Folder 202.3-1 LONDON OFFICE: Combined Intell Rpts.

Figure D.888: Where are the rest of the documents that were in the folders with these titles? [NARA RG 77, Entry UD-22A, Box 168, Folder 202.3-1 LONDON OFFICE: Combined Intell Rpts.]



TOP SECRET

GERMANY (Cont.)
Hechingen-Bisingen Area
Strasbourg
Tailfingen
Bacteriological/Chemical Warfare
MID Report
Targets
P/W Reports
Newspaper Clippings
Kaiser Wilhelm Institute
INDIA
Personnel
Research
ITALY
Personnel
Research
JAPAN
Personnel
Research
MADAGASCAR
Personnel
Research
MALAYA
Personnel
Research
NETHERLANDS
Personnel
Research
NEW ZEALAND
Personnel
Research
NORWAY
Personnel
Research
POLAND
Personnel
Research
PORTUGAL
Personnel
Research
PERU
Personnel
Research
RUSSIA
Personnel
Research
Geological
Literature
Newspaper Clippings
General
SPAIN
Personnel
Research

SWEDEN
Personnel
Research
SWITZERLAND
Personell
Research
THAILAND
Personnel
Research
TURKEY
Personnel
Research
UNITED STATES
Personnel - Military
Personnel - Civilian
YUGOSLAVIA
Personnel
Research
MISSIONS
TA Organization
TA Personnel
TA Reports
Tech. & Scien. Intel. Misn. for Pacific Theater
Alsos Mission
Navy Technical Mission - Alsos
MISCELLANEOUS
Cartels
Cyclotrons
Enemy Production of Devices
Explosives
Patents
Thorium
Miscel. 1945
Miscel. 1943 and 1944
Receipts
Maps
UNION MINES
Personnel

TOP SECRET

NARA RG 77, Entry UD-22A, Box 168, Folder 202.3-1 LONDON OFFICE: Combined Intell Rpts.

DECLASSIFIED Authority NND 917017

Figure D.889: Where are the rest of the documents that were in the folders with these titles? [NARA RG 77, Entry UD-22A, Box 168, Folder 202.3-1 LONDON OFFICE: Combined Intell Rpts.]

- REGION 3

FEDERAL RECORDS CENTER
MILITARY RECORDS BRANCH
Alexandria, Virginia

February 12, 1958

In Reply Refer To: 3MC

Honorable Alan Dulles
Director
Central Intelligence Agency
Washington 25, D. C.

Dear Mr. Dulles:

In the fall of 1946 I transferred the Foreign Intelligence Unit from the Manhattan Engineer District to your predecessor organization the Central Intelligence Group.

With the prospective dissolution of the MED I felt, as did General Vandenberg, that this was in the best interests of the United States. This unit took with it certain files which were then necessary for its operation This was done despite my belief, which was concurred in by the Secretary of War that these papers would ultimately belong in the special file which was being set up for retention in the War Department.

This file was established to preserve the papers which were likely to be of historical value. Many of these were and must remain highly secret. The file though abbreviated is quite complete. I feel that it would be most advantageous if the papers, which are of historical value, taken by CIA in 1946 could now be returned to this file. They would be kept together and would be available to your agency for official use if you should ever desire such access. I imagine that they are no longer of any current value in your operations.

Prior to the establishment of this file as a permanent collection the provisions for its safeguarding and for restricting its use were approved personally by the then Chief of Staff, General Eisenhower. The file is now in the custody of the Military Records Branch, Federal Records Center, in Alexandria, Virginia. This Center is under the jurisdiction of the Archivist of the United States and access is governed by an agreement between the Archivist and The Adjutant General of the Army. The MED file however is not open to use by anyone except with my prior approval or that of The Adjutant General acting for the Chief of Staff of the Army.

As I am leaving Washington this week on a vacation trip out of the country I would request that your reply be sent to me in care of Mr. Sherrod East who is Chief of the Military Records Branch in Alexandria. If you agree to my proposal he, or one of is designees, would be the one to whom any papers would be physically delivered. He has seen this letter.

With very best personal wishes,

Sincerely

LESLIE R. GROVES
Lieut. Gen. USA, Ret.

P.S.
My permanent address to which I will return about March 12th is c/o Remington Rand, One Atlantic Street, Stamford, Conn.

NARA RG 77, Entry UD-22A, Box 160, Folder Foreign Intelligence Unit Index

Figure D.890: To what degree were the wartime and early postwar files of the Foreign Intelligence Unit sanitized before they were ultimately transferred to NARA? [NARA RG 77, Entry UD-22A, Box 160, Folder Foreign Intelligence Unit Index]

NARA RG 77, Entry UD-22A, Box 160, Folder Foreign Intelligence Unit Index

CENTRAL INTELLIGENCE AGENCY
WASHINGTON 25, D. C.

Lt. General Leslie R. Groves
c/o Mr. Sherrod East, Chief
Military Records Branch
Federal Records Center
Alexandria, Virginia

Dear General Groves:

Your letter of 12 February 1958 (3NC) to Mr. Dulles has been passed to this office for direct reply since the records requested are presently in our custody.

Most of the records transferred from the Manhattan Engineer District to this Agency have been retired to our permanent record center located outside the Washington area. However, action has been commenced to recover these records and they will be transferred to the Military Records Branch of the Federal Records Center as you requested.

I anticipate that identification, recovery, preparing receipts and the actual transfer will require about three weeks to accomplish.

If we can be of further assistance, please feel free to call upon us at any time.

Very truly yours,

Herbert Scoville, Jr.
Assistant Director

160-176

DECLASSIFIED
E.O. 12356
By _____ NARS, Date _____

March 25, 1958

Manhattan Project Files in CIA

Reference is made to General Groves' letter to Mr. Dulles relative to return to the MED collection of certain files now in custody of CIA. Mr. Horal, code 143, extension 3487, called me today to say that these files amounting to 5 or 6 cubic feet were being prepared for return in records center cardboard boxes at the rate of one box per week. The first such shipment will arrive by courier March 26, addressed to Chief, Military Records Branch, attention: Mr. High. During the next week Mr. Horal will be available should any question arise concerning this matter between 12 and 1 P.M. and on Friday. I have concurred in his suggested arrangement for transmitting the files. The contents of each box will be arranged according to a list of contents contained therein, which list should be checked, receipted and a copy returned to the sender as promptly as possible.--SE

cc: Mr. High

DECLASSIFIED
Authority NND 917017

Figure D.891: To what degree were the wartime and early postwar files of the Foreign Intelligence Unit sanitized before they were ultimately transferred to NARA? [NARA RG 77, Entry UD-22A, Box 160, Folder Foreign Intelligence Unit Index]

D.14.3 Dutch Intelligence

[Dutch intelligence appears to have provided information about the German nuclear weapons program to the United States both during and after the war.

During the war, Dutch citizens interacted with German programs in several ways:

- Many scientists and institutions in the Netherlands worked directly on German programs; Philips Laboratory in Eindhoven was a good example [CIOS III-1; CIOS VI-26, 27; CIOS X-13; CIOS XI-10; CIOS XII-22]. For more information see pp. 4314–4318.
- Many Dutch citizens worked in Germany or in other German-controlled territories as anything from paid research staff to slave laborers (pp. 4846, 4853).
- Some Dutch scientists were recruited by Germany to spy on its behalf; the Cellastic spy ring was one example [[Goudsmit 1947, pp. 37–46; Klinkenberg 1971; Van Calmthout 2018, pp. 129–148].

In all of those Dutch-German interactions, there would have been the opportunity for Dutch citizens who were secretly opposed to Germany's war effort to gather information on German secret weapons programs and to forward that information through a network of like-minded individuals to Dutch resistance leaders in the Netherlands or in exile.

Among other connections between the United States and the Netherlands, Alsos members Samuel Goudsmit and Gerard Kuiper were Dutch and had excellent contacts in the Dutch scientific community.]

Nazis' Secret Weapon Declared One of Horror; Wipe Out Civilization. *Indiana Evening Gazette* (Indiana, Pennsylvania). 30 March 1945 p. 1. https://newspaperarchive.com/indiana-evening-gazette-mar-30-1945-p-1/

PORTLAND, Ore., March 30—(AP)—A member of the Dutch underground declared today the Nazis do have a secret—and deadly effective—weapon.

Jacob van Berkel, here under auspices of the Netherlands Information Bureau, told an interviewer the European front is now a race between victory for the Allies and Germany's resort to the ultimate weapon—"so powerfully destructive it is almost inconceivable."

"The new weapon, a tiny gadget which could be placed in a rocket bomb, may be launched with complete effectiveness against the continental United States," Van Berkel said.

He declared the Germans are saving it for a last stand, probably in the Bavarian Alps. "They are confident that their secret weapon will wipe out civilization and save them at the very end."

Van Berkel—fictitious name to hide his identity from the enemy—gave no details, except to say that the weapon does not involve poison gas. He said that while Allied officials know of the weapon, they do not know in what form it might be launched.

The 27-year-old economist, who has made 60 secret trips through Germany in the last four years, said the weapon was discovered by espionage agents.

[This story was also reported in many other newspapers such as:

The Evening Independent (St. Petersburg, Florida) 30 March 1945 p. 8. https://news.google.com/newspapers?id=cwNQAAAAIBAJ&sjid=DlUDAAAAIBAJ&pg=2700,2575615

Pittsburgh Post-Gazette 30 March 1945 p. 2. https://news.google.com/newspapers?id=ULhRAAAAIBAJ&sjid=wWkDAAAAIBAJ&pg=4865,6710842

The Palm Beach Post (West Palm Beach, Florida) 30 March 1945 p. 1. https://palmbeachpost.newspapers.com/image/134142783/

The Deseret News 29 March 1945 p. 27. https://news.google.com/newspapers?id=0r0KAAAAIBAJ&sjid=nE0DAAAAIBAJ&pg=4566,2984860

Daytona Beach Morning Journal (Florida) 30 March 1945 p. 3. https://news.google.com/newspapers?nid=1873&dat=19450330&id=vvonAAAAIBAJ&sjid=6sYEAAAAIBAJ&pg=3599,5349888

Daily Journal-World (Lawrence, Kansas) 30 March 1945 p. 9. https://news.google.com/newspapers?nid=2199&dat=19450330&id=YBhGAAAAIBAJ&sjid=uugMAAAAIBAJ&pg=5384,4064567

Daily Mirror (Sydney, Australia) 31 March 1945 p. 10. https://trove.nla.gov.au/newspaper/article/272476029

The Sun (Sydney, Australia) 1 April 1945 p. 5. https://trove.nla.gov.au/newspaper/article/231704491

"Jacob van Berkel" was a pseudonym used by Anthony van der Steenhoven (unless that was a pseudonym too). According to files in the Dutch National Archive (pp. 4834–4849), van der Steenhoven was born in 1917 and worked for the Philips Laboratory in Eindhoven 1937–1944 as a secretary for the management.

During the war, van der Steenhoven also began secretly working for the Dutch resistance. He used his official position to travel to laboratories and industrial sites throughout the Netherlands, Belgium, Germany, Austria, Czechoslovakia, and Poland, gathering information on German activities, including work on nuclear weapons and delivery vehicles for them. His intelligence collection was aided by the facts that the Philips Laboratory was producing nuclear technology and collaborating with other organizations throughout German-controlled Europe, and that huge numbers of conscripted Dutch laborers worked at industrial sites throughout German-controlled Europe. Van der Steenhoven then reported what he had learned to his contacts in the Dutch resistance, the Dutch government in exile in London, British intelligence, OSS, and France.

In late 1944, the Dutch government in exile sent van der Steenhoven to the United States on a lecture tour to raise awareness and support. Although van der Steenhoven was supposed to talk about generalities of living in German-controlled Europe, and he largely did so, in some of his public presentations he briefly alluded to the German work on nuclear weapons and their delivery vehicles. After such a lecture in Boston, van der Steenhoven ended up having a lengthy private discussion with Gerard Kuiper, a member of Alsos. Van der Steenhoven's allusions to German nuclear weapons attracted the attention of a number of journalists, and through the resulting newspaper articles the disapproving attention of the U.S. government (probably censors from Leslie Groves's office). During his months in the United States, van der Steenhoven even wrote a book giving more details about the German nuclear weapons program, but due to pressure from Philips Laboratory (likely concerned about their public image) and perhaps also from Leslie Groves's office, the book was never published, and van der Steenhoven was sent back to Europe in summer 1945.

This warning from a highly knowledgeable member of the Dutch resistance that Germany was on the verge of launching an intercontinental nuclear attack that would be strong enough to win the war was highly consistent with information from a number of independent sources. See for example pp. 4638, 5022, 5031, and 5073.]

Anthony van der Steenhoven. 2 April 1945. Report regarding secret weapon [Nationaal Archief (Den Haag), Ministerie van Buitenlandse Zaken 1945–1954, Blok Z36, Toegang 2.05.117, Inv. nr. 25010.]

[See document photo on p. 4836.]

RAPPORT BETREFFENDE GEHEIM WAPEN

In Duitschland kreeg ik in 1943 bericjten van Duitsche bronnen betreffende het in vergevorderd stadium zijnde onderzoek naar het gebruik van de zoogenaamde atoom splitsing van Uraan in een wapen.

Verschillende Duitschers, z.g. ingewijden, gaven hier hoog over op. Het kwam ongeveer hier op neer dat als dit wapen eenmaal in een bruikbaren vorm gebracht kon worden Duitschland in enkele klappen al haar vijanden zou kunnen vernietigen. Ik begon hier aan te werken en kreeg inderdaad de bevestiging dat verschillende Duitsche laboratoria hiermede druk bezig waren. Einde 1943 vloog een geheel laboratorium in de buurt van Berlijn in de lucht en later hoorde ik van een secretaresse uit de Privatkanzlei des Führers dat dit iets met het geheime wapen te maken had. Een officier die bereid was mij meerdere inlichtingen te verschaffen sneuvelde helaas ontijdig. Het een en ander meldde ik later aan O.S.S. maar over de eigenaardige houding van 0SS hoef ik nu niet meer te spreken, ik kreeg sterk de indruk dat men of, hierover reeds voldoende wist, of mij niet serieus nam. In de Ambassade sprak ik hierover zoowel met Dr. van Houten als met den Schout-bij-nacht. Gezien echter de houding van OSS, was ik wat huiverig geworden om dingen als belangrijk voor te stellen dus zal ik het waarschijnlijk wel terloops genoemd hebben.

REPORT REGARDING SECRET WEAPON

In Germany in 1943 I received messages from German sources regarding the advanced stage of research into the use of the so-called atomic fission of uranium in a weapon.

Several Germans, so-called insiders, spoke highly of this. It basically came down to the following: if this weapon could once be brought into a usable form, Germany could destroy all her enemies in a few blows. I started working on this and indeed received confirmation that several German laboratories were busy working on this. At the end of 1943, an entire laboratory flew into the air near Berlin and later I heard from a secretary at the "Privatkanzlei des Führers" that it had something to do with the secret weapon. Unfortunately, an officer who was prepared to provide me with more information was suddenly killed. I later reported some things to the OSS, but I no longer need to talk about OSS's peculiar attitude; I got the strong impression that they either already knew enough about this or did not take me seriously. In the Embassy I spoke about it with Dr. van Houten and also with the Rear Admiral. However, given OSS's attitude, I had become a little hesitant to present things as important, so I probably mentioned it in passing.

In Boston ontmoette ik Prof. Kuiper, die mij hiernaar vroeg en nadat hij zich als G 2 geidentificeerd had vertelde ik hem wat ik wist, hetgeen hij zeer belangrijk vond aangezien het zijn gegevens volkomen bevestigde. Helaas was ik niet in staat hem te vertellen of het reeds in bruikbaren vorm bestond hetgeen hen verontrustte aangezien volgens hem G. 2 dit ook niet wist. Hij was van meening dat het zeer wel mogelijk was dat als zij het konden gebruiken het zeer zeker ook tegen de United States aangewend zou kunnen worden. Sinds Boston heb ik er toen af en toe melding van gemaakt in den vorm zooals getelegrafeerd. Niemand had hier blijkbaar bezwaar tegen, en het merkwaardige is dat verschillende malen interviewers mij man en paard reeds noemden waardoor ik den indruk kreeg dat het een publiek geheim was. Verdere inlichtingen gaf ik nooit. Nu en dan gebruikte ik het als gedeelte van een interview om den indruk van mijn andere indrukken te versterken namelijk: denk er aan, niet te optimistisch, de oorlog is morgen nog niet over!

Hierbij de "clipping" van het geheele bewuste interview hetgeen dus op de gebruikelijke wijze door den interviewer geinterpreteerd en aangedikt, en een andere "clipping" van het "secret-weapon" gedeelte wat aldus afgedrukt natuurlijk een verkeerde indruk geeft.

Salt Lake City 2 April 1945

In Boston I met Prof. Kuiper, who asked me about this matter and after he identified himself as G-2, I told him what I knew, which he considered very important given that it completely confirmed his own information. Unfortunately I was unable to tell him whether it already existed in a usable form, which worried them given that G-2 (according to him) did not know this either. He believed that it was entirely possible that if they could use it, it could certainly be used against the United States. Since Boston, I have occasionally reported about the subject in the form as telegraphed. Apparently no one objected to this, and the strange thing is that several times interviewers already called me man and horse, which gave me the impression that it was an open secret. I never provided any further information. Occasionally I used it as part of an interview to reinforce my other impressions, namely: remember, don't be too optimistic, the war won't be over tomorrow!

Here is the "clipping" of the entire interview in question, which is interpreted and enhanced by the interviewer in the usual way, and another "clipping" about the "secret-weapon" part, which of course gives a wrong impression when printed in this way.

Salt Lake City 2 April 1945

Nationaal Archief (Den Haag), Ministerie van Buitenlandse Zaken 1945-1954, Blok Z36, Toegang 2.05.117, Inv. nr. 25010

RAPPORT BETREFFENDE GEHEIM WAPEN,
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In Duitschland kreeg ik in 1943 berichten van Duitsche bronnen betreffende het in vergevorderd stadium zijnde onderzoek naar het gebruik van de zoogenaamde atoom splitsing van Uraan in een wapen.

Verschillende Duitschers, z.g. ingewijden, gaven hier hoog over op. Het kwam ongeveer hier op neer dat als dit wapen eenmaal in een bruikbaren vorm gebracht kon worden Duitschland in enkele klappen al haar vijanden zou kunnen vernietigen. Ik begon hier aan te werken en kreeg inderdaad de bevestiging dat verschillende Duitsche laboratoria hiermede druk bezig waren. Einde 1943 vloog een geheel laboratorium in de buurt van Berlijn in de lucht en later hoorde ik van een secretaresse uit de Privatekanzlei des Führers dat dit iets met het geheime wapen te maken had. Een officier die bereid was mij meerdere inlichtingen te verschaffen sneuvelde helaas ontijdig. Het een en ander meldde ik later aan O.S.S. maar over de eigenaardige houding van O.S.S. hoef ik nu niet meer te spreken, ik kreeg sterk de indruk dat men òf, hierover reeds voldoende wist, òf mij niet serieus nam. In de Ambassade sprak ik hierover zoowel met Dr. van Houten als met den Schout-bij-nacht. Gezien echter de houding van O.S.S. was ik wat huiverig geworden om dingen als belangrijk voor te stellen dus zal ik het waarschijnlijk wel terloops genoemd hebben. In Boston ontmoette ik Prof. Kuiper, die mij hiernaar vroeg en nadat hij zich als G 2 geidentificeerd had vertelde ik hem wat ik wist, hetgeen hij zeer belangrijk vond aangezien het zijn gegevens volkomen bevestigde. Helaas was ik niet in staat hem te vertellen of het reeds in bruikbaren vorm bestond hetgeen hem verontrustte aangezien volgens hem G. 2 dit ook niet wist. Hij was van meening dat het zeer wel mogelijk was dat als zij het konden gebruiken het zeer zeker ook tegen de United States aangewend zou kunnen worden. Sinds Boston heb ik er toen af en toe melding van gemaakt in den vorm zooals getelegrafeerd. Niemand had hier blijkbaar bezwaar tegen, en het merkwaardige is dat verschillende malen interviewers mij man en paard reeds noemden waardoor ik den indruk kreeg dat het een publiek geheim was. Verdere inlichtingen gaf ik nooit. Nu en dan gebruikte ik het als gedeelte van een interview om den indruk van mijn àndere indrukken te versterken namelijk: denk er aan, niet te optimistisch, de oorlog is morgen nog niet over!

Hierbij de "clipping" van het geheele bewuste interview hetgeen dus op de gebruikelijke wijze door den interviewer geinterpreteerd en aangedikt, en een andere "clipping" van het "secret-weapon" gedeelte wat aldus afgedrukt natuurlijk een verkeerde indruk geeft.

Salt Lake City 2 April 1945.

Jacob van Berkel.

Figure D.892: Anthony van der Steenhoven. 2 April 1945. Report regarding secret weapon [Nationaal Archief (Den Haag), Ministerie van Buitenlandse Zaken 1945–1954, Blok Z36, Toegang 2.05.117, Inv. nr. 25010].

H. van den Berg. 16 January 1945. Hearing of: van der STEENHOVEN Anthony [Nationaal Archief (Den Haag), Ministerie van Justitie Bureaus Kabinet en Juridische Zaken van de Afdeling Politie (1932-) 1945–1952 (-1968), Blok J36, Toegang 2.09.107, Inv. nr. 931].

[See document photos on pp. 4842–4844.]

Politie-Buitendienst

Departement van Justitie

Verhoor van: van der STEENHOVEN Anthony, geboren 28 October 1917 te DORDRECHT, van beroep secretaris directie N. V. Gloeilampenfabrieken PHILIPS te Eindhoven, laatstelijk gewoond hebbende Hertogstraat 30 te EINDHOVEN, die Nederland heeft verlaten op 24 September 1944, in Engeland ia aangekomen op 29 September 1944, die op 17 October 1944 uit de R.V.P.S. werd ontslagen en zich alhier meldde op 31 October 1944. [...]

Op 16 Februari 1944 te Hilligersberg gehuwd met Cornelia BERGER, geboren 23 November 1922 te Hilligersberg, wonende Hertogstraat 30 EINDHOVEN. [...]

Ik genoot Lager Onderwijs te Dordrecht. Juni 1935 behaalde ik einddiploma A. op de H.B.S. te Dordrecht. Vervolgens heb ik nog tot 1937 Mei gestudeerd op de Economische Hoogeschool te Rotterdam.

Door tusschenkomst van mijn vader, die een kennis was van den directeur van de Holland Amerika Lijn, heb ik 4 maanden gevaren als stuurmansleerling op de MAASDAM. Vervolgens heb ik thuis gestudeerd en ben tevens werkzaam geweest in de zaak van mijn vader. In November 1937 kreeg ik een betrekking bij de N. V. PHILIPS te Eindhoven als assistent-correspondent met een tweejarige opleiding voor het buitenland. Toen in 1940 deze cursus was afgeloopen werd ik eind 1940 aangezocht om naar Duitschland te gaan om in Berlijn de versterkersafdeeling te organiseeren.

Police External Service

Department of Justice

Hearing of: van der STEENHOVEN Anthony, born 28 October 1917 in DORDRECHT, by profession secretary management N. V. Gloeilampenfabrieken PHILIPS in Eindhoven, last living Hertogstraat 30 in EINDHOVEN, who left the Netherlands on 24 September 1944, arrived in England on 29 September 1944, was discharged from the R.V.P.S. on 17 October 1944 and reported here on 31 October 1944. [...]

On 16 February 1944 in Hilligersberg married Cornelia BERGER, born 23 November 1922 in Hilligersberg, living Hertogstraat 30 EINDHOVEN. [...]

I received my primary education in Dordrecht. In June 1935 I obtained my final diploma A at the H.B.S. in Dordrecht. Then I studied at the Economic School in Rotterdam until May 1937.

Through the intervention of my father, who was an acquaintance of the director of the Holland America Line, I sailed for 4 months as an apprentice mate on the MAASDAM. After that I studied at home and also worked in my father's business. In November 1937 I got a job at the N. V. PHILIPS in Eindhoven as an assistant correspondent with a two-year course abroad. When this course was finished in 1940, I was asked to go to Germany to organize the amplifier division in Berlin.

Ik kreeg deze opdracht van den heer KETEL, personeelschef en ook van den heer KAMSTRA, die destijds personeelschef was. In werkelijkheid was echter mijn opdracht om oogen en ooren open te zetten. Ik vertrok dus naar Berlijn, alwaar ik op 23 Januari 1941 arriveerde. Ik werd geplaatst op de Philipsfabrieken als chef van de afdeeling versterkers. Ik begon met het organiseeren van de civiele verkoopafdeeling, doch na 2 maanden werd de verkoop verboden en mocht alleen onder zeer speciale omstandigheden daarvan worden afgeweken. Intusschen was ik lid geworden van de plaatselijke Amerikaansche kerk en -club. Ik werd bevriend met den Amerikaanschen dominee Stewart HERMAN, doordat wij gemeenschappellijk kennissen hadden in de Vereenigde Staten van Amerika. Bovendien werd ik lid van den inmiddels door de Gestapo opgeheven Nederlandsche club "Nederland en Oranje", alwaar iederen Donderdagavond bijeenkomsten plaatsvonden. Op die bijeenkomsten ontmoette ik den Heer MILLENAAR van het Zweedsche Gezantschap, die daar zat ter behartiging van de Nederlandsche belangen in Duitschland. Hij was vroeger werkzaam op het Nederlandsche Gezantschap, doch was bij het uitbreken van den oorlog door den Gezant aangewezen om in Berlijn te blijven. MILLENAAR en ik werden spoedig bevriend en er ontstond samenwerking op groote schaal, hetgeen beteekende het onderhouden van zijn contacten in Nederland, (Dit had hoofdzakelijk plaats met den heer MEES van de N. V. Philips, wonende te Rotterdam) en het verstrekken van alle mogelijke hulp in Duitschland zelf, zooals het bezoeken van studenten en arbeiders in ziekenhuizen en werkkampen enz, hetgeen ik op mij nam en deed. Hierbij was veel handigheid vereischt. Ik bleef ca. 3 jaar in Berlijn en had veel moeilijkheden. Ik reisde geregeld op en neer naar Nederland. Ik ben 2 keer aan de grens en 2 keer in Duitschaldn aangehouden, doch telkens vrijgelaten, zonder resultaat voor de Duitschers. Intusschen werkte ik ook voor de K.L.M. als tusschenpersoon tusschen Berlijn en PLESMAN en hied mij bezig met brievensmokkelarij enz. Op 24 December 1943 keerde ik definitief naar Nederland terug. Nadien heb ik in Januari en Februari 1944 nog eenige reizen heen en terug naar Berlijn. Ik was den laatsten tijd nog wel bij N. V. Philips in dienst, doch deed niets.

I received this assignment from Mr. KETEL, chief of staff, and also from Mr. KAMSTRA, who was chief of staff at the time. In reality, however, my assignment was to open eyes and ears. So I left for Berlin, where I arrived on 23 January 1941. I was placed at the Philips factories as head of the amplifier division. I began to organize the civil sales department, but after two months sales were prohibited and could only be deviated from under very special circumstances. Meanwhile, I had joined the local American church and club. I became friends with the American pastor Stewart HERMAN, because we had mutual acquaintances in the United States of America. In addition, I became a member of the Dutch club "Netherlands and Orange," which had been disbanded by the Gestapo, where meetings were held every Thursday evening. At these meetings I met Mr. MILLENAAR of the Swedish Legation, who was there to represent Dutch interests in Germany. He used to work at the Dutch legation, but at the outbreak of war had been assigned by the envoy to stay in Berlin. MILLENAAR and I soon became friends and there was cooperation on a large scale, which meant maintaining his contacts in the Netherlands, (This mainly took place with Mr. MEES of N. V. Philips, living in Rotterdam) and providing all possible help in Germany itself, such as visiting students and workers in hospitals and work camps etc., which I took on and did. This required a lot of skill. I stayed in Berlin for about 3 years and had many difficulties. I regularly traveled back and forth to Holland. I was stopped twice at the border and twice in Germany, but each time I was released without any result for the Germans. In the meantime I also worked for the K.L.M. as an intermediary between Berlin and PLESMAN and was engaged in letter smuggling etc. On 24 December 1943 I returned to Holland for good. In January and February 1944 I made several trips to Berlin and back. I was employed by N. V. Philips lately, but did nothing.

Op 21 September 1944 kwam ik te EINDHOVEN in contact met Majoor WATERSCHOOT VAN DER GRACHT van de Amerikaansche dienst O.S.S. Hoe die mij kende weet ik niet. Hij vroeg mij of ik hem over Duitschland in wilde lichten, hetgeen ik voor zoover dit in mijn vermogen lag deed. Hij stelde mij voor terug te gaan naar Duitschland, zoogenaamd als een soort gevluchte N.S.B.er, hetgeen echter niet door kon gaan, omdat ik op de zwarte lijst van de N.S.B. stond. Dat ik in Duitschland geen moeilijkheden heb ondervonden was min of meer het gevolg van het feit, dat ik het hoofd van de Gestapo van het Philipsconcern, genaamd Majoor LIESE, goed kende. LIESE had een vreeselijken hekel aan de N.S.B. LIESE was volgens mij goed en is na de laatste beruchte aanslag op HITLER (Goerdelaffaire) door de Duitschers doodgeschoten. LIESE wist niet wat ik deed, doch was de meening toegedaan, dat ik een harde werker van N. V. Philips was.

WATERSCHOOT stelde mij toen voor mij per parachute in Berlijn neer te laten hetgeen ik als zelfmoord beschouwde, aangezien ik te goed in Berlijn bekend ben en daarvan de moeilijkheden kende.

In December 1943 had ik te BERLIJN van den Gestapoagent, Inspecteur LANGE, die goed was en in contact stond met MILLENAAR, de tip gekregen Duitschland te verlaten, aangezien mijn activiteiten te verdacht werden.

On 21 September 1944 in EINDHOVEN I came into contact with Major WATERSCHOOT VAN DER GRACHT of the American service O.S.S. How he knew me I do not know. He asked me to inform him about Germany, which I did as far as I could. He suggested that I return to Germany, supposedly as a kind of N.S.B. [Dutch National Socialists] refugee, but this could not be done, because I was on the black list of the N.S.B. I could not go. That I encountered no difficulties in Germany was more or less due to the fact that I knew the head of the Gestapo of the Philips concern, named Major LIESE, well. LIESE had a dreadful dislike for the N.S.B. LIESE was good, in my opinion, and was shot dead by the Germans after the last infamous attack on HITLER (Goerdel affair). LIESE did not know what I did, but was of the opinion that I was a hard worker for N. V. Philips.

WATERSCHOOT then proposed to me to drop me by parachute in Berlin, which I considered suicide, since I am too well known in Berlin and knew its difficulties.

In December 1943 I had been tipped off in BERLIN by the Gestapo agent, Inspector LANGE, who was well and in contact with MILLENAAR, to leave Germany, since my activities were becoming too suspicious.

WATERSCHOOT stelde mij vervolgens voor naar STOCKHOLM te gaan om door tusschenkomst van mijn contacten weer contact op te nemen met MILLENAAR, hetgeen ook weer niet door kon gaan vanwege het gevaar voor MILLENAAR. Tenslotte werd mij voorgesteld, dat ik met de bezettende Amerikaansche troepen BERLIN zal binnenrukken om door mijn contacten de zaak zoo vlug mogelijk voor elkaar te brengen. Intusschen zou ik dan in LONDEN moeten afwachten tot het zoover zou zijn en inmiddels rapport uitbrengen over mijn bevindingen van het laatste jaar. Dit laatste voorstel is door mij aangenomen. Ik ben thans echter door het Nederlandsche Ministerie van Buitenlandsche Zaken aangezocht om onder de naam van Jacob van BERKEL een propagandatour door de Vereenigde Staten van Amerika te maken.

Op 24 September 1944 vertrok ik per jeep naar BRUSSEL. Op 26 September 1944 met een Amerikaansch vliegtuig van BRUSSEL naar PARIJS en vandaar op 29 September 1944 met een Amerikaansch vliegtuig naar LONDEN, op laatstgenoemde reizen vergezled van WATERSCHOOT. Na mijn aankomst in LONDEN bezocht ik gedurende die week op 30 September den Minister BURGER (een overbuurman van mij in Nederland), die onmiddellijk den heer F. van 't SANT opbelde. Die week heb ik zonder medeweten van de Engelsche autoriteiten in LONDEN rondgezworven. Op 2 October 1944 had ik weer een onderhoud met den Minister BURGER en op 3 October 1944 met den Minister President GERBRANDY. Van 5 tot 17 October 1944 ben ik verhoord geworden in de R.V.P.S. Op laatstgenoemden datum werd ik afgehaald door een Amerikaansch officier. Op 18 October 1944 had ik een onderhoud met den heer HAARSMA DE WIT, secretaris van den Minister-President GERBRANDY, de laatste Gezant in BERLIJN, die mij mededeelde, dat ik mij bij Minister KLEFFENS moest vervoegen en dien ik op 23 October 1944 bezocht. Ik werd toen aangenomen voor de propagandatour in Amerika. Op 28 October 1944 ben ik ontvangen bij Prinses JULIANA en op 31 October 1944 bij H. M. de KONINGIN.

WATERSCHOOT then proposed to me to go to STOCKHOLM to get back in touch with MILLENAAR through my contacts, which again could not take place because of the danger to MILLENAAR. In the end it was suggested to me that I go into BERLIN with the occupying American troops in order to get things done as quickly as possible through my contacts. In the meantime I would have to wait in LONDON until the time would come and in the meantime report on my findings of the last year. This last proposal was accepted by me. However, I have now been asked by the Dutch Ministry of Foreign Affairs to make a propaganda tour through the United States of America under the name of Jacob van BERKEL.

On 24 September 1944, I left by jeep for BRUSSELS. On 26 September 1944 with an American airplane from BRUSSELS to PARIS and from there on 29 September 1944 with an American airplane to LONDON, accompanied by WATERSCHOOT on the latter trips. After my arrival in LONDON on 30 September, I visited Minister BURGER (a neighbor of mine in Holland), who immediately called Mr. F. van 't SANT. That week I wandered around LONDEN without the knowledge of the English authorities. On 2 October 1944 I had another meeting with Minister BURGER and on 3 October 1944 with Minister President GERBRANDY. From 5 to 17 October 1944 I was interrogated in the R.V.P.S. [Royal Victoria Patriotic School] On the latter date I was picked up by an American officer. On 18 October 1944 I had a meeting with Mr. HAARSMA DE WIT, Secretary to Prime Minister GERBRANDY, the last Envoy to BERLIN, who informed me that I had to report to Minister KLEFFENS, whom I visited on 23 October 1944. I was then accepted for the propaganda tour in America. On 28 October 1944 I was received by Princess JULIANA and on 31 October 1944 by Her Majesty the Queen.

Daar ik verwachtte in moeilijkheden te zullen komen in verband met het feit, dat ik niet door een officieele instantie van Nederlandsche zijde was gehoord geworden, heb ik U op aanraden van Hugo KLEIN van den Voorlichtingsdienst, dien ik in Netherlands House ontmoette, opgebeld en om een onderhoud verzocht. Mijns inziens was het ook veel beter geweest, dat de Amerikaansche autoriteiten mijn geval niet geheimzinnig behandeld hadden en mij den officieelen weg hadden laten volgen.

Since I expected to get into trouble because I had not been heard by an official Dutch authority, I called you on the advice of Hugo KLEIN of the Information Service, whom I met in Netherlands House, and asked for an interview. In my opinion it would have been better if the American authorities had not treated my case secretively and had let me follow the official route.

Ik ben officieel door Minister KLEFFEN aangenomen met ingang van 3 November 1944.

I was officially hired by Minister KLEFFEN effective 3 November 1944.

De N.S.B.ers die ik kende in EINDHOVEN zijn inmiddels opgeruimd.

The N.S.B.ers [Dutch national socialists] I knew in EINDHOVEN have in the meantime been cleared out.

Verdere bijzonderheden kan ik U niet medeedeelen.

I cannot give you any further details.

CONCLUSIE: v. d. STEENHOVEN maakt een gunstigen indruk, doch doet erg gewichtig. Mijns inziens is na dit verhoor moeilijk na te gaan of deze man politiek betrouwbaar is. Daarvour zouden nadere informaties moeten worden ingewonnen.

CONCLUSION: v. d. STEENHOVEN makes a favorable impression, but acts very pompous. I think that after this interrogation it is difficult to ascertain whether this man is politically reliable. Further information should be obtained.

Londen, 16 Januari 1945.

London, 16 January 1945.

De wachtmeester tit. der Kon. Marechaussee,

The appointed sentry of the Royal Military Police,

(H. van den BERG).

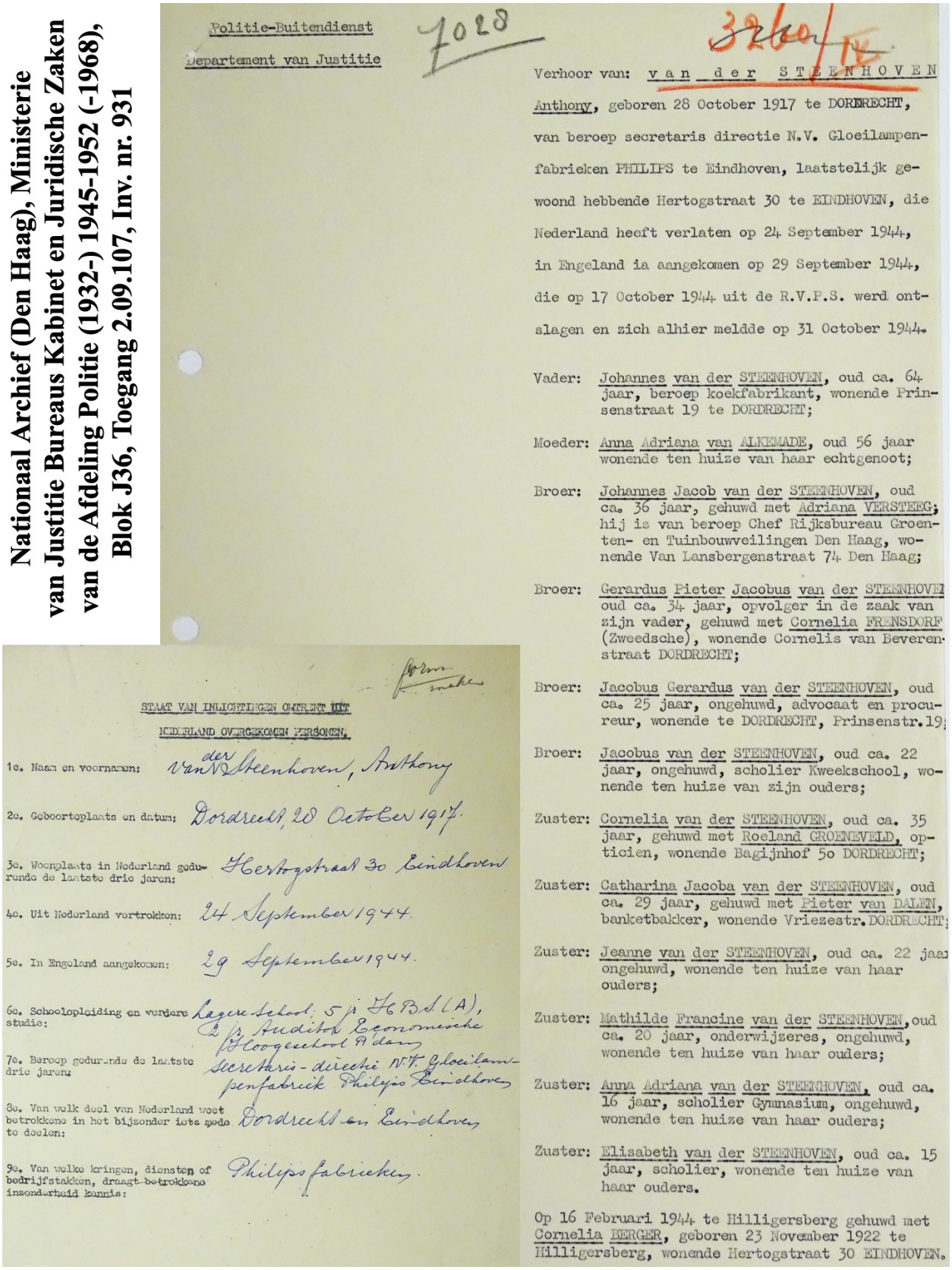
(H. van den BERG).

OPMERKING: Weer een van de gevallen de Nederlandsche instanties volkomen onkundig waren van de aankomst van een Nederlander. Na opname in de R.V.P.S. werd van andere Engelandvaarders vernomen, dat v.d.S. zich daar bevond en later was hij weer op mysterieuze wijze verdwenen.

NOTE: Another of the cases the Dutch authorities were completely unaware of the arrival of a Dutchman. After being admitted to the R.V.P.S., it was learned from others knowledgeable about England that v.d.S. was there and later he had mysteriously disappeared again.

H. van den BERG.

H. van den BERG.



Nationaal Archief (Den Haag), Ministerie van Justitie Bureaus Kabinet en Juridische Zaken van de Afdeling Politie (1932-) 1945-1952 (-1968), Blok J36, Toegang 2.09.107, Inv. nr. 931

Politie-Buitendienst

Departement van Justitie

7028

32602/K

Verhoor van: van der STEENHOVEN

Anthony, geboren 28 October 1917 te DORDRECHT, van beroep secretaris directie N.V. Gloeilampenfabrieken PHILIPS te Eindhoven, laatstelijk gewoond hebbende Hertogstraat 30 te EINDHOVEN, die Nederland heeft verlaten op 24 September 1944, in Engeland ia aangekomen op 29 September 1944, die op 17 October 1944 uit de R.V.P.S. werd ontslagen en zich alhier meldde op 31 October 1944.

Vader: Johannes van der STEENHOVEN, oud ca. 64 jaar, beroep koekfabrikant, wonende Prinsenstraat 19 te DORDRECHT;

Moeder: Anna Adriana van ALKEMADE, oud 56 jaar wonende ten huize van haar echtgenoot;

Broer: Johannes Jacob van der STEENHOVEN, oud ca. 36 jaar, gehuwd met Adriana VERSTEEG; hij is van beroep Chef Rijksbureau Groenten- en Tuinbouwveilingen Den Haag, wonende Van Lansbergenstraat 74 Den Haag;

Broer: Gerardus Pieter Jacobus van der STEENHOVEN oud ca. 34 jaar, opvolger in de zaak van zijn vader, gehuwd met Cornelia FRENSDORF (Zweedsche), wonende Cornelis van Beverenstraat DORDRECHT;

Broer: Jacobus Gerardus van der STEENHOVEN, oud ca. 25 jaar, ongehuwd, advocaat en procureur, wonende te DORDRECHT, Prinsenstr.19;

Broer: Jacobus van der STEENHOVEN, oud ca. 22 jaar, ongehuwd, scholier Kweekschool, wonende ten huize van zijn ouders;

Zuster: Cornelia van der STEENHOVEN, oud ca. 35 jaar, gehuwd met Roeland GROENEVELD, opticien, wonende Bagijnhof 5o DORDRECHT;

Zuster: Catharina Jacoba van der STEENHOVEN, oud ca. 29 jaar, gehuwd met Pieter van DALEN, banketbakker, wonende Vriezestr. DORDRECHT;

Zuster: Jeanne van der STEENHOVEN, oud ca. 22 jaar ongehuwd, wonende ten huize van haar ouders;

Zuster: Mathilde Francine van der STEENHOVEN, oud ca. 20 jaar, onderwijzeres, ongehuwd, wonende ten huize van haar ouders;

Zuster: Anna Adriana van der STEENHOVEN, oud ca. 16 jaar, scholier Gymnasium, ongehuwd, wonende ten huize van haar ouders;

Zuster: Elisabeth van der STEENHOVEN, oud ca. 15 jaar, scholier, wonende ten huize van haar ouders.

Op 16 Februari 1944 te Hilligersberg gehuwd met Cornelia BERGER, geboren 23 November 1922 te Hilligersberg, wonende Hertogstraat 30 EINDHOVEN.

STAAT VAN INLICHTINGEN OMTRENT UIT NEDERLAND OVERGEKOMEN PERSONEN.

1e. Naam en voornamen: van der Steenhoven, Anthony

2e. Geboorteplaats en datum: Dordrecht, 28 October 1917.

3e. Woonplaats in Nederland gedurende de laatste drie jaren: Hertogstraat 30 Eindhoven

4e. Uit Nederland vertrokken: 24 September 1944.

5e. In Engeland aangekomen: 29 September 1944.

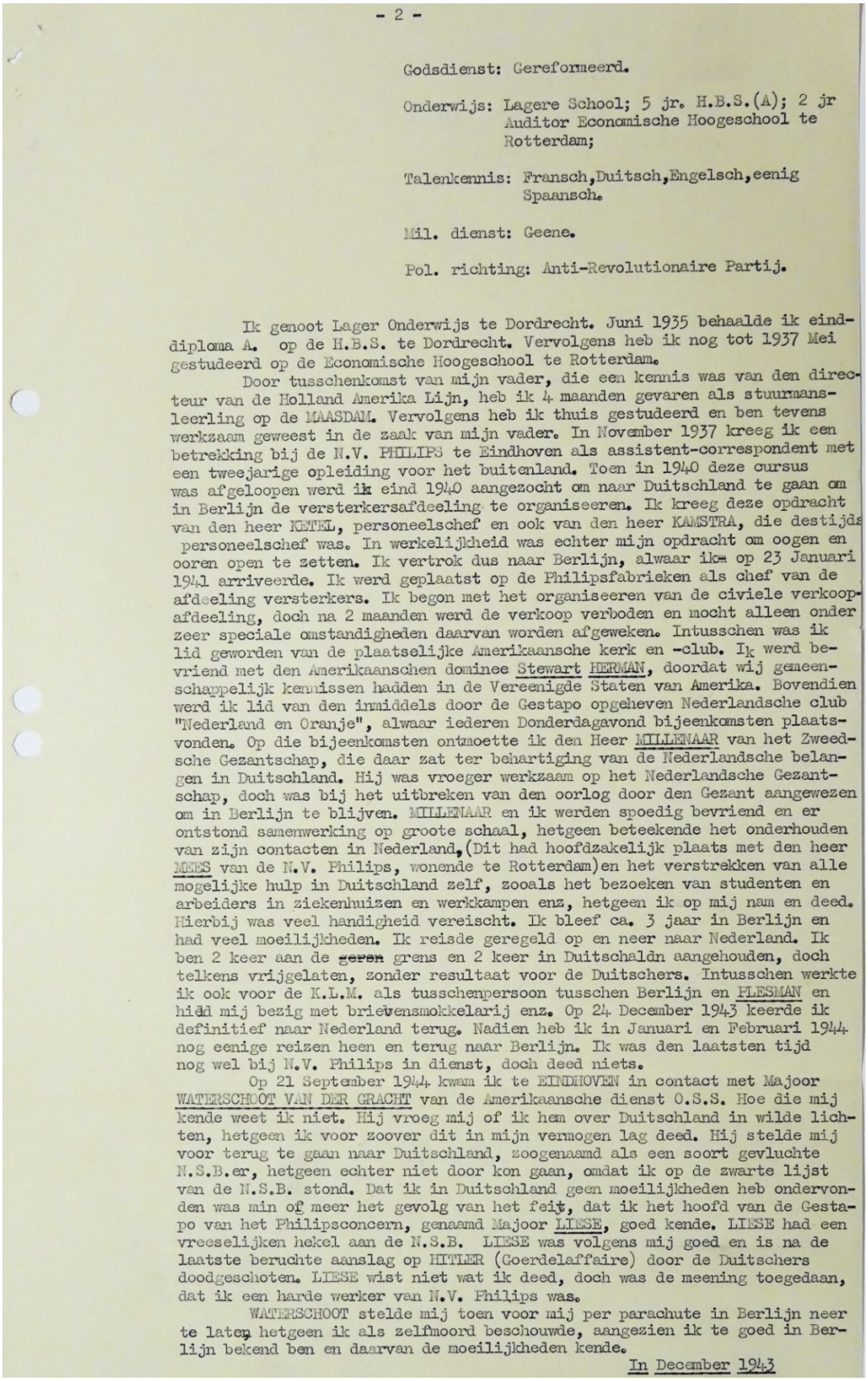
6e. Schoolopleiding en verdere studie: Lagere school, 5 j. H.B.S.(A), 2 j. Auditor Economische Hoogeschool Rotterdam

7e. Beroep gedurende de laatste drie jaren: Secretaris-directie N.V. Gloeilampenfabriek Philips Eindhoven

8e. Van welk deel van Nederland weet betrokkene in het bijzonder iets mede te deelen: Dordrecht en Eindhoven

9e. Van welke kringen, diensten of bedrijfstakken, draagt betrokkene inzonderheid kennis: Philips fabrieken.

Figure D.893: H. van den Berg. 16 January 1945. Hearing of: van der STEENHOVEN Anthony [Nationaal Archief (Den Haag), Ministerie van Justitie Bureaus Kabinet en Juridische Zaken van de Afdeling Politie (1932-) 1945–1952 (-1968), Blok J36, Toegang 2.09.107, Inv. nr. 931].



- 2 -

Godsdienst: Gereformeerd.

Onderwijs: Lagere School; 5 jr. H.B.S.(A); 2 jr Auditor Economische Hoogeschool te Rotterdam;

Talenkennis: Fransch,Duitsch,Engelsch,eenig Spaansch.

Mil. dienst: Geene.

Pol. richting: Anti-Revolutionaire Partij.

Ik genoot Lager Onderwijs te Dordrecht. Juni 1935 behaalde ik eind-diploma A. op de H.B.S. te Dordrecht. Vervolgens heb ik nog tot 1937 Mei gestudeerd op de Economische Hoogeschool te Rotterdam.

Door tusschenkomst van mijn vader, die een kennis was van den directeur van de Holland Amerika Lijn, heb ik 4 maanden gevaren als stuurmansleerling op de MAASDAM. Vervolgens heb ik thuis gestudeerd en ben tevens werkzaam geweest in de zaak van mijn vader. In November 1937 kreeg ik een betrekking bij de N.V. PHILIPS te Eindhoven als assistent-correspondent met een tweejarige opleiding voor het buitenland. Toen in 1940 deze cursus was afgeloopen werd ik eind 1940 aangezocht om naar Duitschland te gaan om in Berlijn de versterkersafdeeling te organiseeren. Ik kreeg deze opdracht van den heer KETEL, personeelschef en ook van den heer KAMSTRA, die destijds personeelschef was. In werkelijkheid was echter mijn opdracht om oogen en ooren open te zetten. Ik vertrok dus naar Berlijn, alwaar ik op 23 Januari 1941 arriveerde. Ik werd geplaatst op de Philipsfabrieken als chef van de afdeeling versterkers. Ik begon met het organiseeren van de civiele verkoopafdeeling, doch na 2 maanden werd de verkoop verboden en mocht alleen onder zeer speciale omstandigheden daarvan worden afgeweken. Intusschen was ik lid geworden van de plaatselijke Amerikaansche kerk en -club. Ik werd bevriend met den Amerikaanschen dominee Stewart HERMAN, doordat wij gemeenschappelijk kennissen hadden in de Vereenigde Staten van Amerika. Bovendien werd ik lid van den inmiddels door de Gestapo opgeheven Nederlandsche club "Nederland en Oranje", alwaar iederen Donderdagavond bijeenkomsten plaatsvonden. Op die bijeenkomsten ontmoette ik den Heer MILLENAAR van het Zweedsche Gezantschap, die daar zat ter behartiging van de Nederlandsche belangen in Duitschland. Hij was vroeger werkzaam op het Nederlandsche Gezantschap, doch was bij het uitbreken van den oorlog door den Gezant aangewezen om in Berlijn te blijven. MILLENAAR en ik werden spoedig bevriend en er ontstond samenwerking op groote schaal, hetgeen beteekende het onderhouden van zijn contacten in Nederland,(Dit had hoofdzakelijk plaats met den heer MEES van de N.V. Philips, wonende te Rotterdam)en het verstrekken van alle mogelijke hulp in Duitschland zelf, zooals het bezoeken van studenten en arbeiders in ziekenhuizen en werkkampen enz, hetgeen ik op mij nam en deed. Hierbij was veel handigheid vereischt. Ik bleef ca. 3 jaar in Berlijn en had veel moeilijkheden. Ik reisde geregeld op en neer naar Nederland. Ik ben 2 keer aan de ~~germ~~ grens en 2 keer in Duitschaldn aangehouden, doch telkens vrijgelaten, zonder resultaat voor de Duitschers. Intusschen werkte ik ook voor de K.L.M. als tusschenpersoon tusschen Berlijn en PLESMAN en hidd mij bezig met brievensmokkelarij enz. Op 24 December 1943 keerde ik definitief naar Nederland terug. Nadien heb ik in Januari en Februari 1944 nog eenige reizen heen en terug naar Berlijn. Ik was den laatsten tijd nog wel bij N.V. Philips in dienst, doch deed niets.

Op 21 September 1944 kwam ik te EINDHOVEN in contact met Majoor WATERSCHOOT VAN DER GRACHT van de Amerikaansche dienst O.S.S. Hoe die mij kende weet ik niet. Hij vroeg mij of ik hem over Duitschland in wilde lichten, hetgeen ik voor zoover dit in mijn vermogen lag deed. Hij stelde mij voor terug te gaan naar Duitschland, zoogenaamd als een soort gevluchte N.S.B.er, hetgeen echter niet door kon gaan, omdat ik op de zwarte lijst van de N.S.B. stond. Dat ik in Duitschland geen moeilijkheden heb ondervonden was min of meer het gevolg van het feit, dat ik het hoofd van de Gestapo van het Philipsconcern, genaamd Majoor LIESE, goed kende. LIESE had een vreeselijken hekel aan de N.S.B. LIESE was volgens mij goed en is na de laatste beruchte aanslag op HITLER (Goerdelaffaire) door de Duitschers doodgeschoten. LIESE wist niet wat ik deed, doch was de meening toegedaan, dat ik een harde werker van N.V. Philips was.

WATERSCHOOT stelde mij toen voor mij per parachute in Berlijn neer te laten hetgeen ik als zelfmoord beschouwde, aangezien ik te goed in Berlijn bekend ben en daarvan de moeilijkheden kende.

In December 1943

Figure D.894: H. van den Berg. 16 January 1945. Hearing of: van der STEENHOVEN Anthony [Nationaal Archief (Den Haag), Ministerie van Justitie Bureaus Kabinet en Juridische Zaken van de Afdeling Politie (1932-) 1945–1952 (-1968), Blok J36, Toegang 2.09.107, Inv. nr. 931].

In December 1943 had ik te BERLIJN van den Gestapoagent, Inspecteur LANGE, die goed was en in contact stond met MILLENAAR, de tip gekregen Duitschland te verlaten, aangezien mijn activiteiten te verdacht werden.

WATERSCHOOT stelde mij vervolgens voor naar STOCKHOLM te gaan om door tusschenkomst van mijn contacten weer contact op te nemen met MILLENAAR, hetgeen ook weer niet door kon gaan vanwege het gevaar voor MILLENAAR. Tenslotte werd mij voorgesteld, dat ik met de bezettende Amerikaansche troepen BERLIJN zal binnenrukken om door mijn contacten de zaak zoo vlug mogelijk voor elkaar te brengen. Intusschen zou ik dan in LONDEN moeten afwachten tot het zoover zou zijn en inmiddels rapport uitbrengen over mijn bevindingen van het laatste jaar. Dit laatste voorstel is door mij aangenomen. Ik ben thans echter door het Nederlandsche Ministerie van Buitenlandsche Zaken aangezocht om onder de naam van Jacob van BERKEL een propagandatour door de Vereenigde Staten van Amerika te maken.

Op 24 September 1944 vertrok ik per jeep naar BRUSSEL. Op 26 September 1944 met een Amerikaansch vliegtuig van BRUSSEL naar PARIJS en vandaar op 29 September 1944 met een Amerikaansch vliegtuig naar LONDEN, op laatstgenoemde reizen vergezeld van WATERSCHOOT. Na mijn aankomst in LONDEN bezocht ik gedurende die week op 30 September den Minister BURGER (een overbuurman van mij in Nederland), die onmiddellijk den heer F. van 't SANT opbelde. Die week heb ik zonder medeweten van de Engelsche autoriteiten in LONDEN rondgezworven. Op 2 October 1944 had ik weer een onderhoud met den Minister BURGER en op 3 October 1944 met den Minister President GERBRANDY. Van 5 tot 17 October 1944 ben ik verhoord geworden in de R.V.P.S. Op laatstgenoemden datum werd ik afgehaald door een Amerikaansch officier. Op 18 October 1944 had ik een onderhoud met den heer HAARSMA DE WIT, secretaris van den Minister-President GERBRANDY, de laatste Gezant in BERLIJN, die mij mededeelde, dat ik mij bij Minister KLEFFENS moest vervoegen en dien ik op 23 October 1944 bezocht. Ik werd toen aangenomen voor de propagandatour in Amerika. Op 28 October 1944 ben ik ontvangen bij Prinses JULIANA en op 31 October 1944 bij H.M. de KONINGIN.

Daar ik verwachtte in moeilijkheden te zullen komen in verband met het feit, dat ik niet door een officieele instantie van Nederlandsche zijde was gehoord geworden, heb ik U op aanraden van Hugo KLEIN van den Voorlichtingsdienst, dien ik in Netherlands House ontmoette, opgebeld en om een onderhoud verzocht. Mijns inziens was het ook veel beter geweest, dat de Amerikaansche autoriteiten mijn geval niet geheimzinnig behandeld hadden en mij den officieelen weg hadden laten volgen.

Ik ben officieel door Minister KLEFFEN aangenomen met ingang van 3 November 1944.

De N.S.B.ers die ik kende in EINDHOVEN zijn inmiddels opgeruimd. Verdere bijzonderheden kan ik U niet mededeelen.

CONCLUSIE: v.d. STEENHOVEN maakt een gunstigen indruk, doch doet erg gewichtig. Mijns inziens is na dit verhoor moeilijk na te gaan of deze man politiek betrouwbaar is. Daarvoor zouden nadere informaties moeten worden ingewonnen.

Londen, 16 Januari 1945.

De wachtmeester tit. der Kon. Marechaussee,

(H. van den BERG).

OPMERKING: Weer een van de gevallen de Nederlandsche instanties volkomen onkundig waren van de aankomst van een Nederlander. Na opname in de R.V.P.S. werd van andere Engelandvaarders vernomen, dat v.d.S. zich daar bevond en later was hij weer op mysterieuze wijze verdwenen.

H. van den BERG.

Figure D.895: H. van den Berg. 16 January 1945. Hearing of: van der STEENHOVEN Anthony [Nationaal Archief (Den Haag), Ministerie van Justitie Bureaus Kabinet en Juridische Zaken van de Afdeling Politie (1932-) 1945–1952 (-1968), Blok J36, Toegang 2.09.107, Inv. nr. 931].

URGENT — Please call Thursday AM with any suggestions. Sidem

Netherlands Information Bureau
(An Government Agency of the Netherlands)
5 Dupont Circle, N.W., Washington, D.C.
Michigan 3354
17 January 1945

Script for Richard Harkness interview with Jacob van Berkel, NBC, 11:15 PM Friday, Jan. 19, 1945

RH: How long did you spend in Germany?

J. van B: Well, Mr. Harkness, more than three years if we do not count the time I traveled around in other German-occupied countries.

RH: Did you see many Allied air raids there?

J. van B: Oh, yes, almost more than I could bear. I think in Berlin alone about forty-eight.

RH: When were you in Berlin last?

J. van B: The enemy would like to hear that answer too; it might help them with their counter-espionage work, so let's just say, quite recently.

RH: How much of the city was still standing when you left?

J. van B: I'd estimate about 25% slightly damaged, 25% severely damaged, and the rest totally wrecked.

RH: What was life like in Berlin?

J. van B: If you ask me you can't call that life any more, at least in comparison to life in England, and especially over here. You sleep if you can, you wake up if you're alive, you eat if you can get it, you go to your work if you can get there, you come to your home in the evening if it is still there, and that's about all.
I don't want to exaggerate .... Life was comparatively normal inside Germany until the end of 1943 ....Everything was rationed, and the

486

PAGE 2a

J. van B: You wouldn't believe it, but every time a prominent American makes a speech attacking Britain or Russia, or Pravda writes an article criticizing some American or British leader, the Germans headline it in their papers. Dr. Goebbels has found that sort of thing to be the best tonic for German morale.

RH: Did you see any signs of a German underground?

J. van B: For more than three years I've been looking for it, but I could not find any organized resistance, as you find it in the occupied countries. Of course there are a lot of talkers--gripers, you'd call them here--but

PAGE 2

J. van B: system worked .... But since the Allied big-scale air offensive -- added to the loss of their occupied territory, the Nazis have had to cut their rations.... Now, compared to the way Americans are living, it is like a hog to a man.

RH: If things are that bad, how do the Germans feel about the war by now and how can they possibly fight on so vigorously?

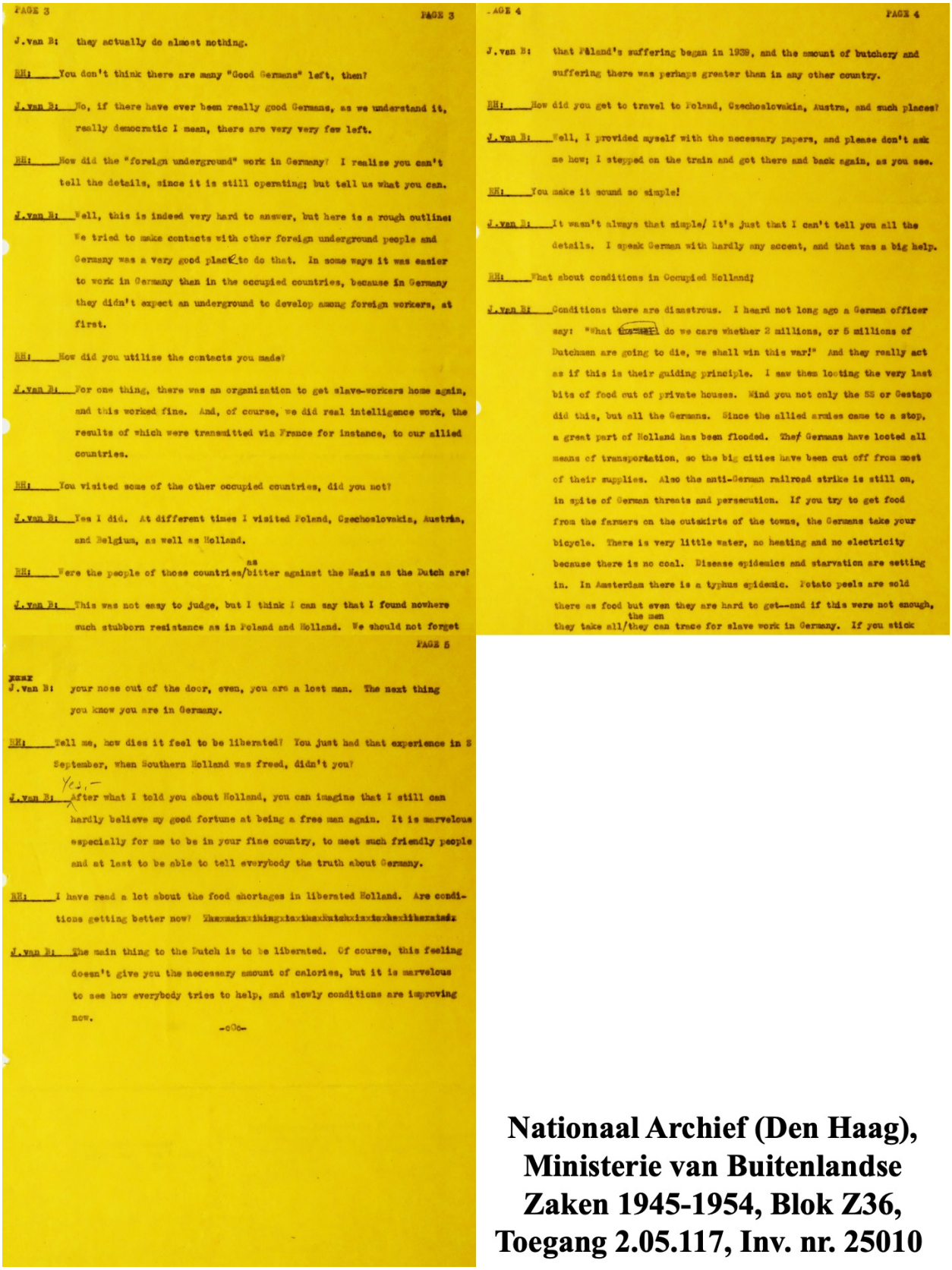
J. van B: Their great fear of extermination is one of the reasons, especially fear of Russia. I do want to say this: It's not the allied demand for unconditional surrender; the Germans have absolutely no illusions about that. It would be the same even if we offered them other conditions. In their papers and speeches they always refer to the fourteen points of Wilson. The German leaders won't let the people forget that in World War One -- when we held out Woodrow Wilson's fourteen points as a basis for the peace -- that nothing came of it them ... So even if we promised them a soft peace, it wouldn't make any difference.
No, far more important is their optimistic view of allied disunion. This gives them every day new courage to fight on. The average German is convinced of the fact that if they can hold on a little longer the allies are going to fight each other. As we say in Holland, it is good fishing in troubled water for the Germans -- or so they think at least.

RH: That's enough to make us stop and think before we get into squabbles with our allies.

J. van B: Yes. I firmly believe that inter-allied dissension costs allied lives.

Nationaal Archief (Den Haag), Ministerie van Buitenlandse Zaken 1945-1954, Blok Z36, Toegang 2.05.117, Inv. nr. 25010

Figure D.896: Script for Richard Harkness interview with Jacob van Berkel, NBC, 19 January 1945 [Nationaal Archief (Den Haag), Ministerie van Buitenlandse Zaken 1945–1954, Blok Z36, Toegang 2.05.117, Inv. nr. 25010].



PAGE 3

J.van B: they actually do almost nothing.

RH: You don't think there are many "Good Germans" left, then?

J.van B: No, if there have ever been really good Germans, as we understand it, really democratic I mean, there are very very few left.

RH: How did the "foreign underground" work in Germany? I realize you can't tell the details, since it is still operating; but tell us what you can.

J.van B: Well, this is indeed very hard to answer, but here is a rough outline: We tried to make contacts with other foreign underground people and Germany was a very good place to do that. In some ways it was easier to work in Germany than in the occupied countries, because in Germany they didn't expect an underground to develop among foreign workers, at first.

RH: How did you utilize the contacts you made?

J.van B: For one thing, there was an organization to get slave-workers home again, and this worked fine. And, of course, we did real intelligence work, the results of which were transmitted via France for instance, to our allied countries.

RH: You visited some of the other occupied countries, did you not?

J.van B: Yes I did. At different times I visited Poland, Czechoslovakia, Austria, and Belgium, as well as Holland.

RH: Were the people of those countries as bitter against the Nazis as the Dutch are?

J.van B: This was not easy to judge, but I think I can say that I found nowhere such stubborn resistance as in Poland and Holland. We should not forget

PAGE 4

J.van B: that Poland's suffering began in 1939, and the amount of butchery and suffering there was perhaps greater than in any other country.

RH: How did you get to travel to Poland, Czechoslovakia, Austria, and such places?

J.van B: Well, I provided myself with the necessary papers, and please don't ask me how; I stepped on the train and got there and back again, as you see.

RH: You make it sound so simple!

J.van B: It wasn't always that simple, It's just that I can't tell you all the details. I speak German with hardly any accent, and that was a big help.

RH: What about conditions in Occupied Holland?

J.van B: Conditions there are disastrous. I heard not long ago a German officer say: "What do we care whether 2 millions, or 5 millions of Dutchmen are going to die, we shall win this war!" And they really act as if this is their guiding principle. I saw them looting the very last bits of food out of private houses. Mind you not only the SS or Gestapo did this, but all the Germans. Since the allied armies came to a stop, a great part of Holland has been flooded. The Germans have looted all means of transportation, so the big cities have been cut off from most of their supplies. Also the anti-German railroad strike is still on, in spite of German threats and persecution. If you try to get food from the farmers on the outskirts of the towns, the Germans take your bicycle. There is very little water, no heating and no electricity because there is no coal. Disease epidemics and starvation are setting in. In Amsterdam there is a typhus epidemic. Potato peels are sold there as food but even they are hard to get--and if this were not enough, the men they take all/they can trace for slave work in Germany. If you stick

PAGE 5

J.van B: your nose out of the door, even, you are a lost man. The next thing you know you are in Germany.

RH: Tell me, how dies it feel to be liberated? You just had that experience in S September, when Southern Holland was freed, didn't you?

J.van B: Yes.— After what I told you about Holland, you can imagine that I still can hardly believe my good fortune at being a free man again. It is marvelous especially for me to be in your fine country, to meet such friendly people and at last to be able to tell everybody the truth about Germany.

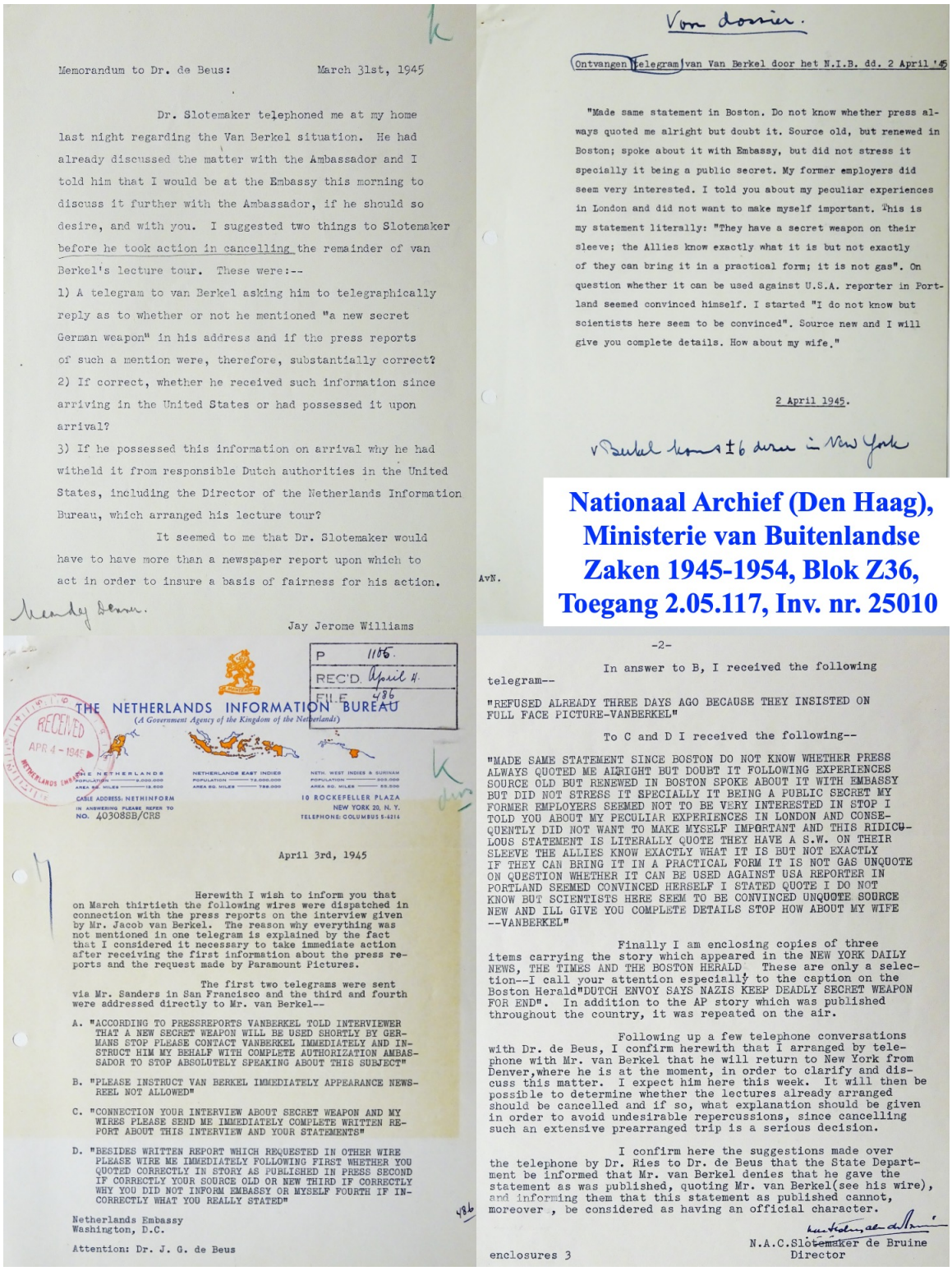
RH: I have read a lot about the food shortages in liberated Holland. Are conditions getting better now?

J.van B: The main thing to the Dutch is to be liberated. Of course, this feeling doesn't give you the necessary amount of calories, but it is marvelous to see how everybody tries to help, and slowly conditions are improving now.

-oOo-

Nationaal Archief (Den Haag), Ministerie van Buitenlandse Zaken 1945-1954, Blok Z36, Toegang 2.05.117, Inv. nr. 25010

Figure D.897: Script for Richard Harkness interview with Jacob van Berkel, NBC, 19 January 1945 [Nationaal Archief (Den Haag), Ministerie van Buitenlandse Zaken 1945–1954, Blok Z36, Toegang 2.05.117, Inv. nr. 25010].



Memorandum to Dr. de Beus: March 31st, 1945

Dr. Slotemaker telephoned me at my home last night regarding the Van Berkel situation. He had already discussed the matter with the Ambassador and I told him that I would be at the Embassy this morning to discuss it further with the Ambassador, if he should so desire, and with you. I suggested two things to Slotemaker before he took action in cancelling the remainder of van Berkel's lecture tour. These were:--

1) A telegram to van Berkel asking him to telegraphically reply as to whether or not he mentioned "a new secret German weapon" in his address and if the press reports of such a mention were, therefore, substantially correct?

2) If correct, whether he received such information since arriving in the United States or had possessed it upon arrival?

3) If he possessed this information on arrival why he had witheld it from responsible Dutch authorities in the United States, including the Director of the Netherlands Information Bureau, which arranged his lecture tour?

It seemed to me that Dr. Slotemaker would have to have more than a newspaper report upon which to act in order to insure a basis of fairness for his action.

Jay Jerome Williams

Van dossier.

Ontvangen telegram van Van Berkel door het N.I.B. dd. 2 April '45

"Made same statement in Boston. Do not know whether press always quoted me alright but doubt it. Source old, but renewed in Boston; spoke about it with Embassy, but did not stress it specially it being a public secret. My former employers did seem very interested. I told you about my peculiar experiences in London and did not want to make myself important. This is my statement literally: "They have a secret weapon on their sleeve; the Allies know exactly what it is but not exactly of they can bring it in a practical form; it is not gas". On question whether it can be used against U.S.A. reporter in Portland seemed convinced himself. I started "I do not know but scientists here seem to be convinced". Source new and I will give you complete details. How about my wife."

2 April 1945.

v Berkel komt 16 dezer in New York

AvN.

Nationaal Archief (Den Haag), Ministerie van Buitenlandse Zaken 1945-1954, Blok Z36, Toegang 2.05.117, Inv. nr. 25010

P 1185.
REC'D April 4.
FILE 486

THE NETHERLANDS INFORMATION BUREAU
(A Government Agency of the Kingdom of the Netherlands)

RECEIVED APR 4 - 1945 NETHERLANDS EMB.

THE NETHERLANDS POPULATION 9.000.000 AREA SQ. MILES 13.000
NETHERLANDS EAST INDIES POPULATION 72.000.000 AREA SQ. MILES 788.000
NETH. WEST INDIES & SURINAM POPULATION 205.000 AREA SQ. MILES 55.000

CABLE ADDRESS: NETHINFORM
IN ANSWERING PLEASE REFER TO NO. 40308SB/CRS

10 ROCKEFELLER PLAZA
NEW YORK 20, N. Y.
TELEPHONE: COLUMBUS 5-4214

April 3rd, 1945

Herewith I wish to inform you that on March thirtieth the following wires were dispatched in connection with the press reports on the interview given by Mr. Jacob van Berkel. The reason why everything was not mentioned in one telegram is explained by the fact that I considered it necessary to take immediate action after receiving the first information about the press reports and the request made by Paramount Pictures.

The first two telegrams were sent via Mr. Sanders in San Francisco and the third and fourth were addressed directly to Mr. van Berkel--

A. "ACCORDING TO PRESSREPORTS VANBERKEL TOLD INTERVIEWER THAT A NEW SECRET WEAPON WILL BE USED SHORTLY BY GERMANS STOP PLEASE CONTACT VANBERKEL IMMEDIATELY AND INSTRUCT HIM MY BEHALF WITH COMPLETE AUTHORIZATION AMBASSADOR TO STOP ABSOLUTELY SPEAKING ABOUT THIS SUBJECT"

B. "PLEASE INSTRUCT VAN BERKEL IMMEDIATELY APPEARANCE NEWSREEL NOT ALLOWED"

C. "CONNECTION YOUR INTERVIEW ABOUT SECRET WEAPON AND MY WIRES PLEASE SEND ME IMMEDIATELY COMPLETE WRITTEN REPORT ABOUT THIS INTERVIEW AND YOUR STATEMENTS"

D. "BESIDES WRITTEN REPORT WHICH REQUESTED IN OTHER WIRE PLEASE WIRE ME IMMEDIATELY FOLLOWING FIRST WHETHER YOU QUOTED CORRECTLY IN STORY AS PUBLISHED IN PRESS SECOND IF CORRECTLY YOUR SOURCE OLD OR NEW THIRD IF CORRECTLY WHY YOU DID NOT INFORM EMBASSY OR MYSELF FOURTH IF INCORRECTLY WHAT YOU REALLY STATED"

Netherlands Embassy
Washington, D.C.

Attention: Dr. J. G. de Beus

-2-

In answer to B, I received the following telegram--

"REFUSED ALREADY THREE DAYS AGO BECAUSE THEY INSISTED ON FULL FACE PICTURE-VANBERKEL"

To C and D I received the following--

"MADE SAME STATEMENT SINCE BOSTON DO NOT KNOW WHETHER PRESS ALWAYS QUOTED ME ALRIGHT BUT DOUBT IT FOLLOWING EXPERIENCES SOURCE OLD BUT RENEWED IN BOSTON SPOKE ABOUT IT WITH EMBASSY BUT DID NOT STRESS IT SPECIALLY IT BEING A PUBLIC SECRET MY FORMER EMPLOYERS SEEMED NOT TO BE VERY INTERESTED IN STOP I TOLD YOU ABOUT MY PECULIAR EXPERIENCES IN LONDON AND CONSEQUENTLY DID NOT WANT TO MAKE MYSELF IMPORTANT AND THIS RIDICULOUS STATEMENT IS LITERALLY QUOTE THEY HAVE A S.W. ON THEIR SLEEVE THE ALLIES KNOW EXACTLY WHAT IT IS BUT NOT EXACTLY IF THEY CAN BRING IT IN A PRACTICAL FORM IT IS NOT GAS UNQUOTE ON QUESTION WHETHER IT CAN BE USED AGAINST USA REPORTER IN PORTLAND SEEMED CONVINCED HERSELF I STATED QUOTE I DO NOT KNOW BUT SCIENTISTS HERE SEEM TO BE CONVINCED UNQUOTE SOURCE NEW AND ILL GIVE YOU COMPLETE DETAILS STOP HOW ABOUT MY WIFE --VANBERKEL"

Finally I am enclosing copies of three items carrying the story which appeared in the NEW YORK DAILY NEWS, THE TIMES AND THE BOSTON HERALD. These are only a selection--I call your attention especially to the caption on the Boston Herald"DUTCH ENVOY SAYS NAZIS KEEP DEADLY SECRET WEAPON FOR END". In addition to the AP story which was published throughout the country, it was repeated on the air.

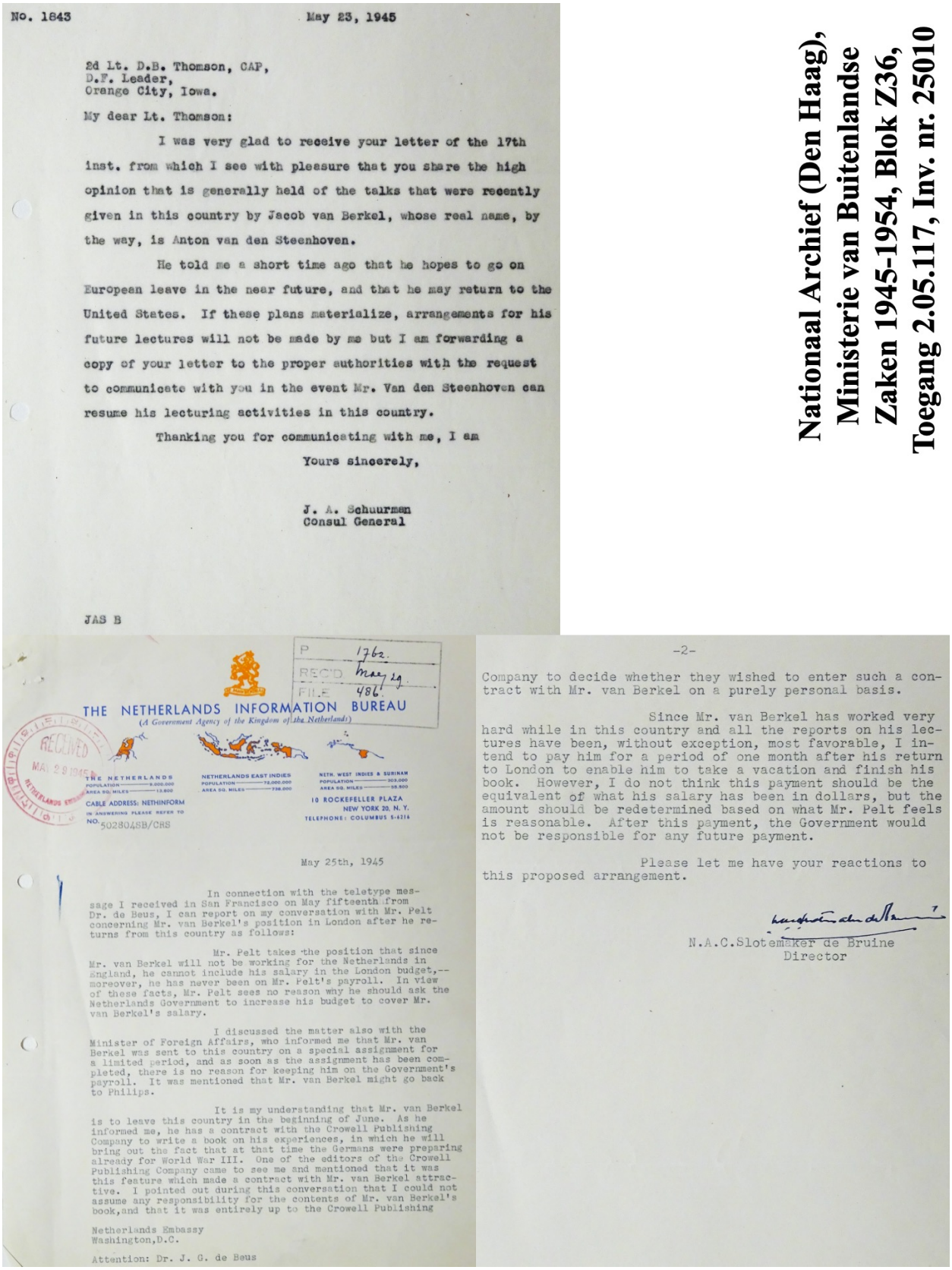
Following up a few telephone conversations with Dr. de Beus, I confirm herewith that I arranged by telephone with Mr. van Berkel that he will return to New York from Denver, where he is at the moment, in order to clarify and discuss this matter. I expect him here this week. It will then be possible to determine whether the lectures already arranged should be cancelled and if so, what explanation should be given in order to avoid undesirable repercussions, since cancelling such an extensive prearranged trip is a serious decision.

I confirm here the suggestions made over the telephone by Dr. Ries to Dr. de Beus that the State Department be informed that Mr. van Berkel denies that he gave the statement as was published, quoting Mr. van Berkel(see his wire), and informing them that this statement as published cannot, moreover , be considered as having an official character.

N.A.C.Slotemaker de Bruine
Director

enclosures 3

Figure D.898: Anthony van der Steenhoven, 2 April 1945: "Made same statement in Boston. Do not know whether press always quoted me alright but doubt it. Source old, but renewed in Boston; spoke about it with Embassy, but did not stress it specially it being a public secret. My former employers did seem very interested. I told you about my peculiar experiences in London and did not want to make myself important. This is my statement literally: 'They have a secret weapon on their sleeve; the Allies know exactly what it is but not exactly if they can bring it in a practical form; it is not gas'. On question whether it can be used against U.S.A. reporter in Portland seemed convinced himself. I started 'I do not know but scientists here seem to be convinced'. Source new and I will give you complete details." [Nationaal Archief (Den Haag), Ministerie van Buitenlandse Zaken 1945–1954, Blok Z36, Toegang 2.05.117, Inv. nr. 25010].



No. 1843 May 23, 1945

2d Lt. D.B. Thomson, CAP,
D.F. Leader,
Orange City, Iowa.

My dear Lt. Thomson:

I was very glad to receive your letter of the 17th inst. from which I see with pleasure that you share the high opinion that is generally held of the talks that were recently given in this country by Jacob van Berkel, whose real name, by the way, is Anton van den Steenhoven.

He told me a short time ago that he hopes to go on European leave in the near future, and that he may return to the United States. If these plans materialize, arrangements for his future lectures will not be made by me but I am forwarding a copy of your letter to the proper authorities with the request to communicate with you in the event Mr. Van den Steenhoven can resume his lecturing activities in this country.

Thanking you for communicating with me, I am

Yours sincerely,

J. A. Schuurman
Consul General

JAS B

P 1762
RECD May 29
FILE 486

THE NETHERLANDS INFORMATION BUREAU
(A Government Agency of the Kingdom of the Netherlands)

RECEIVED MAY 29 1945 NETHERLANDS EMBASSY

THE NETHERLANDS
POPULATION 9,000,000
AREA SQ. MILES 13,800

NETHERLANDS EAST INDIES
POPULATION 72,000,000
AREA SQ. MILES 736,000

NETH. WEST INDIES & SURINAM
POPULATION 303,000
AREA SQ. MILES 58,500

CABLE ADDRESS: NETHINFORM
IN ANSWERING PLEASE REFER TO NO. 502804SB/CRS

10 ROCKEFELLER PLAZA
NEW YORK 20, N. Y.
TELEPHONE: COLUMBUS 5-4216

May 25th, 1945

In connection with the teletype message I received in San Francisco on May fifteenth from Dr. de Beus, I can report on my conversation with Mr. Pelt concerning Mr. van Berkel's position in London after he returns from this country as follows:

Mr. Pelt takes the position that since Mr. van Berkel will not be working for the Netherlands in England, he cannot include his salary in the London budget,-- moreover, he has never been on Mr. Pelt's payroll. In view of these facts, Mr. Pelt sees no reason why he should ask the Netherlands Government to increase his budget to cover Mr. van Berkel's salary.

I discussed the matter also with the Minister of Foreign Affairs, who informed me that Mr. van Berkel was sent to this country on a special assignment for a limited period, and as soon as the assignment has been completed, there is no reason for keeping him on the Government's payroll. It was mentioned that Mr. van Berkel might go back to Philips.

It is my understanding that Mr. van Berkel is to leave this country in the beginning of June. As he informed me, he has a contract with the Crowell Publishing Company to write a book on his experiences, in which he will bring out the fact that at that time the Germans were preparing already for World War III. One of the editors of the Crowell Publishing Company came to see me and mentioned that it was this feature which made a contract with Mr. van Berkel attractive. I pointed out during this conversation that I could not assume any responsibility for the contents of Mr. van Berkel's book,and that it was entirely up to the Crowell Publishing

Netherlands Embassy
Washington,D.C.

Attention: Dr. J. G. de Beus

-2-

Company to decide whether they wished to enter such a contract with Mr. van Berkel on a purely personal basis.

Since Mr. van Berkel has worked very hard while in this country and all the reports on his lectures have been, without exception, most favorable, I intend to pay him for a period of one month after his return to London to enable him to take a vacation and finish his book. However, I do not think this payment should be the equivalent of what his salary has been in dollars, but the amount should be redetermined based on what Mr. Pelt feels is reasonable. After this payment, the Government would not be responsible for any future payment.

Please let me have your reactions to this proposed arrangement.

N.A.C.Slotemaker de Bruine
Director

Nationaal Archief (Den Haag), Ministerie van Buitenlandse Zaken 1945-1954, Blok Z36, Toegang 2.05.117, Inv. nr. 25010

Figure D.899: N. A. C. Slotemaker de Bruine, 25 May 1945: "Mr. van Berkel... has a contract with the Crowell Publishing Company to write a book on his experiences, in which he will bring out the fact that at that time the Germans were preparing already for World War III." [Nationaal Archief (Den Haag), Ministerie van Buitenlandse Zaken 1945–1954, Blok Z36, Toegang 2.05.117, Inv. nr. 25010].

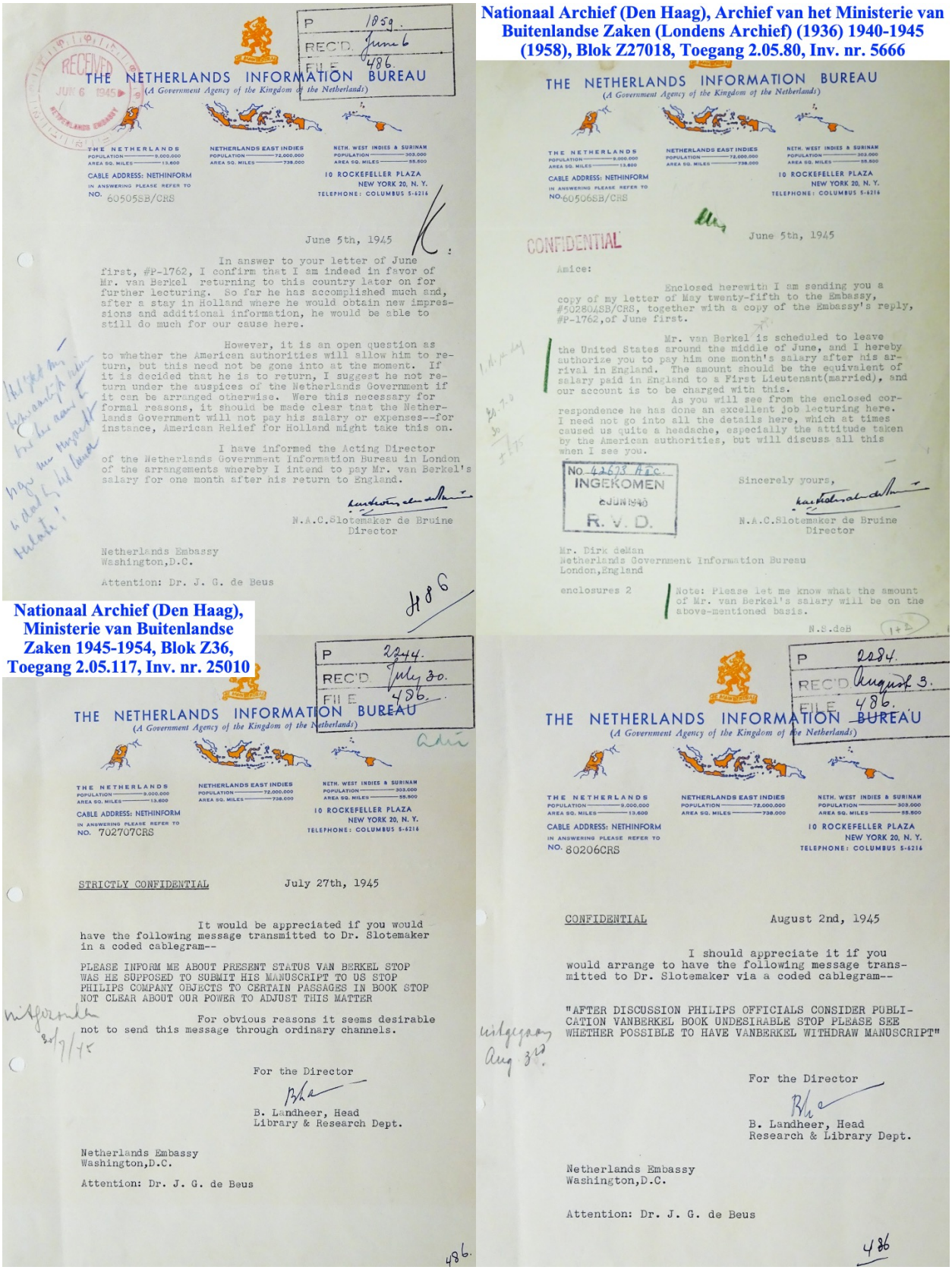


Figure D.900: Both Philips Eindhoven and unnamed U.S. government officials (likely censors from Leslie Groves's office) blocked van der Steenhoven from publicly revealing what he knew about the German nuclear program [Nationaal Archief (Den Haag), Ministerie van Buitenlandse Zaken 1945–1954, Blok Z36, Toegang 2.05.117, Inv. nr. 25010; Archief van het Ministerie van Buitenlandse Zaken (Londens Archief) (1936) 1940–1945 (1958), Blok Z27018, Toegang 2.05.80, Inv. nr. 5666].

DECLASSIFIED
Authority NND 971077

NARA RG 77, Entry UD-22A, Box 169, Folder British Liason

Personnel

British:

Portal	Margaret
Perrin	Lizzy
Welsh	Peggy
Mann	Alice
Todd	Jane
Cowman	Mary
Davis	Nancy
Ford	Anne
Penny	Pearl
Rowley	Rose
Cockcroft	Katy
Blount	Pansy
Davidson, C. S.	Isabel

American: Chase Josie

Kessinger	Jack
Penfield	Joe
Weber	Jim
Brasted	Jake
Baroody	Jones
Benson	Willie
Lowenhaupt	Walter
Quigley	Bill
DuBois	Percy
Ingraham	Oswalt
Rogers	Oscar
Hubbard	Mabel
Nichols	Sandy
Kirkpatrick	Jackson
Betts	Cecil
Langguth	John
Colby	James
Kramish	James, Jr.
Goudsmit	Writer of the "book"

Others:

Scherrer	Jeanne
Kowarski	Marie
Joliot	Linda
Goldschmidt	Susan
Randers	Helen
Bohr	Hazel
Seigbahn	Sue
Bakker	Proffessor
J. Kistemaker	Oliver

Places

Countries:

England	New York
France	Maine
Germany	Delaware
Italy	Ohio
Switzerland	Maryland
Sweden	Iowa
USSR	Texas
Czechoslovakia	Nevada
Bulgaria	Kentucky
Poland	Dakota

Cities and Installations:

Britain:

Harwell	Newton
London	~~Pine~~ Erie
Aldermaston	Cleveland
Risley	Chicago
Springfields	Dover
Windscale	Wyoming
Capenhurst	Lancaster

France:

Paris	Portland
Saclay	Cleveland
Fort Chatillon	Savannah

Germany:

Bitterfeld	Boise
Heidleberg	Felton
Berlin	Avon
Karlsruhe	Berkeley
Munich	Bethlehem
Frankfurt	Seattle

Others:

Salzberg	Easton
Amsterdam	Richmond
Zurich	Burlington
Moscow	St. Louis
Vienna	Biloxi

Figure D.901: Jacob Kistemaker was one of the developers of uranium gas centrifuges; his code name "Oliver" (bottom left) appeared on a postwar list of other U.S./U.K. intelligence sources [NARA RG 77, Entry UD-22A, Box 169, Folder British Liason]. Kistemaker's wartime work and allegiances are rather murky [Goudsmit 1947, pp. 37–46; Klinkenberg 1971; Van Calmthout 2018, pp. 129–148]. How much did he know and reveal about the wartime German nuclear program?

Samuel Goudsmit to Jan Hendrik de Boer. 1 March 1946. [American Institute of Physics Niels Bohr Library & Archives. Samuel A. Goudsmit papers. Series 04: Alsos Mission. Subseries A. Alsos Mission material. Box 25, Folder 08, Dutch intelligence, 1944–1948. https://repository.aip.org/islandora/object/nbla:252943#page/1/mode/2up]

March 1, 1946

Col. J. H. De Boer
Netherlands Government
Arlington House
London W 1, England

Dear De Boer:

I have had some dealings with the Netherlands Attaché in Paris and recently received a cable from them asking some important information. I now received a letter from Rosbaud in which he mentions that the colonel in question has been dismissed. I would appreciate getting some more information about this and would like to know who is taking his place.

I hear that you are staying [in] England. I had a very interesting trip on the continent. I returned straight from there to the States in October [1945] and had to give up my plan to spend a couple of weeks in England. [...]

[Jan Hendrik de Boer (Dutch, 1899–1971) was a physical chemist who was closely connected with the Dutch and German scientific communities. He was apparently one of the leaders of a Dutch spy network that obtained information on the wartime German nuclear program. The Manhattan Project contacted him in 1944 via Samuel Goudsmit (p. 4398).

Paul Rosbaud (Austrian, 1896–1963) worked as a metallurgist in Germany but secretly provided information on the German nuclear program to U.K. and U.S. intelligence.

Samuel Goudsmit's entire folder of Dutch intelligence on the German nuclear program [NARA RG GOUDS, Entry UD-7420, Box 3] remains classified and unavailable 75+ years after the war ended (Fig. D.902). Why is that the case, if the German nuclear program said to be so small and ineffective?]

RG: 200
ENTRY: GOUDSMIT PAPERS
BOX: 3

TAB #: (112)
1 / 27 / C
COPIES / PPS. / CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation NETHERLANDS INTELLIGENCE (Hist. Off. Inquiry Ctt. Box 4 Folder 7)
— ENTIRE FOLDER —

Date 00/00/1945

From

To

In the review of this file this item was removed because access to it is restricted. Restrictions on records in the National Archives are stated in general and specific record group restriction statements which are available for examination. The item identified above has been withdrawn because it contains:

☒ Security-Classified Information
☐ Otherwise Restricted Information

WITHDRAWAL NOTICE

NND 933079
Authority

06 October 1993
Date

Withdrawn by

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION

NA FORM 14000 (5-92)

Figure D.902: Samuel Goudsmit's entire folder of Dutch intelligence on the German nuclear program remains classified and unavailable [NARA RG GOUDS, Entry UD-7420, Box 3].

Dutch Aide Seized as Spy in Prague. *New York Times* 29 August 1948.

Police Say He Confessed and Named Foreign Superiors—Czech Group Also Accused

[...] The police disclosed that Leonardus Bartolomeous van Dam, described as investigation officer at the Netherlands Embassy, had been taken into custody together with a group of Czechoslovaks.

Mr. van Dam confessed to police, according to an official announcement, and gave the names of Netherlands officials who instructed him to carry on military and political espionage in Czechoslovakia. The same official announcement said several important documents were found on him and that these seriously implicated other subjects of Netherlands in espionage in Czechoslovakia. The documents, according to the statement, reveal the methods of the foreign intelligence service in question and the tasks laid down of its agents to execute.

Dutch officials told the United Press that Mr. van Dam was attached to the Netherlands Ministry of Social Affairs and did not have diplomatic immunity. He had been collecting death certificates and other data on Dutch slave laborers under the German occupation in Czechoslovakia. [...]

[Leonardus Bartholomeus van Dam (1917–1983; https://www.tracesofwar.com/persons/65909/Dam-van-Leonardus-Bartholomeus.htm) was a very important Dutch spy working for the resistance and reporting to the Allies during the war, and from this report he apparently continued to spy on German technologies and sites after the war.

Even for at least three years after the war ended, Dutch intelligence continued to collect information on wartime German secret weapons programs that had been conducted in Czech territory (and elsewhere), and on how the advanced technology left over from those programs was being exploited by Russian and Czech military forces. That seems to be another indicator of how advanced and how strategically important the wartime German programs were.

Can files detailing the wartime German secret weapons programs, as well as their postwar investigation and exploitation, be located in Dutch archives and released to the public now?]

D.14.4 French Intelligence

[In a fashion highly analogous with Dutch intelligence, there is evidence that French intelligence may have provided information about the German nuclear weapons program to the United States during and after the war.]

Rodney P. Carlisle, ed. 2005. *Encyclopedia of Intelligence and Counterintelligence.* New York: M.E. Sharpe. p. xxi.

c. 1940
Jacques Bergier of the Red Orchestra network helps establish French MARCO POLO group which gains information about German atomic program under Werner Heisenberg and the development of the V-1 and V-2 rockets.

Présidence du Gouvernement Provisoire de la République Française. 30 April 1945. No. 205/2. English translation. [Document courtesy of Andreas Sulzer]

Source: Commandant CHIGOT

Origins: Interrogation of repatriates of the Reprisal Camp of MAUTHAUSEN, particularly the following:

MARCO POLO whose correct name is not known, but is probably known to the D.G.E.R.

RABATE, member of the Communist Party, whose wife is Communist Municipal Councilor in Paris.

Information received indicates that the Germans started on 22 April the massacre of the 80,000 men and women interned in this camp.

These massacres would be completed before the arrival of Russian troops.

Mr. BURCKARDT sent a message, by a convoy leaving for MAUTHAUSEN, to the German commander of the camp, warning him that he would be held responsible if these massacres continued.

It would seem necessary to intervene by force, or if that is impossible to parachute arms and ammunition in order to at least permit these men to defend themselves before being killed.

The Germans have removed from MAUTHAUSEN the Spanish Communists and the Austrian anti-Nazis, dressed them in SS uniforms, and placed them on the bridge of LINZ to be massacred by the Russian troops.

In Block VI of the camp at MAUTHAUSEN is M. Jacques BERGIER, a great specialist on the splitting of the atom.

The Germans have given him a false identification as a Polish Jew; it is requested that everything humanly possible be done to find M. J. BERGIER and to save him regardless of cost.

Jacques Bergier. 1977. *Je Ne Suis Pas Une Legend.* Paris: Retz. pp. 131–132.

Le convoi qui m'emmenait de Sarrebruck arriva à Mauthausen dans la soirée du 2 avril 1944. [...]

Personnellement, je n'ai quitté le camp que le 19 mai 1945, car avant d'être rapatrié par avion, il me fallait régler un certain nombre de problèmes d'importance vitale pour l'avenir. J'avais en effet reçu des confidences, *in articulo mortis*, donnant la solution d'importantes affaires de trahison et il convenait d'en avertir immédiatement le gouvernement français afin qu'il procède à l'arrestation des coupables, ce qui fut fait. Je possédais aussi des renseignements sur de nouvelles armes allemandes et sur les endroits où l'on pouvait soit les trouver à l'état de prototype, soit se procurer la documentation les concernant. Près de huit cents kilomètres de microfilms sur les armes secrètes ont été ainsi découverts.

The convoy that took me from Saarbrücken arrived in Mauthausen on the evening of 2 April 1944. [...]

Personally, I did not leave the camp until 19 May 1945, because before being repatriated by plane, I had to solve a number of problems of vital importance for the future. I had indeed received confidences, at the moment of death, giving the solution of important treason cases and it was necessary to immediately inform the French government so that it could arrest the guilty parties, which was done. I also had information on new German weapons and where they could be found in prototype form or where to obtain documentation about them. Thus nearly eight hundred kilometers of microfilm on secret weapons have been discovered.

[Jacques Bergier had a scientific background, like many others who were sent to the underground Gusen facilities that were part of the St. Georgen-Gusen-Mauthausen camp system [https://www.jewishgen.org/databases/Holocaust/0117_Mauthausen-Gusen-Death-Book.html]. From the available documentation and Bergier's own writings, it is very unclear what work he did at Gusen, but it may have been related to his knowledge of nuclear physics. The fact that even the scientific prisoners at Gusen were issued false identification papers suggests an extreme level of security about the work that was conducted there.

From the available documentation, Bergier and his associates appear to have provided valuable information about German technologies to Allied intelligence, both during and after the war. That suggests that at least parts of those technologies were being developed at Gusen. However, it is quite unclear just what the technologies or the information were.

Can additional relevant documents be located and released from French, U.S., or other archives? Where is the "nearly eight hundred kilometers of microfilm on secret weapons"?]

SECRET

Germ: Re.

AMERICAN EMBASSY
OFFICE OF THE MILITARY ATTACHÉ
1, GROSVENOR SQUARE, W. 1
LONDON, ENGLAND

17 April 1945

Subject: Secret Weapon Experiments In "German Redoubt".

To : Major F. J. Smith, Room 5119, New War Dept. Bldg., Washington, D. C.

On 14 April 1945, at 1034 hours, the French Telegraph Service broadcasted the following which is thought to be of interest to your office:

"German border: Somewhere in the "German redoubt", there are reported to exist great underground laboratories where scientists and technicians have been ordered by Hitler personally to go on with experiments with new secret weapons. The Fuehrer feverishly follows their work. The weapons are said to include 'V6', the famous atomic bomb. They had already vainly tried to work on this in the thick-walled, windowless casemates discovered in Strasbourg. They contained a special apparatus for producing an electric arc of enormous power, which was used for researches in the disintergration of matter. In addition to reserves already accumulated, the laboratories in the 'redoubt' are still producing gas. One of these gases is harmless in the open air, but becomes toxic by contact and chemical combination with the substances in the intake tube (cartouche) of gas-masks, meant to neutralise the action of other gases."

For the Military Attache:

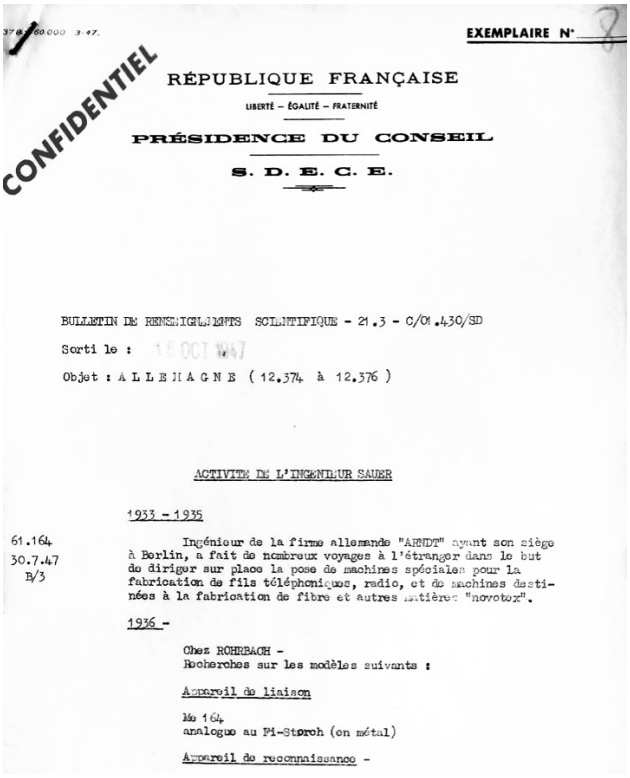
H. K. CALVERT
Major, F.A.
Assistant to the Military Attaghe.

dup cy destroyed 17 Jan 67 RL

SECRET

Briefed not/4 R

Figure D.903: Example of a wartime French report on high-priority work toward a German atomic bomb involving high-voltage machines for what sounds like electromagnetic isotope separation or electronuclear breeding. Horace K. Calvert to Francis J. Smith. 17 April 1945. Subject: Secret Weapon Experiments in "German Redoubt". [NARA RG 77, Entry UD-22A, Box 165, Folder ALSOS MATERIAL]



CONFIDENTIEL

EXEMPLAIRE N° 2

RÉPUBLIQUE FRANÇAISE

LIBERTÉ – ÉGALITÉ – FRATERNITÉ

PRÉSIDENCE DU CONSEIL

S. D. E. C. E.

BULLETIN DE RENSEIGNEMENTS SCIENTIFIQUE - 21.3 - C/01.430/SD

Sorti le : 15 OCT 1947

Objet : ALLEMAGNE (12.374 à 12.376)

ACTIVITE DE L'INGENIEUR SAUER

1933 - 1935

61.164
30.7.47
B/3

Ingénieur de la firme allemande "ARNDT" ayant son siège à Berlin, a fait de nombreux voyages à l'étranger dans le but de diriger sur place la pose de machines spéciales pour la fabrication de fils téléphoniques, radio, et de machines destinées à la fabrication de fibre et autres matières "novotex".

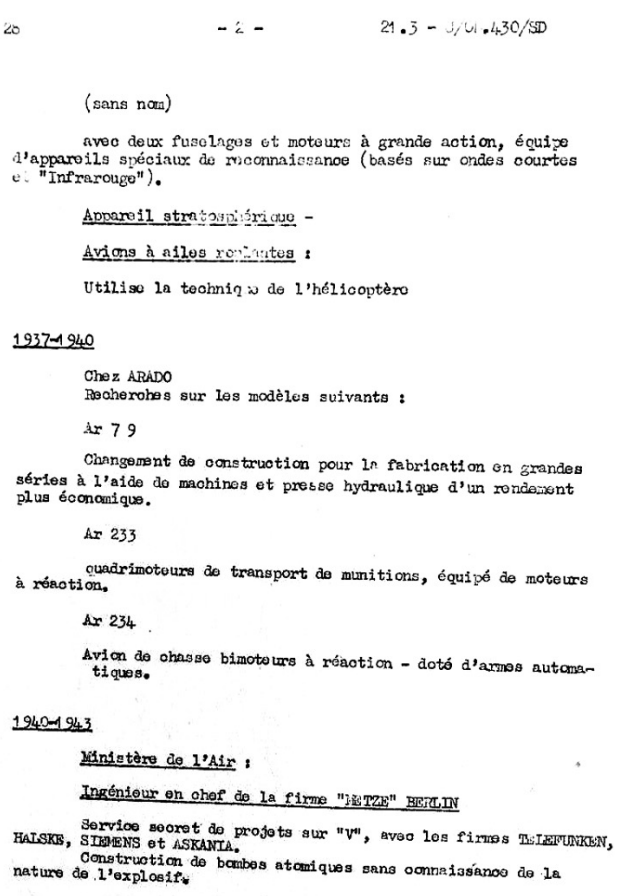
1936 -

Chez ROHRBACH -
Recherches sur les modèles suivants :

Appareil de liaison

Ro 164
analogue au Fi-Storch (en métal)

Appareil de reconnaissance -



28 - 2 - 21.3 - C/01.430/SD

(sans nom)

avec deux fuselages et moteurs à grande action, équipé d'appareils spéciaux de reconnaissance (basés sur ondes courtes et "Infrarouge").

Appareil stratosphérique -

Avions à ailes rentantes :

Utilise la technique de l'hélicoptère

1937-1940

Chez ARADO
Recherches sur les modèles suivants :

Ar 7 9

Changement de construction pour la fabrication en grandes séries à l'aide de machines et presse hydraulique d'un rendement plus économique.

Ar 233

quadrimoteurs de transport de munitions, équipé de moteurs à réaction.

Ar 234

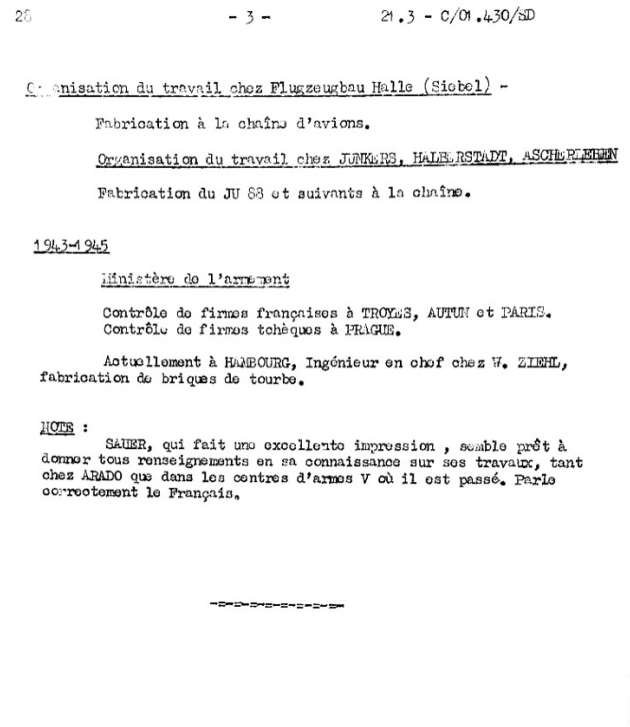
Avion de chasse bimoteurs à réaction - doté d'armes automatiques.

1940-1943

Ministère de l'Air :

Ingénieur en chef de la firme "METZE" BERLIN

Service secret de projets sur "V", avec les firmes TELEFUNKEN, HALSKE, SIEMENS et ASKANIA.
Construction de bombes atomiques sans connaissance de la nature de l'explosif.



28 - 3 - 21.3 - C/01.430/SD

Organisation du travail chez Flugzeugbau Halle (Siebel) -

Fabrication à la chaîne d'avions.

Organisation du travail chez JUNKERS, HALBERSTADT, ASCHERLEBEN

Fabrication du JU 88 et suivants à la chaîne.

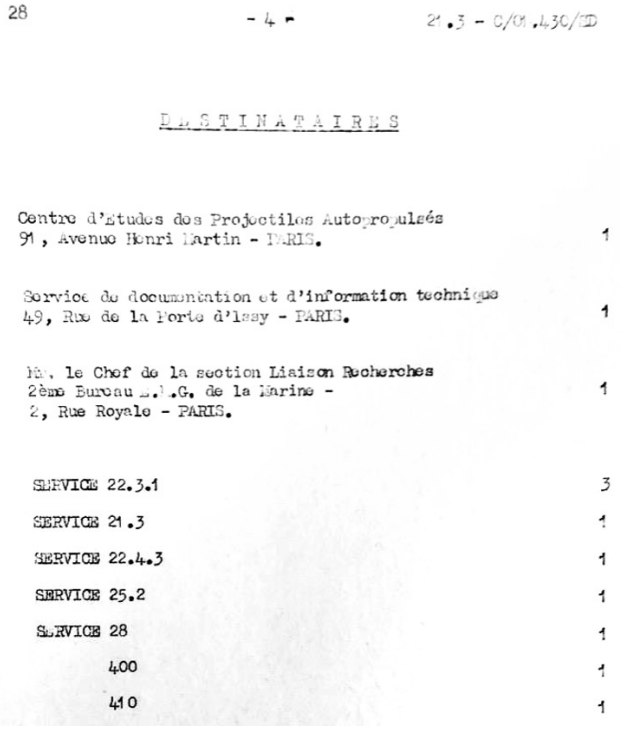
1943-1945

Ministère de l'armement

Contrôle de firmes françaises à TROYES, AUTUN et PARIS.
Contrôle de firmes tchèques à PRAGUE.

Actuellement à HAMBOURG, Ingénieur en chef chez W. ZIEHL, fabrication de briques de tourbe.

NOTE :
SAUER, qui fait une excellente impression , semble prêt à donner tous renseignements en sa connaissance sur ses travaux, tant chez ARADO que dans les centres d'armes V où il est passé. Parle correctement le Français.



28 - 4 - 21.3 - C/01.430/SD

DESTINATAIRES

Centre d'Etudes des Projectiles Autopropulsés
91, Avenue Henri Martin - PARIS. 1

Service de documentation et d'information technique
49, Rue de la Porte d'Issy - PARIS. 1

M. le Chef de la section Liaison Recherches
2ème Bureau E.M.G. de la Marine -
2, Rue Royale - PARIS. 1

SERVICE 22.3.1 3

SERVICE 21.3 1

SERVICE 22.4.3 1

SERVICE 25.2 1

SERVICE 28 1

400 1

410 1

Figure D.904: After the war, France hired many Germans who had worked on the nuclear weapons program (e.g., pp. 2069, 4921, 5698), such as engineer Saur, who had expertise in mechanical and electrical engineering and had constructed non-nuclear components of "atomic bombs" for "V projects" (missiles) from 1940 to 1943 [Archives of the French Army Ministry of Defense, courtesy of Norberto Lahuerta].

D.14.5 German and Japanese Submarines

[In May 1945, the German submarine U-234 surrendered to the United States and was found to be carrying a large and diverse cargo of high-tech materials (including uranium), prototypes, plans, and scientific experts originally intended for Japan. Details of that cargo and how it was ultimately used by the United States remain very mysterious, despite the efforts of a number of investigators [e.g., Brooks 1992, 2002; Grunden 2005; Gutzeit 2001; Hirschfeld 1991; Hirschfeld and Brooks 1996; Hydrick 1998, 2016; Naujoks and Nelson 2002; Scalia 2000; Sellwood 1956; Robert K. Sutton. 2021; Trevethan 1999; Wilcox 2019; *Boston Globe* 1993-07-27; NYT 1995-12-31].

Note that a number of other German and Japanese submarines evacuating materials, documents, and personnel from Germany were also captured or sunk by Allies, or made it through to countries such as Japan and Argentina; details of what those submarines carried are even less clear than for U-234.]

Wolfgang Hirschfeld, Chief Radio Operator of U-234. Wolfgang Hirschfeld and Geoffrey Brooks. 1996. *Hirschfeld: The Story of a U-Boat NCO 1940-1946.* Annapolis, Maryland: Naval Institute Press. pp. 198–200, 216–217. [Hirschfeld's spelling, Falk, has been corrected to Falck in the passage below.]

The most important and secret item of cargo, the uranium oxide, which I believe was highly radioactive, was loaded into one of the vertical steel tubes one morning in February, 1945. Two Japanese officers were to travel aboard *U-234* on the voyage to Tokyo: Air Force Colonel Genzo Shosi, an aeronautical engineer, and Navy Captain Hideo Tomonaga, a submarine architect who, it will be recalled, had arrived in France aboard *U-180* about eighteen months previously with a fortune in gold for the Japanese Embassy in Berlin. I saw these two officers seated on a crate on the forecasing engaged in painting a description in black characters on the brown paper wrapping gummed around each of a number of containers of uniform size. At the time I didn't see how many containers there were, but the Loading Manifest showed ten. Each case was a cube, possibly steel and lead, nine inches along each side and enormously heavy.

Once the inscription *U235* had been painted on the wrapping of a package, it would then be carried over to the knot of crewmen under the supervision of Sub-Lt Pfaff and the Boatswain, Peter Schölch, and stowed in one of the six vertical mineshafts.

I asked Tomonaga what the lead cubes contained, and he said, 'It is the cargo from *U-235*. That boat is no longer going to Japan.' When I enquired at the 5th Flotilla Office, they told me that *U-235* was a small Type VII training U-boat which had never been earmarked for operations outside the Baltic. So I knew that Tomonaga had lied to me. I mentioned all this to Lt Cdr Fehler that evening, but he told me not to bring up the subject again with the Japanese. Recently I was informed by the naval historian Professor Jürgen Rohwer that the nuclear material had been requested, probably in the military attaché code, at the end of December, 1944, or very early in 1945. The Japanese Military Attaché in Berlin, Kigoishi, organized the transport of the material with the German authorities and from the quayside at Kiel had watched the loading of the ten cases of uranium oxide into *U-234*. This seemed to me to confirm that the uranium oxide was of a nature which rendered it of especial value to the Japanese.

When the loading of *U-234* was finished it was estimated that the total weight of the cargo was 260 tons.

[...] The eleven passengers boarding in Germany were the two Japanese, Lt Cdr Richard Bulla, a specialist in air-sea cooperation, who was also the First Lieutenant, and the following eight;

> Colonel Fritz Sandrath (Luftwaffe); former head of Bremen AA defences.
>
> Colonel Erich Menzel (Luftwaffe): technical aide to the Air Attaché, communications
>
> Lt Cdr Heinrich Hellendorn (Navy); specialist in naval AA gunnery.
>
> Captain (Eng.) (S) Heinz Schlicke (Navy, honorary rank); radar, infra-red and direction finding scientist.
>
> Lt Colonel Kai Nieschling (Luftwaffe): Nazi military judge.
>
> Captain Gerhard Falck (Navy): specialist in shipbuilding and design.
>
> August Bringewald: Senior Messerschmitt engineer, Me 262, Me 163 and rocketry.
>
> Franz Ruf: procurement specialist for Messerschmitt.

[Did U-234 carry additional technical experts not listed here? See p. 4891.]

The final passenger was to board in Norway. Nieschling, the judge, was going to investigate allegations against Embassy staff implicated in the Sorge spy scandal and to keep an eye on other passengers during the voyage. The two Japanese, Nieschling and Falck slept in the deck below the NCO's quarters while all remaining passengers slept where they could.

The US National Archive has now declassified a document under reference *373/3679/Box 22/FOLDER OP-16-Z Day File 1/1/45*. This is a memorandum concerning the interrogation of Judge Nieschling. No Memorandum regarding the interrogation of Captain Gerhard Falck has ever been released.

Personally I saw very little of Falck who never socialized except with the Judge.

In the Memorandum [...] Nieschling said that 'the meaning behind the ore' was known to Gerhard Falck, who had taken some secret courses before he boarded *U-234* and was to be chief technician on all naval matters in Tokyo under Admiral Wenneker.

On the afternoon of 25 March, 1945, squatting low in the water from all the fuel, ammunition, provisions, and cargo she had aboard, *U-234* dieseled out of the U-boat basin into the Förde.

[... After surrendering to the USS *Sutton*:] The *Sutton* dropped anchor outside the harbour of Portsmouth, New Hampshire, on the glorious morning of 19 May, 1945. [...]

The ten specialists were driven off to a secret destination. We located them all after the war with the exception of Captain Gerhard Falck. Possibly, like Peter Schölch, our Boatswain, and Lt Pfaff, who loaded and unloaded the uranium cases, he accepted US citizenship in exchange for his silence. But as Judge Nieschling said, Falck knew everything about the uranium oxide, and he probably knew too much for his own good. His eventual fate after he disappeared into the abyss on 19 May, 1945, remains a mystery.

[Gerhard Falck was apparently the resident expert on the uranium and how to use it. Note that he was closely guarded during the voyage and mysteriously vanished after it. In the publicly available transcripts of his May–July 1945 interrogations by U.S. authorities, the uranium is never mentioned [NARA RG 38, Entry UD-38, Box 13]. Can transcripts of his interrogations about the uranium be located, declassified, and released? Could his prior history and connections in Germany be traced?

Heinz Schlicke may have been in charge of detonators for fission implosion bombs, as shown in the documents on p. 4882.

Captain Johann Fehler recounted the general details of U-234's voyage to the British naval journalist Arthur V. Sellwood. Fehler said the submarine carried over 260 tons of important cargo, but otherwise he was remarkably close-lipped about the details of that cargo, even over a decade after the war [Sellwood 1956, p. 137].

The U.S. National Archives appears to have only seven small boxes of information from or about the U-234's cargo [NARA RG 38, Entry UD-16, Boxes 3–8 and RG 38, Entry UD-38, Box 13]. Where are the over 260 tons of documents, prototypes, and other cargo from the U-234, as well as all of the information the United States compiled in the process of analyzing them?

Where is all the cargo and documentation for at least five other German submarines filled with high-tech cargo that were captured at the end of the war (p. 4892)?]

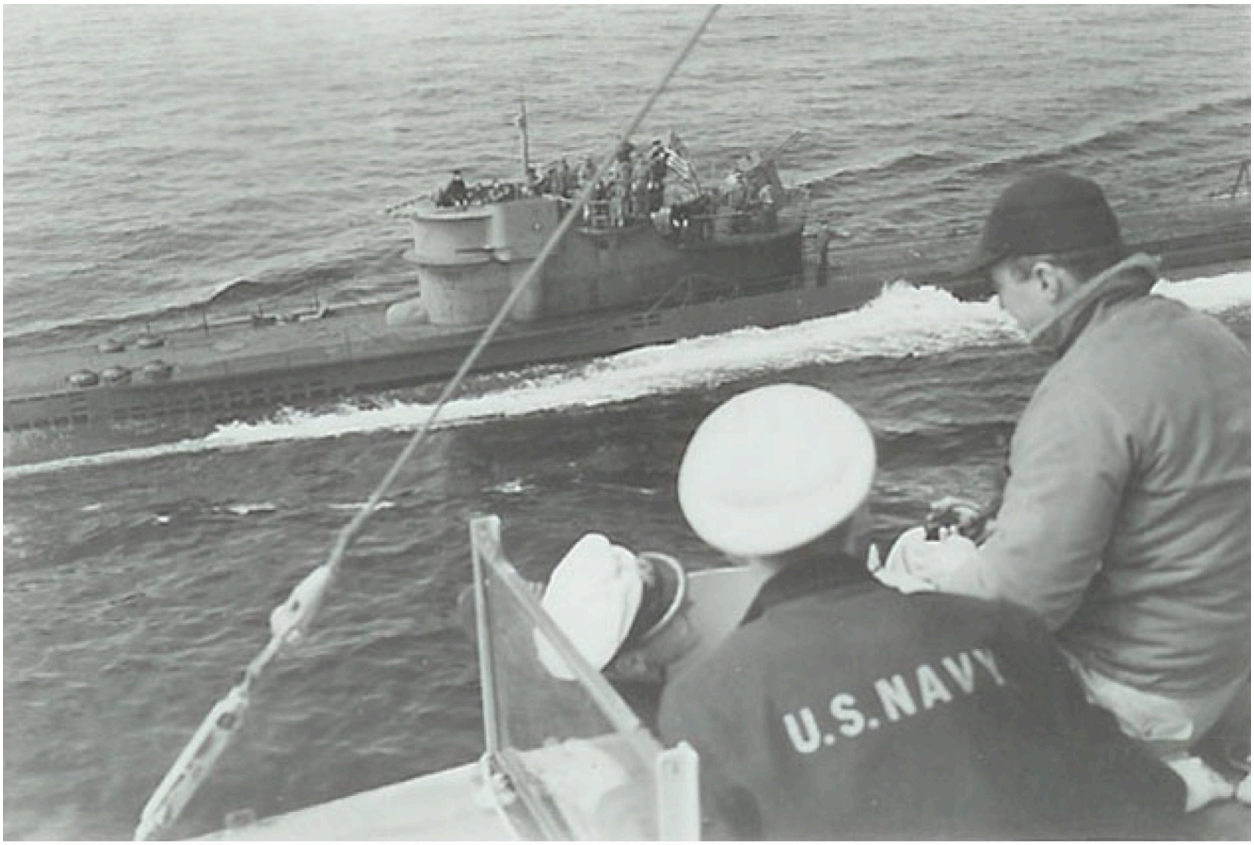


Figure D.905: German submarine U-234 surrendering to the USS Sutton on 14 May 1945.

Figure D.906: U-234 Captain Johann Fehler, Lt. Karl Pfaff, radio operator Wolfgang Hirschfeld, and Dr. Heinz Schlicke [NARA RG 38, Entry UD-38, Box 13, Folder U-234 and RG 330, Entry A1-1B, Box 145, Folder Schlicke, Heinz].

U.S. Navy Confidential Dispatch 131509. Subject: Interviewing of Prisoners. 13 May 1945. [NARA Boston RG 181]

CONFIDENTIAL 13 May 1945
131509

FROM: CESF
TO: CTG 02.1
CTG 02.4
INFO: CTG 02.3
02.5
02.6
SUBJECT: Interviewing of Prisoners

1. Press representatives may be permitted to interview officers and men of German submarines that surrender. This message applies only to submarines that surrender. It does not apply to other prisoners of war. It does not apply to prisoners of the U-234. Prisoners of the U-234 must not be interviewed by press representatives.

[See document photo on p. 4863 top.]

U.S. Navy Secret Dispatch 151942. Subject: Disposition of U-234 Prisoners. 15 May 1945. [NARA Boston RG 181]

SECRET 15 May 1945
151942

FROM: COMINCH
ACTION: CESF
INFO: CINCLANT
NYD Portsmouth
COM 1
SUBJECT: Disposition of U-234 Prisoners

Maintain prisoners U-234 incommunicado and send them under Navy department representative to Washington for interrogation.

[See document photo on p. 4863 bottom.]

CONFIDENTIAL
131509

13 MAY 1945

FROM: CESF

TO: CTG Ø2.1
CTG Ø2.4

INFO: CTG Ø2.3
Ø2.5
Ø2.6

SUBJECT: INTERVIEWING OF PRISONERS

1. PRESS REPRESENTATIVES MAY BE PERMITTED TO INTERVIEW OFFICERS AND MEN OF GERMAN SUBMARINES THAT SURRENDER. THIS MESSAGE APPLIES ONLY TO SUBMARINES THAT SURRENDER. IT DOES NOT APPLY TO OTHER PRISONERS OF WAR. IT DOES NOT APPLY TO PRISONERS OF THE U-234. PRISONERS OF THE U-234 MUST NOT BE INTERVIEWED BY PRESS REPRESENTATIVES.

DISTRIBUTION
COMDT
C/S
DUTOFF
ACO & DIO (A)
DSERVO
PD
PUBLIC RELATIONS OFFICE
FAO
NYBOS

S-E-C-R-E-T
151942

15 MAY 1945

FROM: COMINCH

ACTION: CESF

INFO: CINCLANT
NYD PORTSMOUTH
COM 1

SUBJECT: DISPOSITION OF U-234 PRISONERS

MAINTAIN PRISONERS U-234 INCOMMUNICADO AND SEND THEM UNDER NAVY DEPARTMENT REPRESENTATIVE TO WASHINGTON FOR INTERROGATION.

DISTRIBUTION
COMDT
C/S
DUTY OFF
ACO (A)
DIO
D SERV O
PD
FAO
DPRO

MPR

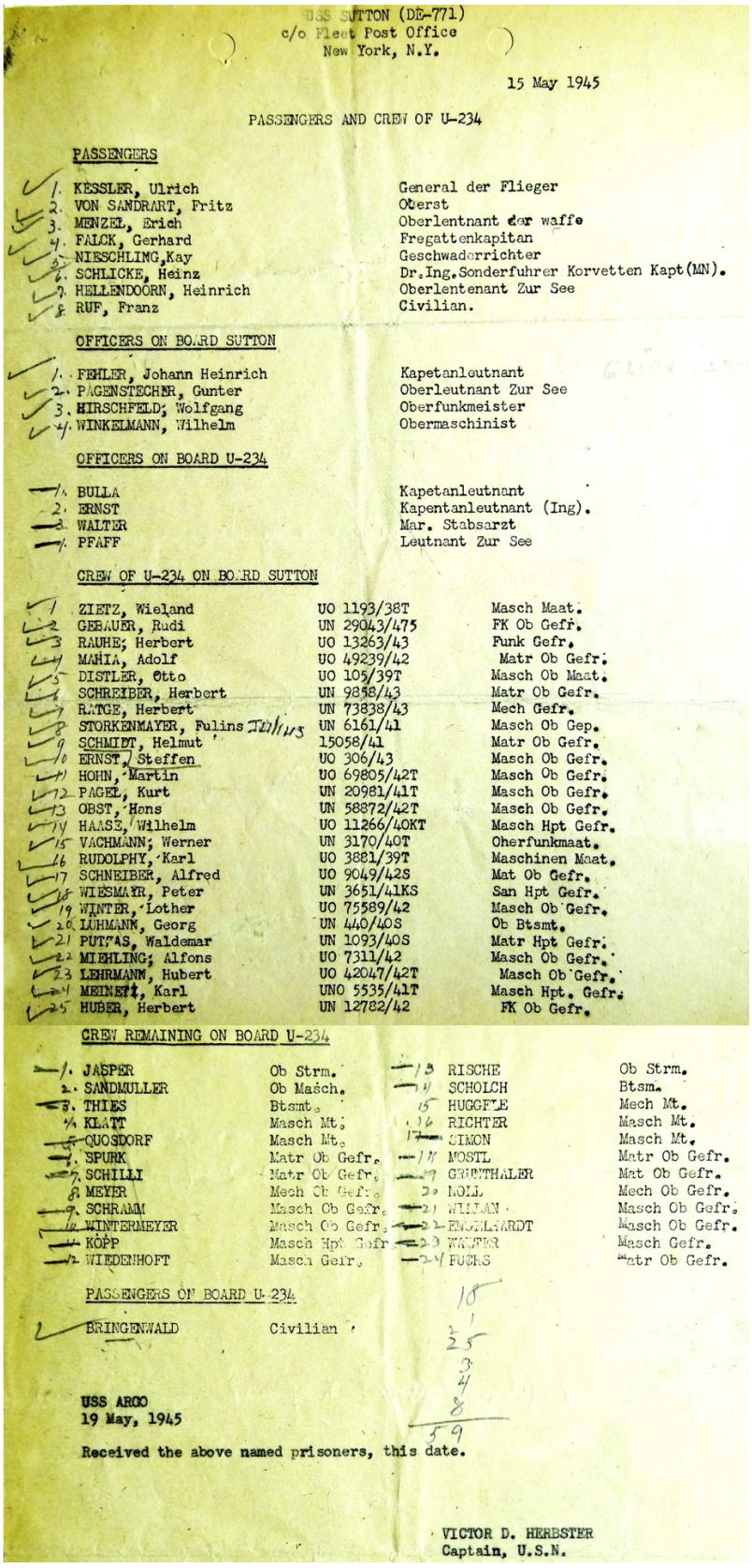
RMV

152129

NARA Boston RG 181. 1st Naval District. Office of the Assistant Chief of Staff for Operations. Formerly Security Classified General Correspondence 1944--1945. Box 26. Folders: U-Boats, Surrender of. Surrender of German Submarines (1 of 2).

Figure D.907: U.S. Navy Secret Dispatches [NARA Boston RG 181]

NARA Boston RG 181. 1st Naval District. Office of the Assistant Chief of Staff for Operations. Formerly Security Classified General Correspondence 1944--1945. Box 26. Folder Surrender of German Submarines (1 of 2).



USS SUTTON (DE-771)
c/o Fleet Post Office
New York, N.Y.

15 May 1945

PASSENGERS AND CREW OF U-234

PASSENGERS

1.	KESSLER, Ulrich	General der Flieger
2.	VON SANDRART, Fritz	Oberst
3.	MENZEL, Erich	Oberlentnant der waffe
4.	FALCK, Gerhard	Fregattenkapitan
5.	NIESCHLING, Kay	Geschwaderrichter
6.	SCHLICKE, Heinz	Dr.Ing.Sonderfuhrer Korvetten Kapt(MN).
7.	HELLENDOORN, Heinrich	Oberlentenant Zur See
8.	RUF, Franz	Civilian.

OFFICERS ON BOARD SUTTON

1.	FEHLER, Johann Heinrich	Kapetanleutnant
2.	PAGENSTECHER, Gunter	Oberleutnant Zur See
3.	HIRSCHFELD, Wolfgang	Oberfunkmeister
4.	WINKELMANN, Wilhelm	Obermaschinist

OFFICERS ON BOARD U-234

1.	BULLA	Kapetanleutnant
2.	ERNST	Kapentanleutnant (Ing).
3.	WALTER	Mar. Stabsarzt
4.	PFAFF	Leutnant Zur See

CREW OF U-234 ON BOARD SUTTON

1	ZIETZ, Wieland	UO 1193/38T	Masch Maat.
2	GEBAUER, Rudi	UN 29043/475	FK Ob Gefr.
3	RAUHE, Herbert	UO 13263/43	Funk Gefr.
4	MAHIA, Adolf	UO 49239/42	Matr Ob Gefr.
5	DISTLER, Otto	UO 105/39T	Masch Ob Maat.
6	SCHREIBER, Herbert	UN 9858/43	Matr Ob Gefr.
7	RATGE, Herbert	UN 73838/43	Mech Gefr.
8	STORKENMAYER, Fulins	UO 6161/41	Masch Ob Gep.
9	SCHMIDT, Helmut	15058/41	Matr Ob Gefr.
10	ERNST, Steffen	UO 306/43	Masch Ob Gefr.
11	HOHN, Martin	UO 69805/42T	Masch Ob Gefr.
12	PAGEL, Kurt	UN 20981/41T	Masch Ob Gefr.
13	OBST, Hans	UN 58872/42T	Masch Ob Gefr.
14	HAASE, Wilhelm	UO 11266/40KT	Masch Hpt Gefr.
15	VACHMANN, Werner	UN 3170/40T	Oberfunkmaat.
16	RUDOLPHY, Karl	UO 3881/39T	Maschinen Maat.
17	SCHNEIBER, Alfred	UO 9049/42S	Mat Ob Gefr.
18	WIESMAYR, Peter	UN 3651/41KS	San Hpt Gefr.
19	WINTER, Lother	UO 75589/42	Masch Ob Gefr.
20	LUHMANN, Georg	UN 440/40S	Ob Btsmt.
21	PUTTAS, Waldemar	UN 1093/40S	Matr Hpt Gefr.
22	MIEHLING, Alfons	UO 7311/42	Masch Ob Gefr.
23	LEHRMANN, Hubert	UO 42047/42T	Masch Ob Gefr.
24	MEINERT, Karl	UNO 5535/41T	Masch Hpt. Gefr.
25	HUBER, Herbert	UN 12782/42	FK Ob Gefr.

CREW REMAINING ON BOARD U-234

1.	JASPER	Ob Strm.	13	RISCHE	Ob Strm.
2.	SANDMULLER	Ob Masch.	14	SCHOLCH	Btsm.
3.	THIES	Btsmt.	15	HUGGFLE	Mech Mt.
4.	KLATT	Masch Mt.	16	RICHTER	Masch Mt.
5.	QUOSDORF	Masch Mt.	17	SIMON	Masch Mt.
6.	SPURK	Matr Ob Gefr.	18	MOSTL	Matr Ob Gefr.
7.	SCHILLI	Matr Ob Gefr.	19	GRUNTHALER	Mat Ob Gefr.
8.	MEYER	Mech Ob Gefr.	20	NOLL	Mech Ob Gefr.
9.	SCHRAMM	Masch Ob Gefr.	21	WILMAN	Masch Ob Gefr.
10.	WINTERMEYER	Masch Ob Gefr.	22	ENGELHARDT	Masch Ob Gefr.
11.	KOPP	Masch Hpt Gefr.	23	WALTER	Masch Gefr.
12.	WIEDENHOFT	Masch Gefr.	24	FUCHS	Matr Ob Gefr.

PASSENGERS ON BOARD U-234

1	BRINGENWALD	Civilian

18
1
25
3
4
8
59

USS ARGO
19 May, 1945

Received the above named prisoners, this date.

VICTOR D. HERBSTER
Captain, U.S.N.

Figure D.908: U.S. Navy Secret Dispatches [NARA Boston RG 181]

NARA Boston RG 181. 1st Naval District. Office of the Assistant Chief of Staff for Operations. Formerly Security Classified General Correspondence 1944--1945. Box 26. Folder Surrender of German Submarines (1 of 2).

Address reply to
Commandant,
First Naval District
and refer to:
PRO-1/arc(0590)

HEADQUARTERS
FIRST NAVAL DISTRICT
NORTH STATION OFFICE BUILDING
150 CAUSEWAY STREET, BOSTON 14, MASS.

18 May 1945

MEMORANDUM FOR:
Captain Herbster
Deputy Commander Northern Group

Subj: Publicity on surrender of U-234.

At 1745 yesterday (Thursday, 17 May) I received from Captain George W. Campbell, Deputy Director of Public Relations, Navy Department, a telephone message stating that ComInch now authorizes me to permit press, radio and photographic coverage of the arrival of the U-234 at Portsmouth tomorrow morning with these two exceptions:

1. No press interviews with the prisoners will be permitted.

2. No press representatives will be permitted to go aboard the U-boat.

In response to questions, Captain Campbell stated that press and radio representatives and photographers may be taken in small craft to view and record the arrival of the U-boat at the buoy in Portsmouth Harbor, that photographs of this event may be taken but that it probably will be impracticable to arrange for photographs of the prisoners ashore. (Captain Campbell did not say such photographs were not to be permitted, providing circumstances made them feasible).

In short, Captain Campbell said we would handle the U-234 just as we have been handling press coverage of the preceding 3 U-boats, except that there will be no press interviews with the prisoners.

Lieut. Comdr. Allan Keller, PRO, CESF, informed me he had received similar instructions last night from Captain Campbell, who informed him that Admiral McCann would call Admiral Leary last night and confirm the instructions.

N. R. Collier
N. R. Collier,
Commander, USNR
District Public Relations Officer

Figure D.909: Commander N. R. Collier to Captain Herbster. Subj: Publicity on surrender of U-234. 18 May 1945. [NARA Boston RG 181]

U.S. Navy Secret Dispatch 151716. 15 May 1945. [NARA Boston RG 181]

Documents and personnel of U-234 are most important and any and all doubtful personnel should be sent here.

[See document photo on p. 4867.]

Jack H. Alberti to John L. Riheldaffer. 22 May 1945. Subject: U-234. [NARA RG 38, Entry UD-38, Box 13, unlabelled folder]

1. The cargo of this U-boat consisting of some eight tons of documents, one ton of diplomatic mail and approximately 210 tons of miscellaneous cargo including numerous explosives, fuses, prototypes of radar, etc., is stowed in steel tubes fitted into the mine shafts of the boat. It is believed that the documents are not stowed in separate shafts but together with other cargo. The Portsmouth Navy Yard intends to unload these tubes and forward them "as is" to their destination. It is believed possible that some of these tubes contain hydrostatic scuttling charges designed to blow up the tubes in case of jettisoning. The tubes are sealed shut and will have to be opened with an oxyacetylene torch. Instructions are requested as to whether or not these tubes are to be opened at Portsmouth for segregation of their contents or if they are to be shipped to Washington unopened.

U-234, U-805, U-873. Undated but apparently late May 1945. [NARA RG 38, Entry UD-38, Box 13, unlabelled folder]

U-234

U-234, a type XB boat under Fehler, left Kristiansand on 14 April 1945[...] She carried 240 tons of cargo for Japan including one ton of diplomatic mail. While in transit she made or received no attacks. The ship's ciphers and papers were jettisoned, Fehler saying this was done by orders of Bdu. [...]

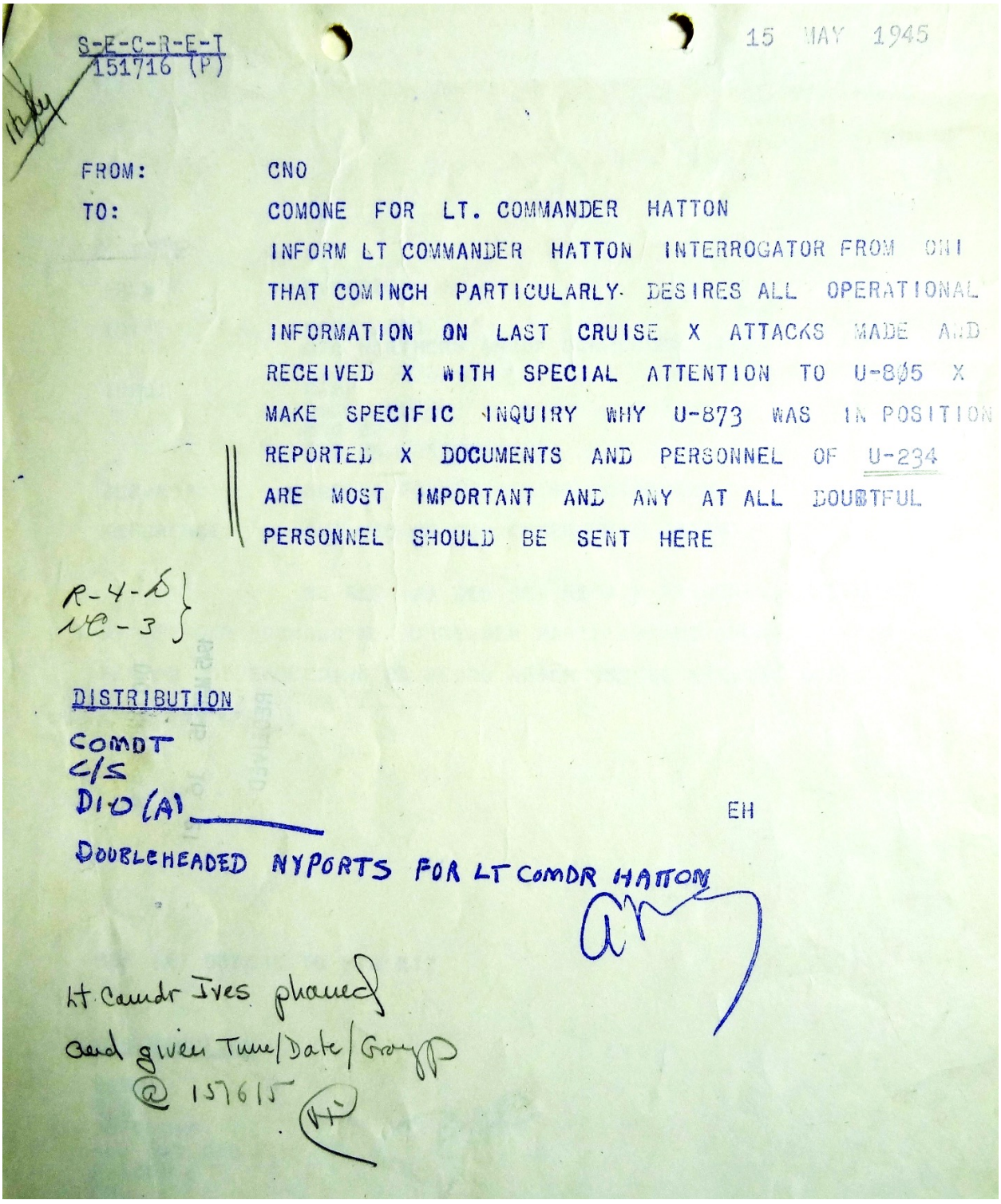
U-805

Interrogation of crew of U-805 reveals she left Kiel 10 February and Trondheim on 17 March. [...] After receipt of surrender orders, the commanding officer destroyed the envelope containing the special CO code, Kartenschluessel and Kurzsignal heft. Commanding Officer and second watch officer will be sent Washington for further investigation. [...]

U-873

U-873, commanded by Steinhoff, left Kristiansand about 1 April[...] All ship's papers and code machines were destroyed. In her ballast tanks was stowed a cargo of mercury and optical glass, and she was originally scheduled for Japan voyage instead of U-234. [...]

NARA Boston RG 181. 1st Naval District. Office of the Assistant Chief of Staff for Operations. Formerly Security Classified General Correspondence 1944--1945. Box 26. Folder U-Boats, Surrender of.



S-E-C-R-E-T
151716 (P)

15 MAY 1945

FROM: CNO

TO: COMONE FOR LT. COMMANDER HATTON

INFORM LT COMMANDER HATTON INTERROGATOR FROM ONI THAT COMINCH PARTICULARLY DESIRES ALL OPERATIONAL INFORMATION ON LAST CRUISE X ATTACKS MADE AND RECEIVED X WITH SPECIAL ATTENTION TO U-805 X MAKE SPECIFIC INQUIRY WHY U-873 WAS IN POSITION REPORTED X DOCUMENTS AND PERSONNEL OF U-234 ARE MOST IMPORTANT AND ANY AT ALL DOUBTFUL PERSONNEL SHOULD BE SENT HERE

R-4-D
HC-3

DISTRIBUTION

COMDT
C/S
DIO (A)

EH

DOUBLEHEADED NYPORTS FOR LT COMDR HATTON

Lt Comdr Ives phoned and given Time/Date/Group @ 157615

Figure D.910: U.S. Navy Secret Dispatch 151716. 15 May 1945 [NARA Boston RG 181]

Captain Johann Fehler [Sellwood 1956]

[p. 137] The fitting-out of our U-boat proved interesting enough, and more complicated than we had thought. The packing side of it was extremely tricky, for some of the cargo was extremely sensitive to condensation, and every drum had to be thoroughly sealed before being cased in a protective skin of chemicals. Command now wanted us to carry an increased quota: this time we used reserve torpedo cylinders as containers . . . cutting deep into our diving tanks in order to stow them.

Finally our submarine was almost bursting at the seams. We had managed to take on board over two hundred and sixty tons of cargo!

[p. 195] The Yanks had left a strong guard on the *U-234* to supervise Bulla and his men. Now the buzz went round the *Sutton* that one of the Americans had been shot in the stomach. The Captain sent for me and I arrived at his cabin a very worried man, wondering what the hell had gone wrong, and which of my boys had fired the blasted bullet. It turned out, however, that there had been no quarrel. The guard had been accidentally shot by his own pal. They had been fooling around with a pistol in the W/T locker. He was badly wounded, but our [German] doctor was looking after him until a U.S. warship, equipped with an operating theatre, arrived. [...]

At first I bewildered. Then I got annoyed. I had handed over a U-boat not a kindergarten.

Jack H. Alberti to John L. Riheldaffer. 22 May 1945. Subject: Report on Events at Portsmouth Navy Yard in Connection with the Surrender of German Submarines U-234, U-805, U-873 and U-1228. [NARA RG 38, Entry UD-38, Box 13, unlabelled folder]

I. LOOTING

The usual extensive looting by boarding parties from the DE's had taken place. In the case of the USS SUTTON, which captured the U-234, interrogators were able to board the destroyer and examine the "souvenirs". Items of possible intelligence interest were removed, but the great majority of souvenirs were left in the hands of the ships' crews. There was no looting of prisoners about the USCG ARGO or aboard the tugs ENSEMORE and YAKIMA.

Because of the need of the presence of one of the interrogators, Lt. Cdr. Hatton, aboard U-234 until her docking, the passengers aboard this U-boat were accompanied to the Portsmouth Naval Prison on arrival by interrogators Lt. Maxwell and Mr. J. H. Alberti. These passengers were personally searched by these two interrogators.

The crew of the U-boat and their baggage were searched in the cell block by Marine guards in the presence of five or six Marine officers and at least two U.S.N. Medical Officers attached to the prison. Practically all items of value, such as watches, rings, decorations, wallets, even those containing personal photographs, etc. were looted from the prisoners. In some instances where enlisted men had taken watches from prisoners, these watches were taken from the enlisted men by Marine officers who retained them as souvenirs. This action has had a most detrimental effect on interrogation of the crew and jeopardizes the willingness to cooperate on the part of those members of the crew retained aboard the U-boats.

After the departure for Washington of the passengers, accompanied by Lt. Maxwell, the presence of Mr. Alberti was required aboard the U-boat. [...]

Looting aboard the U-boats at the dock has been carried on in a very large scale, both by members of the naval working party aboard and the Marine guard establishment. [...]

II. SAFETY OF THE CAPTURED GERMAN U-BOATS

All four U-boats carried large quantities of liquor. [...]

On the morning of 20 May, Lt. Ewald of Op-20-G boarded U-234 and found U.S. Naval ratings drunk aboard. At various times on 20 and 21 May, U.S. Naval ratings were found asleep in the bunks while on duty in U-234. [...]

The captain of the U-234, while complaining to interrogating officers about the looting of the personal effects of his crew and himself, mentioned that he was all the more indignant at this treatment considering that all he had to do was to pull a lever and everyone of his mine shafts would have been emptied of their contents. [...]

[Jack Alberti, though an American himself, gave extremely unflattering descriptions of the behavior of the Americans who received this submarine, which had made such a remarkable journey to deliver over 260 tons of the world's most advanced technologies.

Johann Fehler also described in detail widespread conduct among the receiving American forces that was highly unprofessional, unethical, and uneducated [Sellwood 1956].

The "extensive looting" that was "carried on in a very large scale" (in Alberti's words) makes it even more difficult to reconstruct exactly what information and items were carried by the submarine and its personnel.]

U.S. Navy Secret Dispatch 222115. U-234, Disposition of. 23 May 1945. [NARA Boston RG 181]

Desire following accomplished cargo U-234... All material after rendering safe by mine disposal personnel placed safe stowage and inventory list sent CNO who will give shipping instructions and will control access to and disposition of all cargo due to vital importance to Pacific War.

[See document photo on p. 4871.]

Lt. Best. 24 May 1945. Report of Interrogation: PW: NIESCHLING, Kay. [NARA RG 38, Entry UD-38, Box 13, Folder U-234]

Veracity:

The following is believed reliable.

Report: Regarding "URANIUM OXIDE" and other CARGO aboard U-234:

P/W does not know anything in particular about this ore, but only heard that it was valuable and that it was to be exchanged for some other valuable ore that the Germans needed.

Lt. PFAFF was the man responsible for loading the U-Boat.

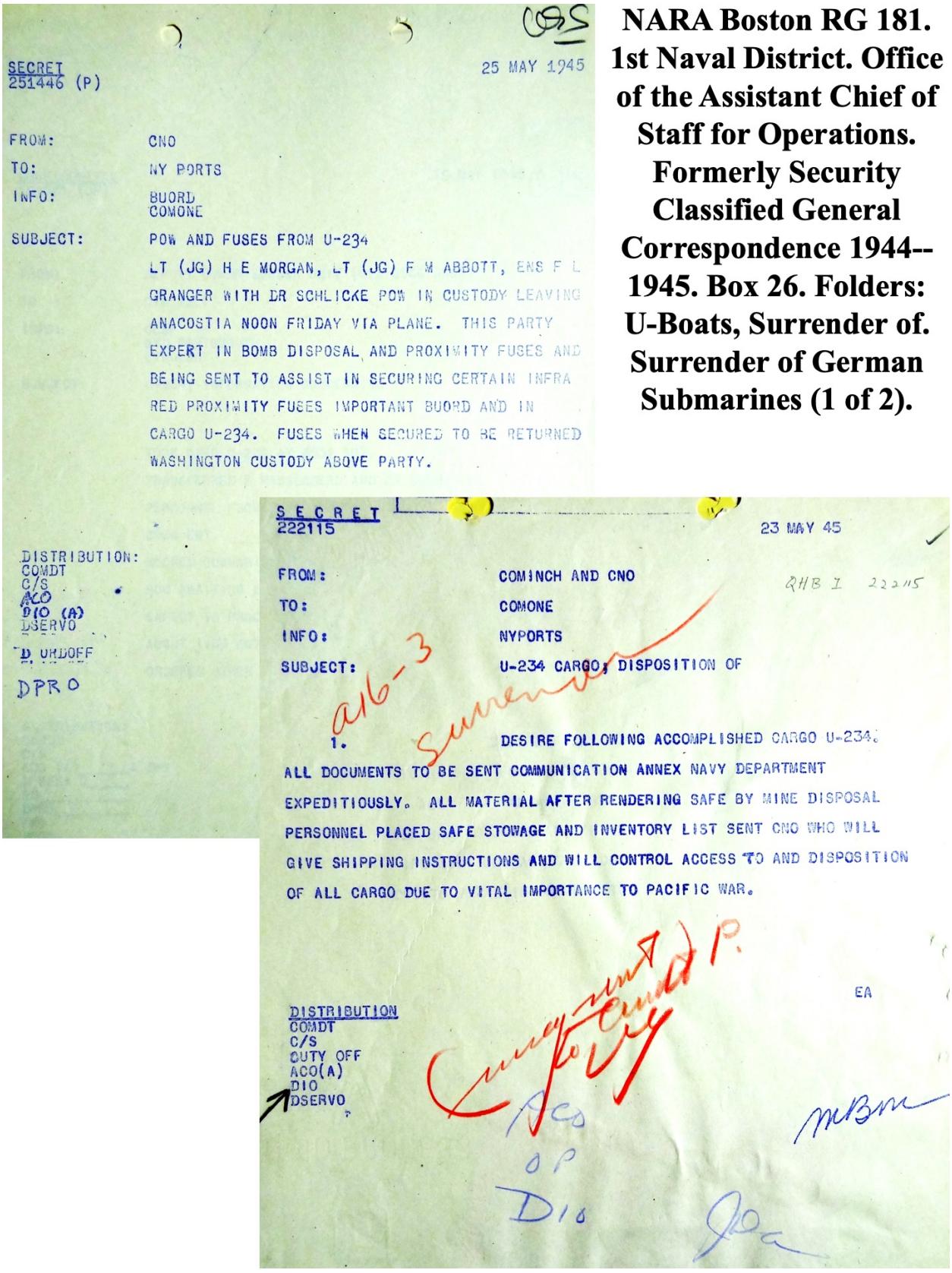
The meaning behind the ore would, according to P/W be known by the technician Fregattenkapitan FALCK (Commander). The latter also knows magnetic problems, Naval mine problems, Naval building problems. He also took some secret courses before he boarded the U-Boat. Was to be chief technician on all naval matters under Admiral WENNECKER.

Captain FEHLER as commander of the U-Boat should also know something about the ore.

It may be important to contact a man named Korvettenkapitan BECKER (Lt. Commander), living in KIEL-WIG, who was a member of the Marine Sonderstabzweigstelleheimat. (Special Naval Home Sub-station Branch).

This man traveled to the various factories in NUERNBERG and others in South Germany. He was responsible for contacting the various agencies regarding what and how much was to be included in the cargo.

The Marine Attache Abt. in Berlin Oberkommando, Referat Japan under Captain zur see "SOUCHON" decided together with the Japanese just what the most important things were that should be included in the cargo. The latter's assistant a Korvettenkapitan von KROSIGK (Lt. Commander) also should know the details.



SECRET
251446 (P)

25 MAY 1945

FROM: CNO
TO: NY PORTS
INFO: BUORD
COMONE
SUBJECT: POW AND FUSES FROM U-234

LT (JG) H E MORGAN, LT (JG) F M ABBOTT, ENS F L GRANGER WITH DR SCHLICKE POW IN CUSTODY LEAVING ANACOSTIA NOON FRIDAY VIA PLANE. THIS PARTY EXPERT IN BOMB DISPOSAL AND PROXIMITY FUSES AND BEING SENT TO ASSIST IN SECURING CERTAIN INFRA RED PROXIMITY FUSES IMPORTANT BUORD AND IN CARGO U-234. FUSES WHEN SECURED TO BE RETURNED WASHINGTON CUSTODY ABOVE PARTY.

DISTRIBUTION:
COMDT
C/S
ACO
DIO (A)
DSERVO
D ORDOFF
DPRO

SECRET
222115

23 MAY 45

FROM: COMINCH AND CNO
TO: COMONE
INFO: NYPORTS
SUBJECT: U-234 CARGO; DISPOSITION OF

1. DESIRE FOLLOWING ACCOMPLISHED CARGO U-234. ALL DOCUMENTS TO BE SENT COMMUNICATION ANNEX NAVY DEPARTMENT EXPEDITIOUSLY. ALL MATERIAL AFTER RENDERING SAFE BY MINE DISPOSAL PERSONNEL PLACED SAFE STOWAGE AND INVENTORY LIST SENT CNO WHO WILL GIVE SHIPPING INSTRUCTIONS AND WILL CONTROL ACCESS TO AND DISPOSITION OF ALL CARGO DUE TO VITAL IMPORTANCE TO PACIFIC WAR.

DISTRIBUTION
COMDT
C/S
DUTY OFF
ACO(A)
DIO
DSERVO

EA

NARA Boston RG 181. 1st Naval District. Office of the Assistant Chief of Staff for Operations. Formerly Security Classified General Correspondence 1944--1945. Box 26. Folders: U-Boats, Surrender of. Surrender of German Submarines (1 of 2).

Figure D.911: U.S. Navy Secret Dispatches [NARA Boston RG 181]

U.S. Navy Secret Dispatch 262151. Subject: Mine Tubes, Unloading of. 27 May 1945. [NARA Boston RG 181]

Interrogation Lt Pfaff second watch officer U-234 discloses he was in charge of cargo and personally supervised loading all mine tubes.

Pfaff prepared manifest list and knows kind documents and cargo in each tube.

Pfaff states long containers should be unpacked in horizontal position and short containers in vertical position.

Uranium oxide loaded in gold lined cylinders and as long as cylinders not opened can be handled like crude TNT.

These containers should not be opened as substance will become sensitive and dangerous.

Pfaff is available and willing to aid unloading if RNEDT desires.

Advise.

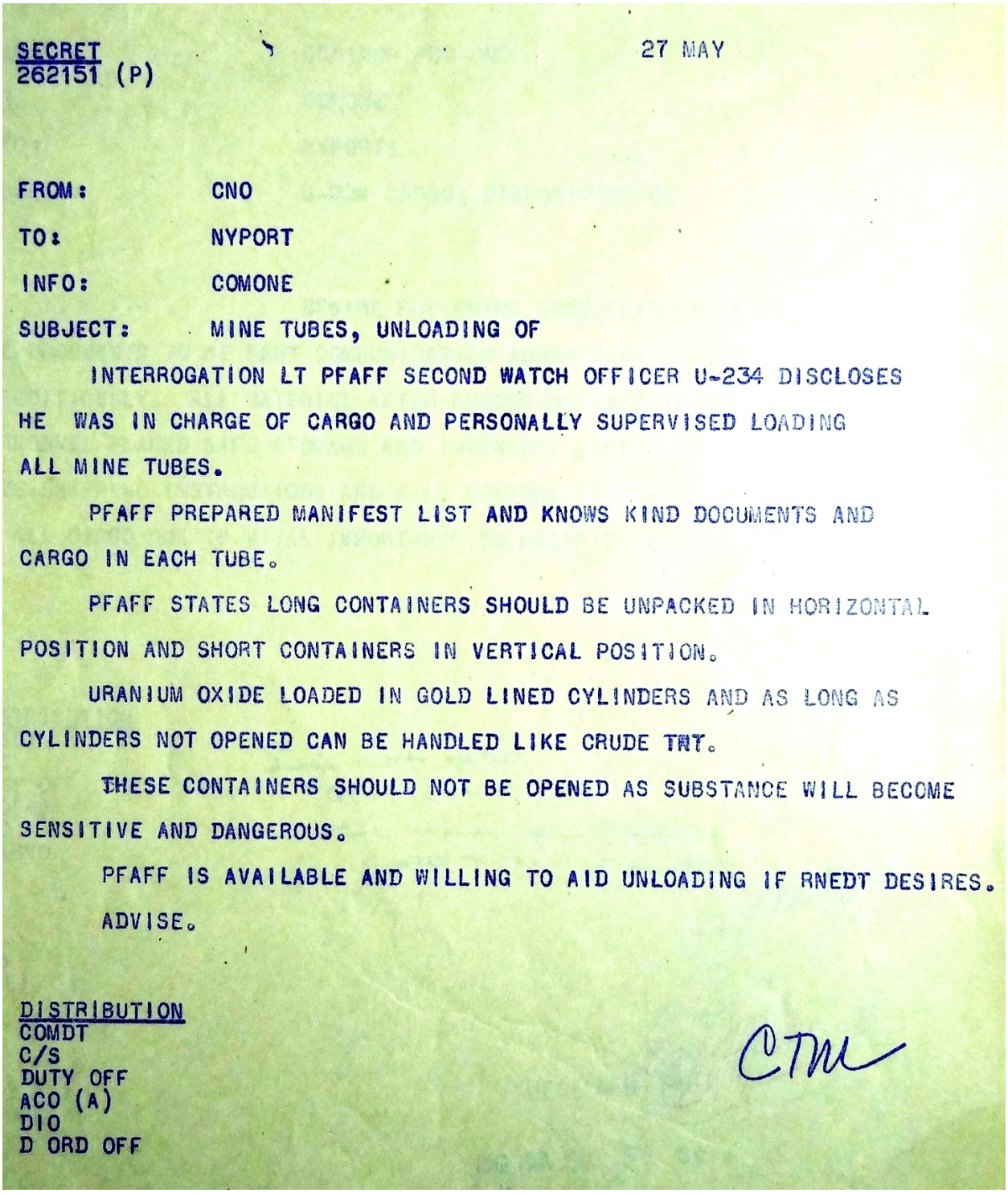
[See photo on p. 4873. Lt. Pfaff, the German naval officer in charge of loading the U-234's cargo, specifically informed the U.S. Navy that the uranium oxide was stored in many separate, sealed, gold-lined cylinders. Moreover, he told the U.S. Navy that the uranium oxide could be dangerous if the cylinders were opened and it were mishandled, just as TNT would. Pfaff's warning suggests that the uranium might have been capable of starting a neutron chain reaction if the cylinders were opened and gold shielding no longer separated the individual pieces of uranium from each other.

Gold is very resistant to chemical corrosion, and it is extremely dense, which makes it good at shielding neutrons or other radiation. Unenriched uranium oxide is not dangerously radioactive and would require no special shielding or packaging. Furthermore, unenriched uranium oxide could not form a critical mass and initiate a neutron chain reaction no matter how much was brought together and how it was mishandled, so there would be no need to package it into many separate, sealed, gold-lined cylinders and issue warnings about it being dangerous and explosive if mishandled.

On the other hand, storing small quantities of uranium in many separate, sealed, gold-lined cylinders would be exactly the right approach for handling weapons-grade, highly enriched uranium. When the United States produced and shipped weapons-grade, highly enriched uranium from Oak Ridge to Los Alamos, it did in fact divide the uranium into many separate, sealed, gold-lined containers, as documented on pp. 4874–4875.

Of course, there are many possibilities. Maybe all of the uranium oxide cargo of U-234 had been highly enriched, in which case 560 kg would provide enough for a shockingly large arsenal of ∼10–100 fission bombs, depending on their size and design. Perhaps the uranium oxide had been somewhat enriched, but not yet to weapons-grade levels. Maybe different batches of the uranium oxide had been enriched by different amounts. Perhaps the uranium oxide was unenriched or only somewhat enriched but had been neutron-irradiated inside a functioning fission reactor somewhere in the Third Reich, which would have made it highly radioactive and also a good source for extracting plutonium-239 that had been produced in the process. One might imagine other possibilities as well. Thus it is very important for future archival researchers to find historical documents that will answer these questions.]

NARA Boston RG 181. 1st Naval District. Office of the Assistant Chief of Staff for Operations. Formerly Security Classified General Correspondence 1944--1945. Box 26. Folder U-Boats, Surrender of.



SECRET
262151 (P)

27 MAY

FROM: CNO

TO: NYPORT

INFO: COMONE

SUBJECT: MINE TUBES, UNLOADING OF

INTERROGATION LT PFAFF SECOND WATCH OFFICER U-234 DISCLOSES HE WAS IN CHARGE OF CARGO AND PERSONALLY SUPERVISED LOADING ALL MINE TUBES.

PFAFF PREPARED MANIFEST LIST AND KNOWS KIND DOCUMENTS AND CARGO IN EACH TUBE.

PFAFF STATES LONG CONTAINERS SHOULD BE UNPACKED IN HORIZONTAL POSITION AND SHORT CONTAINERS IN VERTICAL POSITION.

URANIUM OXIDE LOADED IN GOLD LINED CYLINDERS AND AS LONG AS CYLINDERS NOT OPENED CAN BE HANDLED LIKE CRUDE TNT.

THESE CONTAINERS SHOULD NOT BE OPENED AS SUBSTANCE WILL BECOME SENSITIVE AND DANGEROUS.

PFAFF IS AVAILABLE AND WILLING TO AID UNLOADING IF RNEDT DESIRES. ADVISE.

DISTRIBUTION
COMDT
C/S
DUTY OFF
ACO (A)
DIO
D ORD OFF

CTM

Figure D.912: U.S. Navy Secret Dispatch 262151. Subject: Mine Tubes, Unloading of. 27 May 1945. [NARA Boston RG 181]

Oak Ridge National Laboratory. Operations start and shipments begin.
[http://www.y12.doe.gov/sites/default/files/assets/document/07-12-06.pdf]

[The uranium transported on the U-234 was stored in many separate, gold-lined cylinders. As described below, highly enriched uranium was transported from Oak Ridge to Los Alamos in many separate, gold-lined cylinders. There was no need to transport unenriched uranium in such an elaborate fashion.]

The first successful shipment from Y-12 served also to demonstrate that the concept of a production factory was basically in place. The process included the full sequence of events required to take uranium ore and process the material to the final special end product of uranium 235 suitable for shipment by courier.

A most unusual method was used to transport this extremely valuable material. It was carefully packaged in a small room in the center of Building 9733-1. Then the material was placed in gold-lined nickel containers about the size of coffee cups. Two of these containers were placed in a briefcase size container and the container strapped to an Army Lieutenant's arm. He was dressed in a suit to look like a salesman and along with a couple of other Army personnel also dressed as salesmen, was driven to Knoxville where he boarded a passenger train to Chicago.

At Chicago, the courier transferred his case to yet another Army Lieutenant also dressed as a salesman who took the material on to Los Alamos. A new set of escorts were assigned to this new courier and the original group returned to Oak Ridge by way of Knoxville.

In *The New World*, by Richard G. Hewlett and Oscar E. Anderson Jr., the following description is provided regarding the transportation of uranium-235 from Y-12 to Los Alamos.

> "Transporting the precious material to Los Alamos involved all the melodrama of an undercover operation.
>
> "Since air travel seemed too risky, the Army shipped the product by rail. The containers of uranium tetrafluoride were placed in special luggage. At 10:30 a.m. on specified days, armed couriers wearing civilian clothes took the shipments to Knoxville in an unmarked Chevrolet sedan with Tennessee license plates. At 12:50 p.m., the couriers left for Chicago in a private compartment aboard the 'Southland.'
>
> "Arriving in Chicago the next morning, the Oak Ridge couriers were met by Chicago couriers who boarded the Santa Fe 'Chief' for the long ride west. The next day at 2:10 p.m., a car from Los Alamos met the train at Lamy, a way station in the New Mexico desert. There was some danger that conductors, porters, and station attendants might come to recognize the couriers no matter how hard they tried to make themselves inconspicuous, but train transportation was cheap and relatively safe."

That "special luggage" mentioned in the book was a briefcase-type container with two coffee-cup-

sized gold-lined nickel containers. The "briefcase" was strapped to the arm of an Army lieutenant who was dressed to look like a salesman.

This method of shipment kept folks in Knoxville asking, "What's going on over there at Y-12?" They saw trainload after trainload of building materials going to Oak Ridge, but they never saw anything being shipped out because they did not expect the product to be shipped in something as small as a briefcase.

Here's another story that shows the value placed on the uranium 235. The entire Y-12 production of U-235 prior to the dropping of the bomb Little Boy passed through room 22 of Building 9733-1. At one time, there were bars on the windows and a guard was posted outside the door to protect the output of Y-12's calutrons. The material was processed in one kilogram batches.

Twenty-four karat gold trays weighing about four pounds were used to process the material. The first batches were ground by hand using a mortar and pestle made of nickel. After the grinding operations, the workers had to check under their fingernails to be sure the material had not accumulated there.

The coffee-cup-size nickel cylinders used to transport the U-235 were made by a group in the Y-12 shops headed by Jack Case, Y-12 plant manager from 1967 to 1982 and namesake of the Jack Case Center. They were gold plated in Slack's Plating Shop in Knoxville. Johnsson was driven to Knoxville to deliver and pick up the cylinders by one of Y-12's Motor Pool drivers (a Mrs. Justice).

The filled cylinders were delivered to Captain Lloyd Zumwalt, who was located in an office two blocks from Building 9733-1. When the captain found out they were walking with cylinders containing U-235, he instructed those delivering it to, "Call for a car. If you got run over it would be a mess to dig up the ground to recover the uranium but in a car it would be all in one place."

U.S. Navy Secret Dispatch 292045. Subject: U-234, Cargo Information. 30 May 1945. [NARA Boston RG 181]

Lieut Comdr Karl B Reese USNR, Lieut (JG) Edward P McDermott USNR and Major John E Vance CE USA [Corps of Engineers, United States Army] will report to commandant May 30th Wednesday in connection with cargo U-234.

It is contemplated that shipment will be made by ship to ordnance investigation laboratory NAVPOWFAC Indian Head Maryland if this is feasible.

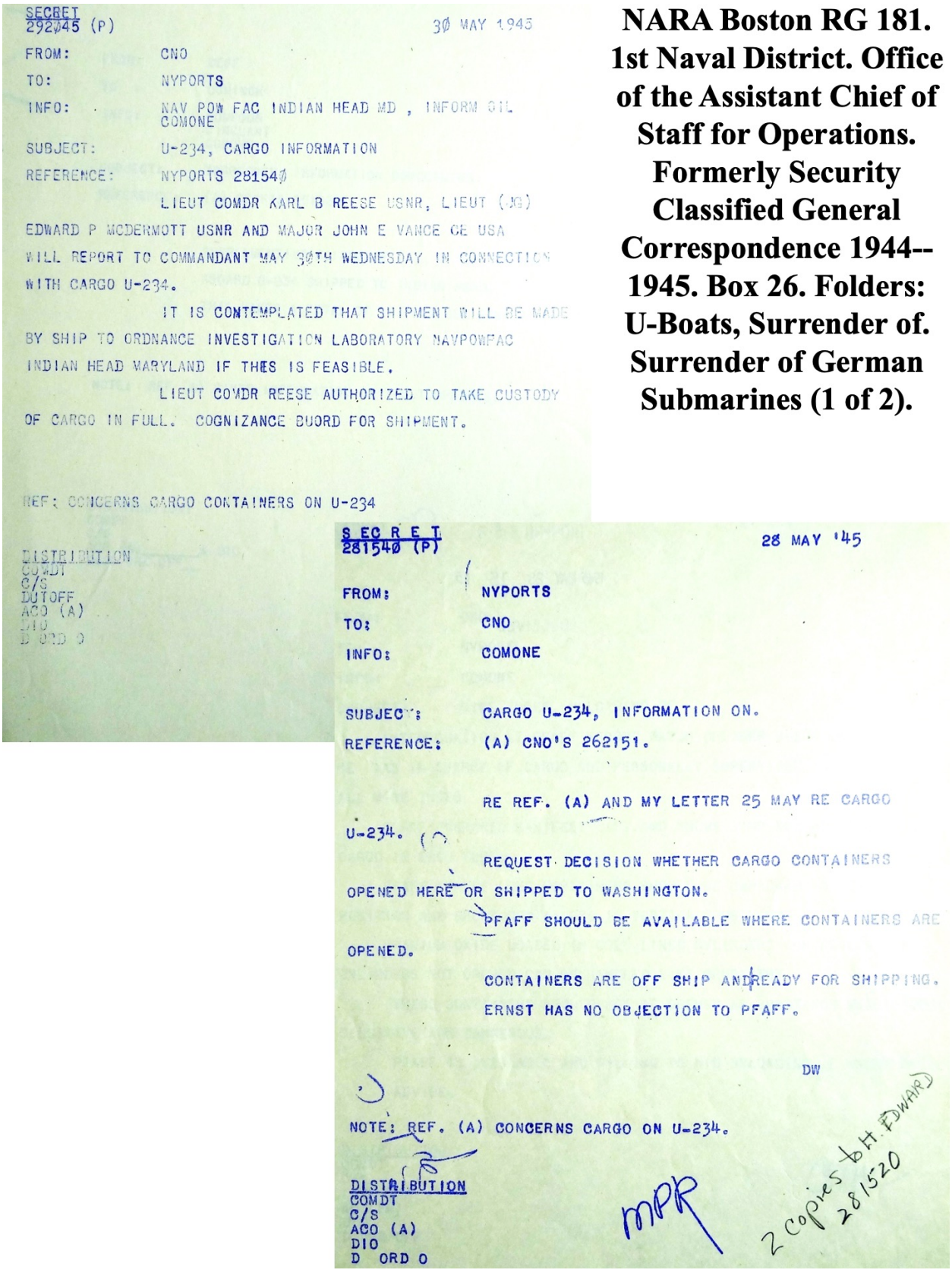
[See document photo on p. 4877.

John Vance worked for the Manhattan Project and would have been an ideal person to facilitate the transport of the uranium from the U-234 to the Manhattan Project. The uranium was temporarily stored at Indian Head, Maryland, along the way.]

Joseph Mark Scalia. 2000. *Germany's Last Mission to Japan: The Failed Voyage of U-234.* Annapolis, Maryland: Naval Institute Press. p. 233.

35. Interview, Pfaff with Wilcox, 24 February 1995. Pfaff recalled that once the welders opened the cylinders, he noticed "a tall civilian... with a large hat" examining the boxes. Because the stranger was rather conspicuous, Pfaff inquired as to his identity and was told that he was "Oppenheimer". Only later, as a prisoner of war in Louisiana, did he realize that the man with the large hat might have been J. Robert Oppenheimer, director of the Manhattan Project. While it cannot be confirmed that the man Pfaff saw was Oppenheimer, the physicist was in the vicinity during late May and early June 1945. He was in Washington to attend a meeting with Henry Stimson, James F. Byrnes, and Gen. Leslie Groves and the Interim Committee; that he would travel to southern Maryland to examine a captured German stock of uranium oxide is not out of the realm of possibility.

[Karl Pfaff also described the same incident with Oppenheimer when interviewed in: Andreas Gutzeit. 2001. *U-234: Hitler's Last U-Boat.* Film. Washington, D.C.: Story House Productions.]



SECRET
292Ø45 (P) 3Ø MAY 1945

FROM: CNO
TO: NYPORTS
INFO: NAV POW FAC INDIAN HEAD MD , INFORM GTL COMONE
SUBJECT: U-234, CARGO INFORMATION
REFERENCE: NYPORTS 281540

LIEUT COMDR KARL B REESE USNR, LIEUT (JG) EDWARD P MCDERMOTT USNR AND MAJOR JOHN E VANCE CE USA WILL REPORT TO COMMANDANT MAY 30TH WEDNESDAY IN CONNECTION WITH CARGO U-234.

IT IS CONTEMPLATED THAT SHIPMENT WILL BE MADE BY SHIP TO ORDNANCE INVESTIGATION LABORATORY NAVPOWFAC INDIAN HEAD MARYLAND IF THIS IS FEASIBLE.

LIEUT COMDR REESE AUTHORIZED TO TAKE CUSTODY OF CARGO IN FULL. COGNIZANCE BUORD FOR SHIPMENT.

REF: CONCERNS CARGO CONTAINERS ON U-234

DISTRIBUTION
COMDT
C/S
DUTOFF
ACO (A)
DIO
D ORD O

SECRET
281540 (P) 28 MAY '45

FROM: NYPORTS
TO: CNO
INFO: COMONE

SUBJECT: CARGO U-234, INFORMATION ON.
REFERENCE: (A) CNO'S 262151.

RE REF. (A) AND MY LETTER 25 MAY RE CARGO U-234.

REQUEST DECISION WHETHER CARGO CONTAINERS OPENED HERE OR SHIPPED TO WASHINGTON.

PFAFF SHOULD BE AVAILABLE WHERE CONTAINERS ARE OPENED.

CONTAINERS ARE OFF SHIP AND READY FOR SHIPPING.

ERNST HAS NO OBJECTION TO PFAFF.

DW

NOTE: REF. (A) CONCERNS CARGO ON U-234.

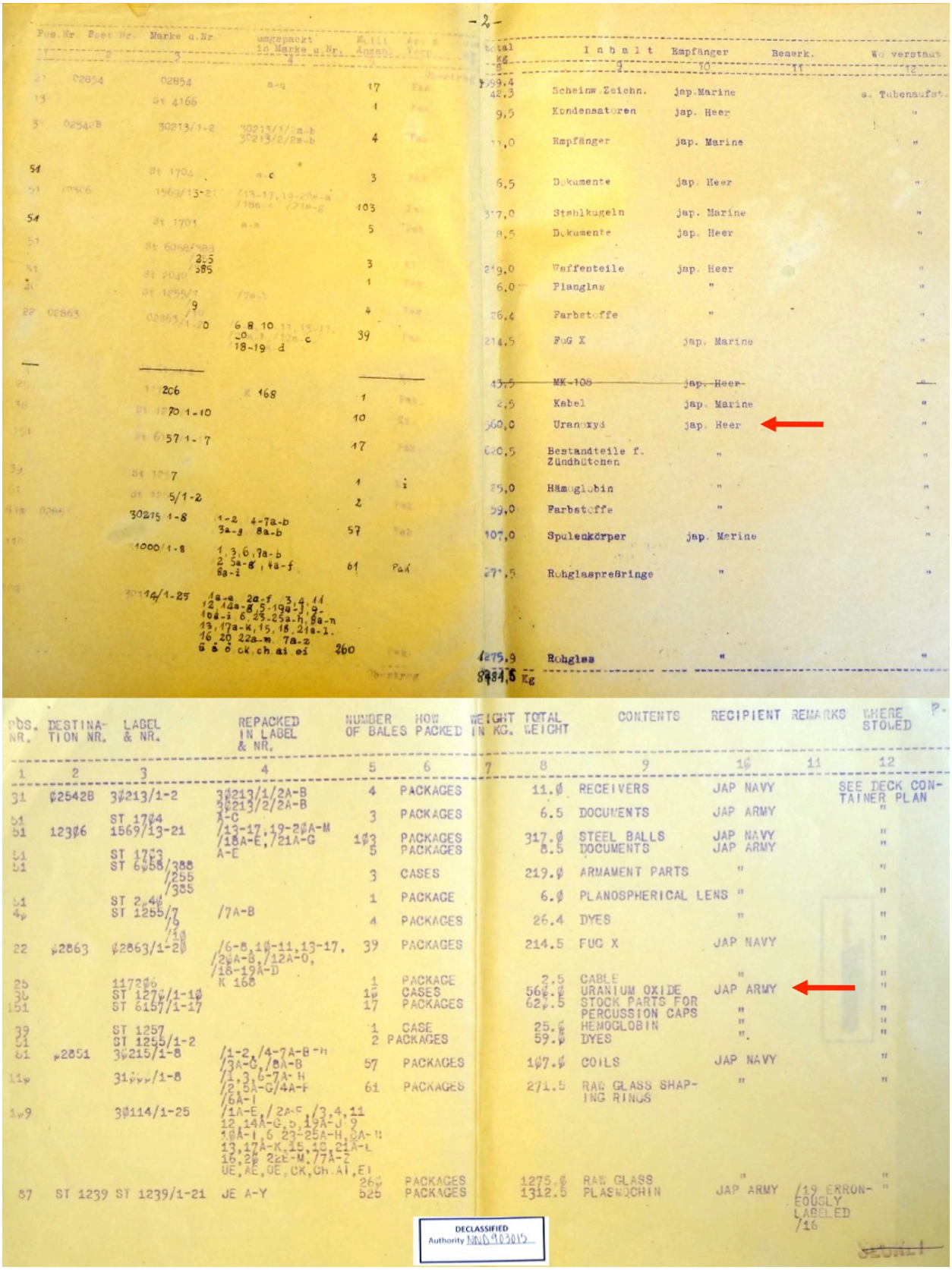
DISTRIBUTION
COMDT
C/S
ACO (A)
DIO
D ORD O

MPR

2 copies to H. EDWARD 281520

NARA Boston RG 181. 1st Naval District. Office of the Assistant Chief of Staff for Operations. Formerly Security Classified General Correspondence 1944--1945. Box 26. Folders: U-Boats, Surrender of. Surrender of German Submarines (1 of 2).

Figure D.913: U.S. Navy Secret Dispatches [NARA Boston RG 181]



POS. NR.	DESTINATION NR.	LABEL & NR.	REPACKED IN LABEL & NR.	NUMBER OF BALES	HOW PACKED	WEIGHT IN KG.	TOTAL WEIGHT	CONTENTS	RECIPIENT	REMARKS	WHERE STOWED
1	2	3	4	5	6	7	8	9	10	11	12
31	ø2542B	3ø213/1-2	3ø213/1/2A-B 3ø213/2/2A-B	4	PACKAGES		11.ø	RECEIVERS	JAP NAVY		SEE DECK CONTAINER PLAN
51		ST 17ø4	A-C	3	PACKAGES		6.5	DOCUMENTS	JAP ARMY		"
51	123ø6	1569/13-21	/13-17,19-2ø A-M /18A-E,/21A-G	1ø3	PACKAGES		317.ø	STEEL BALLS	JAP NAVY		"
51		ST 1723	A-E	5	PACKAGES		8.5	DOCUMENTS	JAP ARMY		"
51		ST 6ø58/388 /255 /385		3	CASES		219.ø	ARMAMENT PARTS	"		"
51		ST 2,4ø		1	PACKAGE		6.ø	PLANOSPHERICAL LENS	"		"
4ø		ST 1255/7 /9 /1ø	/7A-B	4	PACKAGES		26.4	DYES	"		"
22	ø2863	ø2863/1-2ø	/6-8,1ø-11,13-17, /2øA-B,/12A-O, /18-19A-D	39	PACKAGES		214.5	FUG X	JAP NAVY		"
25		1172ø6	K 168	1	PACKAGE		2.5	CABLE	"		"
36		ST 127ø/1-1ø		1ø	CASES		56ø.ø	URANIUM OXIDE	JAP ARMY		"
151		ST 6157/1-17		17	PACKAGES		62ø.5	STOCK PARTS FOR PERCUSSION CAPS	"		"
39		ST 1257		1	CASE		25.ø	HEMOGLOBIN	"		"
51		ST 1255/1-2		2	PACKAGES		59.ø	DYES	"		"
61	ø2851	3ø215/1-8	/1-2,/4-7A-B-H /3A-G,/8A-B	57	PACKAGES		1ø7.ø	COILS	JAP NAVY		"
11ø		31ø/1-8	/1,3,6-7A-H /2,5A-G/4A-F /6A-I	61	PACKAGES		271.5	RAW GLASS SHAPING RINGS	"		"
1ø9		3ø114/1-25	/1A-E,/2A-F,/3,4,11 12,14A-G,5,19A-J,9 1øA-I,6 23-25A-H,8A-N 13,17A-K,15,18,21A-L 16,2ø 22E-M,7A-Z UE,AE,OE,CK,CH,AI,EI	26ø	PACKAGES		1275.ø	RAW GLASS	"		"
87	ST 1239	ST 1239/1-21	JE A-Y	525	PACKAGES		1312.5	PLASMOCHIN	JAP ARMY	/19 ERRONEOUSLY LABELED /16	"

Figure D.914: U-234 German cargo manifest and English translation, both listing 10 cases totaling 560 kg of uranium oxide [NARA RG 38, Entry UD-16, Box 4, Folder Manifest of U-234].

William J. Broad, Captured Cargo, Captivating Mystery. *New York Times* 1995-12-31 p. A22.

Historians have quietly puzzled over that uranium shipment for years, wondering, among other things, what the American military did with it. Little headway was made because of Federal secrecy. Now, however, a former official of the Manhattan Project, John Lansdale Jr., says that the uranium went into the mix of raw materials used for making the world's first atom bombs. At the time he was an Army lieutenant colonel for intelligence and security for the atom bomb project. One of his main jobs was tracking uranium.

Mr. Lansdale's assertion in an interview raises the possibility that the American weapons that leveled the Japanese cities of Hiroshima and Nagasaki contained at least some nuclear material originally destined for Japan's own atomic program and, perhaps, for attacks on the United States.

[...] But Mr. Lansdale, the former official of the Manhattan Project, displayed no doubts in the interview about the fate of the U-234's shipment. "It went to the Manhattan District," he said without hesitation. "It certainly went into the Manhattan District supply of uranium."

[John Lansdale wrote or received many of the memos on the German nuclear program in the Manhattan Project's files [NARA RG 77, Entry UD-22A]. He stated unequivocally to the *New York Times* that the U-234's uranium cargo went to Oak Ridge ("the Manhattan District supply of uranium"), and he presumably would have been in a good position to know that. It makes perfect sense that the U-234's uranium would go to Oak Ridge, regardless of its state of enrichment. Its precise composition could be tested much more thoroughly and easily at the Oak Ridge laboratory than in the field at the Portsmouth Navy Yard. If the U-234's uranium was unenriched, it would have gone into the general stockpile of uranium awaiting enrichment by Oak Ridge's K-25 gaseous diffusion plant and Y-12 calutrons. If the uranium was somewhat enriched, it would have been sent to the calutrons for further enrichment. Even if it were highly enriched, it would been inspected and repackaged, and likely would have had its chemical form altered (at that time, the United States preferred to ship highly enriched uranium as uranium tetrafluoride, not uranium oxide) before it was sent on to Los Alamos.

I spent several days searching Oak Ridge's 1945 files at the NARA Atlanta archive, including detailed files of uranium shipments received at Oak Ridge, weekly enrichment reports from the gaseous diffusion plant and the calutrons, and records of enriched uranium shipped out of Oak Ridge. As Carter Hydrick first pointed out [Hydrick 1998, 2016], there was a significant increase in the output of highly enriched uranium from the calutrons beginning in mid-June 1945, but that appears to have been due to the first moderately enriched uranium from the gaseous diffusion plant being forwarded to the calutrons at that time, not the arrival of the U-234's uranium. In fact, I could find no records whatsoever of the U-234's uranium entering Oak Ridge or being processed there. Perhaps I overlooked those records among the vast collection of files, or maybe they are stored elsewhere, or perhaps they are still classified. Alternatively, maybe the U-234's uranium was officially entered into the record books as something else, for example by falsely labelling it as a shipment of uranium oxide from the Belgian Congo, a batch of uranium that had already been partially enriched by Oak Ridge's gaseous diffusion plant, or some other such subterfuge.

Again, hopefully future archival researchers can dig even more deeply into these mysteries and finally find some answers.]

[In addition to the uranium, the following documents suggest that detonators from the U-234 submarine, as well as passenger Heinz Schlicke's knowledge of those detonators, may have been useful for the U.S. plutonium implosion bombs.]

Dr. Delmar Bergen, former director of the nuclear weapons program at Los Alamos National Laboratory [Hydrick 2016, pp. ix–xi].

I began my career at Los Alamos in the summer of 1957, directly involved in nuclear weapons work, which remained the case until my retirement. I started as a staff member working on nuclear weapon design, and eventually was promoted to Director of the LANL (Los Alamos National Laboratory) Nuclear Weapons Program. Other assignments included serving as a consultant to the Assistant Secretary of Defense for Atomic Energy, and as a consultant to the US delegation developing the protocols for the Short and Intermediate Range Missile Treaty between the U.S. and the U.S.S.R.

[...] I would like to stress two points that I believe materially change the important history of the birth of the Nuclear Age as we know it:

First, it is my view as a physicist, based on documentation provided here in *Critical Mass* that the effort the Germans put into preparing and shipping the 560 kilograms of uranium oxide surrendered on board the German submarine U-234, was enriched in the isotope U235. In other words, it was enriched to create a nuclear weapon. [. . .]

The second material information you should take note of, I believe, is that the contributions to the Manhattan Project of the surrendered U-234 did not stop there. I believe the surrender of U-234 had impact on the development of the implosion device—the plutonium bomb dropped on Nagasaki—as well.

I was well acquainted with the development of the implosion device and the difficulties our scientists experienced in developing a detonation system that would give a proper spherical implosion. This concern kept the entire group on edge until the famous Trinity Test in New Mexico proved it to be successful... Surprisingly, as the date of the test approached, last-minute improvements in the firing system reduced their concern enough about the reliability of the detonation system...

I was never told how the details of the improvements came about, but it was during this period that the passengers on board U-234 were debriefed and it was learned that one in particular, the scientist Heinz Schlicke, had knowledge of fast operating energy transfer systems. The rapid and consistent release of electrical energy was a key part of the problem the LANL scientists were experiencing triggering the detonators with the simultaneity necessary to achieve a clean spherical implosion. There apparently is no written unclassified record available to provide us with what may have come from the debriefing of Heinz Schlicke but this we do know, over the summer months after his capture and the surrender of U-234 the confidence in the detonation system greatly improved, and the production of uranium for the gun weapon increased significantly.

Jack H. Alberti to John L. Riheldaffer. 24 May 1945. Subject: U-234. [NARA RG 38, Entry UD-16, Box 4, Folder Manifest of U-234]

The following information has been obtained from P/W Leutnant Menzel of the Luftwaffe, passenger on U-234.

1. The two after mine shafts of the forward line of six mine shafts amidships contain the personal baggage, documents and other property belonging to General Kessler, Col. von Sandart and Leutnant Menzel, in addition to some other cargo.

2. The Captain of U-234, Kapitänleutnant Fehler, and the II.W.O., Leutnant Pfaff (believed at Fort Meade), and the engineer of the boat (retained aboard U-234), between them, know most about cargo stowage and can be of great assistance in identifying it, as well as in proper and safe unloading.

3. In the U-Raum of U-234 there are two steel chests, marked Erich Menzel. These contain 15 rolls of secret films and all documents concerned with Menzel's mission.

4. U-843, C.O. Kapitänleutnant Herwartz, arrived in Norway from Japan about 10 April. She was sunk on her way to Kiel and two survivors were rescued by the Germans.

5. U-864, C.O. Kapitänleutnant Wolfram, was to go to Japan. She was sunk off Bergen with two Messerschmidt experts on board. Lt. Col. Stepp of the Luftwaffe and Baurat Wahlfeldt, the high-frequency expert, who were to sail on this boat were not aboard and remained in Horten.

6. The packages for Dr. Schlicke, one of the passengers, and contained in one of the tubes are marked "TONI". Dr. Schlicke knows about the infra-red proximity fuses which are in some of these packages. He warns that they must be handled with the utmost care as they may either explode or be irreparably damaged if handled improperly. Dr. Schlicke knows how to handle them and is willing to do so.

7. Fregattenkapitän Falck states that in addition to the mine shafts there are containers with cargo and documents inside the fuel tanks.

8. General Kessler, who was going to Japan to relieve General von Gronau, had originally planned to go to Japan via Northern Norway in a Junkers 290. Although this plan was abandoned in his case, it is possible that others went to Japan in this manner.

9. An empty envelope, found in the passport of Col. von Sandrat, is inscribed on the outside to the effect that it originally contained 1500 Swiss Francs. Since General Kessler only claims to own 1500 Swiss Francs, and since only 1800 francs have been recovered, 1200 francs must still be scattered among the souvenir hunters at Portsmouth, and this is on the assumption that none of the other passengers had any Swiss Francs.

[From information that is currently available, U-234's cargo apparently included a wide variety of advanced detonator technologies, and Heinz Schlicke was an expert on those and many other technologies. Although only infrared detonators were mentioned as an example in the above document and the next document, the other technologies may have included exploding bridgewire detonators such as would be especially useful for implosion bombs. Erich Schumann appears to have referred to exploding bridgewire detonators in his description of German implosion bombs (p. 4241).]

Secret dispatch from Commander of Naval Operations to Portsmouth Naval Yard. Subject: POW and fuses from U-234. 25 May 1945. [NARA Boston RG 181]

Lt (JG) H E Morgan, Lt (JG) F M Abbott, Ens F L Granger with Dr Schlicke POW in custody leaving Anacostia noon Friday via plane. This party expert in bomb disposal and proximity fuses and being sent to assist in securing certain infra red proximity fuses important BUORD [Navy Bureau of Ordnance] and in cargo U-234. Fuses when secured to be returned Washington custody above party.

[See document photo on p. 4871.]

First lecture given by Dr. Schlicke at the Navy Department. 19 July 1945. [NARA RG 38, Entry UD-38, Box 13, Folder U-234]

After Dr Schlicke completes his lecture he will be available for questions that people ask. But we will kindly ask you not to ask any questions during the lecture and after the lecture Mr Alvarez will sit at the table and the person who wishes to ask a question is asked to come forward so that we can get in the microphone and keep a record of all the questions and answers. Thank you.

[For more information on some of Schlicke's U.S. lectures, see AFHRA B1975, frames 1325–1495.]

Luis W. Alvarez. 1987. *Alvarez: Adventures of a Physicist.* New York: Basic Books. p. 137.

The gamma-ray records proved less definitive than we had hoped but helped the implosion design. I cleaned up some loose ends in detonator design. By April 1945 that work had moved on to engineering, and I was again unemployed.

[...] Normally a new weapon is proof fired at a proving ground before it's used in combat. We had only one U-235 weapon, however, every atom of which had been run twice at enormous expense through the Oak Ridge calutrons, and as of July 1945, there would be about one plutonium bomb a month, the first of which would have to be used up in a static test to make sure the Fat Man implosion system worked as we predicted it would.

[Note from this passage that Alvarez had been directly involved in the design of the detonators for the U.S. implosion bomb, was available for additional assignments by April 1945, and recognized there was still uncertainty about whether the implosion bomb detonation system would work as intended. From the document on p. 4739, Alvarez was also directly involved in U.S. intelligence efforts to analyze the progress of the German nuclear weapons program. Thus if U-234, Heinz Schicke, or Allied discoveries of German nuclear weapons components in Europe (p. 4241) did in fact provide improved detonators for an implosion bomb, Alvarez would have been an ideally qualified person to assign to apply them to the U.S. bomb.]

Pam Fessler. 18 August 2008. Former GIs Spill Secrets Of WWII POW Camp. National Public Radio. https://www.npr.org/templates/story/story.php?storyId=93649575 [**See also: https://www.npr.org/templates/story/story.php?storyId=93640350 and https://www.npr.org/2008/08/18/93635950/breaking-the-silence-of-a-secret-pow-camp**]

Amid the shade trees, swings and picnic grounds at Fort Hunt Park just outside Washington, D.C., there are few traces of the site's top-secret military past. But for the GIs who were stationed there during World War II, the park is alive with memories of what it had been: an interrogation camp for nearly 4,000 mostly German prisoners of war.

The park, then code-named P.O. Box 1142, was where the military elicited crucial information from top enemy officers and scientists. It also was where the United States had a clandestine program to help American POWs escape.

Until recently, much of what occurred at P.O. Box 1142 was unknown. Many who participated went to their graves without revealing—even to their families—what they'd done. The buildings were razed after the war. And many documents about the camp were destroyed in an effort to conceal its existence.

The National Park Service, which now runs Fort Hunt Park, is trying desperately to capture some of this history before it disappears. It has conducted more than 40 oral interviews with vets who had been stationed there.

One GI who worked at P.O. Box 1142 was John Gunther Dean, a young American soldier singled out while in basic training because he seemed well-suited for the intelligence operation. Dean, now 82, recalls how he was summoned to the Pentagon, where an Army officer asked him if he knew how to speak German.

"And I said, 'Yeah, I speak German like a native,'" says Dean.

His family, which was Jewish, had fled Germany in the late 1930s. When everyone else at Fort Belvoir—a U.S. Army base in Virginia—was sent overseas, Dean was handed a nickel and a phone number and then mysteriously dropped off in the middle of Alexandria, Va.

"There was a drug store. I went in, called the number and they said, 'Dean, you stay outside and we'll pick you up in a staff car.' And they drove me up towards Mount Vernon and that's how I ended up at Fort Hunt. It must have been end of November, early December 1944," he says.

George Mandel, now an 84-year-old professor at George Washington University, also ended up at P.O. Box 1142 during the war.

Mandel says when he was there, things looked quite different than they do today. There were prison barracks and buildings where American soldiers would interrogate Nazi and other enemy prisoners. About 4,000 high-ranking prisoners passed through the camp.

"My job was to interrogate scientifically trained and experienced Germans who had been sent to this country by the military," says Mandel. He knew German and had a chemistry degree.

But he admits that at age 20, he was naïve in the face of some of the Third Reich's top scientists.

"One of them was a person who worked on enriching uranium, and I didn't know why anybody would want to enrich uranium. I mean, what does this have to do with anything?" he says. "And so my job was to find out what he was doing and how it was being carried out, and then I reported this to the Pentagon."

It was part of a U.S. effort to learn what the Germans were up to. The prisoners were asked about troop movements, scientific advances and anything else that could help the Allied cause.

For years, Mandel, Dean and others kept quiet about P.O. Box 1142 because they had been sworn to secrecy. The operation has since been declassified, but many records were lost, which is why the veterans' stories are so important to the park service.

For Chief Ranger Vincent Santucci, it's like trying to glue together a broken vase—with some important pieces missing.

"Many of the archives were destroyed directly after the war. And so if we didn't have the opportunity to speak with these men and capture their stories, much of it may have been lost forever," Santucci says. [...]

One of those Dean befriended was German engineer Heinz Schlicke, who developed infrared fuses that could be used to trigger an atomic bomb. Schlicke was brought to P.O. Box 1142 after the U-boat on which he and other scientists were fleeing Germany for Japan was surrendered in 1945.

Schlicke's time at Fort Hunt was part of Operation Paperclip, a secret effort to bring hundreds of top German scientists—and their expertise—to the U.S. before the Russians got their hands on them. Dean says he and Schlicke played tennis and rode horses.

"It took quite some time before he was willing to cooperate. The war had ended in Europe and at that point, he said, he's willing to help us, but his wife was at that point in what was in the Russian zone," says Dean.

Dean was eventually sent to Europe to find Schlicke's wife and two small children and to reunite the family. Schlicke ended up working in the U.S. for the remainder of his life.

[See also p. 2045.

At least some of the surviving records from Fort Hunt are at NARA RG 165, Entry 179. Those and any other relevant records should be searched thoroughly.

Are there detailed reports of the interrogations of German-speaking prisoners who described uranium enrichment, atomic bomb fuses, or other nuclear-related work?

What are the names of the 4,000 German-speaking prisoners who were interrogated at Fort Hunt?

What all did the United States learn from them?]

Robert K. Sutton. 2021. *Nazis on the Potomac: The Top-Secret Intelligence Operation That Helped Win World War II.* Philadelphia: Casemate. pp. 74–75.

[George] Mandel's special expertise was chemistry, but, in time, he became comfortable asking questions about more technical issues, such as German jets and jet engines. In short order he became one of the experts on jets at Fort Hunt. Once he learned about the technical capabilities, flight characteristics, speed, and everything else about German jets, he came to the chilling conclusion that had the Nazis developed these machines at the peak of their manufacturing capabilities, the war could well have ended very differently. These airplanes were far superior to anything the Allies had in the air. [...]

One German scientist described his responsibility of enriching uranium. Mandel would later say that he could not understand why anyone would bother to enrich uranium, but as he probed deeper, he learned that the Germans had been working on developing a nuclear bomb. This was critical information that needed to be passed along to the Pentagon—immediately! [...]

While interrogating another scientist, Mandel learned about proximity fuses. The Allies had developed proximity fuses—which could detonate an explosive shell when it was close to or in the proximity of a target for maximum effect—but the Pentagon wanted to better understand the German uses of the devices. Mandel discovered that the German development of these devices was further advanced than those in the United States.

[Johann Gunther Dienstfertig (1926–2019) was born in Breslau, moved to the United States in 1939, and became much better known as John Gunther Dean. As a native German speaker who was drafted into the U.S. Army, he was assigned to obtain information from German prisoners of war at Fort Hunt and was also sent on a mission to Europe after the war. In multiple interviews, he stated that POWs from the U-234 as well as other German personnel captured earlier provided information about the German nuclear program, and that the German nuclear program was highly advanced. He spent most of his career as a high-ranking diplomat working around the world on behalf of the U.S. government.]

Ambassador John Gunther Dean. Interviewed by Charles Stuart Kennedy. 6 September 2000. p. 19. https://www.jimmycarterlibrary.gov/sites/default/files/pdf_documents/assets/documents/oral_histories/project/Initial_Interview_Part_One.pdf

DEAN: [...] For the next two years, I served at Post Office Box 1142, Alexandria, Virginia. I was sent to Europe at one point, but I always remained part of "Post Office Box 1142."

Q: Was this OSS?

DEAN: It was military intelligence. The OSS colleagues with whom I worked lived in a mansion on the road to Mount Vernon. I went to Fort Hunt, also a stop on the Mount Vernon Highway, about 5 minutes from our OSS friends. Today, at Fort Hunt, you can see nothing that existed during the war. I took my wife there, 30 years later. There is nothing there except some areas designated "Off Limits". During my military career, I could wear most anything I wanted—civilian clothes, military clothes (but I was a little young guy at 18 to pose as an officer). In 1944, I heard for the first time the word "atomzertrummerung" meaning splitting of the atom. Few people had ever heard about it until one year later.

Fort Hunt Oral History. P.O. Box 1142. Interview with John Dean by Brandon Bies. 2 October 2007. https://www.nps.gov/museum/exhibits/fohu_oral_history/transcripts/Fort%20Hunt_NPS_PO%20Box%201142_JDean.pdf
[There are also many other enlightening interviews of former Fort Hunt interrogators at this website https://www.nps.gov/museum/exhibits/fohu_oral_history/index.html]

[p. 22:] BB: So, these room conversations, the listening in that you would do—does any particular room conversation stand out, do you remember any time—

JD: One of them was, and I heard it for the first time, the word [speaks German], the splitting of the atom. Now, whether this is recorded; I don't—did I push the button? But I knew, was my uncle Otto Stern [...] had worked in Germany with Hahn and people like that, and he was fleeing and he went to the States. He got the Nobel Prize in 1948 in physics, so I knew the word [speaks German]. I know nothing of how you get to that, and I'm not at all a scientist, but I knew that's the time you press the button, because that was of major interest to the United States. [...]

[pp. 23-24:] JD: I just turned the damn stuff in; I don't remember. We all turned the stuff in, and we were told not to talk much about the thing. But then they used us younger guys—I was used because Heinz Schlicke, when he came, he was young, sports-oriented, and he wanted—we wanted to be nice to him. So somebody had to go and do things with him; so I did. He was a nice guy—he was Nazi—yes, he was a good Nazi, and he was at Peenemünde; so what? My job was to see what he could do for the United States. And I was told to do this. [...]

[p. 30:] JD: [...] At 1142, there was no pressure. There was psychological power being used. We put a stoolpigeon in because this guy was knowledgeable on atomic energy. [...]

[pp. 42–44:] JD: What happened with the—in January of 1945, the war was going badly for the Germans. Hitler sent U-boat number 234 to help the Japanese allies. You have the documentary. Now, how we got involved is we got it after these people came to 235, and it was the following—that we—that a—this submarine was on its way to Japan, and it had, we were told, mercury for $300 million, which was a number so extraordinary in 1945, but it wasn't. It was actually uranium oxide on there, and the captain was Captain Fehler. It had a German four-star general on it, and if I reached back, I'd give you the name somewhat.

BB: Was it Kessler?

JD: It—

BB: Ulrich Kessler?

JD: It was an air force general.

BB: And Luftwaffe. Yeah, that's Ulrich Kessler.

JD: And it was—and it was two colonels—Japanese colonels who committed hari-kari because—and then there was our friend Heinz Schlicke on there. Now, that U-boat was on its way and got as far—as I remember it—as far as Uruguay and was then supposed to go—you have to remember at that point, in May of 1945, Japan was very much still in the war. The atomic weapons—we had—we weren't using it and may not have had it, and the Germans had been very far advanced on atomic energy. Hahn—Professor—was it Hahn or whatever—was the head of it, and that's where my uncle came in—Otto Stern was—he had been down—but these guys—the Jewish people left and fled, you

know, okay. So, when this boat surrendered, 234, the two Japanese committed hari-kari because Fehler said, "I will only surrender to the Americans." All I know that—at that point, these guys came—some of these guys came to P.O. Box 1142, and it took quite some time, to be very frank, for Heinz Schlicke to come around to working with us and the willingness to work with us, and it was only later that I was sent with prisoners who were being sent back to Europe, and I was put on a ship, and I went back, and I delivered these guys, and everything was so well planned, I was in luck. In Normandy, it was pretty normal, and at that point I was asked to go to Kiel, British zone, and there I was told that—that since I'd known Schlicke that I should go and get his wife and two kids. Everything was worked out. [... I]t was in South Hampton, I believe, somewhere on Long Island that they first put him, and he worked with us, and he gave us the secrets of infrared we didn't have, and he then stayed with his wife and children in the United States, and he died last year—

BB: Right.

JD: —and Schlicke was a good Nazi. He had worked in Peenemünde[....]

[pp. 54–57:] BB: Okay. Do you—again, realizing completely that your views were that of an 18 and a half year old, do you have a feeling or any sense that anything at all that went on at 1142 somehow assisted the American nuclear program, the atomic program?

JD: It definitely did. Definitely we had people who knew something about it. Now, I am not at that level, but they probably told them who the names were, and what level they were at and something like that. You see, that is what they could find out. But they didn't have the bomb yet. But they were close, because they sent that stuff over to the Japanese. [...]

BB: Okay. Were you aware of any operations going on outside of 1142 up in Boston? Now we're at a place called Fort Strong in Long Island in Boston.

JD: No, sir. [...]

BB: Getting a little bit—well actually, while we're on that subject of other locations, how about a place called Pine Grove Furnace up in Pennsylvania? [...] This would've been a location where it was kind of used as a holding facility for prisoners prior to them coming to 1142.

JD: No, sir. [...]

BB: Are you familiar with another camp similar to 1142 on the West Coast? [...] It was called Camp Tracy. It was in Byron Hot Springs, California. It also had a P.O. Box number. It was P.O. Box 751.

[Fort Hunt was just one of several interrogation facilities. Are the complete lists of POWs and the interrogation transcripts from all of these facilities at NARA RG 165, Entry 179 or elsewhere?

What details of the German nuclear program were learned from the occupants of the U-234 submarine?

What details of the German nuclear program were learned from other POWs who mentioned "the splitting of the atom"?

How did all of that information aid the U.S. nuclear program?]

SECRET

EVALUATION SECTION
POST OFFICE BOX 1142
Alexandria, Virginia

25 January 1945

MEMORANDUM TO LT. COL. STUART D. BROWN.

Subject: Books in possession of PsW Weygand, Maurer and Neuert.

Mettauch & Fluegge: Kernphysikalische Tabellen. Berlin,1942.Syringer.

Kopfermann: Kernmomente. Leipzig, 1940. Akademischeverlagsgesellschaft.

Heisenberg: Die Physikalischen Prinzipien der Quantentheorie. Leipzig, 1930.

Heisenberg: Wandlungen in den Grundlagen der Naturwissenschaften. Leipzig, 1944. Hirzel.

P. Jordan: Statistische Mechanik. Braunschweig, 1944.

L. de Broglie: De La Mecanique Ondulatoire a la Theorie du Noyau. Tome 1. Paris, 1943. Herman & Cie.

Berthelot: Theses. Paris, 1944. Manon & Cie.

Neuberg: Das Naturwissenschaftliche Wellebild der Gegenwart. Goettingen 1944.

Hickinbottom: Reactions of Organic Compounds.London, 1936. Longmans, Green and Co.

Robert Robinson:Two Lectures On Electronic Theory. London, 1932.

Hugo Sirk: Mathematik fuer Naturwissenschaftler und Chemiker. Dresden, 1944. Steinkopf.

Matossi: Raman-Effekt. Braunschweig, 1944.

Walden: Drei Jahrtausende Chemie. Berlin, 1944.

J.D'Ans & Ellen Lax: Taschenbuch fuer Chemiker und Physiker. Berlin, 1943. Springer Verlag.

Hinsberg und Lang: Medizinische Chemie. Berlin & Wien, 1938. Urban und Schwarzenberg.

P.E. Verkade & F. J. Janetzky: Untersuchungen Über Indolverivate (photostatic copy from Recueil Trav. Chim. Pay Bas, 1943).

Eucken: Lehrbuch der Chemischen Physik. II Band. 2 Teilband. Leipzig, 1944. Akademischeverlagsgesellschaft.

Hodgman: Handbook of Chemistry & Physics. Cleveland, Ohio, 1936. Chemical Rubber Publishing Co.

Berichte der Deutschen Chemischen Gesellschaft. Dated 14 October 1944 and 31 August 1944.

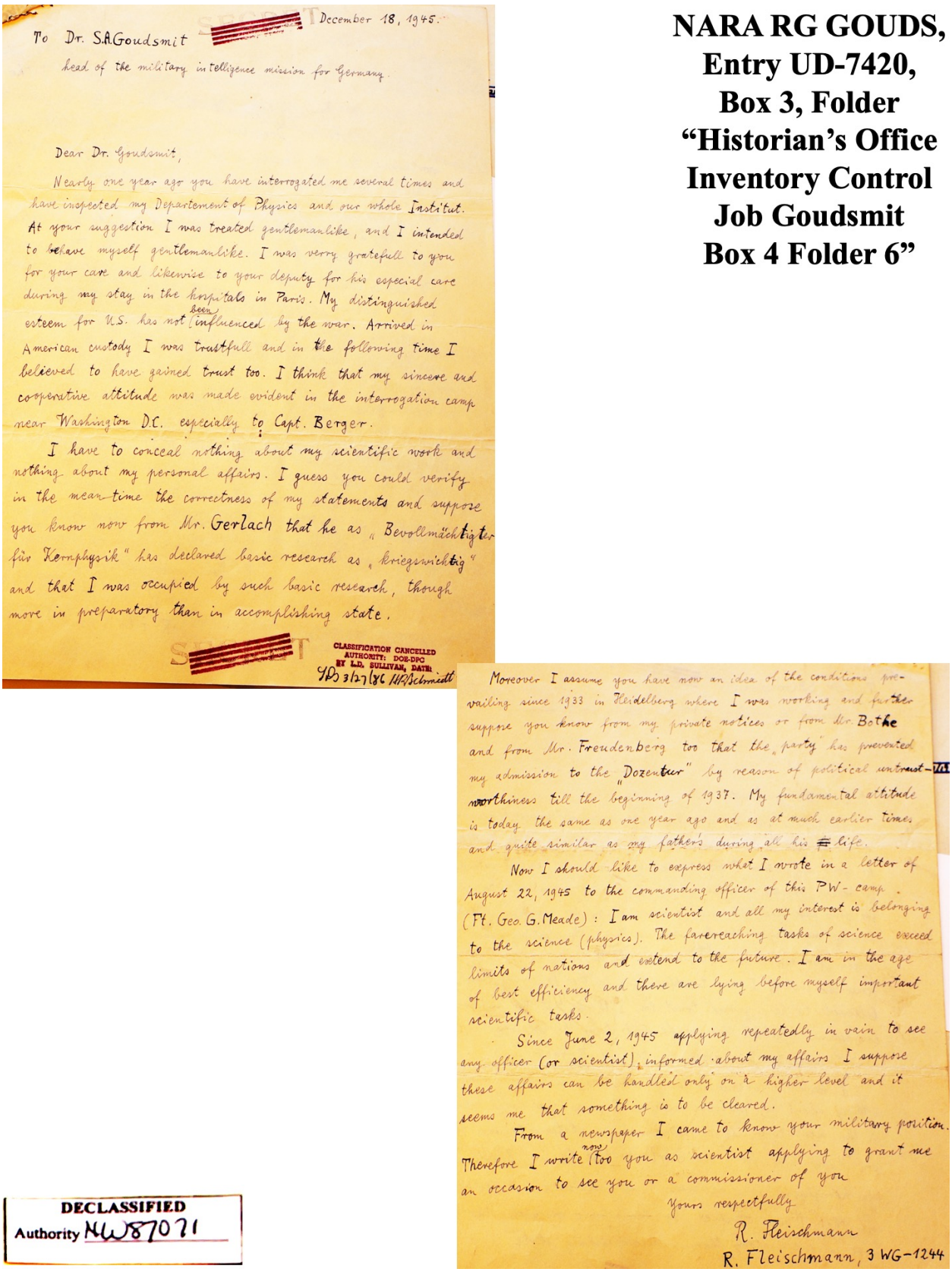
Weygand, F.: Über N-Glykoside, Isozuckermine und Deren Reduktionsprodukte. Heidelberg, 1940.

K. Henkel & F. Weygand: Synthese von Pyrozol und Triazoldialdehyden. 1943.

Owen C. Campbell
OWEN C. CAMPBELL,
Captain, M. A. C.

Figure D.915: Owen C. Campbell to Stuart D. Brown. 25 January 1945. Subject: Books in possession of PsW Weygand, Maurer and Neuert [NARA RG 77, Entry UD-22A, Box 171, Folder 32.7003-3 GERMANY: US Wartime Positive Int. (Nov. 44–June 45)].

NARA RG GOUDS, Entry UD-7420, Box 3, Folder "Historian's Office Inventory Control Job Goudsmit Box 4 Folder 6"



To Dr. S.A.Goudsmit December 18, 1945.
head of the military intelligence mission for Germany.

Dear Dr. Goudsmit,

Nearly one year ago you have interrogated me several times and have inspected my Departement of Physics and our whole Institut. At your suggestion I was treated gentlemanlike, and I intended to behave myself gentlemanlike. I was verry gratefull to you for your care and likewise to your deputy for his especial care during my stay in the hospitals in Paris. My distinguished esteem for U.S. has not (seen) influenced by the war. Arrived in American custody I was trustfull and in the following time I believed to have gained trust too. I think that my sincere and cooperative attitude was made evident in the interrogation camp near Washington D.C. especially to Capt. Berger.

I have to conceal nothing about my scientific work and nothing about my personal affairs. I guess you could verify in the mean-time the correctness of my statements and suppose you know now from Mr. Gerlach that he as „Bevollmächtigter für Kernphysik" has declared basic research as „kriegswichtig" and that I was occupied by such basic research, though more in preparatory than in accomplishing state.

CLASSIFICATION CANCELLED
AUTHORITY: DOE-DPC
BY L.D. SULLIVAN, DATE:
YDS 3/27/86 HP/Schmeidl

Moreover I assume you have now an idea of the conditions prevailing since 1933 in Heidelberg where I was working and further suppose you know from my private notices or from Mr. Bothe and from Mr. Freudenberg too that the „party" has prevented my admission to the „Dozentur" by reason of political untrustworthiness till the beginning of 1937. My fundamental attitude is today the same as one year ago and as at much earlier times and quite similar as my father's during all his life.

Now I should like to express what I wrote in a letter of August 22, 1945 to the commanding officer of this PW-camp (Ft. Geo. G. Meade): I am scientist and all my interest is belonging to the science (physics). The farereaching tasks of science exceed limits of nations and extend to the future. I am in the age of best efficiency and there are lying before myself important scientific tasks.

Since June 2, 1945 applying repeatedly in vain to see any officer (or scientist), informed about my affairs I suppose these affairs can be handled only on a higher level and it seems me that something is to be cleared.

From a newspaper I came to know your military position. Therefore I write (now) you as scientist applying to grant me an occasion to see you or a commissioner of you.

Yours respectfully
R. Fleischmann
R. Fleischmann, 3 WG-1244

DECLASSIFIED
Authority NW 87071

Figure D.916: Rudolf Fleischmann to Samuel Goudsmit. 18 December 1945 [NARA RG GOUDS, Entry UD-7420, Box 3, Folder "Historian's Office Inventory Control Job Goudsmit Box 4 Folder 6"]. "I think that my sincere and cooperative attitude was made evident in the interrogation camp near Washington D.C. especially to Capt. Berger.... this PW-camp (Ft. Geo. G. Meade)."

Robert A. Carr. October 1949. How German Experts Aid Our Research. *Army Information Digest* 4:10:15–19.

[...] By 1 September 1949—ten years after Hitler's attack on Poland—many changes had been wrought in the life of Dr. [Wolfgang] Finkelnburg. Now 44, he lives with his wife and two-year-old son at Fort Belvoir, where he is employed by the United States Government as a research expert in light and radiation sources. He also is a research consultant on atomic physics; and his textbook on the subject is currently on the press of the leading American publisher.

Dr. Finkelnburg's activities in the field of pure science are not confined to the seclusion of the laboratories at Fort Belvoir. During the past two years he has lectured at Ohio State, New York and Northwestern Universities; Massachusetts Institute of Technology, Bell Telephone and Brookhaven National Laboratories; and before the Society of Motion Picture Engineers. For many months, he has carried a heavy schedule of classes, teaching atomic physics in extension classes conducted by Catholic University at Fort Belvoir.

Dr. Finkelnburg is only one of about 500 [the actual total was far larger] outstanding German scientists and technical experts whose talents are being utilized by the United States, to help maintain our position of world leadership in scientific research and development. Under this far-reaching program, known as Project Paperclip, German experts are brought to the United States. Here they are provided with facilities for research in electronics, supersonics, guided missiles and jet propulsion. They pioneer in the vast realms of chemistry, physics, metallurgy, engineering, synthetic fuels, environmental protection, and the like. Some are doing advanced work in medicine, including the design of artificial limbs and prosthetic appliances. Nearly all of the technical services of the Armed Forces are now employing these scientists; and a few have been made available to civilian industry.

Among Dr. Finkelnburg's associates at the Engineer Research and Development Laboratories are Dr. Alexander Smakula, a specialist on optics, formerly with the Zeiss Company [p. 1282]; Dr. Werner K. Weihe, electronics researcher who was formerly chief of the Zeiss electrotechnical laboratories [p. 1152]; and Dr. George Hass, formerly on the faculty of the Technical University of Danzig, who is now doing research in optics and in other aspects of physics [p. 2757].

Although the idea of capitalizing on the knowledge and skills of German scientists had been conceived early in World War II, it was not until the summer of 1945 that a firm plan could be put into operation. However, immediately after VE day, we acquired our first German experts by chance, as part of a drama that had the earmarks of a movie thriller.

In obedience to Allied orders, Nazi submarines in every sector of the world were to surface, report their positions, and display a black flag in token of surrender. Among the submarines docking at the Portsmouth (New Hampshire) Navy Yard was the U-234, one of Germany's largest U-boats, a minelayer of the latest type. Here was a haul! This sub was not on an ordinary errand. She carried Hitler's last, most valuable gift to his Japanese ally. Her compartments were filled with treasure—platinum and mercury, blueprints by the thousands, samples of the newest electronic tubes and other inventions, uranium oxide of a high degree of purity, and a rich human cargo—ten of Germany's leading scientific and technical experts. [Does this mean that U-234 had additional

technical experts not listed on p. 4859?]

It was intended that these men should carry on in Japan the newest research projects which the increasing fury of the war had prevented Germany from realizing. The group included Lieutenant General Ulric Kessler, the former head of the *Luftwaffe Flieger Korps*; Dr. Gerhardt Falck, one of the top designers in the German Bureau of Ships; and August Bringewald, the star production engineer of the Messerschmitt Works, carrying with him blueprints which would enable him to set up a complete plant for construction of the latest Messerschmitt jet aircraft in Japan.

Some of these men were placed on special military projects, and later were returned to Germany. Several are still employed at Army, Navy, and Air Force research centers, where they continue their work under Government supervision. Today, Bringewald is employed at Wright-Patterson Air Force Base, and Dr. Falck has returned to Germany.

Among the cream of German scientists now working for the Armed Forces are the former director of Germany's air-to-ground and ground-to-air missiles projects; eminent V-2 and remote control specialists; the former research directors for Junkers and Zeiss; and some of Germany's leading parachute experts and aeronautical engineers.

From the beginning, the process of screening German scientists for admission to this country has been thorough. Even before the European phase of World War II ended, technical teams of the military services were surveying major plants and research organizations in Germany. They catalogued the names of thousands of Germans engaged in research; and they forwarded many thousands of scientific documents and reports to Washington for study by our technical experts. Commercial teams followed the military, analyzing the progress of German commercial research, locating the leading experts. Finally, a panel of top-notch German specialists was assembled and was directed by the Theater Commander to compile a list of all German scientists and technical specialists. This roster contained the names of 24,000 Germans, ranging from world-acknowledged experts to lesser technical specialists.

From all these sources, the military services, in cooperation with other interested Government agencies, made the final selection. The dominant factor in each case was the ability of the scientist to make an "otherwise unobtainable" contribution to American military research and development. Every using agency was required to certify that the skills and experience offered by the German could not be obtained from an available American scientist. [...]

Hundreds of millions of dollars and from two to ten years of research time, it is estimated, have been saved by the program. Out of the experience of the German scientists has come a knowledge of the many blind alleys to be avoided, thus narrowing the fields to be explored.

MAJOR ROBERT A. CARR, Inf., is on the staff of the Security Review Branch, Office of Public Information, Department of Defense. He was formerly Public Information Officer for the Department of the Army on Project Paperclip.

[One of the U-234 passengers that the above article named, Gerhard[t] Falck, had some sort of nuclear expertise, which this article did not mention [p. 4870]. This article also carefully avoided mentioning another U-234 passenger, Heinz Schlicke, who may have had knowledge related to nuclear components [pp. 4881–4880]. Even the main scientist featured in this article, Wolfgang Finkelnburg (who was not a passenger on U-234), focused on fission reactors for much of his postwar career, so he likely had some nuclear-related wartime experience that was never explicitly named.

More broadly, the above article—written directly by the U.S. Army—openly admitted that German scientists were up to a decade ahead of the U.S. during the war and that in postwar U.S. programs, the German scientists were making enormous contributions in a wide variety of fields that were beyond the capabilities of U.S. scientists.

Where in current archival files is this list of 24,000 German names? That would be even more extensive than the Osenberg list of 15,000 names.]

Operation LUSTY. January 1946. [AFHRA C5098 electronic version p. 586.]
http://www.indianamilitary.org/FreemanAAF/OperationLusty/OperationLusty-s.pdf

A casual remark made by a technical engineer, who stated that he had recently been offered a position in Japan, led to his being thoroughly interrogated for significant technical information. As an aside, and what he probably considered a relatively unimportant incident, he stated that less than a month ago, about the middle of April, ten submarines heavily loaded with the latest German equipment relative to aerial warfare, were dispatched from Kiel to Japan. When Lt Col. O'Brien was thus informed he immediately advised the Directorate of Intelligence, USAFE, who in turn notified the Japanese Intelligence Section of SHAFE. A cable was then dispatched to all commands.

In every theater of war, all vessels in ports and at sea were notified, and one of the biggest searches ever undertaken during the war for submarines was initiated. What route they had taken, whether they had gone alone or together, no one knew. But so extensive was the search and so carefully was it executed by warships of all Allied nations, that by the end of June, six of these ten submarines had been captured intact, some a relatively short distance away from their bases, others perilously close to Japan.

[What technologies were on the U-234 submarine, in terms of its cargo, documents, and the knowledge of its passengers and crew?

What technologies were on other submarines (both German and Japanese) that evacuated materials and personnel from Germany?

What technologies were evacuated from Germany by other means—aircraft, smuggling across borders, etc.?]

SECRET

SUMMARY OF INFORMATION
June and July

Pertinent details have been obtained confirming research activities in German laboratories up through 1942. Various scientists are mentioned in reports concerning research activities on uranium fission, some of the names appearing for the first time in this connection. Those mentioned are: Batie, a French scientist reported to be acquainted with secret bomb development involving uranium fission; Jardon who left Peenemunde to work with Heisenberg, Von Weizsacker who recently visited Madrid and Lisbon, contacting scientists in both cities; Von Laue, Gentner, Heisenberg, Bothe, Hahn, Flügge, Jolliot, Von Ardenne, Meitner, Traubenberg, Retzler, Maurer.

The Physics Institute at Leipzig was destroyed by bombing and the Institute at Berlin Dahlem was damaged although the laboratories are still operating. All Institutes have reserve laboratories in the country, however, some of which are reported at the following locations: Hirshberg, Forschungstelle in Wurtemberg, Feldberg (underground laboratory), Bisingen (Heisenberg Institute having a cyclotron). The Siemens plant is reported to have an atomic physics laboratory. It has been proposed that the Nils Bohr Institute at Copenhagen be transferred to Germany.

The primary interest of the Reichspost in nuclear physics is indicated in continued reports of its activities. Information has also been received that the Reichspost has installed three high tension laboratories.

Heavy water has been sold to Swiss scientists by I.G. Farben who procured the production from Rjukan, Norway and evidently are the agents for heavy water in Germany.

No sign of unusual activity during the war is apparent in air photographs of Joachimstahl and Schoenficht.

Persistent reports are being received disclosing the existence of a reprisal weapon of an unorthodox type. It has also been reported that the power of a large air torpedo was to be derived from uranium but that this idea has been given up for the war.

The Japanese have announced that they too have discovered the effects of fission and have also said that Germany was working on the project. The interchange of technical information between Japan and Germany is being accomplished by means of submarine, surface ships, the Siberian railway and by air.

Figure D.917: "The Japanese have announced that they too have discovered the effects of fission and have also said that Germany was working on the project. The interchange of technical information between Japan and Germany is being accomplished by means of submarine, surface ships, the Siberian railway and by air." [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 GERMANY: Summary Reports (1945–1946), Summary of Information June and July [1944]]

D.14.6 High-Level Interrogations

[Many high-level German military and political officials who would have known a great amount about the German nuclear program were captured and interrogated at length by the United States and/or United Kingdom. Available documents show that those officials did indeed discuss the German nuclear program, although currently available declassified documents do not reveal most of the details that those German officials provided.]

Nazis' A-Bomb 90 Days Late, Says Goering. *Chicago Daily Tribune*. 26 January 1946 p. 10.

Germany was within 90 days of producing its first atom bomb when the war ended, Hermann Goering, former Luftwaffe chief, told his jailers at an American army prison in Mondorf, Luxemburg.

Authority for this statement is former Tech. Sgt. Robert Bock, 1203 S. 57th St., Milwaukee, who was warden of "Ashcan" prison, where Goering and other top flight Nazis were questioned for 100 days prior to the trails at Nuernberg, Germany.

"Goering told me Germany had made extensive progress in the use of the element uranium as a source of destructive atomic power, and that he had plans for an atomic anti-aircraft grenade which would have crumpled the wings of every plane within one kilometer (5/8 of a mile) of its bursting point," Bock asserted.

But Goering believed America would have defeated Germany even if the Nazis had developed the atom bomb, Sgt. Bock said.

[Nuclear weapons could have been employed in a variety of ways during the war. One possible tactical application would have been as an anti-aircraft weapon, such that one nuclear weapon exploded in the air might conceivably destroy an entire formation of Allied bombers. Since Hermann Goering was the head of the Luftwaffe, that application would have been most significant to him.

As the single most talented, most utilized, and most secretive native German-speaking interrogator in the investigation of German scientific programs by the United Kingdom (and by collaboration, the United States), Edmund Tilley (1892–1966) gained a deep knowledge of German programs to develop nerve agents (below), fission bombs (pp. 4902–4903), manned V-1 cruise missiles armed with fission bombs (pp. 4896–4897), a 6-ton H-bomb (pp. 4350–4359), advanced rockets (pp. 5762–5763) and goodness knows what else. Can all of the files related to Tilley's interrogations, reports, and knowledge be located and declassified?]

Dan Kaszeta. 2020. *Toxic: A History of Nerve Agents, from Nazi Germany to Putin's Russia*. London: C. Hurst. pp. 66–68, 74, 318.

Edmund Tilley played a pivotal role in the history of nerve agents because of his skills as a German-speaking interrogator. He spoke German with native fluency, having been born in Marburg in 1892 where his father was an English lecturer and ran a series of language schools.[5]

Edmund Tilley was in the US by the time of World War I, but his father and brothers were interned by the Kaiser's government. After studying at Union College in Schenectady, New York, Edmund spent time as a language and dramatics teacher, at both Union College and in Istanbul at Robert College, which was and is an elite private high school. A generation of the political and economic elite of Turkey may have been taught English by Tilley. By 1937, his mother's obituary lists him

residing in England,[6] yet even then he was something of an enigma as he is missing from all records other than an immigration form completed when he visited relatives in the USA, listing a modest house in North London as his current address.

Due to his fluency in German, Edmund became involved in intelligence work with the British Army. The beginnings of his war service are also a bit of a mystery. The Army records show him being made a second lieutenant in the Intelligence Corps in the autumn of 1940, shortly after it was formally re-established. At forty-eight, he made for an old lieutenant. From 1940 through 1943 he either did little of note or it was very secret. One suspects the latter. Tilley could mimic most regional German accents and it is highly likely that these talents were not squandered. A book on wartime espionage in Persia makes a single tangential reference to Edmund Tilley being in Egypt in November 1943. He was part of the intelligence services and assigned to the Combined Services Detailed Interrogation Centre, in Maadi, Egypt. Special Intelligence Middle East's director, Brigadier Maunsell, described Tilley in his memoirs:

> By far the best interrogator we had in SIME: a gentle person, paranoically [sic] devoted to duty and a crashing bore! Major Tilley succeeded in breaking down our most difficult suspect, where all others had failed.[7]

He is described as one of the intelligence service's "most expert interrogators" who, after a full month of interrogation, broke a hardened German spy named Hans Merz and cracked another in thirty minutes.[8] Details of his remaining service in the Middle East and Mediterranean theatres is largely still a secret, but whatever Tilley did, it was worthy enough for him to appear in a picture shaking hands with King George VI in Italy in 1944.[9] Tilley was mentioned in dispatches for his work in Egypt and toward the end of the war was assigned to FIAT.

After the D-Day invasions, the liberation of Europe was no longer a planning effort but an operational one. Tarr, Tilley, and their team headed to the field, arriving in Paris shortly after it fell to Allied forces. They followed the Allied advance all the way to Germany, often only a few days behind British, American, and Free French forces. [...]

The archives are replete with both summary and detailed interrogation reports by Edmund Tilley. It is abundantly clear that he could persuade Germans of any rank or position to talk. No doubt some of this was through his native fluency. He knew every regional accent and famously once rumbled a German spy by telling him, quite correctly, that his accent was from Altona, outside of Hamburg. By the time Tilley was chasing scientists, he had years of interrogation experience with prisoners in the Middle Eastern and Mediterranean theatres. He had interrogated hundreds, if not thousands, of Germans before he even set foot in Germany towards the end of the war. [...]

5. Philip Thomson, 'William Henry (1860–1935)', Australian Dictionary of Biography, National Centre of Biography, Australian National University, https://adb.anu.edu.au/biography/tilly-william-henry-8815/text15339, published first in hardcopy 1990, accessed online 22 March 2019.

6. Bronxville Press, 7 January 1937.

7. Private papers of Raymond Maunsell, 4829, IWM, pp. 51–52.

8. O'Sullivan, Adrian. *Nazi Secret Warfare in Occupied Persia (Iran)*, Palgrave Macmillan, 2014, p. 201.

9. https://www.iwm.org.uk/collections/item/object/205259615—Note that this photo wrongly describes Tilley as a Lt Col when he was, in fact, a Major at the time.

Edmund Sorg. 17 August 1946. Betrachtungen über die bemannte V 1 im Zusammenhang mit Atomenergie. [TNA FO 1031/57]

Betrachtungen über die bemannte V 1 im Zusammenhang mit Atomenergie.

Bei der Durcharbeitung der Interrogation vom 16.8.46 habe ich folgende Gedankengänge über die Verwendung der bemannten V 1 in Zusammenhang mit Atomenergie erwogen:

Die Betrachtung der in viele Millionen Menschen gehenden Verluste und ungeheuren Materialzerstörungen, die ein moderner Angreifer im Laufe mehrerer Jahre verursacht, zwingt zu der Überlegung, welche Möglichkeiten gegeben sind, einen Angriffskrieg und damit diese Verluste und Schäden zu verhindern.

Jedes sich mit Angriffsabsichten tragende Land ist durch Vernichtung einer verhältnismässig kleinen Zahl von Punkten, die für den Angreifer lebenswichtig sind, schlagartig zu lähmen. Es sind dies, wie allgemein bekannt, z.B. Werke der Energiewirtschaft (Kohle, Elektrizität), der Öl Förderung, Aufbereitung und Lagerung, Kunstbauten des Verkehrs, Schlüsselindustrien der Rüstungswirtschaft, Schlachtschiffe u.s.w. Die Zahl dieser verwundbaren Stellen ist zwar bei den einzelnen Staaten verschieden, liegt aber zahlenmässig bei allen im Bereich der praktischen Einwirkungsmöglichkeit. Es liegt ebenfalls im Bereich der Möglichkeit, die kleine Zahl Menschen zu finden, die als internationale Polizeitruppe—als Flugzeugführer einer bemannten V 1—jederzeit bereit sind, eine Bedrohung des Weltfriedens durch sofortige Vernichtung der oben erwähnten lebenswichtigen Punkte des angreifenden Staates zu verhindern.

Reflections on the manned V 1 in the context of atomic energy.

In working through the interrogation of 16.8.46, I thought about the use of manned V 1 in connection with atomic energy:

The consideration of the losses in many millions of people and immeasurable material destruction caused by a modern attacker in the course of several years compels us to consider the possible ways of preventing an attack and thus to prevent these losses and damage.

Every country with hostile intentions could be immediately paralyzed by the destruction of a relatively small number of places that are vital for this aggressor. As is well known such places are for instance the factories for the production of energy (coal, electricity); the oil production, processing, and storage industries; engineering infrastructures for transport; key sectors of the armament industry; battleships; etc. The number of these vulnerable places may differ in each nation, but is numerically in a range that makes a practical intervention possible. It is also within the realm of possibility, to find the small number of people necessary to establish an international police force—pilots of manned V1—ready at any time to stop a menace to world peace by the immediate destruction of the vital places of an aggressive nation of the kind mentioned above.

Eine verbesserte bemannte V 1 mit Atomenergie als Ladung, kurz eine bemannte steuerbare Atombombe, die mit Sicherheit von modernen schnellen Grossflugzeugen in der Nähe ihres Zieles abgesetzt wird, gewährleistet bei Lenkung von Menschenhand und bei Selbstaufopferung des Piloten eine sichere Vernichtung ihres Zieles. Die Lenkung einer solchen Bombe durch Fernsteuerung, gleich welcher Art, gewährt nicht die absolute Sicherheit, das Ziel richtig zu treffen. Denn die technische Beeinflussungsmöglichkeit der Fernsteurung sowie des die Fernsteurung bedienenden Menschen durch den Feind liegt zur Zeit im Bereich des möglichen. Daraus ergeben sich Fehlerquellen, die die Erfolgsaussichten einer solchen Bombe sehr in Frage stellen. Dagegen bietet eine durch Menschenhand gesteuerte Bombe die nach menschlichem Ermessen grössten Erfolgsaussichten.

An improved manned V1 with atomic energy as a charge, in short a manned controllable atomic bomb, which can certainly be released by modern, fast, large airplanes close to its target, ensures a safe destruction of this target given that it is steered by the hands of a pilot ready to sacrifice himself. Guiding such a bomb by a remote control of any kind does not ensure the absolute certainty of hitting the target correctly. This happens because at this time it is technically possible for the enemy to interfere with the remote control and also influence the people controlling the remote guidance. This results in sources of error that seriously jeopardize the success of such a bomb. On the other hand, a human-controlled bomb offers the greatest possible prospects of success.

Edmund Tilley. October 1946. Report on the interrogation of Edmund Sorg. [TNA FO 1031/57]

"Specially adapted models of V-1 manned by pilots prepared to sacrifice their lives were to receive a powerful charge with which to destroy key targets, such as vital war plants and large battleships... It is more likely that the charge for the warhead which had been envisaged was not available in sufficient quantities. Significantly SORG mentioned an atomic charge for these suicide V-1s as the ideal explosive in a future 'defensive' war."

[See document photos pp. 4898–4899.

For another document on the interrogation of Edmund Sorg by Edmund Tilley, see p. 4354.

It seems likely that there are many other detailed documents summarizing information that was learned from interrogating Sorg. Can those documents be located and declassified?

For photos of actual piloted and air-launched V-1s similar to what Sorg described, see p. 1841. For a news description that may be related, see p. 5012. For submarine-launched V-1s that may have been intended to carry weapons of mass destruction, see pp. 5618–5627. See also Henshall 2000, pp. 129–130, redrawn from original document 824B-Sk 895/a, 19 September 1944, in the U.S. Air and Space Museum archive. For photos of a similar air-to-ground nuclear missile system that was created (or recreated?) in the United States by Walter Dornberger beginning in 1946, see p. 1854.]

Sorg , Edmund 17.8.46.

Betrachtungen über die bemannte V 1
in Zusammenhang mit Atomenergie .

Bei der Durcharbeitung der Interrogation vom 16.8.46 habe ich folgende Gedankengänge über die Verwendung der bemannten V 1 in Zusammenhang mit Atomenergie erwogen :

Die Betrachtung der in viele Millionen Menschen gehenden Verluste und ungeheuren Materialzerstörungen,die ein moderner Angreifer im Laufe mehrerer Jahre verursacht,zwingt zu der Überlegung,welche Möglichkeiten gegeben sind , einen Angriffskrieg und damit diese Verluste und Schäden zu verhindern.

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So wäre eine entsprechend ausgewählte,geschulte und ausgerüstete internationale Polizeitruppe durch Einsatz der bemannten,steuerbaren Atombombe jederzeit in der Lage,grössere Angriffsabsichtenund Handlungen eines Landes sofort im Keim zu ersticken. Allein die Tatsache des Vorhandenseins einer solchen Polizeitruppe würde schon eine weitgehende Garantie gegen Angriffsabsichten sein.

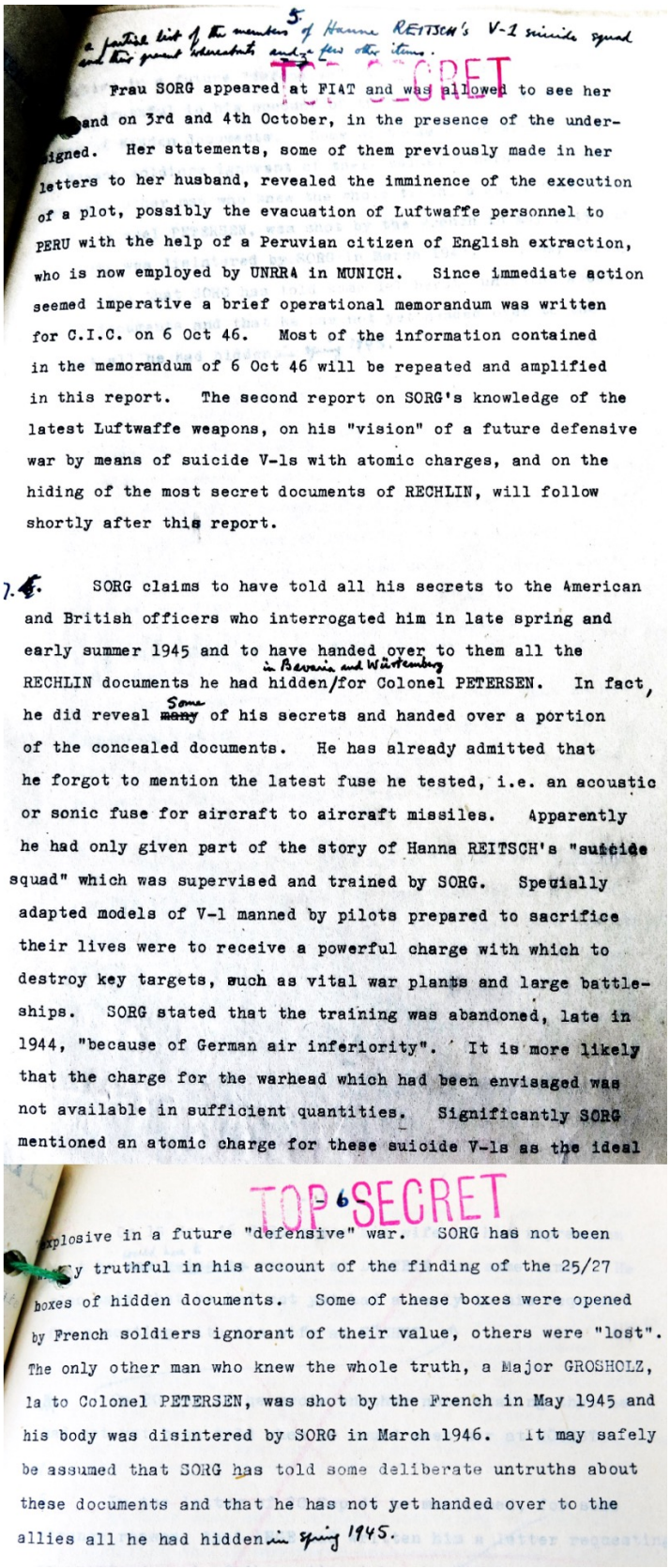
Ein Einwand,dass der Angreifer mit dem gleichen oben angeführten Totaleinsatz von wenigen Menschen den Verteidiger lahmlegen könnte, trifft nicht zu.Denn jeder moderne Angreifer muss einen ungeheuren Rüstungsapparat unterhalten, dessen Nervenzentren infolge ihrer Vielzahl immer sichtbar und daher verwundbar sein werden.Dagegen kann der Verteidiger,der diese Riesenrüstung nicht benötigt und sich durch die oben erwähnte Polizeitruppe schützt,seine wenigen hierzu erforderlichen Nerven so schützen oder verteilen,dass sie nicht lahmgelegt werden können.

Aus diesen Gründen erscheint mir die bemannte Atombombe besonders geeignet,Angriffsabsichten hochgerüsteter Staaten zu verhindern und damit die Welt vor erneuten unabsehbaren Verlusten an Menschen und Material zu bewahren.

E. Sorg

Figure D.918: Edmund Sorg. 17 August 1946. Betrachtungen über die bemannte V 1 im Zusammenhang mit Atomenergie. [TNA FO 1031/57]

TNA (Kew) FO 1031/112 Sorg V2



5.

a partial list of the members of Hanna REITSCH's V-1 suicide squad and their present whereabouts and/or files on other items.

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Frau SORG appeared at FIAT and was allowed to see her husband on 3rd and 4th October, in the presence of the undersigned. Her statements, some of them previously made in her letters to her husband, revealed the imminence of the execution of a plot, possibly the evacuation of Luftwaffe personnel to PERU with the help of a Peruvian citizen of English extraction, who is now employed by UNRRA in MUNICH. Since immediate action seemed imperative a brief operational memorandum was written for C.I.C. on 6 Oct 46. Most of the information contained in the memorandum of 6 Oct 46 will be repeated and amplified in this report. The second report on SORG's knowledge of the latest Luftwaffe weapons, on his "vision" of a future defensive war by means of suicide V-1s with atomic charges, and on the hiding of the most secret documents of RECHLIN, will follow shortly after this report.

7. SORG claims to have told all his secrets to the American and British officers who interrogated him in late spring and early summer 1945 and to have handed over to them all the RECHLIN documents he had hidden in Bavaria and Württemberg for Colonel PETERSEN. In fact, he did reveal ~~many~~ some of his secrets and handed over a portion of the concealed documents. He has already admitted that he forgot to mention the latest fuse he tested, i.e. an acoustic or sonic fuse for aircraft to aircraft missiles. Apparently he had only given part of the story of Hanna REITSCH's "suicide squad" which was supervised and trained by SORG. Specially adapted models of V-1 manned by pilots prepared to sacrifice their lives were to receive a powerful charge with which to destroy key targets, such as vital war plants and large battleships. SORG stated that the training was abandoned, late in 1944, "because of German air inferiority". It is more likely that the charge for the warhead which had been envisaged was not available in sufficient quantities. Significantly SORG mentioned an atomic charge for these suicide V-1s as the ideal

6

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explosive in a future "defensive" war. SORG has not been entirely truthful in his account of the finding of the 25/27 boxes of hidden documents. Some of these boxes were opened by French soldiers ignorant of their value, others were "lost". The only other man who knew the whole truth, a Major GROSHOLZ, la to Colonel PETERSEN, was shot by the French in May 1945 and his body was disintered by SORG in March 1946. It may safely be assumed that SORG has told some deliberate untruths about these documents and that he has not yet handed over to the allies all he had hidden in spring 1945.

Figure D.919: Edmund Tilley. October 1946. Report on the interrogation of Edmund Sorg. [TNA FO 1031/57] "Specially adapted models of V-1 manned by pilots prepared to sacrifice their lives were to receive a powerful charge with which to destroy key targets, such as vital war plants and large battleships... It is more likely that the charge for the warhead which had been envisaged was not available in sufficient quantities. Significantly SORG mentioned an atomic charge for these suicide V-1s as the ideal explosive in a future 'defensive' war."

Hans Kammler. 23 April 1945 telegram. [BA (Bundesarchiv). Bestand NS 3/514, pp. 31–32. Microfilmed as: NARA RG 242, Records of the Reich Leader of the Schutzstaffel (SS) and Chief of the German Police, Microfilm 183, NAID 273992206 (https://catalog.archives.gov/id/273992206)].

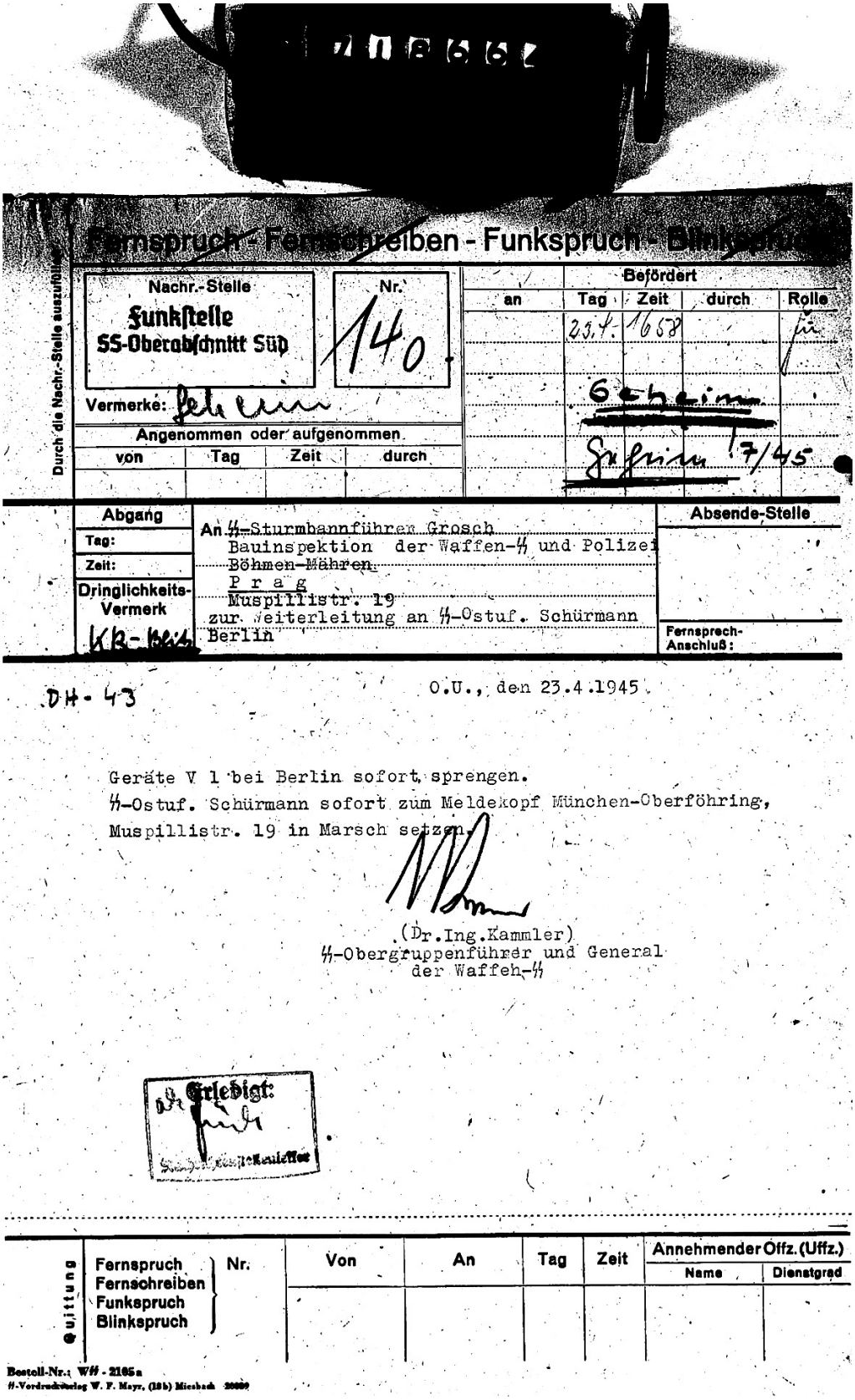
Geräte V 1 bei Berlin sofort sprengen.

Immediately blow up V 1 devices near Berlin.

[See document photo on p. 4901.

This was one of the last known communications Hans Kammler sent before he (secretly) surrendered to U.S. forces (pp. 4931–4959). "V 1" probably meant V-1 cruise missiles, although it is possible that it referred to some other type of device. V-1 cruise missiles had been mass-produced and were widely available, so there must have been something especially noteworthy about these particular V-1s. "Blow up" (sprengen) seems to have meant to destroy them before they could be captured, not to detonate them by firing them at targets, since no targets were mentioned.

The most likely explanation is that these were V-1s that had been modified to carry nuclear, chemical, or biological weapons, and that Kammler wanted those advanced weapons/evidence destroyed before Russian forces captured Berlin. Note that there were more than one of them (Geräte is plural). This document complements the evidence cited above that specially modified V-1s were constructed during the war and intended for strategic Allied targets before the end of the war.]



Fernspruch - Fernschreiben - Funkspruch - Blinkspruch

Durch die Nachr.-Stelle auszufüllen

Nachr.-Stelle: Funkstelle SS-Oberabschnitt Süd

Nr.: 140

Vermerke: Geheim

Angenommen oder aufgenommen: von | Tag | Zeit | durch

Befördert: an | Tag | Zeit | durch | Rolle — 23.4. 1658 — Geheim — Geheim 17/45

Abgang: Tag: | Zeit: | Dringlichkeits-Vermerk: KR-Sache

An SS-Sturmbannführer Grosch
Bauinspektion der Waffen-SS und Polizei
Böhmen-Mähren.
P r a g
Muspillistr. 19
zur Weiterleitung an SS-Ostuf. Schürmann
Berlin

Absende-Stelle

Fernsprech-Anschluß:

DH - 43

O.U., den 23.4.1945

Geräte V 1 bei Berlin sofort sprengen.
SS-Ostuf. Schürmann sofort zum Meldekopf München-Oberföhring, Muspillistr. 19 in Marsch setzen.

(Dr.Ing.Kammler)
SS-Obergruppenführer und General der Waffen-SS

Erledigt:

Quittung: Fernspruch / Fernschreiben / Funkspruch / Blinkspruch — Nr. | Von | An | Tag | Zeit | Annehmender Offz. (Uffz.) Name | Dienstgrad

Bestell-Nr.: W# - 2165a
#-Vordruckverlag W. F. Mayr, (16b) Miesbach 20000

Figure D.920: Hans Kammler. 23 April 1945 telegram: "Immediately blow up V 1 devices near Berlin." [NARA RG 242, Records of the Reich Leader of the Schutzstaffel (SS) and Chief of the German Police, Microfilm 183, NAID 273992206 (https://catalog.archives.gov/id/273992206)]

Edmund Tilley. Brief Operational Report on [censored] and Other Germans and Italians Connected with Project Abstract. 19 August 1947. [NARA RG 319, Entry A1-134A, Box 29, Folder Operation Oberjoch]

1. On 11 August 1947 [censored] on the Italian phase of PROJECT ABSTRACT, which, in a few previous reports, was called Operation Arrival or Arrivederci, [censored] Headquarters, USAFE, by Captain R.R. SNEIDER of the CIC Detachment, BAD KISSINGEN. Major A J. LEOCHA [censored]

2. [Censored]

SANITIZED COPY
SENSITIVE INFORMATION DELETED

[...] New Facts and Re-affirmation of Statements on PROJECT ABSTRACT.

4. Thorough cross-examination has not been effective in shaking [censored] on matters directly concerned with or related to PROJECT ABSTRACT.

a. Atomic research and development at TUCHELER HEIDE was coupled with research on guided missiles, in 1943 and 1944. (Note: In March 1947 Professor W. von BRAUN admitted that in the summer of 1943 he had been interested in atomic energy for use in V-2. Von BRAUN claimed to have dropped the project for lack of available raw materials. It may be mere coincidence that [censored] also places the beginning of combined research and development in 1943.—In March and April 1945 the undersigned heard rumors in Germany of such a combination. The most persistent rumors in I.G. FARBEN circles had it that this combination would be linked with Chemical Warfare, especially with the new nerve gases, i.e., the TABUN series. These rumors were repeated by responsible members of I.G. FARBEN, who added that this vague plan or hope had been abandoned. At the time no progress was made in the investigation of the atomic side of the problem because all effort was concentrated on a solution of the new Chemical Warfare problem. [Censored] now reveals that the ampullae (phials) he saw in four boxes in Italy had originated with I.G. FARBEN. (See b below).

b. Four boxes, probably originating in the Luftwaffe Ministry in Berlin, were sent in March 1945 by SD, POTSDAM, to ITALY in the care of a FELDWEBEL (Sergeant) HEINZ (surname forgotten!), [censored] and a Private (name forgotten!). The boxes contained (i) reports and research data on V-weapons and atomic research; (ii) 40–50 small ampullae (phials) "full of a whitish liquid", labeled U-234, U-235 and PLU, stamped "IG" (= IG Farbenindustrie); (iii) a new and not completely developed optical instrument probably intended for measuring speed and trajectory of guided missiles at the firing point; (iv) various small and delicate parts of guided missiles, fastened to cardboard by fine wires, with full description of each item attached to the cardboard.

c. The boxes were buried near VERONA by the FELDWEBEL, [censored] and a third soldier. (The site has been explored. Parts of wooden boxes or of a wooden box, fragments of paper and an ampullae (phial) marked U234 or U235 were seen by Captain SNEIDER and [censored]. The rest had vanished). [...]

BREE may be the same "person with a French name" (BOREU?) who worked spasmodically on "electric fuses for guided missiles" at TUCHELER HEIDE in 1943 and 1944. Thus he would

know valuable details on the combined "guided missiles–atomic energy" research and development and would perhaps know where the missing documents were sent, whether they went first from TUCHELER HEIDE to BERLIN, as [censored] vaguely stated, and thence to SD, POTSDAM, and to Italy.

24. Ingenieur KRUEGER should be traced and brought at once to ECIC. He may give us valuable information on the combined "guided missiles–atomic energy" program at TUCHELER HEIDE in 1943 and 1944 and may know exactly where documents and instruments have been sent. [Censored] obtained most of his information on activities at TUCHELER HEIDE from KRUEGER, in 1944.

25. Prof. Dr. NIELS [Walter Nielsch?], now said to be in the United States, was, according to [censored,] concerned with chemical and atomic problems at TUCHELER HEIDE and produced a number of atomic bombs, weighing from 1 to 5 kilograms. NIELS should be traced and questioned in detail.

26. Prof. Dr. HUETTEN. Present whereabouts unknown to [censored.] He should be located and brought to ALASKA for questioning. According to [censored] he was the originator of the combined project of research and development of atomic energy and guided missiles at TUCHELER HEIDE. This project was named "Aktion HUETTEN" after him. He was transferred elsewhere, probably in 1943 (see paragraph 7).

27. Prof. Dr. HOFMANN, successor of HUETTEN as chief of the combined program at TUCHELER HEIDE, is now at "ALEXANDROWKA Kononien" near BAKU where he is continuing his former work. [...]

28. Prof W. Von BRAUN should be re-interrogated on the following: [...]

[For information on Edmund Tilley, see pp. 4894–4895. For more information on Project Abstract, see Mills and Johanson 2019.

The German military took over Tucheler Heide in September 1939 and used it as a proving ground (Truppenübungsplatz Westpreußen or Heidekraut) for rockets, nuclear work, and other experiments until January 1945. See p. 4462.

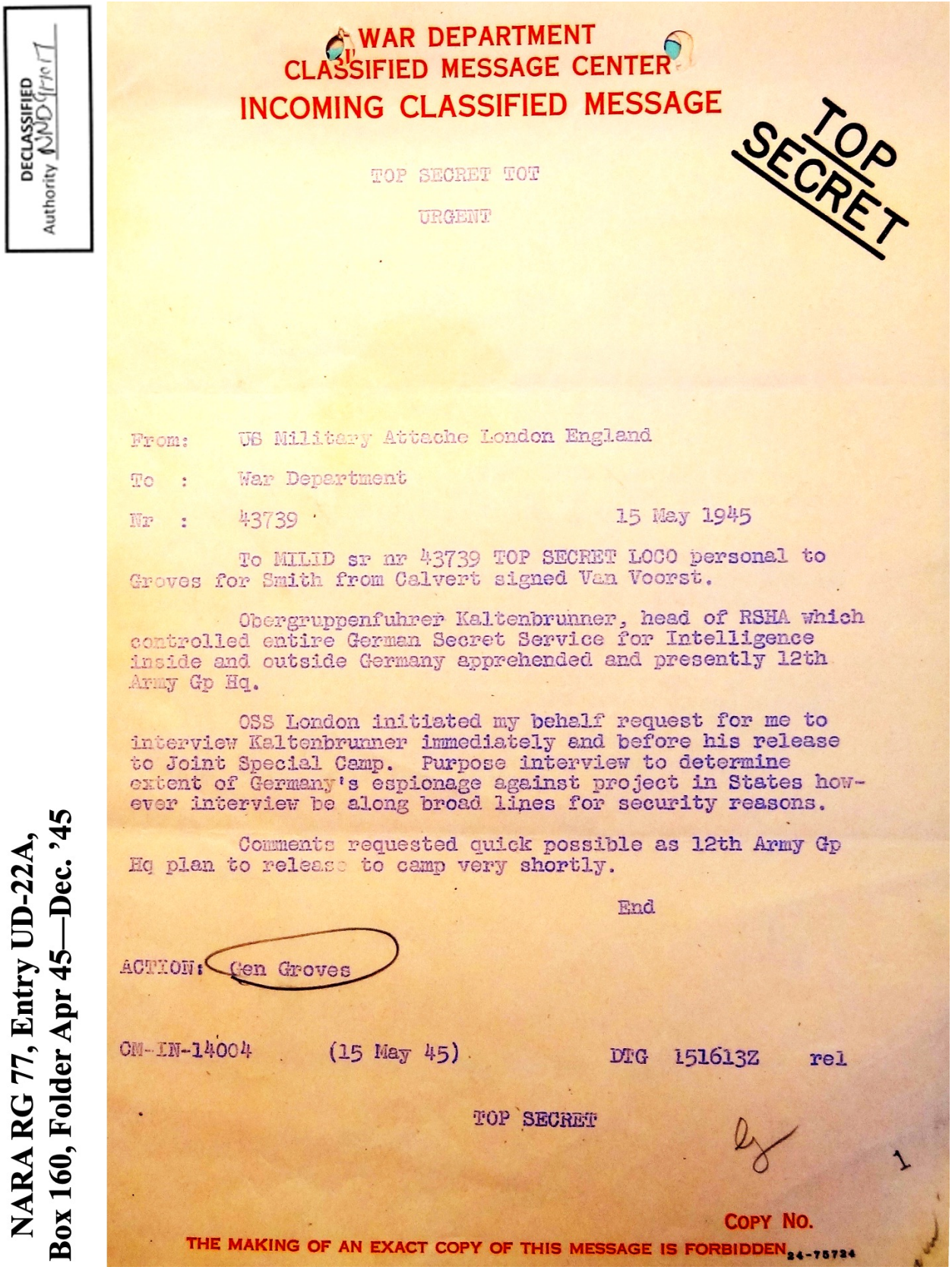
Walter Dornberger briefly mentioned rocket testing at Tucheler Heide [Dornberger 1958, pp. 227–229].

Dr. Walter Nielsch (German, 1915–20??) was an expert on chemical metallurgy [e.g., https://www.semanticscholar.org/author/W.-Nielsch/16969230] and a plausible candidate to have been involved in the purification of uranium-235, uranium-233, and/or plutonium-239. What exactly did Dr. Nielsch and/or Dr. Niels do during the war and also after the war?

Were the "number of atomic bombs, weighing from 1 to 5 kilograms" fission fuel pits for bombs?

Was this work on a nuclear-armed projectile at Tucheler Heide in Poland related to the alleged test of a nuclear-armed projectile in Poland (Section D.11)? See p. 2096 for a map of other known research sites in Poland.

The March 1947 interrogation of Wernher von Braun, mentioned in this document, is described in more detail in the document on p. 5762.]



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WAR DEPARTMENT
CLASSIFIED MESSAGE CENTER
INCOMING CLASSIFIED MESSAGE

TOP SECRET

TOP SECRET TOT

URGENT

From: US Military Attache London England

To : War Department

Nr : 43739 15 May 1945

To MILID sr nr 43739 TOP SECRET LOCO personal to Groves for Smith from Calvert signed Van Voorst.

Obergruppenfuhrer Kaltenbrunner, head of RSHA which controlled entire German Secret Service for Intelligence inside and outside Germany apprehended and presently 12th Army Gp Hq.

OSS London initiated my behalf request for me to interview Kaltenbrunner immediately and before his release to Joint Special Camp. Purpose interview to determine extent of Germany's espionage against project in States however interview be along broad lines for security reasons.

Comments requested quick possible as 12th Army Gp Hq plan to release to camp very shortly.

End

ACTION: Gen Groves

OM-IN-14004 (15 May 45) DTG 151613Z rel

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NARA RG 77, Entry UD-22A, Box 160, Folder Apr 45—Dec. '45

Figure D.921: Horace K. Calvert to Leslie Groves and Francis J. Smith. 15 May 1945 [NARA RG 77, Entry UD-22A, Box 160, Folder Apr 45—Dec. '45]. After the war, Ernst Kaltenbrunner was interrogated regarding wartime nuclear research; he had been in a position to know a great deal about both the German and the U.S. programs. Where are the resulting reports?

SECRET

AMERICAN EMBASSY
Office of the Military Attache
London, England

file
Germ. Pln.

23 May 1945

Subject: Obergruppenführer Kaltenbrunner and Otto Skorzeny.

To : Major Francis J. Smith, Room 5119, New War Department Building, Washington, D. C.

1. This officer, accompanied by Mr. John Cimperman, FBI Representative, U. K., went to 12th Army Group Headquarters on 20 May 1945 for the purpose of interviewing Obergruppenführer Kaltenbrunner and his subordinate Lieutenant General Otto Skorzeny. As you know, Kaltenbrunner was head of the RSHA in Germany. The RSHA controlled all intelligence both domestic and foreign for Germany. Skorzeny is a subordinate of Kaltenbrunner and was head of AMT VIS, which is the sabotage section of the RSHA. He also controlled the special troops which the RSHA had attached to it.

2. Both Kaltenbrunner and Skorzeny had just arrived one day previous to our visit and in that period of time very little information had been elicited. It was thought that at least a week would be needed for the initial background investigation and it was agreed that it would not be feasible to intregate our questions in the interrogation for possibly another five or six days. It is estimated it will take that long to obtain tactical information from them, such as location of RSHA personnel and files.

3. In addition to Kaltenbrunner and Skorzeny there are also their personal adjutants, some members of their staff and their mistresses.

4. Kaltenbrunner is reported to be a man of extreme ability as a lawyer and also extremely cautious in answering all questions. While he is talking, he is saying nothing that will further incriminate himself and professes ignorance on many activities under his control and tries to elude direct answers by stating "that is in the jurisdiction of so and so".

5. Skorzeny on the other hand is a willing talker and very cooperative. He claims to be a professional soldier and wants to be treated in accordance.

6. The present status is that we left with the interrogators a set of very general questions dealing with intelligence activities in the Western Hemisphere. These questions are to be intregated into the initial interrogation and if anything of interest arises I will then go back for a more detailed interrogation.

For the Military Attache:

HKC Calvert

H. K. CALVERT,
Major, F. A.
Assistant to the Military Attache

SECRET

Figure D.922: Horace K. Calvert to Francis J. Smith. 23 May 1945. Subject: Obergruppenführer Kaltenbrunner and Otto Skorzeny. [NARA RG 77, Entry UD-22A, Box 167, Folder 32.12-2 GERMANY: Personnel (Jan 45–Dec 45)]. After the war, Ernst Kaltenbrunner was interrogated regarding wartime nuclear research; he had been in a position to know a great deal about both the German and the U.S. programs. Where are the resulting reports?

SECRET

HEADQUARTERS 12TH ARMY GROUP
INTERROGATION CENTER
APO 655

ANNEX NO III

Comments on Amt III

PRISONER: O/Gruf KALTENBRUNNER, Ernst DATE: 28 June 1945

K. explains that it had been his aim to change the role of the SD from a negative, and criticizing one to that of a positive, and constructive organization. In line with this policy was the interest of Amt III in technical advance, especially when it touched the war effort. OHNESORGE, the minister in charge of the Reich Postal Service had been directing the improvements of already existing equipment. He was supported by Amt III where SEIBERT and SPENGLER handled questions of technical developments. One of the inventions OHNESORGE's scientists had made was an infra-red light which enabled vehicles to move about during blackout. Another one concerned radar equipment.

The last report issued by Amt III dealt with the Luftwaffe. This report had been prepared by SEIBERT and SPENGLER. It was about 40 pages long, and was subdivided into three parts. The first dealt with the over organization of the Luftwaffe which had retained the number of different commands it had at the time of its greatest expansion, e.g. separate organizations for reinforcements, flak, supplies, etc. The report recommended that these organizations be broken down and that infantry units be formed from the surplus personnel. The second part of the report concerned technical matters. It criticized the mistaken use of the ME 262 as a bomber instead of a fighter. It pointed out that in many instances the Luftwaffe had continued to build obsolete aircraft types and it discussed in detail the Luftwaffe's armament reserves. The third part of the report contained proposals for improvements.

Before the report was shown to HITLER, K. removed the criticisms of GOERING. He felt that HITLER was already more than familiar with them. K. also took the report to GOERING who was grateful for being consulted and for the omissions.

The Luftwaffe report was based on information which had, for the larger part, come from sources outside the SD. K. explains in this connection that the attitude of the public towards the SD had undergone a decisive change in the last two years. While in the early part of the war nobody out-side of the SD would have thought of contacting Amt III to report criticisms of the government, lately a great number of people had felt that the SD was the only agency willing to listed. And since the state of the Luftwaffe was an open scandal, pilots, inventors, and production men, came to report their observations.

The report on the Luftwaffe was unique and normally Amt III did not touch matters concerning the German armed forces, so as not to encroach on Mil Amt which reported its findings directly to the Wehrmachts Fuehrungs Staabe.

c. Amt III and the Old Abwehr - 20 July 1944

K. insistes that Amt III had no agents in the Abwehr, in keeping with an unwritten law according to which the SD never spied on Wehrmacht personnel. K. admits that the Abwehr always suspected the SD of having planted agents among its personnel - a suspicion that the Abwehr thought was confirmed by the many arrests of its members after 20 Jul. K. counters this argument with the assertion that the SD had known for a long time that the personnel of the Abwehr was reactionary and "rotten", but it was unable to do anything about it. If the RSHA had been in a position to take action the Abwehr officials who figured prominently in the 20 July events would have been eliminated long before.

Figure D.923: Headquarters 12th Army Group Interrogation Center. 28 June 1945. PRISONER: O/Gruf KALTENBRUNNER, Ernst [NARA RG 238, Entry NM70-160, Box 26, Folder: Hq—FIFTEENTH USA Reports—TIC-PIR / Interr. Kaltenbrunner]. Ernst Kaltenbrunner had been deeply involved in technological collaborations between the SS and the Reichspost, which had been important for the German nuclear program. Where are the detailed reports on what he knew?

~~CONFIDENTIAL~~

Interrogation Report No. 517.
Ref. No. AIU/PIR/135.
11th June, 1947.

BRITISH INTELLIGENCE OBJECTIVES SUB-COMMITTEE

Interrogation of Karl FIEBINGER

on 7th May, 1947

Target No. C22/6925

Main Interest: Building Construction.

1. PERSONAL HISTORY

a. Citizenship: Austrian.

b. Address: Salzburg, Kapellenweg,16, (presently under Salzburg town arrest).

c. Date and Place of Birth: 20 January 1913 at Vienna, Austria.

d. Description: Height 6'1"; weight 187 lbs; brown hair; blue eyes; married, no children.

e. Education: Attended Technische Hochschule, Vienna from 1931 to 1937, studying civil engineering.

f. Political Affiliations: NSDAP applicant since June 1938, member of NSV since 1941 and of NSBDT (Nazi Engineering Association) since 1939.

g. Military Service. None.

2. OCCUPATIONS: Upon completing his studies at the Technische Hochschule, Fiebinger accepted a position as assistant professor in the "Eisenbetonbau und Static" (Reinforced Concrete Construction and Statics) section of the civil engineering department of the Hochschule in September of 1937. His reputation grew so rapidly that Professor Dr. Ernst Melan, then chief of the Hochschule's civil engineering department, asked his co-operation on a huge construction project of a cement factory to be built at Kirchbichl Tyrol. This project was initiated in October of 1938 and was later known as "Perlmoser Cement Werke". It occupied Fiebinger so fully that he was unable to carry on with his duties as assistant professor at the Hochschule. On 15 April 1939, he established his own office in Vienna, which was known as "Buero fuer Bauwesen Dipl. Ing. Karl Fiebinger". He claims to have employed a staff of 40 engineers and to have gained national recognition for the many projects he handled between 1939 and the end of the war, a fact which was borne out by statements made to interrogators by his former associates. Fiebinger moved his office to Strobl on the Wolfgangsee, in February 1945. Upon cessation of hostilities, he claims to have presented detailed plans for underground installations constructed by him at Ebensee, (V-2); Melk (Ball Bearings); Redl Zipf (V-2), Messerschmitt [redacted]) at St. Georgen, to a team of American investigators that was alledgedly dispatched from Paris in June or July 1945 specifically for this purpose. During the fall of 1945 Fiebinger organized a new concern in Salzburg, called "Spezial Baugesellschaft, Salzburg" (Firm for specialized construction), which was contemplating the production of small wooden houses. His work wasinterrupted in February 1946 by his arrest by American authorities as a security threat. The reason for his arrest, as stated on his arrest report, is the supervision of important SS building matters, including a V-2 factory and a crematory for a concentration camp at Ebensee, for which slave labor was used and for which he allegedly received 1,000,000 marks. Fiebinger denies the above charges. On the 29th April, 1947, he was removed from the full arrest category and placed under town arrest in Salzburg, per letter order from G-2, United States Forces in Austria.

- 1 -

Figure D.924: Karl Fiebinger was the chief engineer of many massive underground facilities for advanced weapons production in the Third Reich. After the war he was interrogated by the U.K. and U.S. and worked for the United States. [NARA RG 319, Entry A1-134B, Box 196, Folder XE061504 Fiebinger, Karl]

per letter order from G-2, United States Forces in Austria.

3. GENERAL INFORMATION: Fiebinger is claimed to be one of Germany's foremost experts on the construction of modern industrial plants, particularly underground installations. His ability was soon recognised by various German authorities charged with the construction, enlargement and improvement of underground factories for the Nazi war effort. Among the orders filled by Fiebinger's office upon the request of such agencies as the German Air Ministry were:

a. Architectural design and supervision of construction.

(1) Ebensee underground installations originally intended as a testing station for V-2 rockets. This testing establishment was built for General Dornberger of the High Command of the German Army, who was charged with the development of the V-2 and covered a space of approximately 300,000 cubic meters (November 1943 to the end of the war).

(2) A Messerschmitt factory for the Me-262 (code name: Bergkristall), an underground installation of approximately 15,000 cubic meters, located at St. Georgen an der Gusen, Upper Austria (Russian occupied zone of Austria). This order was originally given by General Wilder of the Luftwaffe but was executed under the supervision of the SS Building and Construction Corps, (February 1944 to the end of the war).

(3) The underground V-2 testing station at Redl-Zipf, Upper Austria developed for the Rax Werke, Wiener Neustadt, covering a cubic space of approximately 35,000 cubic meters. This organization was later reorganized to become known under the code name "Steinbruch Verwertungs G.m.b.H." under the supervision of the High Command of the German Army (September 1943 to the end of the war).

(4) An underground installation at Kirchbichl, Tyrol (French occupied zone of Austria) intended for production of aircraft engines by Flugmotorenwerke Ostmark, Vienna. Actual production in this 160,000 cubic meter underground installation never got underway (February 1945 to the end of the war).

(5) A factory for the Rax Werke, Vienna for the production of coal tenders (December 1942 to the end of the war).

(6) An aircraft assembly plant at Vienna - Schwechat designed and constructed for Heinkel werke. This plant, covering an area of 30,000 square meters, was destroyed by Allied bombing on the very day of its completion. (1943).

(7) Design and construction of an air raid shelter intended as the last stand headquarters for Adolf Hitler and his staff. The location of the installation is claimed to be 10 kilometers south of the city of Gotha, Germany and 2 kilometers from the village of Kraewinkel in the direction towards the village of Arnstadt. The "top secret" order for this project was given to Fiebinger by SS-Obergruppenfuehrer (General) Kammler, on Christmas day 1944, with instructions to complete the project prior to 15 April 1945. The job called for the construction of three horizontal tunnels into the face of a hill with connecting passages. It was abandoned during March 1945 when the tunnels were almost complete

b. Architectural Design:

(1) Flugmotorenwerke Ostmark, an aircraft engine construction firm for which Fiebinger designed plants at Wiener Neudorf, Austria; Bruenn, Czechoslovakia; and Marburg, Jugoslavia. The designing job covered 40 specialized plant constructions and an area of 400,000 square meters (1941 to 1944).

(2) The underground installation at Melk, Lower Austria (Russian occupied zone

Figure D.925: Karl Fiebinger was the chief engineer of many massive underground facilities for advanced weapons production in the Third Reich. After the war he was interrogated by the U.K. and U.S. and worked for the United States. [NARA RG 319, Entry A1-134B, Box 196, Folder XE061504 Fiebinger, Karl]

NARA RG 319, Entry A1-134B, Box 196, Folder XE061504 Fiebinger, Karl

of Austria), known under the code name "Quarz". This installation was constructed as a combination evacuation plant for the above mentioned firm "Flugmotorenwerke Ostmark" and the firm of "Steyr-Daimler-Puch", Steyr, Upper Austria. The scheduled production of ball bearings was never realized due to the course of the war. The Melk installation covered a cubic area of 120,000 cubic meters. The end of the war interrupted its completion. (February 1944 to the end of the war).

(3)A plant covering 40,000 square meters designed for Steyr-Daimler-Puch, producers of aircraft engines, at Steyr, Upper Austria (November 1941 to April 1943).

(4) Various designs for Junkers Werke, Dessau, i.e., a new aircraft engine factory at Prague (1942) and two construction plants at Bernburg and Aschersleben, both near Dessau, Germany(1942).

(5) Design of a factory intended for the production of 1000 bombers per month, scheduled to be built at Oels, near Breslau for the German Air Ministry. This project was later abandoned (1942 to 1943).

(6) Perlmoser Cement, a huge cement factory at Kirchbichl, Tyrol (French occupied zone of Austria), scheduled for a production of 100,000 tons of cement per year. Project was never completed. (1938 to 1940).

(7) Design of air raid shelters, bridges and river control systems for the city of Vienna. (1941 to 1943).

4. DISPOSITION: Fiebinger is being further interrogated on German construction methods of underground installations. Any headquarters requiring further information should forward a brief outlining specific information desired to Chief, Air Section, Headquarters, United States Forces in Austria.

(Signed) ROBERT E. WORK.

ROBERT E. WORK.
Major, Air Corps,
Chief Interrogator.

AIR SECTION
HEADQUARTERS UNITED STATES FORCES IN AUSTRIA
Air Interrogation Unit (Int. Center-Austria)
APO 777, U.S. ARMY.

Figure D.926: Karl Fiebinger was the chief engineer of many massive underground facilities for advanced weapons production in the Third Reich. After the war he was interrogated by the U.K. and U.S. and worked for the United States. [NARA RG 319, Entry A1-134B, Box 196, Folder XE061504 Fiebinger, Karl]

Günter Nagel. 2012a. *Wissenschaft für den Krieg: Die geheimen Arbeiten der Abteilung Forschung des Heereswaffenamtes*. Stuttgart: Franz Steiner. pp. 489–490. [Where are the postwar British reports on information that Erich Schumann gave to the U.K. or work that he did for the U.K.? Schumann must have provided something of great value for the U.K. not to turn him over to the ongoing war crimes trials or to the United States. See pp. 3294–3296.]

In der Erklärung Schumanns von Januar 1957 heißt es weiter:

"Ich hielt mich zwischen Mai 1945 und Mai 1947 bei Bekannten auf, meist in Berlin. So entging ich zunächst einer Fest- bzw. Gefangennahme. Erst in Frühjahr 1947 habe ich mit Herrn Geh. Rat. Prof. Dr. Planck (damals in Göttingen) wegen meiner Einfädelung im Westen Verbindung aufgenommen. Dieser empfahl mir, nachdem er bei englischen Dienststellen hatte anfragen lassen, eine persönliche Meldung bei den Engländern in Göttingen. Daraufhin meldete ich mich im Juli 1947 bei der englischen Besatzungsbehörde in Göttingen (unter Übergabe eines Abmeldescheines damaligen Datums aus Dolgelin, wo ich mich nicht persönlich abmeldete, aber abmelden ließ. Ein guter Bekannter überbrachte mir den Abmeldeschein.)

Die englische Besatzungsbehörde veranlaßte dann

a) Befragung (aber noch auf freiem Fuß),

b) Gefangennahme,

c) Registrierung meines Einganges in die britische Zone (festgesetzt auf den 14. 08. 1947—aber bereits in Lübeck—s. anliegende Abschrift des englischen Registrierscheines Nr. 001013 vom 1. 09. 1947, Intelligence Team Friedland Camp),

d) Entlassung aus der Gefangenschaft und

e) Zuzugsgenehmigung durch den Regierungspräsidenten Hildesheim (Bezirksflüchtlingsamt) von 9. 9. 1947 (s. Anlage zu 25 c)."

Als Wohnorte gab Schumann an: Göttingen 1947, Hamburg 1948, Düsseldorf 1953 und Detmold 1956.[1313]

Schumann's statement from January 1957 goes on to say:

"I stayed with friends between May 1945 and May 1947, mostly in Berlin. That's how I initially escaped capture or imprisonment. It was only in the spring of 1947 that I spoke to Mr. Geh. Rat. Prof. Dr. Planck (in Göttingen at the time) about my placement in the West. After making inquiries with the British authorities, he recommended that I report personally to the British in Göttingen. As a result, I registered with the British occupation authorities in Göttingen in July 1947 (handing over a deregistration form of that date from Dolgelin, where I did not personally deregister, but had myself deregistered. A good acquaintance gave me the deregistration certificate).

The British occupation authorities then arranged for

a) Interrogation (but still at large),

b) capture,

c) registration of my arrival in the British zone (for 14 August 1947—but already in Lübeck—see attached copy of British registration certificate No. 001013 dated 1 September 1947, Intelligence Team Friedland Camp),

d) release from captivity and

e) Relocation permit from the Hildesheim District President (District Refugee Office) dated 9 Sept. 1947 (see attachment to 25 c)."

Schumann gave his places of residence as: Göttingen 1947, Hamburg 1948, Düsseldorf 1953, and Detmold 1956.[1313]

Für die von Planck empfohlene Verbindungsaufnahme mit englischen Stellen in Göttingen nutzte Schumann seine frühere Bekanntschaft mit Telschow, der sich in Göttingen aufhielt—damals Sitz der aus Berlin ausgewichenen KWG. Am 4. August 1947 stellte Telschow den Kontakt Schumanns mit den Engländern her. Zwei Monate später übergab Schumann in Göttingen an "Herrn Porhase (AVA)" einen kurzen Bericht über das Reichweitengeschoss, der für einen Mister Groves bestimmt war. Dieser Vorgang belegt ein weiteres Mal die bekannte "Situations-Geschicklichkeit" (Cobarg) Schumanns. Vergleicht man nämlich den dürftigen Bericht (eine Schreibmaschinenseite!) mit den tatsächlichen Forschungsergebnissen zum Trommsdorff-Geschoss (vgl. Kapitel 12), dann weiß man sofort: Schumann hielt den Engländern einen kleinen Happen hin, den eigentlichen Braten behielt er für sich.[1314]

Was Schumann damals alles seinen "neuen englischen Freunden" von den Geheimnissen der deutschen Rüstungsforschung preisgab, lässt sich nur erahnen. Aber es muss—wie noch an anderer Stelle belegt wird—so ergiebig und wertvoll gewesen sein, dass die Engländer hin und wieder ihre schützende Hand über den Professor hielten. Solche Art Fürsorge hatte Schumann in den ersten Jahren nach dem Krieg mitunter auch bitter nötig, vor allem wegen einiger Prozesse, in denen seine Person eine Rolle spielte.

1313 Schriftliche Erklärung Schumanns vom 5. January 1957 "Anlage zu 24c und 25a", NL Schumann. Die Grunde, die zu dieser Erklärung führten, sind nicht bekannt.

1314 Briefwechsel Schumann/Telschow 1947/48, AMPG, III. Abt., Rep. 83, Nr. 286. Interessant ist, dass in dem kurzem Vermerk auf den Bericht "Reichweitengeschoss" hingewiesen wird, dieses Dokument jedoch im Nachlass Telschow nicht vorhanden ist. Eine Kopie befand sich im Nachlass Schumann, mit handschriftlichem Vermerk zum Termin der der Abgabe an "Porhase", bestimmt für den Empfänger Groves.

Schumann used his previous acquaintance with Telschow, who was in Göttingen–at that time the headquarters of the KWG, which had been evacuated from Berlin–to establish contact with the British authorities in Göttingen, as recommended by Planck. On August 4, 1947, Telschow established Schumann's contact with the British. Two months later, Schumann handed over a short report on the long-range projectile to "Mr. Porhase (AVA)" in Göttingen, which was intended for Mr. Groves. This process once again demonstrates Schumann's well-known "situational dexterity" (Cobarg). If one compares the meagre report (one typewritten page!) with the actual research results on the Trommsdorff projectile (cf. Chapter 12), then one knows immediately: Schumann held out a small morsel to the English, he kept the actual roast for himself.[1314]

We can only guess what Schumann revealed to his "new English friends" about the secrets of German armaments research. But it must have been—as is documented elsewhere—so productive and valuable that the English occasionally held their protective hand over the professor. Schumann was in dire need of this kind of care in the early years after the war, especially because of a number of [war-related] trials in which he played a role.

1313 Written declaration by Schumann dated January 5, 1957 "Annex to 24c and 25a," Schumann estate. The reasons that led to this declaration are not known.

1314 Correspondence between Schumann and Telschow 1947/48, AMPG, III. Abt., Rep. 83, No. 286. It is interesting that the short note refers to the report "Reichweitengeschoss," but this document does not exist in the Telschow estate. A copy was found in the Schumann estate, with a handwritten note on the date of delivery to "Porhase," intended for the recipient Groves.

[How much information from Schumann was forwarded to Leslie Groves and the United States?]

Heinrich Klein. 1977. *Vom Geschoß zum Feuerpfeil: Der große Umbruch der Waffentechnik in Deutschland 1900–1970: Eine Dokumentation.* Stuttgart: Motorbuch. pp. 96–97.

[Heinrich Klein (German, 19??–19??) led the Rheinmetall-Borsig team that created the Rheintochter two-stage, radio-guided, surface-to-air missile, which was first demonstrated in 1943 (p. 1912). Klein's team also created the larger Rheinbote four-stage missile, first launched in 1943 (p. 1913) [Klein 1977; Margry 2001; Mills 2020, 2022]. In fact, according to a 1947 French military document, during the war Klein was even personally involved in "the construction of flying rockets... capable of crossing the Atlantic in 40 minutes" (p. 5452).]

Mitte Mai 1945, nach der Kapitulation Deutschlands, wurde der Verfasser durch eine gemischte amerik.-engl.-austral. technische Kommission auf dem Schießplatz Unterlüss über die neuen Waffenentwicklungen in Deutschland befragt. Zuvor hatte die Kommission die gesamten Einrichtungen des Meßhauses, die Laborieranstalt und der Füllanlage Neulüss besichtigt und natürlich Meßgeräte und Munition durch ein englisches Truppenkommando sicherstellen lassen. Bei der Besichtigung der Laborieranstalt war die Kommission auch auf einige Brennkammern der Flugstufe des "Rheinboten" gestoßen, die mit dem letzten Troß von Leba nach Unterlüss gebracht worden waren. Im Zuge der Befragungen wandte sich der Leiter der Kommission an den Verfasser und fragte nach dem Sinn und Zweck der gesichteten Brennkammern. Die Kommission habe ähnliche Kammern auf der Strecke über Holland in Richtung Antwerpen gefunden.

In mid-May 1945, after the capitulation of Germany, the author was questioned by a mixed American-English-Australian technical commission at the Unterlüss firing range about the new weapons developments in Germany. The commission had previously inspected the entire facilities of the measuring station, the laboratory, and the Neulüss filling plant, and of course had measuring instruments and ammunition that had been secured by an English troop detachment. During the inspection of the laboratory, the commission also came across some combustion chambers from a stage of the "Rheinbote," which had been brought to Unterlüss with the last convoy from Leba. In the course of the questioning, the head of the commission approached the author and asked about the purpose of the combustion chambers he had seen. The commission had found similar chambers along the trajectory towards Antwerp in Holland.

Irgendwelche Einzelheiten waren dem Verfasser über den Einsatz des "Rheinboten" im Westen nicht bekannt geworden, aber es lag nahe, daß es sich um Stufenteile jener Geräte handeln mußte, die für den Einsatz vorbereitet worden waren. Aus der Fragestellung der Kommission war eindeutig zu entnehmen, daß ihnen das Gerät vollkommen unbekannt war. Sie wollten es zunächst auch nicht glauben, daß das Stufenprinzip für Raketen in Deutschland bereits gelöst wäre, ließen sich dann aber später an Hand einigen Erklärungen davon überzeugen. Mehrere Male während dieser Befragung sprach die Kommission davon, ob der "Rheinbote" die Rakete gewesen wäre, die mit einem atomaren Sprengkopf versehen werden sollte. Auf diese Frage konnte der Verfasser keine Antwort geben, da ihm nicht bekannt war, daß man den Nutzlastkopf dieser Rakete für einen besonderen Zweck verwenden wollte. Wie aus einem später mit dem Leiter der Einsatzabteilung, Oberstleutnant Tröller, geführten Gespräch erkennbar wurde, hat tatsächlich die Überlegung bestanden, den "Rheinboten" mit einer atomaren Nutzlast auszustatten. Wieweit dies nach dem Stand der atomaren Technik in Deutschland möglich gewesen wäre, vermag der Verfasser nicht zu beurteilen. Die Mitteilung von Tröller beruhte darauf, daß ihm SS-Obergruppenführer Dr. Kammler ganz real von einer solchen Einsatzmöglichkeit gesprochen hatte.

The author did not know any details about the use of the "Rheinbote" on the western front, but it was obvious that its stages must have been prepared for [combat] use. It was clear from the commission's questions that the device was completely unknown to them. At first they did not want to believe that the stage principle for rockets had already been solved in Germany, but they were later convinced by some explanations. Several times during this questioning, the commission asked whether the "Rheinbote" would have been the missile to be fitted with a nuclear warhead. The author could not give an answer to this question, as he was not aware that the payload compartment of this missile was to be used for a special purpose. As became clear from a later conversation with the head of the Operations Department, Lieutenant Colonel Tröller, the idea of equipping the "Rheinbote" with a nuclear payload had indeed been considered. The author is not in a position to judge to what extent this would have been possible given the state of nuclear technology in Germany. Tröller's report was based on the fact that SS-Obergruppenführer Dr. Kammler had actually spoken to him about such a possible use.

[Based on evidence they had seen, this postwar Allied commission was convinced that Germany possessed or would have soon possessed operational nuclear weapons. What exactly was this commission? Where are their reports? What was their evidence?

German officials who would have been in a position to know, including Hans Kammler and Oberstleutnant Tröller, were convinced that Germany possessed or would have soon possessed operational nuclear weapons. Where are the wartime and postwar documents regarding what they knew?

The Rheinbote version deployed during the war only carried 40 kg of payload. Were the Allied and German officials referring to using Rheinbote missiles with each carrying 40 kg of radioisotopes as a radiological weapon? If so, that would imply that Allied and German officials had knowledge of at least one operational German fission reactor, since a fission reactor would be required to produce sufficiently large quantities of sufficiently radioactive isotopes to support such a weapon system.

The known Rheinbote was rushed to deployment and was likely just a technological stepping stone toward a larger solid propellant Rheinbote-series rocket with a larger payload capacity [Georg 2009, pp. 502–504; https://archive.org/stream/WaffenArsenal189/Waffen%20Revue%2084_djvu.txt]. A larger Rheinbote version might have been able to carry the ∼300 kg of the small nonspherical fission implosion bomb that was described by other sources (p. 5170).]

HQ CIC, USFET, Region Munich IV, Munich Sub-Regional Office, 25 April 1946. Subject: Wilhelm Voss. Declassified 2006 [NARA RG 263, Entry ZZ-18, Box 133, File Voss, Friedrich Wilhelm].

1. Dr. Wilhelm VOSS reported to this office 24 April 1946. Subject was the director of the Skoda Works and Bruenner Waffenwerke in Prague, Czechoslovakia from 1939–1945. Subject claims that he has valuable information on atom bomb research in Germany. He also states that he has information on a new type torpedo which is radar controlled and leave no trace in water.

2. Dr. Wilhelm VOSS was born 1 July 1896 in Rostock, Mecklenburg. [...] He was one of the founders of Reichswerke Hermann Goering and in 1938 became its commercial director. In 1939 VOSS was appointed director of Skoda and Bruenner Waffenwerke by Goering.

3. Subject states that the two men that were responsible for research on the most secret weapons at Skoda were SS Gruppenfuehrer Prof. KAMMLER and his deputy SS Oberfuehrer PURUCKER. On the 10 May 1945 VOSS and PURUCKER were in Schimelitz, fleeing in the direction of the American troops. PURUCKER was driving a large civilian car which contained many of the plans on the atom bomb. This car plus material fell into the hands of the Russians, and VOSS was separated from PURUCKER. VOSS at present does not know where PURUCKER is located.

4. Subject was held prisoner by the Czechs in the concentration camp Modran. He was released two weeks ago and at present resides in Odelzhausen near Munich. Subject is moving on 25 April 46 to Egern/a, Tegernsee, Seestrasse 68, c/o REINHOLD. CIC in Tegernsee was notified by phone on the 24 April 1946, and VOSS was told to report to CIC Tegernsee immediately on arrival there.

5. VOSS states that the following men know more detailed plans on the atom bomb and other secret weapons.

> a. Director Alfred BAUBIN of the staff of KAMMLER. Middle of March BAUBIN was supposed to have still been in Internment Camp Schtehowitz near Prague. He was slated to be returned to his native Austria.
>
> b. Director ENGEL, manager of research laboratory in Pibrams and closely connected with KAMMLER. VOSS believes that ENGEL escaped from Czechoslovakia and might subsequently have become PW in American hands.
>
> c. Members of the Research Group could be found in the secret "Mitteilungsblatt des Ruestungsministeriums."

[See pp. 4915– 4919 for excerpts from the original German-language interrogation transcript of Voss that is referenced in this document.]

Wilhelm Voss. April 1946 statement [NARA RG 319, Entry A1-134B, Box 831, Folder XE065651 Voss, Wilhelm]. [See photos on pp. 4916– 4919.]

Die zentrale Leitung der Entwicklung und Fertigung der geheimsten Waffen und Geräte lag in den letzten Jahren in Händen des SS-Gruppenführers Prof. Kammler und seiner Arbeitsgruppe. Dabei handelt es sich um die geheimsten Waffen, Geräte und Verfahren, die z.T. tatsächlich eingesetzt wurden, z.T. aber auch nicht mehr zur Anwendung kamen, und zwar auf dem Gebeit der Atomzertrümmerung, der Umwandlung der Elemente, der Atombombe und der Atomenergie, weiter der Raketenwaffen, neuester Antriebkräfte für Flugzeuge, der Fernsteuerung usw. Während auf manchen Gebieten noch bis in die letzte Zeit des Krieges die verschiedenen Wehrmachtsteile unabhängig voneinander arbeiteten, gelang es Kammler, auf seinem Gebiet vor allem die Entwicklungsarbeiten zentral bei sich zu vereinigen. Er war der Vertreter zugleich des Rüstungsministeriums, des Heereswaffenamtes, des Luftfahrtministeriums und der SS. [...]

In the last years [of the war], the central management of the development and production of the most secret weapons and devices was in the hands of SS General Professor Kammler and his working group. These were the most secret weapons, devices, and processes, some of which were actually used, but some of which were not used [in the war], namely in the field of atom smashing, the [nuclear] transformation of elements, the atomic bomb and atomic energy, and also rocket weapons, the latest propulsion systems for aircraft, remote control, etc. While in some areas the various parts of the Wehrmacht worked independently of each other until the last days of the war, Kammler succeeded in centralizing the development work in his field. He was the representative of the Ministry of Armaments, the Army Ordnance Office, the Air Force, and the SS at the same time. [...]

Mir unterstanden ausser den Konzernen der Skoda-Werke und der Brünner Waffen-Werke u.a. auch die Avia-Flugzeug- und Motorenwerke, die elektrotechnischen Werke Krizik, die optischen Werke in Prerau, die Sprengstoffwerke der Explosia in Semtin, die Radio-Slavia in Prag usw. Ich hatte also Spezial-Sachverständige und Spezialwerkstätten aller in Betracht kommenden Gebiete zur Verfügung. Ausserdem habe ich für längerfristige Forschungen und Entwicklungen die Spezialisten in unseren zentralen Forschungs- und Entwicklungswerkstätten in Pibrans konzentriert.

In addition to the Skoda-Werke and Brünner Waffen-Werke groups, I was also in charge of the Avia Aircraft and Engine Works, the Krizik electrotechnical works, the optical works in Prerau, the Explosia explosives works in Semtin, Radio-Slavia in Prague, and so on. I therefore had access to specialized experts and workshops in all relevant fields. I also concentrated specialists in our central research and development workshops in Pibrans for longer-term research and development.

[In this document, Kammler's name is misspelled as "Kammerer." Voss certainly would have known how to spell Kammler's name, so the document appears to have been transcribed by an Allied interrogator from Voss's oral explanation. Kammler's name is spelled correctly in the other documents related to Voss's interrogations, and I have corrected the spelling here to avoid any confusion.

The first paragraph is a very clear statement of the projects under Kammler's control. Voss, who made that statement, was an extremely senior and experienced official in a position to know, as shown by the other paragraph from later in the same document. Note that many of the sites named by Voss were involved in nuclear work, as reported by documents elsewhere in this appendix.

Surely Allied interrogators would ask Voss for much more information about these very hot topics. Where are those more detailed interrogation reports?]

I.) Arbeitsgruppe K a m m e r e r .

Die zentrale Leitung der Entwicklung und Fertigung der geheimsten Waffen und Geräte lag in den letzten Jahren in Händen des SS-Gruppenführers Prof. K a m m e r e r und seiner Arbeitsgruppe. Dabei handelt es sich um die geheimsten Waffen, Geräte und Verfahren, die z.T. tatsächlich eingesetzt wurden, z.T. aber auch nicht mehr zur Anwendung kamen, und zwar auf dem Gebiet der Atomzertrümmerung, der Umwandlung der Elemente, der Atombombe und der Atomenergie, weiter der Raketenwaffen, neuester Antriebkräfte für Flugzeuge, der Fernsteuerung usw. Während auf manchen Gebieten noch bis in die letzte Zeit des Krieges die verschiedenen Wehrmachtsteile unabhängig voneinander arbeiteten, gelang es Kammerer, auf seinem Gebiet vor allem die Entwicklungsarbeiten zentral bei sich zu vereinigen. Er war der Vertreter zugleich des Rüstungsministeriums, des Heereswaffenamtes, des Luftfahrtministeriums und der SS. Prof. Kammerer hielt sich zuletzt hauptsächlich in Prag auf. Er ist in der Nähe von Prag am 9. Mai 1945 durch Selbstmord verschieden.

Sein Vertreter in der Leitung der Arbeitsgruppe war der SS-Oberführer P u r u c k e r . Er war Generaldirektor der Industriewerke Spandau (?), eines Unternehmens, das zum Rüstungsministerium gehörte, und gleichzeitig seit Jahren der Verbindungsmann des Rüstungsministeriums beim Heereswaffenamt. Als sich in den Tagen des 9., 1o. und 11. Mai 1945 ein Teil der deutschen Truppen und der Zivilisten-Trecks aus dem Raume um Prag herum nach Westen in Richtung auf die USA-Truppen zurückzog, fand sich am 1o. Mai 1945 auch Purucker in Schimelitz bei der

Figure D.927: Wilhelm Voss. Excerpts from April 1946 statement [NARA RG 319, Entry A1-134B, Box 831, Folder XE065651 Voss, Wilhelm].

amerikanischen Sperre auf der Strasse Pibrams-Strakonitz ein und versuchte, mit seinem grossen Wagen, der nach seinen Erklärungen mit Material Kammerers voll beladen war, die Sperre zu passieren, um sich und sein Material im Hauptquartier in Hinterberg den Amerikanern zu übergeben. Das gelang ihm nicht, da das Passieren der Sperre strikte verweigert wurde.

Am 12. Mai 1945 wurde die Masse der im dortigen Raume befindlichen Truppen und Zivilisten in Anwesenheit einiger weniger USA-Einheiten von russischen Truppen übernommen. Purucker und ich haben versucht, trotzdem noch in letzter Stunde das Material Kammerers den USA-Streitkräften zu übergeben. Wir haben zu diesem Zweck einen amerikanischen Offizier herbeigeholt, ihm die Sachlage kurz erklärt und ihn gebeten, seinen Kommandeur zu unterrichten. Der Leutnant versprach, spätestens innerhalb einer Stunde zurückzukommen. Das geschah aber nicht. Als nach zwei Stunden russische Truppen in das Grundstück, in dem wir uns befanden, eindrangen, wandte sich Purucker an einen russischen Hauptmann und machte diesem von seinem Material Meldung. Der russische Offizier hat sofort das Hauptquartier in Stary-Sedlece orientiert und kam sehr bald mit der Nachricht zurück, dass Purucker mit seinem Material binnen kurzer Zeit zum russischen General geführt würde. Wir sind dann mit mehreren deutschen Offizieren und Zivilisten nach Zlabings (Zlavonice) überführt worden. Dort wurde Purucker unverzüglich verhört, der Wagen mit dem Material wurde ihm abgenommen und Purucker selbst wegtransportiert, - wohin, ist mir nicht bekannt, da ich mich, als Purucker mit den russischen Offizieren verhandelte, schon von ihm trennte und von Zlabings aus dann in ein russisches Lager überführt wurde. Welches Material Purucker im einzelnen bei sich hatte, kann ich nicht sagen. Nach seinen Erklärungen waren es die wichtigsten Akten, Zeichnungen und

Figure D.928: Wilhelm Voss. Excerpts from April 1946 statement [NARA RG 319, Entry A1-134B, Box 831, Folder XE065651 Voss, Wilhelm].

sonstigen Unterlagen der Arbeitsgruppe Kammerer. Ich kann auch über die Arbeiten Kammerers im einzelnen nichts sagen, weil ich der Arbeitsgruppe nicht angehörte. Ich weiss aber aus den Mitteilungen einiger meiner Herren, die in den von mir geleiteten Betrieben arbeiteten und die auch bei Kammerer tätig waren, dass von der Arbeitsgruppe Kammerer konzentriert die Gebiete bearbeitet wurden, die ich oben angegeben habe. Nähere Mitteilungen darüber könnten folgende Personen machen:

1.) die Mitglieder der Arbeitsgruppe (zu erfahren aus dem geheimen Mitteilungsblatt des Rüstungsministeriums),

2.) Direktor Alfred B a u b i n (Prag, Skoda-Werke, Jungmannstr.), der in den letzten Monaten den Arbeitsstab Kammerers in Prag leitete. Baubin ist nach meinen Informationen im vorigen Sommer und Herbst in Prag sehr oft von Russen und auch von tschechischen NKVD vernört worden. Er befand sich, als ich aus der CSR entlassen wurde, Mitte März dieses Jahres noch in einem Lager Schtechowitz bei Prag und sollte, wie ich hörte, in seine Heimat nach Österreich entlassen werden.

3.) Direktor E n g e l, der meine zentrale Forschungs-und Entwicklungswerkstätten in Pibrama leitete und der in dauerndem Kontakt mit Kammerer stand. Engel ist, wie ich annehme, rechtzeitig aus der CSR geflüchtet und dürfte von den USA-Streitkräften gefangengenommen sein.

Figure D.929: Wilhelm Voss. Excerpts from April 1946 statement [NARA RG 319, Entry A1-134B, Box 831, Folder XE065651 Voss, Wilhelm].

Mir unterstanden ausser den Konzernen der Skoda-Werke und der Brünner Waffen-Werke u.a. auch die Avia-Flugzeug-und Motorenwerke, die elektrotechnischen Werke Krizik, die optischen Werke in Prerau, die Sprengstoffwerke der Explosia in Semtin, die Radio-Slavia in Prag usw. Ich hatte also Spezial-Sachverständige und Spezialwerkstätten aller in Betracht kommenden Gebiete zur Verfügung. Ausserdem habe ich für längerfristige Forschungen und Entwicklungen die Spezialisten in unseren zentralen Forschungs-und Entwicklungswerkstätten in Pibrans konzentriert.

Für die Entwicklung wesentlicher neuer Waffen und Geräte habe ich demzufolge von Anfang an gemeinsam angesetzt:

den Materialfachmann,
den Ballistiker,

-7-

- 3 -

8.) Eine Vorrichtung, die den Panzern ein treffsicheres Schiessen aus der Bewegung gewährleistet.
9.) Höchstwirksame Sprengstoffe.
10.) Schalldämpfende und lichtfreie Sprengstoffe.
11.) Rückstossfreie Raketengeschütze für Flugzeuge.
12.) Automatische Kanonen für 4, 5 und 7,5 cm.
13.) 3 cm Flak, als Zwilling und Vierling, erheblich besser als die 3,7 cm deutsche Flak.
14.) Elektrische Zünder für Hohlladung und Keilgeschoss, und anderes mehr.

Ein grosser Teil der unter mir tätigen deutschen und tschechischen Forscher und Konstrukteure dürfte sich entweder in amerikanischer Gefangenschaft befinden (soweit es sich um Deutsche handelt), oder ist (das gilt für die Tschechen) aus ihren Positionen entfernt worden. Die Letzteren werden aber zweifelsohne von der tschechischen oder russischen Armee eingesetzt werden, da sie erstklassige Fachleute sind.

Figure D.930: Wilhelm Voss. Excerpts from April 1946 statement [NARA RG 319, Entry A1-134B, Box 831, Folder XE065651 Voss, Wilhelm]. Note the manufactured items 9 ("highest energy explosives") and 14 ("electric detonators for shaped charge and wedge projectiles").

Wilhelm Voss. Statement. 18 September 1946. The first two pages are present in the U.K. copy of this document [TNA FO 1031/64] but appear to have been redacted in the U.S. copy [NARA RG 263, Entry ZZ-18, Box 133, File Voss, Friedrich Wilhelm].

1. Professor Kammler (G).

He was the Head of a staff of specialists who developed highly secret weapons and war-equipment. Whereas up to a recent date each Branch of the Wehrmacht and its competent authorities had their developments carried out separately, Kammler succeeded in creating in his field a centralized command for all Branches of the Wehrmacht. His field consisted mainly of V-weapons, rocket apparatus, remote control, atomic energy, jet-propulsion and other similar subjects.

According to my information, Kammler, who shifted his office to Prague during the last month of the war—committed suicide on May 9th near Prague. His first assistant and second in command was

2. Generaldirektor (General Manager) [Erich] Purucker (G).

He was General Manager of the Vereinigte Industriewerke, Spandau, and of the Berliner Spreewerk (production of guns and ammunition). He was in the first place the liaison between SS, Heereswaffenamt (Army Ordnance Branch) and Ruestungsministerium (Ministry of Armaments and War Production) and in the end he became the assistant of Kammler. On May 10th I met him at the American demarcation line outside Schimmelitz on the road Pibrams–Strakonitz, where a large convoy of civilian lorries and military formations stopped, in order to be taken over and directed into the Reich by American troops. We stayed there until May 12th. On that day an order was given all of a sudden to the effect that not the Americans, but approaching Russian Formations would take us over. Therefore Purucker and I tried to hand over to the Americans the very bulky material of the staff of scientists under Kammler, which Purucker had packed and carried with him in a large lorry and in order to hand the material over to the Americans, Purucker called an American officer. This officer promised to inform his Commanding Officer according to our wish and to fetch us and the material within an hour latest. Apparently, however, he did not realize the importance of this matter, because he did not come back. Therefore Purucker handed all his material over to Russian officers. I was still with him on May 15th in the Russian camp in Zlavonice at the southern border of Bohemia. Purucker was interrogated there several times by night by the Russians and one day he was moved together with his material. Where—I don't know—but recently I heard by chance that he is working in Moscow and that his family has joined him there.

3. Ing. Karel Staller (C)

This man is the most versatile and intelligent designer and scientist I ever met. Towards the end he became second General Manager of the Bruenner Waffen-Werke under me—worked, however, as before, mainly in the field of research and development. He himself was the designer of the famous British machine-gun (Bren ZB 26 and 37) and he carried out more or less himself all developments within the Bruenner Waffen-Konzern in the fields of optics, machine-construction, construction of arms, fuzes, ammunition, rocket-projectors, etc. [...]

4. Fritz (?) [actually Rolf] Engel (G)

This man was, if I am not mistaken—until 1942/43 Head of the experimental workshops at Helamuende, which he founded himself. Then I took him over (with the experimental workshops) and made him Chief of our research institute at Pibrams. Engel was a specialist for many years in the field of rockets and he was a member of the Central Commission for rocket-research, Berlin. For a long time he worked together with Kammler, and he knew almost everything of the secret research and development work, especially because he was the President of a special Commission which had to carry out the entire calculations in the chemical and physical fields with regard to ballistics of special weapons and apparatus. Engel and his wife lived in Pibrams. I suppose that he escaped in time across the American demarcation line into Germany and that he lives probably somewhere in the American Zone.

5. Ing Odstracil (C)

After Staller he is, according to my opinion, the best scientist and designer of the Bruenner-Waffen-Konzern, of which he was the official Chief designer. He worked mainly in the fields of rocket projectors, automatic weapons, fuzes and ammunition. [...]

6. Ing. Adolf Vambersky (C).

This man was General Manager of the Skoda Konzern (Combine) and in that capacity he was more or less the Chief of research and development in all fields with regard to the combine. [...]

7. Ing. Alesch (C).

Until May 1945 he was Chief of Explosia AG and Synthesia AG He is a former Austrian Officer of the Engineers in Blumen. Alesch is an excellent expert in the field of high explosives, therefore he directed our latest developments in high explosives. [...]

8. Dr. Kappel (G).

He, as a chemist was in charge of the laboratories of our plants for high-explosives in Semtin. He himself was a scientist and the inventor of the latest patents. [...]

11. Ing. Novy (C)

He was the Chief of our foundries, including the attached plants and the casting houses. He was a specialist in the field of light metal. He is an excellent expert as well as technician. [...]

12. Professor Dr. Maurer (G).

Before he worked with Krupp's, then he was advisor with the Skoda Konzern in all questions of metallurgy and foundries. He was in the first place a University professor (ordentlicher Professor) at the Academy for Mining in Freiberg/Saxony [see pp. 3433–3437, 3456–3416, 3708]. As far as I know he had to resign at the instigation of the Russians. He is an excellent scientific capacity on iron and steel including the working-up process and he is also very practical-minded. [...]

14. Dr. Pavlicek (G).

He was the Chief of the Optiko-Techna.—the optical plants of the Bruenner Waffen Konzern in Prerov. His field was mainly research and development. He was also informed with regard to many particulars concerning his field, inside Germany, as he had to function at general conferences and discussions in these questions, created by various firms under the leadership of Zeiss. [...]

[For the German-language original of this document, see pp. 4923–4929.

This document supports the story of Purucker fleeing with (atomic bomb) plans in his car and being forced to surrender to Russians instead of Americans.

It also provides more information on Rolf Engel and other experts working in wartime Czechoslovakia, and demonstrates that their expertise covered many of the areas necessary to build an atomic bomb. See also pp. 3751–3754.]

Forscher und Konstrukteure

1. **Professor Kammler (G)**

Er war der Leiter eines besonderen Arbeitsstabes, dem die Entwicklung geheimster Waffen und Kriegsgeräte oblag. Während bis i in die letzte Zeit hinein die einzelnen Wehrmachtsteile und die dafür zuständigen Behörden ihre Entwicklung getrennt voneinander durchführen ließen, war es Kammler gelungen, auf seinem Arbeitsgebiet eine zentrale Führung für alle Wehrmachtsteile zu erreichen. Sein Arbeitsgebiet war in der Hauptsache V-Waffen, Raketengeräte, Fernsteuerung, Atomenergie, Strahlantrieb und dergleichen mehr.

Nach meinen Informationen hat sich Kammler, der in den letzten Monaten des Krieges seinen Dienstsitz nach Prag verlegt hatte, am 9. Mai 1945 in der Nähe Prags das Leben genommen. Sein erster Mitarbeiter und Stellvertreter war

2. **Generaldirektor Puruker (G)**

Dieser war Generaldirektor der Vereinigten Industriewerke in Spandau und des Berliner Spreewerkes (Herstellung von Geschützen und Munition). Er war in der Hauptsache der Verbindungsmann zwischen SS, Heereswaffenamt und Rüstungsministerium und nicht zuletzt Mitarbeiter von Kammler. Am 10.Mai 1945 kam ich mit ihm an der amerikanischen Demarkationslinie vor Schimmelitz auf der Straße Pribram - Strakonitz zusammen, wo eine Menge Ziviltrecks und militärischer Verbände hielten, um von den Amerikanischen Truppen übernommen und in das Reich durchgeschleust zu werden. Wir verblieben dort bis zum 12. Mai. An diesem Tage kam plötzlich die Anordnung durch, daß wir nicht von den Amerikanern, sondern von den russischen Verbänden, die im Anrücken waren, übernommen würden. Puruker und ich haben dann noch versucht, das sehr umfangreiche Material des Arbeitsstabes Kammler, das P. in einem großen Wagen mit sich führte, den Amerikanern zu übergeben und zu diesem Zweck einen amerikanischen Offizier herangerufen. Dieser versprach, unserem Wunsche gemäß, seinen Kommandeur zu verständigen und dann uns mit dem Material spätestens innerhalb einer Stunde zu holen. Offenbar ist ihm aber die Bedeutung der Sache nicht klar geworden, jedenfalls ist er nicht wiedergekommen. P. hat dann sein gesamtes Material russischen Offizieren übergeben. Ich war zuletzt o mit ihm am 15. noch im russischen Lager in Zlavonice an der böhmischen Südgrenze zusammen. Dort wurde Puruker mehrfach nachts von den

Figure D.931: Wilhelm Voss. Excerpts from September 1946 statement [NARA RG 319, Entry A1-134B, Box 831, Folder XE065651 Voss, Wilhelm].

Russen verhört und eines Tages mit seinem Material abtransportiert. -Wohin, weiß ich nicht-, ich habe aber zufällig vor kurzem gehört, daß er in Moskau tätig ist und auch seine Familie nach dorthin hat nachkommen lassen.

3. Ing. Karel Staller (C)

Dieser ist der vielseitigste und begabteste Konstrukteur und Forscher, den ich überhaupt kenne. Er war zuletzt Stellvertretender Generaldirektor der Brünner-Waffen-Werke unter mir, hat aber nach wie vor hauptsächlich auf dem Gebiet der Forschung und der Entwicklung gearbeitet. Er selbst war Konstrukteur des bekannten englischen Maschinengewehrs (Bren ZB 26 und 3?) und hat außerdem eigentlich sämtliche Entwicklungen, die im Rahmen des Brünner-Waffen-Konzerns vor sich gingen, mehr oder weniger selbst durchgeführt, und zwar sowohl auf demGebiet der Optik, wie des Maschinenbaues, der Waffenkonstruktion, des Zünders, der Munition, der Raketengeräte etc.

Staller habe ich zuletzt Ende des Jahres 1945 in Prag, als ich in Untersuchungshaft war, gesprochen. Er ist Mitte des Jahres 1945 bei den Brünner-Waffen-Werken ausgeschieden (ich nehme an, weil er nicht kommunistisch eingestellt ist) und hatte nur eine beratende Tätigkeit bei der Organisation der Metallverarbeitenden Industrie in Prag. Er sagte mir damals, daß er ins Ausland gehen möchte.

4. Fritz (?) Engel (G)

Dieser war, wenn ich nicht irre bis 1942/43 Leiter der Versuchswerkstätten in Helmsinde, die er auch selbst gegründet hatte.

Dann habe ich ihn übernommen (mit den Versuchswerkstätten) und ihn zum Leiter unseres Forschungsinstitutes Přibrams gemacht. Engel war Spezialist seit vielen Jahren auf dem Gebiet des Raketenwesens und war Mitglied der zentralen Kommission in Berlin für dieses Gebiet. Er hat auch lange mit Kammler zusammengearbeitet und war über wesentliche Teile der geheimsten Forschung und Entwicklung unterrichtet, insbesondere auch deshalb, weil er Vorsitzer einer Sonderkommission war, die die gesamten Berechnungen auf chemischem und physikalischem Gebiet für die Ballistik der Sonderwaffen und Sondergeräte durchzuführen hatte.

Engel wohnte mit seiner Frau in Přibrams, ich nehme an, daß er rechtzeitig über die amerikanische Demarkationslinie nach Deutschland geflohen ist und wahrscheinlich sich in der amerikanischen Zone aufhält.

Figure D.932: Wilhelm Voss. Excerpts from September 1946 statement [NARA RG 319, Entry A1-134B, Box 831, Folder XE065651 Voss, Wilhelm].

5. Ing. Ostrczil (C)

Diesen halte ich nach Stellor für den besten Forscher und Konstrukteur des Brünner-Waffen-Konzerns, dessen offizieller Chefkonstrukteur er war. Er hat vor allem auf dem Gebiet der Raketengeräte, der automatischen Waffen, der Zünder und der Munition gearbeitet.

Nach meinen Informationen war er der neuen Richtung der SCR nicht genehm, mußte deshalb bei dem Brünner-Waffen-Konzern ausscheiden und hatte keine neue Beschäftigung. Seine Wohnung befand sich in Prag.

6. Ing. Adolf Vambersky (C)

Dieser war Generaldirektor des Skoda-Konzerns und leitete auch in dieser Eigenschaft hauptsächlich die Forschung und Entwicklung auf allen Arbeitsgebieten des Konzerns. Er war früher selber Konstrukteur gewesen und hatte die neuesten Skoda-Lokomotiven und die bekannten schweren 42 cm Mörser des ersten Weltkrieges konstruiert. Er ist nach der Revolution vom Mai 1945 in Prag noch einige Monate Generaldirektor des Skoda-Konzerns geblieben, dann aber verhaftet worden. Im März 1946 wurde er vom tschechischen Nationalgericht zu einem Jahre Gefängnis und teilweisen Einziehung seines Vermögens verurteilt, mit der Begründung, daß er mit einigen anderen führenden Tschechen im April 1945 versucht hat, im amerikanischen Hauptquartier die Besetzung Prags durch die Amerikaner statt durch die Russen zu erreichen. Als ich von Prag freigelassen wurde, befand sich Vambersky noch im Krankenhaus. Wo er jetzt ist, weiß ich nicht. Er wohnte auf einem Gut in der Nähe von Tabor (CSR).

7. Ing. Alesch (C)

Er war bis zum Mai 1945 Zentraldirektor der Explosia AG. und der Synthesia AG., früher Österreichischer Genie-Offizier in Blumau. Alesch ist ein ausgezeichneter Fachmann auf dem gesamten Gebiet der Explosivstoffe, der auch unsere neuesten Entwicklungen dieser Art leitete. Auch er wurde aus seiner Stellung von der neuen tschechischen Richtung entfernt und hat meines Wissens keine neue Tätigkeit übernommen. Er wohnte in Semtin bei Pardubitz.

6v

Figure D.933: Wilhelm Voss. Excerpts from September 1946 statement [NARA RG 319, Entry A1-134B, Box 831, Folder XE065651 Voss, Wilhelm].

8. Dr. Kappel (G)

Dieser leitete als Chemiker die Laboratorien unserer Sprengstoffwerke in Semtin und war selber Forscher und Entwickler, auch Erfinder neuester Patente. Er hat als Deutscher sicher nicht in der Tschechei bleiben können. Wie ich annehme, ist er über die amerikanische Demarkationslinie nach Deutschland geflohen und dürfte sich ebenfalls in der amerikanischen Zone aufhalten. Er wohnte vorher in Semtin.

9. Ing. Zubaty (C)

Dieser leitete unsere Panzerwerke in Pilsen beim Skoda-Konzern und führte selber die neuen Entwicklungen auf das Gebiet des Panzerwesens durch. Ein ausgezeichneter Konstrukteur auf dem Gebiet wie in allen Einzelheiten eines modernen Panzers, einschließlich Motoren. Auch er hat seinen Posten verloren und keine neue Tätigkeit. Er wohnte in Pilsen.

10. Dr. Jurczyk (G)

Er war stellvertretender Leiter unserer Geschützfabriken in Pilsen beim Skoda-Konzern, einschließlich der Versuchswerkstätten, und war selber Forscher und Konstrukteur. Er hat z.B. die neuesten schweren Rinen (30,5 und 42 cm mit einer Distanz bis zu 30 Km) konstruiert.

11. Ing. Hovy (C)

Dieser leitete unsere Hütte mit den zugehörigen Werken einschließlich der Gießereien und war ein Spezialist auf dem Gebiete des Leichtmetalls. Er ist ein hervorragender Fachmann, sowohl Techniker wie Praktiker. Er wohnte in Pilsen, ob er dort noch tätig ist, weiß ich nicht.

12. Professor Dr. Maurer (G)

Dieser war früher bei Krupp tätig und dann Adviser beim Skoda-Konzern für alle Metall- und Hüttenfragen. Er war in der Hauptsache ordentlicher Professor an der Bergakademie in Freiberg in Sachsen und wie ich hörte ist er auf Veranlassung der Russen dort ausgeschieden. Er ist ein ausgezeichneter Forscher gerade auf dem Gebiet von Eisen und Stahl und ihrer Verarbeitung und hat auch einen sehr guten praktischen Blick. Wo Maurer sich zur Zeit aufhält, ist mir nicht bekannt.

Figure D.934: Wilhelm Voss. Excerpts from September 1946 statement [NARA RG 319, Entry A1-134B, Box 831, Folder XE065651 Voss, Wilhelm].

13. Ing. Kautkey (C)

Er war der Spezialist des Brünner-Waffen-Konzerns für automatische Waffen und war als Gelehrter bei der Entwicklung dieser Geräte maßgeblich beteiligt. Seine Wohnung befand sich in Brünn. Was aus ihm seit Mitte 1945 geworden ist, weiß ich nicht.

14. Dr. Javlicek (C)

Er leitete die Optiko-Technik, die Optischen Fabriken des Brünner-Waffen-Konzerns in Prerov und befaßte sich in der Hauptsache mit der Forschung und Entwicklung. Er war auch über sehr viele reichsdeutsche Dinge auf diesem Gebiet im Bilde, weil er bei gemeinsamen Aufgaben, die für mehrere optische Firmen unter Führung von Zeiss gestellt wurden, mitzuwirken hatte. P. wohnte in Prerov, ob er sich dort noch aufhält oder tätig ist, habe ich bisher nicht feststellen können.

15. Ing. Löhrl (C)

Dieser war der Spezialist für Munition, sowohl in der Entwicklung wie in der Fertigung in Pilsen bei den Skodawerken seit mehreren Jahrzehnten. Als Deutscher hat er Pilsen verlassen müssen, wahrscheinlich befindet er sich in der amerikanischen Zone.

16. Ing. Stancovic (Serbe)

Er war der Generaldirektor des Vistad-Konzerns (Sitz Belgrad, Hauptwerk in Valjevo). Als solcher leitete er den gesamten Konzern, war aber selber speziell Forscher, Entwickler und Konstrukteur auf dem Gebiet des Maschinenbaues, sowie von Bomben und Munition.

17. Ing. Hoak (C)

Er war der Leiter der Flugzeugwerke Avia des Skoda-Konzerns in Prag-Letnian. In der Hauptsache war er Konstrukteur, u.a. der früheren tschechoslowakischen Flugzeugtypen insbesondere auch des sehr erfolgreichen bekannten tschechischen Kunstflugzeugs. Er wohnte in Prag. Wo er sich jetzt aufhält, ist mir unbekannt.

18. Ing. Ledvinka (Österreicher)

Dieser war der Chefkonstrukteur der Ringhoffer-Tatrawerke. Er hat selber eine Reihe modernster Auto- konstruiert, u.a. die bekannten Tatrawagen, und auch modernste Wagen und Motoren überhaupt entwickelt. Ende des Jahres 1945 befand er sich in Untersuchungshaft in Gesseldorf (Tschechoslowakei).

Figure D.935: Wilhelm Voss. Excerpts from September 1946 statement [NARA RG 319, Entry A1-134B, Box 831, Folder XE065651 Voss, Wilhelm].

- 6 -

19. Fliegerstabsingenieur Z e y s s

Er war der zentrale Bearbeiter der Reichszeugmeister für die Luftwaffe und für das Heereswaffenamt, arbeitete im engsten Zusammenhang mit den von mir geleiteten Konzernen und vor allem auch mit Direktor Angel, dessen Kommission er angehörte.

Wo Zeyss sich jetzt aufhält, ist mir nicht bekannt.

20. Direktor Ing. J e s t r a b e k

Er war leitender Konstrukteur bei meinen Brünner- Waffen-Werken und leitete in Brünn auch eine besondere Versuchswerkstätte. Er war selber Konstrukteur. Spezialgebiet: Automatische Waffen, Sondermunition und vor allem 3 cm Flak.

Jestrabek wohnte in Brünn, hielt sich im April noch in Prag auf und dürfte jetzt auch in Deutschland sein.

21. Walter S o o s t

Er war Konstrukteur vor allem auf dem Gebiet der Optik, der Schallmessungen u.a. bei unserer Optikwerke (Brünner -Waffen-Konzern in Prerov.)

Soost ist meines Wissens noch in der Tschechoslowakei gefangen, und zwar in einem Lager bei Kollin.

22. Baron Hans R i n g h o f f e r

Er war einer der ersten Fachleute auf dem Gebiete der Personen- und Lastwagen und auch des Waggonbaues, von internationalem Ruf.

Im Frühjahr 1946 befand er sich noch in Haft in dem Lager Prag-Hagibor.

23. Dipl.-Ing. G o l d

Er war Generaldirektor der Ferdinand-Nord-Bahn (Kohlenbergbau). Einer der ersten Fachleute auf dem Gebiet des Kohlenbergbaues, der Kohlenverwertung, Verkokung etc.

Er wohnte bis zum Frühjahr 1945 in Mährisch-Ostrau, ist aber rechtzeitig nach Deutschland geflohen.

24. Dipl.-Ing. K l i m a

Dieser war Leiter der zentralen Betriebsdirektion des Skoda-Konzerns in Prag. Spezialist der Fertigung von Waffen und Maschinen aller Art. Auch guter Organisator für die Betriebsfertigung.

Er ist nach meinen Informationen nach Deutschland geflohen.

25. Direktor Ing. S o n n e v e n d

E

Figure D.936: Wilhelm Voss. Excerpts from September 1946 statement [NARA RG 319, Entry A1-134B, Box 831, Folder XE065651 Voss, Wilhelm].

25. Direktor Ing. [redacted]

Er war Direktor der Skoda-Werke in Dubnica (Slowakei). Ein Spezialist auf dem Gebiete der Fertigung.

Sonnewend wohnte mit seiner Familie in Dubnica, ist aber im Frühjahr 1945 nach Oesterreich geflohen und soll sich dort in Aussee aufhalten.

26. Direktor Dr. [redacted]

Er war Leiter der Brünner-Waffen-Werke in Povaska/Bistrica (Slowakei), Betriebsspezialist.

Witt wohnte mit seiner Familie in Povaska/Bistrica, dürfte aber rechtzeitig nach Deutschland geflohen sein.

27. Direktor Ing. [redacted]

Er war früher bei den Rheinmetall-Werken tätig, seit den letzten Jahren bei den Skoda-Werken als Spezialist für die Fertigung von Panzern und Geschützen.

Cerwenka war bis zum Schluß in Prag. Wo er sich jetzt aufhält, ist mir nicht bekannt.

28. Direktor Ing. [redacted]

Er leitete die Skoda-Werke in Prag/Smichow. Spezialist auf dem Gebiet der Werkzeugmaschinen- und der Geschoßfertigung.

Wo er sich jetzt aufhält, ist mir unbekannt.

29. Direktor Ing. [redacted]

Er leitete die zentrale Betriebsdirektion der "Böhmisch-Mährischen" in Prag. Spezialist auf dem Gebiet der Fertigung.

Aufenthaltsort mir unbekannt.

30. Direktor Dipl.-Ing. [redacted]

Dieser leitete unsere Flugzeugmotorenwerke in Prag-Letnian. Spezialist für die Fertigung von Flugzeugmotoren.

Lindenberg war bis Ende März in Haft in der Tschechoslowakei, ist dann nach Deutschland gekommen und hält sich in Tegernsee auf. Er ist meines Wissens im Roter-Pool der US-Army in Bad Wiessee/Tegernsee tätig.

Figure D.937: Wilhelm Voss. Excerpts from September 1946 statement [NARA RG 319, Entry A1-134B, Box 831, Folder XE065651 Voss, Wilhelm].

Dr. Wilhelm V o s s den 19. Oktober 1946

An
B.P.D.S. - F.I.A.T.

H.Q.c.h.s.t via Commandant Dustoin

Ich bitte hiermit um meine Entlassung aus der Haft. Zur Begründung weise ich in der Hauptsache auf Folgendes hin:

1. Ich war bereits 11 Monate, vom Mai 1945 bis Ende März 1946 in Haft in der Tschechei-Slowakei. Während dieser Zeit sind meine persönlichen Verhältnisse und insbesondere auch meine Tätigkeit als Chef des Skoda- und des Brünner-Waffen-Konzerne (1939 - 1945) eingehend untersucht, und ich bin immer wieder verhört worden (von der Gendarmerie, der Polizei und auch vom Innenministerium).

Ende März wurde ich nach Deutschland entlassen.

Diese Tatsache ist wohl der beste Beweis dafür, daß man mir nicht das Geringste vorzuwerfen hat, denn sonst wäre ich sicher nicht entlassen worden. Wie mir amtlich mitgeteilt wurde, lag trotz aller Rundfragen keinerlei Anzeige oder Beschwerde gegen mich vor. Im Gegenteil, die befragten Nationalausschüsse und Betriebsräte hatten ausdrücklich zu meinen Gunsten Stellung genommen.

2. In den von mir geleiteten Werken wurden keine ausländischen Arbeiter beschäftigt, auch keine angefordert. Ich habe mich darüber hinaus mit Erfolg dafür eingesetzt, daß keine Tschechen aus unserem Bereich nach Deutschland dienstverpflichtet wurden, was besonders schwierig war, als es sich um tschechische Konstrukteure und Specialisten handelte. Außerdem habe ich zu Weihnachten 1944 dafür gesorgt, daß ins Reich dienstverpflichtete tschechische Studenten mit Wagen der Skoda-Werke nach Hause transportiert wurden, wo sie dann natürlich auch blieben.

3. Soweit es in meinen Kräften stand, habe ich der tschechischen Bevölkerung Hilfe geleistet, wann und wo immer es nur möglich war. Große Teile meines Sekretariats in Prag waren mit nichts anderem beschäftigt, als für Tschechen bei deutschen Dienststellen zu intervenieren, und zwar naturgemäß in erster Linie für Arbeitnehmer unserer Werke und ihre Angehörigen, darüber hinaus aber auch für Tschechen, die außerhalb meines Tätigkeitsbereiches standen und die sich an mich gewandt hatten, weil ich im Protektorat dafür bekannt war, daß ich mich der Tschechen annahm, soweit es in meinen Kräften

stand.

Ich habe grundsätzlich verboten, Verhaftungen bei der Polizei anzuzeigen.

Es steht nachweislich fest, daß mir viele tausend Tschechen, Männer, Frauen und Kinder Freiheit und Leben zu verdanken haben. Ich habe eine große Anzahl von Tschechen aus den Gefängnissen und Konzentrationslagern befreit, sie bei der Deportation Franks vor dem Abtransport bewahrt usw.

Um nur ein Beispiel von vielen zu nennen:
Im Jahre 1944 sollte ein führender Tscheche, Ingenieur Karel Staller, mit seiner Familie erschossen werden, weil ein Agent glaubhaft gemeldet hatte, daß der tschechische Ingenieur eine wichtige Geheimwaffe an die Alliierten verraten hätte. Trotzdem habe ich mich aus Gründender Menschlichkeit für den Betreffenden und seine Familie eingesetzt, K.H. Frank gegenüber die persönliche Bürgschaft für Staller übernommen und ihn sowie seine Familie gerettet. Hiervon habe ich Staller außerdem Mitteilung gemacht und ihn gewarnt.

Figure D.938: Wilhelm Voss. Excerpts from October 1946 statement [NARA RG 319, Entry A1-134B, Box 831, Folder XE065651 Voss, Wilhelm].

[According to official histories, Hans Kammler died in early May 1945. However, documents in U.S. government archives prove that he surrendered to U.S. forces in May 1945 and was alive and being interrogated by the United States long after the war.]

Albert Speer. 1981. *Infiltration: How Heinrich Himmler Schemed to Build an SS Industrial Empire.* p. 243

[...] Kammler [...] came to me in early April in order to say goodbye. For the first time in our four-year association, Kammler did not display his usual dash. On the contrary, he seemed insecure and slippery with his vague, obscure hints about why I should transfer to Munich with him. He said efforts were being made in the SS to get rid of the Führer. He himself, however, was planning to contact the Americans. In exchange for their guaranty of his freedom, he would offer them the entire technology of our jet planes, as well as the A-4 rocket and other important developments, including the transcontinental rocket. For this purpose, he was assembling all development experts in Upper Bavaria in order to hand them over to the Americans.

Hans Kammler's Adjutant Heinz Schürmann. 6 November 2003 filmed interview with Heiko Petermann [courtesy of Heiko Petermann].

[Kammler's last words to Schürmann before leaving him on 4 May 1945:]

Wenn es heisst, Hänschen ist tot, ist Hans noch lange nicht tot.

If it is said that little Hans is dead, Hans is far from dead.

7 May 1945 memorandum discovered by or provided to Gerald Fleming (Surrey University). What is the original archival source for this document? [It was published in Reuter et al. 2019, p. 168].

[Redaction 1]

T O P S E C R E T

[Redaction 2]

7 May 1945

BY DIPLOMATIC POUCH

SUBJECT: Interrogation Report **[Redaction 3]** HANS KAMMLER

General der S.S. KAMMLER (chief of all V-weapons production) office at 7, Taunusstrasse, Berlin - Grunewald.

Age: 43 and party member since 1932. Dr. Ing. KAMMLER is a trained architect by profession and was head of all secret weapons projects including the V-1 and V-2. He further claims to have been head of **[Redaction 4]** project based at the **[Redaction 5]**. CIC Officer is in possession of documents from KAMMLER which may prove to be of considerable value.

Dr. KAMMLER surrendered 6 May with other named persons attached. Dressed in Heer uniform he later identified himself to an officer of **[Redaction 6]**. By way of special order KAMMLER is to be transferred immediately to KOHNSTEIN, Germany for purposes of detailed interrogation and evaluation of underground weapons research and production facilities.

DETAILED REPORT: At the suggestion of the investigating officers KAMMLER is preparing a detailed report (in German). This is to include the following:

Secret weapons development

[Redaction 7]

Underground research and production facilities

Security measures concerning the above

[Redaction 8]

[See document photo on p. 4934 (courtesy of Rainer Karlsch).

This document was typed in a monospace font, with an equal amount of space for every character. It used a single space after each period. The number of characters in each redacted phrase gives some clue as to what that phrase could have been.

Redaction 1 seems to have been added sometime after the document was typed and was probably an identification number for the document within an archive. That information was apparently removed to prevent investigators from locating the source of the document, verifying its authenticity, and finding other related documents.

Redaction 2 was the name of the organization that created this memorandum. Again, it was probably removed to prevent investigators from locating the source of the document, verifying its authenticity, and finding other related documents. Based on the style of the document, it was

created by the U.S. military. From information later in the document, the creating organization was either the U.S. Army Counter-Intelligence Corps (CIC) itself or some other organization that collaborated with or oversaw CIC.

Redaction 3 contained 6 characters between "Report" and "HANS", including any spaces (which I will show as "␣") before, after, and in between. Presumably it named the organization that interrogated Kammler and was redacted for that reason. The most likely answer was "s␣CIC␣" or ":␣CIC␣". CIC is named later in the document as being involved in possessing information from Kammler. It appears very sloppy or hasty that one mention of CIC was redacted while the other was not.

Redaction 4 contained 16 characters between "of" and "project", including any spaces before, after, and in between. It named some secret weapons project that was much more sensitive than the V-1 and V-2, and that still required redaction even many decades later. Based on the sorts of projects that Germany appears to have been conducting, and the sorts of projects that would provoke such secrecy from U.S. officers and censors, it seems almost certain that Redaction 4 concerned the German nuclear weapons program. There are several plausible wordings that match the 16-character space, including "␣the␣Tube␣Alloy␣", "␣the␣German␣T␣A␣", "␣an␣atomic␣bomb␣", "␣SS␣atomic␣bomb␣", or "␣atomic␣weapons␣".

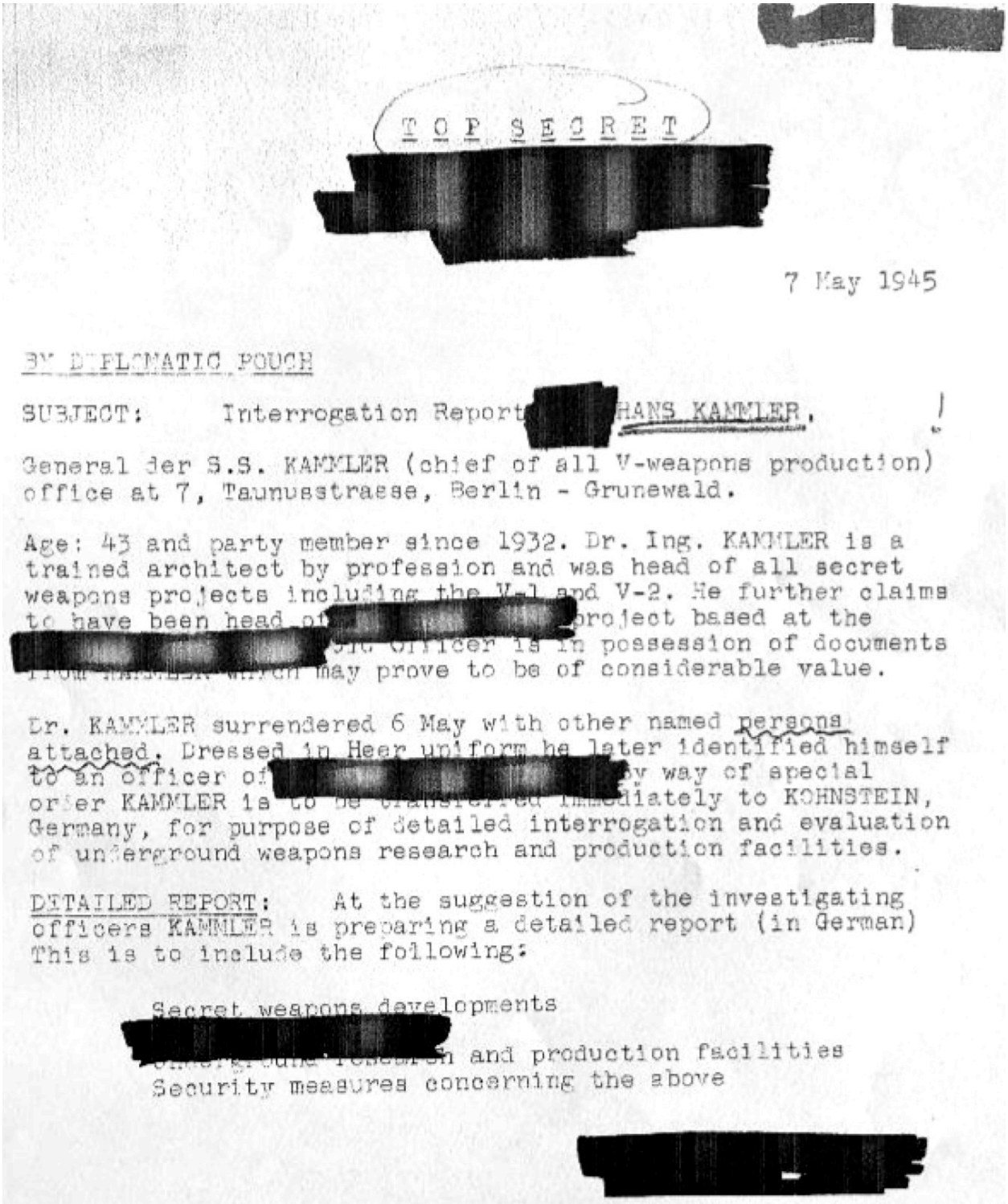
Redaction 5 contained 18 characters between the beginning of the line and the apparent location of the period, including any spaces. It seems to have named the headquarters and/or the most important production location for the German nuclear weapons program. As such, this information would be of great interest to modern investigators. The 18-character location name is preceded by "the", which also helps to narrow down the possible answers. "BERGKRISTALL␣plant" (St. Georgen/Gusen) and "Truppenübungsplatz" (Ohrdruf) are plausible answers. Other possible locations might have included Linz, Pilsen, Prague, Tuchola Forest/Tucheler Heide, etc., although it is challenging to think of names that the U.S. military would have used for those locations and that would have been preceded by "the" and had 18 characters.

Redaction 6 contained 21 characters between "of" and the apparent location of the period, including any spaces. It named the military unit to which Kammler surrendered, and it was probably redacted to prevent investigators from verifying this document and finding related documents. Based on U.S. troop movements and locations in early May 1945, a plausible answer is "␣4th␣Armored␣Division".

Redaction 7 contained 17–19 characters, and most likely 18 characters based on how far the other black marks protrude beyond the edge of a redacted word. Redaction 7 was the second in a list of four items. The first and third items were almost exactly as named earlier in the memorandum, so the redacted phrase was probably the same or nearly the same as named in Redaction 4. Some possibilities include "Tube␣Alloy␣project" (18 characters), "German␣T␣A␣project" (18 characters), "German␣TA␣project" (17 characters), "Atomic␣development" (18 characters), "SS␣atomic␣research" (18 characters), "SS␣atomic␣weapons" (17 characters), "Atomic␣bomb␣project" (19 characters), etc.

Redaction 8 was the person who wrote this memorandum. Once again, it was apparently redacted to prevent investigators from locating the source of the document, verifying its authenticity, and finding other related documents.

Can the archival source of this document be identified, and can unredacted versions of this document, the documents it mentions, and other related documents be released?]



TOP SECRET

[redacted]

7 May 1945

BY DIPLOMATIC POUCH

SUBJECT: Interrogation Report [redacted] HANS KAMMLER.

General der S.S. KAMMLER (chief of all V-weapons production) office at 7, Taunusstrasse, Berlin - Grunewald.

Age: 43 and party member since 1932. Dr. Ing. KAMMLER is a trained architect by profession and was head of all secret weapons projects including the V-1 and V-2. He further claims to have been head of [redacted] project based at the [redacted] Officer is in possession of documents from KAMMLER which may prove to be of considerable value.

Dr. KAMMLER surrendered 6 May with other named persons attached. Dressed in Hear uniform he later identified himself to an officer of [redacted] by way of special order KAMMLER is to be transferred immediately to KOHNSTEIN, Germany, for purpose of detailed interrogation and evaluation of underground weapons research and production facilities.

DETAILED REPORT: At the suggestion of the investigating officers KAMMLER is preparing a detailed report (in German) This is to include the following:

Secret weapons developments

[redacted] and production facilities

Security measures concerning the above

[redacted]

Figure D.939: 7 May 1945 memorandum, proving that Hans Kammler was alive and being interrogated by the United States as of 7 May 1945 [courtesy of Rainer Karlsch; published in Reuter et al. 2019, p. 168].

Frederick I. Ordway III and Mitchell Sharpe. 1979. *The Rocket Team.* pp. 282–283.

On the same day that the first ship left [22 May 1945], Staver learned the exact location of the documents hidden by Huzel and Tessmann on April 3. He did so by a clever ruse. A couple of days earlier, talking with Fleischer in Bleicherode, he casually pulled a notebook from his pocket and read an imaginary entry:

> Von Braun, Steinhoff, and all the others who fled south have been interned at Garmisch. Our intelligence officers have talked to von Ploetz [Kammler's intelligence officer], General Dornberger, General Rossmann, and General Kammler. They told us that many of your important drawings and documents were buried underground in a mine somewhere around here, and that you, Fleischer, could help us find them.

As he finished, he watched the German closely. Fleischer was upset by what he had heard and reacted visibly. Staver, not wanting to appear overly eager to find the cache of documents, merely told him to think things over and that he would see him the next day. [...]

Fleischer and Rees finally located the mine[...] Then they returned to Nordhausen to inform Staver, arriving there at 1:30 AM on May 22.

[Wernher von Braun and other key German rocket experts provided direct input for this book, which covered the work by those experts in Germany during the war and in the United States after the war. The book was published in 1979, a couple of years after von Braun's death.

According to this book, U.S. Army Major Robert B. Staver told a false story to a German, Karl Otto Fleischer, in order to persuade him to reveal where some rocket documents had been buried. The allegedly false story was that under interrogation by U.S. intelligence officers, Hans Kammler had said that Fleischer knew where the documents were. Even if it was false that Fleischer had been implicated during the interrogation of Kammler, it was in fact true that Kammler was in the custody of U.S. intelligence officers and was being interrogated at that time.

According to official accounts, which presumably would have been widely reported both in these German circles and in U.S. military circles since Kammler was such a high-ranking figure, Kammler had been killed or committed suicide in early May. Staver's bluff suggests that both Staver and Fleischer knew that Kammler was in fact alive and in U.S. custody; otherwise the bluff would not have been credible.

Perhaps it was not even a bluff at all. Maybe Kammler really did discuss the buried documents during his interrogation, and Staver was simply using an actual fact as leverage to persuade Fleischer to reveal where the documents were hidden. In order to maintain the official story that Kammler died in early May 1945, Staver's claim to Fleischer may have later been explained away as fictional.]

James McGovern. 1964. *Crossbow and Overcast.* pp. 167–169.

On the afternoon of May 18, a plane arrived from Brunswick with Drs. [Victor H.] Fraenckel and [Howard P.] Robertson, two civilian technical investigators attached to General Eisenhower's headquarters. [...]

Dr. Robertson agreed with Staver's view, then glanced through his pocket notebook and read a notation: "Von Ploetz said that General Dornberger told General Rossmann that documents of V-weapon production were hidden in *Kaliwerke* (salt mine) at Bleicherode, walled into one of the mine shafts. Von Ploetz was G-2 [intelligence] to Kammler." Dr. Robertson suggested that Rees or Fleischer might be able to direct Major Staver to the salt mine in question, but other than that Dr. Robertson had no further information to offer.

Major Staver spent the rest of the afternoon interrogating Walther Riedel with the thought constantly in the back of his mind of how to turn Dr. Robertson's sketchy lead to the best advantage. The V-2 documents, of course, were not in the salt mine at Bleicherode, which contained only some minor material relating to production. At 6 P.M., Staver left the U.S. Military Government building with Riedel and found that Fleischer had been waiting for them in his two-seater roadster. As casually as he could, after a few words of greeting with Fleischer, Staver took out his own pocket notebook and read from it: "Von Braun, Steinhoff, and all of the others who fled to the south have been interned at Garmisch. Our intelligence officers have talked to von Ploetz, General Dornberger, General Rossmann, and General Kammler. They told us that many of your drawings and important documents were buried underground in a mine somewhere around here, and that Riedel, or *you*, Fleischer, could help us find them."

This was, of course, a fabrication designed to make Fleischer and Riedel think they had been put on the spot by their superiors. Staver reasoned that if they did have any knowledge of a cache of documents they would believe either that they had to tell him where it was or risk being imprisoned for withholding information their superiors wanted the Americans to have.

[James McGovern gave an independent account of the same incident and added a few details. In particular, he mentioned the involvement of Dr. Howard P. Robertson and Dr. Victor H. Fraenckel. Robertson was the head and Fraenckel was a member of the Scientific Intelligence Advisory Section (SIAS) at the Supreme Headquarters Allied Expeditionary Force (SHAEF). Thus they were scientific advisors of the highest level for Dwight Eisenhower. Their direct personal involvement out in the field suggests that this was a matter of the greatest impossible importance. Robertson and Frankel seem to have been involved in interrogating Hans Kammler's intelligence chief, von Ploetz. Could they also have been involved in interrogating Kammler?

What information and archival documents can be located regarding the wartime work and postwar interrogations of von Ploetz? As Kammler's intelligence chief, he would have known a great deal about the most secret German weapons programs.

See also: Jacobsen 2014, p. 97; Neufeld 2007, pp. 206–207, 505; Reuter et al. 2019, pp. 154–155, 273, 367–370.]

CONFIDENTIAL

UNITED STATES STRATEGIC BOMBING SURVEY

APO 413

Minutes of Meeting with Reichsminister

Albert Speer

Flensburg, 21 May 1945

CONFIDENTIAL

Figure D.940: In this 21 May 1945 interrogation, Albert Speer knew or at least had correctly concluded that Hans Kammler was also alive, in U.S. custody, and cooperating with interrogations. [https://digital.library.cornell.edu/catalog/nur01453]

CONFIDENTIAL

Sp. It was difficult to procure the necessary amount of Oxygen, because I already had difficulties to get oxygen for industrial purposes. I found reasons against the expansion of this program. The bottleneck here was the electro-industry on one side, and oxygen on the other.

Q. We know that one of the most typical features of all V-programs is the fact that they required high temperature, high pressure etc. That means that they required high-grade steel. How would the load on steel have been in the case of a planned expansion of the program?

Sp. I had refused to produce more than 600 a month. Originally 900 were planned. I had also refused to carry out an initial expansion of the anti-aircraft rocket. Isaid that when the anti-aircraft rocket comes, V-2 will have to step back and its capacity used for the anti-aircraft rocket, because it was too great a luxury for me. I could have made about 5 to 6 Fighters with the same man power as the V-2 took, which would have been better from my point of view. It is a technical experience to see such a rocket, piloted by a ray from below, going into the air, electrically directed. That is technically the most advanced thing one can imagine.

Q. Didn't about half of the projectiles explode before they got away?

Sp. There was the danger that the projectile would not take off straight. Then one could observe the steering, how the projectile was always brought back into the right direction again.

Q. Do you have figures about how high the losses were at the launching?

Sp. Kammler must be able to tell you exactly about this. As far as I know, a projectile came back 10 or 12 times. But then there is none left in the neighborhood, except the command tank with the two people who guide the projectile. It happened that the fusing of the explosive charge did not immediately take effect, but only a few minutes later, so that this last service crew also could get away. The worst thing was when the projectile could not be brought into the right direction, coming down approximately 30 kilometers from the launching site.

Q. Do you assume in your estimate that the production of the V-weapon injured English production more than German?

Sp. More than German. I have often said that. For one thing because the dispersal was so great that no real effect could be obtained. I considered the nerves of the Englishmen to be so good that they would stick it out anyway. And your victories came first. A victorious nation could not be impressed by that. I believe however, that the development of the V-2 will definitely be the most important factor for war in later times. At the present time it did not come to full effectiveness. It can be launched from a ship, from every street. They do not need a previously prepared launching site and in the course of time their striking accuracy will be just as great as with bombing.

CONFIDENTIAL

Figure D.941: In this 21 May 1945 interrogation, Albert Speer knew or at least had correctly concluded that Hans Kammler was also alive, in U.S. custody, and cooperating with interrogations: "Kammler must be able to tell you exactly about this." [https://digital.library.cornell.edu/catalog/nur01453]

Colonel Loyd K. Pepple. 30 May 1945 Memorandum to Colonel Sheldon. [AFHRA folder 570.605 1944–46, Misc. Documents G-2 Miscellaneous Data. Microfilmed as AFHRA C5089, electronic version pp. 792–806]

HEADQUARTERS
UNITED STATES STRATEGIC AIR FORCES IN EUROPE
Office of Asst. Chief of Staff A-2
Exploitation Division, Operations Section

30 May, 1945

MEMORANDUM: Summary of Activities, Operations Section, Exploitation Division.

TO: Colonel Sheldon

[...]

47. The following is a list of key German Air Force non-technical personnel presently being held for interrogation.

Reichsmarschall Hermann Goering	Commander in Chief of Luftwaffe.
Generalfeldmarschall Ehrhard Milch	Secretary of State for Air and Inspector General of the GAF—Director General of Equipment.
General der Flieger Koller	Chief of General Staff of Luftwaffe.
Dr. Albert Speer	Minister for Armament and War Production.
[...]	
SS-Obergruppenführer Kammler	Inspector of all units of the Luftwaffe working with rocket-propelled arms.
[...]	

[See document photos on pp. 4940–4953.]

AFHRA folder 570.605 1944–46, Misc. Documents G-2 Miscellaneous Data

SECRET

HEADQUARTERS
UNITED STATES STRATEGIC AIR FORCES IN EUROPE
Office of Asst. Chief of Staff A-2
Exploitation Division, Operations Section

A-2

30 May, 1945

MEMORANDUM: Summary of Activities, Operations Section, Exploitation Division.

TO : Colonel Sheldon.

To date the intelligence exploitation of the German Air Force and of German technical facilities has yielded a vast amount of materiel and documents. Briefly to evaluate at this time the worth of such materiel and documents is made difficult due to the fact that the emphasis has necessarily been upon the speed of collection rather than upon concise evaluation. However enough progress has already been made to indicate that approximately half of the category "one" items assigned for evacuation by Wright Field have been secured. Much of the materiel for the longer term research into all aspects of the German Air Force as required by "Air Staff Post Hostilities Intelligence Requirements" prepared by AC/AS, Intelligence, Hq, AAF, is presently being gathered.

There follows a brief outline of recapitulation of the accomplishments to date divided into technical and non-technical exploitation.

AIRCRAFT DESIGN AND GENERAL AERODYNAMICS

1. FOCKE-WULFE-190, 2 long-nosed versions having two-stage superchargers, and possessing Gyro-stabilized compensating gun sights being crated at KASSEL for shipment, ~~to ATSC, Wright Field.~~

2. DORNIER-335, tandem engine, multipurpose aircraft. One specimen found, damaged and not flyable, being crated at KASSEL, for shipment, ~~to ATSC, Wright Field~~.

3. JUNKER-388, High altitude, reconnaissance twin engine (BMW 901-TJ03), in perfect flying condition is now at A-42, Paris. This outstanding completed aircraft possesses:

a. Pressurized cabin.

b. Two stage mechanical blower in addition to exhaust driven supercharged engines. Ample gasoline supply of 1017 gallons for long range reconnaissance and complete instrumentation including auto-pilot, radar search, terrain altimeter, and homing service.

4. MESSERSCHMITT series 1101, 1106, 1110, 1111 and 1112 Fighter Jet Athodyd (Lorin) Propelled Aircraft. This series of airplanes is extremely interesting in that it illustrates a phase of coordinated aircraft design into which the American industry is now entering. This series of aircraft represent an effort on the part of the Messerschmitt plant to develop an extremely high-performance single seat fighter by means of carefully tailoring the power unit, a very simple ram-compressor type jet unit, directly into the aircraft structure. The difficulties met by the Messerschmitt research development program in the form of optimum cockpit location, methods

-1-

SECRET

Figure D.942: 30 May 1945 memorandum from Colonel Loyd K. Pepple to Colonel Sheldon, proving that Hans Kammler was alive and being interrogated by the United States as of 30 May 1945 [AFHRA folder 570.605 1944–46, Misc. Documents G-2 Miscellaneous Data].

SECRET

of air induction, location of discharge openings and control technique were recorded by Messerschmitt and are in our possession. The series of models produced and tested by the Messerschmitt plant presents complete information upon how to overcome the individual difficulties mentioned above. This information is contained in a report prepared by Mr. Puffer of the General Electric Co., and is being prepared for distribution.

5. HORTEN-229, Twin Jet Jumo 004 engines, flying wing, now located at HANAU. One complete fuselage, a nearly complete set of wings and another incomplete fuselage are being crated and are being shipped to ATSC, Wright Field.

6. HELICOPTER, jet propelled aircraft in flyable condition has been captured near Stuttgart. Complete documents and detailed drawings for construction have been captured and the aircraft is being air-freighted to KASSEL for shipment in overseas transport.

7. JU-290, 4 engine large transport as large as the B29 and capable of being converted to a bomber has been captured at MUNICH. This aircraft is being prepared for carrier overseas transport.

8. JU-88 G6, radar equipped night fighter, twin engined, being prepared for carrier overseas transport.

9. ME-262, ten on hand of miscellaneous types, all fighter intercepter, twin-jet propelled, being flown to aircraft carrier for overseas transport. One shipped by fast boat to United States on May 9.

10. HORTON-9, Flying Wing Glider is available at KASSEL. This aircraft is being crated for shipment to ATSC, Wright Field.

11. ME-163, Rocket propelled intercepter fighter. Seven of these aircraft most of which are new and have never been flown are being crated at KASSEL for shipment to the United States. Arrangements are being made for C-54 air shipment for one of these aircraft to ATSC, Wright Field. One glider version of this aircraft is being crated at KASSEL for shipment to the United States in addition to the powered models.

12. HE-162, single place fighter, powered by a Jumo 003 jet engine. Four of these are being crated at KASSEL for shipment to ATSC, Wright Field.

13. ARADO-234, powered by two Jumo 004 engines. Two of these aircraft have been allocated to AAF by the British and will be taken to KASSEL for crating and shipment to the United States.

14. FLETTNER-282 Helicopter. One of these aircraft is being shipped to KASSEL for crating and shipment to ATSC, Wright Field.

15. TA-152, Long-nosed Focke-Wulfe with pressurized cabin. Possesses the in-line engine and is capable of high altitude intercepter operation.

16. JU-248 aircraft, rocket propelled, similar to the ME-163 being prepared for shipment to ATSC, Wright Field.

-2-

SECRET

Figure D.943: 30 May 1945 memorandum from Colonel Loyd K. Pepple to Colonel Sheldon, proving that Hans Kammler was alive and being interrogated by the United States as of 30 May 1945 [AFHRA folder 570.605 1944–46, Misc. Documents G-2 Miscellaneous Data].

SECRET

17. FLYING BOMBS, Single Pilot, type V-1. Eight on hand and one being prepared for priority 1 air shipment to ATSC, Wright Field.

18. FLYING BOMBS, dual piloted type. Two are available and being prepared for carrier shipment to ATSC, Wright Field.

19. LIPPISCH P-13 JAGER, tailless twin rocket propelled wing for supersonic speeds indicate that this flying wing together with the unique aircraft controls indicate possible operation at high mach numbers in the vicinity of .85. One aircraft is being assembled in the vicinity of KOECHEL, AUSTRIA and will be available for shipment to ATSC, Wright Field. The air foil section of the sweep back wing is a symmetrical laminar-flow design with a minimum of parasite resistance. The cockpit is located about midway up the dorsal fin, thus allowing the twin rocket tubes of the Lorin type engine to be installed outboard of the center section and completely contained within the wing contour. Evidence indicates that this aircraft design may be capable of supersonic speeds and that high speeds would initially be reached by the employment of assisted takeoff accelerating rocket units to gain a speed of approximately 80 meters per second.

AIRCRAFT JET ENGINES

20. Athodyd (Lorin Engines) units developing thrusts in excess of 1500 kilograms have been uncovered and sufficient design data is in our possession to permit immediate application in the field of high speed aircraft production at ATSC, Wright Field.

21. Arrangements have been made to run a series of performance tests in the high-altitude engine test beds of the BMW outfit at Munich. It is contemplated that several HIRTH 011, BMW 003 and JUNKERS 004 jets of various series, some supposedly running well over 3000 pounds in thrust will be tested during these trials. This test bed equipment appears to be the most elaborate in the world being capable of supplying refrigerated low-pressure air both for engine cooling and combustion, thus completely simulating atmospheric conditions at approximately 40,000 feet.

22. Plans and specifications have been recovered for a number of experimental jet and turbine engines developing extremely high thrusts, and in some cases making use of conventional propeller drive as a means of reducing excessive fuel consumption rates at low altitudes. Included in this series is the BMW 028 delivering an imput of 9,000 H.P. through its propeller unit while operating under thrust of an equivalent of 3,000 H.P. of direct Jet discharge. The JUNKERS 022 is another propeller and turbine combination, however complete drawings and plans are not yet available.

23. Convection Steam Cooling. The use of substitute metal for engine turbine blades in lieu of high tensil strength alloy metals that had been available to allied nations, but which were not available to Germany, presented a problem to German research which was met in a novel experimental development. The individual blade was provided with a circulating liquid system within each blade. By the incorporation of a drilled duct through the center of the blade, and filling this cylinder with water, centrifugal

SECRET

-3-

Figure D.944: 30 May 1945 memorandum from Colonel Loyd K. Pepple to Colonel Sheldon, proving that Hans Kammler was alive and being interrogated by the United States as of 30 May 1945 [AFHRA folder 570.605 1944–46, Misc. Documents G-2 Miscellaneous Data].

SECRET

forces upon the spinning rotor allowed the liquid at the tip of this drilled duct to reach exceedingly high pressures. The system thus incorporated permitted the water immediately adjacent to the duct walls to reach a temperature of approximately 500° centigrade, and equal to the surrounding metal. This outer shell of water moving longitudinally toward the center of the individual turbine blade and bypassed the center column of water in the duct moving outward by the thrust of extremely high centrifugal forces. This method of coolant principle permitted the employment of substitute metals to operate within an actual ambient temperature of 1200° centigrade. It is believed that the novel principle incorporated in this process may be incorporated within turbine blades constructed of improved metals currently in U.S. manufacture, and that this principle will allow a far greater degree of operating temperatures with a consequent increased efficiency of axial turbines of American jet engines.

24. Sample aircraft, drawings, and specifications of several extremely small rocket propelled piloted aircraft specifically designed for anti-bomber interception work have been obtained. The total wing area of these units varies from 50 to 100 square feet. One of these aircraft, the NATTER, is designed to take-off vertically under the control of anti-aircraft ground personnel. For the first 15,000 feet of climb the course of the craft is determined by the setting of the launching device and gyro equipment mounted in the airplane. At this point the pilot takes over and directs his course into the bomb formation. The airplane is capable of reaching 30,000 feet in less than one minute. Upon overtaking the formation the pilot attacks by means of 45 rocket tubes located in the nose of the unit. He then pulls a release causing the craft to split just forward of the pilot's compartment, the nose section falls to the ground and the tail section including the propulsion unit parachutes down with the pilot parachuting down separately. Four rocket assist take-off units are used initially along with a rocket engine similar to that mounted in the ME-163, installed in the airplane itself.

AIRCRAFT RECIPROCATING ENGINES

25. Forty-eight Cylinder Experimental Development Aircraft Engine of estimated 2,500 to 3,000 H.P. now at Stuttgart, ATI Center, being crated and shipped to HANAU.

26. HEINKEL-HIRTH Turbal Superchargers designed for use with engines of up to 3,000 H.P. rating permitting sea-level performance at altitudes in excess of 40,000 feet. HIRTH has also developed two stage closely coupled superchargers which are used without inter coolers or after coolers in the path of the inducted air, but depend on direct vaporization of Methanol-water mixtures injected directly into the difuser sections for cooling. Samples of these superchargers are now on the way to ATSC, Wright Field.

AIRCRAFT EQUIPMENT AND INSTRUMENTS

27. Aircraft equipment and instruments of all models have been obtained of the latest design of Aero-medical, emergency rescue, ground handling and personnel equipment in numbers and types too brief. Priority items are being evacuated to the ATSC, Wright Field for evaluation and study together with the documents that accompanied them.

-4-

SECRET

Figure D.945: 30 May 1945 memorandum from Colonel Loyd K. Pepple to Colonel Sheldon, proving that Hans Kammler was alive and being interrogated by the United States as of 30 May 1945 [AFHRA folder 570.605 1944–46, Misc. Documents G-2 Miscellaneous Data].

SECRET

ELECTRONICS

28. Extensive investigation of the German Air Ministry Files located at KOETHEN disclose very complete information on the operation and the installation of the German Radar equipment, JOGDSCHLOSS. The JOGDSCHLOSS is a long range early warning radar equipment used by the Germans for the detection of enemy aircraft. Complete reports on this equipment are being prepared by the Electronics Intelligence Section and will be forwarded to the interested agencies.

29. Complete information on the FREYA and RIESE "G" Wurtzburg radar equipment has been uncovered at the research laboratory located at KOETHEN. This equipment was used by the Germans for ground control interception of enemy aircraft and at present is being classified and crated for shipment to ATSC, Wright Field.

30. A complete establishment of allied radar equipment was discovered at the KOETHEN laboratory. This allied equipment was used for research by the Germans, to determine the various characteristics of equipment of the Allied Nations. It also aided in determining the effectiveness of German counter measures against Allied equipment and in instructing German students in operation technique.

31. Three complete assemblies of the FX-1400 Radio controlled bomb are being sent to the ATSC, Wright Field. In addition, three tail assemblies which contain the radio control are also being shipped to the Aircraft Radio Laboratory, Wright Field, Ohio. This equipment is similar to the AAF Azon.

32. The Telefunken Corporation in Germany, under Dr. Brandt, Chief of Development Research, have trained 2,200 Japanese in radar and infrared technique.

DIRECTED MISSILES

33. X-4 ROCKET. A specimen of the German secret weapon X-4 rocket propelled, winged, controlled anti-aircraft missile, has been found and returned to the Air Ministry AI-2(g), for complete examination.

34. This missile is intended for launching from German fighter aircraft against U.S. heavy bombardment daylight formations and is controlled from the fighter aircraft by means of a pair of thin wires. Experimental development had not been completed, and no known flight testing of the X-4 missile has ever been recorded.

35. HS-117. An anti-aircraft missile launched from the ground has been found and sent to Air Ministry AI-2 (g) for examination. The item was incomplete but examination indicates that it was capable of being launched from fighter aircraft and by means of a development proximity fuse, to be detonated in the midst of a heavy bombardment formation.

SECRET

Figure D.946: 30 May 1945 memorandum from Colonel Loyd K. Pepple to Colonel Sheldon, proving that Hans Kammler was alive and being interrogated by the United States as of 30 May 1945 [AFHRA folder 570.605 1944–46, Misc. Documents G-2 Miscellaneous Data].

SECRET

36. GREAT ENZIAN. Data on several interesting types of rocket propelled guided missiles have been uncovered. One of these, upon which the Germans apparently pinned a great deal of faith was the "GREAT ENZIAN". This unit carried a 500 kilogram explosive head and could operate to 53,000 feet altitude at speeds approaching mach numbers of .9. Sixty had been produced for test purposes, 40 flown, and a very high production schedule projected when the organization fell into allied hands and the remaining 20 were destroyed. Dr. Wurster, the designer, is now in our hands and he has given us the following information on this unit: Take-off is assisted by 4 powder type Assist Take-off units which operate for the first 5 seconds only producing a thrust of 3,200 lbs apiece which when added to the 4,400 lb thrust of the main rocket gives a total thrust of 17,600 lbs, over 4 times the total weight of the missile. The assist take-off units drop off when the powder has been consumed and the main rocket motor runs on for 45 seconds gradually decreasing its thrust as the missile becomes lighter to roughly 1/2 its initial value. When the missile is guided within 500 feet of the airplane target it is automatically exploded by a radar device destroying the bomber. The unit when traveling at a mach numberof .9 is not very maneuverable, minimum turning radius being about 1650 feet, thus permitting evasive tactics to be successful. Speeds 30 to 40% greater than those of the target aircraft are best. The range of this unit is 15 miles when the trajectory is arranged to achieve the maximum. It can be fired safely at any angle down to 30° above horizontal. Launching is accomplished from modified 88 mm gun mounts with 23 feet guide rails attached.

37. An accoustic controlled guided missile research development program together with operating personnel has been located at BAD KISSENGER. This experimental control system contains four electrical circuits which are actuated by sound, with the intended purpose of launching a rocket-propelled missile into the space occupied by a heavy bombardment formation, and the missile constantly correcting its course by means of incoming sound waves from the Aircraft engines. With control of vertical and horizontal flight, a course of collision with a bombardment aircraft was sought. The group of scientists working upon this development are being retained in custody at the laboratory to develop the program.

38. Controlled Missiles A-4 Rockets (V-2). Seven complete A-4 rockets have been shipped to the United States for study and possible development.

AIRCRAFT ARMAMENT

39. PROXIMITY SHELL FUSES. Proximity fuse development for artillery shells has been located. The ALSOS Mission has ascertained that the fuse operates upon electro-static principles and will be a very difficult fuse against which to employ counter-measures. But one experimental manufacturing establishment has been located at BRESLAU, and a field team is searching for some materiel that had been evacuated to the American area in Austria. Interrogation of German scientists disclosed that research has not made the fuse effective for a distance greater than 1000 yards, and that under ideal conditions, 90% efficiency could be obtained. Adverse conditions, such as rain or the presence of high electro-static energy in the atmosphere, would render the fuses inoperative more than 50% of the time.

SECRET

-6-

Figure D.947: 30 May 1945 memorandum from Colonel Loyd K. Pepple to Colonel Sheldon, proving that Hans Kammler was alive and being interrogated by the United States as of 30 May 1945 [AFHRA folder 570.605 1944–46, Misc. Documents G-2 Miscellaneous Data].

AFHRA folder 570.605 1944–46, Misc. Documents G-2 Miscellaneous Data

SECRET

40. 5 CM. CANNON. Four types of 5 cm. aircraft cannon have been in development by the Luftwaffe for installation in the jet Messerschmitt 262 aircraft, and it is interesting to note that each of these automatic cannon developed from single shot tank cannons. The weapons do not possess a high cyclic rate of fire, but are limited to between 30 to 50 rounds per minute. One complete installation has been flight tested and the ME-262 is in AAF possession at LECHFELD/AUGSBURG. The cannon mount is an integral part of the fuselage, and a jet trained pilot will fly this aircraft to the vicinity of a seaport for direct loading for shipment to the United States.

41. 5.5 CM. CANNON. Four 5.5 cm. aircraft cannon have been in limited experimental development state and no specimen has been recovered to indicate that the Germans had any hope of success before mid-1945 for limited production of this caliber cannon. Documents located have shown that the ammunition would not be available at that time. Two of the 5.5 cm. cannon employ rocket burning projectiles and it was hoped that in the experimental development items a cyclic rate of 300 rounds per minute would be obtained. Ordnance exploitation teams are directing extensive searches through RHEINMETTALL-BORSIG, MAUSER, KRUPP arsenals and laboratories to get all possible information upon present whereabouts of sample items.

42. TSA-2 BOMB SIGHTS. Four German accelleration integrator bomb release mechanism, or toss bomb sights, together with complete experimental development plans for employment have been located at the Carl Zeiss plant at JENA and have been evacuated to ATSC, Wright Field, for further evaluation and study.

MATERIALS

43. Plastic welding has been employed by German aircraft industry, and a document covering the complete course of instruction and the handling of this equipment was located at HALLE. This novel method of fabrication provides for the joining of plastics by flame gas welding which allows the sections thus joined to possess the strength at juncture of the original material. The information is being reported to Army Air Forces for joint study by ATSC and the Office of Scientific Research and Development.

AIR TECHNICAL FIELD PERSONNEL

44. Approximately three hundred officers and enlisted men, together with eighty industrial specialists from the United States, are employed at high priority targets of opportunity and combined intelligence objectives within Germany to exploit the areas to the maximum. The German aeronautical research facilities at the Herman Goring Aerodynamic Research Laboratory, VOLKENRODE/BRUNSWICK, as the center of German research, has yielded the greatest return in the field of pure research. The establishment containing more than seventy buildings, including a number of large wind tunnels through the range of supersonic installations, covers an area of approximately 4,000 acres. This installation has been exploited as a combined intelligence objective. Dr. Von Karman and his group of eminent scientists have been engaged there in basic scientific research, and large quantities of documents have been selected by them for microfilming prior to evacuation of the selected material.

-7-

SECRET

Figure D.948: 30 May 1945 memorandum from Colonel Loyd K. Pepple to Colonel Sheldon, proving that Hans Kammler was alive and being interrogated by the United States as of 30 May 1945 [AFHRA folder 570.605 1944–46, Misc. Documents G-2 Miscellaneous Data].

SECRET

45. Kockel Research Center. Approximately 700 German research specialists evacuated from the Peenemunde area are engaged in research under their original director, Dr. Herman. Included in the equipment are 3 supersonic tunnels, in good working order, with experiments being conducted in the field of aerodynamic research.

GERMAN SCIENTIFIC PERSONNEL

46. Eminent scientific personnel are available for interrogation concerning German Air Force activities in all the fields of scientific and industrial research. The following are a list of the key personnel together with their principal related activity.

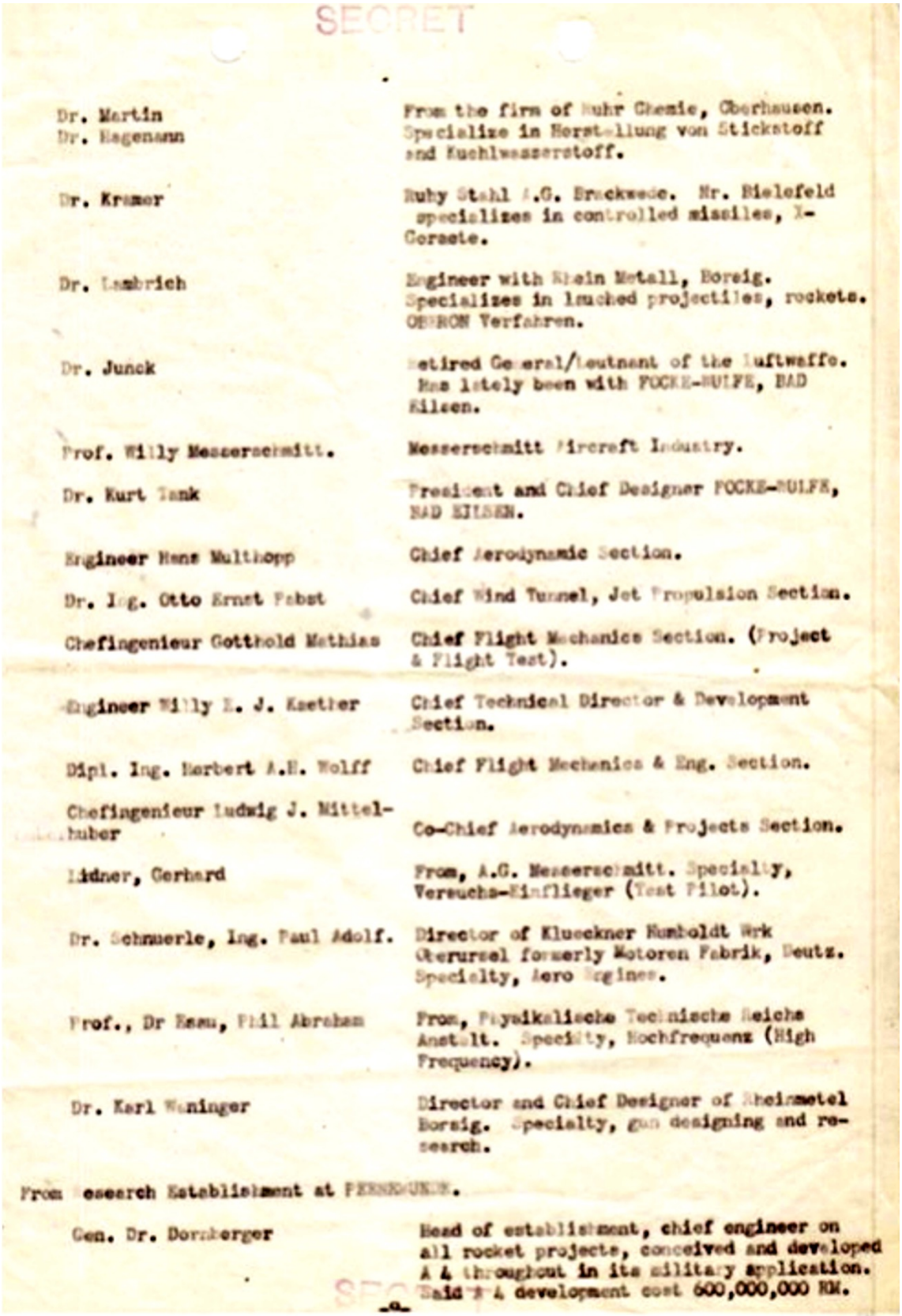
Dr. Ing. Johann W.T. Cassens	Chief Static & Vibration Test Section.
Dr. Helmut Wittmeyer	Asst. to Dr. Cassens-Vibration Specialist.
Wittwer	Chief, Photo Reproduction & Process Section.
Heintzeiman	Chief Stress Analysis Rigidity Section.
Walter Horten) Reimar Horten)	Brothers in firm "Horten Flugzeugbay G.m.b.H. BONN/Rh. and have Werkstaette at GOETTINGEN & HEPSFELD. Specialize in "nur Fluegel Flugzeuge"
Oberst Ing. Lorenz	Administrative link between development committee and GAF research establishments. A-1 ADI (K).
Oberst Hoeffner	Chief of Rlwy transport in France before and after invasion. Has left ADI (K). See Rept 301/45.
Oberst Trubenbach	JAFU Mittelrheim. With ADI (K).
Prof. Oberth	Peenemunde Research Center.
Professor Buchhold " Rau " Viewig " Wagner " Walter	From Darmstadt Technische Hochschule. Specialty Research work for Peenemunde and other institutions.
Dr. Alexander Lippisch	Aerodynamic designs, rocket ME-163 aircraft and supersonic speed flying wing.
Dr. Gollnau Dr. Feige	From J. Gollnau & Sohhn, Stettin. Specialize in Stahlbau Kinstruction (espedially bridges & buildings) and MAGIC EYE.

SECRET

-8-

Figure D.949: 30 May 1945 memorandum from Colonel Loyd K. Pepple to Colonel Sheldon, proving that Hans Kammler was alive and being interrogated by the United States as of 30 May 1945 [AFHRA folder 570.605 1944–46, Misc. Documents G-2 Miscellaneous Data].

AFHRA folder 570.605 1944–46, Misc. Documents G-2 Miscellaneous Data



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Dr. Martin Dr. Hagenmann	From the firm of Ruhr Chemie, Oberhausen. Specialize in Herstellung von Stickstoff and Kuchlwasserstoff.
Dr. Kramer	Ruhy Stahl A.G. Brackwede. Nr. Bielefeld specializes in controlled missiles, X-Gerate.
Dr. Lambrich	Engineer with Rhein Metall, Borsig. Specializes in launched projectiles, rockets. OBERON Verfahren.
Dr. Junck	Retired General/Leutnant of the Luftwaffe. Has lately been with FOCKE-WULFE, BAD Nilsen.
Prof. Willy Messerschmitt.	Messerschmitt Aircraft Industry.
Dr. Kurt Tank	President and Chief Designer FOCKE-WULFE, BAD EILSEN.
Engineer Hans Multhopp	Chief Aerodynamic Section.
Dr. Ing. Otto Ernst Pabst	Chief Wind Tunnel, Jet Propulsion Section.
Chefingenieur Gotthold Mathias	Chief Flight Mechanics Section. (Project & Flight Test).
Engineer Willy R. J. Kaether	Chief Technical Director & Development Section.
Dipl. Ing. Herbert A.E. Wolff	Chief Flight Mechanics & Eng. Section.
Chefingenieur Ludwig J. Mittel-huber	Co-Chief Aerodynamics & Projects Section.
Lidner, Gerhard	From, A.G. Messerschmitt. Specialty, Versuchs-Einflieger (Test Pilot).
Dr. Schmuerle, Ing. Paul Adolf.	Director of Klueckner Humboldt Wrk Oberursel formerly Motoren Fabrik, Deutz. Specialty, Aero Engines.
Prof., Dr Essu, Phil Abraham	From, Physikalische Technische Reichs Anstalt. Specialty, Hochfrequenz (High Frequency).
Dr. Karl Waninger	Director and Chief Designer of Rheinmetel Borsig. Specialty, gun designing and research.

From Research Establishment at PEENEMUNDE.

Gen. Dr. Dornberger	Head of establishment, chief engineer on all rocket projects, conceived and developed A 4 throughout in its military application. Said A 4 development cost 600,000,000 RM.

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-2-

Figure D.950: 30 May 1945 memorandum from Colonel Loyd K. Pepple to Colonel Sheldon, proving that Hans Kammler was alive and being interrogated by the United States as of 30 May 1945 [AFHRA folder 570.605 1944–46, Misc. Documents G-2 Miscellaneous Data].

SECRET

Prof. Von Braon	Chief engineer on A 4. Worked on this project as a civil weapon in peacetime.
Dr. Steinhoff	Theory, design, and development of control system throughout.
Dr. Schilling	Static and projection firing trials.
Dr. Dabus	Ground installations.
Dipl. Ing. Dhenenburg	Engineering design.
Dir. Huter	Transport vehicle design.
Dr. Tschinkel	Chemistry-fuels.
Dr. Heller	Internal ballistics.
Dr. Wierer	Electrical engineer for round and aricellous.
Dipl. Ing. Hoelzer	Accuracy and effects of alterations in production of rounds.
Dr. Strobel	External ballistics.
Dr. Fricke	Chief designer of rockets using solid fuels, to Rhiurmetall Borsig.

GERMAN NON-TECHNICAL PERSONNEL

47. The following is a list of key German Air Force non-technical personnel presently being held for interrogation.

Reichsmarschall Hermann Goering	Commander in Chief of Luftwaffe.
Generalfeldmarschall Ehrhard Milch	Secretary of State for Air and Inspector General of the GAF-Director General of Equipment.
General der Flieger Koller	Chief of General Staff of Luftwaffe.
Dr. Albert Speer	Minister for Armament and War Production.
General Martini	Director General of GAF Signals.
General von Criegern	General Quartermaster of Luftwaffe.
Obstl. Kienitz	Ic of GAF General Staff.
Dr. Benckendorff	Chief of GAF Weather Service.
Obst. Ruhsert	Being groomed for job as Chief of GAF General Staff.

-10-

SECRET

Figure D.951: 30 May 1945 memorandum from Colonel Loyd K. Pepple to Colonel Sheldon, proving that Hans Kammler was alive and being interrogated by the United States as of 30 May 1945 [AFHRA folder 570.605 1944–46, Misc. Documents G-2 Miscellaneous Data].

AFHRA folder 570.605 1944–46, Misc. Documents G-2 Miscellaneous Data

SECRET

Generaloberst Plagman	Chief of Commisariat Officers.
Generalmajor Morzik	Chief of Air Transport.
General Meister	Chief of Luftwaffe Personnel.
General Pickert	Chief of GAF Flak Artillery.
Generaloberst Richter, Freiherr von Hammerstein	Judge Advocate of the Luftwaffe
Generalleutnant Olbrich	Special tasks and troop estimate Staff.
General Kammhuber	Specially detailed officer for defense against 4-engined bombers.
Generaloberst Weise	Specially detailed officer for defense against enemy long-range arms.
SS-Obergruppenführer Kammler	Inspector of all units of the Luftwaffe working with rocket-propelled arms.
General der Flieger Bodenschatz	In the office of the Air Minister (also political representative for party affairs.)
General Kreipe	(Academy for Air Warfare) Chief of all Tactical and Technical Training.
Generaloberstabrzt Dr. Schröter	Chief of GAF Medical Services.
Generalmajor Helmuth von Rhoden	Chief of GAF Historical Section.
Generalleutnant Laube	High Commander for Gas protection of troops.
General der Flieger Förster	Chief of Aeronautics.
Generalmajor Lindner	Chief of Civil Defense RLM.
President Habermehl	Chief GAF Weather Research Service (Reichsamt Fur Wetterdienst).
Generalfeldmarschall Sperrle	Director of GAF Plans.
Generalmajor Hitschold	Commanding General, Ground Attack.
Obstlt. Bar	Well-known Kommodore of J.G3 lately flying jets.
Gen. Von Massow	Commanding General, Training.
Obstlt. Killinger	Interrogation of Allied Air Crew.
Generalmajor Ibel	Commanding General, Jagddivision 2.
Generalmajor Galland	Formerly Commanding General, Fighters.

SECRET

-11-

Figure D.952: 30 May 1945 memorandum from Colonel Loyd K. Pepple to Colonel Sheldon, proving that Hans Kammler was alive and being interrogated by the United States as of 30 May 1945 [AFHRA folder 570.605 1944–46, Misc. Documents G-2 Miscellaneous Data].

SECRET

Generalmajor Boner — Chief Signal Officer, Luftwaffe Air Defense.

Engineer Homberg — With the GAF-Hochfrequenz and Horchdienst, Weisbaden. (Radio Intercept Service).

NON-TECHNICAL INTELLIGENCE EXPLOITATION

48. GAF RELATIONS WITH JAPAN. Heinz Weber, official German Government interpreter on all German-Japanese negotiations relating to the Japanese air effort, evacuated to United States 15 May, 1945. Documents evacuated with Weber consisted of a basic document of thirty pages and six annexes, setting forth:

a. Japanese aircraft production, 1939-1945.

b. Japanese flak guns.

c. Japanese Navy aircraft as of 1 June, 1944.

d. Aircraft equipment manufacturing industry in Japan and Manchukuo.

e. Aircraft production darts for Japan as of 1 June, 1944.

f. Japanese Air armament industry and equipment as of 1 June, 1943.

49. GERMAN AIR EQUIPMENT SUPPLIED JAPAN. Documents concerning the supply of German war material to Japan have been recovered near Berchtesgaden. This file contains correspondence from 1 Gruppe/6 Abteilung, German Air Ministry Intelligence, dated from January, 1943 to March, 1945, concerning the supply of all types of equipment for aerial warfare, including models of the ME 262 and 163 (transported in a specially modified U-Boat), quantities of V-1 equipment, high explosive and incendiary bombs, bombsights, radar apparatus of all descriptions including models of the Wurzburg and Freya, radio and signals installations, telephones, teleprinters, etc., and all types of aircraft parts. In addition the following photographic equipment destined for Japan has been seized:

a. 25 Automatic aerial cameras Rb 20/30, complete

b. 60 Film magazines FK 30/60.

c. 6 Electric drives 24 V (Amot) with control box.

d. 6 view finders 18/1.

50. GAF MISSION TO JAPAN. Adjutant to head of GAF mission to Japan, Oberleutnant Schumann, seized with two other officers of mission, prior to their departure for Japan by submarine. Schumann's evacuation to United States was recommended. Other two officers not sufficiently knowledgeable to warrant evacuation. Technical drawings of German aircraft and engines for shipment to the Japanese Air Force with mission have been seized.

51. GAF INTELLIGENCE. The records of GAF Intelligence on the

SECRET

-12-

Figure D.953: 30 May 1945 memorandum from Colonel Loyd K. Pepple to Colonel Sheldon, proving that Hans Kammler was alive and being interrogated by the United States as of 30 May 1945 [AFHRA folder 570.605 1944–46, Misc. Documents G-2 Miscellaneous Data].

SECRET

Western Front contained in twenty-one boxes have been recovered in the Berchtesgaden area. Other leads for further files of GAF Intelligence are presently being exploited.

52. GAF PHOTOGRAPHIC INTELLIGENCE. GAF photographic coverage of England and the Continent was recovered at OKL Headquarters near Berchtesgaden in addition to a large stock of air maps dealing with European operations.

53. GAF "Y" (RADIO INTERCEPT) SERVICE. Exploitation teams indicate that stations of the GAF "Y" Service have been destroyed. A key civilian and other German PW are being interrogated on the "Y" Service and the civilian is engaged in writing a report on it.

54. GAF RECORDS. Administrative and supply records of the GAF are being recovered from their various hiding places in the Berchtesgaden area. The staff of OKL is being interrogated for further information regarding the location of additional records. Four hundred rolls of microfilm, purported to be the complete records of OKL, have been recovered from a salt mine near HILDESHEIM and are presently being examined. These files include:

a. Complete order of battle and strength reports of Germany's Western Air Fleet at the outbreak of this war.

b. Mobilization plans, pre-war maneuvers, and related reports.

c. Complete evaluated report of Legion Kondor (operational and administrative) during Spanish Civil War.

d. Loading records on troop and cargo aircraft from Italy and Africa.

e. Reports on traffic and cargo proceeding through Brenner Pass.

f. Complete organization and planning for the passive air defense of MUNICH and other Bavarian cities.

g. Complete bomb damage reports on MUNICH.

h. Numerous files, manuals, directives, hand books, etc., on the Luftwaffe and its administration.

55. SECRET WEAPONS. Records of the secret weapons program of the German Ministry of Production (Speer Ministry), contained in some forty boxes, have been seized and are being evacuated through air channels.

56. GAF RESEARCH REPORTS. Scientific reports evacuated from the German Academy of Aviation Research to a hiding place in Southern Germany have been recovered. These are in addition to eleven cases of scientific reports of other air research centers in Germany which have also been seized.

-13-

SECRET

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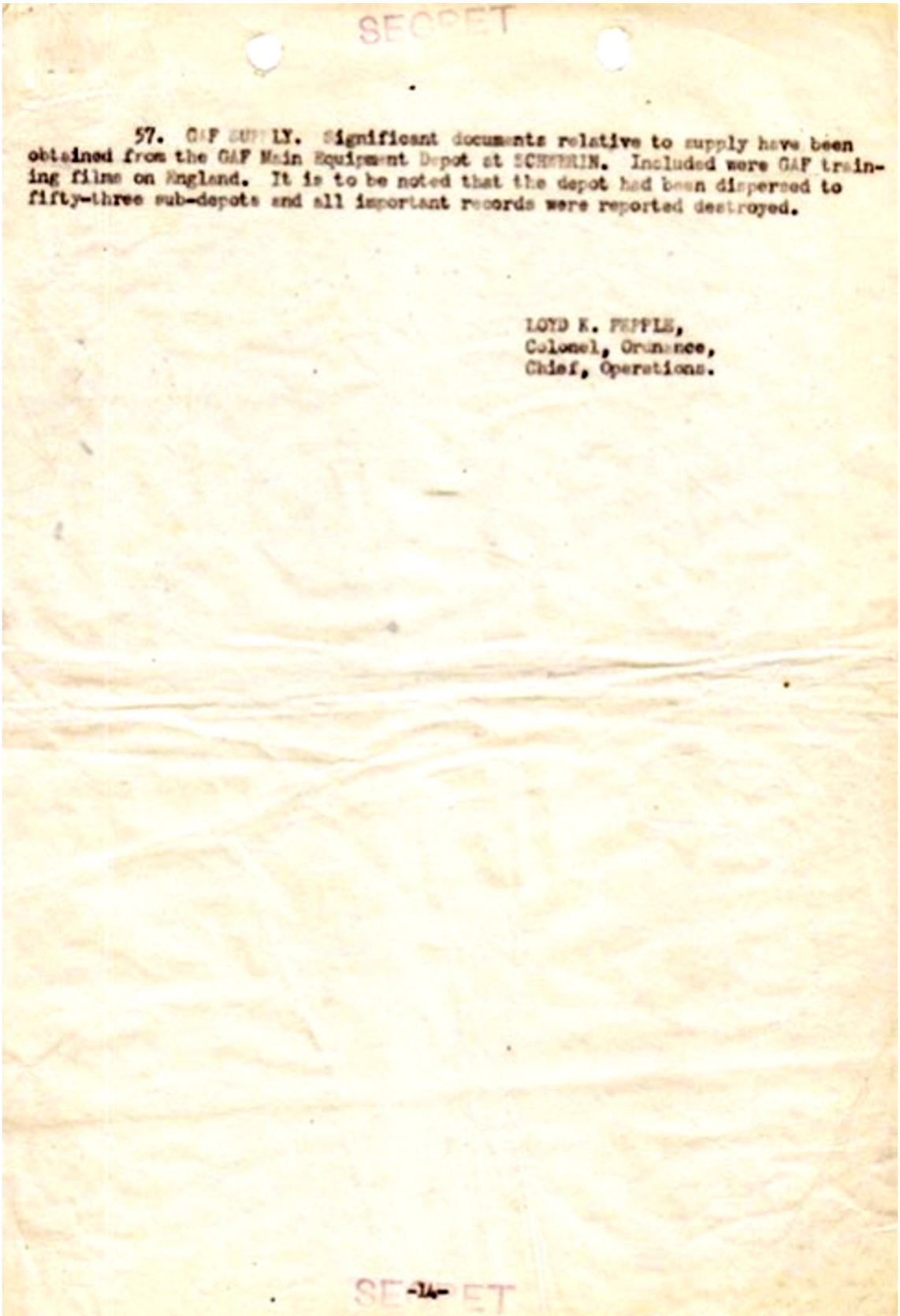

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57. GAF SUPPLY. Significant documents relative to supply have been obtained from the GAF Main Equipment Depot at SCHWERIN. Included were GAF training films on England. It is to be noted that the depot had been dispersed to fifty-three sub-depots and all important records were reported destroyed.

LOYD K. PEPPLE,
Colonel, Ordnance,
Chief, Operations.

SECRET

-14-

Figure D.955: 30 May 1945 memorandum from Colonel Loyd K. Pepple to Colonel Sheldon, proving that Hans Kammler was alive and being interrogated by the United States as of 30 May 1945 [AFHRA folder 570.605 1944–46, Misc. Documents G-2 Miscellaneous Data].

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c/o USFET Main
APO 757, U.S. Army

IN FIAT K 141.8

29 October 1945

SUBJECT: Reports on Scientific Research in Austria and Czechoslovakia.

TO : Headquarters, U. S. Forces European Theater; Attention AC of S, G-2

Transmitted by hand to Mr. M. Berg. 31 Oct.

1. Attached hereto are reports and other papers dealing with scientists in Austria and Czechoslovakia, which include matter of interest in connection with the Manhattan Engineer District project.

2. Two of these reports were written by Mr. T. M. ODORENKO an American investigator sponsored by FIAT, upon his return from a recent mission to Austria and Czechoslovakia. No distribution of these reports is being made by FIAT, other than the than the present action.

3. The remaining papers, a description of which is given in the covering letter to Col. PEPPLE, A.T.I., USAFE, deal with the group of scientists now in the Western Austria. Since this material and the ODORENKO reports are closely related, they are being transmitted together at Col PEPPLES suggestion. (Enclosure (2(of these papers has not been received by USAFE).

For the Director of Intelligence

R.M. OSBORNE
Colonel, GSC
Chief, FIAT(US)

SECRET

Incls.

Report "Atomic Bomb Research in Russian Zone of Cszechoslovakia" (2)

Report "Problem of Displaced Scientists now Residing in the American Zone of Austria" (2)

Covering letter, addressed to A.I.I. , USAFE, and Enclosures (with exception of Enclosure No. 3.)

Figure D.956: R. M. Osborne. 29 October 1945. Subject: Reports on Scientific Research in Austria and Czechoslovakia. This memo demonstrates the intersection of Loyd K. Pepple, Todos M. Odarenko, Moe Berg, and others involved in deep investigations of the German nuclear program after the war [NARA RG 77, Entry UD-22A, Box 174, Folder 10.10. Austria Personnel].

Louis D. Caplane and William G. Magee. Undated but apparently ca. August 1949. Source of certain funds held for Sammelkonto Accounts by the Austrian National Bank at Linz, Upper Austria. Records of the Property Control Branch of the U.S. Allied Commission for Austria (USACA), 1945–1950. [NARA RG 260, DN1929, Roll 0126, pp. 26 ff.]

[...] Shortly after the occupation, Hans Kammler appeared before the CIC in Gmünden and made a detailed statement on the operations and activities on the Baustelle Ebensee, as well as on the account, and his own authority and authority of Karl Engelhardt. None of the present American officers at the CIC, Gmünden, is familiar with his statement but it should be in the files there. Mr. Morrison of the CIC, Gmünden was requested by the team to send a copy of this statement to Mr. Loehr. [...]

[See document photos on pp. 4956–4957.]

TO: Mr. Hal Huston
Chief, GEA Branch

Albert Segat
Head, Property Control

FROM: Louis D. Caplane
William G. Magee

SUBJECT: Source of certain funds held for Sammelkonto Accounts by the Austrian National Bank at Linz, Upper Austria.

1. AUTHORITY: Decree No. 3 covering the blocking and control of enemy property in Austria was issued in Linz by the Military Government of Austria on or about 6 May 1945 and was reported to have become effective 13 May 1945. The article 1 of this decree states as follows:

"1. All property within the occupied territory of Austria owned or controlled directly or indirectly, in whole or in part, by any of the following is hereby declared subject to seizure of possession or title, direction, management, supervision or otherwise being taken into control by Military Government:

a. Austria, the German Reich, or any of the Länder, Gaue, or Provinces, or other similar political sub-divisions or any agency or instrumentality thereof, including all utilities, undertakings, public corporations or monopolies under the control of any of the above:

Figure D.957: 1949 memorandum from Louis D. Caplane and William G. Magee, proving that Hans Kammler was alive and being interrogated by the United States as of mid-1945 [NARA RG 260, DN1929, Roll 0126, pp. 26 ff].

Ebensee and about S 2,400,000 were authorized for payment to creditors. Payment, however, was stopped and this accounts for the large balance. Had this sum been paid the balance would have been 1,100,000. On the other hand some additional 3,000,000 was forwarded to this account by the Reichsbank in München but the sum was not credited to the account because it was stopped by the Military authorities before it left München.

Shortly after the occupation, Hans Kammler appeared before the CIC in Gmünden and made a detailed statement on the operations and activities of the Baustelle Ebensee, as well as on the account, and his own authority and authority of Karl Englehardt. None of the present American Officers at the CIC, Gmünden, is familiar with his statement but it should be in the files there. Mr. Morrison of the CIC, Gmünden was requested by the team to send a copy of this statement to Mr. Loehr.

CONCLUSIONS :

1. Sammelkonto was established by the Financial Division of the Military Government on 31 July 1945.

2. Sammelkonto received monies belonging to the German Wehrmacht and its affiliated organizations.

3. The details of the account show that some of the funds could not be classified as direct Wehrmacht funds without a more thorough investigation. There could be other funds which were erroneously classified as Wehrmacht funds.

4. Although the subsidiary organizations such as

8

Figure D.958: 1949 memorandum from Louis D. Caplane and William G. Magee, proving that Hans Kammler was alive and being interrogated by the United States as of mid-1945 [NARA RG 260, DN1929, Roll 0126, pp. 26 ff].

George C. McDonald to Ernst Englander. 2 November 1945. Subject: German Underground Installations. [AFHRA folder 570.6501A 1945–46, Special Projects—Current. Microfilmed as AFHRA C5098 frame 0886.]

HEADQUARTERS
UNITED STATES AIR FORCES IN EUROPE
Office of Asst. Chief of Staff A-2
APO 633

AAF Station 179
2 November 1945

SUBJECT: German Underground Installations.

TO: Major ERNST ENGLANDER, A.C., Headquarters USAFE, APO 633.

1. I have been instructed by the AC of S A-2, Headquarters Army Air Forces, Washington, D.C. to furnish detailed information from many aspects on enemy underground installations, techniques, etc.

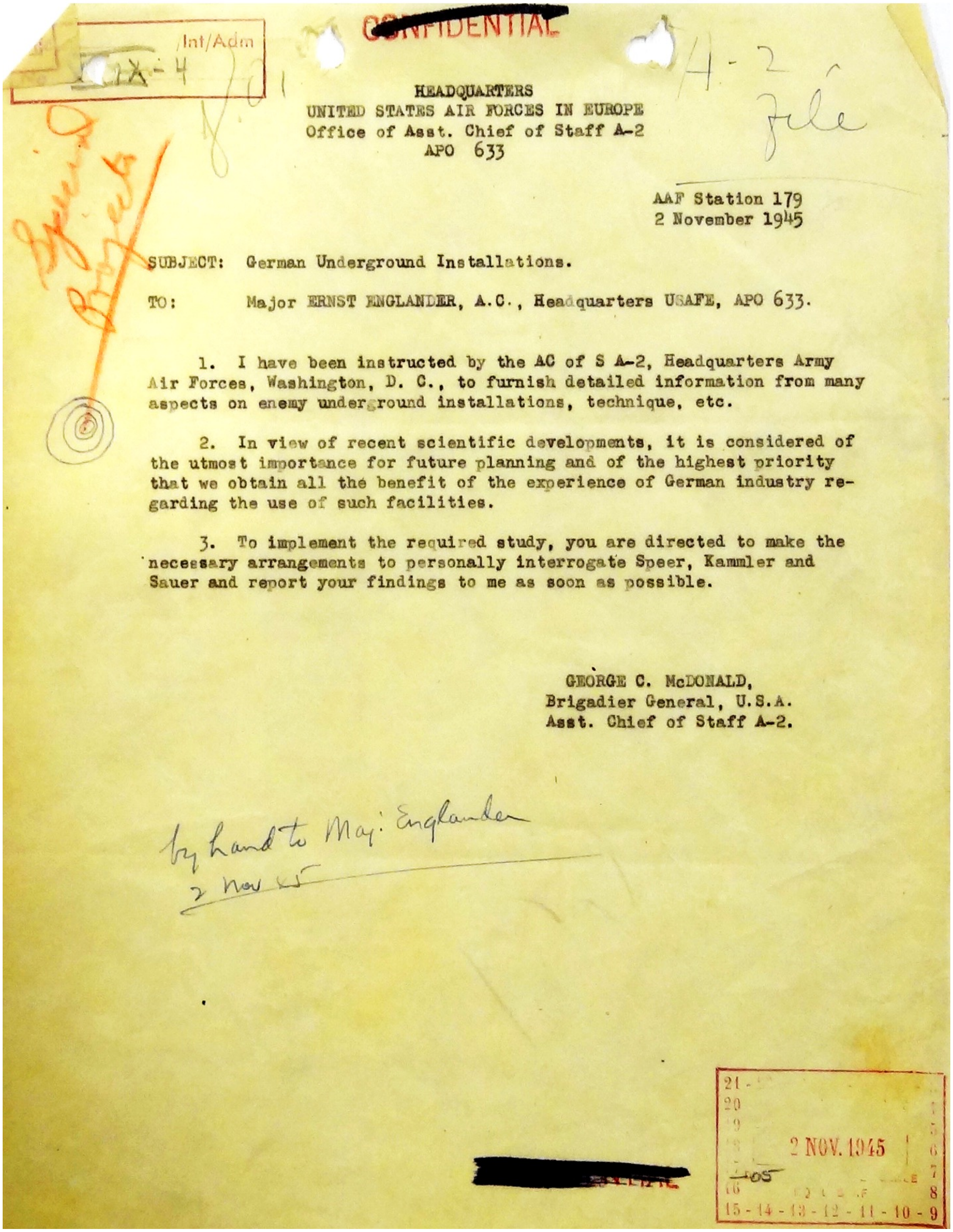
2. In view of recent scientific developments, it is considered of the utmost importance for future planning and of the highest priority that we obtain all the benefit of the experience of German industry regarding the use of such facilities.

3. To implement the required study, you are directed to make the necessary arrangements to personally interrogate Speer, Kammler and Sauer and report your findings to me as soon as possible.

GEORGE C. McDONALD
Brigadier General, U.S.A.
Asst. Chief of Staff A-2.

[See document photo on p. 4959.]

AFHRA folder 570.6501A 1945–46, Special Projects—Current



[redacted]NFIDENTIAL

Int/Adm

A-2
File

Special Projects

HEADQUARTERS
UNITED STATES AIR FORCES IN EUROPE
Office of Asst. Chief of Staff A-2
APO 633

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GEORGE C. McDONALD,
Brigadier General, U.S.A.
Asst. Chief of Staff A-2.

by hand to Maj: Englander
2 Nov 45

[redacted]

2 NOV. 1945

Figure D.959: 2 November 1945 letter from General George C. McDonald to Major Ernst Englander, proving that Hans Kammler was alive and being interrogated by the United States as of November 1945 [AFHRA folder 570.6501A 1945–46, Special Projects—Current].

[By the end of the war, SS General (and Dr. Ing.) Hans Kammler controlled and knew the details of virtually all secret German weapons research and development. There are a number of reasons to believe that Kammler's authority and knowledge also included the nuclear program by the end of the war:

- In postwar interrogations, Skoda chief Wilhelm Voss stated that Kammler and his staff were in charge of the "most secret" weapons, including the atomic bomb (p. 4914).

- Heinrich Himmler's adjutant, Werner Grothmann, repeatedly said that Kammler was in charge of executing the nuclear program for Himmler and the SS, in direct association with Wilhelm Ohnesorge from the Reichspost [see for example pp. 3402 and 3865, and many other examples in Krotzky 2002].

- Surviving documents demonstrate that Kammler was indeed closely involved in technical discussions between Himmler at the SS and Ohnesorge at the Reichspost, and apparently directly responsible for implementing their programs (pp. 3385–3387).

- According to the 1962 interrogation of Heinz Wachsmut, written orders related to the March 1945 Thuringia nuclear test were signed by Hans Kammler, along with other SS and Reichspost offices (p. 4558).

- Kammler was in charge of all underground factories, including those where nuclear work apparently occurred, as well as the concentration camps that supplied the labor for those factories.

- Kammler was listed as a recipient for train shipments of supplies at the Gusen underground facility, alongside scientists such as the nuclear physicist Siegfried Flügge and the implosion bomb expert Hubert Schardin (p. 3882).

- Refugees from a nuclear facility in Lüneburger Heide seemed to indicate that Kammler was in charge of that and other similar facilities (p. 4180–4181).

- By the end of the war, Kammler controlled the potential delivery methods for nuclear weapons, including long-range rockets and jet aircraft.

- Kammler steadily amassed power over all types and aspects of advanced weapons development over the course of the war, apparently due to a combination of great political skill, extreme ambition, and ruthless efficiency. It would seem inevitable for the nuclear program to have eventually fallen under his control—he would not have let anything stop him.

- The documents on pp. 4931–4959 demonstrate that the United States concealed the fact that Kammler was alive after the war, shielded him from prosecution, and relied on his knowledge and assistance. Moreover, the United States has tried to keep that secret for 75+ years. Kammler must have offered the United States information that was especially useful—and especially damning—to have justified such extraordinary measures. Details of the German nuclear program would qualify as sufficiently important information.

The documents on pp. 4931–4959 prove that Kammler did not die in early May 1945, as was reported in various conflicting accounts, but rather that Kammler was alive, in U.S. custody, and available for interrogation at least as of November 1945. Apparently he surrendered to U.S. forces in early May, so he would have been in U.S. custody for approximately six months by the time of McDonald's memo, and perhaps for many more years afterward.

The U.S. government must possess lengthy transcripts or even audio/video recordings of Kammler's interrogations. It would also possess any documents and materials that Kammler had with him when he was captured, or that he was able to direct the Americans to afterward. Kammler's interrogations and documents would have provided the United States with considerable detail about the German nuclear program and other very advanced developments, such as the transcontinental rocket mentioned by Speer. (Albert Speer's own capture and interrogation, also referenced in McDonald's memo, resulted in many shelves full of documents.)

How can all of that Kammler material be located and declassified from U.S. government archives? For starters, where are:

- Kammler's detailed statement to the U.S. Counter-Intelligence Corps (likely in May 1945)?
- Ernst Englander's "as soon as possible" report to George McDonald about what he learned from interrogating Kammler (likely in November 1945)?

[For background information and more details, see Agoston 1985; Döbert 2015; Döbert and Karlsch 2019; Karlsch 2014; Michalski et al. 2019; Reuter et al. 2019; Sulzer and Brauburger 2014, 2019a.]]

D.14.7 U.S. Inspections of Possible Nuclear Facilities

[At the end of the war, investigators from the United States personally inspected many of the facilities where German nuclear work may have occurred. Reports on what they found have never been publicly released.]

German Underground Structures [AFHRA C5098 frames 0886–0890]

HEADQUARTERS
UNITED STATES AIR FORCES IN EUROPE
Office of Asst. Chief of Staff A-2

AAF Station 379
APO 633, U S Army
29 August 1945

SUBJECT: German Underground Structures.

TO: Commanding General, U. S. Air Forces in Europe, APO 633, U S Army.

1. In compliance with your instructions, the following report on German underground structures is rendered.

2. This is based on the writer's personal observations during the period 14 May to 1 August 1945. It is of necessity in the nature of a preliminary report for an insufficient number of undergrounds were visited to make a complete report on so large a subject. Again, these installations were inspected primarily for their equipment installations of urgent ATI interests, rather than for the details of their construction. However, the main structural features were examined and noted.

3. A list of the undergrounds visited is attached hereto as Appendix 1. These varied in size from approximately five (5) to twenty-six (26) kilometers, lineal measure, of underground galleries. Dimensions of the galleries varied from four (4) to twenty (20) meters in width and five (5) to fifteen (15) meters in height, the floor space from twenty five thousand (25,000) to one hundred thirty thousand (130000) square meters.

4. All of the undergrounds examined are level entries driven into solid limestone, requiring drilling and blasting for excavation, to a soft, fine-grained sandstone which could be dug by pick alone. These last are all well supported by heavy masonry or concrete linings. Some of the solid limestone galleries are also lined. In all cases the workmanship (though chiefly done by slave labor) is excellent and the construction is of permanent nature for long endurance, rather than to meet temporary war construction.

5. All entries are in steep hillsides having slopes of thirty (30) degrees or more. In nearly every case an open cut was excavated in the hillside so that even the portals are under one hundred (100) feet, or more, of overburden. From the portals the rising slope of the surface increased the solid overburden rapidly to two hundred (200) to five hundred (500) feet.

CONCLUSIONS

6. Even though well drained, lighted and ventilated, these underground structures are, of necessity, inferior to surface buildings for housing industrial plants. Their only advantage is protection from bombing and they, therefore, have no place in a peacetime industry. Their continued existence is a military asset.

7. Well supported excavations under the protection of a deep solid rock overburden are extremely stable and are impervious to damage by attack from the air by any existing bomb. The future developments of the atomic bomb cannot now be predicted. However, to destroy the workings from the air, the entire overlying hill would have to be blown off, a matter of shattering solid rock, from above, to a depth of 200 feet or more. This is now considered impractical.

8. Neutralization of level entry undergrounds must include nearly complete destruction to be effective. Sealing the entrances only would be merely a short delaying action. However, where entry is by vertical, or inclined shaft, the destruction of the shaft may render reopening impractical under certain conditions. It would in any case cause a long delay.

9. So long as these undergrounds remain intact they are available for bombproof housings of important industries in any future war. It is recommended that careful consideration be given to their neutralization even though its accomplishment will be a difficult and costly work.

10. To approach this problem, it is recommended that all existing undergrounds be examined by personnel qualified to judge not only the strength of the supporting structures, but the character of the overlying rock, its structure, joints, bedding planes and other lines of weakness. Maps showing the underground galleries should also have the surface contours superimposed to show depth of overburden at all points. The above information is needed before any detailed plan of neutralization can be made.

11. It is believed that the most effective method will follow the general plan of blasting out the strategic supporting column of rock with explosive blasts strong enough to shatter the overlying rock along lines of natural weakness sufficiently to render its support impractical.

RECOMMENDATIONS

12. The overall problem can best be evaluated under the direction of a geologist with practical experience in underground development. He can correlated the primary factors:

a. the overlying rock structure and strength, with

b. its support.

With him should be associated men of extended practical experience in underground construction and an explosive expert.

13. It is recommended that this paper be forwarded to Headquarters, Army Air Forces, with the idea of selecting targets of above mentioned types for secret experiment of rocket propelled atomic bomb.

GEORGE C. McDONALD
Brigadier General, U.S.A.
Asst. Chief of Staff A-2.

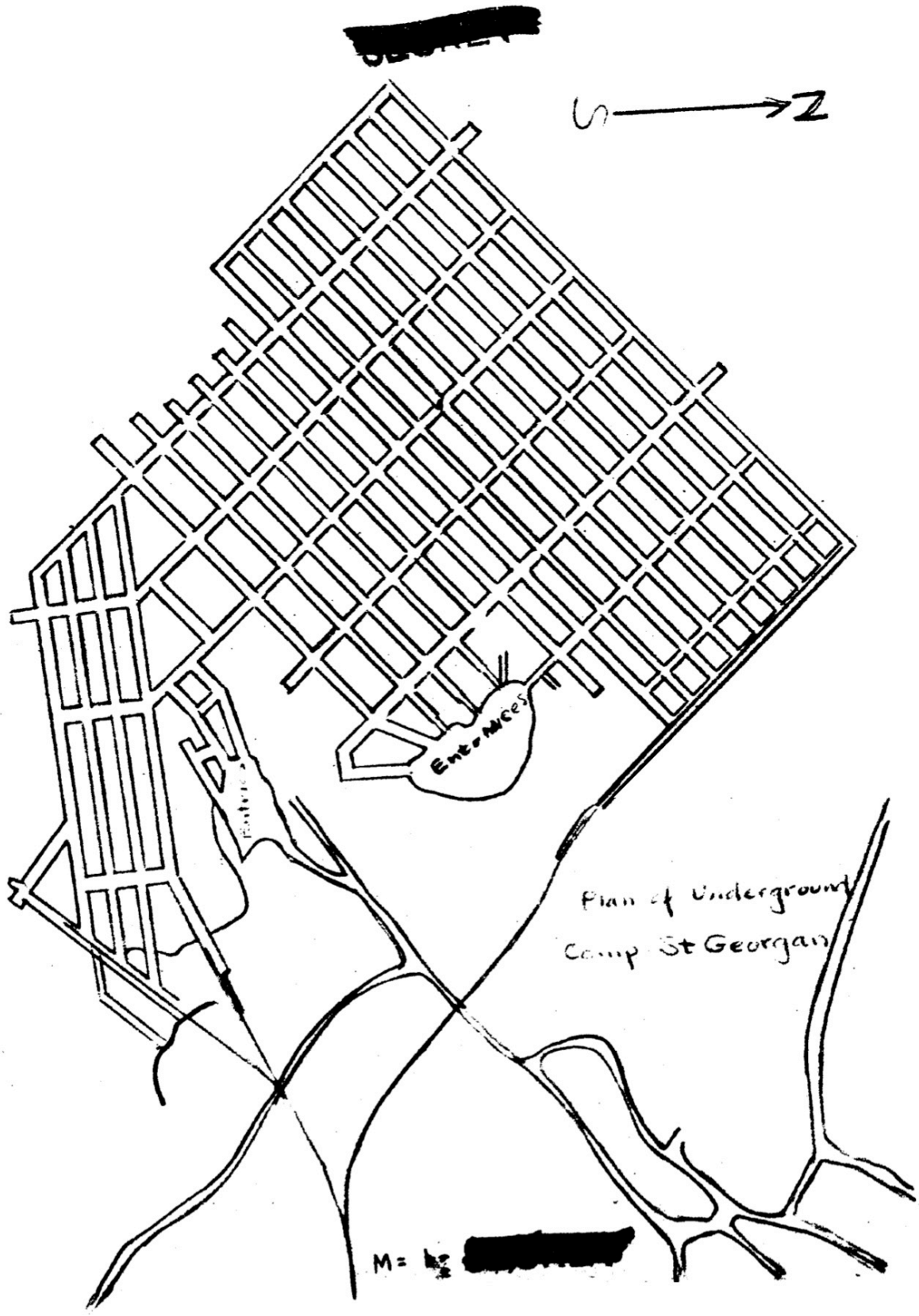


Figure D.960: Map of Camp St. Georgen from General McDonald's report.

2 Incls: List of undergrounds.
Map of Camp St. Georgen.

APPENDICES

1. List of undergrounds examined.

Camp Gusen	Aircraft component factory
Camp St. Georgen	” ” ”
Camp Ebensee	” ” ”
Kahla	” ” ”
Between Kahla and Jena	Optical lens grinding plant.
Redl-Zipf	Oxygen making plant.

2. Attached is the map of the underground workings at Camp St. Georgen. This illustrates the general type of structure though it is more regularly laid out than the others.

[This document demonstrates several important facts:

- There were a very large number of German underground installations (the six that McDonald visited were only an “insufficient number,” Point 2 and Appendix 1).
- The German underground installations were massive (Point 3—up to 26 km of galleries each, with the galleries up to 15 m high and up to 20 m wide), built with “workmanship” that was “excellent... for long endurance” (Point 4) and “well drained, lighted and ventilated” (Point 6).
- The German underground installations that he described sounded fully functional during the war, not still under construction and unoccupied at the end of the war.
- Allied personnel conducted detailed inspections of the underground installations, yet (with only a few exceptions) the results of those inspections, or even the facts that they occurred at all, have not been made public.
- The Allies removed urgent war-critical materials from the underground installations (Point 2). What materials could have been so urgently needed by the United States in its continuing war with Japan—perhaps materials related to nuclear weapons development?
- After the war, the Allies expended great effort to destroy and prevent access to the many underground installations (Points 8–12).

- Underground installations that were so numerous, so large, and so advanced could have provided suitable locations not only for the aircraft, lens, and oxygen production that McDonald mentioned, but also potentially for producing large rockets, nuclear materials or weapons, or other advanced weapons systems or components.

- McDonald could only describe what he observed. It is possible that some German underground installations were evacuated and/or destroyed by German troops before Allied military forces even arrived.

- Point 13: Presumably McDonald was not suggesting nuclear test strikes on these facilities in postwar Austria and Germany, which would cause radioactive contamination of the area, not be a "secret experiment" at all, and likely provoke negative reactions from local countries and from the Soviet Union. Rather, he was apparently suggesting that the United States should build test structures similar to those he described (likely in the southwestern United States or on a Pacific island) and then detonate an atomic bomb on that test structure to see how much damage the bomb could do.

- Point 13: During the war, Heinrich Himmler apparently wanted German underground facilities to be so well built that they could even survive an Allied strike by an atomic bomb (see p. 4592). McDonald may have been aware of that intention, and may have wanted to put it to the test (but somewhere else where the test could be conducted safely and secretly, as already discussed).

- Point 13: In August 1945, the U.S. was apparently preparing "secret experiment of rocket propelled atomic bomb." However, the only atomic bombs that the United States officially possessed were more Fat Man bombs weighing 3000-4000 kg (depending on the casing), and the largest rockets that the United States officially possessed were captured German V-2 rockets, which could not carry a payload that heavy. Officially the United States did not develop its first rocket-propelled atomic bombs until the early 1950s [Chuck Hansen 1988, pp. 189–191]. In August 1945, how could the U.S. military have, or expect to soon have, a rocket-propelled atomic bomb for a "secret experiment"? Does that suggest that the United States acquired German rockets larger than the V-2 that could carry a larger payload like the U.S. Fat Man? Does it suggest that the United States acquired a German atomic bomb (or plans thereof) that was smaller than the U.S. Fat Man? Or does it suggest that the United States acquired an advanced German rocket and atomic bomb that were already an integrated system? (There is also an earlier draft of this report with the comment about a rocket propelled atomic bomb added in handwriting [AFHRA C5098 frames 0990–0991].)

- McDonald was involved in preparing the U.S. Army Air Force's January 1945 "Evaluation of German Capabilities" that discussed existing German rockets larger than the V-2, as well as sites of possible German atomic bomb tests (see pp. 5336–5337). After the end of the war in Europe, he spent months visited highly secret German weapons production plants (Point 2 and Appendix 1). He knew that Hans Kammler survived the war, was in U.S. custody, and was being interrogated (see pp. 4931–4959). Thus McDonald was probably one of the best informed Americans in terms of his knowledge of the German secrets weapons programs.]

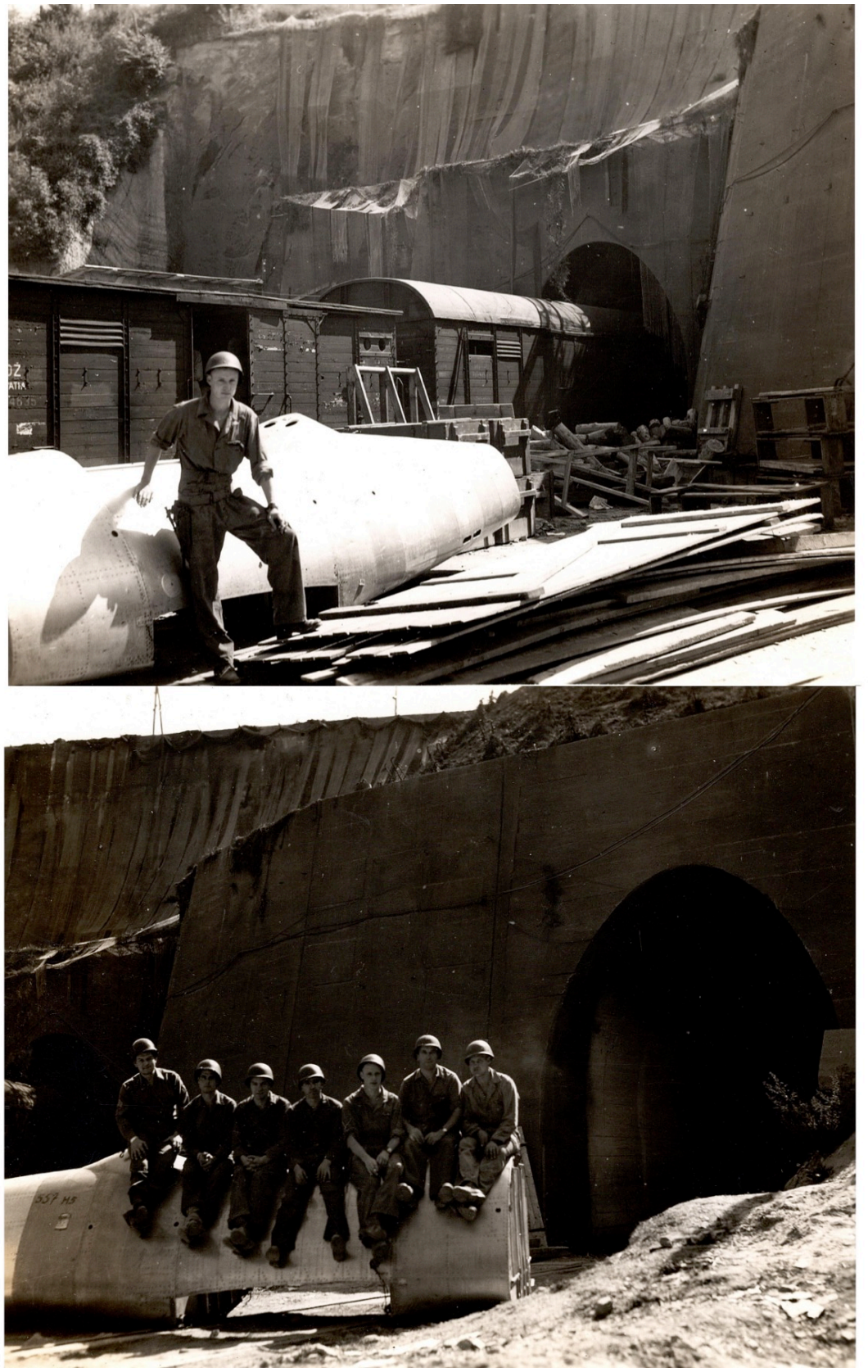
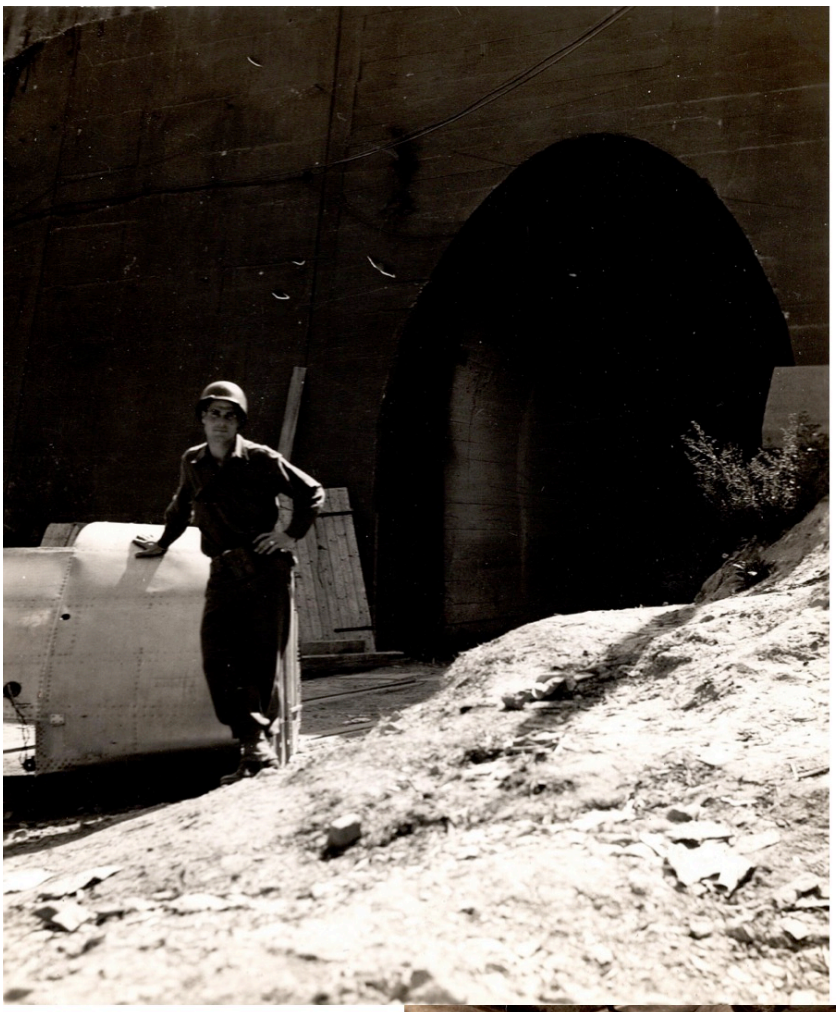


Figure D.961: Photos taken by U.S. soldiers at the "Bergkristall" tunnel complex at St. Georgen an der Gusen near Linz, Austria, in May 1945 [AFHRA 00043922 SQ-BOMB-34-HI 1–31 July 1945]. Where are the Allied reports on what was discovered by inspections and interrogations?



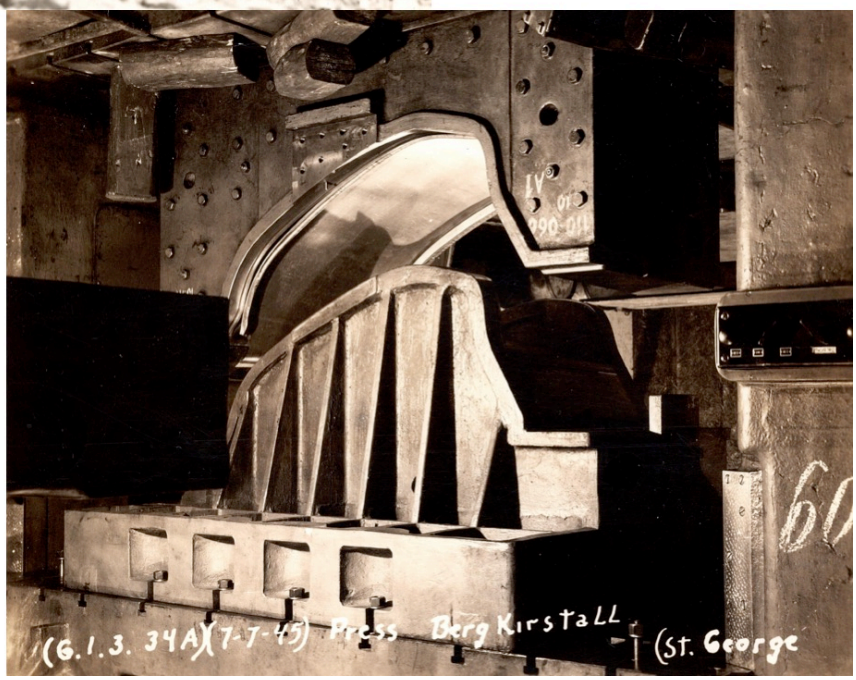


Figure D.962: More photos taken by U.S. soldiers at the Bergkristall tunnel complex at St. Georgen an der Gusen in May 1945 [AFHRA 00043922 SQ-BOMB-34-HI 1–31 July 1945].

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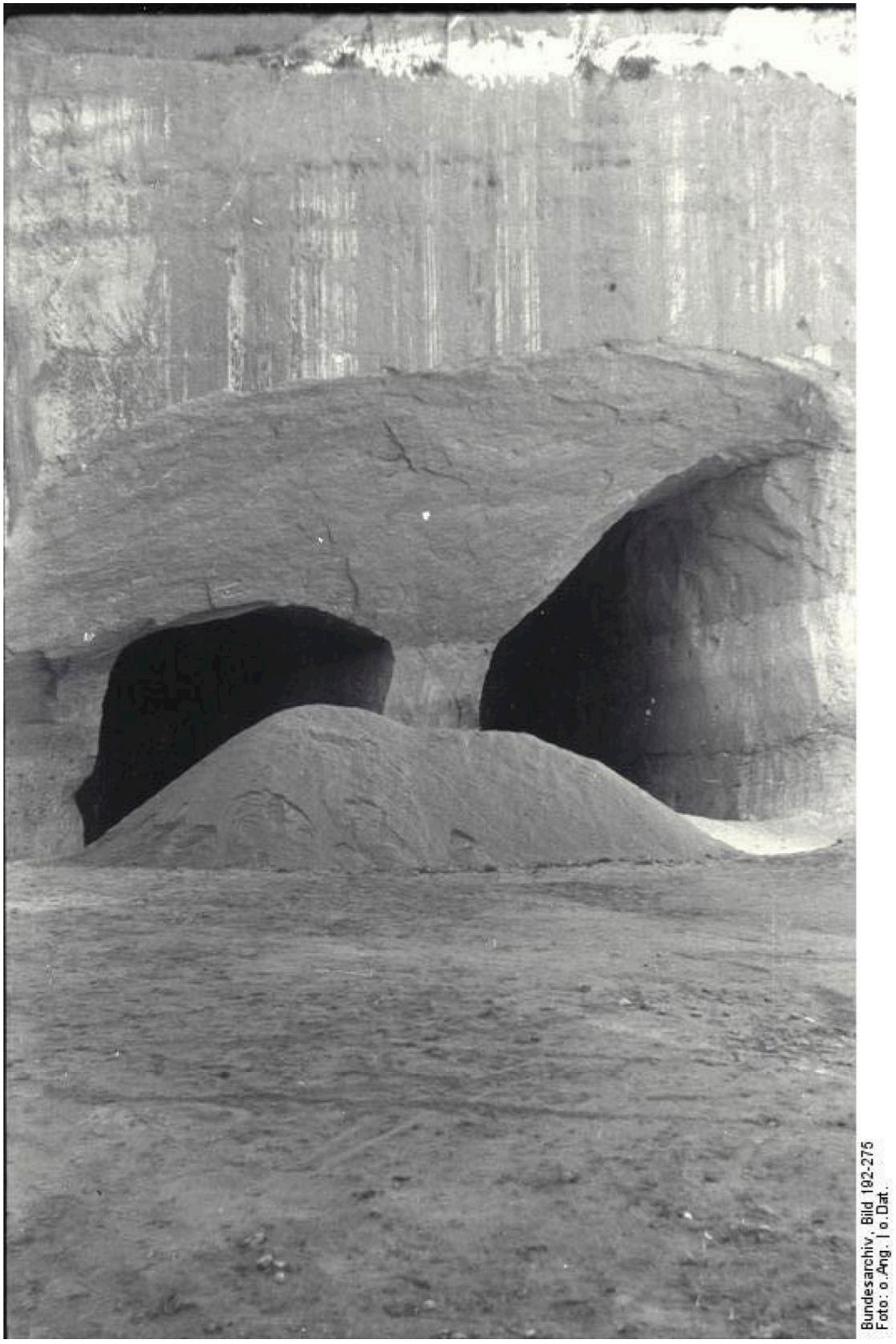
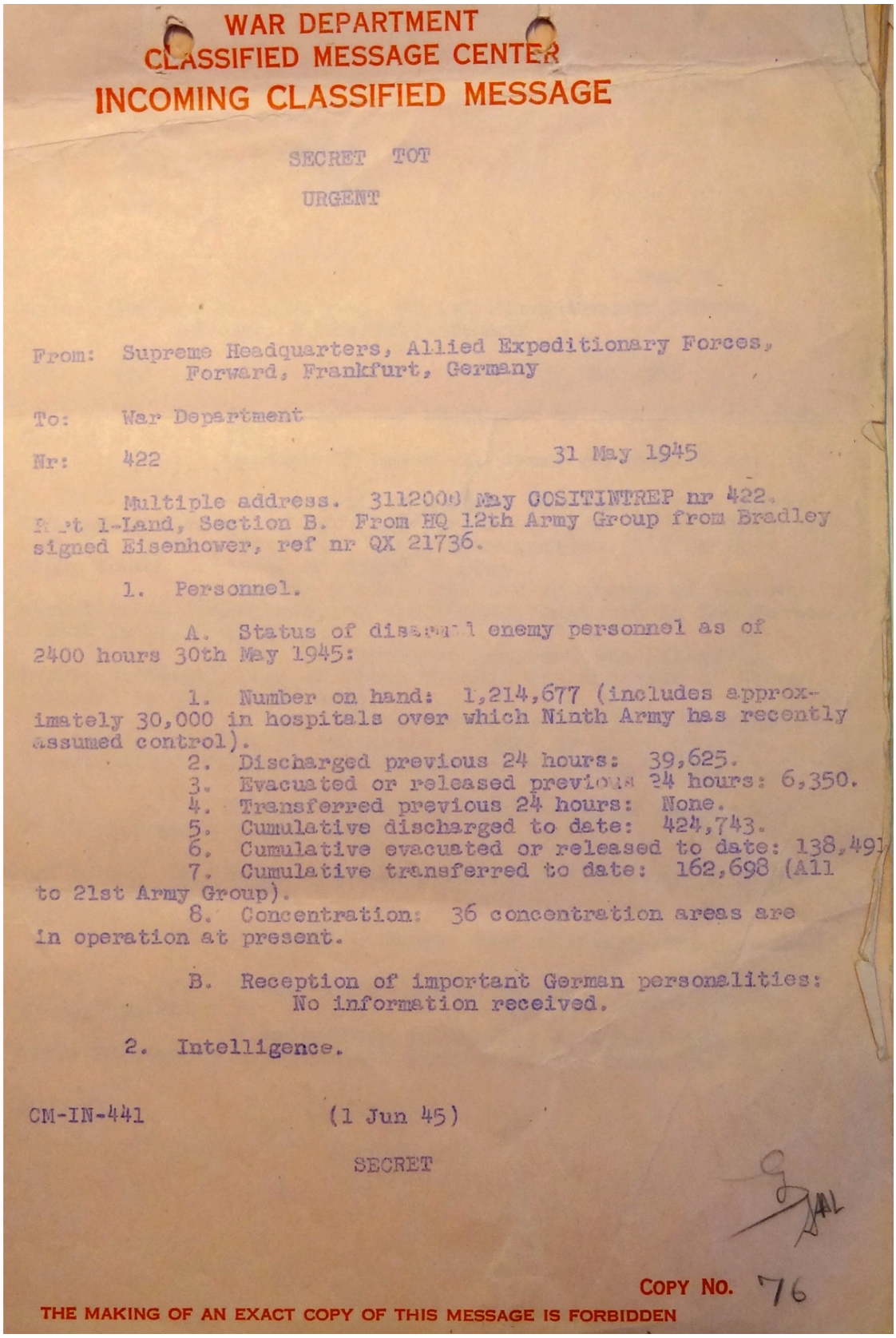


Figure D.964: Another photo of entrances to the Bergkristall tunnel complex at St. Georgen an der Gusen in 1945.

Figure D.965: U.S. Generals Dwight Eisenhower, Omar Bradley, George Patton, and Troy Middleton inspecting Ohrdruf on 12 April 1945. Where are the Allied reports on detailed inspections of the above-ground and underground facilities, equipment, technologies, and documents from that area, as well as interrogation reports?



WAR DEPARTMENT
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SECRET TOT

URGENT

From: Supreme Headquarters, Allied Expeditionary Forces, Forward, Frankfurt, Germany

To: War Department

Nr: 422 31 May 1945

Multiple address. 3112000 May GOSITINTREP nr 422. Part 1-Land, Section B. From HQ 12th Army Group from Bradley signed Eisenhower, ref nr QX 21736.

1. Personnel.

A. Status of disarmed enemy personnel as of 2400 hours 30th May 1945:

1. Number on hand: 1,214,677 (includes approximately 30,000 in hospitals over which Ninth Army has recently assumed control).
2. Discharged previous 24 hours: 39,625.
3. Evacuated or released previous 24 hours: 6,350.
4. Transferred previous 24 hours: None.
5. Cumulative discharged to date: 424,743.
6. Cumulative evacuated or released to date: 138,491
7. Cumulative transferred to date: 162,698 (All to 21st Army Group).
8. Concentration: 36 concentration areas are in operation at present.

B. Reception of important German personalities: No information received.

2. Intelligence.

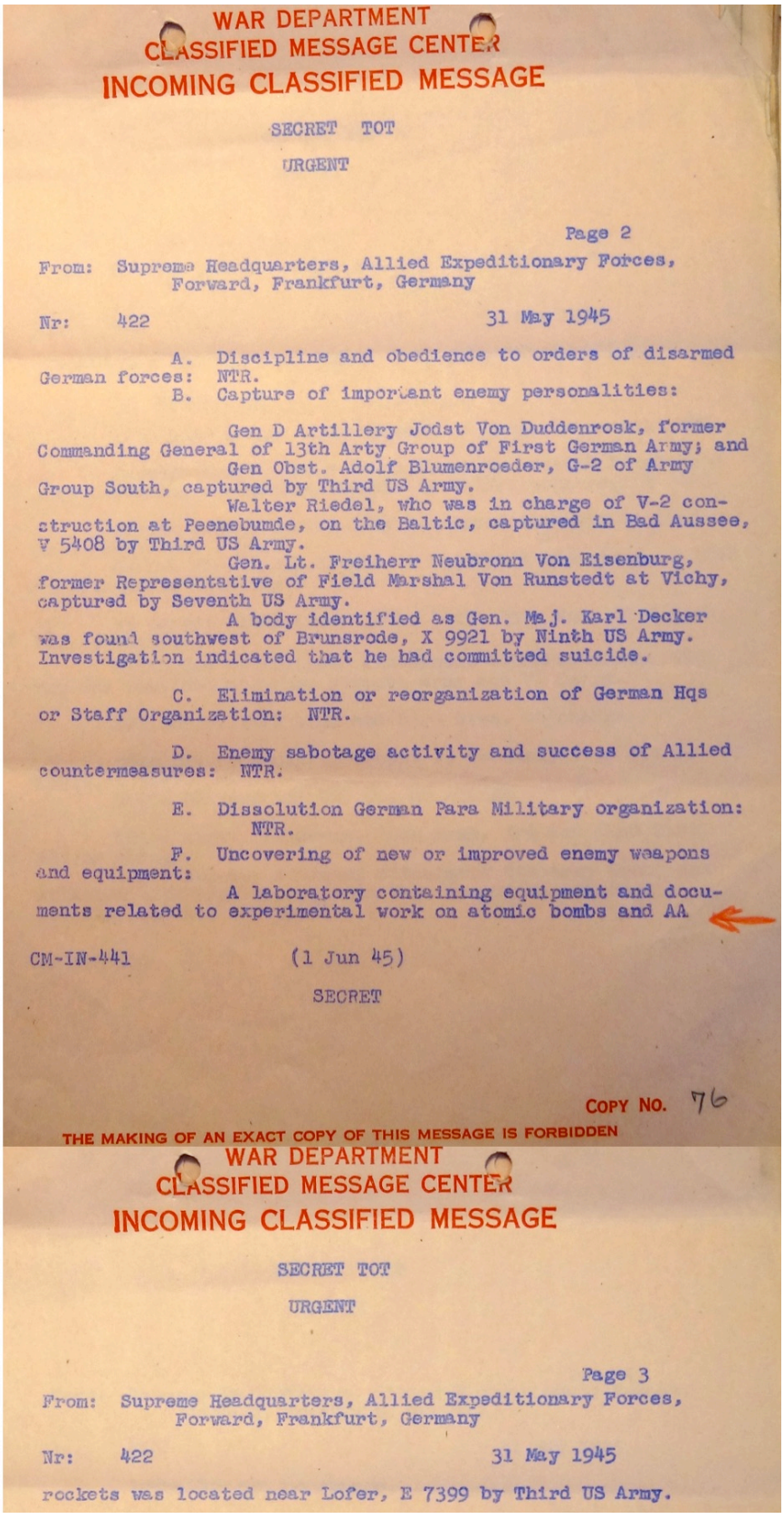
CM-IN-441 (1 Jun 45)

SECRET

COPY NO. 76

THE MAKING OF AN EXACT COPY OF THIS MESSAGE IS FORBIDDEN

Figure D.966: Secret 31 May 1945 cable from Generals Bradley and Eisenhower to Washington reporting the discovery of "a laboratory containing equipment and documents related to experimental work on atomic bombs" in Austria [NARA RG 77, Entry UD-22A, Box 160, Folder APR 45–Dec. '45].



WAR DEPARTMENT
CLASSIFIED MESSAGE CENTER
INCOMING CLASSIFIED MESSAGE

SECRET TOT

URGENT

Page 2

From: Supreme Headquarters, Allied Expeditionary Forces, Forward, Frankfurt, Germany

Nr: 422 31 May 1945

A. Discipline and obedience to orders of disarmed German forces: NTR.

B. Capture of important enemy personalities:

Gen D Artillery Jodst Von Duddenrosk, former Commanding General of 13th Arty Group of First German Army; and Gen Obst. Adolf Blumenroeder, G-2 of Army Group South, captured by Third US Army.

Walter Riedel, who was in charge of V-2 construction at Peenebumde, on the Baltic, captured in Bad Aussee, V 5408 by Third US Army.

Gen. Lt. Freiherr Neubronn Von Eisenburg, former Representative of Field Marshal Von Runstedt at Vichy, captured by Seventh US Army.

A body identified as Gen. Maj. Karl Decker was found southwest of Brunsrode, X 9921 by Ninth US Army. Investigation indicated that he had committed suicide.

C. Elimination or reorganization of German Hqs or Staff Organization: NTR.

D. Enemy sabotage activity and success of Allied countermeasures: NTR.

E. Dissolution German Para Military organization: NTR.

F. Uncovering of new or improved enemy weapons and equipment:

A laboratory containing equipment and documents related to experimental work on atomic bombs and AA

CM-IN-441 (1 Jun 45)

SECRET

COPY NO. 76

THE MAKING OF AN EXACT COPY OF THIS MESSAGE IS FORBIDDEN

WAR DEPARTMENT
CLASSIFIED MESSAGE CENTER
INCOMING CLASSIFIED MESSAGE

SECRET TOT

URGENT

Page 3

From: Supreme Headquarters, Allied Expeditionary Forces, Forward, Frankfurt, Germany

Nr: 422 31 May 1945

rockets was located near Lofer, E 7399 by Third US Army.

Figure D.967: Secret 31 May 1945 cable from Generals Bradley and Eisenhower to Washington reporting the discovery of "a laboratory containing equipment and documents related to experimental work on atomic bombs" in Austria [NARA RG 77, Entry UD-22A, Box 160, Folder APR 45–Dec. '45].

SHAEF to War Department. Cable 422. 31 May 1945 [NARA RG 77, Entry UD-22A, Box 160, Folder APR 45–Dec. '45] [See document photos on pp. 4972–4973.]

From: Supreme Headquarters, Allied Expeditionary Forces, Forward, Frankfurt, Germany

To: War Department

Nr: 422 31 May 1945

Multiple address. 3112000 May COSITINTREP nr 422, Part 1—Land, Section B. From HQ 12th Army Group from Bradley signed Eisenhower, ref nr QX 21736.

2. Intelligence. [...]

F. Uncovering of new or improved enemy weapons and equipment:

A laboratory containing equipment and documents related to experimental work on atomic bombs and AA rockets was located near Lofer, E 7399 by Third US Army. [...]

Royal Army Ordnance Corps. October 1946. *R.A.O.C. Gazette* 28:5:150. [U.K. Imperial War Museum LBY E. 14449. https://www.rlcarchive.org]

Many interesting discoveries were made by Ordnance representatives *en route.* D.D.O.S. of 8 Corps found a factory engaged in production work for the German atomic bomb. The ammunition for Germany's largest gun was also located. Two of these massive guns had been captured by the Russians, but this was the first time their ammunition had been seen. At Belsen [concentration camp], the Ordnance service found itself faced with an unprecedented task.

PARAGRAPHS 8, 9, 10 of MFIU/HQ/CSDIC/12. Undated but apparently late 1944. [NARA RG 77, Entry UD-22A, Box 171, Folder 32.7003-3 GERMANY: US Wartime Positive Int. (Nov. 44–June 45)] [See document photo on p. 3693.]

PARAGRAPHS 8, 9, 10 of MFIU/HQ/CSDIC/12

I. "SECRET WEAPONS"

8. Factory nr: Pilsen. (No date). A P/W, who lives near Pilsen, supplies the following information which he had only at second-hand from friends working in Pilsen.

9. A large underground factory is being constructed in the woods within 8–9 km of Pilsen and was said to be finished shortly. Workers of many nationalities were employed in this construction work and were confined to the site of the plant at all times.

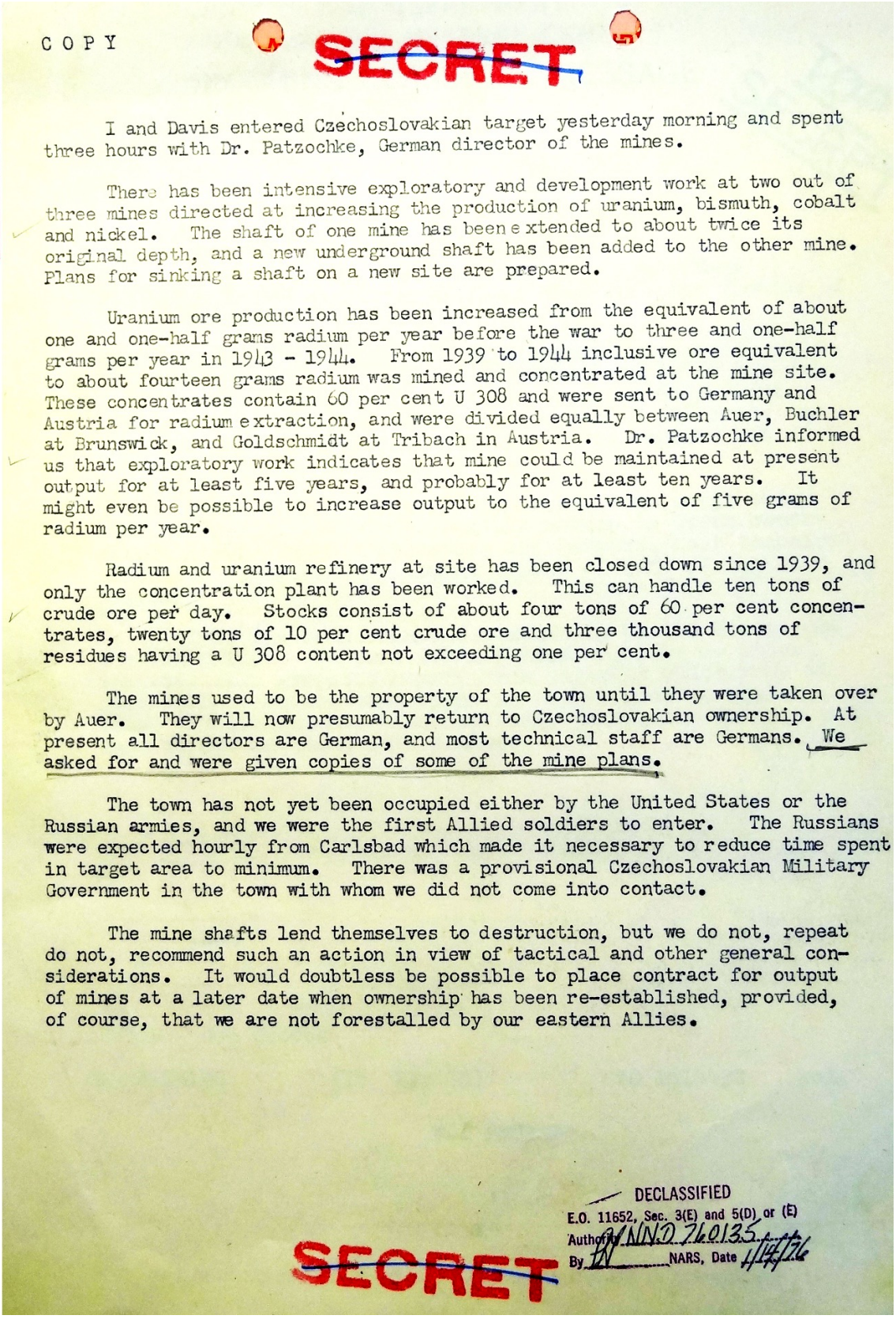
10. Rumour has it that one of the secret weapons is to be produced there.

[Where are the Allied reports on detailed inspections of the facilities, equipment, technologies, and documents from these areas, as well as interrogation reports?]

Figure D.968: U.K. Field Marshal Bernard Montgomery accepting the German surrender at Lüneburger Heide on 4 May 1945. Where are the Allied reports on detailed inspections of the above-ground and underground facilities, equipment, technologies, and documents from that area, as well as interrogation reports? See pp. 4176–4182, 4406, 4987–4988.

Figure D.969: U.S. General George Patton and American soldiers in Pilsen in May 1945. Where are the Allied reports on what was discovered by inspections and interrogations?

Figure D.970: Location of the former Skoda R&D complex in Pilsen.



COPY

~~SECRET~~

I and Davis entered Czechoslovakian target yesterday morning and spent three hours with Dr. Patzochke, German director of the mines.

There has been intensive exploratory and development work at two out of three mines directed at increasing the production of uranium, bismuth, cobalt and nickel. The shaft of one mine has been extended to about twice its original depth, and a new underground shaft has been added to the other mine. Plans for sinking a shaft on a new site are prepared.

Uranium ore production has been increased from the equivalent of about one and one-half grams radium per year before the war to three and one-half grams per year in 1943 - 1944. From 1939 to 1944 inclusive ore equivalent to about fourteen grams radium was mined and concentrated at the mine site. These concentrates contain 60 per cent U 308 and were sent to Germany and Austria for radium extraction, and were divided equally between Auer, Buchler at Brunswick, and Goldschmidt at Tribach in Austria. Dr. Patzochke informed us that exploratory work indicates that mine could be maintained at present output for at least five years, and probably for at least ten years. It might even be possible to increase output to the equivalent of five grams of radium per year.

Radium and uranium refinery at site has been closed down since 1939, and only the concentration plant has been worked. This can handle ten tons of crude ore per day. Stocks consist of about four tons of 60 per cent concentrates, twenty tons of 10 per cent crude ore and three thousand tons of residues having a U 308 content not exceeding one per cent.

The mines used to be the property of the town until they were taken over by Auer. They will now presumably return to Czechoslovakian ownership. At present all directors are German, and most technical staff are Germans. We asked for and were given copies of some of the mine plans.

The town has not yet been occupied either by the United States or the Russian armies, and we were the first Allied soldiers to enter. The Russians were expected hourly from Carlsbad which made it necessary to reduce time spent in target area to minimum. There was a provisional Czechoslovakian Military Government in the town with whom we did not come into contact.

The mine shafts lend themselves to destruction, but we do not, repeat do not, recommend such an action in view of tactical and other general considerations. It would doubtless be possible to place contract for output of mines at a later date when ownership has been re-established, provided, of course, that we are not forestalled by our eastern Allies.

~~SECRET~~

Figure D.971: David Gattiker and George C. Davis. 16 May 1945. Report on visit to Joachimsthal/Jáchymov [NARA RG 77, Entry UD-22A, Box 160, Folder APR 45–Dec. '45].

STANDARD FORM NO. 64

Czech file

Office Memorandum · UNITED STATES GOVERNMENT

TOP SECRET

THIS DOCUMENT CONSISTS OF 3 PAGE(S)
NO. 1 OF 2 COPIES, SERIES A

TO : Major Britt DATE: 22 October 1945

FROM : H.S. Lowenhaupt

SUBJECT: Joachimsthal Mines, Czechoslovakia:

Reports quoted: Review of production and reserves statistics, Joachimsthal Mines by G, C. Selfridge, 20 April 1945; Preliminary Report on Joachimsthal Mines, by Union Mines, 22 October 1943; Suppliment No. 1 to Preliminary Report by Union Mines, 25 January 1944; Report based on Notes of Dr. D.F. Hewett's Visit of 28 June 1926 by G.C. Selfridge, 25 March 1944; World Resources Report by G.W. Bain.

1. The mines are in the mountains north of Karlsbad, northwest Czechoslovakia.

2. They consist of deep workings in a series of 33 roughly north and south trending veins of great vertical extent.

3. There are three mines and five important veins:

West Mine:

The Geister vein, 1,400 feet deep, 1,970 feet long, having 10 developed levels.

The Schweizer vein, 1,500 feet deep, 3000 feet long, having 8 developed levels. The most productive in recent years.

East Mine:

The John the Evangelest vein, 1700 feet deep, 1500 feet long, having 12 levels.

The Hildebrand vein, 1700 feet deep, 1800 feet long, having 12 levels.

Edelleut Mine:

The Francisci vein, 755 feet deep, 2,000 long, having 9 levels.

4. The veins are 6 to 24 inches in width, being narrower towards the bottom. The U_3O_8 content across the vein is only about 1%, but the pitchblende occurs in lenses which are easily broken from the surrounding rock, so the processed ore averaves 60%.

5. Up to 1937, 450 metric tons of U_3O_8 had been mined. Mining at that time was averaging 15 metric tons a year.

SUBJECT:

6. Dr. G.W. Bain feels that 170 to 220 metric tons of U_3O_8 may be accredited to these mines as probable future production.

7. Captain Davis and Major Gattiger report (Memo, Smith to Groves, 22 May 1945) that the mine is conducting deep exploratory work and expects to produce 20 metric tons of U_3O_8 per year for 10 years. This 200 tons corresponds well with Bain's figure in (6) above.

Lowenhaupt

Lowenhaupt

Figure D.972: H. S. Lowenhaupt to A. E. Britt. 22 October 1945. Joachimsthal Mines, Czechoslovakia [NARA RG 77, Entry UD-22A, Box 163, Folder Czechoslovakia].

David Gattiker and George C. Davis. 16 May 1945. Report on visit to Joachimsthal/Jáchymov. [NARA RG 77, Entry UD-22A, Box 160, Folder APR 45–Dec. '45] [See document photos on pp. 4978–4979.]

I and Davis entered Czechoslovakian target yesterday morning and spent three hours with Dr. Patzochke, German director of the mines.

There has been intensive exploratory and development work at two out of three mines directed at increasing the production of uranium, bismuth, cobalt and nickel. The shaft of one mine has been extended to about twice its original depth, and a new underground shaft has been added to the other mine. Plans for sinking a shaft on a new site are prepared.

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Radium and uranium refinery at site has been closed down since 1939, and only the concentration plant has been worked. This can handle ten tons of crude ore per day. Stocks consist of about four tons of 60 per cent concentrates, twenty tons of 10 per cent crude ore and three thousand tons of residues having a U_3O_8 content not exceeding one per cent.

The mines used to be the property of the town until they were taken over by Auer. They will now presumably return to Czechoslovakian ownership. At present all directors are German, and most technical staff are Germans. We asked for and were given copies of some of the mine plans.

The town has not yet been occupied either by the United States or the Russian armies, and we were the first Allied soldiers to enter. The Russians were expected hourly from Carlsbad which made it necessary to reduce time spent in target area to minimum. There was a provisional Czechoslovakian Military Government in the town with whom we did not come into contact.

The mine shafts lend themselves to destruction, but we do not, repeat do not, recommend such an action in view of tactical and other general considerations. It would doubtless be possible to place contract for output of mines at a later date when ownership has been re-established, provided, of course, that we are not forestalled by our eastern Allies.

A WWII smuggler helped Cambridge get its new ice rink. *Cambridge News.* 7 November 2017. [https://www.cambridge-news.co.uk/news/wwii-smuggler-helped-cambridge-new-13863896]

[...] David Gattiker, who studied chemistry from 1929 to 1931, bequeathed £1 million to the university to build a permanent ice hockey facility in the city. [...]

During the Second World War, Gattiker was involved in smuggling uranium ore out of Germany, as recounted in his book 'The Uranium Trail', which he wrote under a pseudonym.

He moved to Canada after the war and became an agricultural chemist. [...]

Cordell Richardson [David Gattiker]. 1977. *Uranium Trail East* pp. 8, 104.

Some names have been altered where otherwise embarrassment might occur. [...]

Dr. Fischer [Patzochke] was surprised to see that his visitors were British and American officers. "Gentlemen, I am delighted to see you. I was expecting the Russians. They are reported to be already at Carlsbad, only ten miles south. Does your presence mean that the Sudetenland and my mine will come under British and American control?" His eyes were bright at the thought. [...]

"During the war the mine has produced to capacity," he explained with pride, "nearly fifteen grams of radium, a record. It was all sent to Germany. And it is interesting to note that the Germans suddenly wanted the uranium waste product as well! For the first time! Nearly 500 tons but I don't know what for..."

Vladimir L. Rychly. Czechoslovakia—Jachymov Uranium Mines—General Information. 5 December 1946. [NARA RG 38, Entry 98C, Box 12, Folder TSC # 3301–3400]

Czechoslovak miners, formerly employed in the Pribram area, and now resettled with their families at Jachymov, Czechoslovakia, furnished the following general information on the pitchblende deposits in Jachymov: [...]

There are three individual uranium mines at Jachymov. [...]

(a) "Werner" Mine is located about 2 km northeast of Jachymov. The "Werner" mine contains two vertical shafts which at present are in full operation. During the German occupation of Czechoslovakia, the Germans continued operations in this mine to the very last moment.

(b) "Stalin" Mine (formerly "Rovnost" Mine) is located in the southwest outskirts of Jachymov. This mine, now in operation, has only one entrance for both miners and bogietrucks.

(c) "Svornost" Mine is located in the northern section of the city of Jachymov. During the German occupation of Czechoslovakia, the Germans abandoned this mine and claimed it was unproductive. However, the Svornost mine kept on supplying most of Jachymov's Health Institutions with radioactive water at a depth of 530 meters—radioactivity of 500 Mache units with temperature of 28^{o}C. It might be for this reason that the Soviet geologists are so keenly interested in starting operation in this mine. The difficulties encountered by the Soviets are greater than expected as most tunnels are flooded. [...]

[See document photos on pp. 4982–4984.]

ISSUED BY THE INTELLIGENCE DIVISION
OFFICE OF CHIEF OF NAVAL OPERATIONS
NAVY DEPARTMENT

CLASSIFICATION: TOP SECRET

OP-32 TOP SECRET CONTROL NO. 3370

INTELLIGENCE REPORT

(Reference to this report must specify Serial No., Place and Date.)

Serial R-86-TS-46 at Belgrade Date 5 December 19 46
(Start new series each year, i. e, 1-43, 2-43,)

BID: 4205.0700

From U. S. Naval Attache (Ship, fleet, unit, district, office, station, or person) Monograph Index Guide No. 407-2900 (Make separate report for each main title.) See O. N. I. Index Guide.

Reference (Directive, correspondence, previous related report, etc., if applicable)

Source As Indicated (As official, personal observation, publication, press, conversation with—Identify when practicable, etc.) Evaluation B-1 (A-1 to F-6 etc. Ref.: AB/EN 3-10; SER. 4312416—11-18-42)

Subject CZECHOSLOVAKIA - Jachymov Uranium Mines - General Information
(Nation reported on) (Main title as per index guide) (Subtitles) (Make separate report for each title)

BRIEF. (Here enter careful summary of report, containing substance succinctly stated; include important facts, names, places, dates, etc.)

Enclosure: (A) Two views of Svornost Mine.
(B) Photograph of Miners at work in Jachymov.
(C) Photograph of sample of Uranium Ore from Jachymov Mines.

1. Czechoslovak miners, formerly employed in the Pribram area, and now resettled with their families at Jachymov, Czechoslovakia, furnished the following general information on the pitchblende deposits in Jachymov:

DESCRIPTION OF URANIUM MINES, JACHYMOV.

There are three individual uranium mines at Jachymov. None of these fall under the supervision of the Czechoslovakia Ministry of Mines, nor the Czechoslovak Foreign Office. According to estimates made by the Soviet geologists the largest pitchblende deposits are in:

(a) "Werner" Mine or "Stola Bratrstvi"
(b) "Stalin" Mine formerly "Rovnost" Mine
(c) to a lesser extent in "Svornost" Mine

(a) "Werner" Mine is located about 2 km northeast of Jachymov. The "Werner" mine contains two vertical shafts which at present are in full operation. During the German occupation of Czechoslovakia, the Germans continued operations in this mine to the very last moment.

(b) "Stalin" Mine (formerly "Rovnost" Mine) is located in the southwest outskirts of Jachymov. This mine, now in operation, has only one entrance for both miners and bogietrucks.

(c) "Svornost" Mine is located in the northern section of the city of Jachymov. During the German occupation of Czechoslovakia, the Germans abandoned this mine and claimed it was unproductive. However, the Svornost mine kept on supplying most of Jachymov's Health Institutions with radio-

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Figure D.973: Vladimir L. Rychly. Czechoslovakia—Jachymov Uranium Mines—General Information. 5 December 1946. [NARA RG 38, Entry 98C, Box 12, Folder TSC # 3301–3400]

TOP SECRET

Alusna Belgrade Intel. Rpt. R-36-TS-46, dated 5 December 1946, continued.

active water at a depth of 530 meters - radio activity of 500 Mache units with temperature of 28°C. It might be for this reason that the Soviet geologist are so keenly interested in starting operation in this mine. The difficulties encountered by the Soviets are greater than expected as most tunnels are flooded.

NUMBER OF EMPLOYEES AT JACHYMOV.

The total number of miners at Jachymov is still claimed to be between 235 and 250. Out of this total, 200 employees are German prisoners of war. These are generally considered as laymen. The remainder is composed of expert Czechoslovak miners lured into the Jachymov area by high wages, special rewards and a title to a former Sudeten German home.

The total number of miners now employed at Jachymov exceeds the number of miners employed by the Czechoslovak Ministry of Mines during the peak pre-war days. As explained, the Soviet demand for increased output cannot be met as most tunnels are very narrow and the streaks of pitchblende ore are very irregular. Thus the operation of one vein is limited to one or two workers. For this reason it is also difficult to ascertain just how many miners are employed in one individual mine.

GENERAL CONDITIONS OF JACHYMOV MINES

The Czechoslovak uranium miners met at the Jachymov week-end resort in Bozi Dar (north of Jachymov) bitterly complained against the Soviet destructive policy at Jachymov. In their enthusiasm and impatience to increase the output of pitchblende ore, the Soviet engineers completely disregarded all safety precautions. The tunnels not properly reinforced with lumber make mining more complicated and hazardous. In order to increase the individual productivity of the expert miners, the Soviets use Soviet food, cigarettes, liquor and luxury items as inducements. One miner summed up the present situation in the Jachymov mines as follows: "They (the Russians) will not need 99 years time to get all we've got down here".

LOCATION OF JACHYMOV URANIUM MINE OFFICES

The main offices of Jachymov mines formerly under Ministry of Mines were located in Praha, Czechoslovakia. Now all personnel and documents are at Jachymov under the supervision of the Soviets.

FOREIGN PERSONNEL AT JACHYMOV

The Czechoslovak miners claimed all work conducted in the Werner and Stalin mines is under the supervision of 8 or 10 Soviet Engineers who are only responsible to their superior Chief Engineer. The Soviet Geologists who conduct the search for additional uranium deposits in the vicinity of Jachymov north to the German border are billeted in Karlovy Vary. Only in emergencies do they remain in Jachymov. All roads leading to Jachymov are guarded from concealed positions by Soviet Security Agents. No road blocks or checking points are encountered upon entry to Jachymov, but the number of every car approaching the area is recorded. Foreign tourists visiting Jachymov are under constant surveillance. They usually do not run into any difficulties unless they disclose special interest in the uranium deposits or develop a walking habit that would take them into the vicinity of the mines.

The mines are guarded by the Soviets. Recently, several Czechoslovak soldiers appearing dangerously close to the mines became the targets of Russian bullets. In order to avoid unnecessary embarrassment to the Soviets, should this incident be unduly publicized, the Czechoslovak soldiers were immediately transferred.

- - - - - - - - - -

COMMENT

The Jachymov Uranium mines are the subject of many conflicting reports. Official visitors taken into Jachymov for the "Cooks' Tour" are convinced that the abandoned concentration plant and flooded tunnels are a definite proof that the mines are not in operation. The submitted details originating from the Czechoslovak miners are herewith presented to submit additional verification that the Jachymov mines, completely out of control of the Czechoslovak Ministry of Mines and the Czechoslovak Foreign Office, but under special Czechoslovak - Soviet agreement are producing pitchblende ore for the Soviets without a single ounce of ore remaining in Czechoslovakia. Attempts are being made to determine the exact production capacities and the details of the Czechoslovak-Soviet agreement.

Prepared by:
Vladimir L. Rychly
VLADIMIR L. RYCHLY,
Lieutenant, USNR.

Forwarded by:
Ernest Iselin Jr.
ERNEST ISELIN, Jr.,
Commander, USNR.

Figure D.974: Vladimir L. Rychly. Czechoslovakia—Jachymov Uranium Mines—General Information. 5 December 1946. [NARA RG 38, Entry 98C, Box 12, Folder TSC # 3301–3400]

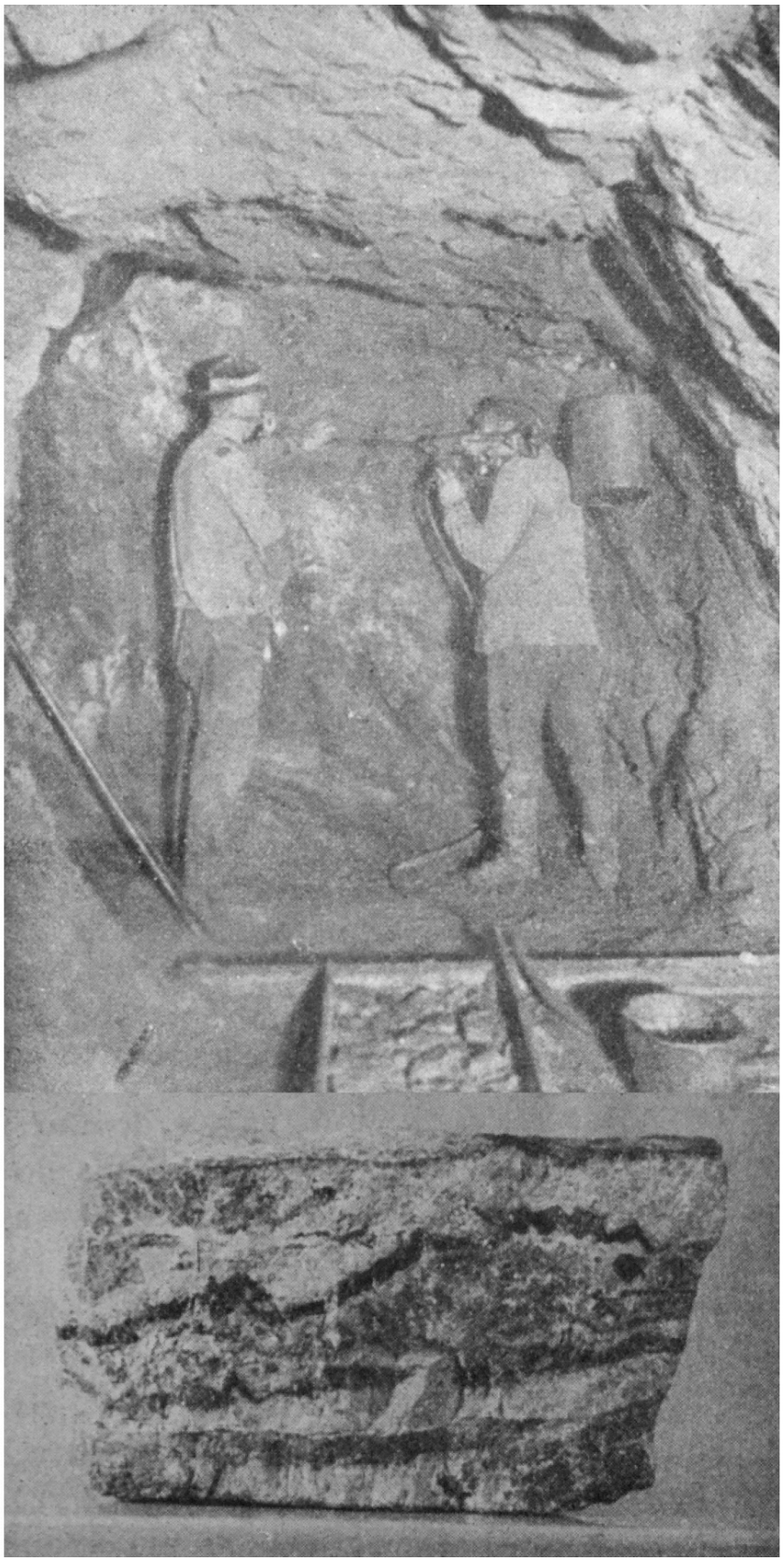


Figure D.975: Joachimsthal or Jáchymov uranium mine and uranium ore circa 1945. [NARA RG 38, Entry 98C, Box 12, Folder TSC # 3301–3400. Vladimir L. Rychly, 5 December 1946]

Underground Factories in Europe [AFHRA C5098 frames 0931–0932]

Underground Factories in Europe

Commanding General, Air Material Command, Wright Field, Dayton, Ohio. Attn: TSDIN

1. In compliance with Restricted letter, Subj: Request for Information on German Underground Plants, dated 19 Oct 1945 (Incl. 1), a report has been prepared entitled "Preliminary Report on Underground Factories and Facilities in Germany and Austria" (Incl. 2).

2. The completed survey disclosed a considerably larger number of German underground factories than had hitherto been suspected. In addition to Germany and Austria, the Germans built underground factories in France, Italy, Hungary and Czechoslovakia. Although the Germans did not go underground on a large scale until March, 1944, they managed to get approximately one-hundred and forty three (143) underground factories into production by the last few months of the war. Statistics are as follows:

a. Number of factories in production by the end of the war.....	143	
b. Number of factories being built, being excavated, and planned.....	107	
c. Number of factories reported, and potential sites (mines and caves).....	600	
Grand Total.....	860	[850?]

3. In summarizing the results of the survey three facts are outstanding:

a. The tremendous advantages of placing factories under ground are concealment and protection. Of these two concealment is at least of equal importance as protection, since more underground factories remained undetected during the war than were discovered prior to the termination of hostilities. This is especially true of those located in old mines and natural caves where the presence of the mine or cave was not known to the Allies.

b. Self-contained underground factories are practical for any industry with the possible exception of those classified as heavy industries. All technical problems, mainly ventilation and air conditioning, appear to have been solved by the Germans by the end of the war.

c. The Germans initiated the movement of industry under ground so late that the program did not have an opportunity to seriously affect the outcome of the war. It is a matter of conjecture as to what would have occurred if the Germans had gone under ground before the beginning of the war.

[Where are detailed reports on what was in all of these facilities?

How much work in these facilities was buried, overlooked, and forgotten?]

FOREWORD

In March 1947, the Office of the Chief of Engineers prepared and submitted to the War Department General Staff for approval, a program to develop data on the design, construction, operation and maintenance of underground installations.

The program was referred to the Army-Navy Munitions Board for review and was approved.

In May 1947, War Department Contract W-49-129-Eng-59 was negotiated with this firm to investigate the feasibility and cost of construction and operation of underground plants. Specific phases of the investigations include foreign installations, geological formations, construction methods, equipment and working conditions.

The major part of the report which follows deals with German installations since 16.6 million of the 22 million square feet of all foreign underground floor space actually constructed was in greater Germany.

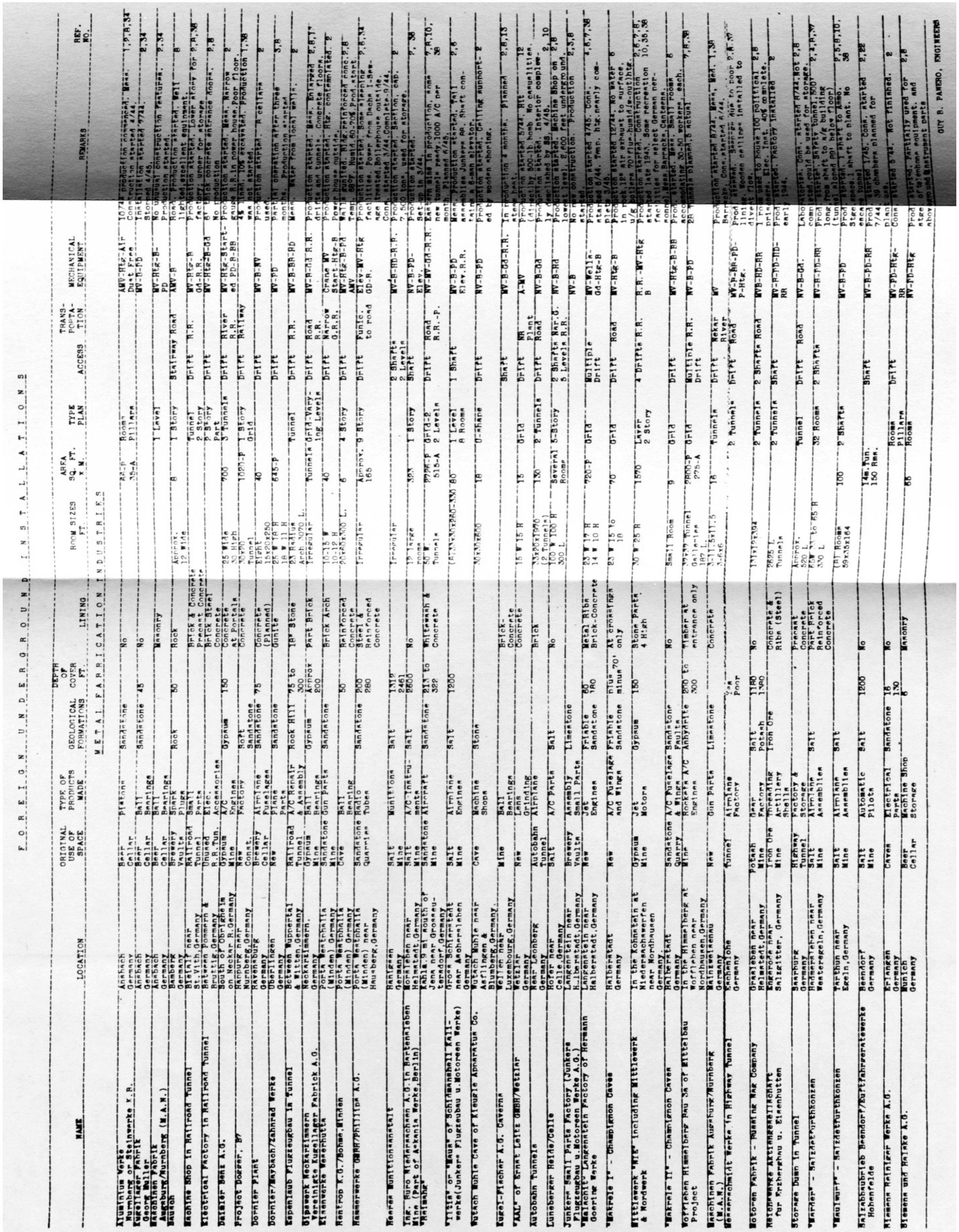
Installations in most other countries, while advanced in specific instances - particularly in Sweden and England - were not sufficiently comprehensive in scope to yield important data pertaining to this study. Investigation of Swiss installations was impossible because of military restrictions. Data from other countries have been combined with the German information wherever such data extended the material of the specific field under discussion.

Statements are based on factual information for known plants. In each country, there are a few underground installations on which data could not be collected, but since they represent only a small percentage of the total, they are unimportant to the overall findings.

Besides field inspections of foreign installations by engineers in this office, data were obtained from Doctor Franz Riedl, German engineer, and Doctor Karl Fiebinger, Austrian authority on underground installations, who were brought to the United States by the Corps of Engineers.

Figure D.976: Excerpts from a postwar report written with the assistance of Karl Fiebinger (p. 4993) and Franz Riedl. PB 123064. *Underground Installations: Foreign Installations.* 31 October 1948. U.S. Department of Commerce [Library of Congress].

Figure D.977: This map and the following tables provide a small amount of information about a fraction of the underground installations that were in German-controlled territory, yet they are still quite enlightening. PB 123064. *Underground Installations: Foreign Installations.* 31 October 1948. U.S. Department of Commerce [Library of Congress].



FOREIGN UNDERGROUND INSTALLATIONS

NAME	LOCATION	ORIGINAL USE OF SPACE	TYPE OF PRODUCTS MADE	GEOLOGICAL FORMATIONS	DEPTH OF COVER FT.	LINING	ROOM SIZES FT.	AREA SQ. FT. x M.	TYPE PLAN	ACCESS	TRANS-PORTA-TION	MECHANICAL EQUIPMENT	REMARKS	REF. NO.
METAL FABRICATION INDUSTRIES														
Aluminium Werke Nurnberg or Steinwerke K.B.	Ansbach Germany	Beer Cellar	Pistons	Sandstone		No		66-P 35-A	Rooms Pillars			AMV-Htg-Air Dust Free	10/44 production commenced. Mess. Construction started 4/44.	1,2,8,34
Kugellager Fabrik Georg Muller	Ansbach Germany	Beer Cellar	Ball Bearings	Sandstone	45	No						MV-B-PD	Installation started 7/44. Stopped 4/45.	2,34
Maschinen Fabrik Augsburg/Nurnberg (M.A.N.)	Ansbach Germany	Beer Cellar	Ball Bearings			Masonry			1 Level			MV-Htg-B-PD	No unusual construction features. Production started.	2,34
Bausch	Bamberg Germany	Brewery Vaults	Spark Plugs	Rock	50	Rock	Approx. 12 Wide	8	1 Story	Stairway	Road	AMV-B	Road. Production started. Well lighted, excellent equipment.	8
Machine Shop in Railroad Tunnel	Bleialf near St.Vith, Germany	Railroad Tunnel	Small Parts			Brick & Concrete Precast Concrete			Tunnel 2 Story	Drift	R.R.	MV-Htg-B Gd-R.R.	Production started. Lower story for factory; upper for storage	2,8,38
Electrical Factory in Railroad Tunnel	Between Pommern & Bruttig, Germany	Unused R.R.Tun.	Elec. Accessories			Brick Steel Concrete			2 Story Part	Drift		MV-Htg-B-Gd	6' thick concrete entrance doors. No production	2,8
Daimler Benz A.G.	South of Obrigheim on Neckar R. Germany	Gypsum Mine	A/C Engines	Gypsum	150	Concrete at Portals	25 Wide 30 High	700	3 Tunnels	Drift	River R.R.	MV-Htg-Started PD-B-BB	Production started. Mess. Narrow gauge R.R. in power house. Poor floor.	2
Project Dogger, B7	Hapburg near Nurnberg, Germany	New Const.	Factory	Soft Sandstone		Concrete	30x20 Tunnel	1020-P	1 Story Grid	Drift	Railway		4% lined. 10% excavated. Production was not started.	1,38
Dornier Plant	Ravensburg Germany	Brewery Cellar	Airplane Fuselages	Sandstone	75	Concrete (Planned)	Eight 15x20x250	40		Drift		MV-B-NV	Production started. A cellars used.	2
Dornier/Maybach/Zahnrad Werke	Uberlingen Germany	New	Plane Parts	Sandstone		Gunite	25 W 18 H 18 W 11 H	645-P		Drift		MV-PD	Partial operation after three months. Production started	3,8
Espenlaub Flugzeugbau in Tunnel	Between Wuppertal & Witten, Germany	Railroad Tunnel	A/C Repair & Assembly	Rock Hill	75 to 300	18" Stone	23 Radius Arch 3070 L.		Tunnel	Drift	R.R.	MV-B-BB-HD	Mess. Water from local wells.	2
Gipswerk Neckarzimmern Vereinigte Kugellager Fabrick A.G.	Neckarzimmern, Germany	Gypsum Mine	Ball Bearings	Gypsum	Approx 200	Part Brick	Irregular	Tunnels	Grid-Varying Levels	Drift	Road R.R.	MV-B-Gd R.R.	Production started. Mess. Enlarged drifts and tunnels. Concrete floors.	2,8,17
Eisenwerke Weserhutte	Porta Westphalia (Minden) Germany	Sandstone Mine	Gun Parts	Sandstone		Brick Arch	10-15 W 10-12 H	40		Drift	Narrow G.R.R.	Crane MV Start-Htg-B	Production started. Htg. contemplated. Power house outside.	2
Rentrop K.G./Bohme, Minden	Porta Westphalia (Minden) Germany	Cave	Ball Bearing		50	Reinforced Concrete	20x60x300 L.	6	4 Story	Drift		MV-Htg-B-Pd AMV	Walls gunited. Bldg. reinforced conc. Temp. 68°F. Humid. 60-70%. Prod. start.	2,8
Hammerwerke GMBH/Phillips A.G.	Porta Westphalia (Minden) near Hausberg, Germany	Sandstone Quarries	Radio Tubes	Sandstone	200 280	Steel & Reinforced Concrete	Irregular	Approx. 165	9 Story	Drift	Funic. to road	Elev-MV-Htg GD-B.	Production started. Some sleeping facilities. Power from Dachs I-Sewage treated. Boilerhouse outside. Cons. started 3/44. Complete-9/44.	2,8,34
Heeres Munitionsanstalt	Hanigsen Germany	Salt Mine	Munitions	Salt	1312 2461		Irregular			2 Shafts 2 Levels		MV-B-HD-R.R.	Production started. Section, cap. 7,500 tons, used for storage.	2
Ing. Buro Niedersachsen A.G. in Bartensleben Mine (Part of Askania Werke, Berlin)	Morsleben near Helmstedt, Germany	Salt Mine	A/C Instruments	Salt	2600	No	12 large rooms	323	1 Story	Shaft		NV-B-PD-Elev.	Production started. Set-up in 3/44.	2, 38
"Reimahg"	Kahla, 9 mi south of Jena near Grosseuteradorf, Germany	Sandstone Mine	Aircraft	Sandstone	213 to 322	Whitewash & Concrete	50 W. Tunnels	2726-P 515-A	Grid-2 2 Levels	Drift	Road R.R.-P.	NV-MV-Gd-R.R.	Eastern mine in production, some new tunnels ready. 1000 A/C per month. Planned 6/45.	7,8,10, 38
"Iltis" or "Maus" of Schidmanshell Kaliwerke (Junkers Flugzeubau u.Motoreen Werke)	Gross Schierstedt near Aschersleben Germany	Salt Mine	Airplane Engines	Salt	1200		(5)33x30x260-330	80	1 Level 8 Rooms	1 Shaft		MV-B-PD Elev.R.R.	Mess. Production started. Tail assemblies Junkers 88. Shaft contains a 6-man elevator.	2,8
Wutach Muhle Cave of Kleugle Apparatus Co.	Wutach Muhle near Asflingen & Blumberg, Germany.	Cave	Machine Shops	Stone			30x30x600	18	U-shape	Drift		NV-B-PD	Production started. Ceiling supported by wooden shoring.	2
Kugel-Fischer A.G. Caverns	Wellen near Luxembourg, Germany	Mine	Ball Bearings			Brick-Concrete				Shaft		MV-B-Gd-R.R.	In production 4 months. Planned steam heat.	2,8,13
"AAL" of Ernst Leitz GMBH/Wetzlar	Wetzlar Germany	New	Lens Grinding			Concrete	15 W 15 H	15	Grid	Drift	RR Plant	A-MV	Production started 5/44. Hit (direct) by 500-lb. bomb No casualities.	12
Autobahn Tunnels	Near Leonberg Germany	Autobahn Tunnel	Airplane			Brick	33x20x1970 (2 Tunnels)	130	2 Tunnels	Drift	Road	NV-B-Gd	Production started. Interior completely demolished by SS, 4/45.	2, 10
Luneberger Heide/Celle	Hofer near Celle, Germany	Salt	A/C Parts	Salt		No	100 W 100 H 300 L	Several Rooms	5-Story	2 Shafts 5 Levels	Nar.G. R.R.	NV-B-Hd	Production started. Machine Shop on lowest level, 2,600 feet underground.	2,8
Junkers Small Parts Factory (Junkers Flugzeugbau u.Motoreen Werke A.G.)	Langenstein near Halberstadt, Germany	Brewery Vaults	Assembly Small Parts	Limestone								NV-B	No new construction. Production started.	2,3,8
"Malachit" Langenstein Factory of Hermann Goering Werke	Langenstein near Halberstadt, Germany	New	Jet Engines	Friable Sandstone	80 180	Metal Ribs Brick-Concrete	23 W 17 H 14 W 10 H	720-P	Grid	Multiple Drift		MV-Wells-Gd-Htg-B	Production started 4/45. Cons. started 6/44. Tmp. htg. nearly complete 3/45.	4,6,7,38
"Makrele I" - Champignon Caves	Halberstadt Germany	New	A/C Fuselage and Wings	Friable Sandstone	plus minus 70'	At crossings only	23 W 15 to 18	70	Grid	Drift	Road	MV-Htg-B	Production started 12/44. No water in rock, 12" air exhaust to surface. u/g boilers 70' flue-humid (w-out) htg.	6
Mittlewerk "NIE" including Mittlewerk & Nordwerk	In the Kohnstein at Niedersachswerfen near Nordhausen Germany.	Gypsum Mine	Jet Motors	Gypsum	150	Stone Parts 4 High	30 W 25 H	1570	Layer 2 Story	4 Drifts	R.R.	R.R.-MV-Htg B	Production started. Construction started late 1943. Some recreation facilities for select German personnel, Mess, Barracks, Canteens.	2,6,7,8, 10,35,38
"Makrele II" - Champignon Caves	Halberstadt Germany	Sandstone Quarry	A/C Fuselage & Wings	Sandstone Faults		No	Small Room	9	Grid	Drift		MV-Htg-B-BB	Prod. started. Mess. Small rooms accommodating 30-50 workers, each.	6
Woffleben Himmelberg Bau 3a of Mittelbau Project	In the Himmelberg at Woffleben near Nordhausen, Germany	Mine	Rockets A/C Engines	Anhydrite	200 to 300	Timber at entrance only	32x32 Tunnel Galleries 187 L.	2800-P 275-A	Grid	Multiple Drift	R.R.	NV-B-PD	28 Tunnels planned, 5 actual	7,8,38
Maschinen Fabrik Augsburg/Nurnberg (M.A.N.)	Mainzweisenau Germany	New	Gun Parts	Limestone		Concrete	3-11.5x11.5 3-6x6	18	Tunnels	Drift	Nekar River	MV	Production started 8/44. Mess, Med. Barracks, Cons. started 6/44.	1,38
Messerschmidt Werke in Highway Tunnel	Eschenlohe Germany	Tunnel	Airplane Factory		Yes Poor				2 Tunnels	Drift	Road	MV-P-BB-PD-P-Htg.	Prod. started. Seepage due to poor lining. Wooden ceilings installed to divert flow.	2,8,37
Motoren Fabrik - Bussing Nag Company	Grasleben near Helmstedt, Germany	Potash Mine	Gear Factory	Salt Potash	1180 1380	No	131x12x394		2 Tunnels	2 Shafts	Road	MVB-HD-RR	1 room used to house 100 political prisoners. Elec. Inst. 40% complete.	2,8
Reichswerke Aktiengesellschaft fur Erzbergbau u. Eisenhutten	Engerode near Salzgitter, Germany	Iron Ore Mine	Threading Artillery Shells	Iron Ore		Concrete & Ribs (Steel)	2625 L. Tunnels		2 Tunnels	Shaft		MV-B-PD-HD-RR	Prod. started. Factory installed early 1944.	2
Storage Dump in Tunnel	Saarburg Germany	Highway Tunnel	Factory & Storage			Precast Concrete	Approx. 520 L		Tunnel	Drift	Road	NV-B-Gd.	Laboratories. Cons. started 8/44. Not completed, could be used for storage.	2,8
"Marder" - Salzdetfurthkonzen	Hadmersleben near Westeregeln, Germany	Salt Mine	Airplane Assemblies	Salt		Part Brick Reinforced Concrete	65W 33 to 65 H 330 L		32 Rooms	2 Shafts		MV-B-PD-RR	Prod. started. Safety tunnel, 500' long, from shaft to u/g building (tunnel sloped 89' below floor)	2,4,8,37
"Maulwurf" - Salzdetfurthkonzen	Tarthun near Egeln, Germany	Salt Mine	Airplane Assemblies	Salt			(8) Rooms 59x35x164	100	2 Shafts			MV-B-PD	Prod. started. 1 shaft to Ammo. Stge. space. 1 shaft to plant. No escape tunnel	2,5,8,10, 38
Salzabbaubrieb Beendorf/Luftfahrgeratewerke Hohenfelde	Beendorf Germany	Salt Mine	Automatic Pilots	Salt	1200	No		14m.Tun. 150 Rms.		Shaft		MV-B-PD-RR	Prod. started 1/45. Cons. started 7/44. 39 chambers planned for plant use.	2,22
Siemens Reiniger Werke A.G.	Erlangen Germany	Caves	Electrical Parts	Sandstone	18 130	No			Rooms Pillars	Drift		MV-PD-Htg-RR	Cons. started 5/44. Not finished.	2
Siemens und Halske A.G.	Munich Germany	Beer Cellar	Machine Shop Storage		8	Masonry		65	Rooms			NV-PD-Htg	Prod. started. Partially used for stge. of telephone equipment, and aboveground instrument parts	2,8

GUY B. PANERO, ENGINEERS

Figure D.978: PB 123064. *Underground Installations: Foreign Installations.* 31 October 1948. U.S. Department of Commerce [Library of Congress]. For Lüneburger Heide, see pp. 4176–4182, 4406, 4975.

Figure D.979: PB 123064. *Underground Installations: Foreign Installations.* 31 October 1948. U.S. Department of Commerce [Library of Congress]. For Ödenburg/Sopron, Hungary, see p. 3747.

Figure D.980: PB 123064. *Underground Installations: Foreign Installations.* 31 October 1948. U.S. Department of Commerce [Library of Congress].

F O R E I G N   U N D E R G R O U N D   I N S T A L L A T I O N S

S T O R A G E   I N S T A L L A T I O N S

NAME	LOCATION	ORIGINAL USE OF SPACE	TYPE OF PRODUCTS MADE	GEOLOGICAL FORMATIONS	DEPTH OF COVER FT.	LINING	ROOM SIZES FT.	AREA SQ. FT. x M.	TYPE PLAN	ACCESS	TRANS-PORTA-TION	MECHANICAL EQUIPMENT	REMARKS	REF. NO.
Burbach-Kaliwerke Aktiengesellschaft	Volpriehausen Germany	Salt Mine	Storage	Salt	1800-3120	No	55x72x8	Est. 527	2 Levels	2 Shafts	Narrow Gauge	MV-NV-B-BB-PD-HD	German Army took over in 1938.	2,8
Oil Storage in Amerika Haven	Cuxhaven Germany		Oil Storage						Tunnel				Typical German oil storage depot.	3,8
Dechen Hohle	On Iserlohn to Letmathe Hwy, Ger.	Cave	Storage		20	No	1300 L. 20 Wx15 H	Est. 260	1 Level	2 Drifts	None	MV	Extremely damp.	2,8
Dingelstedt Salt Mine Ammo. Storage Depot	Dingelstedt near Halberstadt, Ger.	Salt Mine	Storage	Salt	799 - 1244	None			9 Levels	2 Shafts	Narrow Gauge	MV-B-GD-RR	Equipment - Excellent condition.	2,8
Ammunition Dump in Railroad Tunnel Wissembourg	Fehrbach Germany	Railroad Tunnel	Ammo. Storage			Yes			2 Tunnels	Drift	Std. Gauge	NV-B-GD	1 portion used as factory - other used by railroad.	2,8
Hohenfels Kohlenwerke	Wehingen Germany	Salt Mine	Storage	Salt	1824 - 1969	Some Brick			9 Levels	2 Shafts	Narrow Gauge	MV-B-HD-RR	Used by Army since 1939 for ammo. Used by QM since 1944 for clothing.	2
Kali Chemie A.G.	Weetzen Germany	Salt Mine	Storage	Salt	1150 - 1970	No	Vary 30-130 W x 100-200 H		5 Levels	Shaft	Narrow Gauge	MVB	No pillar, shoring or lining necessary.	2
Loccum Kidar	Loccum Germany		Storage			Reinforced Conc.&Enamel					2 RR on Site	MV-RR	Construction started 1939. 16 oil tanks	3,8
Ammunition Dump	Ludwigsthal near Pirmasens, Germany	Ammo. Storage	Concrete Tunnels			Yes	10x20x300 L		2 Tunnels	Drift	None	NV-GD	No installation.	2,8
Northern Werke Kopferschmidt u.Sohne Plexiglass Factory	Blumberg, Baden, Germany	Iron Ore Mine	Storage	Sandstone		Brick and Mortar	10x10 Tunnel	Est. 3 mi.L	Tunnels	Drift	Narrow Gauge	MVB RR	Stored surplus plexiglass - T-shaped tunnel.	2,8
Ammunition Dump in Railroad Tunnel	Ponten between Besseringen & Mettlach, Ger.	Railroad Tunnel	Ammo. Storage			Yes					Std. Gauge	RR	Completely demolished by bombs. No indication of new construction.	2,8
President Zeche Bochum II	Bochum/Linden Germany	Mine	Storage			Brick and Mortar	21x18		10 Levels	Drift	Narrow Gauge	NV-BGD RR	Used 8th level for storage	2,8
Sarstedt	Sarstedt Hildesheim, Germany	Saltpeter Mine	Storage	Saltpeter					8 Levels	2 Shafts	Narrow Gauge	NV-BGD-RR	Used for rubber storage 1939.	2
Siemens u. Schuckert A.G.	Waldwinkle at Weisenberg, Germany	Beer Cellar	Storage									MV-BHD-RR	German Army took over in 1935.	2
Eisenerzbergwerke Porta	Halberstadt Germany	Iron Mine		30° Inclined Strata (Ore)		No		750 mi. Tunnel	Tunnel	Drift & Shaft	RR	MV-B-GD RR	1935 addit tunnels started by German Army. Progress slow, VE day 15% comp.	2
Railroad Tunnel	Eberswelier(Thionville Fr.&Volkingen, Ger.	Railroad Tunnel	Ammo. Storage			Yes			2 Tunnels	Drift	Std. Gauge	MV-B-GD-RR	1 tunnel used by railroad.	2,8
St. Cloud Depot	St. Cloud France	Road Tunnel	Storage U-1S		190	Tile	75x1800	120	Single Tunnel	Drift	Truck	MV	Mines and V1's.	
Quarry at St. Leu D'Esserent	St. Leu D'Esserent near Creil, France	Quarry	Storage & Loading	Limestone			Approx. 130x78	Approx. 150000	Room & Pillar	2 Drifts	RR & Road	Htg-HD-RR	Aboveground barracks in village. 10/40 to 8/44 used for storage. Later used for V1 & V2 loading plant. All German personnel.	8
Storage Dump in Railroad Tunnel	Bingen, Germany	R.R. Tunnel	Storage						Drift	Std. Gauge	RR		Completely demolished by bombs. No evidence of factory or new construction.	2
Desdemona Salt Mine	Godenau near Alfeld, Germany	Salt Mine	Storage	Salt	1400-2530	No	35 Lx20 W x 10 H	Est.112	5 Levels	2 Shafts	Narrow Gauge	MV-B-RR	Munitions stored on 2288' level in 16 specially constructed rooms.	2,8

P - Planned
A - Actual

AMV - Air Conditioning
MV - Mechanical Ventilation
NV - Natural Ventilation

GD - Gravity Drainage
PD - Drainage by Pump
HD - Sewage by hand bucket

B - Electric power - outside sources
BP - Electric standby power in plant
Htg- Heating

Elev - Elevator
RR - Railroad

GUY B. PANERO, ENGINEERS

Figure D.981: PB 123064. *Underground Installations: Foreign Installations.* 31 October 1948. U.S. Department of Commerce [Library of Congress].

D.14.8 German and Austrian Scientists in the United States

[Many German and Austrian scientists who appear to have been involved in the nuclear program visited the United States and/or United Kingdom after the war, and may have provided information about wartime German work. See p. 4993 for a few examples. Files for some scientists are still not available to the public. For example, almost the complete file of nuclear physicist Otto Haxel has been redacted (p. 4994), and Wernher von Braun's file is missing entirely [NARA RG 330, Entry A1-1B].

How much influence did information, scientists, and materials from the German nuclear weapons program have on the U.S./U.K. nuclear programs, both during and after the war? Detailed information, scientists, and materials from the German program began arriving in the United States and United Kingdom no later than late 1944, and continued for several years after the war.

The late-wartime and postwar influx of scientists and engineers who were from or at least had knowledge of the German nuclear program included:

Karl-Friedrich Bonhoeffer	Gottfried Guderley	"Dr. Niels" (Walter Nielsch?)
Wernher von Braun	Paul Harteck	Edgar Petersen
Rudolf Brill	Otto Haxel	Heinz Schlicke
Adolf Busemann	Richard Herzog	Erich Schumann
Walter Dornberger	Johannes Hans Jensen	Otto Schwede
Rudolf Edse	Willibald Jentschke	Edmund Sorg
Krafft Ehricke	Ulrich Jetter	Kurt Starke
Wilhelm Eitel	Georg Joos	Ernst Stuhlinger
Gerhard Falck	Hartmut Kallmann	Hans Suess
Karl Fiebinger	Hans Kammler	Herbert Wagner
Wolfgang Finkelnburg	Gerald Klein	Wilhelm Westphal
Rudolf Fleischmann	Stanley Kronenberg	Friedwardt Winterberg
Siegfried Flügge	Heinz Maier-Leibnitz	Karl Wirtz
Walter Glaser	Werner Maurer	Gernot Zippe
Wilhelm Groth	Hugo Neuert	Etc.

This list is by no means exhaustive. Furthermore, countless other scientists were interrogated in Europe. See also Section D.14.9 for examples of additional people. The complete files on all of these scientists and engineers should be sought and released.

A number of the above scientists appear to have been closely tied to German work on H-bombs, and may have especially aided the U.S. H-bomb development program between 1945 and 1954. Some of the scientists may have also been able to contribute to improvements in U.S./U.K. fission bombs (e.g., smaller sizes and higher efficiencies) and fission fuel production (such as the uranium centrifuges of Groth, Harteck, and Zippe).

There is a great need for archival researchers and historians to investigate this area in much more detail in the future.]

NARA RG 330, Entry A1-1B, Boxes 1–186.
JIOA Foreign Scientist Case Files [Paperclip].

Figure D.982: Examples of scientists who were apparently involved in the German nuclear program and were brought to the United States to work after the war [NARA RG 330, Entry A1-1B].

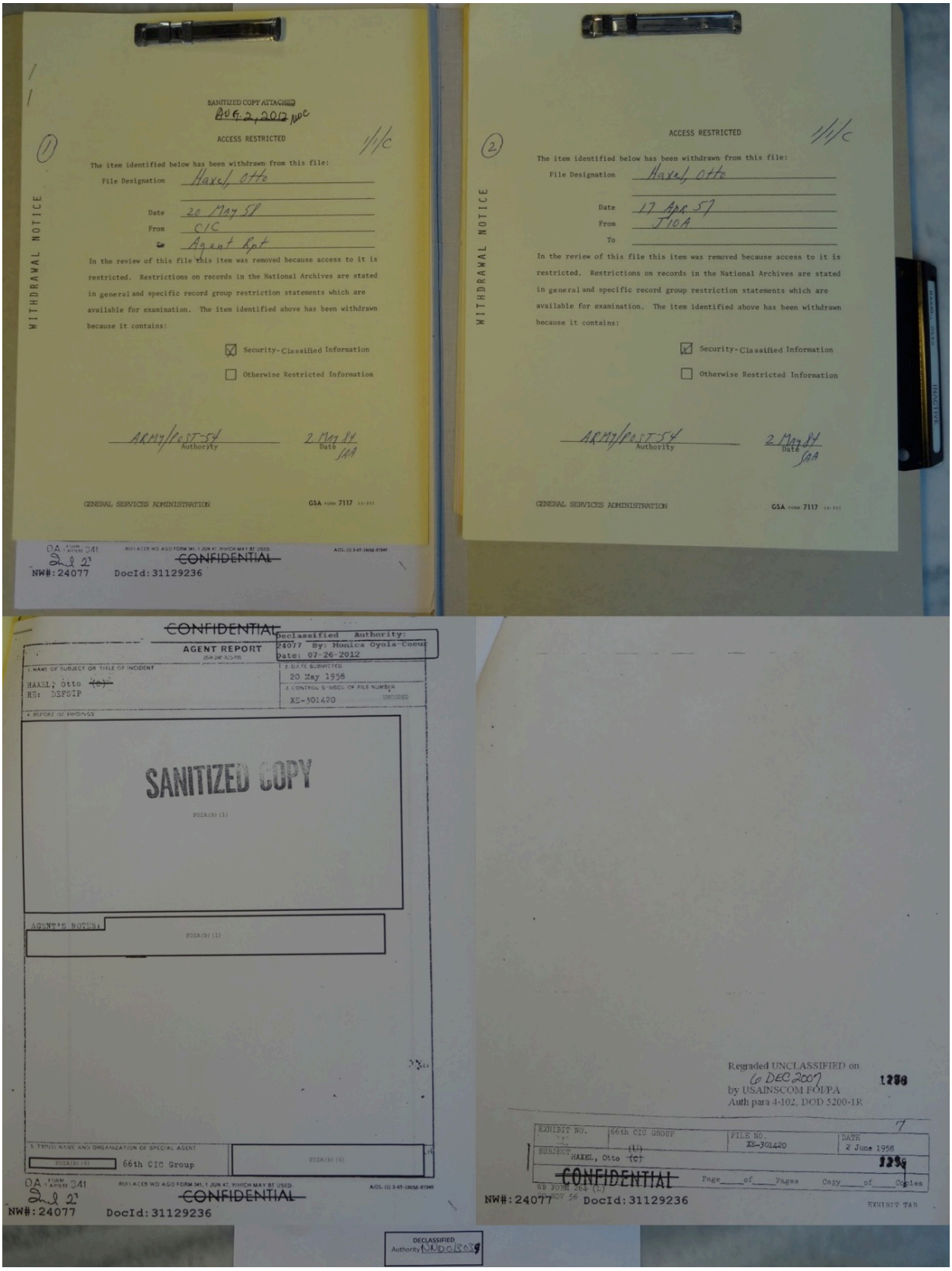
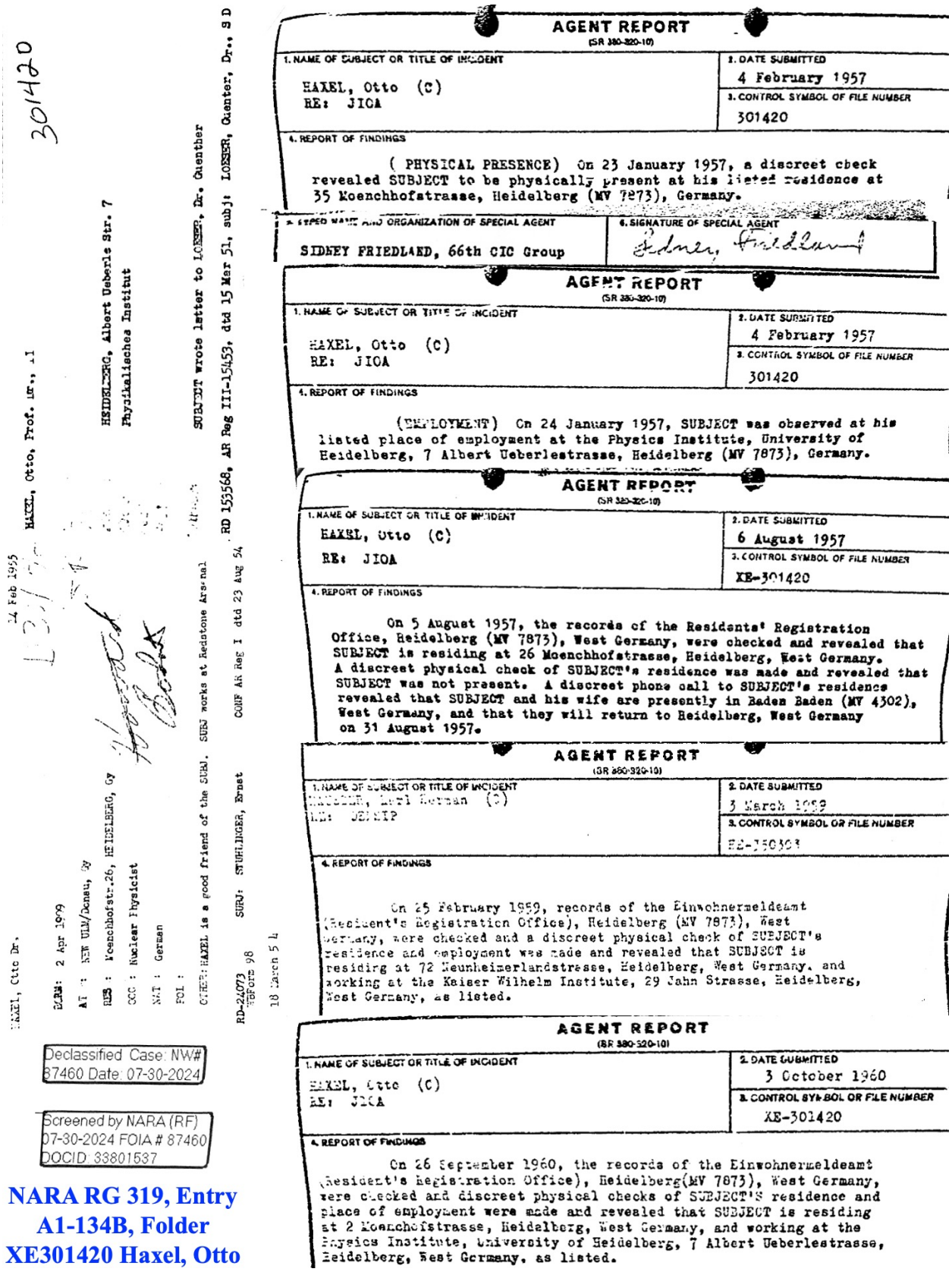


Figure D.983: Virtually the entire "foreign scientist case file" on Otto Haxel remains classified, with the documents removed or completely blanked out [NARA RG 330, Entry A1-1B, Box 66].



HAXEL, Otto, Prof. dr., 21

301420

24 Feb 1955

HEIDELBERG, Albert Ueberle Str. 7
Physikalisches Institut

SUBJECT wrote letter to LOSSER, Dr. Guenther

RD 155568, AR Reg III-15453, dtd 15 Mar 51, subj: LOSSER, Guenter, Dr., S D

HAXEL, Otto Dr.

BORN: 2 Apr 1909
AT : NOW ULM/Donau, Gy
RES : Moenchhofstr.26, HEIDELBERG, Gy
OCC : Nuclear Physicist
NAT : German
POL :
OTHER: HAXEL is a good friend of the SUBJ. SUBJ works at Redstone Arsenal

RD-24073 SUBJ: STUHLINGER, Ernst
BEFORE 98

CONF AR Reg I dtd 23 Aug 54

18 March 54

AGENT REPORT
(SR 380-320-10)

1. NAME OF SUBJECT OR TITLE OF INCIDENT: HAXEL, Otto (C) RE: JIOA
2. DATE SUBMITTED: 4 February 1957
3. CONTROL SYMBOL OF FILE NUMBER: 301420
4. REPORT OF FINDINGS: (PHYSICAL PRESENCE) On 23 January 1957, a discreet check revealed SUBJECT to be physically present at his listed residence at 35 Moenchhofstrasse, Heidelberg (MV 7873), Germany.
5. TYPED NAME AND ORGANIZATION OF SPECIAL AGENT: SIDNEY FRIEDLAND, 66th CIC Group
6. SIGNATURE OF SPECIAL AGENT: Sidney Friedland

AGENT REPORT
(SR 380-320-10)

1. NAME OF SUBJECT OR TITLE OF INCIDENT: HAXEL, Otto (C) RE: JIOA
2. DATE SUBMITTED: 4 February 1957
3. CONTROL SYMBOL OF FILE NUMBER: 301420
4. REPORT OF FINDINGS: (EMPLOYMENT) On 24 January 1957, SUBJECT was observed at his listed place of employment at the Physics Institute, University of Heidelberg, 7 Albert Ueberlestrasse, Heidelberg (MV 7873), Germany.

AGENT REPORT
(SR 380-320-10)

1. NAME OF SUBJECT OR TITLE OF INCIDENT: HAXEL, Otto (C) RE: JIOA
2. DATE SUBMITTED: 6 August 1957
3. CONTROL SYMBOL OF FILE NUMBER: XE-301420
4. REPORT OF FINDINGS: On 5 August 1957, the records of the Residents' Registration Office, Heidelberg (MV 7873), West Germany, were checked and revealed that SUBJECT is residing at 26 Moenchhofstrasse, Heidelberg, West Germany. A discreet physical check of SUBJECT's residence was made and revealed that SUBJECT was not present. A discreet phone call to SUBJECT's residence revealed that SUBJECT and his wife are presently in Baden Baden (MV 4302), West Germany, and that they will return to Heidelberg, West Germany on 31 August 1957.

AGENT REPORT
(SR 380-320-10)

1. NAME OF SUBJECT OR TITLE OF INCIDENT: [illegible] (C) RE: JIOA/NIP
2. DATE SUBMITTED: 3 March 1959
3. CONTROL SYMBOL OR FILE NUMBER: XE-[illegible]
4. REPORT OF FINDINGS: On 25 February 1959, records of the Einwohnermeldeamt (Resident's Registration Office), Heidelberg (MV 7873), West Germany, were checked and a discreet physical check of SUBJECT's residence and employment was made and revealed that SUBJECT is residing at 72 Neunheimerlandstrasse, Heidelberg, West Germany, and working at the Kaiser Wilhelm Institute, 29 Jahn Strasse, Heidelberg, West Germany, as listed.

AGENT REPORT
(SR 380-320-10)

1. NAME OF SUBJECT OR TITLE OF INCIDENT: HAXEL, Otto (C) RE: JIOA
2. DATE SUBMITTED: 3 October 1960
3. CONTROL SYMBOL OR FILE NUMBER: XE-301420
4. REPORT OF FINDINGS: On 26 September 1960, the records of the Einwohnermeldeamt (Resident's Registration Office), Heidelberg(MV 7873), West Germany, were checked and discreet physical checks of SUBJECT'S residence and place of employment were made and revealed that SUBJECT is residing at 2 Moenchofstrasse, Heidelberg, West Germany, and working at the Physics Institute, University of Heidelberg, 7 Albert Ueberlestrasse, Heidelberg, West Germany, as listed.

Figure D.984: Otto Haxel was closely monitored by the U.S. Army Counter Intelligence Corps until at least 1960 [NARA RG 319, Entry A1-134B, Box ??, Folder XE301420 Haxel, Otto].

NARA RG 330, Entry A1-1B, Box 43, Folder Flügge, Siegfried

EXOS:ONR:N421:UL:kcm

C
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P
Y

Serial No. 14654

NAVY DEPARTMENT
Office of Naval Research
Washington 25, D.C.

July 18, 1947

From: Chief of Naval Research
To: Chief of Naval Intelligence

Subj: Foreign Scientists, Request for assistance on.

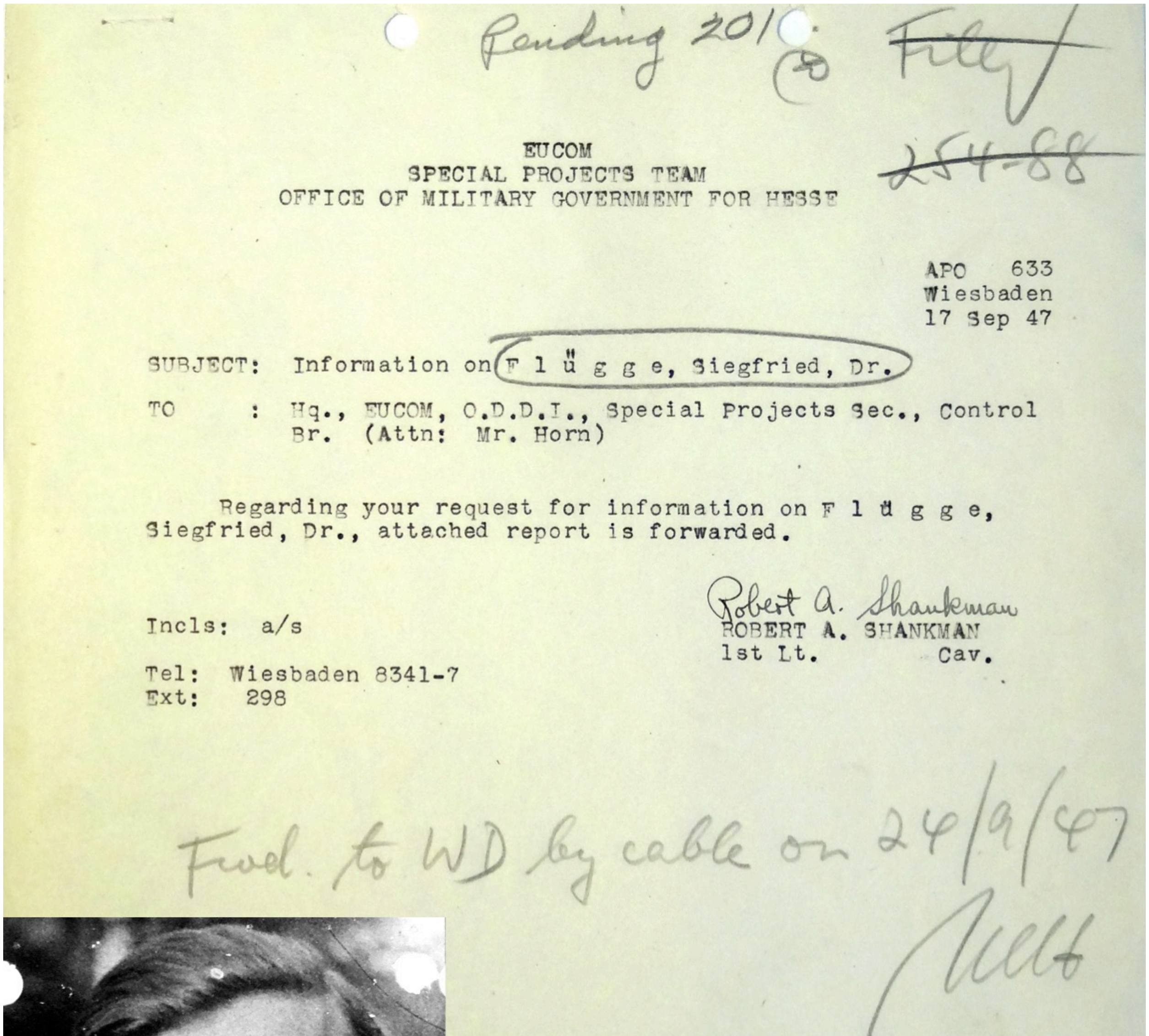
1. Professor Edward Teller, Physics Department, University of Chicago, is supervising under contract to this Office a research program on various phases of research in physics of the solid state. This program is of interest and importance to the national security. Professor Teller is very desirous to obtain the services of the German physicist, Dr. Siegfried Flugge, who can be of marked assistance in carrying out the aforementioned program.

2. Professor Teller has requested the Office of Technical Services, Department of Commerce, to obtain Dr. Flügge from Germany. It is requested that the Joint Intelligence Objectives Agency be informed of the Navy's interest in this case, and asked to provide such assistance as is possible to Professor Teller in aiding Dr. Flügge to come to this country.

/s/ C.M. Bolster
Capt., USN
Acting Chief of Naval Research

cc: Mr. Robert Frye, OTS, Dept. of Commerce
Professor Edward Teller, Physics Dept.
University of Chicago

Figure D.985: After the war, Edward Teller made a highly unusual, specific, and urgent request for Siegfried Flügge to help him with a "physics... program... of interest and importance to the national security," stating that Flügge would "be of marked assistance in carrying out the aforementioned program" [NARA RG 330, Entry A1-1B, Box 43, Folder Flügge, Siegfried]. Flügge was brought to the United States to work during 1949–1950 and 1953, which were critical periods for the development of the first H-bomb and the first dry (lithium deuteride) H-bomb.



Pending 201 ~~File~~ ~~254-88~~

EUCOM
SPECIAL PROJECTS TEAM
OFFICE OF MILITARY GOVERNMENT FOR HESSE

APO 633
Wiesbaden
17 Sep 47

SUBJECT: Information on F l ü g g e, Siegfried, Dr.

TO : Hq., EUCOM, O.D.D.I., Special Projects Sec., Control Br. (Attn: Mr. Horn)

Regarding your request for information on F l ü g g e, Siegfried, Dr., attached report is forwarded.

Incls: a/s

Robert A. Shankman
ROBERT A. SHANKMAN
1st Lt. Cav.

Tel: Wiesbaden 8341-7
Ext: 298

Fwd. to WD by cable on 24/9/47

DECLASSIFIED
Authority NND007017

NARA RG 319, Entry A1-134B, Box 202, Folder XE196681 Siegfried Fluegge

Figure D.986: At the specific request of Edward Teller, Siegfried Flügge was brought to the United States to work during 1949–1950 and 1953. Those were critical periods for the development of the first H-bomb and the first dry (lithium deuteride) H-bomb. [NARA RG 319, Entry A1-134B, Box 202, Folder XE196681 Siegfried Fluegge]

NARA RG 319, Entry A1-134B, Box 202, Folder XE196681 Siegfried Fluegge

The following information was received by phone from L&S Office Marburg, Wednesday, 17 Sept 47, thru Mrs. Steinbacher:

F l ü g g e, Siegfried, Dr.

Date of birth:	16 March 1912
Place of Birth:	Dresden, Saxony, Germany
Present address:	Marburg/Lahn, Wilhelm Roser Str. 33 A
Present employment:	as professor at University of Marburg (ordentlicher Professor)
Special Field:	Nuclear Physics (Struktur der Materie)
Background information:	from 1918 - 1921: attended elementary school, Dresden
	" 1921 - 1929: " high school (Gymnasium) in Dresden
	" 1929 - 1930: attended Technical High School, Dresden.
	" 1930 - 1933: at University in Göttingen
	1933 Doctor of Physics at University of Göttingen.
	" 1933 - 1935: worked at University of Frankfurt as Scientific Assistant.
	" 1935 - 1937: lectured at University of Leipzig
	1937 to Berlin
	" 1937 - 1942: worked in chemical department of the Kaiser-Wilhelm-Institute in Berlin, Dahlem.
	" 1942 - 1944: assistant at the Institute of Scientific Research of the Reichspost, Berlin
	" 1940 - 1944: lectured at the University of Berlin
	" 1944 appointed professor (ausserordentlicher) at the University of Königsberg.

After the surrender, he went to Göttingen, where he was employed as Professor for History of Physical Science from 1945 to 1947.

Figure D.987: During the war, Flügge worked for the Reichspost, Heereswaffenamt (also listed as University of Berlin since Erich Schumann was at both), Kaiser Wilhelm Institutes, Reichsforschungsrat, and University of Königsberg in East Prussia (said to have fission reactors, pp. 3928, 4578) [NARA RG 319, Entry A1-134B, Box 202, Folder XE196681 Siegfried Fluegge]. He also apparently worked at St. Georgen an der Gusen (p. 3882), another suspected nuclear facility.

NARA RG 319, Entry A1-134B, Box 202, Folder XE196681 Siegfried Fluegge

1 May 1947 he was appointed "ordentlicher" professor.

Security Background: before 1933: no member of any party

after 1933: he became a member of the NS Dozentenbund in 1942, until the end of the War.

He was a member of the "Physikalische Gesellschaft" (XXXXX Society for Physics) since 1933, after 1945, he became a member again of the Physikalische Gesellschaft in the British Zone, and also chairman of the Committee for Bio-Physics at Göttingen.

He was not called to Military Service during the War, because he worked as a Scientist of Physics for the "Heereswaffenamt" , Berlin, and was later exempted of any Army Service by the Reichsforschungsrat ih Berlin.

BDC Check: no member of any party of NSDAP, but:

Member of NS Lehrerbund since 11 June 1934

How —

Off hand, with a few particulars ironed out, the man would accept employment in the U.S.

Shanleman

Figure D.988: During the war, Flügge worked for the Reichspost, Heereswaffenamt (also listed as University of Berlin since Erich Schumann was at both), Kaiser Wilhelm Institutes, Reichsforschungsrat, and University of Königsberg in East Prussia (said to have fission reactors, pp. 3928, 4578) [NARA RG 319, Entry A1-134B, Box 202, Folder XE196681 Siegfried Fluegge]. He also apparently worked at St. Georgen an der Gusen (p. 3882), another suspected nuclear facility.

NARA RG 77, Entry UD-22A, Box 167, Folder 202.3-2 LONDON OFFICE: Combined Oper Ger Group

22nd December, 1947.

SECRET

Memorandum to Colonel L. E. Seeman

from D. C. G. Gattiker

German scientists:

With reference to the points you raised with me the other day Welsh gives me the following information:

1) GROTH is definitely in Hamburg.

2) FLUEGGE is still at Marburg. His removal by the U. S. authorities to the University of Chicago would be acceptable to the British.

3) The list of scientists submitted by Welsh was intended to include scientists in the British and U. S. zones only: FISCHER and FUNFER, both believed to be in the French zone, were included in the list in error, although the exact whereabouts of FUNFER is notcertain.

c/2 204.09

RECEIVED DEC 23 1947

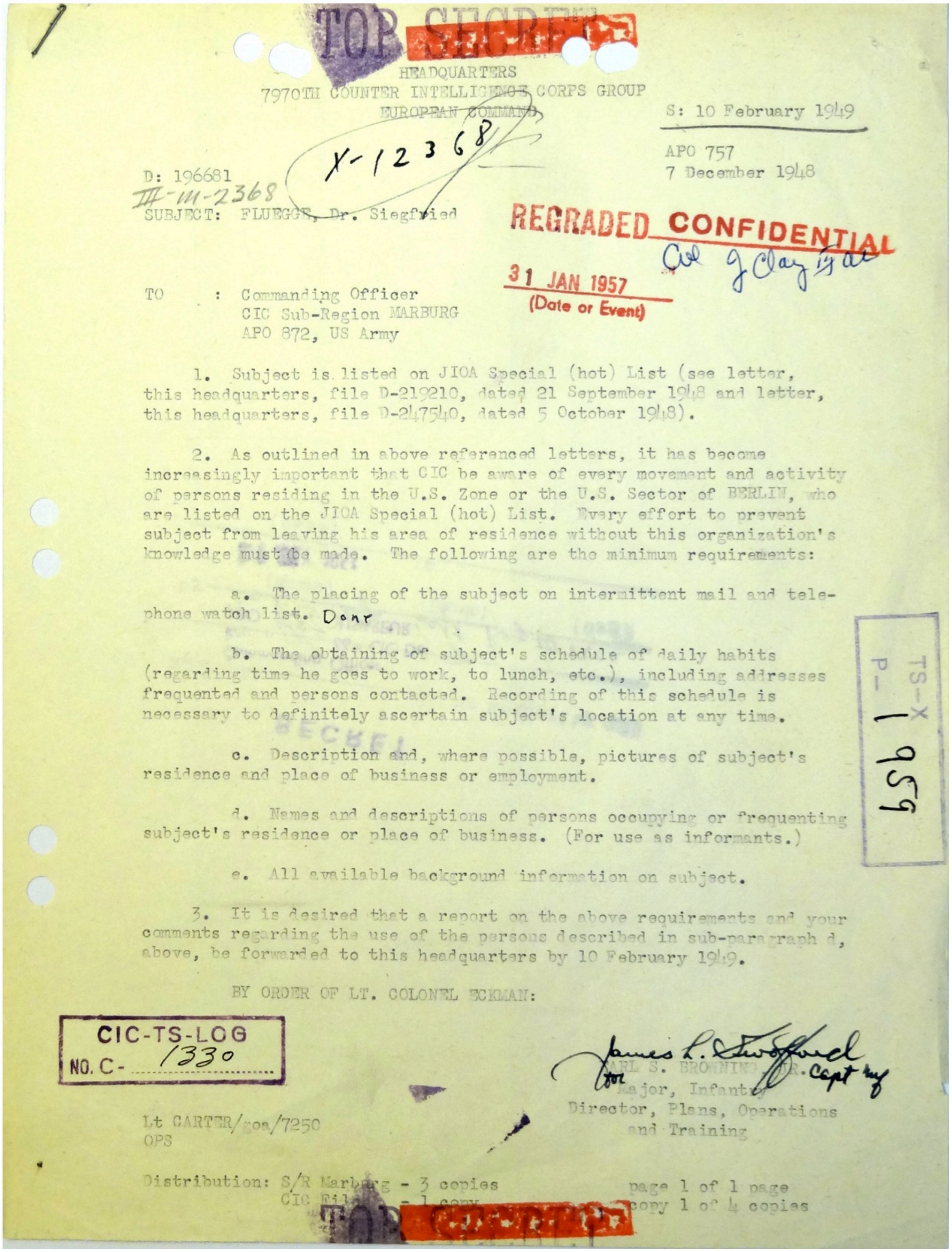
SECRET

Col. Hale
Shaw
Ryan

Figure D.989: At the specific request of Edward Teller, Siegfried Flügge was brought to the United States. Another potential recruit named in this memo was Wilhelm Groth, who was also involved in the German H-bomb program (e.g., p. 4367). Flügge and Groth were being requested and discussed by Allied officials specifically in charge of nuclear work: Teller, Gattiker, Seeman, Welsh, etc. [NARA RG 77, Entry UD-22A, Box 167, Folder 202.3-2 LONDON OFFICE: Combined Oper Ger Group].

DECLASSIFIED
Authority NND007017

NARA RG 319, Entry A1-134B, Box 202, Folder XE196681 Siegfried Fluegge



TOP SECRET

HEADQUARTERS
7970TH COUNTER INTELLIGENCE CORPS GROUP
EUROPEAN COMMAND

S: 10 February 1949

X-12368

APO 757
7 December 1948

D: 196681
III-M-2368
SUBJECT: FLUEGGE, Dr. Siegfried

REGRADED CONFIDENTIAL
Col J Clay
31 JAN 1957
(Date or Event)

TO : Commanding Officer
CIC Sub-Region MARBURG
APO 872, US Army

1. Subject is listed on JIOA Special (hot) List (see letter, this headquarters, file D-219210, dated 21 September 1948 and letter, this headquarters, file D-247540, dated 5 October 1948).

2. As outlined in above referenced letters, it has become increasingly important that CIC be aware of every movement and activity of persons residing in the U.S. Zone or the U.S. Sector of BERLIN, who are listed on the JIOA Special (hot) List. Every effort to prevent subject from leaving his area of residence without this organization's knowledge must be made. The following are the minimum requirements:

a. The placing of the subject on intermittent mail and telephone watch list. Done

b. The obtaining of subject's schedule of daily habits (regarding time he goes to work, to lunch, etc.), including addresses frequented and persons contacted. Recording of this schedule is necessary to definitely ascertain subject's location at any time.

c. Description and, where possible, pictures of subject's residence and place of business or employment.

d. Names and descriptions of persons occupying or frequenting subject's residence or place of business. (For use as informants.)

e. All available background information on subject.

3. It is desired that a report on the above requirements and your comments regarding the use of the persons described in sub-paragraph d, above, be forwarded to this headquarters by 10 February 1949.

TS-X
P-1959

BY ORDER OF LT. COLONEL ECKMAN:

CIC-TS-LOG
NO. C- 1330

James L. Swofford for Capt
EARL S. BROWNING, JR.
Major, Infantry
Director, Plans, Operations and Training

Lt CARTER/goa/7250
OPS

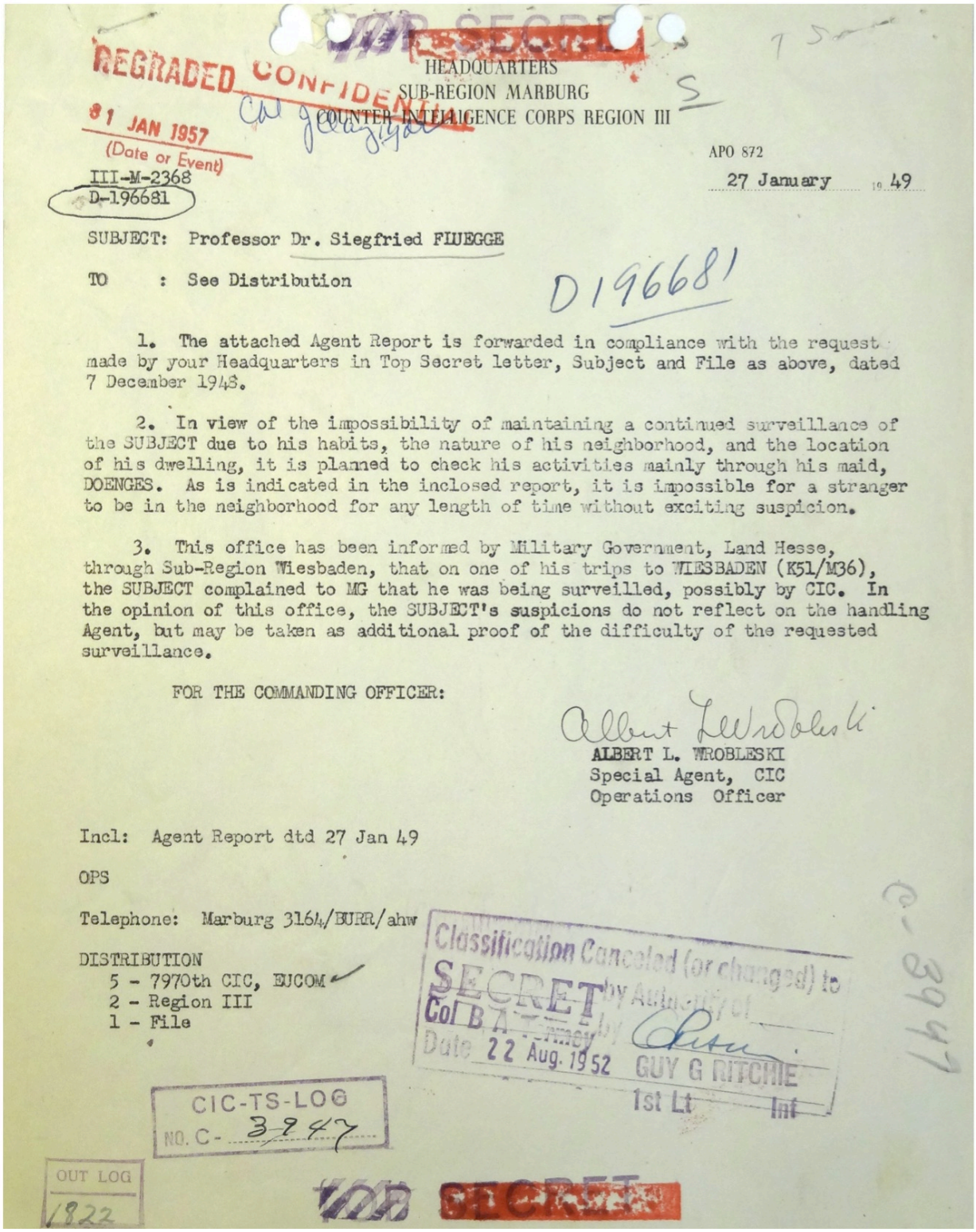
Distribution: S/R Marburg - 3 copies
CIC File - 1 copy

page 1 of 1 page
copy 1 of 4 copies

TOP SECRET

Figure D.990: When not in the United States, Flügge was placed on the Top Secret JIOA K "hot list" and constantly monitored for at least a decade after the war, on the direct orders of Lt. Col. George R. Eckman, formerly of the Alsos Mission [NARA RG 319, Entry A1-134B, Box 202, Folder XE196681 Siegfried Fluegge].

NARA RG 319, Entry A1-134B, Box 202, Folder XE196681 Siegfried Fluegge



TOP SECRET

REGRADED CONFIDENTIAL
31 JAN 1957
(Date or Event)
III-M-2368
D-196681

HEADQUARTERS
SUB-REGION MARBURG
COUNTER INTELLIGENCE CORPS REGION III

APO 872

27 January 19 49

SUBJECT: Professor Dr. Siegfried FLUEGGE

TO : See Distribution

D196681

1. The attached Agent Report is forwarded in compliance with the request made by your Headquarters in Top Secret letter, Subject and File as above, dated 7 December 1948.

2. In view of the impossibility of maintaining a continued surveillance of the SUBJECT due to his habits, the nature of his neighborhood, and the location of his dwelling, it is planned to check his activities mainly through his maid, DOENGES. As is indicated in the inclosed report, it is impossible for a stranger to be in the neighborhood for any length of time without exciting suspicion.

3. This office has been informed by Military Government, Land Hesse, through Sub-Region Wiesbaden, that on one of his trips to WIESBADEN (K51/M36), the SUBJECT complained to MG that he was being surveilled, possibly by CIC. In the opinion of this office, the SUBJECT's suspicions do not reflect on the handling Agent, but may be taken as additional proof of the difficulty of the requested surveillance.

FOR THE COMMANDING OFFICER:

Albert L. Wroblesk

ALBERT L. WROBLESKI
Special Agent, CIC
Operations Officer

Incl: Agent Report dtd 27 Jan 49

OPS

Telephone: Marburg 3164/BURR/ahw

DISTRIBUTION
5 - 7970th CIC, EUCOM
2 - Region III
1 - File

Classification Canceled (or changed) to SECRET by Authority of Col B A [illegible] by [signature] Date 22 Aug. 1952 GUY G RITCHIE 1st Lt Inf

CIC-TS-LOG NO. C- 3947

OUT LOG 1822

TOP SECRET

Figure D.991: When not in the United States, Flügge was placed on the Top Secret JIOA K "hot list" and constantly monitored for at least a decade after the war, on the direct orders of Lt. Col. George R. Eckman, formerly of the Alsos Mission [NARA RG 319, Entry A1-134B, Box 202, Folder XE196681 Siegfried Fluegge].

NARA RG 319, Entry A1-134B, Box 202, Folder XE196681 Siegfried Fluegge

FLUEGGE, Siegfried Wilhelm (Dr.) 25 April 1952

File D-196681

Res: MARBURG, Wilhelm Roserstrasse 33a

Priority 1, (JIOA Personality on the "K" List)

REF: D-137899 Secret ltr dtd 31 Jan 52 file X-272
SUB: Custodial Detention
cs

FLUEGGE, S. (Professor) 4 Nov 54

Employed by subject. Now in MARBURG.

Ref: D-284237 BfV Report dtd 26 Aug 53 File: BR53-11-91
Sub:German Academy of Sciences of BERLIN F-3
Re: Nuclear Physics Institute
CS GERNAND

Figure D.992: When not in the United States, Flügge was placed on the Top Secret JIOA K "hot list" and constantly monitored for at least a decade after the war, on the direct orders of Lt. Col. George R. Eckman, formerly of the Alsos Mission [NARA RG 319, Entry A1-134B, Box 202, Folder XE196681 Siegfried Fluegge].

Edward Teller's request for Siegfried Flügge's assistance. [NARA RG 330, Entry A1-1B, Box 43, Folder Flügge, Siegfried]

EXOS:ONR:N421:UL:kcm
Serial No. 14654

NAVY DEPARTMENT
Office of Naval Research
Washington 25, D.C.

July 18, 1947

From: Chief of Naval Research

To: Chief of Naval Intelligence

Subj: Foreign Scientists, Request for assistance on.

1. Professor Edward Teller, Physics Department, University of Chicago, is supervising under contract to this Office a research program on various phases of research in physics of the solid state. This program is of interest and importance to the national security. Professor Teller is very desirous to obtain the services of the German physicist, Dr. Siegfried Flügge, who can be of marked assistance in carrying out the aforementioned program.

2. Professor Teller has requested the Office of Technical Services, Department of Commerce, to obtain Dr. Flügge from Germany. It is requested that the Joint Intelligence Objectives Agency be informed of the Navy's interest in this case, and asked to provide such assistance as is possible to Professor Teller in aiding Dr. Flügge to come to this country.

C. M. Bolster
Capt., USN
Acting Chief of Naval Research

cc: Mr. Robert Frye, OTS, Dept. of Commerce
Professor Edward Teller, Physics Dept.
University of Chicago

[See document photo on p. 4996.

In 1947, Edward Teller was arguably the leading theoretical physicist of the U.S. nuclear weapons program, since most of the other prominent physicists from the Manhattan Project returned to civilian projects after the war. Throughout the 1940s, Teller was obsessed with creating a working fusion (hydrogen or H) bomb that would be much more powerful than the Manhattan Project's fission bombs. In 1946, a panel of other U.S. physicists concluded that Teller's proposed "classical Super" design for an H bomb was unlikely to work and that they did not know how to improve upon it, so in 1947 Teller would have been especially desperate for advanced nuclear weapons design solutions.

Siegfried Flügge was arguably the leading theoretical physicist of the wartime German nuclear weapons program, although apart from two very early and introductory publications (p. 3366), that was far from public knowledge at that time (or even today).

Some German-speaking scientists who had already settled in the United States, such as Hermann Mark and Theodore von Kármán, actively worked to bring many other German-speaking scientists to the United States after the war. However, I am not aware of other examples of Edward Teller actively recruiting German-speaking scientists from Europe after the war.

Thus this letter shows an extraordinary degree of interest and a singular focus. The leading physicist of the U.S. nuclear weapons program was "very desirous to obtain the services" of the leading physicist of the wartime German nuclear weapons program, who could "be of marked assistance in carrying out" an unspecified physics program "of interest and importance to the national security."

If the United States had discovered, sometime after the war, that Germany had actually had an advanced nuclear weapons program, it would have needed a particular type of person to help interrogate people who were most closely associated with that program and who could provide the most detailed technical information about it. Specifically, the United States would have needed someone (the fewer people the better, for security reasons) who:

- Was a physicist with an intimate knowledge of nuclear weapons designs from the Manhattan Project. (Many potential candidates, such as Theodore von Kármán and Samuel Goudsmit, did not have that knowledge, so this criterion rules them out.)
- Was fluent in German, including very technical German.
- Was extremely close to the U.S. military, and could be trusted to strongly advocate for its interests and to religiously keep its secrets.

There would have been a number of possible candidates for that position (see p. 1549), but those best matching the above three qualifications probably would have been Edward Teller, Hans Bethe, J. Robert Oppenheimer, and John von Neumann. Of those four, after the war only Teller was still truly focused on nuclear weapons designs. Teller would have been the ideal physicist to help interrogate top scientists from the German nuclear program such as Flügge, or top administrators from the program such as Hans Kammler (if he was indeed in U.S. custody), in order to learn as many technical details as possible about the German program's weapons designs, production methods, and results.

Flügge did eventually visit the United States in 1949–1950 and 1953. It is probably no coincidence that those were critical periods for the development of the country's first (cryogenic) H-bomb and its first dry (lithium deuteride) H-bomb, respectively. It seems virtually certain that even before those visits, while he was in Europe, Flügge was also interrogated in detail by U.S. scientists (perhaps Teller himself) and intelligence officials; otherwise Teller would not have known to make this specific request.

Can the details of Flügge's U.S. visits, work, and interrogations be located in archives and released?

As shown on pp. 4997–5003 and in a number of other declassified documents in that same file [NARA RG 330, Entry A1-1B, Box 43, Folder Flügge, Siegfried], when not in the United States, Flügge was placed on the Top Secret JIOA K "hot list," and very closely and constantly monitored

for at least a decade after the war. The U.S. official who issued those orders was none other than Lt. Col. George R. Eckman, who had been the Executive Officer of the Alsos Mission [p. 3333 and https://www.ikn.army.mil/apps/MIHOF/biographies/Eckman,%20George.pdf]!

Importantly, these files on Flügge (pp. 4998–4999) also prove that this leading physicist of the German nuclear weapons program worked with the:

- Reichspost (Post Office).
- Heereswaffenamt (Army Ordnance Office).
- Kaiser Wilhelm Institutes.
- Reichsforschungsrat (Reich Research Council).
- University of Königsberg in East Prussia (said to have fission reactors, pp. 3928–3929, 4578–4579).
- He also apparently worked in Austria at St. Georgen an der Gusen (p. 3882), another suspected nuclear facility.

This appears to demonstrate high-level scientific coordination of the nuclear activities among many different organizations throughout the Reich.

How much did the United States know about the German nuclear weapons program's structure (e.g., that Flügge was its leading physicist) and accomplishments (e.g., that it had successfully developed fission bombs and had conducted advanced work on H-bomb designs, lithium deuteride, fusion boosting, etc.) prior to Teller's request? How much did it ultimately learn?

Teller's highly specific and urgent request, presumably based on his own or other classified post-war U.S. intelligence on the wartime German nuclear program, strongly suggests that Flügge was involved not only in the design of German fission bombs (see p. 3366 and Section D.8), but also in the design of German H-bombs (Section D.9).

Although the Soviet Union detonated its first known fission bomb in August 1949, Flügge was kept on the JIOA K "hot list" and closely monitored by the United States until at least the end of 1954. Even the documents mentioning the U.S. surveillance of Flügge (with no military or scientific details) were classified Top Secret, which seems extraordinary. Moreover, those files were finally downgraded to Confidential in January 1957. All of that is further evidence that Flügge had detailed knowledge of not just fission bombs but also H-bombs, which the Soviet Union did not fully perfect until November 1955 (RDS-37). The United States kept Flügge on a very tight leash, and even classified any mention of that leash as Top Secret, until the Soviet H-bomb program had reached a level of technological maturity at which it no longer would have needed Flügge's knowledge about H-bomb design.

Georg Stetter and his fellow Austrian nuclear scientists were also deeply involved in the wartime German H-bomb program (pp. 4330–4345). Just as they did with Flügge, the United States kept Stetter under very close supervision until the 1950s, presumably until he too would no longer have been helpful for the Soviet H-bomb program (pp. 4788–4800). And like Flügge, some members of Stetter's team were brought to the United States after the war to work temporarily or permanently.]

~~CONFIDENTIAL~~

UNITED STATES
ATOMIC ENERGY COMMISSION
WASHINGTON 25, D. C.

Files

August 24, 1951

G. A. Kolstad, Physics Branch, Division of Research

PROCUREMENT OF SERVICES OF W. GROTH FROM THE AIR FORCES

I spoke with Col. Harris, Hdqrs. ARDC, 5 West Baltimore, Baltimore, Maryland, this morning concerning the transfer of W. Groth to an Atomic Energy Commission contractor. Harris has been unable to track down any information on whether Groth is actually being brought into this country or not. They have not had any official notification of his coming. He did indicate, however, that should Groth be brought in by the Air Forces they would be willing to release him to us.

cc: Intelligence, W.Colby
BNL, S. Goudsmit
Div. of Engineering, J. H. Hayner

~~CONFIDENTIAL~~

00293

Figure D.993: G. A. Kolstad to Samuel Goudsmit et al. 24 August 1951. Procurement of Services of W. Groth from the Air Forces [NARA RG GOUDS, Entry UD-7420, Box 3, Folder "Historian's Office Inventory Control Job Goudsmit Box 4 Folder 4"]. "...concerning the transfer of W. Groth to an Atomic Energy Commission contractor. Harris has been unable to track down any information on whether Groth is actually being brought into this country or not... [S]hould Groth be brought in by the Air Forces they would be willing to release him to us."

Feb 28, 1. 46

FOREIGN EXPLOITATION SECTION PROJECTS

Project No.	Subject	Authority	Responsibility	Telephone
FE-1	Suggestions for Research and Development work to be done in U.S. with reference to Experience in Germany	Lt. Schwandt	Lt. Larsen	2-0271
FE-2	Heat Transmission on Bodies in Rapidly Flowing Gases	Capt. Tribus	Lt. Larsen	2-0271
FE-3	Combustion of Solid Carbon	Capt. Alf	Lt. Larsen	2-0271
FE-4	Athodyd Report	Col. Wassell	Lt. Larsen	2-0271
FE-5	Possibilities to Work on Atomic Research at Wright Field	Gen. Craigie	Lt. Larsen	2-0271
FE-6	Equilibrium Composition of Dissociating Combustion Gases and Combustion Temperatures	Col. Wassell	Lt. Larsen	2-0271
FE-8	JATO Report	Maj. Bunze	Lt. Larsen	2-0271
FE-11	Appendix to Development of Pressure Gages for small pressures.	Capt. De Tolly	Lt. Eisner	2-0116
FE-12	Influence of the Optical Transparency on the Sensitivity of Infra-Red Receivers	Capt. Barnett	Lt. Eisner	2-0116
FE-13	Stabilization of Parachutes	Lt. Larsen	Lt. Eisner	2-0116
FE-15	Stability in Transsonic Range	R&R dtd 8 Nov TSEGO-TSDIE	Capt. Feller	2-5189
FE-16	Interference Schlieren Apparatus	R&R dtd 8 Nov TSEGO-TSDIE	Capt. Feller	2-5189
FE-17	Fourlilie	R&R dtd 8 Nov TSEGO-TSDIE	Capt. Feller	2-5189
FE-18	Survey of Work for "F"	Capt. Boesch	Lt. Upton	2-3281
FE-19	Miscellaneous activities and Operations	Col. Putt	Capt. Barnett	2-3872
FE-20	Evaluation of Wright Field High Altitude Wind Tunnel	Capt. Benzel	Lt. Upton	2-3281
FE-21	Test of a Jet Engine Intake Scoop	Mr. Kramer	Pfc. Youts	2-3281
FE-22	Yielding Strength of Grains of Carborundum Bonded with Ceramics for use as Abrasives	Capt. Barnett	Lt. Upton	2-3281

NAME	SPECIALTY	LOCATION	NOMINATING AGENCY	DATE OF AVAILABILITY
KLAIST, Dr. Karl	Professor of Neurology Psychiatry at Johann-Wolfgang Goethe University, Frankfurt A/M	Frankfurt	USFET	After allocation by JIOA
BURHANN, Dr. Bertold	Prior to 36, engineer for [illegible] in charge of tools & tool-making. During war, developed & manufactured spec graphite oil for boring & grinding	Berlin		After allocation by JIOA
ESCHAUNT, Dr. Hans Heinz	Specialist in radio navigation, radar techniques, superconics (Plendl Group)	Landshut, Germany	USFET	After allocation by JIOA
HUNTER, Theodor F.	Physicist, specialist in micro-waves, radar technique, & superconics (Plendl Group)	Landshut, Germany	USFET	After allocation by JIOA
SCHMIDT, Dr. Otto Gustav	Technical physicist, radar. Centimeter waves, radar for great distances, remote control of rockets & pilotless A/C. Separation of isotopes	Germany	USFET, FIAT	After allocation by JIOA
[illegible], Dr. Hans	Research scientist-oscillation & vibration in technics & medicine. Steering of rockets with acoustic vibration, torpedo steering apparatus. Prior to 33, Industrial Mag. in Urals and Siberia	Germany	USFET	After allocation by JIOA

Figure D.994: German scientists who worked for the U.S. military were capable of leading research projects to advance the state of U.S. nuclear programs, including isotope separation. Top: Foreign Exploitation Section Projects. 28 February 1946 [AFHRA A2055 Frame 1173]. Bottom: R. F. Ennis. 27 January 1947. [AFHRA A2055 Frame 1362].

G. H. Morrison. How Adolf Hitler Lost the Atomic Bomb. *The Argus* (Melbourne). 6 October 1945, p. 2. https://trove.nla.gov.au/newspaper/article/12145557/631795

When Hitler learned that two German scientists had at last discovered a method by which it would ultimately be feasible to split uranium atoms when and as required, he imagined that Germany would soon hold a weapon whose mere possession would force her enemies to capitulate unconditionally. Hence his mysterious reference in the first days of the war to "a secret weapon" which, he said, he hesitated to use because of its deadliness. [...]

Again and again, Goebbels proclaimed the coming of the secret weapon that was to give Nazi Germany immediate and decisive victory. Over and over again Goebbels urged that "time was on the side of Germany." Just how far German atomic research had gone we were unable to discover. But it was quite certain the Germans were on the right track. [...]

On the laboratory scale U 235 was isolated for the first time in Germany in 1940. Even that, however, was far from being the end of the job of unravelling the skein of theoretical enigmas. Each problem solved raised some new problem. But German scientists stuck frantically to the task; and, as Professor Westphal, principal of the Berlin Technical High School, has since revealed, the Germans had solved the last laboratory problem in atom-splitting by 1944. That was about the time Goebbels began to assure his compatriots that the secret weapon would soon be in use.

[George H. Morrison (U.S., 1921–2004), an analytical chemist, worked on uranium purification and enrichment for the Manhattan Project: https://paw.princeton.edu/memorial/george-h-morrison-48

What exactly did Wilhelm Westphal do in Germany during the war and in the U.S. after the war?]

Dieter Hoffmann and Mark Walker, eds. 2007. *Physiker zwischen Autonomie und Anpassung.* Weinheim: Wiley. p. 340.

Ein Brief von Rudolf Ladenburg an Max von Laue, unmittelbar nach Erhalt dieses Artikels verfasst, führt uns zu einer weiteren Pointe:

"Otto Hahn's Artikel in der Göttinger Universitätszeitung bringt die Entlassung deutscher Professoren mit dem amerikanischen Angebot Professoren nach USA einzuladen in Zusammenhang. Wissen Sie von Kollegen, die erst entlassen + nun nach USA abgereist sind? Ich weiss nur, daß Westphal in USA ist + dass Joos hierher Anfang Juni abgereist ist [...] Westphal war, soweit ich weiss, nie abgesetzt + Joos ist nach kurzer Zeit wieder eingesetzt worden. In seinem Fall war die Absetzung, wie ich gehört habe, durch eine (unentschuldbare) Namensverwechslung verursacht."93)

93) Ladenburg an Laue, 30.7.1947, MPGA, II. Abt., Rep. 50, Nr. 1158, zit. nach: Klaus Schlüpmann, Vergangenheit, S. 426 f.

A letter from Rudolf Ladenburg to Max von Laue, written immediately after receipt of this article, leads us to another point:

"Otto Hahn's article in the Göttingen University newspaper connects the dismissal of German professors with American offers to invite professors to the USA. Do you know of any colleagues who were first dismissed + have now left for USA? I only know that Westphal is in USA + that Joos left here at the beginning of June [...] Westphal, as far as I know, was never dismissed + Joos was reinstated after a short time. In his case, the removal, as I have heard, was caused by an (inexcusable) confusion of names."93)

93) Ladenburg to Laue, 30 July 1947, MPGA, II Dept, Rep. 50, No. 1158, quoted in: Klaus Schlüpmann, Vergangenheit, p. 426 f.

D.14.9 Other Intelligence Services

[There is evidence that other U.S. investigators, as well as intelligence services from other countries, found information about the German nuclear program.

For U.S. involvement in a postwar shipment of five tons of zirconium that apparently came from the wartime German nuclear program, and that indicates a deeper U.S. understanding of the German nuclear program, see p. 4146.]

Ernest K. Lindley, Chief of Washington Bureau of *Newsweek.* Men and Secret Weapon for 1944 Invasion. *The World's News* (Sydney). 5 February 1944, p. 3. https://trove.nla.gov.au/newspaper/page/14771447

Rumors concerning Germany's "secret weapon" continue to trickle through neutral capitals.

Recently a United Press despatch from Lisbon attributed to travellers arriving from the Reich the statement that the weapon is an explosive based on the release of atomic energy.

According to this report, small atomic bombs of tremendous explosive force would be dropped by "super-stratosphere" planes.

In both London and Washington, there are several degrees of reaction to the "secret weapon" talk.

- That it is partly propaganda, chiefly for German internal consumption, partly "nerve warfare" against the Allies.
- That the Germans may have something of nuisance value, but probably not in sufficient quantity to do much damage.
- That the weapon, even if dangerous, can be knocked out of enemy hands by such preventive measures as the bombing of the so-called Rocket Coast of Northern France.
- That the threat is serious enough to require every precaution possible and preparation for severe counter-action, such as air-borne gas attacks.

Bombing the "Rocket Coast" would not, for example, interfere with the use of an atomic bomb dropped from high-flying planes.

If the Germans have been able not only to perfect a super explosive but to produce it in quantity, it would be logical to expect them to use it on Britain when they think the invasion armies are about ready to jump off, hoping to disorganise the assault on Europe and stave off defeat in 1944.

Churchill, as his published comments indicate, regards reports of the "secret weapon" with respect, but not with alarm.

Other informed sources are braced for a vengeful, hurtful attack on Britain.

[By the end of the war, Ernest Lindley or his colleagues at *Newsweek* seem to have found high-ranking Allied officials who corroborated this early report. See p. 5022.]

Nazis' Atom Bomb Plans: Britain Ready a Year Ago. *Daily Telegraph and Morning Post.* 11 August 1945.

Britain prepared for the possibility of an atomic bomb attack on this country by Germany in August, 1944.

It can now be disclosed that details of the expected effect of such a bomb were revealed in a highly secret memorandum which was sent that summer to the chiefs of Scotland Yard, chief constables of provincial forces and senior officials of the defence services.

An elaborate scheme was drawn up by the Ministry of Home Security for prompt and adequate measures to cope with the widespread devastation and heavy casualties expected if the Germans succeeded in launching atomic bombs on this country.

Reports received from our agents on the Continent early last year indicated that German scientists were experimenting with an atomic bomb in Norway. According to these reports the bomb was launched by catapult, and had an explosive radius of more than two miles.

In view of our own progress in devising an atomic bomb, the Government gave the reports serious consideration. Thousands of men and women of the police and defence services were held in readiness for several months until reliable agents in Germany reported that the bomb had been tested and proved a failure.

[Allied intelligence reports confirmed that Germany was developing an atomic bomb. A blast radius of over 2 miles or over 3200 meters corresponds to an explosive energy of approximately $(3200/85.5)^3 \approx 50{,}000$ tons of TNT, definitely nuclear and over twice the explosive energy of the first U.S. fission bombs.

Allied intelligence also confirmed that there was at least one attempted test of the German atomic bomb. It was reported to have been a failure and to have been associated with Norway (as the development and/or test location?). Was that the same failed atomic bomb test that Werner Grothmann mentioned in the North Sea in late 1943 (p. 4436)? The German nuclear program was producing heavy water at several sites in Norway (pp. 4027–4041), so were there other important aspects of the program in Norway? Dwight Eisenhower mentioned some sort of mysterious nuclear work at Trondheim that is otherwise unknown in publicly available documents (p. 5034). See also p. 4404.

The catapult launch suggests that the bomb may have been designed to be carried on a V-1 cruise missile, which was launched by catapult, or by some other aircraft or rocket that had been designed or modified to be launched by catapult. The Sänger-Bredt Silbervogel space plane would have been launched by catapult, and some versions of the A-9 rocket were designed to be launched by catapult. V-1 launch catapults were installed on German submarines in 1944 in order to attack Allied targets from offshore (pp. 5618–5627). There were major German submarine bases at Trondheim and other locations in Norway. And there were plans to arm the V-1 with a nuclear warhead (e.g, pp. 4896–4897). Could that have been the connection among these several mysterious pieces of intelligence?

Allied fears that the German bomb was nearly ready for deployment heightened in summer and autumn 1944. The Royal Air Force went to extreme lengths to bomb what appears to have been a German fission reactor and fuel reprocessing complex near Königsberg during the period 26–30 August 1944 (pp. 3928–3929). The first successful German nuclear test may have occurred in October 1944 (p. 4390).]

Big Projectile Reported New Hitler Weapon. *Los Angeles Times.* 30 September 1944. p. 3.

SOMEWHERE IN FRANCE, Sept. 23 (Delayed.) (AP)—American 3rd Army troops have obtained information indicating that a 14-ton projectile with an explosive radius of three kilometers—almost two miles—is scheduled as the third in Hitler's series of vengeance weapons.

V-1 is the robot bomb launched from a platform.

V-2 is the long-range rocket fired from a carrier plane, for which the Germans are reported using the Heinkel 111.

V-3, so far as is known here, has not yet been used against either England or the attacking Allied armies.

Information disclosed the projectile is just short of 60 feet in length, is five feet five inches in diameter and weighs 14 tons at the take-off. Propelled by a mixture of liquid air and alcohol, it is shot into the air vertically, then is controlled by radio.

[Germany had many secret weapons in development, and the "V" number would simply indicate the order in which they happened to be publicly announced. The V-1 cruise missile or "robot bomb" had been fired at London since June 1944 and was well known by the time of this article. However, the existence of the V-2 or A-4 rocket was not publicly known when this article was released. V-2 or A-4 rocket attacks on Allied countries began on 8 September 1944 but were not publicly admitted by Germany until 8 November 1944, and by the United Kingdom until 10 November 1944. The aircraft-fired rocket referred to as "V-2" in this article was not the large A-4 rocket that ultimately gained the V-2 name, but rather a different weapon. It was likely the air-launched version of the V-1, which was indeed fired from Heinkel He 111 carrier planes (p. 1841). Alternatively, it might have been some other large, long-range air-to-ground missile, perhaps similar to the RASCAL liquid-propellant rocket that Walter Dornberger began creating (or recreating?) in the United States in 1946.

The V-3 rocket specifications given in the article closely match those of the A-4 rocket that became the real V-2. The diameter was indeed five feet five inches (1.65 meters), the launch weight was indeed 14 tons, the propellant was indeed liquid oxygen ("liquid air") and alcohol, and the rocket was indeed controlled by radio. The one specification that does not match is the stated length of "just short of 60 feet," or approximately 18 meters. The actual A-4 rocket length was approximately 14 meters. This could simply be a mistake in the Allied intelligence or reporting, or it could indicate that 18-meter-long extended versions of the A-4 rocket were being developed or built. The 14-meter A-4 rocket could carry a 1-ton payload of conventional explosives to a maximum range of approximately 350 km. An 18-meter extended version of the A-4 rocket (very similar to the postwar

Soviet SS-2 or R-2 missile that was produced using captured German technology) would have been able to accommodate more propellant, and therefore would have been able to carry a significantly heavier payload, such as a nuclear bomb.

A blast radius of 3000 meters corresponds to an explosive energy of approximately $(3000/85.5)^3 \approx$ 40,000 tons of TNT, definitely nuclear and approximately twice the explosive energy of the first U.S. fission bombs. This suggests that Germany had been developing and was close to deploying a nuclear bomb, and that its large rockets had been intended from the beginning to be delivery systems for that bomb, not merely for conventional explosives.

What exactly did the Third Army discover that formed the basis of this article? Where was "somewhere in France"?

Note that the AP report was delayed for a full week by Allied censors. What details did the censors not allow to be included?

Similar versions of this AP news report were also published in:

> Americans Get Hint of New German Bomb. *New York Times.* 30 September 1944 p. 3.
>
> Hitler's V-3 Said to Blast 2-Mile Area. *Washington Post.* 30 September 1944 p. 5.
>
> Radio Controlled, 14 Ton Projectile New Nazi Weapon. *Blood and Fire* (Journal of U.S. Army 63rd Infantry Division). 30 September 1944 p. 1.]

U.K. House of Lords. 29–30 May 1945.
https://hansard.parliament.uk/lords/1945-05-29/debates/ba5ca4d2-43bd-4623-aa9c-33247efe9a93/LordsChamber
https://hansard.parliament.uk/Lords/1945-05-30/debates/12e7a0c3-87ba-413f-bee6-56c963d90dec/FutureOfDirectedMissiles

29 May 1945 [...]

LORD VANSITTART

had the following Notice on the Paper: To ask His Majesty's Government whether they will take the initiative in proposing to the Allied Governments the inclusion in the terms imposed upon Germany of an Article providing that a permanent Inter-Allied Committee of Scientists should be established to examine and control, and if necessary to prohibit the use by Germany of, any scientific discovery or invention considered dangerous to the safety of mankind; and to move for Papers.

The noble Lord said: My Lords, I venture to think that this Motion speaks for itself. I would suggest that the Prime Minister's last war review speaks for it even more loudly. In the last war the ingenious barbarians sprang gas upon us. That was a prelude. There was an insufficient answer to that. In this war we have had the V1 and the V2. There was only a still more insufficient answer to the V1, and the V2 found no answer at all, or rather it would be fairer to say that the answer was the same as for V3, the multiple long-range artillery described by the Prime Minister which was destined to endow us with five shells per minute. The remedy found was the old-fashioned one of conquering the sites—that is to say, the answer of infantry and not of science. Even that remedy will not always be available, because ranges increase and sites recede. Indeed, the ranges, in a very short while, may be almost unlimited. Even with short ranges we were very nearly too late. If the V1 and the V2 had been brought into action one year sooner they would probably have made an end of this island, and if they had been brought in some years sooner, that is at the beginning of the war, they might well have meant the end of civilization. Therefore, in dealing with a nation that is periodically homicidal, I think no precaution is excessive.

All precautions are indispensable, because without them I think the end might well be the end of an American fairy story which we read when we were very young. No doubt that story was written with an inkling of Reno because they lived happy ever after for quite a little while. I say that because destructive science has got out of hand. German science, like German religion, German economics, German pedagogy, has been very largely militarized and unless we keep a firm hand on it we shall very likely have the V10 in less than ten years. It is not my purpose to paint lurid pictures of cities dissolved by pressing a button, though I suppose that is now within the bounds of possibility. We have had one lesson and it will be our own fault if we have another. [...]

What exactly does all this involve? It involves a good deal, and I submit that a good deal is a good deal better than another raw deal. It involves control of all German laboratories, both industrial and university. That in turn involves the use of an extensive and intensive intelligence service which must be drawn from all the Allies. [...]

30 May 1945 [...]

LORD BRABAZON OF TARA

[...] The V2 was a very different machine altogether, and I want to draw attention to some of

the possibilities of the V2 before we forget it altogether. Your Lordships must remember that this propelling power is entirely in its infancy. This projectile goes up forty or fifty miles in its flight. There is no limit at all to the range it can go to because the resistance is so small at those heights. I want your Lordships to remember that although the charge was only about a ton in the case of the V2, in the future the effect of the power of explosives is going to be very much bigger than that which we have to-day. The noble Lord who is to reply is a physicist and I should like him to tell us, if he can, what are the possibilities of explosives of an atomic type, because there are absolutely frightening possibilities. Consequently this weapon is one which is bound to be developed. It is the physicist's dream or nightmare that he can produce these terrible explosives. [...]

I can well imagine some people, with mischief in their hearts, planning what they can do. And what can they do: They can rope off a few miles of their own hilly country, they can sink shafts, nominally mining shafts, they can make the parts of this instrument all over their country, assemble them in the mine, and be all ready for a really efficient V2 attack upon their selected enemy. I want you Lordships to remember this, that you will see no apparent Army, you will see no apparent Air Force, you will see no apparent Navy, but they will have the power latent to launch an attack on the great cities of their enemies and the power to devastate them the moment they declare war. Before Armies can possibly assembled, let alone march, the great cities of the enemy will be destroyed. I hope you will not think for a moment that I am wrong when I say that these weapons, with the new power of the explosives which are possible and with the new accuracy of direction, are not only things which can be directed against this county. They can be directed against America and if the resources in manufacturing power of a great country like America are destroyed, as they could be in twenty years' time, we must look upon the fact that we are tied up to America and if she goes we go. Consequently this power of attack, which might be developed quietly in any part of the world, is a danger we must face. [...]

THE EARL OF DARNLEY

[...] This method of warfare may possibly in the future not only destroy humanity but also destroy the globe on which humanity resides. That sounds fantastic but from the information I have been able to get I believe it is not as fantastic as it sounds. The atomic bomb, so the Press tells us, was in a state of three-quarters preparation at the end of the war and may possibly in a generation accomplish even this.

But before discussing what must be the final fatuity of mankind, it is necessary to look a little, as the noble Lord has done, into the future of the flying bomb and the rocket. As he told us so ably and humorously, it only needs a little imagination to see what might happen from the enlargement and perfection of these two missiles. He has told us that the war of the future may last only a few minutes, and as it is now the fashion to make war without any warning the whole thing would be over before anybody is even aware that it has taken place. The first man to touch the trigger will achieve possibly the complete paralysis of his adversary by methods against which there can be no possible defence. Navies and Armies and Air Forces will be completely useless and even the other defences of Press and propaganda will be similarly completely useless. The fighters of the future will be a band of troglodytic alchemists living in catacombs in hidden valleys who will deal out inhuman death to millions and destruction to a world whose beauties and whose interests they have long since given up the art of appreciating. The machinations of these people will remove the last vestige of the so-called romance and chivalry from the original war which the noble Lord so amusingly described.

And then as to the atomic bomb. I am not speaking as an expert, I am merely passing on what I have seen described in the Press, as others of your Lordships have seen it, and perhaps the noble Lord who is going to answer will be able to give me some further information upon it. It was stated in the Press that a bomb as big as a man's hand was ready, or almost ready, for use at the end of the war, and that it could have destroyed the whole of a city as large as London. When this atomic bomb is added to these brainless horrors of metal and explosives, which we have heard about to-day, I believe—and again I ask for information from the noble Lord who is going to reply—that it may possibly be a fact that the release of the cohesive particles of the atom, which at present can only be released through intensive bombardment by great electric force, may cause such a violent reaction that the force engendered may be sufficient to release the coherence in the atoms contiguous to the explosion. If this is the case, every atom in the world might disintegrate and the whole globe disappear. Is this, then, the frightful possibility envisaged by the marriage of force and science and their use as a method of settling human disputes?

[Although the theoretical possibility of atomic bombs had been publicly known for many years, in May 1945 the Manhattan Project had not yet produced an operational atomic bomb. The fact that the United States (with British assistance) was trying to produce an atomic bomb was highly classified and probably unknown to the members of the House of Lords, and they certainly would not have publicly discussed that program if they had known of it.

The repeated references by the members appear to be to German atomic bombs. They even stated that "a bomb [with a fission pit] as big as a man's hand was ready, or almost ready, for use at the end of the war, and that it could have destroyed the whole of a city as large as London," and they repeatedly pointed out the viability of German rockets as a delivery system for such a bomb. They spoke of devastating attacks against numerous British and American cities.

Although the members attributed that information to "the Press," media mentions of atomic bombs were heavily censored until August 1945, and there do not appear to have been any newspaper articles that provided this detailed information by May 1945.

The most straightforward explanation is that these members of the House of Lords had received information from wartime and early postwar Allied investigations of German programs to develop atomic bombs and advanced rockets to carry them. Can any relevant information be located among the archived papers of these members?]

Germany Calls on Allies to Turn the Other Cheek. *Toronto Daily Star*. 30 June 1945 p. 6. https://news.google.com/newspapers?id=O7E7AAAAIBAJ&sjid=KisMAAAAIBAJ&pg=719,18615434

London, June 30—(BUP)—The Germans came within six months of splitting the atom and possibly destroying the world in the process, Herbert Agar, special assistant to the U.S. ambassador, said in a speech last night.

"If the war had gone on another six months, it was quite possible that this planet would have ceased to exist, because it was probable that someone would have learned to break the atom without controlling it," Agar said.

"There was a danger that the Germans would learn how to split it first, and our scientists gave the date as Aug. 6 of this year. I sincerely believe that in a very few years human beings will know how to destroy the human race."

[In June 1945, Agar appeared to suggest that Germany planned its first nuclear attack for 6 August 1945. If that information was correct, the planned date may have been determined both by the production schedule of the weapon and its delivery system and also by the historical significance of that date for Germans. On 6 August 1870 Germany (still in the process of uniting under Prussia) won decisive battles against France, and on 6 August 1914 Germany launched its first U-boats to fight World War I. Later, 6 August 1945 turned out to be the actual date that the United States launched its first nuclear attack, on Hiroshima. Was that simply an extraordinary coincidence, or was the Hiroshima date chosen in part to send a political message to anyone who knew about the earlier German plans? See also:

- Atomic Bomb Discovery of Germans Told. *Los Angeles Times*. 20 July 1945 p. 5.
- Description of New Bomb Called 'Leak.' *Syracuse Herald-Journal*. 21 July 1945 p. 7.
- Germans Aimed to Split the Atom. *The Scotsman*. 30 June 1945 p. 5.
- Splitting of Atom within Grasp. *The Mercury* (Hobart, Tasmania). 2 July 1945 p. 2.
- World Saved by 6 Months. *The Courier-Mail* (Brisbane, Queensland). 2 July 1945 p. 1.]

G. Verner Edlund to Leslie Groves. 2 July 1945. Cable 44165. [NARA RG 77, Entry UD-22A, Box 160, Folder APR 45–Dec. '45]

From: US Military Attaché, London, England
To: War Department
Nr: 44165 2 July 1945

To MILID from Edlund for Davis to Groves for Smith serial number 44165. TOP SECRET.

London papers 30 June mention speech here by Commander Herbert Agar, Special Assistant to American Ambassador to the effect that someone would have learned TA [tubealloy—nuclear technology] without controlling it if war had continued another six months, danger that Germans would have learned first and our scientists gave the date as 6 August. Will interview subject and transmit clippings and report forthwith.

End

ACTION: Gen Groves

Monthly Intelligence Summary. April–June 1945. [NARA RG 77, Entry UD-22A, Box 168, Folder 202.3-1 LONDON OFFICE: Combined Intell Rpts.]

XII CENSORSHIP.

The period covered by this report has been marked by an increase in the problem of keeping newspapers in the U.K. from printing stories undesirable from a TA standpoint. An increasing tendency on the part of both the press and the censorship authorities to excuse stories on grounds of previous publication has been noted. A system is now in effect in U.S. whereby stories on TA, which are submitted to Censorship, are passed on to editors with a note asking that they not be published. Admiral THOMPSON, Chief Press Censor of the Ministry of Information, remains firm in his opposition to sending a circular to editors asking them not to print any reference to TA.

Colonel WARDEN, Chief Press Censor, SHAEF issued a directive to all SHAEF Censors ordering them to stop all TA stories regardless of previous publications.

The most embarrassing incident from the Censorship standpoint occurred when British papers carried a story reporting a speech by Commander AGAR, Special Assistant to the American Ambassador to Great Britain, in which AGAR stated that, "Had the war gone on a little longer, our scientists believed the Germans would have perfected TA." This story resulted in several inquiries from the Press as to whether they would still be expected to refrain from printing stories on this subject. All such inquiries were answered in the affirmative.

Stories dealing with the sabotage of the heavy water plant at Norsk Hydro (Norway) also appeared in print during the period.

A party of SHAEF correspondents was taken to Norsk Hydro on a facility visit as a result of which fifteen stories were submitted to censorship authorities. These stories were all stopped.

Patrick S. Washburn. 1988. The Office of Censorship's Attempt to Control Press Coverage of the Atomic Bomb during World War II.
https://files.eric.ed.gov/fulltext/ED295201.pdf

Yet, several days later, another "very bad bust," as it was labeled by the Office of Censorship, originated in London. Cmdr. Herbert Agar, assistant to the U.S. ambassador to Great Britain, gave an address at an English college on June 29 that made no mention of atom splitting. However, three London newspapers obtained copies of his speech which contained some remarks that were deleted. These included the fact that American scientists estimated the Germans might have been able to split the atom by August 6, and thus if the war had lasted another six months, the Germans may have dominated the world.

The London newspapers rushed Agar's written comments about atom splitting into print without checking with the government to see if they should be used, and then every American wire service filed stories. Since these were based solely on the newspaper stories, the English censor could not stop them because of prior publication. Agar was severely reprimanded by both the Navy and the American ambassador for being careless, but the Office of Censorship refused to try to get the wire services to suppress copy that had been approved by a foreign censor. However, it did discourage attempts by the United Press and others to further develop Agar's remarks.

Charles A. Crowley to W. F. Heimlich. 31 August 1945. Headquarters United States Air Forces in Europe (Main). Berlin Intelligence Party. German V-1 and V-2 Personnel. [AFHRA C5094 frames 0957–0958]

1. In view of the fact that the wants of USAFE on V-1 and V-2 personnel have been satisfied, I am inclosing information on those men whose evacuation we have recommended. My memory of the conversation which we had a few weeks ago is to the effect that USFET was still anxious to either exploit or to know the exact location of these individuals. The list follows:

[...] g. Gerald Klein (Dr.), Dipl.-Eng., Manager of LGW.
Address: Berlin-Dahlem, Hohe Ähren 10b.
Specialty: Electrical flying control, V-2 control. A very efficient electrical engineer. Developed V-2 control devices. Worked at Peenemünde and later became group director of atomic devices in RLM. At present being used by the British. Evacuated by "T" Force.

[See document photo on p. 5020.

Dr. Gerald Klein was listed as the manager of "LGW," which was the Luftgerätewerk Hakenfelde A.G., part of the huge Siemens electrical company. If wartime Germany never had atomic devices or even serious plans to make them, as maintained by official histories, why did the RLM or Reichsluftfahrtministerium (Ministry of Aviation) have an entire group dedicated to atomic devices, of which Dr. Klein was the director? Note that Dr. Klein was evacuated by T-Force and "used by the British" after the war. Where are the reports on his interrogations? Where are the reports on his postwar work for the United Kingdom, or perhaps for other countries after that?

The Halstead Exploitation Centre is an example of a case where there seems to have been an especially large overlap between the interrogation of German-speaking scientists and collection of German-language reports on one hand, and the postwar development of British nuclear weapons on the other hand. See pp. 2127–2129 and 4166–4169. Just exactly what role did German-speaking scientists and information play in the British nuclear program?

The U.S. Army Air Forces officers writing and reading this memo seemed to casually understand what it meant that the Reichsluftfahrtministerium had an entire group on atomic devices, with no further explanation required in this memo. They also appeared to know about Dr. Klein from American interrogations of him. Where are the U.S. reports on American interrogations of Dr. Klein? Where are the U.S. reports explaining exactly what the atomic device group of the Reichsluftfahrtministerium was, what it accomplished during the war, and how it related to other nuclear-related work during the Third Reich?]

HEADQUARTERS
UNITED STATES AIR FORCES IN EUROPE (MAIN)
Berlin Intelligence Party

APO 755, U.S. Army.
31 August 1945.

SUBJECT: German V-1 and V-2 Personnel.

TO : Lt.Col. W.F. Heimlich, Executive, G-2, Berlin District Command, APO 755, U.S. Army.

1. In view of the fact that the wants of USAFE on V-1 and V-2 personnel have been satisfied, I am inclosing information on those men whose evacuation we have recommended. My memory of the conversation which we had a few weeks ago is to the effect that USFET was still anxious to either exploit or to know the exact location of these individuals. The list follows:

a. Hermann Wahlhausen, Engineer.
Address: Mariendorf, Prüfstrasse 67.
Specialty: V-1, V-2, and rockets. Did V-weapon design and research work and developed rockets. Appears to be a competent and well educated engineer.

b. Fritz Schultz, Shop Superintendant.
Address: (Business) Argus Motorenbau, Berlin-Reinicken-dorf, Flottenstr. 39-42.
(Home) Berlin-Lichtenberg, Plouzstrasse 1b.
Specialty: Regulators for V-1 power plants (argus tubes).

c. Erich Osterkamp, Engineer.
Address: Mariendorf, Prüfstrasse 67.
Specialty: V-1, V-2, and rockets. Did V-weapon design and research work and developed rockets. A competent and well educated engineer.

d. Hugo Maier, Inspector all Plants.
Address: (Business) Argus Motorenbau, Berlin-Reinicken-dorf, Flottenstr. 39-42.
(Home) Spandau am Südpark 10c (Eng.Zone)
Specialty: V-1 power plants.

e. Gunther Hellweg, Specialist.
Address: Berlin-Wilmersdorf, Hanauerstr. 22.
Specialty: Electric three axis auto-pilots. Did research on a combination automatic pilot and radio direction finder for blind landing devices.

f. Franz Bernard, Civil Engineer.
Address: Falkensee, 45 Reichenhaller Str., Berlin.
BOIC (Wannsee)
Specialty: Experience with combustion chamber of V-2. Appears to have valuable practical knowledge in connection with V-1 and V-2 modification and construction.

- 1 -

g. Gerald Klein (Dr.), Dipl.-Eng., Manager of LGW.
Address: Berlin-Dahlem, Hohe Ahren 10b.
Specialty: Electrical flying control, V-2 control. A very efficient electrical engineer. Developed V-2 control devices. Worked at Peenemunde and later became group director of atomic devices in RLM. At present being used by the British. Evacuated by "T" Force.

CHARLES A. CROWLEY,
Major, AC.

THIS PAGE IS UNCLASSIFIED

AFHRA C5094 frames 0957-0958

Figure D.995: Why did the RLM (Reichsluftfahrtministerium, Ministry of Aviation) have an entire group dedicated to atomic devices, of which Dr. Gerald Klein was the director? Where are the U.S. and U.K. reports on Klein's interrogations, wartime work, and postwar work? [AFHRA C5094 frames 0957–0958]

Nazis Really Had Atom Bomb Almost Ready. *Baltimore Sun.* 8 August 1945, p. 4.

London, Aug. 7 (AP)—Allied sabotage and bombing of experimental stations and plants along the Baltic coast and in southern Norway upset a German timetable to use atomic bombs against Britain last spring, an authoritative informant said today.

"But Nazi scientists had been carrying out experiments along this line for many years and if the war had not ended when it did they likely would have been able to launch attacks," said the informant, who throughout the war maintained contact with underground sources inside Germany.

He said the German super weapon was labeled the V-3 and was planned to follow the softening up work done by the V-1 and V-2.

[This AP story was also carried by other newspapers, for example:
Nazis Planned to Use Atomic Bombs. *Daily Colonist* (Victoria, Canada). 8 August 1945, p. 8.
https://ia800207.us.archive.org/0/items/dailycolonist0845uvic_5/dailycolonist0845uvic_5.pdf]

Future of the Atomic Bomb: Power for Peace or Chaos. *U.S. News.* 17 August 1945, pp. 20-23. www.usnews.com/cmsmedia/94/76/07545cb1465e8d8f022bea2bfc5d/19450817-future-of-the-atomic-bomb-power-for-peace-or-chaos.pdf

The Germans had planned to use the atomic bomb in the warhead of a V-type winged torpedo such as they fired upon England across the Channel. With such a bomb, they might have devastated England. [...]

At the moment, the only defense that military men can think of is to destroy the source of production for atomic bombs. High officials recognize that, if such a weapon were put into the hands of a madman like Hitler, civilization could be destroyed or held in pawn at will.

Awesome Force of Atom Bomb Loosed to Hasten Jap Surrender. *Newsweek.* 13 August 1945, p. 30.

On Sunday morning, August 5 (Washington time), an American airplane flew over Hiroshima, a Japanese army base on the Inland Sea. It dropped a single, small bomb. [...]

Thus the Allied nations had won what the President called "The Battle of the Laboratories" against the Axis. [...]

Metal of the Millennium: German scientists nearly succeeded in solving it. Since the surrender of the Nazi armies, Allied officers have revealed that Germany would have been able to strike with atomic bombs by January 1945, if the invasion had not come six months before. The highest Allied officials knew that such explosives could have won the war for the Axis.

The United States had begun research on them in late 1939. [...]

[This is an astounding public admission that the German nuclear weapons program existed, was actually ahead of the U.S. nuclear program, and drove the timetable for the Allied invasion of Europe during the war. See p. 5010. See also p. 5031 for a very similar admission from General George Marshall, the Chief of Staff of the U.S. Army, in his final public report on the war. That same fact was confirmed by a formerly Top Secret U.S. CIC document on p. 4411, paragraph 15. See also the written statement of Col. George Woods on p. 5073.

What is the true history of the German programs for developing nuclear weapons as well as methods to deliver them to Allied targets? What is the true history of Allied knowledge about those programs, both during and after the war? Where is all of the corresponding evidence stored now?]

Press release, Office of War Information, Franklin-2994, NB-3297, Technical Industrial Intelligence Committee. 25 August 1945. [NARA RG 40, Entry 75, Box 62 (Old 158); NARA RG 208, Entry 198, Box 1042]

Germany's inner war secrets ranged from experiments with the atomic bomb, anti-radar devices, and piloted rocket missiles that they expected to cross the Atlantic in 17 minutes, to butter made from coal, the Office of War Information reported today. [...]

CIOS teams combed Germany for Germany's hidden secrets on weapons, oil production, raw materials, synthetics, new engineering and chemical processes, inventions, patents, finance, economics, and German machinations in the political field.

Already more than 2,000 visits to German "intelligence targets" have been made by CIOS and 3,000 preliminary assessment reports have filtered through military channels to Washington, where they are made available to appropriate agencies. The agencies are authorized to translate the findings into projects useful to the allied cause and for post-war purposes.

Many of the German secrets, at the time CIOS uncovered them were considered of great potential value in the war against Japan and many of them were being adopted for use in the Pacific when the war ended. However, they are also of real value in the long-range control of Germany and also will facilitate technological advances in many industrial fields in peacetime, OWI reported on the basis of information provided by military authorities.

The secrets, it is conservatively estimated, would have saved the Allies many millions of dollars for research and scientific development, if the war had continued to the end of 1945 or longer. They indicate that German invention was far ahead of her capacity to translate theory into industry. The rapid advances of the Allied armies prevented her from putting into practice many of the technological advances evolved in the laboratories of her scientists. These same secrets, in some cases may shortly make some American technical processes obsolete and outmoded.

While German Government files yielded many of the secrets, the intelligence teams, which began to go into action on the heels of General Eisenhower's troops, soon after D-Day, often found vital clues through casual conversation with individuals, through close observation of physical facilities of war plants, in interviews with technical personnel and through meticulous and thorough search for hidden documents. [...]

Some of the more startling of the secrets that may be disclosed at this time, show that not only had Germans made significant progress in the development of an atomic bomb and in the production of "heavy water" but they:

1. Had contemplated a piloted missile with a possible range of 3,000 miles. The designer envisaged commercial applications for trans-Atlantic passenger crossing in 17 minutes.

2. Were working on a formula for new war gases that they hoped would prove more deadly than any chemical agent yet developed.

3. Had specifications and construction details for naval vessels of advanced design, including submarines with high underwater speeds and apparatus for sustained underwater operations.

4. Had developed a system of radar camouflage consisting of anti-radar coverings and coatings to be employed on submarines and other weapons.

5. Had highly advanced jet engine, rocket assisted take-off and aero-dynamics designs.

6. Had found new uses for many staples, as for example, coal. From coal the Germans were making a synthetic butter as well as alcohol of both beverage and industrial types, aviation lubricants, soap, and gasoline.

7. Had designs for various secret types of guns and gun sights, novel gear and transmission construction and air-cooled diesel engines.

Other German war secrets ranged from records on the location of German capital in neutral countries, and the status and composition of German cartels, to specifications of long-range rocket developments that scientists describe as "sensational." In addition to the missile that they expected to have a range of 3,000 miles, the Germans had plans for V-type weapons much more advanced than those which they directed against the British Isles last year. [...]

The numerous German medical and pharmaceutical developments included the production of a "froth" clothing compound. This was designed to insulate and protect aviators lost in arctic waters.

Although many of the synthetics devised by the Germans are pronounced inferior to American products, a number of others are highly advanced. Processes used in their synthetic rubber industry, for example, are being made available to United States war manufacturers.

Similarly, synthetic gasoline and lubricants provide important keys for United States industry; some of the German methods already have been made available to United States produces, and will result in improved products for peacetime use.

Gasoline from coal, eventually to cost little more than the standard petroleum product of today, is also a possibility based on a German war formula. Technological improvements that may result from adaptation of the techniques in United States plants, scientists say, may make this and many other products envisioned by the Germans highly practical from a commercial standpoint.

Designs of long-range German smooth-bore guns that fire rocket-assisted finned projectiles, a "squeeze" gun that obtained higher velocities and longer range through use of a tapered bore, a device for reducing the wear on gun barrels, and data on the substitution of steel cartridge cases for both small and large calibre weapons (thus reducing requirements for copper and other critical materials), are now Allied possessions. Still other German developments range from improved acoustic, magnetic and non-magnetic anti-tank and anti-personnel mines to the use of salt water in electric torpedo propulsion. [...]

CIOS investigations were carried out in the field in two ways. First, Combined Advanced Field Teams, groups of technically qualified men who followed the combat forces, gave a rapid preliminary assessment of the technical value of the targets. More than 200 expert United States and British assessors were continuously in the field during the period of rapid military advance.

Second, following up plans already made and the reports coming back from the assessors, teams of expert scientists and technologists carried out detailed investigations. The number of such visits by July 1945 had exceeded 2,000.

Both the assessments and the investigations were carried out by teams, combining U.S. and British representatives. Government leaders, scientists, industrialists, economists and historians were represented in the groups. The small teams, each made up of experts in a particular field, were attached to the intelligence staff of all the major army commands on the Western Front.

Some of the industrial fields covered were: aeronautics, automotive production, building materials, chemicals, communications, food, forest products, general industrial equipment, liquid fuels and lubricants, machinery, medical wares, metals and materials, railroad equipment, rubber, safety and technical equipment, shipbuilding, solid fuels, textiles and utilities. [...]

The German processes, it was realized, not only would reduce research work in British and United States laboratories, releasing them for other scientific ventures, but would save millions of man-hours in war production and on the fighting fronts and, additionally, might alleviate shortages of some types of war materials. [...]

[See document photos on p. 5026.

The U.S. Office of War Information publicly stated that Germany had conducted "experiments with the atomic bomb," which is an extraordinary statement that cannot (or at least should not) be ignored.

This Office of War Information press release, as well as any related discussions of reporters with officials, prompted numerous newspaper articles such as the following examples, which stated, "The Germans... had reached the experimental stage with the devastating atomic bomb," "an atomic bomb, on which... the Germans had made considerable progress," and "Not all the secrets have been disclosed."]

James E. Chinn, Nazis Almost Had Rocket for Atlantic Hop. *Washington Post.* 27 August 1945.

God blessed America.

Just before the European war ended the Nazis were experimenting with a piloted rocket missile designed to span the Atlantic in 17 minutes, the Office of War Information revealed yesterday as it unveiled a variety of Germany's inner war secrets.

The Germans also, according to OWI, had reached the experimental stage with the devastating atomic bomb, devices to destroy the sight of the all seeing eyes of radar, and new war gases they hoped would prove more deadly than any chemical agent yet developed. And that's not all.

Many More "Up Sleeve" [...]

ADVANCE RELEASE — ADVANCE RELEASE

Franklin-2994 — NB-3297

OFFICE OF WAR INFORMATION

ADVANCE RELEASE:
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P.M., EWT, Sunday, August 26, 1945

Germany's inner war secrets ranged from experiments with the atomic bomb, anti-radar devices, and piloted rocket missiles that they expected to cross the Atlantic in 17 minutes, to butter made from coal, the Office of War Information reported today.

How these German war secrets began to be unlocked by American and British experts long before V-E Day was officially revealed today. The announcement included a statement on the scope and value of some of the secrets disclosed. Many of them were being adapted by United States and British technologists for use against the Japanese when the war ended, OWI reported. The thoroughness of the search for German war secrets foreshadows a similar probe for the secrets now locked in Japan, OWI added.

Some of the more startling of the secrets that may be disclosed at this time, show that not only had the Germans made significant progress in the development of an atomic bomb and in the production of "heavy water" but they:

1. Had contemplated a piloted missile with a possible range of 3,000 miles. The designer envisaged commercial applications for trans-Atlantic passenger crossing in 17 minutes.

2. Were working on a formula for new war gases that they hoped would prove more deadly than any chemical agent yet developed.

3. Had specifications and construction details for naval vessels of advanced design, including submarines with high underwater speeds and apparatus for sustained underwater operations.

4. Had developed a system of radar camouflage consisting of anti-radar coverings and coatings to be employed on submarines and other weapons.

5. Had highly advanced jet engine, rocket assisted take-off and aero-dynamics designs.

6. Had found new uses for many staples, as for example, coal. From coal the Germans were making a synthetic butter as well as alcohol of both beverage and industrial types, aviation lubricants, soap, and gasoline.

7. Had designs for various secret types of guns and gun sights, novel gear and transmission construction and air-cooled diesel engines.

Other German war secrets ranged from records on the location of German capital in neutral countries, and the status and composition of German cartels, to specifications of long-range rocket developments that scientists describe as "sensational". In addition to the missile that they expected to have a range of 3,000 miles, the Germans had plans for V-type weapons much more advanced than those which they directed against the British Isles last year.

Figure D.996: Excerpts from press release, Office of War Information, Franklin-2994, NB-3297, Technical Industrial Intelligence Committee. 25 August 1945 [NARA RG 40, Entry 75, Box 62].

17-Minute Oversea Rocket Plane Among Germany's War Secrets. *New York Times.* 27 August 1945 p. 10.

American and British technicians, closely and quickly following the Allies' military advances across France and Germany, have taken possession of a wealth of information about German "secret weapons" on which the enemy counted so much but that he did not have time enough to develop.

Besides an atomic bomb, on which, as has been made known, the Germans had made considerable progress, German scientists and engineers had developed a defense against radar and experimented on piloted rocket missiles that it was thought would be capable of crossing the Atlantic in seventeen minutes. These and many other German war secrets were disclosed today by the Office of War Information in reporting on the operations of a combined American and British intelligence organization that made daring forays on targets containing vital war information. [...]

They concentrated on the "targets" believed to be richest in vital information on weapons, oil production, raw materials, synthetics, new engineering and chemical processes, inventions, patents and machinations in finance, economics and politics.

More than 2,000 missions to such "targets" have already been made, and the information obtained was estimated by the receiving authorities as being worth "millions of dollars" in research and scientific development. The findings indicated, the OWI reported, that "German invention was far ahead of her capacity to translate theory into industry.

The rapid advances of the Allied armies prevented her from putting into practice many of the technological advances evolved in the laboratories of her scientists," the OWI said. It added that some of the unlocked secrets might soon make some American technical processes "obsolete and outmoded."

Some Secrets Unrevealed

Not all the secrets have been disclosed, but the most startling ones were said to pertain to the development of the atomic bomb and the production of "heavy water," used in one method of making the bomb. The defense against radar was a system of radar camouflage consisting of anti-radar coverings and coatings. It would be employed, presumably, on submarines and other weapons.

The Germans contemplated a piloted missile with a possible range of 3,000 miles. The designer envisioned for it a commercial application for flying passengers across the Atlantic in a little more than a quarter hour.

[Also reported in:

The Times (London). 27 August 1945.

Nazis Had 10,000 mph Atom Plane—In Theory. *Eighth Army News.* 28 August 1945.]

***Interview with Brig. Gen. Thomas J. Betts by Dr. Maclyn Burg, Oral Historian.* 18 October 1973. Dwight D. Eisenhower Library. pp. 277–289, 294–295, 297–298. https://www.eisenhowerlibrary.gov/sites/default/files/research/oral-histories/oral-history-transcripts/betts-thomas.pdf**

BETTS: Well, we got to this office of Stalin's, which was a long, narrow room with a rather small desk at one end. And between the desk and the door was a long, green beige-covered table. And there was Stalin. He came to see us, very pleasantly, and his first remark was, "Well, I'm happy to tell you that I responded to your pleas and have started an offensive to take the pressure off you in the Bulge." [...A]t the onset of the Bulge, Churchill had sent a personal message to Stalin saying, in effect, "We're in dire peril and will you please exert all possible pressure on the eastern front until we solve this Bulge problem." [...I]t took us from the 1st of January to the 14th to get to the Kremlin. [...]

BURG: So he was not alone in the room when you entered.

BETTS: No, he had an interpreter and he had a General [A.I.] Antonov, A-n-t-o-n-o-v[....] Who was the deputy chief of staff. The chief of staff, I think, at that time was—I think it was Malenkov, but I'm not sure. But the story in Russia, in Moscow, at the time was that the way Stalin really ran the war was that he sent the chief of staff out to inspect the armies and the army groups and shoot whatever generals were necessary, and Antonov was the office man who kept the papers going and worked out the policy. Stalin himself, apparently, did not inspect troops. He did not go out to the front. [...]

BURG: [...] Now was Air Marshal Tedder, in effect, presenting the allied case?

BETTS: [...] Tedder then just made the pitch that I described at the beginning here: mainly, that we were hoping that—we were expecting to close the Rhine, of course, in March—and we were hoping that even if the Russians could not put on an offensive at that time, that they would create enough of a disturbance so that the Germans would not reinforce the front. And Stalin shook his head and agreed. He said that they, that he understood, that, in effect, they had already started their offensive, which they had. They had started on the, I think the 13th or 14th, and at that time their armies were well into Poland. They had not reached German soil yet anywhere.

[Stalin and General Antonov were the recipients of the very best Soviet intelligence on the German nuclear weapons program (4481–4493). In particular, by the time of this January 1945 meeting they had already received the November 1944 intelligence report on p. 4481.

General Thomas J. Betts appears to have played an important role in many world events from the 1920s through at least the 1950s, and he deserves far more study from historians than he has received. For the barest overviews, see:

> https://www.washingtonpost.com/archive/local/1977/05/26/retired-army-officer-served-in-intelligence/aac29316-adc0-469d-b194-c015297f360e/
>
> https://generals.dk/general/Betts/Thomas_Jeffries/USA.html

Since August 1944, General Betts had been the chair of the Combined Intelligence Objectives Subcommittee (CIOS) in charge of investigating and transferring Germany's most advanced technologies. He was also the Assistant Chief of Staff for Intelligence (G-2) at Supreme Headquarters Allied Expeditionary Forces (SHAEF) under Eisenhower. He appears to have been closely connected to the OSS and continued to work for the CIA until at least 1958. Thus he was in ideal positions to receive the best western Allied intelligence on the German nuclear weapons program. Indeed, he wrote some astonishing details about the German program to develop nuclear weapons and delivery vehicles for them (p. 5030) while admitting that some information could not be publicly disclosed, and he concluded that the U.S. Alsos Mission had failed to properly investigate that program (p. 3287).

The fact that someone with the position and knowledge of General Betts was sent all the way to Moscow to meet with Stalin and Antonov in January 1945 is truly extraordinary, and virtually unknown apart from his remarks in this obscure interview. From Betts's description of his mission, the U.S./U.K. and the Soviet Union were desperate to overrun German territory as soon as possible. At the very least, the U.S./U.K. intelligence and the Soviet intelligence on the German nuclear program would have been an unstated yet fundamental motivation for that strategy and for the meeting. Is there any archival evidence that something actually was stated, that the U.S./U.K. and the Soviet Union shared any intelligence on the German program during this January 1945 meeting or in other ways and times?

What more did General Betts learn about wartime German work when he served as the U.S. military attaché in Poland after the war, and in his other postwar positions?]

R. P. Linstead and T. J. Betts. 15 September 1945. *The Intelligence Exploitation of Germany. Report of Combined Intelligence Objectives Subcommittee.* G-2 Division, SHAEF. Ch. 4, pp. 37, 47–51. [AFHRA A5186 electronic version pp. 904–1026]

Certain items have been omitted because of security considerations. [...]

United States and British specialists have obtained complete information covering all German directed missiles from the pioneer model "A sub-o", which employed oxygen and alcohol fuel in attaining a range of 18 miles, to the latest model of the A-9 which was capable of a 3400 mile per hour speed and a range of 2400 miles. The A-9 was an improved development of the V-2 or A-4, and was equipped with wings thereby enabling it to level off at a height of 70,000 feet. One model of this missile was equipped with a Lorin tube which provided propulsion at the peak of the trajectory, the missile was expected to result in a maximum range of 2400 miles. Other variations of this model were capable of attaining altitudes 60 miles above the earth's surface and speeds in excess of 7300 feet per second. Improved radio controls were developed to supercede the "integrating accelerometer" used in early V-weapons. Some measure of the accuracy which could be achieved with these controls is evidenced by the fact that the radio controlled models were capable of an accuracy of plus-or-minus 150 feet in contrast to a plus-or-minus 50 mile error inherent in the V-2.

German scientists engaged in directed missiles envisaged important commercial applications of the long range missile. Experiments had already been conducted on piloted models. Missiles capable of trans-Atlantic crossings in approximately 40 minutes were found on design boards and scale models were undergoing wind tunnel tests. Amazing performances were considered practical because of the lessened atmospheric resistance and gravitational pull in stratospheric regions. [...]

Of particular significance were the statements, made by German experts in the rocket and controlled missile field, that much of the priority accorded their work by the German High Command was in anticipation of the use of atomic explosives. These authorities stated that KWI had repeatedly assured Hitler that an atomic explosive would be available for use within a comparatively short time. During the last months of work by the Peenemünde staff, V-weapons were designed with much smaller war-heads. Quite possibly this trend was in anticipation of the successful development of a German atomic explosive.

[See pp. 5446–5447 for photos.

This report was written by the CIOS chairs, U.S. General Thomas Jeffries Betts, Deputy G-2 of SHAEF (pp. 3287, 5028–5029), and U.K. Ministry of Supply chief advisor and F.R.S. Professor Reginald Patrick Linstead. Based on specific discoveries by their CIOS investigators, these high-ranking officials reported that "the latest model of the A-9 ... was capable of a 3400 mile per hour speed and a range of 2400 miles," and that "experiments had already been conducted on piloted models." That statement sounds like a description of completed hardware, not a mere drawing board design. What specific hardware and information were discovered that are not discussed in the presently unclassified reports? Can any reports that are still classified be located and released?

The CIOS chairs also reported that Hitler, the German High Command, and the leading experts in the rocket programs had been "repeatedly assured ... that an atomic explosive would be available for use within a comparatively short time." Thus the CIOS chairs contradicted the public statements of the Alsos Mission and confirmed that there was indeed a German program to develop an atomic bomb, and that it was far more than a paper design program—its hardware had passed through sufficient development, production, and testing by the end of the war that it was ready or nearly ready to be used in combat.]

General George C. Marshall. 1 September 1945 (publicly released 10 October 1945). Third and Final Biennial Report to the Secretary of War. In George C. Marshall. 1996. *Biennial Reports of the Chief of Staff of the United States Army to the Secretary of War: 1 July 1939–30 June 1945.* Washington, D.C.: U.S. Government Printing Office. pp. 132, 210. https://history.army.mil/html/books/070/70-57/CMH_Pub_70-57.pdf

Victory in this global war depended on the successful execution of OVERLORD. That must not fail. Yet the Japanese could not be permitted meanwhile to entrench in their stolen empire, and China must not be allowed to fall victim to further Japanese assaults. Allied resources were searched through again and again, and strategy reconsidered in the light of the deficiencies. These conclusions seemed inescapable: France must be invaded in 1944, to shorten the war by facilitating the advance westward of the Soviet forces. At the same time German technological advances such as in the development of atomic explosives made it imperative that we attack before these terrible weapons could be turned against us. In addition, the pressure on the Japanese in the Pacific must not be relaxed. Communications with China must be reopened. Resources were allocated accordingly. The balance was extremely delicate but we had to go ahead. [...]

Between Germany and America in 1914 and again in 1939 stood Great Britain and the USSR, France, Poland, and the other countries of Europe. Because the technique of destruction had not progressed to its present peak, these nations had to be eliminated and the Atlantic Ocean crossed by ships before our factories could be brought within the range of the enemy guns. At the close of the German war in Europe they were just on the outer fringes of the range of fire from an enemy in Europe. Goering stated after his capture that it was a certainty the eastern American cities would have been under rocket bombardment had Germany remained undefeated for two more years. The first attacks would have started much sooner. The technique of war has brought the United States, its homes and factories into the front line of world conflict. They escaped destructive bombardment in the second World War. They would not in a third.

[See also p. 5022 for a very similar public admission.

The same facts were confirmed by a formerly Top Secret U.S. CIC document on p. 4411, paragraph 15.

See also the written statement of Col. George Woods on p. 5073.

George Marshall was the Chief of Staff of the U.S. Army during World War II, responsible for the overall conduct of the war in both Europe and the Pacific. From that lofty position, he received reliable intelligence that:

1. "German technological advances such as in the development of atomic explosives made it imperative that we attack before these terrible weapons could be turned against us," thus necessitating his decision to launch Operation Overlord in early June 1944. The statement and decision suggest a potential timeline:

    (a) The United States received intelligence reports of an advanced German nuclear weapons program no later than late 1943.

    (b) Those intelligence reports indicated that Germany could have a functional nuclear weapon as soon as summer or autumn 1944.

2. "At the close of the German war in Europe," American cities "were just on the outer fringes of the range of fire from an enemy in Europe." That statement suggests that:

   (a) No later than April 1945, Germany had developed one or more methods of delivering a payload to the United States: intercontinental jet bombers, intercontinental ballistic missiles, and/or submarine-launched missiles.

   (b) No later than April 1945, Germany had developed a payload so destructive that it justified the enormous expense of delivering it to the United States: presumably a nuclear weapon.

Where did Marshall's wartime intelligence come from? Where are those reports now?

What did the United States discover after the war that apparently confirmed that intelligence? Where are those reports and any collected materials now?

Marshall's statements suggest that there were profound reasons behind the ways that Germany and the Allies prosecuted the war that have been omitted from history books ever since.

Marshall's statements also appear to contradict the public conclusions of the Alsos Mission.]

George C. Marshall. Text of Marshall's Address Warning of Peril in Loss of Concept of World Responsibility. *New York Times* 30 October 1945 p. 6.

In the current emotionalism of the hour we turn for relief from positive action to new theories, new discoveries—the supersonic rocket, of atomic power or explosion. If these remarkable products of our science are merely to turn us from action to inaction on one plea, one theory or another, they may well have a more tragic influence on the destiny of the United States than the most pessimistic fear they will have on civilization. I have been considering the military ramifications of atomic explosion for more than two years, since my job placed me in the middle of the grim race toward this scientific power. I think I have—if only because of my head-start—spent much more time than most Americans thinking about such bombs and what they will mean to military operations as well as to civilization at large.

I cannot escape the conclusion that the possibilities of atomic explosion make it more imperative than ever before that the United States keep itself militarily strong—and use this strength to promote cooperative world order.

No one can foresee unerringly into the future but it is not hard to predict that supersonic atomic rockets will have a profound influence on any war that ever again has to be fought. But, rather than decrease the necessity for our preparation, both in manpower and materiel, this terrible new weapon will tremendously increase it.

The present public apathy regarding our military obligations for the future comes as no surprise to me. [...]

Eisenhower to See Bomb: He Tells California Group He Will Watch Tests in Pacific. *New York Times.* 23 February 1946 p. 14.

Gen. Dwight D. Eisenhower, Army Chief of Staff, will witness the atomic bomb tests in the Pacific in May[...]

There was no thought of using the atomic bomb on Germany, General Eisenhower said.

"My main concern was that the Germans did not get the atomic bomb to use on us," he asserted.

Dwight D. Eisenhower. 1948. *Crusade in Europe.* Ch. 13–14, pp. 229, 258–260.

Alarming Intelligence reports concerning the progress of the Germans in developing new long-range weapons of great destructive capacity also indicated the advisability of attacking [launching D-Day] early.

From time to time during the spring [1944] months staff officers from Washington arrived at my headquarters to give me the latest calculations concerning German progress in the development of new weapons, including as possibilities bacteriological and atomic weapons. These reports were highly secret and were invariably delivered to me by word of mouth. I was told that American scientists were making progress in these two important types and that as a result of their own experience they were able to make shrewd guesses concerning some of the details of similar German activity. All of this information was supplemented by the periodic reports of Intelligence agencies in London. In addition, aerial photographs were scrutinized with the greatest care in order to discover new installations that would apparently be useful only in some new kind of warfare.

The finest scientific brains in both Britain and America were called upon to help us in evaluation and in making estimates of probabilities. Our only effective counteraction, during the preparatory months of 1944, was by bombing. We sent intermittent raids against every spot in Europe where the scientists believed that the Germans were attempting either to manufacture new types of weapons or where they were building launching facilities along the coast.

During this long period the calculations of the Intelligence agencies were necessarily based upon very meager information and as a consequence they shifted from time to time in their estimates of German progress. Nevertheless, before we launched the invasion, Intelligence experts were able to give us remarkably accurate estimates of the existence, characteristics, and capabilities of the new German weapons.

[...]

On June 12, 1944, the first flying bomb, known as V-1, reached London. The V-1 [...] contained a large amount of explosive which detonated upon contact, and the blast effect was terrific. The first V-2 was not used until early August. [...]

The V-2 bomb was particularly destructive when it fell directly into a structure of some kind. Owing to its speed, it penetrated deeply into the ground and its great explosive effect was exerted directly upward. As a consequence, when it fell into open spaces it was relatively ineffective, but so great was its explosive charge when it hit a building that destruction was almost complete.

The development and employment of these weapons were undoubtedly greatly delayed by our spring bombing campaign against the places were we suspected they were under manufacture. Peenemünde, in Germany, was known to be one of the largest of the German experimental plants and periodically we sent large formations of bombers to attack that area. There were other places indicated to us as suspicious. One was Trondheim, in Norway, where we thought that the Germans were engaged in atomic development. We also bombed the suspected launching sites along the coast of northwestern Europe, where our reconnaissance photography showed numerous facilities and installations that could not be interpreted in terms of any known weapon. These areas were continuously hammered.

The effect of the new German weapons was very noticeable upon morale. [...]

It seemed likely that, if the German had succeeded in perfecting and using these new weapons six months earlier than he did, our invasion of Europe would have proved exceedingly difficult, perhaps impossible. I feel sure that if he had succeeded in using these weapons over a six-month period, and particularly if he had made the Portsmouth-Southampton area one of his principal targets, Overlord might have been written off.

[Eisenhower's statements seem to agree with Marshall's statements about the very real and very urgent nuclear danger from Germany.

According to Eisenhower, U.S. intelligence information about the German nuclear program was so secret that it was only given to him in oral presentations, not in writing. That can help explain the absence of surviving documents in U.S. archives. Just how much did top U.S. intelligence officials know about the German nuclear program, and how did they know it? The time period that Eisenhower described was in early-mid 1944, long before the Alsos Mission, which in any event reported negative findings.

What German nuclear weapons development was being conducted at Trondheim? According to official histories, the only significant nuclear-related work in Norway was heavy water production in the Vemork area (pp. 4027–4041), but that was hundreds of kilometers to the south of Trondheim, so it seems unlikely that Eisenhower confused the two locations. For another report of German nuclear weapons development in Norway, see p. 5011. For two other sources that may be related, see pp. 4436 and 4404.]

Army To Use V-2 Bombs To Test Radar As Atom-Rocket Defense. *New York Times.* 1 March 1946 p. 1.

WASHINGTON, Feb. 28—The Army Air Forces disclosed today that it was seeking a means of protecting the United States against possible future atomic bombardment by experimenting with techniques for radar detection of captured German V-2 rockets.

Brig. Gen. William L. Richardson, chief of the Air Staff's Guided Missiles Division, explained that the idea was to devise a means of detecting and "tracing" by radar the enemy rockets as they came whizzing through the stratosphere at 3,000 miles an hour. [...]

General Richardson said that it was important that a means be found "as quickly as possible" to defend the United States against "a sudden enemy rocket attack."

He stated that the Air Forces had been working on rocket defense since 1943, and also stressed that, through the recently activated First Experimental Guided Missiles Group, it was conducting "extensive research" in offensive uses of rockets.

[General Richardson's desperation to find a means "as quickly as possible" to defend against "a sudden enemy rocket attack" by nuclear-armed German rockets suggests that some other nation already had that capability. Did he know that Germany had already developed that capability, prompting him to worry that German engineers would confer that capability on the Soviet Union?

The next article strongly suggests that General Richardson did indeed know that wartime Germany had developed, or at least nearly finished developing, both nuclear weapons and intercontinental rockets capable of carrying them.]

Reveal Nazis Planned Rocket to Blast N.Y. at 6000 MPH. *Indianapolis Times.* 2 August 1947, p. 4. https://newspapers.library.in.gov/?a=d&d=IPT19470802.1.4

A-9 Was Designed to Employ Booster Weighing 190,000 Pounds for Acceleration

By Science Service

WASHINGTON, Aug. 2—The Germans planned a bomb to cross the Atlantic and blast New York. It was a rocket to be started on its long journey by another rocket which detached itself when its job was done.

This was revealed today by Brig. Gen. William L. Richardson of the U.S. Army Air Forces.

Gen. Richardson, chief of the A.A.F. Guided Missiles and Air Defense Division, spoke as a guest of Watson Davis, director of Science Service, on "Adventures in Science," heard over the Columbia network.

The Germans, he said, developed several rockets known as the "A" series. The V-2, used against London, was one of these. Although it was the only one of this series to be used operationally in the last war, it is not hard to visualize what might have been in store for the Allies had the Germans been given sufficient time to complete developments.

Acid Used in Fuel

Each of the "A" series was developed primarily for research, with the exception of the A-4, later known as the V-2. The A-10 was the end result toward which this whole program was directed. This is the weapon which the Germans expected to use in bombing New York.

The A-10 was described by him as a booster rocket placed behind the A-9, giving it two-step co-operation to secure ranges of 3000 miles. The A-9 was much like the A-4, more familiarly called the V-2, with wings added to give increased range and using acid as an oxidizer in its fuel.

The A-10 was never actually constructed. However, all design studies and computations had been completed. It appears that it could have been built and used if the Germans had been given another year of development and production.

Speed Put at 6000 M. P. H.

The total weight of the A-10 was to have been 190,000 pounds. The weapon was nearly 12 feet in diameter and 25 feet long. The 29,000-pound A-9 was to have been accelerated to a speed of 2500 miles per hour by the use of the A-10 as a launching rocket, which detached itself and would drop free after serving its purpose.

It was the A-9 that would reach the target. Its rocket motor would be turned on when the A-10 dropped. This would increase its speed to about 6000 miles an hour. It would have carried a warhead of about 2000 pounds. This is a payload of only 1 per cent of the starting weight of the weapon, but there is evidence to believe, he stated, that the Germans intended to utilize an atomic warhead which would have made this weapon extremely deadly.

[The same article was also published as:

> Nazis Planned Bomb to Blast New York. *Brooklyn Daily Eagle.* 2 August 1947, p. 3. https://bklyn.newspapers.com/image/52866650/

General William L. Richardson would have been a highly knowledgeable and very sober source for this information. For more information on him, see:

> https://www.af.mil/About-Us/Biographies/Display/Article/105809/major-general-william-l-richardson/
>
> https://media.defense.gov/2020/Apr/29/2002290975/-1/-1/0/200429-F-XX123-2007.JPG

As General Richardson would have known very well, it would take many years of large-scale work to go from the paper design of an intercontinental rocket to an operational and mass-produced system. Likewise it would have taken many years of work to go from the paper design of a nuclear weapon to a deployable nuclear warhead suitable for launching on the rocket. He told Science Service that Germany would have soon possessed both intercontinental rockets and nuclear warheads for them if the war had not ended when it did. Therefore he must have had considerable evidence that production and testing of intercontinental rockets and nuclear warheads were in the final stages when the war ended.

What evidence did General Richardson have, and where is that evidence stored now?]

Charlotte Knight. 1946. German Rocketeers: German Rockets and Guided Missiles Almost Won the War for the Nazis. *AAF Review* (July) 29:6:24–26, 48.

That the Allies won the war in Europe by a terrifyingly narrow margin is a fact now accepted by almost all military leaders who have seen at first hand Germany's progress in the guided missiles field. Just how narrow that margin really was will probably be a matter of considerable debate for a long time to come, but many guided missile experts who should know whereof they speak say that it was relatively small.

It was too close for comfort, and simply serves to underline even more emphatically the substantial edge the Nazis had in this field. Most Allied rocket experts will now concede that edge to have been at least a 10-year lead in the research and development of guided missiles. [...]

At war's end, in spite of her defeat, Germany's scientists and technicians had nevertheless left behind them at Peenemunde, Brunswick, Wiener Nieustadt and elsewhere the signposts of future air wars. From the captured results—some in production lines, some in stages of near-completion, and others on paper—we have since learned much that is enlightening, much that is disquieting. [...]

With the hindsight we now have as a result of our discoveries, several things become clear. One is that the Nazis' oft-repeated threats concerning the "secret weapons" they would shortly direct against the Allies were far from being purely "propaganda." Hitler had boasted that England and the whole world would soon feel their effect. Examination of Germany's missiles at war's end left very little doubt that Der Fuehrer had come uncomfortably close to making good his boast.

Also understandable now on the basis of our present knowledge is Germany's almost suicidal last-ditch stand after Allied forces had crossed the Rhine in overwhelming numbers. Assuming that the Nazis were completely whipped, the Allied populace could not understand why they would not give up and put an end to senseless, wholesale slaughter. But German commanders, it now appears, were aware that if they could hold out for just a short time longer they could very well effect at least a stalemate, if not a short-cut victory, on the European battlefront.

It is now also fairly generally known that the atomic bomb race was close—again, closer than we care to think about. And paralleling the Nazis' research on atomic explosives was their accelerated development of the V-2 program. Linking these two projects together makes credible another theory which is current among Allied guided missile groups: namely, that it was the intention of Nazi technicians to put some sort of atomic device in the warhead of the V-2.

This, they point out, would then have made the V-2s economical beyond question. One of the facts which has puzzled observers is that the V-2, with its small-sized warhead permitting only one ton of conventional explosives, did not justify the tremendous cost of each missile. The damage achieved—actually less than that of the V-1 which was many times cheaper and took only 800 man-hours to make—did not begin to compensate for the 12,950 man-hours required for the manufacture of every V-2. But if, as they now believe it had been originally planned, even a few of these supersonic V-2s could have carried atomic warheads, there is little doubt that they could have wiped our invasion ports off the map and reduced England to the shambles that are Nagasaki and Hiroshima.

It is thought that the only reason the Germans did resort to their uneconomical use of the V-2s

with ordinary explosives is the obvious one that the atomic warhead devices simply were not yet ready, and Nazi military leaders, with their backs against the wall, were forced to throw at the Allies any weapon they had available, regardless of cost. Actually, however, the terrorizing effect of these 3,500 mph missiles—against which there was absolutely no defense—on London and Antwerp that winter of 1944–45 must certainly have made the Nazis feel that the V-2s had a psychological value alone far in excess of their actual dollars and cents cost for amount of damage inflicted.

Allied bombings of the Nazi heavy-water plants in Norway quite obviously retarded her atomic development, as did also the consistent sabotage on the part of many Norwegian scientists. But it is still a matter of scientific conjecture just how many weeks—or days—it might have taken Germany to be ready with her atomic devices for the V-2s.

And continue this same subject of Hitlerian threats, the Nazi claim that Germany had rockets which could bombard the US was not too far removed from actual achievement. Long-range missiles were in the design stage when Allied troops moved into Germany. Larger than the V-2s, these winged rockets, carrying smaller rockets which would take off on their own at a specific point, attain speeds up to 5,800 mph, and finish their trajectories in a long glide, were predicted to be capable of ranges up to 3,000 miles.

[...] Even now, more than a year after V-E Day it is still frightening to imagine what *might have* happened had we not halted Germany when we did. We now know that it was later than we thought. It is not enough to concede that the call was close unless, in that closeness, we have learned one of the war's most valuable lessons.

[This article was based on Donald Putt's March 1946 presentation (see p. 5472), as well as other information from him and from other Allied inspectors. Published in the official U.S. *Army Air Forces Review*, it stated that:

- German scientists had "at least a 10-year lead" over Allied countries in the field of guided missiles.
- Hitler's promised new secret weapons were not simply propaganda or paper designs, but missiles that were subjected to "examination... at war's end."
- At the war's end, the German military was fiercely defending territory that held those secret weapons in the expectation that they would be used.
- It was "fairly generally known that the atomic bomb race was... closer than we care to think about," and it was just a matter of scientific conjecture whether it was weeks or days that separated Germany from deploying rocket-launched nuclear weapons at the end of the war.
- These statements officially published by the U.S. Army Air Forces completely contradicted the claims of Samuel Goudsmit and the Alsos Mission that Germany was not even close to having nuclear weapons.

- In fact, this Army Air Forces publication seemingly admitted details that demonstrate the German nuclear program was many years ahead of the U.S. program. At the beginning of May 1945, the United States was still trying to complete its first fission bomb, and that weapon was so cumbersome that it would need to be delivered by a large plane. According to the Army Air Forces, by that time Germany apparently had multiple nuclear weapons ("rockets with nuclear warheads"), they were small enough to deliver via rockets, and Germany had developed suitable rockets with which they were integrated and on the brink of deployment. The United States would not reach that level of technology for over a decade—in the late 1950s—and even then only with large amounts of assistance from German-speaking scientists.

- "Almost all military leaders" accepted "that the Allies won the war in Europe by a terrifyingly narrow margin." This conclusion by contemporary observers best positioned to know all the facts is quite different than the conventional historical view that has been propagated for 75+ years.

- For many more references to nuclear-armed rockets that were intended to attack Allied targets during the war, see the list of documents on p. 5821.

Charlotte Knight, the author of this article, was a staff journalist who had been working full-time for the U.S. Army Air Forces for several years. She had flown around the world covering events during World War II, and she was the only woman to witness the Operation Crossroads fission bomb tests at Bikini Atoll from the air in 1946. Thus she would have written this article in a very sober fashion, without any embellishment, and exactly as Donald Putt and the Army Air Forces wanted it. For more information on Knight, see:

> Utah Woman Tells of Work with Air Force. *Deseret News* (Salt Lake City, Utah) 17 June 1947, p. 20. https://news.google.com/newspapers?nid=336&dat=19470617&id=F9s0AAAAIBAJ&sjid=kXcDAAAAIBAJ&pg=5662,5995342

Other journalists repeated much of this information in various publications from summer 1946 through 1947. See for example:

> Nazis Worked on Plane to Bomb U.S. *Hartford Courant* 15 July 1946, p. 1.
>
> Hitler Planned Supersonic Bomber to Hit New York. *Los Angeles Times* 15 July 1946, p. 2.
>
> List of Terror Weapons of Nazis Revealed by AAF. *Plattsburgh Press-Republican* (Plattsburgh, New York) 15 July 1946, p. 1.
>
> Nazi Scientists Worked on 136 Secret Weapons. *Times Record* (Troy, New York) 15 July 1946, p. 3.
>
> Transatlantic Roller Coaster Designed to Bomb U.S.A. *Popular Science* October 1947. https://neverwasmag.com/2018/09/wonder-weapons-of-the-third-reich/transatlantic-roller-coaster-designed-to-bomb-usa/

For more information on German and Allied threats and counter-threats to use nuclear, chemical, and biological weapons of mass destruction during the final years of the war, see pp. 2632–2651.]

Heinrich Himmler's chief adjutant Werner Grothmann on nuclear technology transfer to the United States [Krotzky 2002]. For a discussion of the background and reliability of this source, see pp. 3396–3397.

[S. 32] Die zweite Schwierigkeit bestand darin, dass die Zünder für die Waffe nicht so funktionierten, wie man sich das ursprünglich dachte. Die haben mit allem möglichen experimentiert. Es war, glaube ich, erst im Herbst 1944, dass jemand bei Diebner eine praktikable Lösung fand, die aber immer noch sehr aufwendig war. Und ungefähr zur selben Zeit hat dann bei uns jemand in Zusammenarbeit mit..., glaube ich, und noch ein Unternehmen war beteiligt, oder dort ein Experte, mit Infrarot-Zündern einigen Erfolg. Wir nannten, die Dinger damals Ultrarot-Zünder.

[p. 32] The second problem was that the fuse for the weapon was not working as originally intended. They experimented with all kinds of things. I believe it was first in the autumn of 1944 that someone with Diebner found a viable solution, which was still very elaborate. And about the same time, someone with us [SS] who worked in collaboration with ..., I believe, and another company was involved, or there was an expert, with infrared detonators some success. We called the things then infrared igniters.

[S. 45] Die Zünderentwicklung muß für alle Beteiligten eine richtige Nervensache gewesen sein. Ich bin ja kein Technik-Sachverständiger gewesen, aber im Laufe der Zeit bekam man doch etwas mit. Deshalb kann ich wenigstens sagen, dass Himmler wiederholt Fehlschläge gemeldet worden sind. Dabei hatte man ja wirklich die erste Garnitur von Experten damit beauftragt und außerdem ist an verschiedenen speziellen Zündern für die Atombombe gearbeitet worden. Wenn ich jetzt überlege, was mir dazu noch einfällt, ist es die Ultra-Rot-Sache. An Zündern die auf dieser Basis funktionieren sollten, ist nach meiner Erinnerung von ganz wenigen Leuten bei einer Optik-Firma in Zusammenarbeit mit einem Elektro-Unternehmen gearbeitet worden. Den Auftrag haben wir aber nicht vergeben, so weit ich weiß, der ist wahrscheinlich von Ohnesorge weitergegeben worden. Dieser Zünder soll noch kurz vor Kriegsende als Laborgerät für die ersten Funktionsprüfungen vorbereitet worden sein, mehr weiß ich dazu nicht. [...]

[p. 45] The ignition development must have been a real problem for everyone involved. I was not a technical expert, but in the course of time one learned something about it. That is why I can at least say that Himmler had repeatedly received reports of failed tests. Therefore the first set of experts had been commissioned, and out of that a number of special detonators for the atomic bomb had been worked on. If I think what else I can remember now, then it is the infrared thing. According to my memory, a very small number of people at an optics company, cooperating with an electrical company, worked on detonators that were supposed to function on this basis. We did not give the assignment, however, as far as I know, it was probably passed on by Ohnesorge. This detonator is said to have been prepared shortly before the end of the war as a laboratory device for the first functional tests, more I do not know. [...]

Dann gab es Vorschläge, das Atom-Sprengmaterial mit einem ganz unkonventionellen Zünder auszulösen. Der Vorschlag ist bei dem Treffen bei Innsbruck schon bekannt gewesen. Man muß sich das so vorstellen: es war die Rede davon, dass man für die Zündung sehr viel Energie benötigt, um das Material zu zünden. Da hatte ein Ingenieur von einer Technischen Hochschule in anderem Zusammenhang vorgeschlagen, so eine Art Radarstrahlen einzusetzen, weil man die wohl auf ganz kurze Entfernung sehr gut bündeln konnte und weil die Energie enthalten würden oder selbst Energie sind. Das weiß ich nicht genauer.[18] Jetzt gab es ja das Problem, dass wir im Frühjahre von den Physikern ganz klar hörten, die Entwicklung der Bombe ist auf gutem Weg, also das heißt erst mal, das Sprengmaterial wird man für die notwendigen Versuche erzeugen können und dann muß man sehen, wie viel davon für die richtige Bombe, erzeugt werden kann. Ohnesorge machte da mächtig Druck mit dem Argument, wenn wir die Bombe mit so viel Aufwand hinbekommen und dann fehlt der Zünder, ist der Krieg trotzdem verloren. Das war auch Himmlers Ansicht. Wir konnten den Krieg nicht mehr anders gewinnen als mit einer durchschlagenden Waffe. Deshalb sind ja solche Forschungsaufträge auch sofort weitergegeben worden und man hat auch mit einzelnen Firmen darüber gesprochen, dass die ihre besten Leute an diese Sache setzen sollten. Rausgekommen ist nach meiner Kenntnis auch bei dem Zünder nichts.

Then there were proposals to trigger the nuclear explosive material with a completely unconventional detonator. The proposal was already known at the meeting near Innsbruck. You have to imagine it like this: there was talk about the fact that you need a lot of energy to ignite the material. In another context, an engineer from a technical university had suggested to use some kind of radar beams, because they could be focused very well at a very short distance and because they would contain energy or are energy themselves. I do not know that more exactly.[18] Now there was the problem that in the early years we heard quite clearly from the physicists that the development of the bomb is well on the way, so that means first of all that the explosive material will be able to be produced for the necessary tests and then we must see how much of it can be produced for the real bomb. Ohnesorge put on a lot of pressure, arguing that if we could make the bomb with so much effort and then the fuse was missing, the war would still be lost. That was also Himmler's view. We could no longer win the war any other way than with a breakthrough weapon. That is why such research contracts were passed on immediately, and they also talked to individual companies about putting their best people to work on this. As far as I know, nothing came of that [particular] detonator.

[18] [Grothmann was not a scientist; his nonscientific description here seems to be referring to the use of a compact betatron as a neutron initiator. Grothmann would not be expected to understand the physics details of betatrons, but they use an electron beam and a magnetic field, as does a cavity magnetron for radar, with which Grothmann was probably much more familiar. Thus Grothmann was describing "a completely unconventional" device that used an electron beam and magnetic field to "focus" a "beam" over a "very short distance" "to trigger the nuclear explosive material." A betatron mounted on the outside of a fission implosion bomb could fire a high-energy electron beam toward the center of the bomb at the moment of implosion. The energy of the electrons would be converted to gamma rays via the bremsstrahlung process. Gamma rays absorbed by some ^{235}U or ^{239}Pu nuclei could release neutrons, which could initiate a fission chain reaction in the rest of the ^{235}U or ^{239}Pu fuel. The United States successfully demonstrated a betatron neutron initiator in a fission bomb on 1 June 1952 in the George test of Operation Tumbler-Snapper [https://nuclearweaponarchive.org/Usa/Tests/Tumblers.html].

In March 1945, Ivan Ilyichev reported that this method was one of the neutron initiators used in German atomic bombs (p. 4487: "Bomb ignition": "Ahead of this, before the explosion, the uranium sphere is irradiated with gamma-rays, the energy of which does not exceed 6 million electron volts, which many times increases its explosive qualities."). Compact, light-weight 6- and 7-MeV betatrons ideally suited for this particular application were manufactured during the war by Siemens-Reiniger Werke in Erlangen (pp. 3088–3089, 3957–3970).]

Dann gab es einen Vorschlag, der kam aus Österreich und war sehr gut begründet. Der schien ganz pfiffig. Mir war er nur als Netzzünder bekannt geworden. Im Versuch funktionierte er aber nur wie ich hörte, wenn die Position bestimmter Zünderteile ganz genau, also wirklich millimetergenau eingehalten werden konnte. Gab es eine winzige Lageveränderung war alles umsonst. Den konnte man natürlich so nicht einsetzen. Diebner hat übrigens selbst Zünder-Experimente angeregt, aber erst im Herbst 44 bekam man ein einigermaßen funktionierendes Ding hin.

Then there was a proposal from Austria, which was justified very well. It seemed quite clever. I only knew it was called network ignition. In the experiment, however, it only worked as I heard, if the position of certain detonators was very exact, that is, precise to the millimeter. If there was a tiny change of location, all was in vain. Of course you could not use it that way. By the way, Diebner himself suggested detonator experiments, but it was not until autumn 44 that a well-functioning thing was discovered.

[S. 34] Für das hier verbürge ich mich aber: Aus unseren Forschungs- und Entwicklungslabors in Thüringen sind Teile des Materials verbracht worden, aber nicht alles. Warum das so geschah, weiß ich nicht. Zumindest das wenige radioaktive Material für die erste Bombe und einen Teil des Zündmechanismus sollen dann die Amerikaner mitgenommen haben. Die von den Amerikanern erbeuteten Prototyp-Teile für unsere erste richtige Atombombe sind sofort von ihnen zum "Adlerhorst" gebracht worden. Ab da weiß ich nichts mehr dazu. Es gibt noch vielleicht, noch jemanden, der das bestätigen kann.

[p. 34] For this, however, I can vouch myself: Parts of the material had been removed from our research and development laboratories in Thuringia, but not everything. Why this happened, I do not know. The Americans are supposed to have taken at least the small amount of radioactive material for the first bomb and a part of the ignition mechanism. The prototype parts for our first real atomic bomb that were captured by the Americans were immediately taken to the "Eagle's Nest." I do not know any more about it, there may be someone who can confirm it.

[S. 40] Die Sieger haben die Beute mitgenommen und spater der Öffentlichkeit ihre glänzende Rüstung vorgeführt. Bei Flugzeugen war das so, bei der U-Boot-Technik, in der Chemie und auch so manchen unserer tüchtigen Atomphysiker haben sie dann für sich arbeiten lassen, genauso wie die Raketenleute.

[p. 40] The winners took the booty and later presented their shining armaments to the public. That was true for airplanes, with submarine technology, in chemistry, and with many of our capable nuclear physicists, who worked for them [Allied countries], just like the rocket people.

[In the first four quoted paragraphs, Grothmann told how German and Austrian engineers invented and tested several different detonation timing systems to allow the spherical implosion bomb (which he described elsewhere) to create a detonation with "millimeter-exact" accuracy across all of the ignition points around the bomb. As examples, he recounted a sophisticated optical method using infrared signaling to the detonators, and another system called "network ignition," likely an electrical network of exploding bridgewire detonators. Erich Schumann appears to have referred to exploding bridgewire detonators in his description of German implosion bombs (p. 4241).

Adlerhorst or Eagle's Nest was located near Bad Nauheim, and should not be confused with the better known Eagle's Nest or Kehlsteinhaus near Berchtesgaden. Adlerhorst was captured by the U.S. Army on 30 March 1945, and subsequently was used by the Allies as "Operation Dustbin" to imprison and interrogate high-value German intelligence targets, including Albert Speer, Wernher von Braun, and many others.

If the United States captured German atomic bomb components and immediately took them to Adlerhorst, those components could have been captured no earlier than April 1945. Since the United States could have taken the components to many other sites that were equally or more secure, Grothmann's statement that they were taken to Adlerhorst suggests that those components were shown to high-value German detainees so that they could not deny the existence of the German nuclear program. Furthermore, that would suggest that the United States had not captured a satisfactory amount of information about the nuclear program, and was desperate to learn more from the detainees. Is it possible to locate and declassify any U.S. records on what German atomic bomb components were found, or what the United States learned from German detainees?

If precisely timed implosion detonators or other sophisticated nuclear weapons components were captured in Europe in April–May 1945 or on the U-234 or other surrendered German submarines, those components may have been used to make final improvements to the U.S. fission bombs before they were detonated in New Mexico and Japan (p. 4880).

See p. 4992 for a very incomplete list of some German and Austrian nuclear-related scientists and engineers who temporarily visited or permanently moved to the United States or United Kingdom after the war, just as Grothmann said.]

From Office of Strategic Services Shepardson to Amzon. 10 September 1945. [NARA RG 226, Entry A1-134, Box 219, Folder 1371: OUT AZUSA Nov. '43 Sept. '45]

#3567. AZUSA. Wisner and Rositzke from 154 and Dix. Reur #2417 (IN 23590).

Any information gained concerning German scientists on AZUSA send only to Lt. Col. Horace K. Calvert care U. S. Embassy, London, and do not pass to G-2 USFET. This also applies other fields. Send copies Washington.

H. W. Dix to Francis J. Smith. 13 September 1945. Office of Strategic Services memo AA-217. [NARA RG 77, Entry UD-22A, Box 171, Folder 32.7003-3 GERMANY: US Wartime Positive Int. (Nov. 44–June 45)]

Cable from our German office reads in accordance with the two following paragraphs:

> 1. Referring further our recent exchange cables RE handling Azusa material, General Sibert who has just returned here from Washington has informed us (A) that when in Washington he was given full information concerning this subject and all matters pertaining to it including U.S. policy (B) that he was designated as coordinator all such information in this theater and (C) that we are to disseminate all our information this subject to him and no one else in theater.
>
> 2. As OSS Germany is under direction command USFET, we consider General Sibert's instructions this subject as an order which we cannot ignore. If you disapprove we suggest as only solution that you approach War Department Washington with request that Sibert's instructions be altered.

This is different than our instructions to our office in Germany. The instructions we forwarded were from your office.

Please advise which way you desire our office in Germany to handle

(a) the information about the search for German scientists

(b) all information on this topic.

From Office of Strategic Services Shepardson to Berlin via Amzon. 14 September 1945. [NARA RG 226, Entry A1-134, Box 219, Folder 1371: OUT AZUSA Nov. '43 Sept. '45]

WASH 6437. AZUSA. To 110 Berlin from 154 and Dix. Information: Wisner Amzon.

RE BERL 1059 (IN 23766), please see WASH 3567 to Wisner. Our work on this subject is to correlate and cooperate with specially appointed general who has charge of the whole AZUSA situation and has overall responsibility.

In order that he may make decisions we pass our information to him, and thereby proceed as he may direct.

On present sub feature of AZUSA about assisting locating German scientists, special general asked to have the information sent only to Calvert, London Embassy, or to Washington.

RE your AMZO 4437 (IN 240370); our WASH 1167 and WASH 3567 were special general's instructions until he could talk with Sibert here. This now done and all AZUSA information obtained by OSS in ETO and applicable in ETO situations now to be coordinated only between you or Wisner Sibert and Calvert and advising OSS Washington of resulting decisions or information. This insures desired maximum security with fewest number persons involved. Copies of any reports to be sent OSS Washington without delay and showing action taken.

This subject so tight at this time we are playing very close with special general.

Phrase "other fields" from your BERL #2417 interpreted here as within scope AZUSA matters only and not applicable to all technical matters. WASH 3567 repeated the words "other fields" thereby trying to eliminate misunderstanding. This answers AMZO 3917.

[See document photo on p. 5048. Do these OSS cables show that the U.S. started to really appreciate the extent of the wartime German nuclear program by September 1945, and took steps to limit that knowledge to the "fewest number persons"? Is that why Zinsser's report of a German atomic bomb test was upgraded from Secret to Top Secret in early October 1945 (p. 4422)? Who was the "special general"—Leslie Groves or someone else?]

Captain Hugh T. Cunningham, Strategic Services Unit, to Brigadier General Edwin L. Sibert, U.S. Army, 6 May 1946. Subject: German Atomic Research [NARA RG 226, Entry A1-215, Box 6, Folder WN26150–26164]

1. One of our reliable sources is in contact with a certain Chef-Chemiker Sallie, at present employed in a chemical industry in Constance, who claims to be able to give detailed information on German atomic research as of February 1945. Sallie was in Berlin when the Russians blew up the Treasury Building in which the documents on German atomic research were stored, and claims to know exactly what documents thereby fell into the hands of the Russians.

2. If this man is of interest for further exploitation we can instruct our source accordingly.

NARA RG 77, Entry UD-22A, Box 171, Folder 32.7003-3
GERMANY: US Wartime Positive Int. (Nov. 44-June 45)

S E C R E T

OFFICE OF STRATEGIC SERVICES

WASHINGTON 25, D. C.

Germ. Rep.

13 September 1945

AA-217

To : Maj. Francis J. Smith, Engrs.
5116 New War Dept. Bldg.

From: Technical Section
Col. H. W. Dix HWD

Cable from our German office reads in accordance with the two following paragraphs:

1. REFERRING FURTHER OUR RECENT EXCHANGE CABLES RE HANDLING AZUSA MATERIAL, GENERAL SIBERT WHO HAS JUST RETURNED HERE FROM WASHINGTON HAS INFORMED US (A) THAT WHEN IN WASHINGTON HE WAS GIVEN FULL INFORMATION CONCERNING THIS SUBJECT AND ALL MATTERS PERTAINING TO IT INCLUDING U.S. POLICY (B) THAT HE WAS DESIGNATED AS COORDINATOR ALL SUCH INFORMATION FOR THIS THEATER AND (C) THAT WE ARE TO DISSEMINATE ALL OUR INFORMATION THIS SUBJECT TO HIM AND NO ONE ELSE IN THEATER.

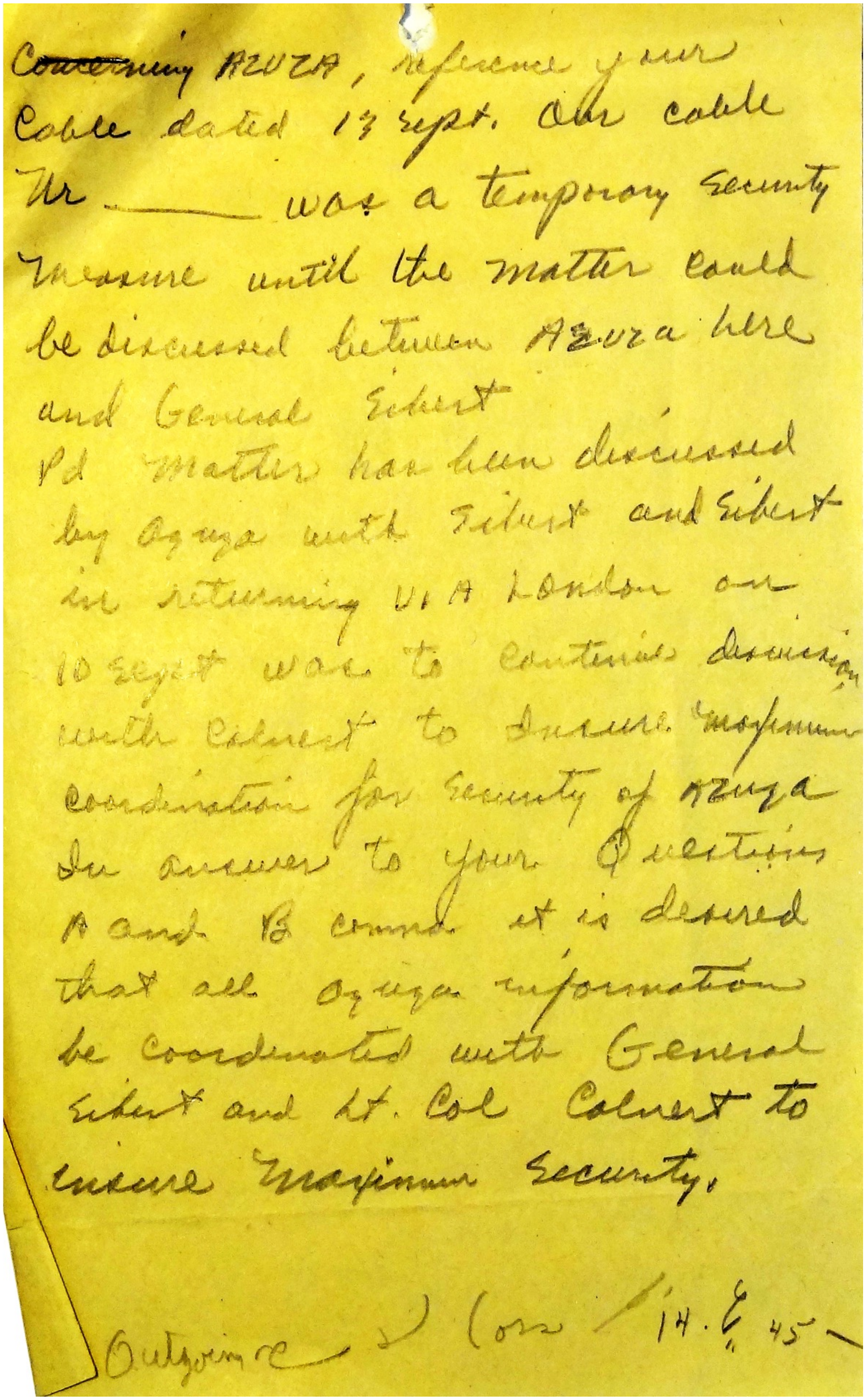
2. AS OSS GERMANY IS UNDER DIRECT COMMAND USFET, WE CONSIDER GENERAL SIBERT'S INSTRUCTIONS THIS SUBJECT AS AN ORDER WHICH WE CANNOT IGNORE. IF YOU DISAPPROVE WE SUGGEST AS ONLY SOLUTION THAT YOU APPROACH WAR DEPARTMENT WASHINGTON WITH REQUEST THAT SIBERT'S INSTRUCTIONS BE ALTERED.

This is different than our instructions to our office in Germany. The instructions we forwarded were from your office.

Please advise which way you desire our office in Germany to handle
(a) the information about the search for German scientists
(b) all information on this topic.

Figure D.997: H. W. Dix to Francis J. Smith. 13 September 1945. Office of Strategic Services memo AA-217. [NARA RG 77, Entry UD-22A, Box 171, Folder 32.7003-3 GERMANY: US Wartime Positive Int. (Nov. 44–June 45)]

NARA RG 77, Entry UD-22A, Box 171, Folder 32.7003-3
GERMANY: US Wartime Positive Int. (Nov. 44–June 45)


~~Concerning~~ AZUZA, reference your
Cable dated 13 Sept. Our cable
Ur ______ was a temporary security
measure until the matter could
be discussed between Azuza here
and General Sibert
Pd matter has been discussed
by Azuza with Sibert and Sibert
is returning via London on
10 Sept was to continue discussion
with Calvert to insure maximum
coordination for security of Azuza
In answer to your Questions
A and B comm. it is desired
that all Azuza information
be coordinated with General
Sibert and Lt. Col Calvert to
insure maximum security.

Outgoing [illegible] Corr / 14.9.45

Figure D.998: 14 September 1945. [NARA RG 77, Entry UD-22A, Box 171, Folder 32.7003-3 GERMANY: US Wartime Positive Int. (Nov. 44–June 45)]

NARA RG 226, Entry A1-134, Box 219, Folder 1371: OUT AZUSA Nov. '43 Sept. '45

OFFICE OF STRATEGIC SERVICES

OFFICIAL DISPATCH

Azusa file

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SECRET

WASH 6437. AZUSA. TO 110 BERLIN FROM 154 AND DIX.
INFORMATION: WISNER AMZON.

RE BERL 1059 (IN 23766), PLEASE SEE WASH 3567 TO WISNER. OUR WORK ON THIS SUBJECT IS TO CORRELATE AND COOPERATE WITH SPECIALLY APPOINTED GENERAL WHO HAS CHARGE OF THE WHOLE AZUSA SITUATION AND HAS OVERALL RESPONSIBILITY.

IN ORDER THAT HE MAY MAKE DECISIONS WE PASS OUR INFORMATION TO HIM, AND THEREAFTER PROCEED AS HE MAY DIRECT.

ON PRESENT SUB FEATURE OF AZUSA ABOUT ASSISTING LOCATING GERMAN SCIENTISTS, SPECIAL GENERAL ASKED TO HAVE THE INFORMATION SENT ONLY TO CALVERT, LONDON EMBASSY, OR TO WASHINGTON.

RE YOUR AMZO 4437 (IN 24037); OUR WASH 1167 AND WASH 3567 WERE SPECIAL GENERAL'S INSTRUCTIONS UNTIL HE COULD TALK WITH SIBERT HERE. THIS NOW DONE AND ALL AZUSA INFORMATION OBTAINED BY OSS IN ETO AND APPLICABLE IN ETO SITUATIONS NOW TO BE COORDINATED ONLY BETWEEN YOU OR WISNER SIBERT AND CALVERT AND ADVISING OSS WASHINGTON OF RESULTING DECISIONS OR INFORMATION. THIS INSURES DESIRED MAXIMUM SECURITY WITH FEWEST NUMBER PERSONS INVOLVED. COPIES OF ANY REPORTS TO BE SENT OSS WASHINGTON WITHOUT DELAY AND SHOWING ACTION TAKEN.

THIS SUBJECT SO TIGHT AT THIS TIME WE ARE PLAYING VERY CLOSE WITH SPECIAL GENERAL.

PHRASE "OTHER FIELDS" FROM YOUR BERL #2417 INTERPRETED HERE AS WITHIN SCOPE AZUSA MATTERS ONLY AND NOT APPLICABLE TO ALL TECHNICAL MATTERS. WASH 3567 REPEATED THE WORDS "OTHER FIELDS" THEREBY TRYING TO ELIMINATE MISUNDERSTANDING. THIS ANSWERS AMZO 3917.

TOD: 1218 15 SEPT 45 WHS/HWD, HWD JDW
INITIALS OF "RELEASING" OFFICER

SECRET

Figure D.999: Does this OSS cable show that the U.S. started to really appreciate the extent of the wartime German nuclear program by September 1945, and took steps to limit that knowledge to the "fewest number persons"? Who was the "special general"—Leslie Groves or someone else? [NARA RG 226, Entry A1-134, Box 219, Folder 1371: OUT AZUSA Nov. '43 Sept. '45].

SECRET

C
O
P
Y

WAR DEPARTMENT
WAR DEPARTMENT GENERAL STAFF
MILITARY INTELLIGENCE DIVISION G-2
WASHINGTON

25 October 1945

SUBJECT: Collection of Intelligence on Nuclear Physics.

To: The Assistant Chief of Staff, G-2, U. S. Forces, European Theater, APO 757, c/o Postmaster, New York, New York

1. The questions raised on your recent visit regarding the responsibility of G-2, USFET, to gather information on nuclear physics and what agencies are authorized to send field intelligence investigators on nuclear physics into the theater are answered as follows:

a. The responsibility for the gathering of intelligence in the European Theater (Chart, War Department Administrative Boundaries, Appendix B, 25 April 1945) is considered the duty of G-2, USFET. The Chief of the Manhattan Engineer District desires, however, that all information on nuclear physics obtained byyour office be channelized to the representatives of his office who are designated as advisory and liaison officers to USFET Headquarters. The dissemination of information on atomic energy within USFET Headquarters must be restricted to as few persons as is practicable for its proper handling.

b. Since the dissolution of ALSOS, there is no agency that is authorized to send investigators into the field on nuclear physics, except those persons specifically designated by the office of the Chief of the Manhattan Engineer District. This policy is necessary because of certain directives of the Secretary of War and of certain international commitments of the United States.

2. On matters concerning this subject it is requested that, where appropriate, coordination be effected between your office and the Military Attache of the respective countries within the European Theater. In this connection the essential elements of information for the countries within the European Theater will be sent to G-2, USFET, and the Military Attache to the country involved.

3. Instructions regarding the responsibility of G-2, USFET, in the general field of scientific military intelligence collection, other than nuclear physics, are being covered in a separate letter.

4. A copy of this letter is being furnished all Military Attaches in the European Theater for their information and guidance.

CLAYTON BISSELL
Major General, GSC
A. C. of S., G-2
/s/ John Weckerling
JOHN WECKERLING
Brigadier General, GSC
Deputy A.C. of S., G-2

Cpy sent to Dean 2/27/46 L.J.

SECRET

Figure D.1000: Clayton Bissell and John Weckerling. 25 October 1945. Subject: Collection of Intelligence on Nuclear Physics [NARA RG 77, Entry UD-22A, Box 168, Folder 202.2 LONDON OFFICE: Combined Intell Disc.].

WAR DEPARTMENT
CLASSIFIED MESSAGE CENTER
INCOMING CLASSIFIED MESSAGE

TOP SECRET

~~TOP SECRET~~ TOT

PRIORITY

From: US Military Attache London England

To : War Department

Nr : 43778 19 May 1945

To MILID sr nr 43778 TOP SECRET LOCO personal from Calvert for Davis to Groves for Smith. Sgd Van Voorst.

1. Berg arrived today. Says on mission for Eugene to determine what scientists in hands of Boris friends. Advise as to nature of Eugene's talk with him for our guidance in dealing with him.

2. All material from Hildesheim now on docks at Ostend. 600 tons already loaded.

End

ACTION: Gen Groves

OM-IN-18220 (19 May 45) DTG 191505Z rel

~~TOP SECRET~~

COPY NO. 1

THE MAKING OF AN EXACT COPY OF THIS MESSAGE IS FORBIDDEN

Figure D.1001: After the war, OSS agent Moe Berg was sent on a mission by "Eugene" (probably a code name for a high-ranking person in the OSS or Manhattan Engineer District, or possibly Eugene Wigner?) to determine which German-speaking nuclear scientists had been recruited or captured by the Soviet Union ("Boris"). The "material from Hildesheim" included German uranium from Stassfurt [NARA RG 77, Entry UD-22A, Box 160, Folder Apr 45–Dec. '45].

Moe Berg. 1952. Handwritten notes. [Princeton University Library, Special Collections, Moe Berg Papers (C1413), Box 20, Folder 3—Loose Notes: Central Intelligence Agency.]

[See excerpts on pp. 5052–5063.

Moe Berg's 1952 notes reveal how extensively the postwar Soviet nuclear weapons program depended on scientists, companies, and resources from the wartime German nuclear weapons program.

Berg's notes appear to draw heavily upon a 1951 version of a CIA document, National Intelligence Survey (NIS) 26 (U.S.S.R.), Chapter VII, Section 73 (Atomic Energy). I have not been able to find that version, but a later 1955 version is available at:

https://www.cia.gov/readingroom/document/0000198124

https://www.cia.gov/readingroom/docs/DOC_0000198124.pdf

However, that 1955 version omits most of the information in pp. 5052–5063, probably because it was "old news" by then.

See pp. 3468–3471 for excerpts from the 1955 version that discuss postwar Soviet use of uranium sources from the wartime German nuclear weapons program.

If Moe Berg and his CIA colleagues knew this much about the highly secretive Soviet nuclear weapons program during the early Cold War, how much did Berg and his OSS colleagues know about the highly secretive German nuclear weapons program during World War II?

Among many other relevant details in Berg's notes, notice that:

Leftover wartime factories in Neustadt an der Orla, East Germany, were perfectly set up to make high-quality nickel membrane filters for gaseous diffusion uranium enrichment plants (pp. 5052, 5055–5057). Manufacturing the filters was so difficult that even years after the war, Soviet plants could not make comparable items. What exactly did these German factories do during the war? Did wartime Germany build gaseous diffusion uranium enrichment plants (Section D.4.4)?

Ludwig Bewilogua (p. 5059) was extremely important for the postwar Soviet fission reactor program. What exactly did he do during the war? Note that another postwar U.S. intelligence report stated that Bewilogua was a "wartime expert on uranium piles" (p. 3991).

Wartime plants at I.G. Farben's Bitterfeld site were able to produce enough calcium for most of the huge postwar Soviet nuclear weapons program (pp. 5052, 5054). Calcium is used for key steps in purifying uranium metal (pp. 4132–4136). How much nuclear-weapons-related work did those plants do during the war? During the war, the Bitterfeld facility also produced heavy water (p. 4050), graphite (p. 4110), aluminum (p. 4128), and perhaps other potentially nuclear-related materials.

Czech manufacturers such as Skoda and Brünner were making significant contributions to the postwar Soviet nuclear weapons program (p. 5053), just as they apparently had for the wartime German nuclear weapons program (e.g., p. 4914).

Several Swiss factories were manufacturing and selling nuclear-related components to the postwar Soviet nuclear weapons program (p. 5053). Did they do the same for the wartime German program?]

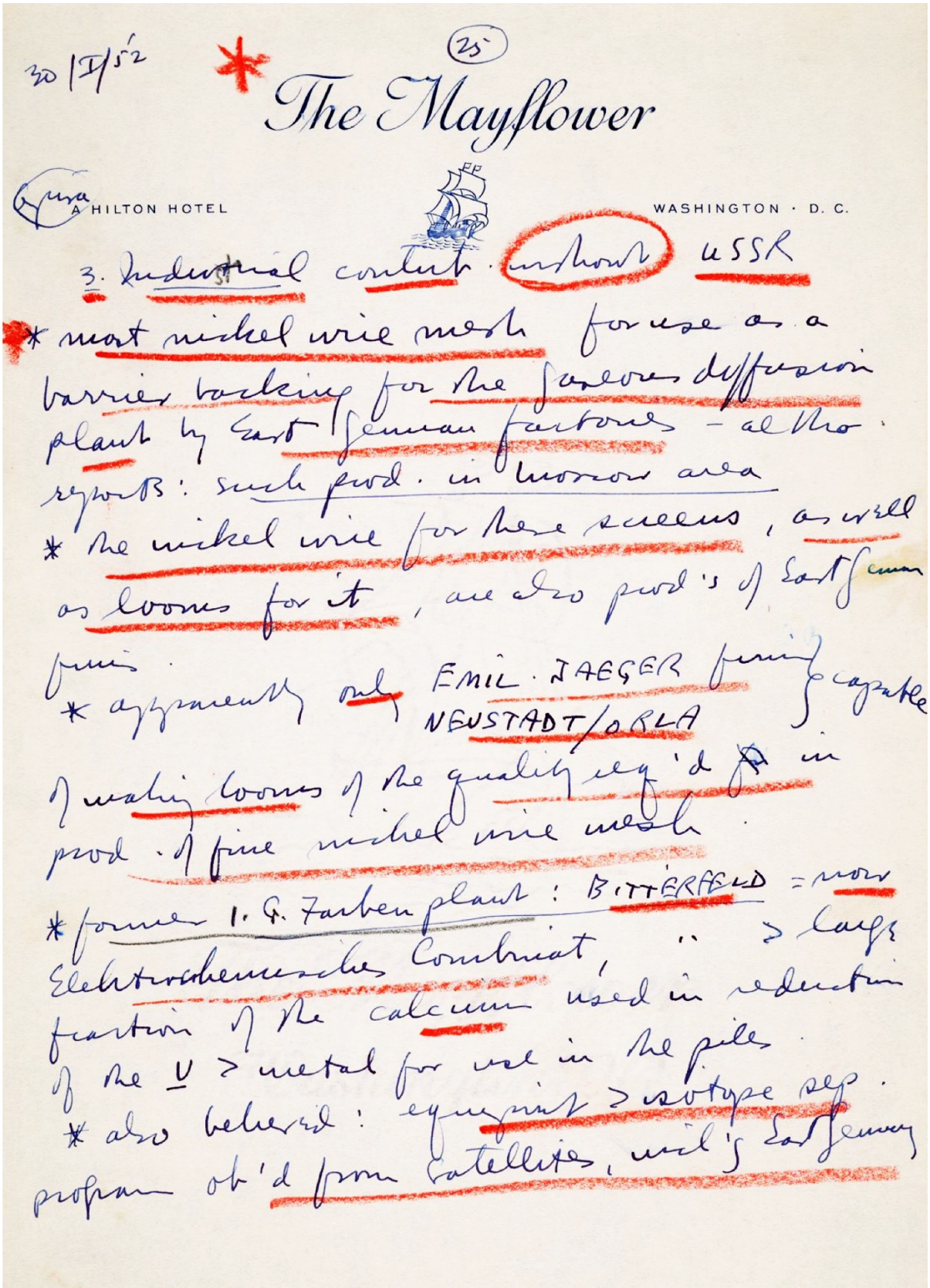


Figure D.1002: Moe Berg's 1952 notes reveal how extensively the postwar Soviet nuclear weapons program depended on scientists, companies, and resources from the wartime German nuclear weapons program [Princeton University Library, Special Collections, Moe Berg Papers (C1413), Box 20, Folder 3—Loose Notes: Central Intelligence Agency].

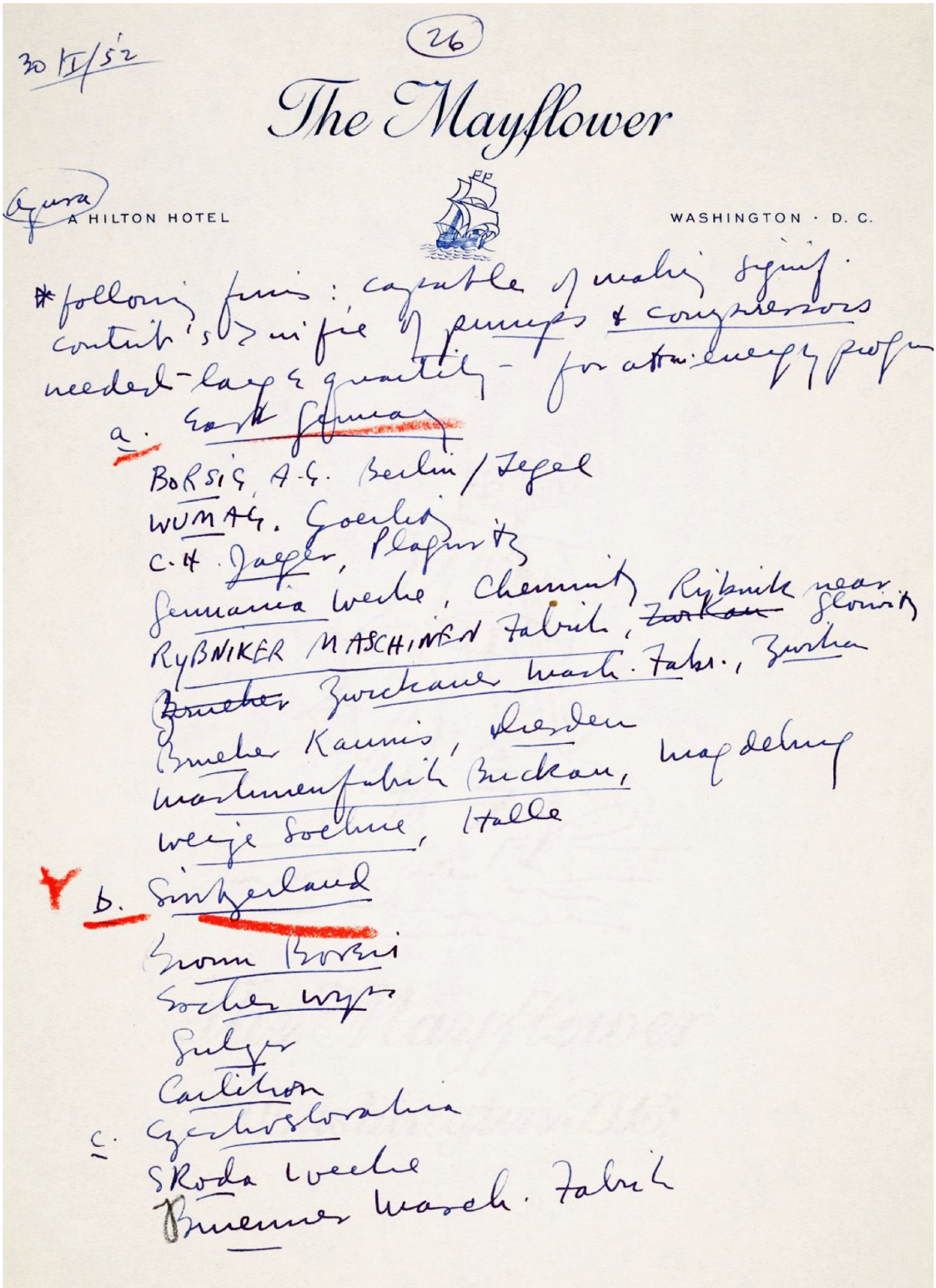


Figure D.1003: Moe Berg's 1952 notes reveal how extensively the postwar Soviet nuclear weapons program depended on scientists, companies, and resources from the wartime German nuclear weapons program [Princeton University Library, Special Collections, Moe Berg Papers (C1413), Box 20, Folder 3—Loose Notes: Central Intelligence Agency].

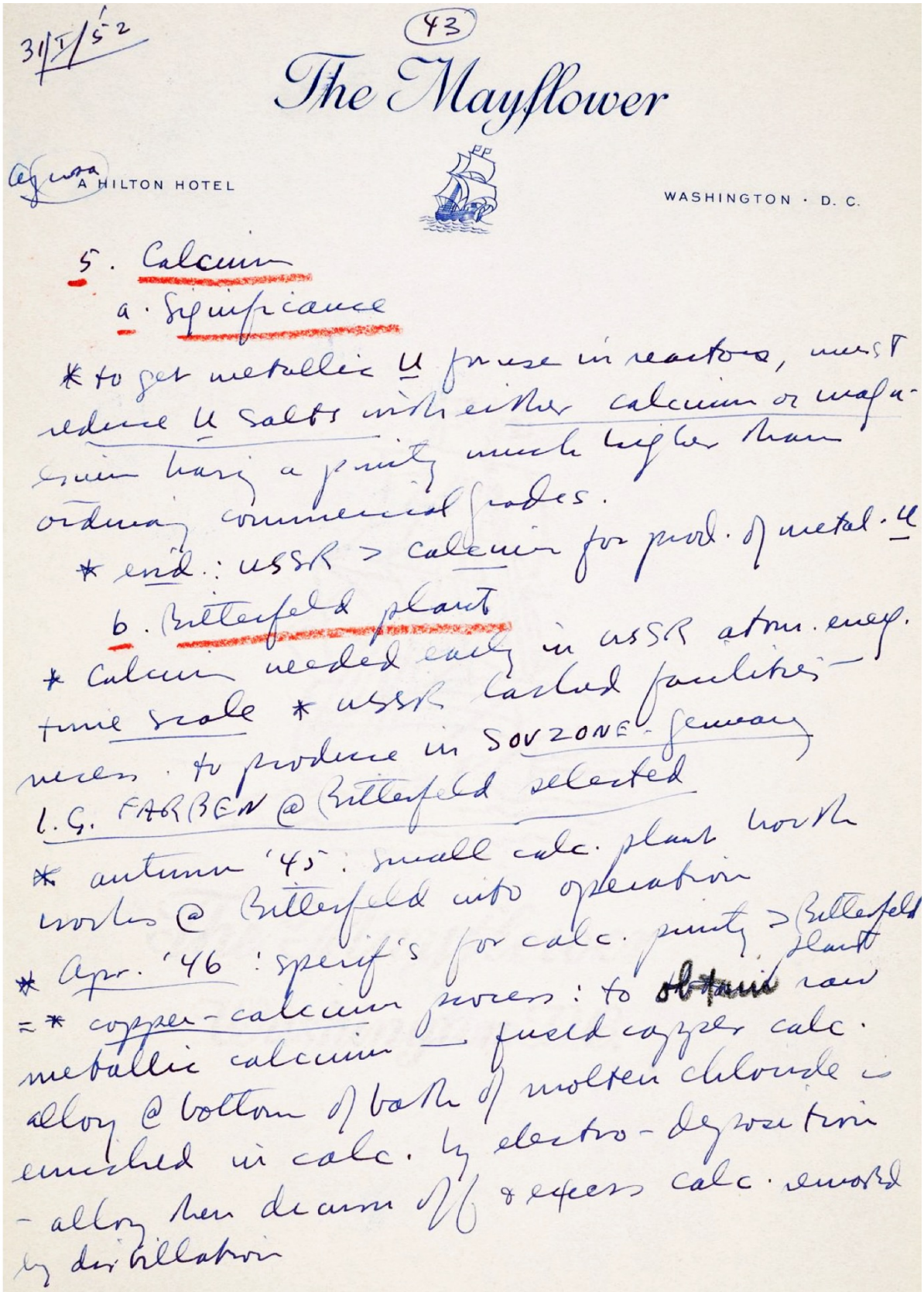


Figure D.1004: Moe Berg's 1952 notes reveal how extensively the postwar Soviet nuclear weapons program depended on scientists, companies, and resources from the wartime German nuclear weapons program [Princeton University Library, Special Collections, Moe Berg Papers (C1413), Box 20, Folder 3—Loose Notes: Central Intelligence Agency].

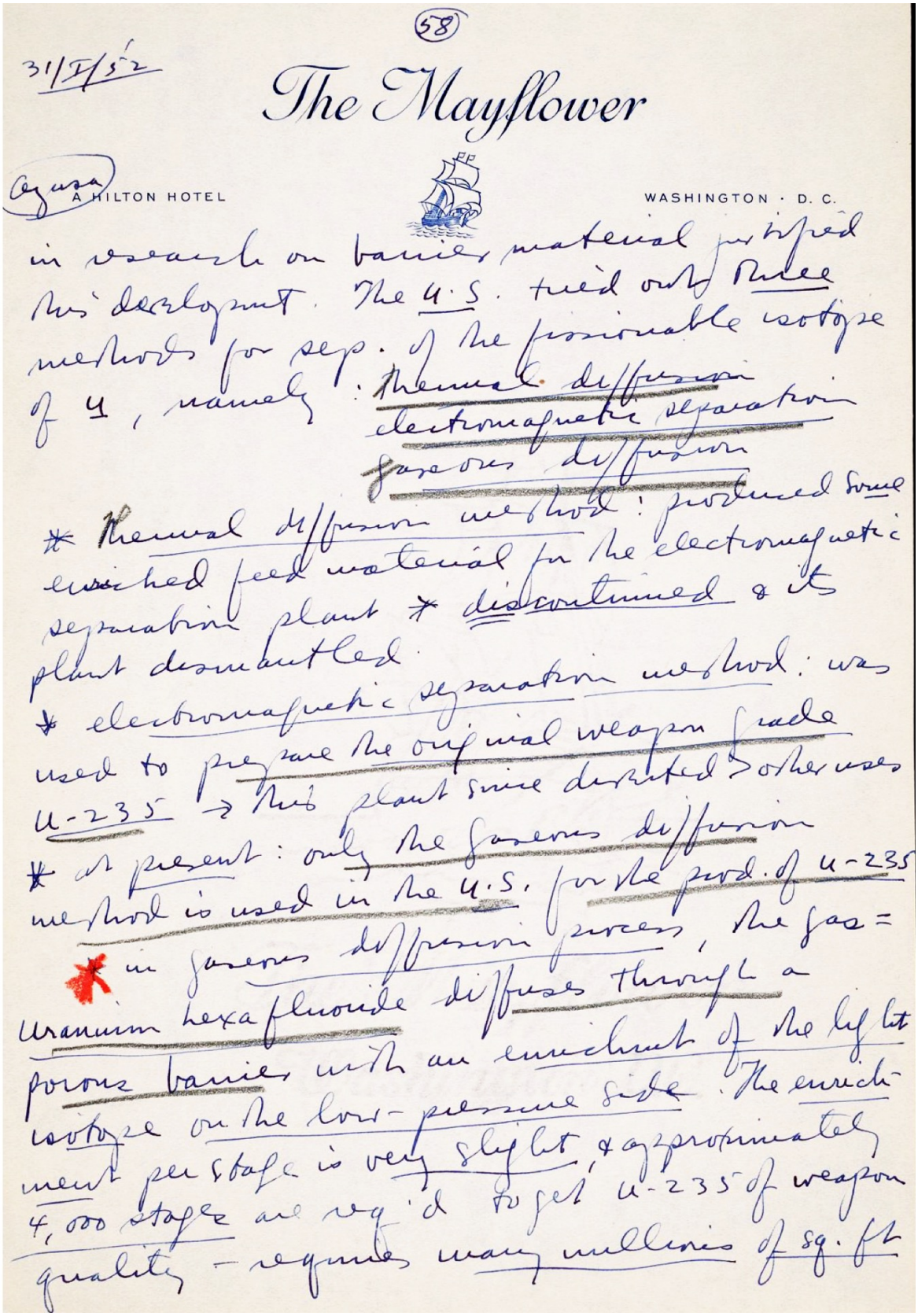


Figure D.1005: Moe Berg's 1952 notes reveal how extensively the postwar Soviet nuclear weapons program depended on scientists, companies, and resources from the wartime German nuclear weapons program [Princeton University Library, Special Collections, Moe Berg Papers (C1413), Box 20, Folder 3—Loose Notes: Central Intelligence Agency].

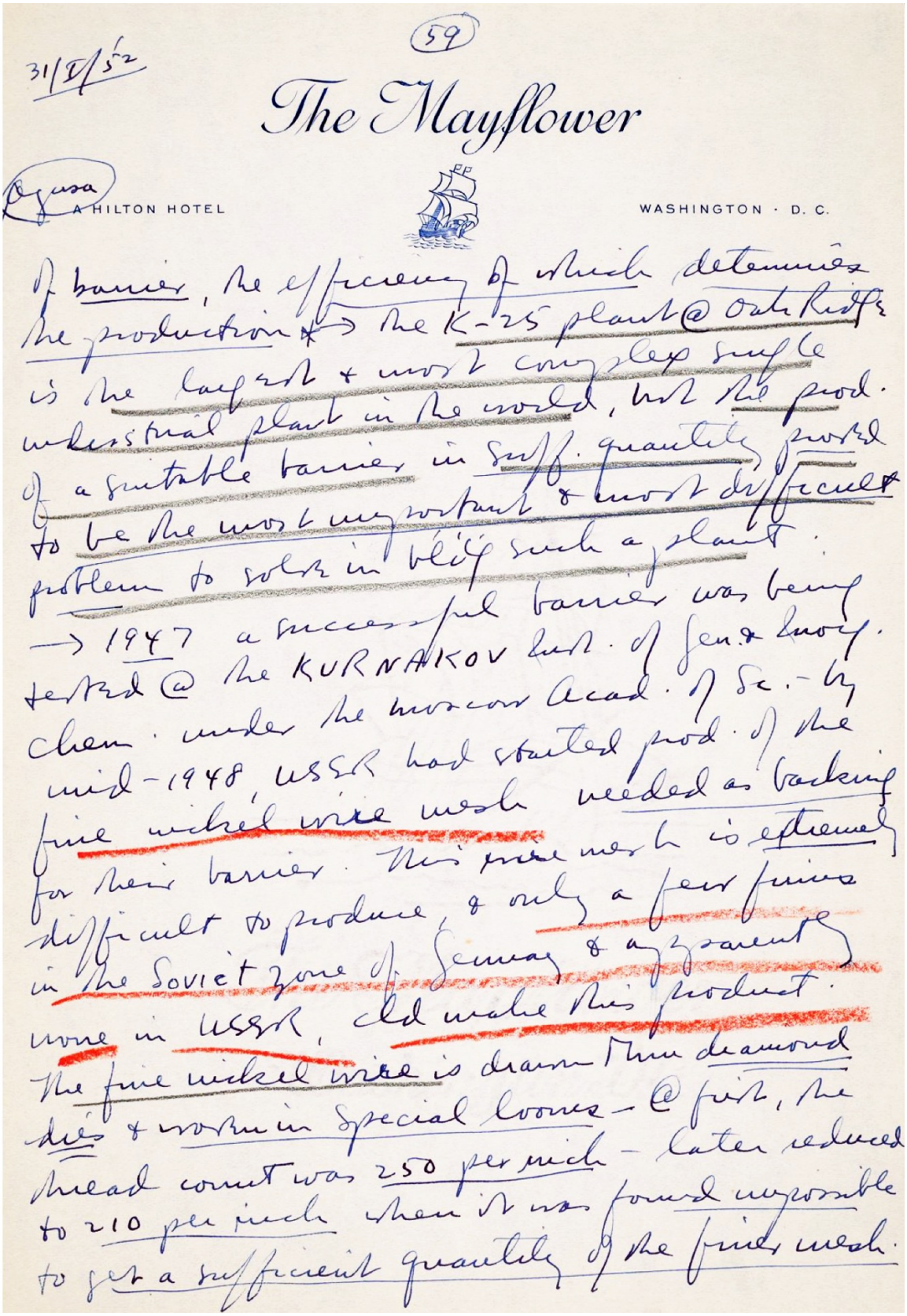


Figure D.1006: Moe Berg's 1952 notes reveal how extensively the postwar Soviet nuclear weapons program depended on scientists, companies, and resources from the wartime German nuclear weapons program [Princeton University Library, Special Collections, Moe Berg Papers (C1413), Box 20, Folder 3—Loose Notes: Central Intelligence Agency].

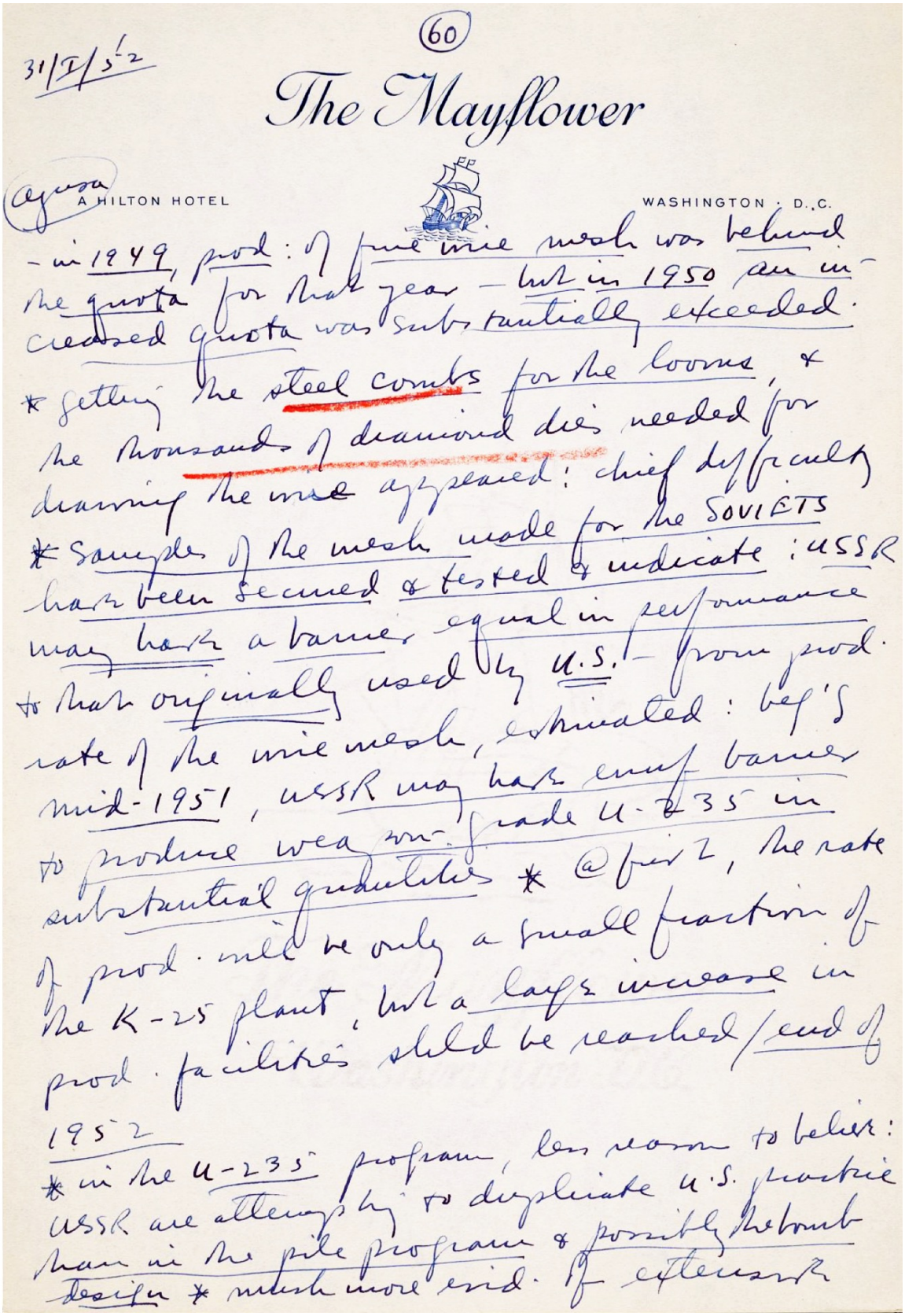


Figure D.1007: Moe Berg's 1952 notes reveal how extensively the postwar Soviet nuclear weapons program depended on scientists, companies, and resources from the wartime German nuclear weapons program [Princeton University Library, Special Collections, Moe Berg Papers (C1413), Box 20, Folder 3—Loose Notes: Central Intelligence Agency].

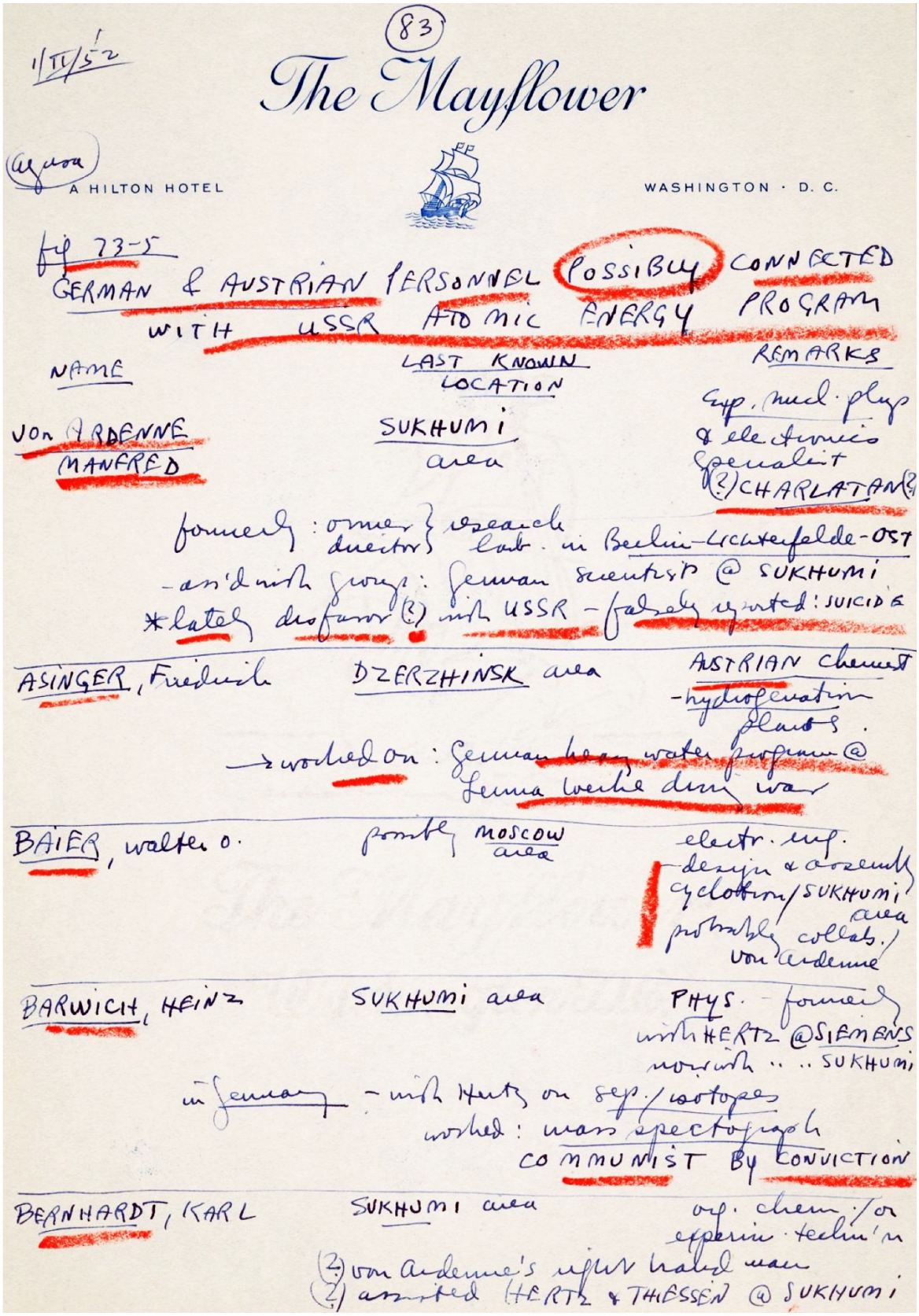


Figure D.1008: Moe Berg's 1952 notes reveal how extensively the postwar Soviet nuclear weapons program depended on scientists, companies, and resources from the wartime German nuclear weapons program [Princeton University Library, Special Collections, Moe Berg Papers (C1413), Box 20, Folder 3—Loose Notes: Central Intelligence Agency].

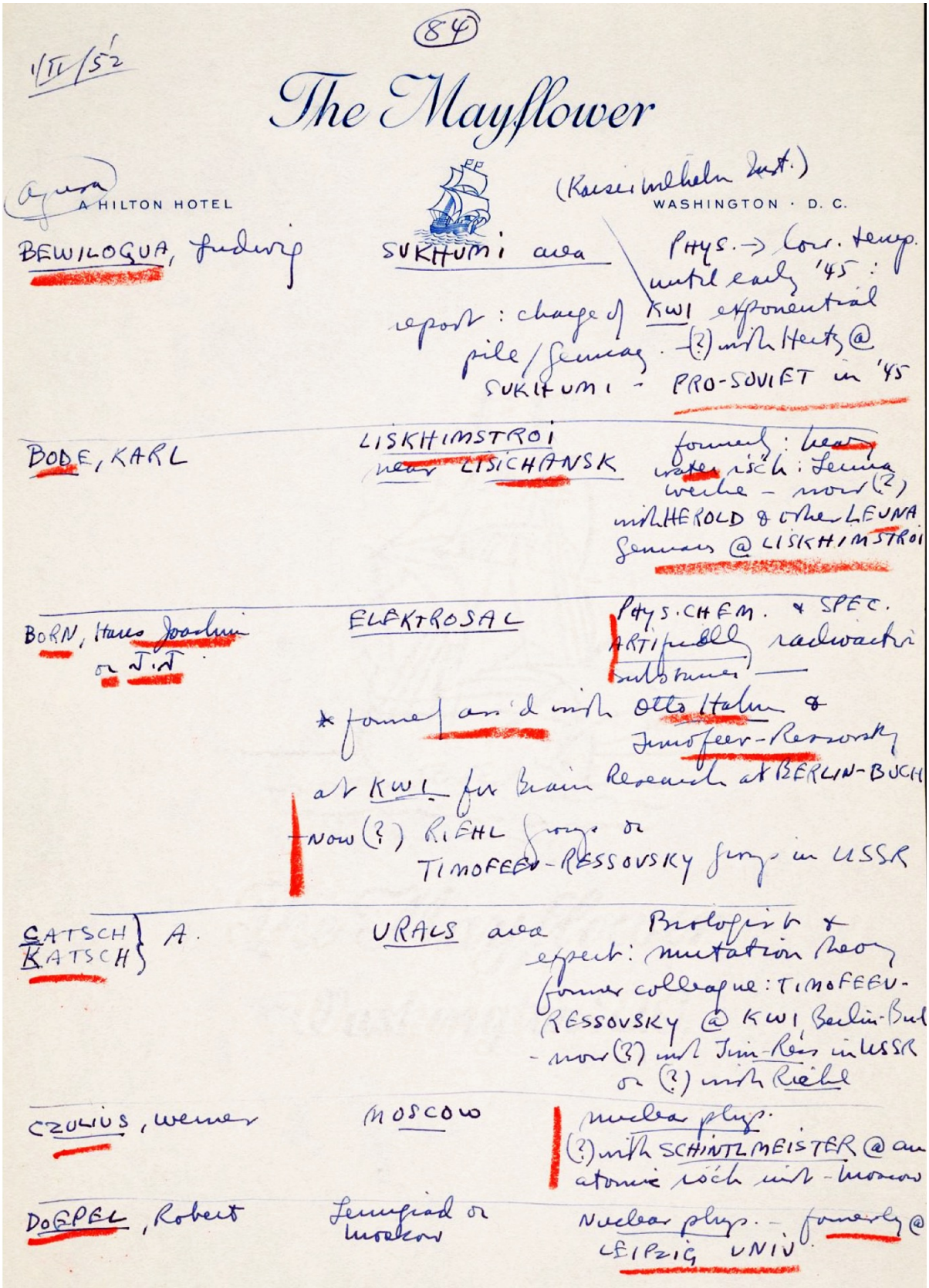


Figure D.1009: Moe Berg's 1952 notes reveal how extensively the postwar Soviet nuclear weapons program depended on scientists, companies, and resources from the wartime German nuclear weapons program [Princeton University Library, Special Collections, Moe Berg Papers (C1413), Box 20, Folder 3—Loose Notes: Central Intelligence Agency].

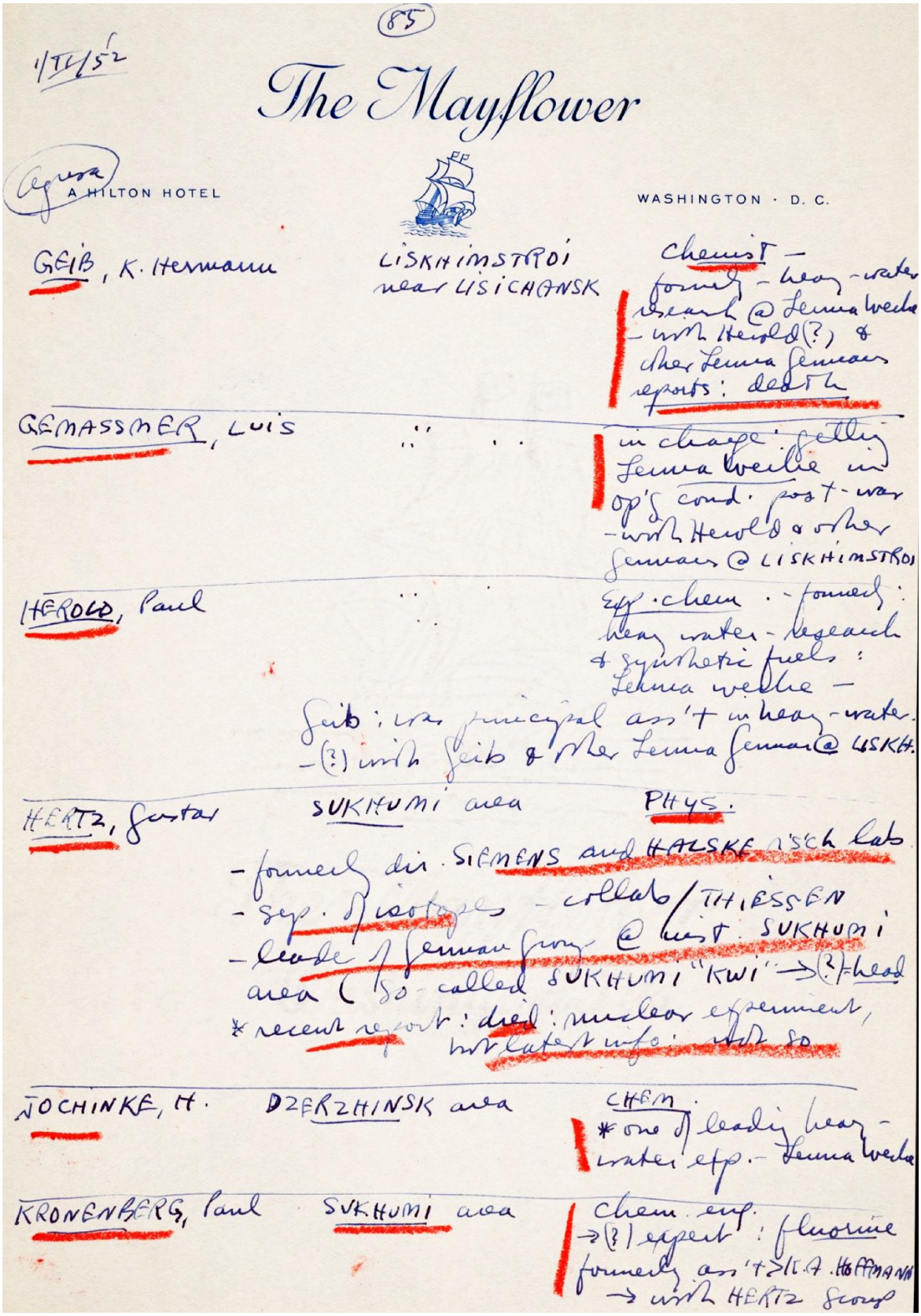


Figure D.1010: Moe Berg's 1952 notes reveal how extensively the postwar Soviet nuclear weapons program depended on scientists, companies, and resources from the wartime German nuclear weapons program [Princeton University Library, Special Collections, Moe Berg Papers (C1413), Box 20, Folder 3—Loose Notes: Central Intelligence Agency].

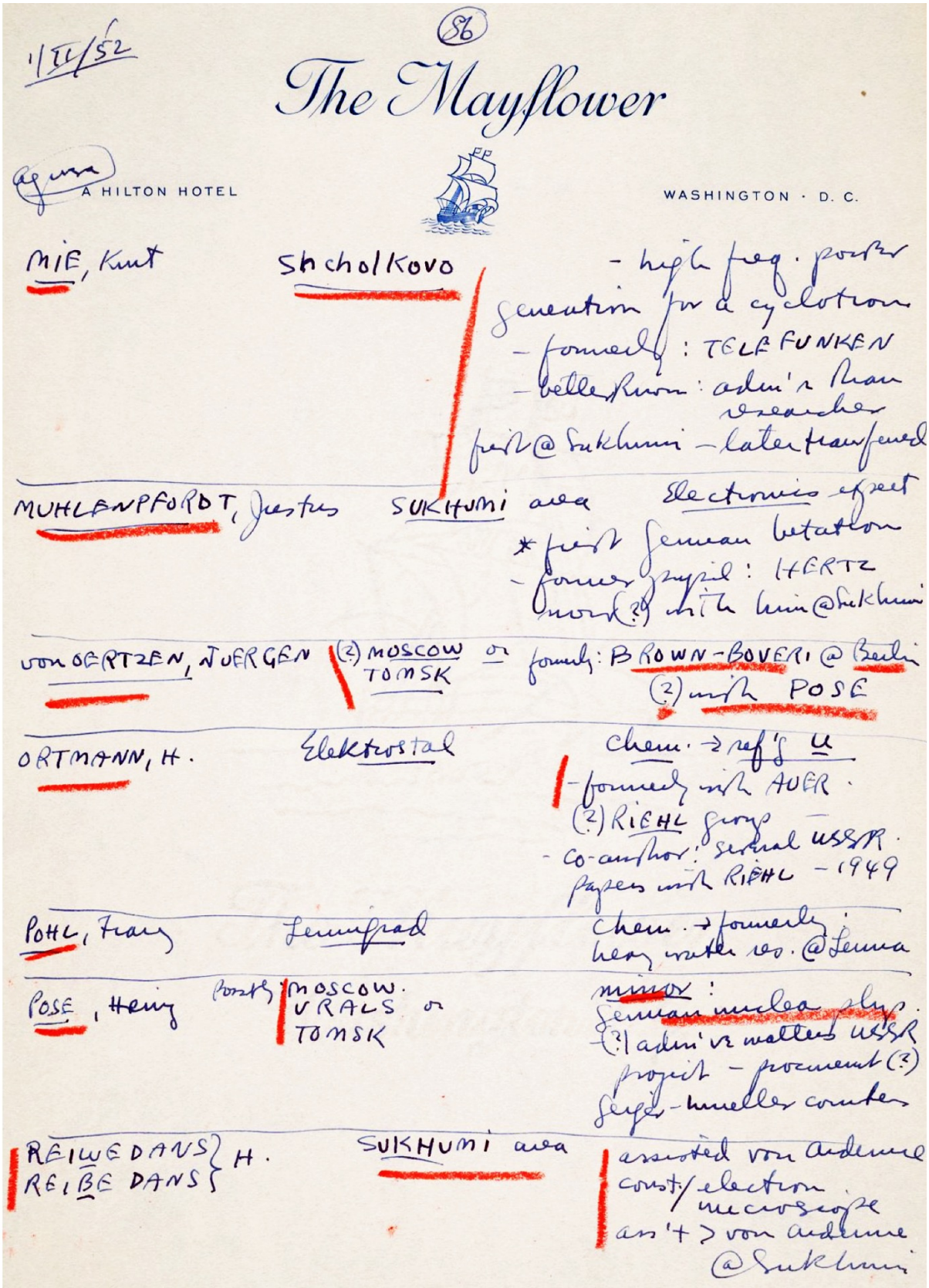


Figure D.1011: Moe Berg's 1952 notes reveal how extensively the postwar Soviet nuclear weapons program depended on scientists, companies, and resources from the wartime German nuclear weapons program [Princeton University Library, Special Collections, Moe Berg Papers (C1413), Box 20, Folder 3—Loose Notes: Central Intelligence Agency].

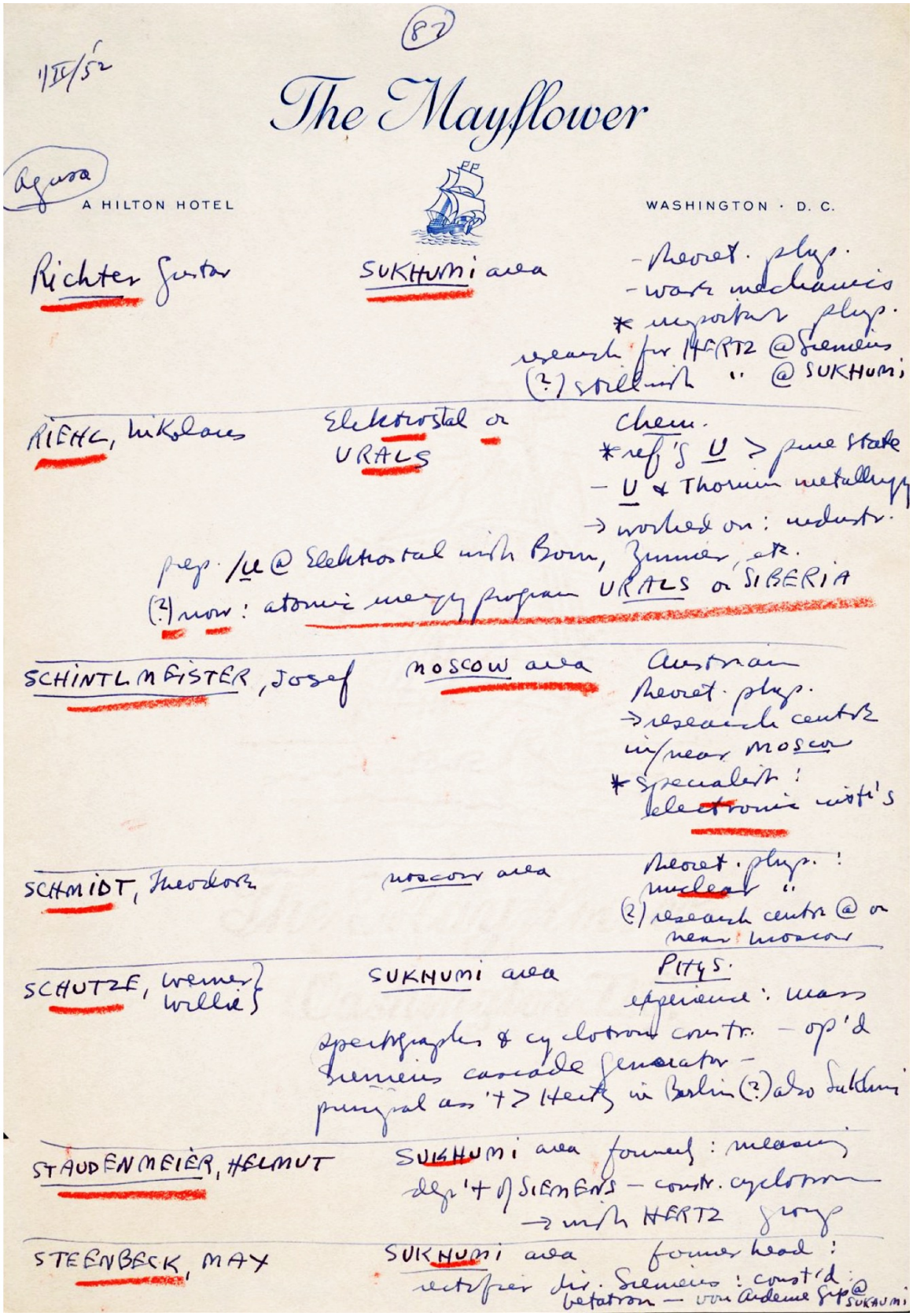


Figure D.1012: Moe Berg's 1952 notes reveal how extensively the postwar Soviet nuclear weapons program depended on scientists, companies, and resources from the wartime German nuclear weapons program [Princeton University Library, Special Collections, Moe Berg Papers (C1413), Box 20, Folder 3—Loose Notes: Central Intelligence Agency].

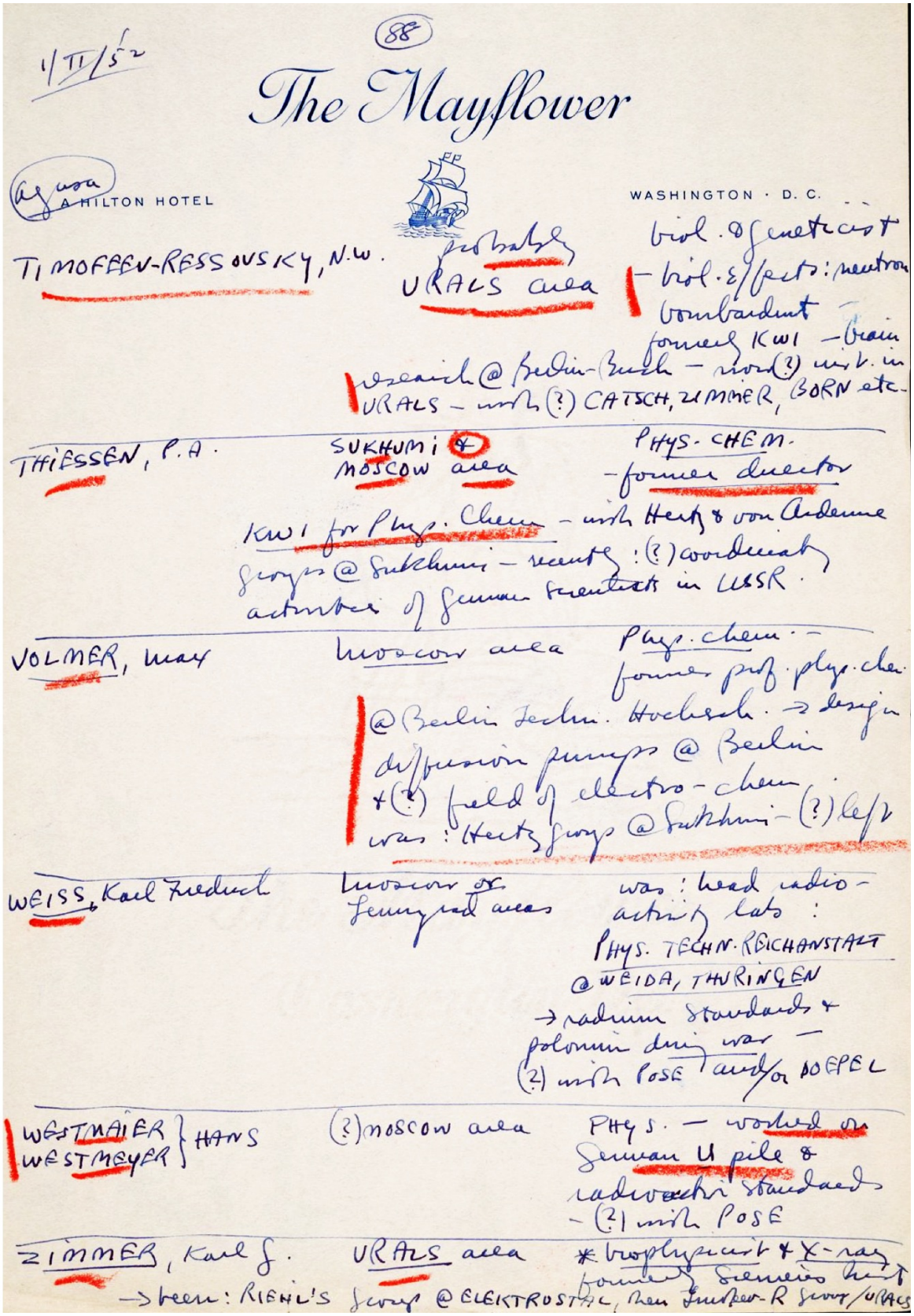
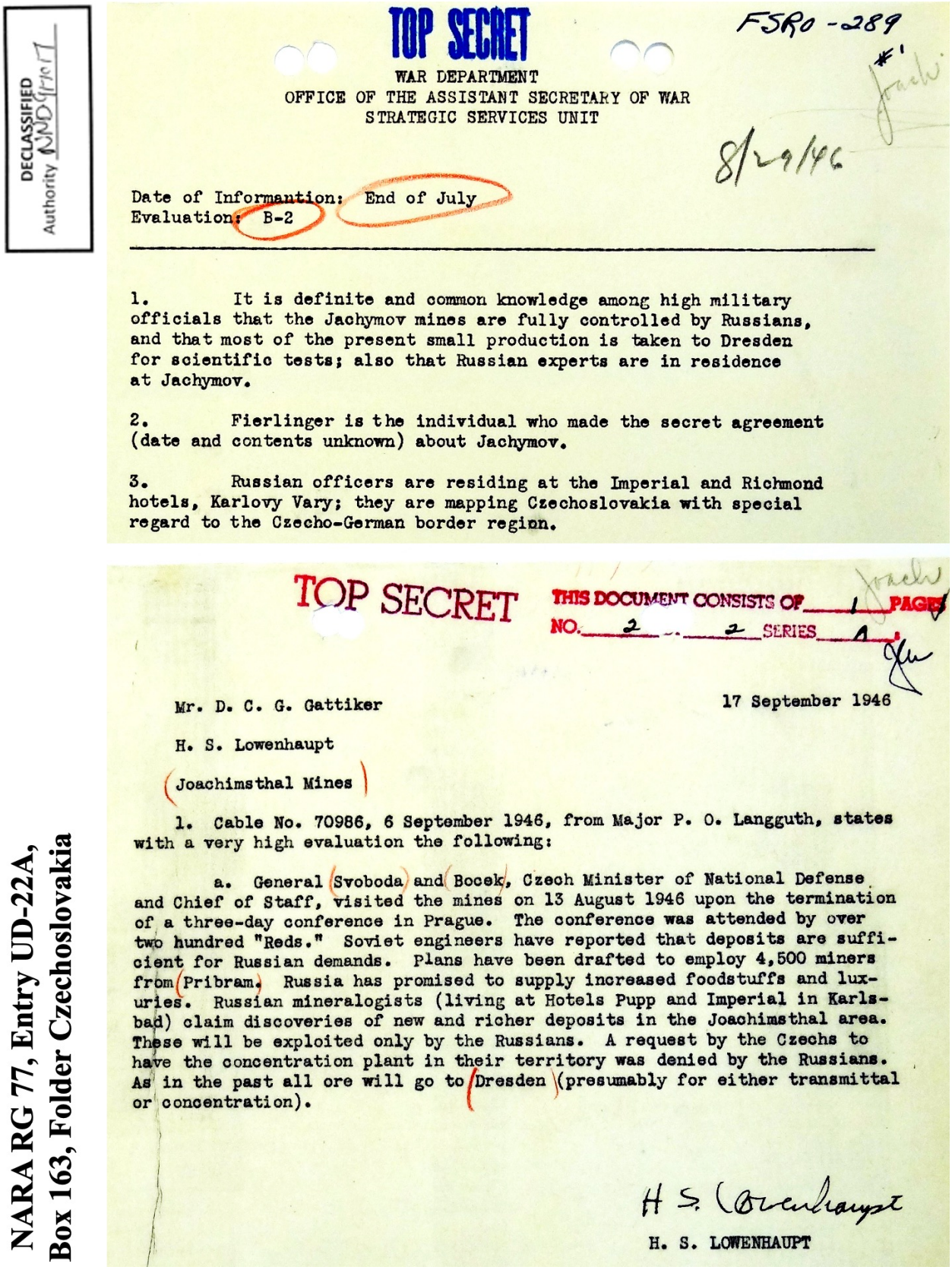


Figure D.1013: Moe Berg's 1952 notes reveal how extensively the postwar Soviet nuclear weapons program depended on scientists, companies, and resources from the wartime German nuclear weapons program [Princeton University Library, Special Collections, Moe Berg Papers (C1413), Box 20, Folder 3—Loose Notes: Central Intelligence Agency].



DECLASSIFIED Authority NND 963111

TOP SECRET

FSRO -289

WAR DEPARTMENT
OFFICE OF THE ASSISTANT SECRETARY OF WAR
STRATEGIC SERVICES UNIT

8/29/46

Date of Information: End of July
Evaluation: B-2

1. It is definite and common knowledge among high military officials that the Jachymov mines are fully controlled by Russians, and that most of the present small production is taken to Dresden for scientific tests; also that Russian experts are in residence at Jachymov.

2. Fierlinger is the individual who made the secret agreement (date and contents unknown) about Jachymov.

3. Russian officers are residing at the Imperial and Richmond hotels, Karlovy Vary; they are mapping Czechoslovakia with special regard to the Czecho-German border region.

TOP SECRET

THIS DOCUMENT CONSISTS OF 1 PAGES
NO. 2 OF 2 SERIES A

Mr. D. C. G. Gattiker

17 September 1946

H. S. Lowenhaupt

Joachimsthal Mines

1. Cable No. 70986, 6 September 1946, from Major P. O. Langguth, states with a very high evaluation the following:

a. General Svoboda and Bocek, Czech Minister of National Defense and Chief of Staff, visited the mines on 13 August 1946 upon the termination of a three-day conference in Prague. The conference was attended by over two hundred "Reds." Soviet engineers have reported that deposits are sufficient for Russian demands. Plans have been drafted to employ 4,500 miners from Pribram. Russia has promised to supply increased foodstuffs and luxuries. Russian mineralogists (living at Hotels Pupp and Imperial in Karlsbad) claim discoveries of new and richer deposits in the Joachimsthal area. These will be exploited only by the Russians. A request by the Czechs to have the concentration plant in their territory was denied by the Russians. As in the past all ore will go to Dresden (presumably for either transmittal or concentration).

H. S. Lowenhaupt

H. S. LOWENHAUPT

NARA RG 77, Entry UD-22A, Box 163, Folder Czechoslovakia

Figure D.1014: Some evidence of postwar Soviet use of wartime German nuclear facilities in and around Dresden [NARA RG 77, Entry UD-22A, Box 163, Folder Czechoslovakia].

Outgoing cable WAR 92817. 27 June 1946. [NARA RG 77, Entry UD-22A, Box 160, Folder 205.4 CABLES OUTGOING, TOP SECRET]

TOPSEC to McNarney from the Joint Chiefs of Staff.

1. Except for most cogent reasons you will not permit representatives of nations other than British Commonwealth (excluding Eire) to have access in any U.S. zone of occupation under your jurisdiction to technical information on the following subjects or to related intelligence targets:

applied nuclear physics;

radar and Asdic [sonar] countermeasures;

pressurized aerials for 3- and 10-cm GSR [radar] in U-Boats;

control of guided missiles and homing devices;

information concerning codes, cyphers, methods of communication, w/t deception or intelligence gained;

Kurier Gerät;

depth-keeping gear for submarines;

very high voltage investigation;

position-finding instruments (Prof. Pidery);

method of causing temporary blindness by ultraviolet rays;

biological warfare;

infrared equipment;

underwater propulsion employing hydrogen peroxide;

URSEL (underwater rocket gun);

LERCHE (wire-controlled homing torpedo);

PASAN (acoustic pattern torpedo);

NIBELUNG (Asdic device);

manufacturing routine of new German war gas SARIN;

results of trials with SARIN;

German physiological trials with CW gases;

laboratory developments in connection with SOMAN;

supersonic aircraft, missiles, and engines.

[...]

Outgoing cable WAR 99857. 9 September 1946. [NARA RG 77, Entry UD-22A, Box 160, Folder 205.4 CABLES OUTGOING, TOP SECRET]

To McNarney from Joint Intelligence Committee

Under authority in WAR 92817 the Joint Intelligence Commitee hereby modifies list therein to include the following:

> Applied and theoretical nuclear physics, including design and operation of devices for producing highly energetic particles, and isotope separation.
>
> Control of guided missiles and homing devices (air and water).
>
> All asdic (sonar) devices.
>
> All proximity fuzes.
>
> Extremely potent chemicals producing physiological effects.
>
> Cold weather operations including guided missile launching.

[These lists come from people who would definitely have known what they were talking about. They were classified Top Secret and sent directly from the U.S. Joint Chiefs of Staff to General Joseph T. McNarney, who at the time was both the military governor of the U.S.-occupied zone of Germany and also the commander in chief of the U.S. Forces of Occupation in Europe. Others who received the lists (and probably helped to create them) included General Leslie Groves, who was still in charge of all U.S. nuclear work and intelligence on foreign nuclear work. These lists were written over a year after the end of the war in Europe, after the U.S. had had time to investigate wartime German R&D in detail. Coming from that authoritative position, these lists appear to show that:

- All of these German programs (including nuclear and biological warfare) actually existed; otherwise the Joint Chiefs would not have included them in such a carefully chosen high-priority list, putting them on the same level as well documented programs such as sarin and soman.
- German work in these areas was so advanced that the United States was determined both to obtain that German work for itself and also to try to prevent other countries (other than the United Kingdom) from obtaining it.

What was the "method of causing temporary blindness by ultraviolet rays"?]

U.S. Department of Commerce. The Chemical Problem in Germany. Undated press release, probably from 1946, p. 8 [NARA RG 40, Entry UD-75, Box 3, Folder Press Releases]. [See document photos on p. 5067.]

Spectacular accomplishments in uranium, nitrogen, oxygen recovery, plastics, nuclear physics and many other fields, have been uncovered in the investigation of the chemicals field alone.

NARA RG 40, Entry UD-75, Box 3, Folder Press Releases, The Chemical Problem in Germany

THE CHEMICAL PROBLEM IN GERMANY

The picture in scientific and chemical fields of development has long been very competitive and often retarded by the lack of financial assistance. Many of the industries of the United States while progressive on the production line have been quite willing to accept the benefit of the research and development of others, but not bothering to maintain research units of their own.

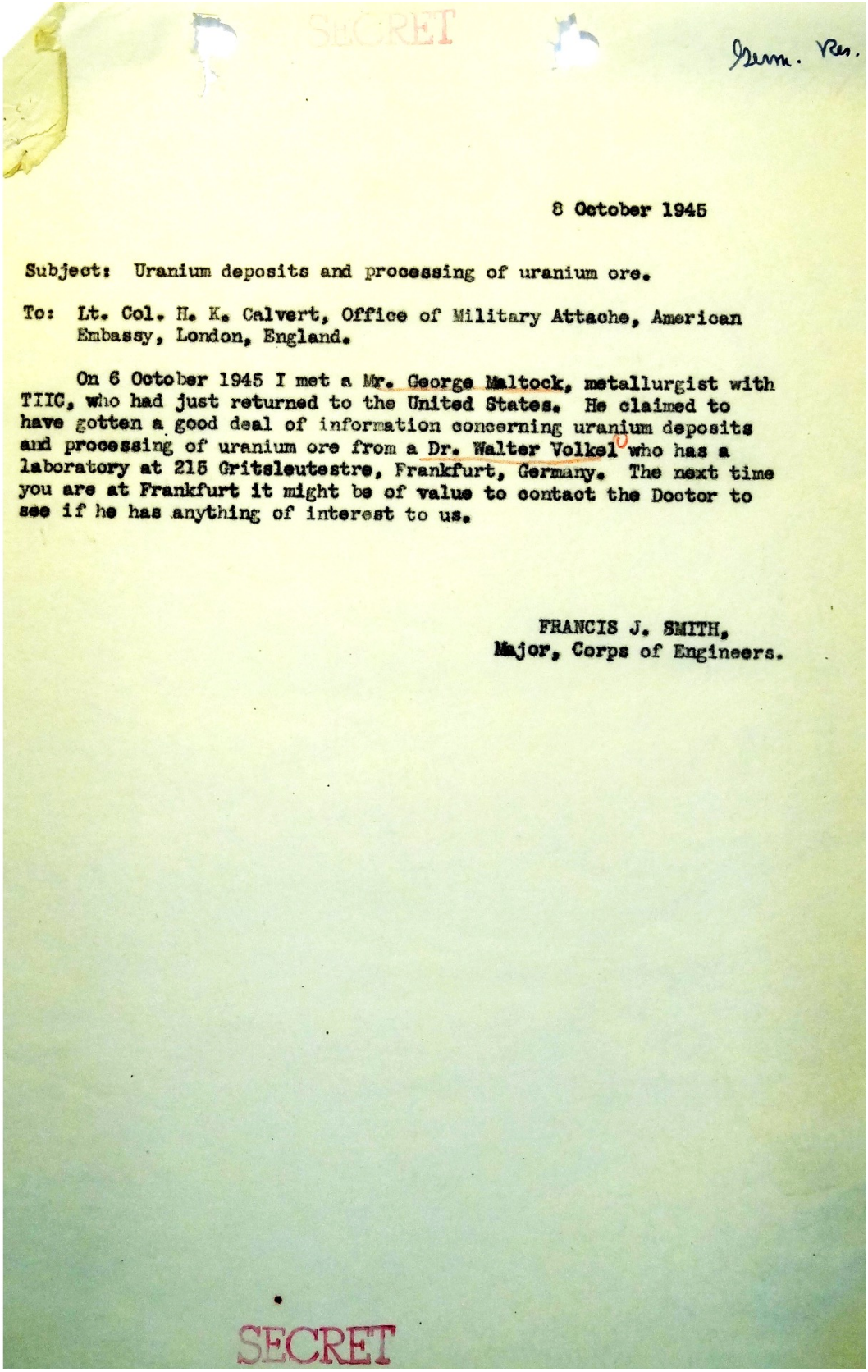
Many of the chemical achievements now in use are the result of the research and development accomplished in other countries. While the United States enjoys the privilege of a school system that can and does provide numbers of young scientists, well versed in their particular fields, few are employed by industry at salaries commensurate with their skill. Consequently, the young scientific mind resolves the problem as one of miss-selection, so therefore, seeks and obtains more remunerative positions outside of their field causing a complete dislocation of their academic achievements.

The German government and German industry had an entirely different attitude toward their scientifically trained men. The research and development work accomplished in the past decade will attest the value of subsidizing the scientists in the form of annuities and awards, not only for completed work but generous suprort of an idea from its embryonic imaginary state, through the laboratories, pilot plant, to the final production stage.

Spectacular accomplishment in uranium, nitrogen, oxygen recovery, plastics, nuclear physics and many other fields, have been uncovered in the investigation of the chemicals field alone.

Sulphonated oil fat liquors, comprising a complete range of oils: including animal, vegetable and synthetic were developed successfully. These

Figure D.1015: U.S. Department of Commerce. The Chemical Problem in Germany. Undated press release, probably from 1946, excerpts [NARA RG 40, Entry UD-75, Box 3, Folder Press Releases].



SECRET

Gen. Res.

8 October 1945

Subject: Uranium deposits and processing of uranium ore.

To: Lt. Col. H. K. Calvert, Office of Military Attache, American Embassy, London, England.

On 6 October 1945 I met a Mr. George Maltock, metallurgist with TIIC, who had just returned to the United States. He claimed to have gotten a good deal of information concerning uranium deposits and processing of uranium ore from a Dr. Walter Volkel who has a laboratory at 215 Gritsleutestre, Frankfurt, Germany. The next time you are at Frankfurt it might be of value to contact the Doctor to see if he has anything of interest to us.

FRANCIS J. SMITH,
Major, Corps of Engineers.

SECRET

Figure D.1016: Francis J. Smith to Horace K. Calvert. 8 October 1945. Subject: Uranium deposits and processing of uranium ore [NARA RG 77, Entry UD-22A, Box 167, Folder 32.12-2 GERMANY: Personnel (Jan 45–Dec 45)].

NARA RG 77, Entry UD-22A, Box 167, Folder 32.12-2 GERMANY: Personnel (Jan 45-Dec 45)

CONFIDENTIAL

November 21, 1945.

Mr. Edwin Y. Webb, Jr.,
Chief, Communications Unit,
Technical Industrial Intelligence Branch,
Joint Intelligence Staff,
The Joint Chiefs of Staff,
Washington 25, D.C.

Dear Mr. Webb:

Thank you for bringing to my attention the letter from Mr. C. W. Hansell and also the information concerning Dr. Walter Bothe and the cyclotron in Heidelberg.

I have taken this matter up with the proper authorities and you may assure Mr. Hansell that the appropriate investigations have been conducted in Germany by competent investigators in the field of nuclear physics.

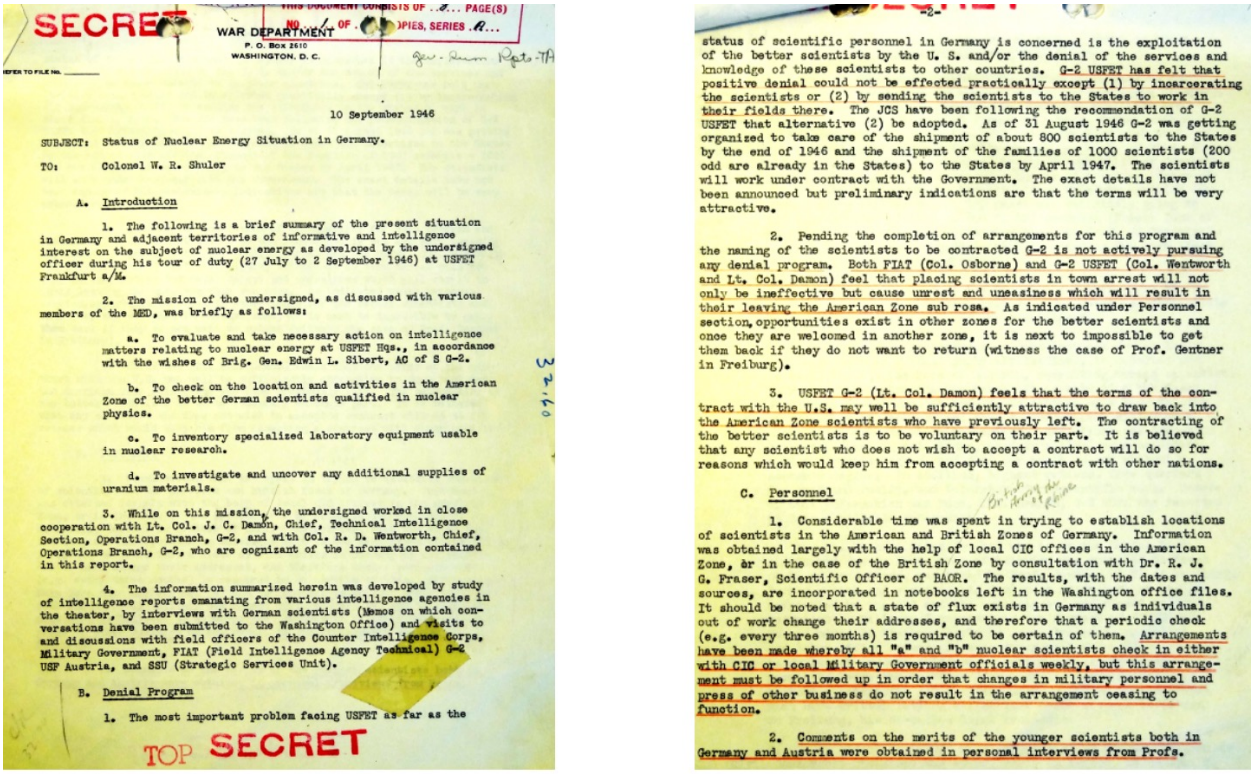
You may further advise Mr. Hansell that reports of this nature are not being declassified at the present time. However, every effort is being made to make public as rapidly as the military situation permits all scientific information that may be of interest to scientists.

Very truly yours,

Col Shuler
What is this about
ly

V. Bush,
Director.

Figure D.1017: Vannevar Bush to Edwin Y. Webb Jr. 21 November 1945. [NARA RG 77, Entry UD-22A, Box 167, Folder 32.12-2 GERMANY: Personnel (Jan 45–Dec 45)]



SECRET

WAR DEPARTMENT
P. O. Box 2610
WASHINGTON, D. C.

10 September 1946

SUBJECT: Status of Nuclear Energy Situation in Germany.

TO: Colonel W. R. Shuler

A. Introduction

1. The following is a brief summary of the present situation in Germany and adjacent territories of informative and intelligence interest on the subject of nuclear energy as developed by the undersigned officer during his tour of duty (27 July to 2 September 1946) at USFET Frankfurt a/M.

2. The mission of the undersigned, as discussed with various members of the MED, was briefly as follows:

a. To evaluate and take necessary action on intelligence matters relating to nuclear energy at USFET Hqs., in accordance with the wishes of Brig. Gen. Edwin L. Sibert, AC of S G-2.

b. To check on the location and activities in the American Zone of the better German scientists qualified in nuclear physics.

c. To inventory specialized laboratory equipment usable in nuclear research.

d. To investigate and uncover any additional supplies of uranium materials.

3. While on this mission, the undersigned worked in close cooperation with Lt. Col. J. C. Damon, Chief, Technical Intelligence Section, Operations Branch, G-2, and with Col. R. D. Wentworth, Chief, Operations Branch, G-2, who are cognizant of the information contained in this report.

4. The information summarized herein was developed by study of intelligence reports emanating from various intelligence agencies in the theater, by interviews with German scientists (Memos on which conversations have been submitted to the Washington Office) and visits to and discussions with field officers of the Counter Intelligence Corps, Military Government, FIAT (Field Intelligence Agency Technical) G-2 USF Austria, and SSU (Strategic Services Unit).

B. Denial Program

1. The most important problem facing USFET as far as the

TOP SECRET

-2-

status of scientific personnel in Germany is concerned is the exploitation of the better scientists by the U. S. and/or the denial of the services and knowledge of these scientists to other countries. G-2 USFET has felt that positive denial could not be effected practically except (1) by incarcerating the scientists or (2) by sending the scientists to the States to work in their fields there. The JCS have been following the recommendation of G-2 USFET that alternative (2) be adopted. As of 31 August 1946 G-2 was getting organized to take care of the shipment of about 800 scientists to the States by the end of 1946 and the shipment of the families of 1000 scientists (200 odd are already in the States) to the States by April 1947. The scientists will work under contract with the Government. The exact details have not been announced but preliminary indications are that the terms will be very attractive.

2. Pending the completion of arrangements for this program and the naming of the scientists to be contracted G-2 is not actively pursuing any denial program. Both FIAT (Col. Osborne) and G-2 USFET (Col. Wentworth and Lt. Col. Damon) feel that placing scientists in town arrest will not only be ineffective but cause unrest and uneasiness which will result in their leaving the American Zone sub rosa. As indicated under Personnel section, opportunities exist in other zones for the better scientists and once they are welcomed in another zone, it is next to impossible to get them back if they do not want to return (witness the case of Prof. Gentner in Freiburg).

3. USFET G-2 (Lt. Col. Damon) feels that the terms of the contract with the U.S. may well be sufficiently attractive to draw back into the American Zone scientists who have previously left. The contracting of the better scientists is to be voluntary on their part. It is believed that any scientist who does not wish to accept a contract will do so for reasons which would keep him from accepting a contract with other nations.

C. Personnel

1. Considerable time was spent in trying to establish locations of scientists in the American and British Zones of Germany. Information was obtained largely with the help of local CIC offices in the American Zone, ar in the case of the British Zone by consultation with Dr. R. J. G. Fraser, Scientific Officer of BAOR. The results, with the dates and sources, are incorporated in notebooks left in the Washington office files. It should be noted that a state of flux exists in Germany as individuals out of work change their addresses, and therefore that a periodic check (e.g. every three months) is required to be certain of them. Arrangements have been made whereby all "a" and "b" nuclear scientists check in either with CIC or local Military Government officials weekly, but this arrangement must be followed up in order that changes in military personnel and press of other business do not result in the arrangement ceasing to function.

2. Comments on the merits of the younger scientists both in Germany and Austria were obtained in personal interviews from Profs.

DECLASSIFIED
Authority 917017

NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 GERMANY: Summary Reports (1945–1946)

-3-

Bothe, Hahn, Heisenberg, Clusius, Jentschke, Kirchner. Memos on these interviews are in the Washington and London office files.

3. The situation with regard to faculties of science is not settled. Student enrollments are up about 50% over pre-war (says Clusius). Adequate trained teachers who are politically clear and available are difficult to obtain. Zonal boundaries interfere. Prof. Bothe needs a theoretical physicist, Clusius needs Gerlach and Heisenberg back at U. of Munich, (Clusius is dean of science faculty as well as Prof. of Phys. Chem., U. of Munich), Gentner has been authorized by the French Military Governor to hire Drs. Otto Haxel and H. P. Jensen for the U. of Freiburg, (copy of letter of authorization is in the Washington office file) the British (Dr. Fraser) and Heisenberg talk as though Dr. Haxel was definitely going to accept an offer from U. of Göttingen, the U. of Innsbruck (French Zone of Austria) has offered Dr. Jentschke a position (acc. to Prof. H. Thirring). These cases are cited to show the bidding that is going on for high class scientific personnel in university circles.

4. Reports are common that the French and Russians are hiring scientists regardless of past political history. Two cases to substantiate this statement came to the attention of the undersigned.

a. Prof. Josef Schintlmeister, who lost his job at the U. of Vienna because of Nazi party affiliations, is reported now to be in the Russian Zone of Austria, recruiting German scientists to work with him for the Russians. It is said that the Czech Government, under Russian orders, is setting up a new Ministry of Invention at Jachymov and that Schintlmeister will head a group of scientists at this location. His offers are $300-$500 per month (part in schillings, part in rubles) to a scientist with a doctor's degree, and $150 per month to one without a doctor's degree: In addition, highest rations, free quarters for self and family, and laboratory for scientific work. Source of this information was Tech. Int. Branch, G-2 USFA who received it from a reliable sub-source.

b. Dr. Herbert Peter Jensen, who is on the Denial List of JCS and due to Nazi Party affiliation was not able to teach at U. of Heidelberg, was hired by Prof. Gentner at U. of Freiburg. During a week-end visit to his family at Heidelberg he was interrogated by the CIC and the undersigned, and placed in town restraint by Military Government at the request of USFET G-2. He had moved to Freiburg early in June, transferring police and labor office records in accordance with German law. However, he could not produce evidence of having a Military Government permit to leave the American Zone. He is now in Heidelberg without a scientific job and very unhappy. Both he and French Fiat have written letters asking that he be allowed to return to Freiburg, his so-called legal residence.

5. In an effort to secure more information on nuclear scientists CCD (Civil Censorship Division) was asked, early in August, to censor

-4-

all mail to and from the nuclear scientists on the JCS Denial List and those not on the list but rated "a" or "b" by either Washington or London offices. Letter intercepts had not yet started to arrive at USFET G-2 from this program, by 31 August 1946.

D. Uranium Materials

1. Raw Materials

a. SSU has finally developed information, which appears fairly reliable, that the mines at Jachymov are being operated for the Russians. This information has been reported in the Czechoslovak press. The true nature of the information is substantiated by the report an informant of SSU that the editor of the paper was called to task for having published such highly classified information. In addition, information contained in Report L-1597 stated that the abandoned gold and silver mines near Johanngeorgenstadt, which is just across the Czech border from Jachymov, are being worked on energetically by the Russians and that necessary electric supply lines are being installed. The undersigned has discussed this information with SSU Headquarters at Heidelberg and briefed them on the type of information which an informant placed in the mines might obtain which would permit determination of the approximate scale of the activities at these two locations i.e. the amount of production, the extent of concentration being effective at the mine, the destination of the shipments of metal, information as to whether the material is going into a chemical plant or into a laboratory and, if so, what plant or whose laboratory.

2. Processed Materials

a. Reports regarding the production of heavy water at Leuna Werke of Merseburg are still vague as to positive information (L-1409, L-1613). It has been stated that pilot plants are working full capacity at both Merseburg and Halle. SSU also been requested to endeavor to get more positive information as to whether plants were operating at one or both locations and at what rates of production. The difficulty of a non-technical individual obtaining this information was pointed out to SSU, since in appearance natural water and heavy water do not appear different and containers used could very easily be mistaken for some that were used for transporting gases. SSU plans to place a chemist-informant in Leuna Werke who will be briefed on this subject.

b. The undersigned determined the presence of thorium metal in powder form and approximately 7-8 tons of ammonium uranate and uranium oxide at the Degussa Plant, 251 Gutleitster, Frankfurt a/M. 30 kilograms of thorium have been removed from the plant and given to Major Langguth. A sample of the ammonium uranate has been brought to the states and a sample also given to Commander Welsh in London. Commander Welsh recommends that the total amount of ammonium uranate be immediately removed from the plant and shipped to England, to be included in the material being accumulated there. It should be

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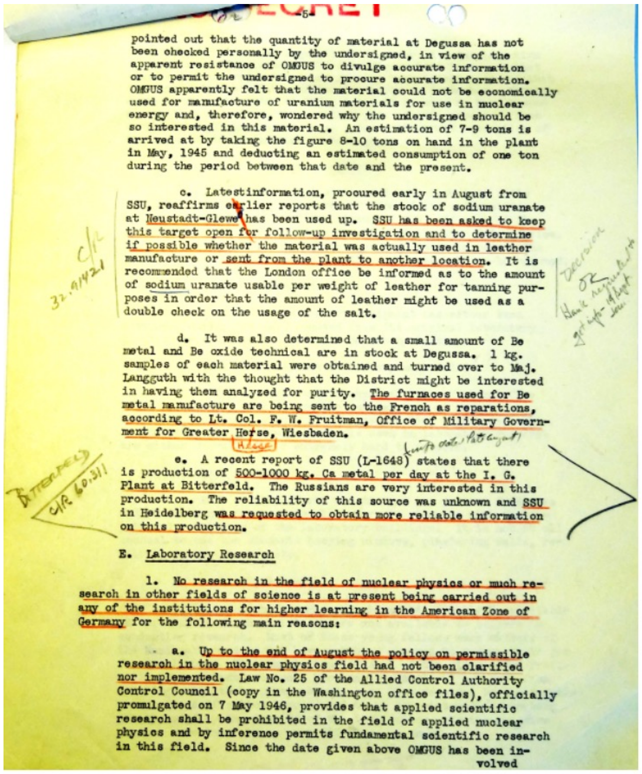
Figure D.1018: Canfield Hadlock to W. R. Shuler. 10 September 1946. Subject: Status of Nuclear Energy Situation in Germany [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 GERMANY: Summary Reports (1945–1946)].



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pointed out that the quantity of material at Degussa has not been checked personally by the undersigned, in view of the apparent resistance of OMGUS to divulge accurate information or to permit the undersigned to procure accurate information. OMGUS apparently felt that the material could not be economically used for manufacture of uranium materials for use in nuclear energy and, therefore, wondered why the undersigned should be so interested in this material. An estimation of 7-9 tons is arrived at by taking the figure 8-10 tons on hand in the plant in May, 1945 and deducting an estimated consumption of one ton during the period between that date and the present.

c. Latestinformation, procured early in August from SSU, reaffirms earlier reports that the stock of sodium uranate at Neustadt-Glewe has been used up. SSU has been asked to keep this target open for follow-up investigation and to determine if possible whether the material was actually used in leather manufacture or sent from the plant to another location. It is recommended that the London office be informed as to the amount of sodium uranate usable per weight of leather for tanning purposes in order that the amount of leather might be used as a double check on the usage of the salt.

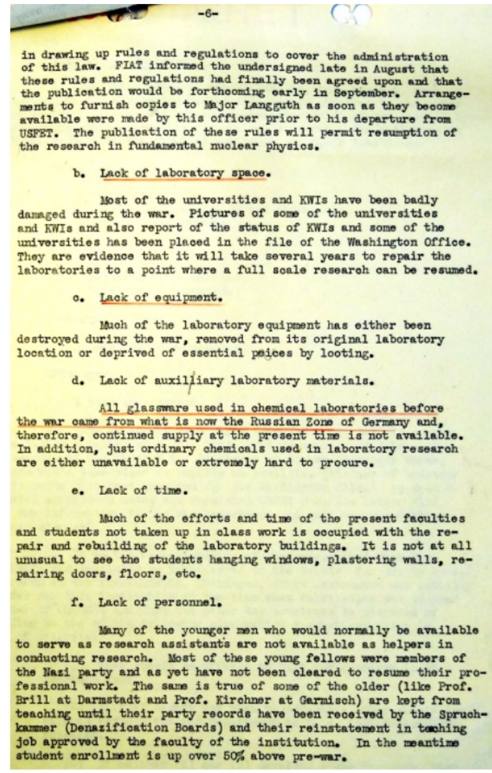
d. It was also determined that a small amount of Be metal and Be oxide technical are in stock at Degussa. 1 kg. samples of each material were obtained and turned over to Maj. Langguth with the thought that the District might be interested in having them analyzed for purity. The furnaces used for Be metal manufacture are being sent to the French as reparations, according to Lt. Col. F. W. Fruitman, Office of Military Government for Greater Herse, Wiesbaden.

e. A recent report of SSU (L-1648) states that there is production of 500-1000 kg. Ca metal per day at the I. G. Plant at Bitterfeld. The Russians are very interested in this production. The reliability of this source was unknown and SSU in Heidelberg was requested to obtain more reliable information on this production.

E. Laboratory Research

1. No research in the field of nuclear physics or much research in other fields of science is at present being carried out in any of the institutions for higher learning in the American Zone of Germany for the following main reasons:

a. Up to the end of August the policy on permissible research in the nuclear physics field had not been clarified nor implemented. Law No. 25 of the Allied Control Authority Control Council (copy in the Washington office files), officially promulgated on 7 May 1946, provides that applied scientific research shall be prohibited in the field of applied nuclear physics and by inference permits fundamental scientific research in this field. Since the date given above OMGUS has been involved



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in drawing up rules and regulations to cover the administration of this law. FIAT informed the undersigned late in August that these rules and regulations had finally been agreed upon and that the publication would be forthcoming early in September. Arrangements to furnish copies to Major Langguth as soon as they become available were made by this officer prior to his departure from USFET. The publication of these rules will permit resumption of the research in fundamental nuclear physics.

b. Lack of laboratory space.

Most of the universities and KWIs have been badly damaged during the war. Pictures of some of the universities and KWIs and also report of the status of KWIs and some of the universities has been placed in the file of the Washington Office. They are evidence that it will take several years to repair the laboratories to a point where a full scale research can be resumed.

c. Lack of equipment.

Much of the laboratory equipment has either been destroyed during the war, removed from its original laboratory location or deprived of essential peices by looting.

d. Lack of auxiliary laboratory materials.

All glassware used in chemical laboratories before the war came from what is now the Russian Zone of Germany and, therefore, continued supply at the present time is not available. In addition, just ordinary chemicals used in laboratory research are either unavailable or extremely hard to procure.

e. Lack of time.

Much of the efforts and time of the present faculties and students not taken up in class work is occupied with the repair and rebuilding of the laboratory buildings. It is not at all unusual to see the students hanging windows, plastering walls, repairing doors, floors, etc.

f. Lack of personnel.

Many of the younger men who would normally be available to serve as research assistants are not available as helpers in conducting research. Most of these young fellows were members of the Nazi party and as yet have not been cleared to resume their professional work. The same is true of some of the older (like Prof. Brill at Darmstadt and Prof. Kirchner at Garmisch) are kept from teaching until their party records have been received by the Spruchkammer (Denazification Boards) and their reinstatement in teching job approved by the faculty of the institution. In the meantime student enrollment is up over 50% above pre-war.

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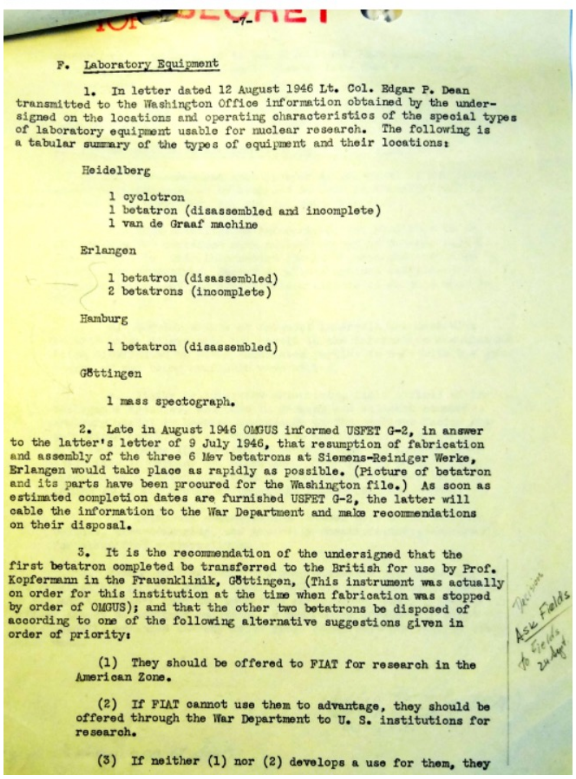
NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 GERMANY: Summary Reports (1945–1946)



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F. Laboratory Equipment

1. In letter dated 12 August 1946 Lt. Col. Edgar P. Dean transmitted to the Washington Office information obtained by the undersigned on the locations and operating characteristics of the special types of laboratory equipment usable for nuclear research. The following is a tabular summary of the types of equipment and their locations:

Heidelberg

1 cyclotron
1 betatron (disassembled and incomplete)
1 van de Graaf machine

Erlangen

1 betatron (disassembled)
2 betatrons (incomplete)

Hamburg

1 betatron (disassembled)

Göttingen

1 mass spectograph.

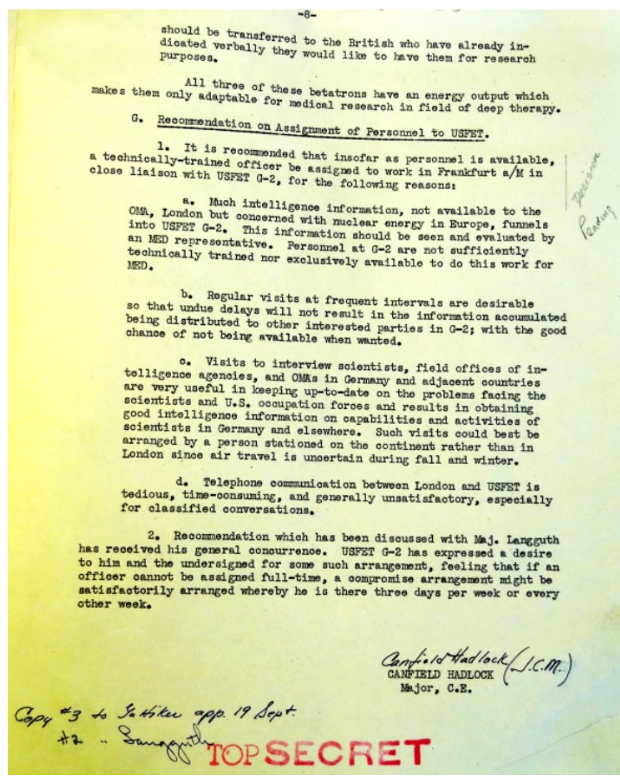
2. Late in August 1946 OMGUS informed USFET G-2, in answer to the latter's letter of 9 July 1946, that resumption of fabrication and assembly of the three 6 Mev betatrons at Siemens-Reiniger Werke, Erlangen would take place as rapidly as possible. (Picture of betatron and its parts have been procured for the Washington file.) As soon as estimated completion dates are furnished USFET G-2, the latter will cable the information to the War Department and make recommendations on their disposal.

3. It is the recommendation of the undersigned that the first betatron completed be transferred to the British for use by Prof. Kopfermann in the Frauenklinik, Göttingen, (This instrument was actually on order for this institution at the time when fabrication was stopped by order of OMGUS); and that the other two betatrons be disposed of according to one of the following alternative suggestions given in order of priority:

(1) They should be offered to FIAT for research in the American Zone.

(2) If FIAT cannot use them to advantage, they should be offered through the War Department to U. S. institutions for research.

(3) If neither (1) nor (2) develops a use for them, they



-8-

should be transferred to the British who have already indicated verbally they would like to have them for research purposes.

All three of these betatrons have an energy output which makes them only adaptable for medical research in field of deep therapy.

G. Recommendation on Assignment of Personnel to USFET.

1. It is recommended that insofar as personnel is available, a technically-trained officer be assigned to work in Frankfurt a/M in close liaison with USFET G-2, for the following reasons:

a. Much intelligence information, not available to the OMA, London but concerned with nuclear energy in Europe, funnels into USFET G-2. This information should be seen and evaluated by an MED representative. Personnel at G-2 are not sufficiently technically trained nor exclusively available to do this work for MED.

b. Regular visits at frequent intervals are desirable so that undue delays will not result in the information accumulated being distributed to other interested parties in G-2; with the good chance of not being available when wanted.

c. Visits to interview scientists, field offices of intelligence agencies, and OMAs in Germany and adjacent countries are very useful in keeping up-to-date on the problems facing the scientists and U.S. occupation forces and results in obtaining good intelligence information on capabilities and activities of scientists in Germany and elsewhere. Such visits could best be arranged by a person stationed on the continent rather than in London since air travel is uncertain during fall and winter.

d. Telephone communication between London and USFET is tedious, time-consuming, and generally unsatisfactory, especially for classified conversations.

2. Recommendation which has been discussed with Maj. Langguth has received his general concurrence. USFET G-2 has expressed a desire to him and the undersigned for some such arrangement, feeling that if an officer cannot be assigned full-time, a compromise arrangement might be satisfactorily arranged whereby he is there three days per week or every other week.

Canfield Hadlock (J.C.M.)
CANFIELD HADLOCK
Major, C.E.

Copy #3 to [illegible] app. 19 Sept.
#2 " Langguth

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Figure D.1019: Canfield Hadlock to W. R. Shuler. 10 September 1946. Subject: Status of Nuclear Energy Situation in Germany [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 GERMANY: Summary Reports (1945–1946)].

Colonel George Bryant Woods. 1946. *The Aircraft Manufacturing Industry: Present and Future Prospects.* New York: White, Weld & Co. Frontispiece and p. 32.

GERMAN SUPERSONIC SPEED ROCKET. This large anti-aircraft rocket called "Rheintochter" was under final development at the end of the war—a forerunner of future "push-button warfare." It was remotely controlled by radio and carried a 330-lb. explosive charge activated by a proximity fuse. [...]

Germany's Plans for the "A-9" with Atomic Bomb

The range of the V-2 was only something over 200 miles but this was sufficient to reach all intended targets at that time. The German scientists, however, had not stopped with the V-2. During 1945 they had already built at Peenemünde (in the hands of the Russians since that time) several "A-9's". This was a winged V-2, either manned or unmanned, and intended for a range of around 3,000 miles with the aid of a large auxiliary launching rocket. Together the launching rocket and the A-9 weighed 110 tons, as compared with 13½ tons for the V-2. After the auxiliary launching rocket had accomplished its purpose and dropped off, the A-9 was designed to continue under its own power wholly outside the earth's atmosphere at an altitude of approximately 150 miles, and at an estimated speed of 5,800 miles per hour. This obviously would mean an Atlantic crossing in well under an hour's time, and a launching ramp had already been constructed in Normandy prior to the Allied invasion.

In captured scientific German documents there are diagrams of the city of New York showing anticipated areas of destruction to be expected after perfection of such a weapon to carry an atomic war head, and it is well known that the Germans originally had hoped to have their atomic bomb developments completed by the end of 1944. The Germans had many other advanced developments in guided missiles, but the V-2 was an actual accomplishment and its further development for long range was just a matter of time. Meanwhile all the allied nations have recourse to the captured German documents describing their future plans for these weapons and many of the former German scientists responsible for these developments are known to be continuing their work in each of the allied countries. Adequate defense against such weapons as the V-2 and the A-9 will require highly ingenious and supersonic defensive weapons, and no country can afford to forego the necessary expense for basic and applied research to that end.

[See document photos on p. 5073. Woods was not merely speculating in the above text; he was writing from a position of very well-informed authority. He was a colonel in the Air Technical Services Command (ATSC)/Air Materiel Command (AMC), serving as an intelligence officer in Europe during World War II and helping to collect and analyze captured German research after the war (probably working for Donald Putt). After writing this book, he went on to become Assistant to the Undersecretary of the Air Force 1947–1950.

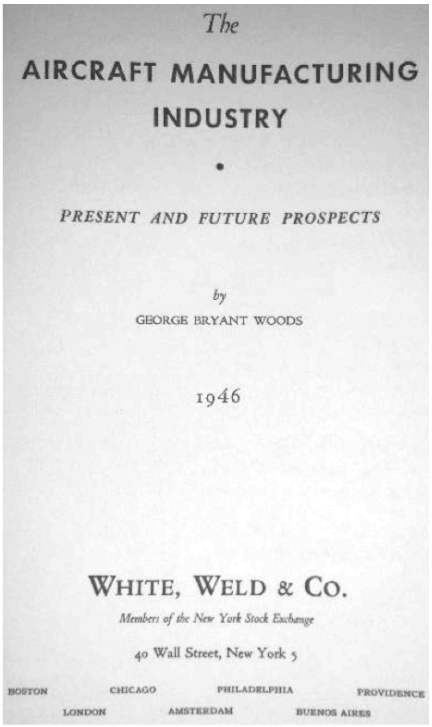
See for example: George B. Woods, Former Assistant to Air Undersecretary. *Evening Star* (Washington, D.C.), 5 March 1954, p. A-12. https://chroniclingamerica.loc.gov/lccn/sn83045462/1954-03-05/ed-1/seq-12/

For similar statements from other sources, see pp. 4411 (paragraph 15), 4638, 5022, 5031, 4832, and 5821.]

Colonel George Bryant Woods

Intelligence, Air Technical Services Command during WWII

Assistant to the Undersecretary of the Air Force 1947–1950



The
AIRCRAFT MANUFACTURING INDUSTRY

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PRESENT AND FUTURE PROSPECTS

by
GEORGE BRYANT WOODS

1946

WHITE, WELD & CO.
Members of the New York Stock Exchange
40 Wall Street, New York 5
BOSTON CHICAGO PHILADELPHIA PROVIDENCE
LONDON AMSTERDAM BUENOS AIRES

Germany's Plans for the "A-9" with Atomic Bomb

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Figure D.1020: Colonel George Woods wrote of "Germany's Plans for the 'A-9' with Atomic Bomb": "it is well known that the Germans originally had hoped to have their atomic bomb developments completed by the end of 1944" [Woods 1946]. See also pp. 4411, 4638, 5022, 5031, 4832, and 5821.

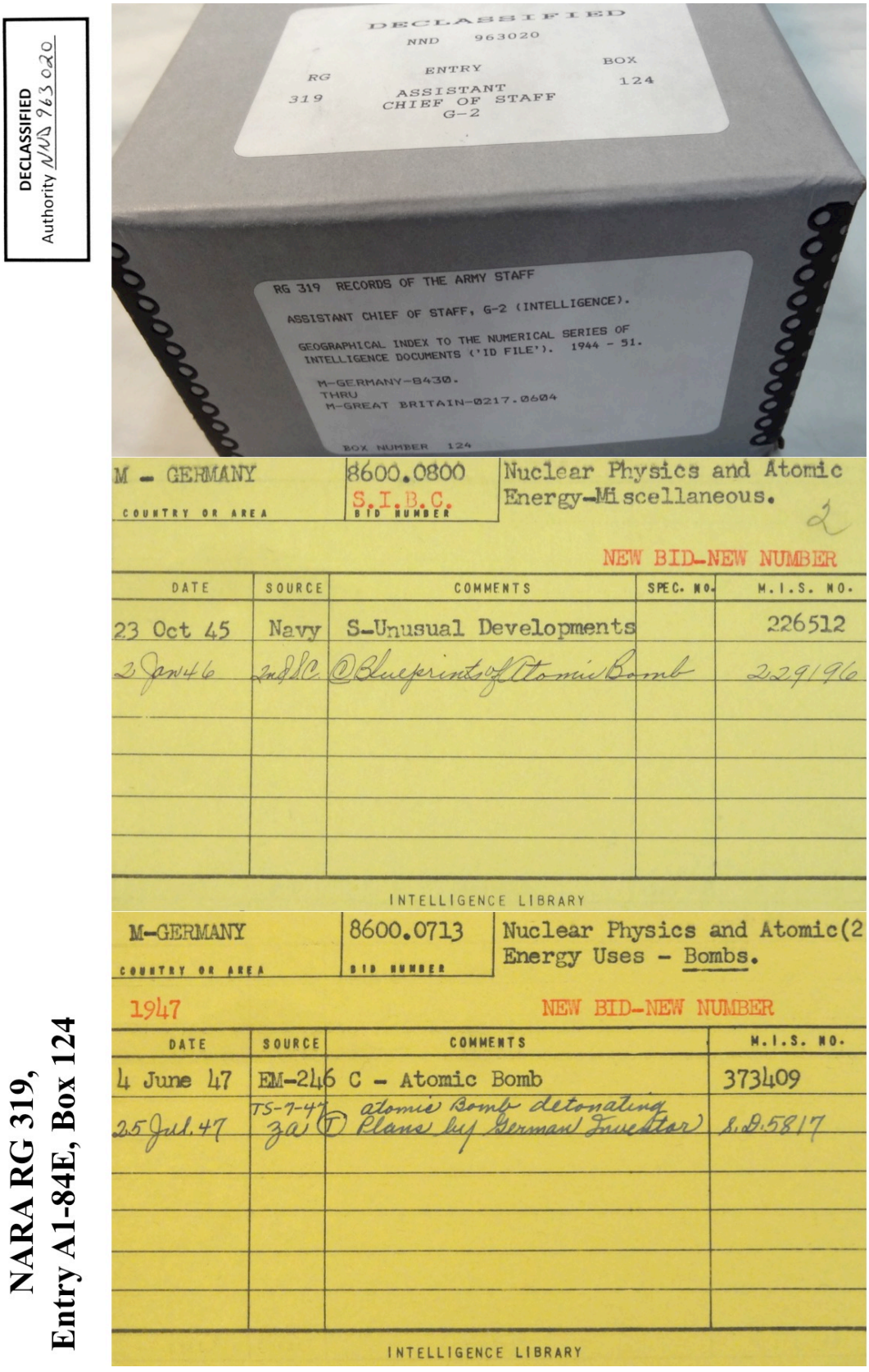
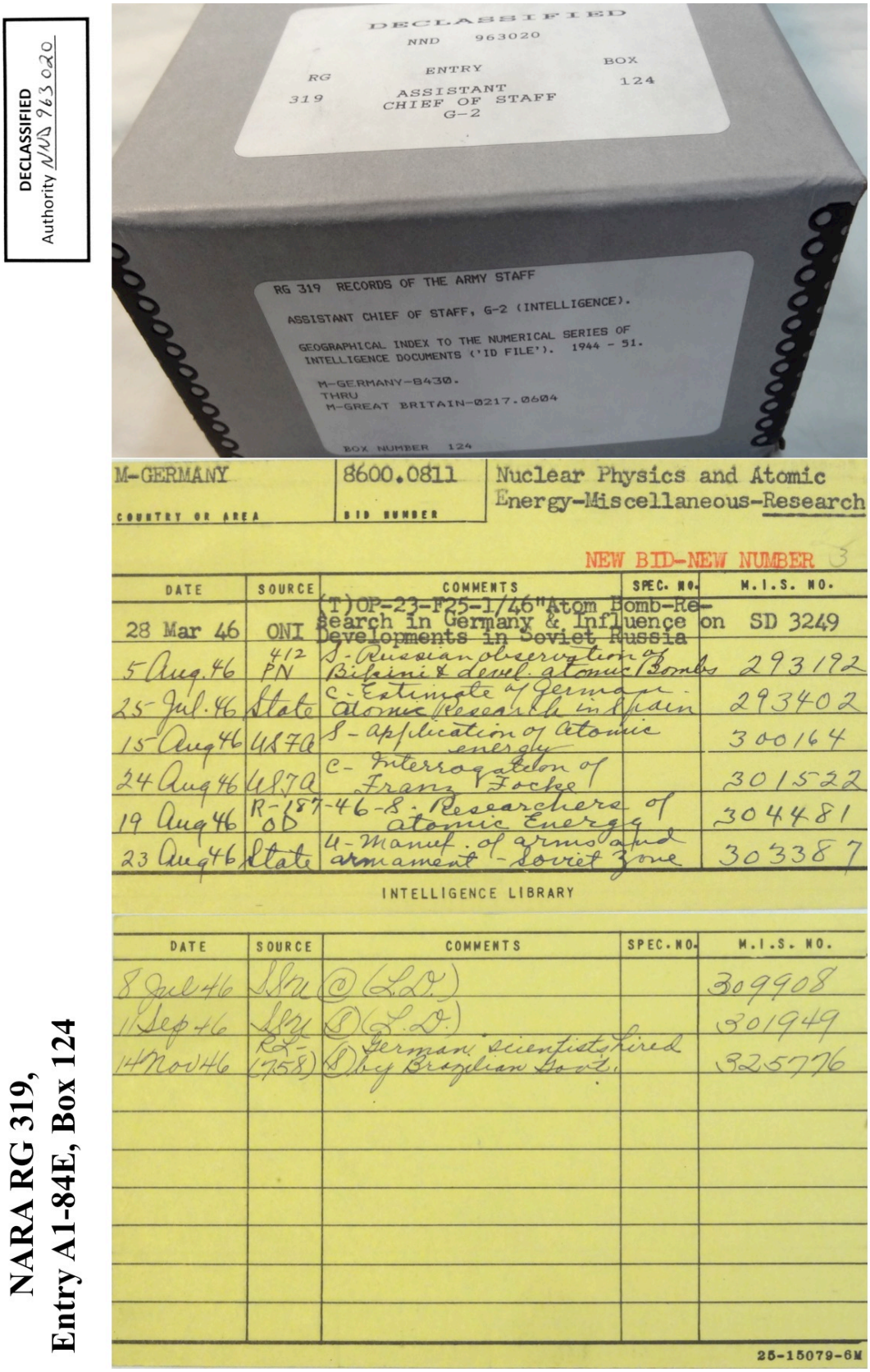


Figure D.1021: A U.S. intelligence card catalog shows that there were postwar reports detailing German atomic bomb plans, but those reports are still classified and unavailable to the public [NARA RG 319, Entry A1-84E, Box 124].



NARA RG 319, Entry A1-84E, Box 124

Figure D.1022: A U.S. intelligence card catalog shows that there were postwar reports detailing German atomic bomb plans, but those reports are still classified and unavailable to the public [NARA RG 319, Entry A1-84E, Box 124].

D.14.10 Fritz Lang and the Leak That Almost Revealed Everything

[The famous German film director Fritz Lang (1890–1976, p. 1971) moved to the United States in 1933 and continued making movies there.[19] In 1946, Lang directed the film *Cloak and Dagger* for the Warner Bros. studio. *Cloak and Dagger* presented a fictionalized story of how during World War II, OSS and European resistance members investigated and combatted the German nuclear weapons program. As scripted and filmed, the movie ended with a visually impressive and highly expensive sequence in which U.S. forces bomb several German nuclear weapons factories and visit another one in person. However, before the film was released, that entire sequence was censored and apparently destroyed, leaving a short final film that focuses on personal melodrama and avoids any mention or depiction of German nuclear weapons factories.

Although *Cloak and Dagger* was fiction, Lang's story descriptions and the script versions included an extraordinary number of details that agree stunningly well with real information about the German nuclear weapons program (as presented elsewhere in this appendix) which was not publicly known in late 1945/early 1946 when the film was being written and shot, including for example:

- The German program completed construction of fission bombs (e.g., pp. 4182, 4436, 4635, 4666–4667, 4903).
- Germany successfully tested the bombs (e.g., Sections D.10, D.11, D.12).
- Germany was developing vehicles to deliver those bombs to Allied targets (e.g., Appendix E).
- Even in the final weeks of the war, Germany could have dramatically changed the war by using those weapons (e.g., pp. 4572–4681, 4703–4712, 4766, 5022–5039, 5072–5073).
- The German nuclear weapons program was divided among a number of sites in German-controlled territory (e.g., pp. 3671–3677, 4400–4403).
- Many of those sites were underground facilities (e.g., pp. 3874–3920, 4176–4182, 4400–4403, 4504–4519, 4568–4570, 4636, 4962–4970, 4985–4991).
- The German nuclear program used many thousands of slave laborers (e.g., pp. 3874–3920, 4176–4182, 4400–4403, 4440–4477, 4636, 4974).
- Many of the slave laborers actually lived underground full-time, instead of in nearby camps on the surface (e.g., pp. 3874–3922, 4400–4403, 4504–4510, 4974).
- Most of the slave laborers were killed by the end of the war (e.g., pp. 3874–3920, 4440–4570).
- At least one of the major sites was near Grünbach (in the 12 June 1946 final script by Ring Lardner Jr. and Albert Maltz), which is next to Johanngeorgenstadt in the uranium-rich Erzgebirge mountains of Saxony (e.g., pp. 3416, 3424, 3426–3428, 3433–3437, 3456, 3468–3469, 3708, 4922).[20]
- At least one of the major sites was in the vicinity of Linz, Austria (Bad Hall in the final script) (pp. 3874–3920, 4962–4970).

[19] Bogdanovich 1967; Eisenschitz and Bertetto 1994; Eisner 1977; Jenkins 1981; McGilligan 1997.

[20] Some versions of the *Cloak and Dagger* script mistakenly indicated that Grünbach was in Bavaria. It is near the Bavaria-Saxony border but on the Saxony side.

- At least one of the major sites was in the Netherlands (Kaptein in the final script) (e.g., pp. 4314–4316, 4832–4852).
- At least one of the major sites was in southern Bavaria (Bad Tölz in the final script) (e.g., pp. 3473, 3871–3873).
- At least one of the major sites was in Czech territory (e.g., pp. 3749, 3689–3782, 3979–4022, 4914–4922, 4974–4984, 5503–5566, 5696), specifically near Bodenbach (pp. 3987–3998) in the 24 November 1945 screenplay outline by John Larkin and Boris Ingster.
- At least one of the major sites was on the Baltic coast in the outline (e.g., Section D.10).
- At least one of the major sites was a few tens of kilometers south of the Baltic coast of Germany in the outline (e.g., pp. 3694, 4176–4182, 4679).
- OSS had a major program to investigate the progress of German nuclear weapons development (Azusa, e.g., pp. 3747–3749, 4400–4403, 4670, 5044–5048).
- U.S. intelligence and European resistance members informed senior U.S. government officials about the advanced state of the German nuclear program (e.g., pp. 4703–4707, 4832–4852, 5012, 5022, 5031, 5072–5073).
- U.S. intelligence and European resistance members informed the U.S. government about some of the major sites of the German nuclear program, and those were targeted by Allied bombing raids (e.g., pp. 3334, 3617, 3928, 3979, 4068, 4411, 4679, 5199).
- Allied forces rushed to some of the remaining German nuclear sites at the end of the war and found that those sites had already been abandoned (e.g., Section D.14.7).
- German nuclear scientists and their technologies were establishing nuclear weapons programs in other countries after the war (e.g, Section 8.9).

It is theoretically possible it was just a sheer coincidence that the *Cloak and Dagger* scripts bore so many similarities to the real German nuclear weapons program. Yet because of the number, the level of detail, and the then-classified nature of those similarities, a pure coincidence seems highly unlikely. It is far more probable that Fritz Lang received information about the real German nuclear weapons program from one or more sources:

- Advisors who were in or had close ties to western Allied intelligence, such as Michael Burke (OSS), Andries Deinum (OSS/Dutch resistance), Corey Ford (OSS), Alastair MacBain (OSS), Milton Sperling (WWII intelligence and Jack Warner's nephew-in-law), an unnamed Los Alamos scientist who was an advisor for the film, etc.
- Friends who were members of or had close ties to members of wartime German rocket-related programs (including their intended nuclear payloads), such as Willy Ley, Hermann Oberth, any members of a whole generation of German-speaking rocket engineers that grew up inspired by Lang's *Frau im Mond* (1929), or other German-speaking scientists.[21]
- Writers, advisors, or friends who may potentially have had ties to Soviet, French, Spanish, or other European intelligence sources, such as Alvah Bessie, Ben Maddow, John Gates, John Larkin, Boris Ingster, Ring Lardner Jr., Albert Maltz, etc.

[21] Herbert Wagner arrived in the United States in May 1945, Wernher von Braun and others arrived in September 1945, and many more members of the wartime German programs came after that.

The decision to censor the final part of *Cloak and Dagger* was delivered to Fritz Lang by Milton Sperling, Jack Warner's nephew-in-law. Although biographies of Lang (see the following pages) speculate that decision originated within the Warner Bros. studio and was made for one reason or another, that seems unlikely. If the studio had had any serious reservations about the scripted ending, they would not have kept essentially that same ending throughout numerous script versions from 1945 and 1946, and they certainly would not have invested the lavish amounts of money, resources, and time that they did to film that ending. And after having already invested so much and receiving what by all accounts was a visually and dramatically spectacular final third of the film, the studio would naturally want to benefit from that. *Cloak and Dagger* released complete with its final third would impress audiences much more and make far more money than *Cloak and Dagger* released with only its more mundane first two-thirds that lead nowhere.

Thus it seems likely that the decision to censor the film originated outside the Warner Bros. studio. Conceivably that decision could have come from almost anywhere within the U.S. government. In practice, major censorship decisions regarding nuclear weapons in general, and knowledge of the wartime German nuclear weapons program in particular, were typically handled by the office of Leslie Groves. There are a number of examples of Groves or his office censoring and reprimanding independent investigators who uncovered evidence that the German nuclear weapons program was more advanced than had been publicly admitted (e.g., pp. 3948, 3970, 4056–4061, 4185, 4187, 4679–4681, 5017–5018, 5393–5396).

The original documents for *Cloak and Dagger* are divided between two archives:

> Warner Bros. Archive
> University of Southern California
> 900 West 34th Street, Los Angeles, CA 90089-2211
> https://cinema.usc.edu/about/warnerbrosarchives.cfm
> wbarchives@cinema.usc.edu

> Bibliothèque du film
> La Cinémathèque française
> 51 Rue de Bercy, 75012 Paris
> https://www.cinematheque.fr
> http://www.cineressources.net

If Leslie Groves was involved in the decision to censor the film, documentation of that fact may (or may not) be included in his papers at NARA College Park:

> NARA RG 77, Entry UD-22A (General Records), Boxes 160–177. Manhattan Engineer District Foreign Intelligence Section.

> NARA RG LRG. Leslie R. Groves Papers, 1941–1970.

Can future researchers identify what sources (if any) provided real information about the German nuclear program for the film?

Can future researchers identify where the orders to censor the ending originated?]

Peter Bogdanovich. 1967. *Fritz Lang in America.* New York: Praeger. pp. 15, 69–71.

[*The following is an edited version of an interview with Mr Lang tape-recorded at his home in Beverly Hills, California, over a period of six days in August–September, 1965.*] [...]

CLOAK and DAGGER (1946)

Did you have much interference on this picture?

Yes and no. [...]

But the most significant thing in *Cloak and Dagger* was the ending. It now ends with the Italian scientist being saved by the Underground: the British airplane lands and the American O.S.S. man (who was built around the characteristics of Oppenheimer) has completed his mission; the plane flies away, the girl waves, he waves, and you know they will see each other again after the war. In the original ending, the Italian scientist dies of a heart attack on the plane and all they have left to go on is an amateur photo of the scientist and his daughter with a very peculiar mountain formation in the background. The U.S. and British secret services get together and they decide, 'That can only be in Bavaria.' So they go there (I *shot* all these things, you know, parachutists, everything) and they find a camouflaged highway and then a big electrified barbed-wire fence. They're very careful but the power has been cut off. They find pill boxes and everything—all deserted—and finally they come to a big cave that is empty. All the machines are gone. (You see, we already knew the Germans had experimented with heavy water to get Atomic power—and we knew there was a plant in Norway—but, remember, Los Alamos was still hush-hush.) Then there was a conversation and they decide, 'Probably the plant is in Argentina now—or somewhere.' A sergeant comes to report that 60,000 slave workers have been found dead underneath the cave. Gary Cooper walks outside and at the entrance of the cave is a parachutist—an American boy chewing on a blade of grass. The sun is shining, birds singing. And Cooper says *something* like: 'This is the Year One of the Atomic Age and God help us if we think we can keep this secret from the world, and keep it for ourselves.' And *this* was why I wanted to make the picture. The whole reel was cut out. I don't think it exists any more.

Do you know why it was cut?

You must ask Warners, I don't know. Maybe because it was after Hiroshima and Nagasaki.

[...] I had the help of two O.S.S. people on the film—Mike Burke and a man named Deinum.

Lotte H. Eisner. 1977. *Fritz Lang.* Oxford: Oxford University Press. pp. 272, 274.

[...] The film as it now exists ends here on this equivocally happy ending. In the original version as filmed, Polda dies in the plane just as he is about to reveal to Jasper the locations of the four main plants where the Nazi atomic bomb is being tested. Unable to finish, he takes a photograph from his pocket just as he dies. It shows him and his daughter in a lake landscape with wooded hill and unusual mountain formation in the background. From this the OSS are able to identify the fourth plant, the only one Polda had not named, as Grünbach in Bavaria.

An operation is mounted. Mysteriously, RAF reconnaissance planes sent in advance encounter no resistance. When Jasper and the task force arrive, they find the secret factory is deserted. Where is the work on the bomb being continued? In Spain? The Argentine?

It was at this point that Jasper made the speech which was for Lang the *raison d'être* of the film:

> God have mercy on us if we ever thought we could really keep science a secret—or even wanted to. God have mercy on us if we think we can wage other wars without destroying ourselves . . . And God have mercy on us if we haven't the sense to keep the world in peace.

Emerging from the cave that leads to the underground factory, Jasper takes a deep breath, then sees a paratrooper tossing pebbles and gazing at the sky. [...]

As usual Lang surrounded himself with experts for the preparation of this film. Two former OSS men gave him advice based on their own cloak-and-dagger experiences during the war—Milton Sperling, the producer, and Mike Burke who had actually had the task of smuggling out of Italy an Italian admiral who had invented an electronic torpedo device which the Allies wanted to prevent the Fascists from having.

Patrick McGilligan. 1997. *Fritz Lang: The Nature of the Beast.* London: Faber and Faber. pp. 333-334, 339–340.

Cloak and Dagger was based on a book by Corey Ford and Alastair MacBain, "the inside story of General Bill Donovan's famous O.S.S,"[....]

Two sets of writers—first Ben Maddow and John Gates, followed by Boris Ingster and John Larkin—had labored on the OSS scenario for several months before Lang was hired in November [1945]. [...]

Lang had just been put in charge when [Ring] Lardner [Jr.] came aboard. Lardner's mission was to accomplish, at improbable speed, a marriage of earlier, unsatisfactory drafts. The screenwriter recalled a series of agreeable meetings with Lang, mostly at the director's house, in which the two hashed over the revisions. [...]

[Albert] Maltz also met with Lang on a regular basis throughout January, but wrote his scenes separately from Lardner, concentrating on punching up the last third of the film. [...]

None of these writers was a reporter, so an expert had to be brought on to authenticate the spy-trappings. Michael Burke was the real thing. A former University of Pennsylvania all-American football player who had been with the OSS, Burke, in one famous exploit, had helped smuggle an anti-Nazi admiral out of Italy. Hired as technical adviser, Burke ventured a few sensible suggestions, and found himself gratefully "adopted" by Lang.

Andries Deinum also added a bit of expertise to the project. A native Dutchman and a friend of Milton Sperling's, Deinum also had OSS experience. At first employed as Sperling's assistant, an intermediary for the producer with Lang, Deinum also found a kinship with the director and was "adopted" by him. In part that was because Deinum was a young man just starting out in the business, in part because he was versed in German language and culture. [...]

Burke and Deinum became frequent dinner guests at Lang's house[....]

The *Cloak and Dagger* script had to be hastily finalized as the first week of photography approached in March 1946. [...]

The final scene in the released version of *Cloak and Dagger* is not the ending Lang preferred—and not the one he filmed. This, too, became a sort point in his memory.

In the last scene as the film stands, Professor Jasper manages to elude death on the ground in Italy. He escapes by boarding a plane with an elderly scientist defector. But this was yet another "happy ending" foisted on Lang. It had been augmented in the original script by an epilogue in which the scientist dies on the plane from a heart attack brought on by the stress of events. A snapshot in his pocket then provides the only clue to the whereabouts of a fascist atom-bomb factory in the Bavarian Alps.

The last scene was intended to be one of Fritz Lang's superclimaxes: the American going back on one final secret errand, determined to destroy the German atomic-bomb factory. [...]

Milton Sperling, Michael Burke, Andries Deinum, Willy Ley, and another adviser on the picture—a scientist from Los Alamos—all tried to talk Lang out of the scene on the principle that nothing of that sort had transpired during the war. Everyone knew the Nazis had fallen short of atomic capacity. Lang, only interested in authenticity when it served his purposes, was adamant. He wanted to make a statement against war and weapons of mass destruction. The producer, still bargaining for long-term goodwill, decided the wise thing to do would be to let the director have his way.

Lang took Gary Cooper and everybody out to Bronson Canyon, where Warner Brothers had built an imitation bomb factory and where for several days they filmed the superclimax—adding thousands upon thousands of dollars in budget costs. Planes flew overhead, paratroopers dropped from the skies, the bomb factory blew up for the cameras.

According to a plot synopsis prepared by the studio publicity department, this is how Lang's version would have ended: "They have come too late. The factory has been thoroughly stripped by the Germans, its equipment probably moved to Spain or Argentina, where the Nazis had a foothold. The picture ends with the lines of the American scientist [Professor Jasper]: 'God have mercy on us if we think we can keep science a secret! God have mercy on us if we think we can wage other wars without destroying ourselves.'"

After showing a rough cut to Warner Brothers executives in late August [1946], however, Sperling decided to drop the expensive and historically dubious sequence.

D.14.11 Allied Intelligence Officials Who Would/Should Have Known

[There are a number of Allied intelligence officials who would/should have known about the German nuclear weapons program, and whose files may reveal useful information if any relevant documents in them could be located, declassified, and released:

Commander Herbert Agar (1897–1980), assistant to the U.S. ambassador to Great Britain (pp. 5017–5018).

Civilian investigator Jack H. Alberti (??–??), U.S. Navy intelligence.

Colonel Robert S. Allen (1900–1981), U.S. Army.

Dr. Luis Walter Alvarez (1911–1988), Manhattan Engineer District.

General Henry H. Arnold (1886–1950), U.S. Army Air Forces.

Colonel Peter Beasley (1884–1957), U.S. Army Air Forces, Strategic Bombing Survey.

Dr. Hans Bethe (1906–2005), Manhattan Engineer District (p. 5005).

General Thomas J. Betts (1894–1977), Supreme Headquarters Allied Expeditionary Force, Assistant Chief of Staff for intelligence.

General Clayton L. Bissell (1896–1972), U.S. Army Air Forces intelligence.

Dr. Edward L. Bowles (1897–1990), MIT and advisor for General Henry Arnold.

A. E. Britt (??–??), affiliation?

Dr. Vannevar Bush (1890–1974), Director of Office of Scientific Research and Development (OSRD)/National Defense Research Committee (NDRC)

Major Horace K. Calvert (1915–2006), U.S. Army/Manhattan Engineer District intelligence.

Dr. Karl P. Cohen (1913–2012), Manhattan Engineer District.

Dr. James B. Conant (1893–1978), Assistant Director of Office of Scientific Research and Development (OSRD)/National Defense Research Committee (NDRC)

General George Bryan Conrad (1898–1976), Supreme Headquarters Allied Expeditionary Force, Assistant Chief of Staff for intelligence.

Captain George C. Davis (??–??), U.S. Army/Manhattan Engineer District intelligence.

Colonel Howard W. Dix (??–??), Office of Strategic Services.

General William Donovan (1883–1959), Office of Strategic Services Director.

Allen Dulles (1893–1969), Office of Strategic Services senior agent and later Central Intelligence Agency Director.

Colonel George R. Eckman (??–1971), U.S. Army Counter Intelligence Corps and Alsos Mission Executive Office.

G. Verner Edlund (1906–2004), U.S. Army Counter Intelligence Corps.

Major Ernst Englander (??–??), U.S. Army Air Forces.

Dr. Richard Fischer (1910–1991), U.S. Geological Survey (p. 3948).

Dr. Victor H. Fraenckel (1908–1998), Scientific Intelligence Advisory Section (SIAS) for Supreme Headquarters Allied Expeditionary Force (SHAEF); one of Dwight Eisenhower's highest-level science advisors.

Major Robert R. Furman (1915–2008), U.S. Army/Manhattan Engineer District intelligence.

Colonel Dale M. Garvey (1914–2002), U.S. Army Counter Intelligence Corps.

David Gattiker (??–1993), U.K. Atomic Energy Office.

Dr. Samuel Goudsmit (1902–1978), Alsos Mission scientific head. [Did he really not know about the much larger and much more advanced parts of the German nuclear program, or did he just publicly pretend not to know? Many of his files are still classified and not available to scholars. Why?]

General Leslie Groves (1896–1970), U.S. Army/Manhattan Engineer District commanding officer.

Caperton Horsley (1903–1988) , civilian CIOS investigator (pp. 3957–3970).

General John Edwin Hull (1895–1975), U.S. Army.

Justice Robert H. Jackson (1892–1954), U.S. Prosecutor, Nuremberg trials.

Dr. Theodore von Kármán (1881–1963), chief scientific advisor for Henry Arnold and U.S. Army Air Forces.

Colonel John A. Keck (??–??), U.S. Army Ordnance.

Colonel Oscar Koch (1897–1970), U.S. Army intelligence.

General Egmont F. Koenig (1892–1974), U.S. military attaché in Czechoslovakia from January 1946 to May 1947.

Dr. Gerard P. Kuiper (1905–1973, p. 803), Alsos Mission.

Colonel John Lansdale, Jr. (1912–2003), U.S. Army/Manhattan Engineer District intelligence.

General John Magruder (1887–1958), Office of Strategic Services Deputy Director.

General George C. McDonald (1892–1969), U.S. Army Air Forces intelligence.

General Joseph T. McNarney (1893–1972), U.S. Army Air Forces.

Dr. Philip Morrison (1915–2005), Manhattan Engineer District.

Dr. John von Neumann (1903–1957), Manhattan Engineer District (p. 5005).

Dr. Todos M. Odarenko (1900–1975), AT&T Bell Laboratories.

Lt. Colonel John A. O'Mara (19??–19??), U.S. Strategic Air Forces in Europe, Office of the Director of Intelligence.

Dr. J. Robert Oppenheimer (1904–1967), Manhattan Engineer District (p. 5005).

Dr. Richard W. Porter (1913–1996), General Electric rocket programs.

General Donald Putt (1905–1988), U.S. (Army) Air Force.

General William L. Richardson (1901–1973), U.S. (Army) Air Force.

Dr. Howard P. Robertson (1903–1961), Chief of the Scientific Intelligence Advisory Section (SIAS) for Supreme Headquarters Allied Expeditionary Force (SHAEF); Dwight Eisenhower's highest-level science advisor.

Lt. Vladimir L. Rychly (1909–1992), U.S. Navy intelligence and U.S. military attaché in Czechoslovakia

A. J. Saxon (??–??), Manhattan Engineer District.

Whitney Shepardson (1890–1966), Office of Strategic Services.

Colonel W. R. Shuler (??–??), U.S. Army/Manhattan Engineer District intelligence.

General Edwin L. Sibert (1897–1977), U.S. Army intelligence and Central Intelligence Group.

Colonel Leslie E. Simon (1900–1983), U.S. Army.

Major Francis J. Smith, (??–??), U.S. Army/Manhattan Engineer District intelligence.

Dr. Charles P. Smyth (1895–1990), Princeton and Alsos Mission (p. 4788).

General George V. Strong (1880-1946), U.S. Army, commander of the Military Intelligence Corps.

Dr. Edward Teller (1908–2003), Manhattan Engineer District (p. 5005).

Major Edmund Tilley (1892–1966), U.K. military intelligence (pp. 4894–4895).

Dr. Richard C. Tolman (1881–1948), Manhattan Engineer District.

Major H. S. Traynor (??–??), Manhattan Engineer District.

Dr. Major John E. Vance (1905–1975), U.S. Army/Manhattan Engineer District.

Joseph Volpe, Jr. (1914–2002), U.S. Army/Manhattan Engineer District.

Frederic A. C. Wardenburg III (1905–1997), Alsos Mission.

Colonel Lowell P. Weicker (1903–1978), U.S. Strategic Air Forces in Europe, Office of the Director of Intelligence.

Major P. M. Wilson (??–??), Dustbin interrogation center.

Colonel George Bryant Woods (1896–1954), U.S. Air Technical Services Command (ATSC)/Air Materiel Command (AMC) intelligence, and later Assistant to the Undersecretary of the Air Force.

Are there other people who should be included here???

Intelligence sources or agencies for the United States, United Kingdom, France, Soviet Union, and Netherlands have already been mentioned. Was useful information on the German nuclear weapons program handled by intelligence agencies or spy networks in other countries—Norway, Sweden, Denmark, Belgium, Luxembourg, Switzerland, Poland, Czechoslovakia, Hungary, etc.?]

D.15 Analysis of Current Evidence; Recommended Further Work

Based on information from the sources regarding wartime German nuclear work that were quoted in the earlier sections of this appendix, this section analyzes:

D.15.1. Overarching programmatic considerations.

D.15.2. Uranium-235 enrichment methods.

D.15.3. Plutonium-239 or uranium-233 breeding methods.

D.15.4. Test explosions.

D.15.5. Design parameters of the tested devices.

D.15.6. Evidence for other device designs.

D.15.7. Conclusions and recommendations for further historical research in this area.

D.15.1 Overarching Considerations Regarding the German Nuclear Program

This section summarizes the known and extrapolated characteristics, secrecy, timeline, and organization of the wartime German nuclear weapons program. As instructive references, that program is compared to other wartime German programs on revolutionary new weapons technologies, as well as to the wartime U.S. nuclear weapons program.

A. Characteristics of the German Nuclear Program

The conventional historical narrative is that the wartime German nuclear program was very small, poorly funded, and badly misguided both scientifically and politically, and that as a result it never accomplished much.[22] On the other hand, the conventional historical view does recognize that other revolutionary German military programs such as those for rockets, jets, and chemical warfare agents were large and accomplished a great deal.[23] While currently available information on the German nuclear program is very incomplete, the data from the key sources quoted earlier in this appendix does not match the picture of a small and inconsequential program, but rather a large and advanced nuclear program quite comparable to the most successful German programs such as those on rockets, jets, and chemical warfare agents:

1. A large nuclear program would have begun with early theoretical research and proof-of-concept experiments. For example, in order to test their earlier designs and calculations, Wernher von Braun's team began experimenting with rockets in 1932 at Kummersdorf. Hans von Ohain began experimenting with jet engines in 1935 at Göttingen and then at Heinkel. Gerhard Schrader produced the first organophosphate nerve agents in 1936.

    (a) Fritz Houtermans was doing work on nuclear fusion at least as early as 1928 [Atkinson and Houtermans 1929a].

    (b) Rausch von Traubenberg, Arno Brasch and Fritz Lange, and others were conducting laboratory experiments with nuclear fusion reactions from 1933 onward [pp. 4281–4282].

    (c) Ida Noddack correctly predicted nuclear fission of uranium in 1934 [Noddack 1934].

    (d) Otto Hahn and Fritz Strassmann demonstrated and explained nuclear fission of uranium in late 1938 [Hahn and Strassmann 1939].

[22]See for example: Bernstein 2001; Goudsmit 1947; Hentschel and Hentschel 1996; Hoffmann 2023; Pash 1969; Rose 1998; Schaaf 2001; von Schirach 2015; Walker 1989, 1995, 2020, 2024a, 2024b.

[23]See for example: Amtmann 1988; Bohr 2013; Butler 1994, 2007; Christensen 2002; Christopher 2013; Cole 2015; Conner 2001; Constant 1980; Cooke and Ingells 1945; Daso 2002; Dornberger 1958, 1994; Dorr 2013; Duffy 2012; Erfurth 2006; Forsyth and Creek 2007; Franz 1985; Friedrich et al. 2017; Gellermann 1986; Gleichmann 2013; Gleichmann and Bock 2009; Griehl 1990, 2004, 2005, 2015; Gröhler 1989; Hager 2008; Harris and Paxman 2002; Heinkel 1956; Hellmold 1999; Herwig and Rode 2000; Hirschel et al. 2004; Hein Hofmann 2008; Hölsken 1994; Huzel 1962; Hyland and Gill 1998; Irving 1965; Jakobs et al. 2009; Jacobsen 2011, 2014; Johnsen 2014; Kaszeta 2020; Kay 2002; King and Kutta 1998; Klee and Merk 1963; Kober 1990; Leyes and Fleming 1999; Lommel 2005; Longden 2009; Masters 1982; Hans-Ulrich Meier 2010; Jürgen Michels 1997; Miranda 2015; Miranda and Mercado 1996; Myhra 1998a, 1998b, 2000a, 2000b, 2001, 2002, 2003; Neufeld 1995; Nowarra 1988; Ordway and Sharpe 1979; Pavelec 2007; Pfingsten 2003; Samuel 2004, 2010; Shepelev and Ottens 2015; Simons 2016; Smith and Creek 1992, 2001; Smith and Kay 2002; Stuhlinger and Ordway 1994a, 1994b; Stüwe 1999, 2014, 2015; Thomas 1946; Trischler 1992a, 1992b; Tucker 2006; Vajda and Dancey 1998.

2. A nuclear program would have first become a major government program shortly before or at the beginning of the war. For example, the Peenemünde rocket center was set up in 1937, Luftwaffe-funded jet programs began in 1939, and organophosphate nerve agents became a major Army-funded program in 1937.

   (a) High-level, coordinated, and secret government meetings regarding nuclear research and development began in April 1939 [Irving 1967, p. 33].

   (b) Government programs for nuclear research and development were formalized in September 1939 [Irving 1967, pp. 38–43].

3. A large nuclear program would have been given the highest priority, just as the rocket, jet, and chemical warfare programs were given high priorities by the government.

   (a) Even Samuel Goudsmit admitted that the nuclear program "had the highest priority among all scientific research projects in Germany" [Goudsmit 1945] (see pp. 3297–3298).

   (b) The nuclear program was personally directed and supported by Heinrich Himmler [Krotzky 2002].

4. A large nuclear program would have been conducted in great secrecy, just as the rocket, jet, and chemical warfare programs were.

   (a) Heinrich Himmler's chief adjutant Werner Grothmann described the entire nuclear weapons program as being kept very secret (see pp. 3396–3397).

   (b) According to Ivan Ilyichev's 23 March 1945 intelligence report: "The regime of secrecy at the test site was at maximum level. Entrance and exit from the territory are by special pass only. SS soldiers have surrounded the area of tests and interrogated any person approaching the area." (See p. 4485).

5. A large nuclear program would have vigorously pursued all possible types of nuclear weapons in parallel, just as the rocket program pursued dozens of different types of missiles, the jet program pursued all possible types of engines and aircraft, and the chemical warfare program pursued hundreds of possible nerve agents and other compounds.

   (a) According to Werner Grothmann, the German nuclear program developed bombs using uranium, bombs using plutonium, bombs that apparently incorporated fusion fuel, at least two types of large bombs for cities, at least two types of small bombs for tactical targets, air-dropped bombs, and bombs that could be delivered via rockets (see pp. 3396–3397).

   (b) As will be discussed on p. 5169, there is other evidence that a wide variety of bomb types were pursued by the German nuclear program.

6. A large nuclear program would have been conducted by a large number of groups distributed throughout German-held territory yet coordinated with each other, just as the rocket, jet, and chemical warfare programs were conducted by numerous distributed but coordinated groups throughout Germany and German-occupied territory. Like the rocket, jet, and chemical warfare programs, a large nuclear program would have had at least half of its operations

outside of Germany, and much of its German operations in areas with high concentrations of military research and development, especially on the Baltic coast, near Berlin, and in Thuringia.

(a) Within Germany proper, nuclear work was reported at Peenemünde, Rügen, and elsewhere on or near the Baltic coast (including the occupied Danish island of Bornholm just off the Baltic coast); at the Kaiser Wilhelm Institute for Physics, Manfred von Ardenne's laboratory, Auergesellschaft/Oranienburg, Kummersdorf/Gottow, and elsewhere in the greater Berlin area; and at Stadtilm, Ohrdruf, and elsewhere in Thuringia.

(b) A great deal of work apparently occurred outside the traditional borders of Germany, in Norway, Austria, Czechoslovakia, and Poland.

(c) Those various activities were not independent, parallel, small-scale efforts, but rather were all funded and coordinated from the highest levels by people such as Abraham Esau and Walther Gerlach, with joint backing from the Army, SS, Reichspost, and other agencies.

7. A large nuclear program would have experienced delays caused by Allied attacks, just as the rocket, jet, and chemical warfare programs did.

(a) The Allied sabotage and then destruction of the Vemork heavy water plant in Norway is widely regarded as a major setback for the German nuclear program [Bascomb 2016; Dahl 1999; Rhodes 1986, pp. 455–517].

(b) Other major Allied attacks included the August 1943 bombing of Peenemünde, the 1943–1944 bombings of the Frankfurt Degussa plant, bombings of targets around Berlin, and other attacks.

(c) The Allied attacks were credited with delaying the German programs [see for example: Arnold 1949, p. 491; Casey 1988, p. 54; Knight 1946; Putt 1946b; Thomas 1946; *Chicago Daily Tribune* 1946-01-26 p. 10; *Daily Express* 1945-08-09; *Daily Mail* 1945-06-14 p. 1; *Daily Mail* 1945-08-09; *Daily Telegraph* 1945-08-09; *NYT* 1945-08-09].

8. A large nuclear program would have conducted the first phase of its experiments in more academic settings, just as the rocket, jet, and chemical warfare programs did. In fact, nuclear work was conducted by:

(a) Werner Heisenberg and others at the Kaiser Wilhelm Institute for Physics in Berlin.

(b) Otto Hahn, Fritz Strassmann, and others at the Kaiser Wilhelm Institute for Chemistry in Berlin.

(c) Josef Mattauch, Alfred Klemm, and others at the Kaiser Wilhelm Institute for Chemistry in Tailfingen.

(d) Manfred von Ardenne, Fritz Houtermans, and others at von Ardenne's laboratory in Berlin.

(e) Paul Harteck, Wilhelm Groth, Johannes Jensen, and others at the University of Hamburg.

(f) Walther Gerlach, Klaus Clusius, and others at the University of Munich.

(g) Georg Stetter, Josef Schintlmeister, Willibald Jentschke, and others at the University of Vienna.

9. A large nuclear program would then have transferred mass-production based on those results to other locations featuring heavy industry, just as the rocket, jet, and chemical warfare programs did. For the nuclear program, those locations are known or suspected to have included:

   (a) Several Degussa locations.

   (b) Several I.G. Farben locations.

   (c) AEG locations.

   (d) Siemens locations.

   (e) Other industrial locations.

10. A large nuclear program would have shifted to locations that were more remote, more dispersed, and/or underground in order to be more resistant to Allied attacks, as the rocket, jet, and chemical warfare programs did. For the nuclear program, such locations included:

    (a) Underground installations in or near the Lüneburger Heide (pp. 4176–4182 and 4406).

    (b) Numerous underground installations reported around Thuringia [Baranowski 2013; Brunzel 2013; Fäth 1999, 2000; Gleichmann and Dörfer 2011; Mayer and Mehner 2001, 2002, 2004a, 2004b; Mehner 2004; Schambach 2011; Schilling 2010; Seidler and Zeigert 2006; Wichert 1999; Zeigert 2003; CIOS XXXIII-38].

    (c) Underground installations such as Gusen, Bergkristall, and Quarz in Austria [Bouchal and Sachslehner 2013; Joseph Fisher 2017; Haunschmied et al. 2007; Köberl 1993; Perz 2014; Schmitzberger 2004; Sulzer and Brauburger 2014, 2015, 2019a, 2019b].

    (d) The large underground Weser works near Podmokly, as well as other locations in Czechoslovakia, far from Allied bombing (pp. 3979–4022).

    (e) Underground installations in Silesia (pp. 4504–4510).

11. Like the rocket, jet, and chemical warfare programs, a large nuclear program would have used large-scale slave labor, with very poor working conditions and systematic extermination of any surviving slave laborers in order to maintain security. In fact, there was mass slave labor and mass extermination at:

    (a) Underground installations in Thuringia [Baranowski 2013; Brunzel 2013; Fäth 1999, 2000; Gleichmann and Dörfer 2011; Mayer and Mehner 2001, 2002, 2004a, 2004b; Mehner 2004; Schambach 2011; Schilling 2010; Seidler and Zeigert 2006; Wichert 1999; Zeigert 2003; CIOS XXXIII-38].

    (b) Underground installations in Austria [Bouchal and Sachslehner 2013; Joseph Fisher 2017; Haunschmied et al. 2007; Köberl 1993; Perz 2014; Schmitzberger 2004; Sulzer and Brauburger 2014, 2015, 2019a, 2019b].

(c) Underground installations in Silesia (pp. 4504–4510).

12. A large nuclear program would have been partially under SS control for most of the war (especially in occupied areas outside of Germany), and would have come under complete SS control in the final stages of the war, as the rocket, jet, and chemical warfare programs did.

    (a) Rudolf Mentzel, an SS Oberführer with a Ph.D. in chemistry, was a central figure in the government nuclear program meetings from 1939 onward. He also played a key role in facilitating the scientific leadership transition from Abraham Esau to Walther Gerlach [Irving 1967].

    (b) Werner Grothmann, Heinrich Himmler's aide, said the nuclear program was run by the SS. Other people who were close to Himmler, such as Felix Kersten, Wilhelm Wulff, and Muhammad Amin Al-Husayni, all reported that Himmler had detailed knowledge of the nuclear program.

    (c) Ivan Ilyichev's 23 March 1945 intelligence report described the nuclear weapons tests as being under very tight SS control.

13. Between extreme pressure from the SS and intense bombing from the Allies in the final stages of the war, a large nuclear program would have been racing to perfect its weapons, would have been running late, and would have achieved or been on the verge of achieving its most significant results only at the very end of the war, just as the rocket, jet, and chemical warfare programs did.

    (a) Reportedly the first successful nuclear weapons tests did not occur until the final stage of the war, between October 1944 and March 1945; see Sections D.10–D.12.

    (b) A number of sources reported that military deployment of a nuclear weapon would not have been possible until the very end of the war, or a few months beyond that if the war had continued [see for example: Knight 1946; Putt 1946b; Thomas 1946; *Chicago Daily Tribune* 1946-01-26 p. 10; *Daily Mail* 1945-06-14 p. 1].

14. In the final stages of the war, a large nuclear program would have conducted major tests of prototypes in areas with relatively low populations of Germans but with very high concentrations of high-technology military research, development, and testing, such as on the Baltic coast, in German-occupied central Europe, and in Thuringia, just as the rocket and jet programs did.

    (a) There is some evidence for a nuclear weapons test on the Baltic coast; see Section D.10.

    (b) There is also some evidence for a nuclear weapons test in German-occupied Poland; see Section D.11.

    (c) There is significant evidence for nuclear weapons tests near Ohrdruf in Thuringia; see Section D.12.

15. A large nuclear program would have been prevented by high-level bureaucratic decision making from effectively using its weapons during the final stages of the war, just as the rocket, jet, and chemical warfare programs were.

(a) As reported by Allen Dulles on 1 April 1945: "In his conversation with Kesselring, latter said to Wolff our situation is desperate, nobody dares tell truth to Fuehrer who surrounded by small group of advisers who still believe in a last specific secret weapon which they call "Verzweiflunge" weapon [die Verzweiflungswaffe or the desperation weapon]. Kesselring believed this weapon can prolong war but not decide it, but might cause terrible blood bath on both sides. Kesselring said if Fuehrer gave him order to use weapon he would surrender his command." See p. 4670.

(b) Werner Grothmann said that military use of the German nuclear weapons was debated and ultimately rejected (see p. 4668).

16. At the very end of the war, a large nuclear program would have been seen by German government officials directly in charge of it more as a bargaining chip to be offered to the Allies than a weapon to be used against the Allies, just as the rocket, jet, and chemical warfare programs were.

(a) Documents in U.S. government archives prove that Hans Kammler, who was most directly in command of the nuclear and other high-technology military programs at the end of the war, made a deal with U.S. officials, avoided war crimes trials, and was taken to the United States for extended interrogations after the war (pp. 4931–4959).

(b) There is also evidence that Martin Bormann or other German government officials may have tried to offer German nuclear materials to the United States [Hydrick 2016].

17. A large German nuclear program that had occurred in what ultimately became Soviet-occupied areas inside and outside of Germany would have been rapidly taken over, fully exploited, and completed removed by the Soviets at the end of the war and after the war, without much opportunity for western Allied observers to learn about the wartime German program, and would have been largely concealed by Russia ever since, just as happened with the rocket, jet, and chemical warfare programs.

(a) Soviet forces controlled and could have easily removed any nuclear-program-related personnel, materials, and information from the Baltic coast, greater Berlin area, Thuringia (after the relatively brief U.S. presence there), Poland, Czechoslovakia, Hungary, Bulgarian uranium mine, parts of Austria, northern Norway, and Bornholm island.

(b) Other than a few highly staged and closely escorted trips, U.S. and U.K. officials were never allowed to inspect those areas, interview German scientists there, or view all of the documents and materials that the Soviets removed from those areas.

(c) Access to virtually all of this material in Russian archives is still restricted.

18. A large nuclear program would have had a direct impact on subsequent Soviet programs, just as the rocket, jet, and chemical warfare programs did.

(a) Many dozens of German nuclear scientists played critical roles in all major branches of the postwar Soviet nuclear weapons program, and many of them were even officially recognized with Stalin prizes for their vital contributions. Uranium captured from Germany fueled at least the first two Soviet nuclear reactors, including their plutonium production program.

(b) The contributions of German scientists, materials, and information appear to have saved the Soviet program many years of work [Albrecht et al. 1992; von Ardenne 1990, 1997; Barkleit 2008; Barwich and Barwich 1970; Boch and Karlsch 2011; Fengler 2014; Fengler and Sachse 2012; Goncharov 1996a, 1996b; Goncharov and Riabev 2001; Graham 1993; Heinemann-Gruder 1992; Holloway 1994; Karlsch 2011; Karlsch and Laufer 2002; Karlsch and Zeman 2016; Kozyrev 2005; Kruglov 2002; Maddrell 2006; Mick 2000; Nagel 2016; Naimark 1995; Oleynikov 2000; Pondrom 2018; Riabev 1998, 2002a, 2002b, 2002c, 2002d; 2006a; 2006b; 2006c; Riehl and Seitz 1993; Siddiqi 2009; Sokolov 1955; Wellerstein and Geist 2017; West 2004; Yudin; Zeman and Karlsch 2008; *News Chronicle* 1945-10-15 p. 1; NYT 1945-10-15 p. 4, 1945-10-31 p. 6, 1946-01-29 p. 1, 1946-11-28 p. 16, 1946-12-06 p. 17, 1947-02-24 p. 1, 1948-05-26 p. 3, 1948-12-28 p. 10b; *Spokane Daily Chronicle* 1948-03-16 p. 6; *Sydney Morning Herald* 1946-04-20 p. 2; *Times* 1945-05-15, 1945-05-18].

(c) Can the designs of Soviet advanced fission bombs (Joe-2 and beyond) and H-bombs be traced to wartime German work?

19. Any U.S. or U.K. information on a large wartime German nuclear program would have been classified and concealed (even more so than the rocket, jet, and chemical warfare programs were) in order to (i) try to hide that information or western knowledge of that information from the Soviet Union; (ii) make imported German scientists more palatable to the U.S. public and politicians (avoiding questions along the lines of "Why are we hiring scientists this month who were on the verge of nuking us last month?"); (iii) downplay wartime German technological accomplishments; and (iv) play up U.S. wartime and postwar accomplishments to both domestic and foreign audiences.

    (a) Samuel Goudsmit's job as scientific head of the Alsos Mission was to investigate the German nuclear program in great detail and report his findings, yet there is well-documented evidence that completely contradicts his public portrayal of the German program. Goudsmit appears either to have been incredibly incompetent at his assigned job or else to have been deliberately making false public statements about the German program. Here are just a few examples:

        i. Goudsmit testified to the U.S. Senate that the German nuclear scientists "were still a hundred years away from" producing a bomb at the end of the war. Just a fraction of those scientists, completely starting over in the technologically backward Soviet Union, built an atomic bomb in four years.

        ii. Goudsmit stated that "approximately 100 scientists were active on this project," and that many of those "worked only part time on this important research and the rest of the time did routine teaching or administrative work." The list of known German nuclear scientists is much larger, the total number working on the program may well have been far larger still, and the urgency and time commitment that these scientists accorded to their wartime nuclear work is documented in many of their postwar accounts.

        iii. Goudsmit claimed that Erich Schumann was "a second-rate physicist" whose "main interest was the physics of piano strings." It is well documented that Erich Schumann was the Ph.D. thesis advisor of Wernher von Braun, spent years during the war developing, demonstrating, and optimizing highly sophisticated implosion bomb designs, and was directly involved in a number of other groundbreaking military research and development programs [Nagel 2012a].

iv. Goudsmit characterized Manfred von Ardenne as merely "a clever technician and businessman" who tried to divert government funding away from "the really competent scientists." After the war, von Ardenne was the German nuclear scientist most highly courted by the Soviet Union (presumably based on Soviet intelligence about his wartime nuclear accomplishments in Germany), and he was ultimately awarded a first class Stalin prize for helping the Soviets build their first atomic bombs [Oleynikov 2000].

(b) A large number of Alsos-related documents from Samuel Goudsmit's files remain classified (see for example pp. 4772–4779).

(c) Some very important Alsos-related files from the Manhattan Project's Foreign Intelligence Unit also remain classified and unavailable, as shown by the examples on pp. 4812–4827.

(d) Numerous other files related to the German nuclear program and its scientists have been removed from the U.S. National Archives as evidenced by yellow withdrawal cards (see for example pp. 4994), or never were there yet are referenced in documents that are present.

20. A large German nuclear program would have had a direct impact on subsequent U.S. programs, just as the rocket, jet, and chemical warfare programs did.

(a) As discussed in Section D.14.5, there is evidence that captured German enriched uranium and implosion bomb detonators may have significantly aided and accelerated the final phase of the wartime U.S. nuclear program. The United States also captured large amounts of unenriched uranium, beryllium, zirconium, and other materials that would have aided the postwar U.S. nuclear program. German-developed rockets, missile silos, jet bombers, cruise missiles, and submarines proved to be the ideal delivery methods for U.S. nuclear weapons after the war, just as they were likely intended to be delivery methods for any nuclear weapons that Germany had been developing during the war.

(b) More archival research is needed to determine whether postwar nuclear weapons work in the United States was influenced by German nuclear scientists, materials, or information that had been found at the end of the war, especially for lighter and smaller implosion systems, high-voltage fusion neutron initiators, lithium deuteride fusion fuel, the layer cake H-bomb design, two- and three-stage H-bomb designs, and improved U-235 enrichment methods. Evidence such as the U.S. capture and interrogation of Hans Kammler (pp. 4931–4959), Edward Teller's invitation to Siegfried Flügge (p. 4996), files on German fusion research (Section D.9), and redacted or missing files from German scientists (e.g., p. 4994) raise very serious questions that deserve to be thoroughly investigated.

B. Secrecy of the German Nuclear Program

It seems reasonable to expect that any German nuclear weapons program would have had secrecy equal to or greater than that of the German chemical weapons program. The chemical weapons program developed revolutionary nerve agents, operated highly specialized research and manufacturing facilities all over German territory, created and tested dozens of different nerve agents, produced and stockpiled over 12,000 tons of nerve agents, and developed and stockpiled a wide variety of rockets, bombs, and other delivery methods that were specifically designed for those agents.

Despite the enormous size and strategic implications of this German chemical weapons program, Allied intelligence, military forces, and leaders were essentially unaware of the existence of the program and the nerve agents until the war was over [Tucker 2006, pp. 49, 55, 85–86]:

> Because of the elaborate counterintelligence measures designed to protect the secrecy of Tabun and Sarin, the Allies remained unaware of these dramatic developments. A U.S. intelligence report in July 1942 titled "New German Poison Gas" reads as follows: "Disclosures relative to so-called 'Blau Gas' have occurred numerous times in the past and... are no longer seriously regarded. Intelligence reports lend considerable weight that new German agents are not of the nature of so-called nerve gases." In hindsight, this assessment could not have been more wrong. [...]
>
> On May 11, 1943, the British captured a German Army officer in Tunisia. Under interrogation, he revealed that he was a chemist who had done chemical weapons research at Spandau Citadel in Berlin. He described the development of a new warfare agent that was colorless, had little odor, and possessed "astounding properties." Minute doses made the pupils shrink to pinheads and constricted the bronchial tubes, causing an asthmalike shortness of breath, and higher doses were lethal within fifteen minutes. [...]
>
> The British interrogators judged the prisoner's information to be reliable and wrote a ten-page secret report that was sent on July 3, 1943, to Military Intelligence in London and the Chemical Warfare Experimental Establishment at Porton Down. [...] Because of a lack of corroborating evidence, however, British officials had doubts about the veracity of the intelligence report and decided to take no action. [...]
>
> On April 23 [1945], a CIOS chemical weapons team consisting of ten British and nine American and Canadian specialists, led by Commander A. K. Mills of the British Ministry of Aircraft Production, examined the unidentified German munitions. With the cooperation of German chemists from Raubkammer who had been taken into custody, British experts from the Chemical Defence Experimental Establishment at Porton Down analyzed the contents of one of the German 250-kilogram bombs. [...]
>
> According to the scientists' laconic report, "The shells were found to contain a markedly potent and hitherto unknown organophosphorus nerve agent." [...]
>
> The realization that the Germans had secretly developed and produced a new chemical warfare agent of unprecedented power came as a terrible shock to the Allies. Although a few intelligence reports from 1943 and 1944 could be interpreted in retrospect as having referred to a German nerve agent, they had contained no firm evidence or tangible clues about its composition.

Even though in April 1945 the U.S. Alsos Mission captured and interrogated Richard Kuhn, one of the top brains of the nerve agent program, they learned nothing about the program or his role in it, and they let him go. Moreover, even when they found Kuhn again in September 1945 and pressed him for more information, all they learned was that he had been involved in the production of plastics and other basic materials. (See p. 3316.)

One of the main reasons that security in the chemical weapons program was so effective was that knowledge was highly compartmentalized. Despite the huge numbers of scientists and workers involved in the program, each of them knew only enough to do their own job, and no more. In fact, the program was so compartmentalized that Richard Kuhn, who invented many of the nerve agents such as Soman, and Gerhard Schrader, who invented many other of the nerve agents such as Tabun and Sarin, were completely unaware of each other's work [Tucker 2006, pp. 48–49, 62–63]:

> All aspects of life at Dyhernfurth were overshadowed by elaborate security measures. Access to the site was strictly controlled and required passing through a series of heavily guarded perimeters and checkpoints. In addition, the technical details of the Tabun manufacturing process were classified and the "need to know" principle was strictly enforced: factory personnel were informed only about those operations in which they were directly involved. Although IG Farben chemists and engineers were naturally curious about other aspects of the production process, they did not ask their colleagues too many questions for fear of being informed on or suspected of espionage, which could result in interrogation and torture by agents of the Geheime Staatspolizei (abbreviated Gestapo), or secret state police. [...]
>
> German counterintelligence officials also developed elaborate methods to conceal the nerve agent program from foreign intelligence services. Tabun was given a variety of cover names [...], while Sarin was referred to as "Gelan III" or "Trilon 46." Chemical ingredients used in the manufacture of Tabun were also designated with code names to make it harder for enemy spies to track shipments. [...] Whenever an ingredient for Tabun arrived at Dyhernfurth, it was assigned another local code name, making correct identification nearly impossible if the plant and its records were to fall into enemy hands. The code-name system also had the effect of keeping most of the technical staff in the dark about the precise chemical reactions involved in the manufacture of Tabun. [...]
>
> [D]uring the spring of 1944, Richard Kuhn, working at the Kaiser Wilhelm Institute in Heidelberg, made a striking discovery. He was continuing his research for the German Army by screening a wide variety of organophosphorus compounds—some of which he had synthesized himself—for the ability to inhibit cholinesterase. Because of the Nazi obsession with secrecy, his research was "compartmented": he was not put into contact with other scientists in the nerve agent field and was completely unaware of Schrader's work.
>
> When Kuhn replaced the isopropyl alcohol used to make Sarin with a more complex alcohol known as pinacolyl, the resulting substance (which he called Compound 25075) had a camphorlike odor and was roughly twice as potent as Sarin in inhibiting cholinesterase. The War Office code-named this new compound "Soman" [...]

For more information on how such highly compartmented security was the usual practice for secret German weapons programs, and for the example of how Richard Kuhn was unaware of Gerhard Schrader's work, see p. 2584.

An 18 June 1945 Allied report described some of the security measures that were employed in the secret weapons programs [CIOS ER 112]:

> [...] Security Precautions Surrounding Secret Weapons: Plans, designs and other important papers concerning top secret weapons were distributed in four parts by relay teams. Each part was wholly unintelligible without the other three parts. To keep location of plants secret the relay system was used. One courier would take 1/4 of a plan about 100 km. and turn it over to another courier, whose destination was unknown to the first, just as point of origin of the first courier was unknown to the second. This procedure was repeated frequently so that the final courier alone knew the destination of plan.

Another important reason that security in the chemical weapons program was so effective was that most of the labor involved in production was performed by concentration camp inmates, and those inmates either died in the course of their work or were systematically tracked down and killed afterward [Tucker 2006, pp. 70–71]:

> On January 24 [1945], shortly before the first vanguard of Soviet troops reached the Oder River, the Dyhernfurth director, Dr. Albert Palm, gave the order to evacuate all staff members and the 3,000 inmates of the two satellite labor camps. [...]
>
> By the time the forced laborers reached the Gross-Rosen concentration camp, two thirds of the original 3,000 had died or been killed. On February 11, the SS transferred the survivors from Gross-Rosen to Mauthausen concentration camp. [...] Because the Nazis wanted to eliminate all outside witnesses of nerve gas production at Dyhernfurth, the Gestapo tracked down the survivors at Mauthausen and murdered them. [...]

The same German organizations (Army Ordnance Office, SS, I.G. Farben, etc.) that were involved with the chemical weapons program were involved with the nuclear program. If those organizations could conduct a very large, very advanced, and very successful chemical weapons program from the 1930s until the very end of the war without Allied intelligence and the Alsos Mission discovering that, they could have done the same for a nuclear weapons program.

In fact, existing sources of information on the German nuclear weapons program, such as Ivan Ilyichev (see pp. 4481–4485) and Werner Grothmann (see p. 3400), depicted the severe secrecy and security measures of that program. More specifically, they described the nuclear program as having employed both the same extreme compartmentalization of knowledge and the same systematic use and killing of large numbers of concentration camp inmates as are known to have been employed in the chemical weapons program.

In the years after the war, any scientists, military personnel, or political leaders who did have real insight into the nuclear weapons program would have been strongly motivated to permanently conceal their involvement for fear of being tried for war crimes by the Allies or secretly killed by surviving members of the SS. If any of those personnel went to work for Allied governments and revealed any of the information to them, they would have been equally sworn to secrecy by their new employers.

C. Timeline of the German Nuclear Program

The timeline of the wartime German nuclear program may be analyzed by comparing it to the timelines for the early U.S. and Soviet nuclear weapons development programs.

Figure D.1023 shows the timeline of the early U.S. nuclear weapons program, whose history is well documented.[24] The U.S. program was prompted by the famous 2 August 1939 letter from Albert Einstein and Leo Szilard to Franklin Roosevelt, but up until the end of 1941, the program accomplished remarkably little other than some relatively inexpensive academic experiments and some paper feasibility reports written by a succession of different study commissions. The 7 December 1941 Japanese attack on Pearl Harbor was the critical catalyzing event that brought the United States into the war and persuaded it to pursue a large and urgent nuclear weapons program from approximately the beginning of 1942 onward. The features most closely associated with the memory of the Manhattan Project generally happened very late in the war. The Los Alamos laboratory began operating in April 1943, just two years before the end of the war in Europe, and did not begin truly serious work on the implosion bomb design until July 1944, only 10 months before the end of the war in Europe. Sizeable quantities of uranium-235 and plutonium-239 were not available until the summer of 1945, when they were largely consumed by the 16 July Gadget plutonium implosion bomb test in New Mexico, the Little Boy gun-type uranium bomb dropped on Hiroshima on 6 August, and the Fat Man plutonium implosion bomb dropped on Nagasaki on 9 August.

Similarly, Fig. D.1024 shows the timeline of the early Soviet nuclear weapons program, whose history was shrouded in mystery for many decades but is now relatively well documented.[25] Although the Soviet government and its scientists had been interested in the possibility of nuclear weapons for several years, they were not in any position to pursue a serious program until 1945, when the war ended and they swept up as many scientists, materials, and information as possible from the former German nuclear program. Klaus Fuchs, Ted Hall, and other spies in the U.S. program also gave the Soviet government extremely detailed designs for the U.S. nuclear bombs, uranium enrichment plants, and plutonium production plants. According to the published histories, however, it was the 6 and 9 August 1945 U.S. nuclear attacks on Japan that served as the critical catalyzing event that persuaded Joseph Stalin to give his own nuclear program the greatest possible priority, funding, and urgency. The first Soviet fission bomb (RDS-1 or Joe-1), a direct copy of the U.S. Gadget/Fat Man plutonium implosion bomb, was successfully tested on 29 August 1949, and two more refined bombs (RDS-2 and RDS-3, or Joe-2 and Joe-3) were tested on 24 September and 18 October 1951. As with the U.S. program, significant quantities of uranium-235 and plutonium-239 were not available until very late in the Soviet program.

[24] Bird and Sherwin 2005; Jennet Conant 2005; Coster-Mullen 2012; Davis 1968; Groves 1962; Chuck Hansen 1988, 2007; Hawkins et al. 1983; Hoddeson et al. 1993; Jungk 1958; Kelly 2007; Nichols 1987; Norris 2002; Oppenheimer 1984; Bruce Cameron Reed 2015a, 2019; Rhodes 1986, 1995; Serber 1992; Smyth 1945; Sublette 2019.

[25] Albrecht et al. 1992; von Ardenne 1990, 1997; Barkleit 2008; Barwich and Barwich 1970; Boch and Karlsch 2011; Fengler 2014; Fengler and Sachse 2012; Goncharov 1996a, 1996b; Goncharov and Riabev 2001; Graham 1993; Heinemann-Gruder 1992; Holloway 1994; Karlsch 2011; Karlsch and Laufer 2002; Karlsch and Zeman 2016; Kozyrev 2005; Kruglov 2002; Maddrell 2006; Mick 2000; Nagel 2016; Naimark 1995; Oleynikov 2000; Pondrom 2018; Riabev 1998, 2002a, 2002b, 2002c, 2002d; 2006a; 2006b; 2006c; Riehl and Seitz 1993; Siddiqi 2009; Sokolov 1955; Wellerstein and Geist 2017; West 2004; Yudin; Zeman and Karlsch 2008; *News Chronicle* 1945-10-15 p. 1; NYT 1945-10-15 p. 4, 1945-10-31 p. 6, 1946-01-29 p. 1, 1946-11-28 p. 16, 1946-12-06 p. 17, 1947-02-24 p. 1, 1948-05-26 p. 3, 1948-12-28 p. 10b; *Spokane Daily Chronicle* 1948-03-16 p. 6; *Sydney Morning Herald* 1946-04-20 p. 2; *Times* 1945-05-15, 1945-05-18.

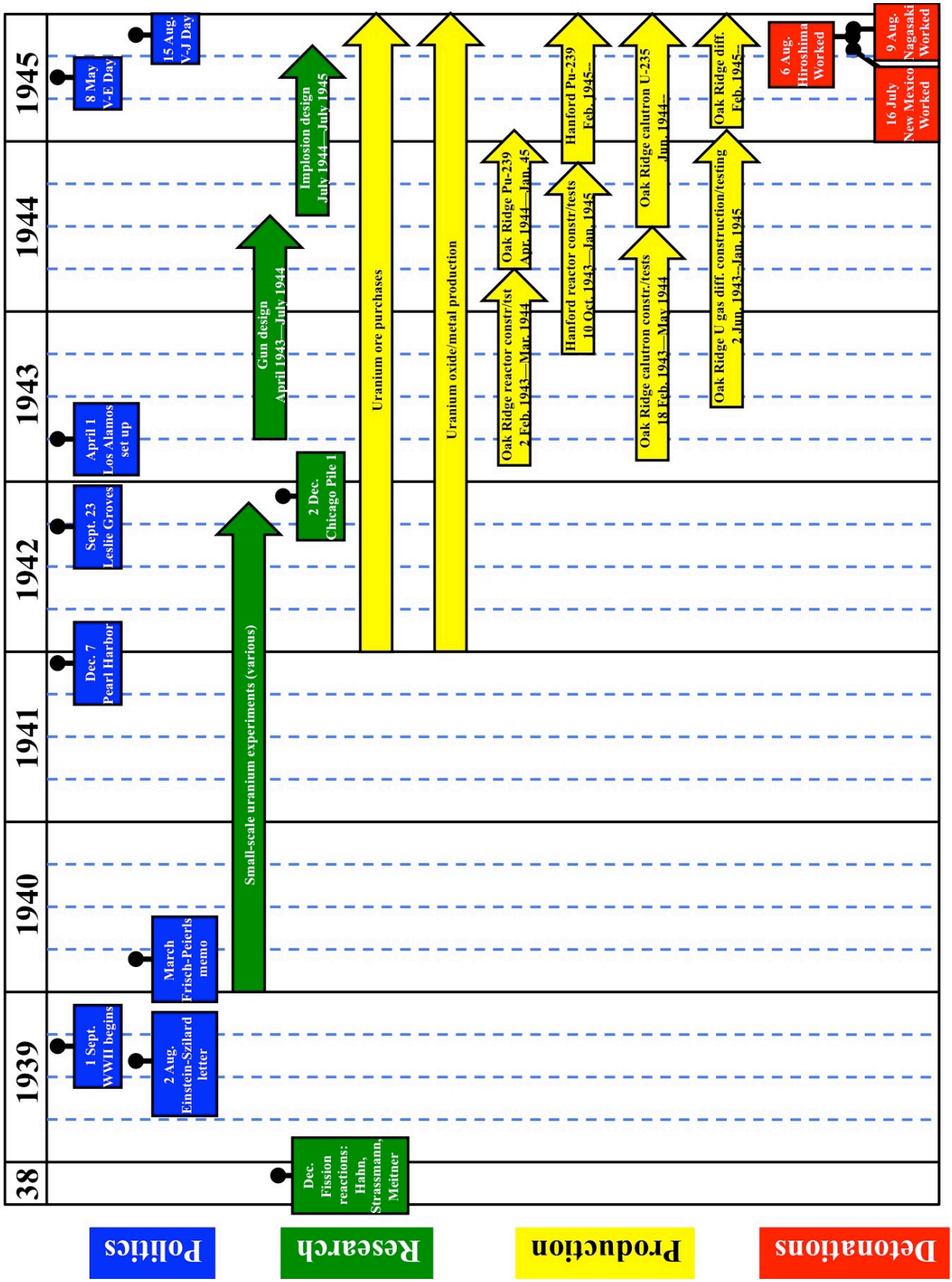


Figure D.1023: Timeline of the early U.S. nuclear weapons program.

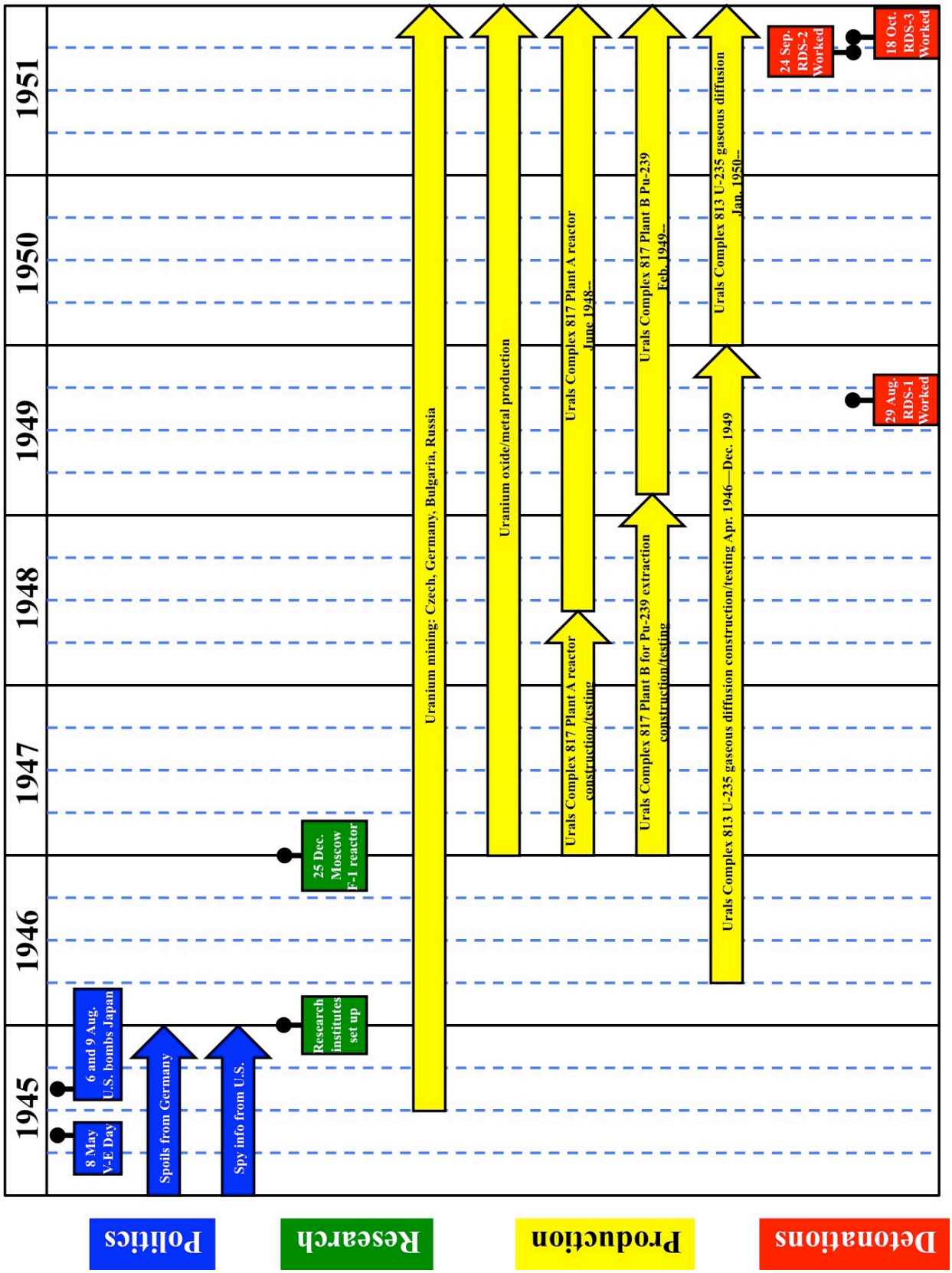


Figure D.1024: Timeline of the early Soviet nuclear weapons program.