"Subito dopo si darebbe inizio all'impiego della "V-4", contro le truppe combattenti.

d)—Nei dintorni di Berlino sono stati osservati voli di apparecchi da caccia di nuovo tipo, a reazione, i quali salgono, a tempo di primato, a quote altissime e sono velocissimi". [...]

In proposito, appena finita la il generale americano Lucius Clay, governatore militare "alleato" della Germania, dichiarò che era stato scoperto un laboratorio tra i monti della Baviera, presso Braunnenberg. Il generale rivelò che in quel laboratorio scienziati tedeschi avevano posto a punto i piani di costruzione di un proiettile razzo a reazione, noto come V-3, e che doveva essere impiegato contro Londra. La dichiarazione del generale Clay fu pubblicata anche in Italia nel giornale che il PWB pubblicava a Milano ("Giornale Lombardo". 28-5-1945).

"Subsequently, the employment of the "V-4", against the fighting troops, would begin soon afterwards.

"d)—Flights of fighter aircraft of a new type, jet-powered, have been observed in the vicinity of Berlin, which climb, in record time, to very high altitudes and are very fast." [...]

In this regard, as soon as the American General Lucius Clay, the "allied" military governor of Germany, was finished, he declared that a laboratory had been discovered in the mountains of Bavaria, near Braunnenberg. The general revealed that in that laboratory German scientists had finalized plans for the construction of a jet rocket projectile, known as the V-3, and that it was to be employed against London. General Clay's statement was also published in Italy in the newspaper that the PWB published in Milan ("Giornale Lombardo." 28-5-1945). [...]

[Bruno Spampanato (1902–1960) was a journalist and politician who was a longtime supporter of Mussolini and very well connected with high-ranking Italian officials. After the war, he wrote a multivolume memoir that preserved information from a huge number of sources that otherwise might have been lost or forgotten.

Filippo Anfuso (1901–1963) served as a diplomat to various other countries for Mussolini's government from the 1920s to 1945. He was the ambassador to Berlin 1943–1945 and would have been an excellent source of information.

The carrying capacity of the V-2 (A-4) was 10 tons total for propellant plus warhead. With wings (A-4b or A-9 configuration), it was expected to have a 700-km range. A blast radius of 1.5 km suggests that a nuclear warhead was planned, in agreement with numerous other sources (p. 5821).]

Division of Naval Intelligence. 15 June 1945. *German Technical Aid to Japan: A Survey.* ETO S(or N)-13960, 177647, p. 177.
https://ww2aircraft.net/forum/threads/german-technical-aid-to-japan.20033/

ITEM: ATOM SMASHING

INTELLIGENCE: 1. In November 1944 PW heard from his Platoon Leader, a 1st Lt. Military Academy graduate, that some time during 1944 the Japs exchanged the blueprints of their V-12 diesel tank engine used in the Type 97 Med. Tanks (HAKE) for the formula of the German Atom Bomb. According to the officer, the bombs were match box size and had an effective radius of 1,000 meters. PW did not know if the bombs were being manufactured by the Japs, nor how they would be employed. They were not used in the Philippines.

2. The U-234 had uranium oxide aboard (destination Tokyo) at the time of its surrender. It is not known that this cargo was earmarked for research on the atom bomb, but its presence in quantity is of possible significance.

[The most scientifically consistent explanation is that "match box size" referred to the size of the fission pit or the quantity of fission fuel required for the bomb, and not the overall size of the complete bomb.]

PW Intelligence Bulletin No 1/49. 19 March 1945. [AFHRA A5185 frame 0841]

13. Radium and Liquid Air Torpedoes

PW was civilian technical expert on high tension electrical systems. He reported weekly at Base Construction Depot, 20 Goslerschestr, HILDESHEIM. He overheard a discussion, middle Jan, on the safest place to store radium and liquid air rocket propelled torpedoes. All the mine shafts in HILS GEBIRGE were required. The asphalt works at ESCHERHAUSEN was most often mentioned. It is known as GUSTAV ADOLPH STOLLEN (GSGS 4416/14/361710)

(Source: Martin BINDERNAGEL, arrested ÖRDINGEN? 5 March)

[See document photo on p. 552. The wording of this report is unclear yet intriguing. Were there two separate types of valuable items to be stored: a radium stockpile (e.g., for glow-in-the-dark paints on instrument dials) and liquid air torpedoes (weapons using liquid oxygen as oxidizer for part of the propellant or part of the explosive)? Or were these weapons that used both "radium" (likely not meaning actually radium, but rather a radioactive material more generally—perhaps enriched uranium) and liquid oxygen to help implode that radioactive material?]

Benito Mussolini. 16 December 1944 speech in Milan Opera House. Variously known as the "Discorso della Riscossa" ("Speech of Revenge" or "Counterattack Speech"), "Ultimo discorso di Mussolini" ("Last Speech of Mussolini"), or "Discorso di Milano al Teatro Lirico" ("Speech at the Milan Opera House").
http://www.mussolinibenito.net/lultimo-discorso-del-dvce-dal-teatro-lirico-di-milano/

Nel periodo di tale euforia venivano svalutate e dileggiate le nuove armi tedesche, impropriamente chiamate "segrete." Molti hanno creduto che grazie all'impiego di tali armi, a un certo punto, premendo un bottone, la guerra sarebbe finita di colpo. Questo miracolismo è ingenuo quando non sia doloso. Non si tratta di armi segrete, ma di "armi nuove," che, è lapalissiano il dirlo, sono segrete sino a quando non vengono impiegate in combattimento. Che tali armi esistano, lo sanno per amara constatazione gli inglesi; che le prime saranno seguite da altre, lo posso con cognizione di causa affermare che esse siano tali da ristabilire l'equilibrio e successivamente la ripresa della iniziativa in mani germaniche, è nel limite delle umane previsioni quasi sicuro e anche non lontano.

Niente di più comprensibile delle impazienze, dopo cinque anni di guerra, ma si tratta di ordigni nei quali scienza, tecnica, esperienza, addestramento di singoli e di reparti devono procedere di conserva. Certo è che la serie delle sorprese non è finita; e che migliaia di scienziati germanici lavorano giorno e notte per aumentare il potenziale bellico della Germania.

In the period of this euphoria, the new German weapons, incorrectly called "secret," were written down and ridiculed. Others believed that through the use of such weapons, at some point, by pressing a button, the war would end abruptly. This concept is naive or even shows bad faith. There are no secret weapons, but "new weapons," and it is obvious but has to be said, that they are secret until they have been used in combat for the first time. The bitter experiences of the English people have shown them that these weapons exist indeed, and I can affirm with full knowledge of the facts that the first types will be followed by others. That they will be able to reestablish the balance and then put the initiative back into German hands, is something as sure as it can be within the limits of human foresight, and is not far off in the future.

After five years of war it is easy to understand the impatience, but these are weapons in which science, technology, experience, training of individuals and departments must proceed in tandem. What is certain is that the succession of surprises is not over; and that thousands of German scientists are working day and night to increase the war potential of Germany.

Letter from J. Edgar Hoover to Harry Hopkins. 16 November 1944. Franklin Delano Roosevelt Library, Hyde Park, New York. Small Collections, Box 1, Folder 3, ATOMIC BOMB FILE.

A German espionage agent presently in the United States under the control of this Bureau advised that he was instructed to obtain, among other subjects, information concerning (1) the progress made by the United States since 1941 with respect to the development of atomic explosives, (2) whether "heavy water" is used instead of helium in their manufacture, (3) the type of container in which the atom of uranium is split, and (4) the probable reaction of the people of the United States if Germany used the explosive power obtained through the splitting of the uranium atom.

This information is being made available to you as possibly indicating the degree to which the Germans have progressed in the development of atomic explosives. There are two other recent developments of possible interest in this connection. The first of these is that the Germans have recently made numerous inquiries of other espionage agents controlled by this Bureau concerning the exact size, number of employees, and location of various armament plants in the United States. For example, the following inquiry was received from Germany by a double agent controlled by this Bureau:

> "OF GREAT INTEREST IS SIZE, FLOOR AREA, TOTAL EMPLOYEES OF BELL, BOEING, BREWSTER, BRIGGS, BUDD, CHRYSLER, CONSOLIDATED VULTEE, CURTISS WRIGHT AIRPLANE DIVISION, DOUGLAS, EASTERN, FISHER BODY, FORD, GOODYEAR, GRUMMAN, HIGGINS, HUDSON, KAISER FACTORIES. CONTINUATION FOLLOWS."

The continuation of the above message has not as yet been received.

The second recent development of interest is the receipt of an inquiry from the Germans through a controlled double agent channel indicating that the Germans are desirous of determining the extent of off-shore coastal protection on the Atlantic seaboard of the United States and particularly as to any areas where this protection may have been curtailed.

[The first four questions suggest that Germany had or expected to soon have an atomic bomb that it could use, and wanted to know how the United States would react and whether the United States could retaliate with an atomic bomb of its own.

The questions about armament plants suggest that Germany was compiling a large list of U.S. targets to bomb in the near future, which in turn implies that Germany had or expected to soon have methods of delivering an atomic bomb or a large amount of conventional bombs to those targets via long-range bombers, long-range rockets, or submarine-launched rockets.

The final questions seem to confirm German capability for submarine-launched rockets.]

Letter from J. Edgar Hoover to Harry Hopkins. 8 December 1944. [Franklin Delano Roosevelt Library, Hyde Park, New York. Official File 10b. Box 20. Folder OF 10-b, Justice Department, FBI Reports 1944–45. 2597–2618]

As of possible interest to the President and you, information has been received from a confidential source in South America, but not confirmed by investigation, to the effect that the German Government recently sent an emissary via Spain to Argentina. This emissary contacted the heads of various German firms in Argentina and advised them to "hold the line and make no changes," because Germany has not lost the war. This German emissary is alleged to have stated that the German Army will hold out until February, 1945, when a new secret weapon with a very long range will be used. This weapon fires a projectile which on explosion will destroy an area of forty square kilometers around the point of impact.

Information has also been received that a known German agent in Latin America has recently stated that he has information that Germany will soon utilize a new explosive which will kill everyone within an area of five miles. This German agent has advised other Germans that Germany will win the war due to the use of this new explosive.

[The very large expected areas of destruction described in Hoover's 8 December 1944 letter seem to indicate an explosive yield of at least several hundred kilotons, which would suggest that the weapon was some sort of fusion-boosted fission bomb or hydrogen bomb (Section D.9), instead of a much simpler and smaller fission bomb. It was described as being delivered by a rocket (projectile) with a very long range, even by the standards of the A-4 (V-2) rocket. That strongly suggests that the intended delivery vehicle was an intercontinental rocket such as the A-9/A-10, Silbervogel, V-101, or another large rocket (Appendix E).]

OSS Report No. B-624. 20 November 1944. Secret Weapons. [NARA RG 77, Entry UD-22A, Box 171, Folder 32.7003-3 GERMANY: US Wartime Positive Int. (Nov. 44–June 45)] [See document photos on p. 4607.]

Report No. B-624

Report from Switzerland

OSS PARIS

Distribution		
WASH	Information Date:	As noted
LONDON	Report Date:	5 November 1944
	Dissemination Date:	20 November 1944
	Value:	C-3
	Source:	OSS

GERMANY: MILITARY/AIR

Secret Weapons

The source, a highly placed and sober-minded neutral industrialist, reports the following conversation with a prominent German in mid-October 1944.

According to the testimony of this German, well-informed circles in Germany say that the employment of secret weapons V-2 and V-3 was set back as a result of the invasion of the Continent which came before the moment anticipated by the Germans. Still according to this German, the final development of the new weapons is supposed to have been interrupted by the invasion and at the time of the conversation this work had still not been completed. However, work and tests are being pushed very hard and the new arms are expected to come into play before mid-winter.

On the new arms themselves the sub-source gave the following details:

V-2 is supposed to be an anti-aircraft weapon containing an explosive so powerful that by its mere deflagration everything within a radius of one kilometer would be literally pulverized. (The sub-source used the term: "Destruction of atoms.") The Germans pin great hopes on this new device; they hope that with the help of this arm they will be able to destroy or at least completely handicap all the Allied air forces in a short time.

The new weapon V-3 is said to be identical with V-2 with the sole difference that it is supposed to be destined for use against ground troops and that its power of destruction would cover a radius of about two kilometers. V-3 would be launched against hostile troops on a flat trajectory (en trajectoire tendus).

The German informant declared that Nazi leaders are said to be convinced that V-2 and V-3 will assure final victory for the Germans. He himself, however, seemed rather skeptical on this point, particularly because of the fact that in certain German technical circles it is known that the question of the production and use of these new devices is not in a very advanced stage and that trials have not yet given really positive results.

SECRET

Report No. B-624

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SECRET

Page 2

Rpt. No. B-624

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Figure D.753: OSS Report No. B-624. 20 November 1944. Secret Weapons [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 166, Folder 32.22-1—GERMANY—Research—TA—(1943–June 1946)

H. Prof. H a h n , Bln.-Dahlem

Bln.-Dahlem, den 16. Dez. 1944
Boltzmannstr. 20
Telefon: 76 32 44/45

Der Durchschlag (gKdos.) ist nur für Sie persönlich bestimmt. Bei Verhandlungen mit örtlichen Stellen bitte ich, den Brief selbst nicht zu benutzen, aber darauf hinzuweisen, daß der Bevollmächtigte für Kernphysik sich bereits persönlich an Herrn Reichsleiter Bormann gewendet hat.

Herrn
Reichsleiter Martin Bormann
B e r l i n
Wilhelmstr. 64

RFR 66/44 Ge/Gud.

Sehr geehrter Herr Reichsleiter!

Zur Sicherstellung des für die kriegswichtige Forschung unentbehrlichen Personals haben Sie am 3.9.1944 ein Fernschreiben an alle Herren Gauleiter gerichtet, nach welchem die Heranziehung der für die Aktion "Forschung" durch das Planungsamt des Reichsforschungsrates, Herrn Professor O s e n b e r g , sichergestellte wissenschaftliche und technische Personal von jeder Heranziehung zu Sondereinsätzen zu befreien ist.

Es ist selbstverständlich, daß sich das gesamte männliche Personal der Forschungsinstitute für den Volkssturm gemeldet hat. Hier ist in den im Gau Württemberg-Hohenzollern verlagerten Forschungsinstituten (insbes. Hechingen, Haigerloch, Tailfingen) insofern eine Schwierigkeit aufgetreten, als die dort arbeitenden Herren zu einem grossen Teil in das 1. Aufgebot des Volkssturms eingereiht wurden. Da mit der Möglichkeit gerechnet werden muss, daß aus den genannten Gegenden Volkssturmabteilungen zu Einsätzen ausserhalb des Ortes herangezogen werden, ist zunächst durch persönliche Vereinbarung den Leiter der dortigen Versuchsstellen mit den örtlichen Parteistellen eine vorläufige Freistellung von dem Einsatz ausserhalb des Ortes zugestanden worden.

Eine Abziehung des an sich auch nur eines kleinen Teils auf das allernotwendigste beschränkte Personals ist gleichbedeutend mit Einstellung der dort laufenden Arbeiten. Diese Arbeiten gehören aber gerade zu den allerwichtigsten Forschungs- und Entwicklungsvorhaben meines Bereichs. Ich muss also dafür Sorge tragen, daß diese Arbeiten unter allen Umständen ungestört weiterlaufen. Es ist Ihnen zweifellos bekannt, daß es sich um Arbeiten handelt,

Figure D.754: Walther Gerlach to Martin Bormann. 16 December 1944 [NARA RG 77, Entry UD-22A, Box 166, Folder 32.22-1—GERMANY—Research—TA—(1943–June 1946)]

welche unerwarteterweise zu einer kriegsentscheidenden Wichtigkeit kommen können. Es ist Ihnen auch bekannt, daß in Amerika auf dem gleichen Gebiete die grössten Anstrengungen gemacht werden; ich habe aber die Überzeugung, daß wir z.Zt. noch sowohl forschungs- als auch entwicklungsmässig einen erheblichen Vorsprung gegenüber Amerika haben, obwohl wir mit einem an sich verschwindend geringen Prozentsatz der Kräfte arbeiten, die in Amerika eingesetzt sind.

Ich erlaube mir daher wegen der ausserordentlichen Dringlichkeit mich unmittelbar an Sie, sehr geehrter Herr Reichsleiter, zu wenden mit der Bitte, dem Herrn Gauleiter M u r r in Stuttgart, der persönlich über unser Forschungsvorhaben unterrichtet ist und bei der Verlagerung uns alle Hilfe und Unterstützung schon gegeben hat, eine Mitteilung derart zukommen zu lassen, daß die Herren der verlagerten Kaiser Wilhelm-Institute und Arbeitsstellen des Bevollmächtigten für Kernphysik nur in solche Formationen des Volkssturms eingereiht werden dürfen, welche nicht für Sondereinsätze vorgesehen sind.

Ich habe an das Präsidium des Reichsforschungsrates und an Herrn Prof. Osenberg eine Abschrift dieses Briefes geschickt.

Heil Hitler!

Ihr sehr ergebener

(Prof. Dr. Walther Gerlach)

Figure D.755: Walther Gerlach to Martin Bormann. 16 December 1944 [NARA RG 77, Entry UD-22A, Box 166, Folder 32.22-1—GERMANY—Research—TA—(1943–June 1946)]

Walther Gerlach to Martin Bormann. 16 December 1944 [NARA RG 77, Entry UD-22A, Box 166, Folder 32.22-1—GERMANY—Research—TA—(1943–June 1946)] [See document photos on pp. 4608–4609.]

Eine Absichung des an sich auch nur eines kleinen Teils auf das allernotwendigste beschränkten Personals ist gleichbedeutend mit Einstellung der dort laufenden Arbeiten. Diese Arbeiten gehören aber gerade zu den allerwichtigsten Forschungs- und Entwicklungsvorhaben meines Bereichs. Ich muss also dafür Sorge tragen, daß diese Arbeiten unter allen Umständen ungestört weiterlaufen. Es ist Ihnen zweifellos bekannt, daß es sich um Arbeiten handelt, welche unerwarteterweise zu einer kriegsentscheidenden Wichtigkeit kommen können. Es ist Ihnen auch bekannt, daß in Amerika auf dem gleichen Gebiete die grössten Anstrengungen gemacht werden; ich habe aber die Überzeugung, daß wir z.Zt. noch sowohl forschungs- als auch entwicklungsmässig einen erheblichen Vorsprung gegenüber Amerika haben, obwohl wir mit einem an sich verschwindend geringen Prozentsatz der Kräfte arbeiten, die in Amerika eingesetzt sind.

Drafting even a small part of the [nuclear] staff, which is limited to the bare essentials, is tantamount to discontinuing the work being carried out there. However, this work is one of the most important research and development projects in my field. I must therefore ensure that this work continues undisturbed under all circumstances. You are undoubtedly aware that this is work which could unexpectedly turn out to be of decisive importance for the war effort. You are also aware that the greatest efforts are being made in America in the same field; but I am convinced that we still have a considerable lead over America in terms of both research and development, although we are working with a small percentage of the forces deployed in America.

H. K. Calvert to Robert Furman. 30 December 1944. Subject: C.S.D.I.C. (U.K.) G.R.G.G. 238. [NARA RG 77, Entry UD-22A, Box 171, Folder 32.7003-3 GERMANY: US Wartime Positive Int. (Nov. 44–June 45)]

1. In the above report which was prepared on P/W information gathered between the dates 23–26 December 1944, the following statement is noticed:

> "In conversation with General EBERBACH, Generalleutnant HEIM said he thought the counter-attack was only justified if it was intended to win time for the further development of secret weapons and in particular the atom-bomb. There was otherwise no point in just winning time at this stage of the war."

2. This particular paragraph has been called to the attention of C.S.D.I.C. with the request that more information be obtained from Generalleutnant HEIM, if possible, concerning what he describes in his conversation as the "atom-bomb".

3. You will be advised of the result, if any, of our inquiry.

Günter Nagel. 2012a. *Wissenschaft für den Krieg: Die geheimen Arbeiten der Abteilung Forschung des Heereswaffenamtes*. Stuttgart: Franz Steiner. pp. 177, 445.

Bei den für die Uranversorgung zuständigen Stellen dachte man offenkundig über den Tag hinaus und ergriff Maßnahmen zur Erkundung neuer Uranerzvorkommen. Daran soll auch der Grazer Prof. Armin Dadieu mitgewirkt haben.[407]

407 [...] Zur angeblichen Beteiligung von Dadieu vgl. Jürgen Scheffran: *Die heimliche Raketenmacht*, in *Info-Dienst der Informationsstelle Wissenschaft und Frieden 9 (1991) Heft 1/2*, Dossier Nr. 8, 47–62, insb. 51, vgl. auch Anm. 1173.

1173 Hermann Ibler: *Nachruf auf Prof. Dr. Armin Dadieu*, in *Akademisches Leben, Juni 1978*, I–III[....]

The authorities responsible for uranium supply were obviously thinking beyond the day and took measures to explore new uranium ore deposits. Prof. Armin Dadieu from Graz is also said to have been involved in this.[407]

407 [...] On the alleged involvement of Dadieu, see Jürgen Scheffran: *Die heimliche Raketenmacht*, in *Info-Dienst der Informationsstelle Wissenschaft und Frieden 9 (1991) Heft 1/2*, Dossier No. 8, 47–62, esp. 51, see also note 1173.

1173 Hermann Ibler: *Nachruf auf Prof. Dr. Armin Dadieu*, in *Akademisches Leben, Juni 1978*, I–III[....]

Mark Wade. 2020. *Encyclopedia Astronautica*. http://www.astronautix.com/d/dadieu.html

Dadieu, Armin

German engineer, SS Officer, and wartime governor of Styria. Worked on German uranium processing in World War 2, and for Saenger post-war. By the 1970's on review committees for post-Apollo space programs in US and Europa III LV in Europe. Consultant to West German government on OTRAG.

Born: 1901-08-20. *Died*: 1978-04-06.

Dadieu was responsible in during World War II for uranium storage and handling research in Styria, Austria. After the war he became involved in rocketry and spaceflight, working with Eugen Saenger in the 1950's. By the 1970's he was on committees on Post-Apollo space programs in the United States and reviewing the potential Europa III launch vehicle. He later was a consultant to the West German government on the work of OTRAG.

Armin Dadieu was an Austrian chemist, a National Socialist politician, and high-ranking SS officer.

Armin Dadieu was born in 1901 in Brunn bei Maribor, the son of railway inspector Josef Dadieu and his wife Friederike Dadieu Pelkhofer. His primary and secondary schooling were in Maribor. The family was expelled from Slovenia in 1919 as part of the post-World War I drawing of borders and movement of people within what was the Austro-Hungarian Empire.

In the fall of 1919 he began chemistry at the Technical University in Graz. He was active in fraternities and the Alpine Association. He graduated in 1923 as an engineer and thereafter was a research assistant at the Technical University Graz. In 1926 he received his doctorate with a thesis on electromotive behavior of aluminum. From 1930 he moved to the University of Graz, where in March 1932 he became an associate professor of inorganic and physical chemistry. In 1935 he received the Lieben Prize (the "Austrian Nobel Prize") for his work in the field of Raman spectroscopy.

Dadieu was politically active, first from 1927 to 1930 in the Styrian Homeland Security. In 1932 he joined the NSDAP (Nazi Party). In 1936 he was "People Policy Advisor" for the Fatherland Front in Styria and worked secretly for the banned NSDAP. From 1937 he covertly made explosives for the party in his university laboratory, and carried out research and set up an intelligence service for Hermann Goering. After the German annexation of Austria in March 1938 Dadieu was named state governor and Gauhauptmanns for Styria. He had joined the SS in July 1936 and was appointed Standartenfuehrer. Until 1941 he was also the NSDAP Gau Economics Adviser in Gau Styria and Head of the Chamber of Commerce, Trade and Industry. From July 1940 to July 1941 Dadieu served as a Stuka pilot in World War II. In 1942 he was appointed Oberfuehrer, then from 1943-1945, Gaudozentenbundfuehrer in Styria.

In May 1945 Dadieu was arrested by soldiers of the Red Army, but was able to escape after a brief detention. On January 13, 1946, his name appeared on a list of war criminals in the Wiener Zeitung. In March 1948 he was arrested in Austria and again set free, after which he fled across the border into Italy and then to Argentina. He was adviser to the Peron government, especially on the subject of rocket propellants (Argentine Condor missile). Austria seized Dadieu's assets in 1950.

In 1958 Dadieu left Argentina and took up a position at the Institute of Jet Propulsion in Stuttgart. Since 1962 he headed the Institute of Rocket Propellants in Stuttgart, then from 1970 the Institute of Chemical rocket engines in Lampoldshausen. He was a member of the Committees on Post-Apollo Projects and the successor for the Europa III launcher. He worked for the OTRAG and as an expert for the German government. He retired to Graz.

[See also pp. 4613–4624, 5585–5587.

Just exactly what sort of nuclear-related work was done in or near Graz during the war?

Where are the records of wartime work and postwar interrogations and reports?]

Theodor Soucek. 2001. *Mein Richter, mein Henker.* Malmö, Sweden: Bright Rainbow.

[Soucek (1919–20??) was born in Graz, Austria and served throughout the war as an officer. After the war he returned to Austria and helped run one of the "ratlines" for people fleeing Austria and Germany; in that context he sheltered and became well acquainted with Armin Dadieu, a scientist and former senior official from Graz. Soucek's memoirs were written near the end of his life and mix what he had actually seen with what he had heard or believed, so one must be quite cautious in using them, but they contain several intriguing passages that align well with independent sources.]

[S. 55–59:] Irgendwann nahm neben mir ein vielleicht fünfunddreißig Jahre alter—sicher bis vor wenigen Wochen diensttuender—Offizier der Deutschen Wehrmacht Platz, seine Uniform war deutlich erkennbar, nur die Dienstrangabzeichen und Auszeichnungen fehlten. Schnell kamen wir ins Gespräch.

"Woher kommst du und wohin willst du?", fragte ich ihn, nachdem wir festgestellt hatten, beide aus Graz zu stammen.

"Ich muß nach Graz, wichtige Papiere holen!"

"Da kannst du nicht hin, die Russen sind da und du landest schnell irgendwo in Sibirien, in einem Gefangenenlager oder Bergwerk."

"Keine Sorge, ich reise als Berater von höchsten alliierten Oberkommandos mit US-Ausweisen nach Graz und werde von den Sowjet-Dienststellen sicheres, freies Geleit erhalten, weil ich Mitarbeiter eines Forschungsteams im Dienste der US-Regierung bin, mir passiert nichts beiden Russen, da gelten Gegenseitigkeitsabkommen."

"Das ist natürlich etwas anderes! Aber wie kommst du nach Graz?"

"Man stellt mir einen US-Dienstwagen und der fährt mich hin und zurück."

Er hatte schnell Vertrauen zu mir gewonnen, nachdem ich ihm von wichtigen Persönlichkeiten berichtete, die wir in Graz und Berlin kannten und ihm meine Vertrauensposition deutlich machte, die ich aus dem Stab des Generaloberst Ringel und im Aufbau der Alpenfestung innehatte.

[pp. 55–59:] At some point, a thirty-five year old—certainly a serving officer of the German Wehrmacht until a few weeks ago—took a seat next to me, his uniform was clearly recognizable, only the rank insignia and decorations were missing. We quickly struck up a conversation.

"Where are you from and where are you going?" I asked him, after we had established that we were both from Graz.

"I have to go to Graz to get important papers!"

"You can't go there, the Russians are there and you'll quickly end up somewhere in Siberia, in a prison camp or a mine."

"Don't worry, I'm traveling to Graz as an advisor to the highest Allied high command with U.S. ID and will be given safe, free passage by the Soviet authorities because I'm a member of a research team in the service of the U.S. government, nothing will happen to me with the Russians, reciprocity agreements apply."

"That's something else, of course! But how do you get to Graz?"

"They provide me with a U.S. service car and it drives me there and back."

He quickly gained his trust in me after I told him about important people we knew in Graz and Berlin and explained to him the position of trust I held on Colonel General Ringel's staff and in the construction of the Alpine fortress.

"Was war deine Funktion in den letzten Kriegsmonaten?"

"Ich gehörte zu den Forschungsgruppen des Kaiser-Wilhelm-Instituts in Berlin und habe in den Alpen der Obersteiermark unterirdische Forschungsstellen betreut, in Gstatterboden. Dort waren im Berg Spezialbauten eingerichtet, die intensiv bis Kriegsende für die Raketentechnik unter Prof. Dadieu aus Graz arbeiteten."

"Aber das werden die Russen doch alles besetzt und mitgenommen haben!"

"Ja und nein: ich habe Zugang zu Dokumenten und Einrichtungen, die sicher bis jetzt unentdeckt geblieben sind und hole Papiere und Berichte, von denen ich weiß, wo sie sind, um diese nach den USA zu bringen."

Und dann erzählte er mir von einer erstaunlichen und geradezu sensationellen Mission, an der er vor wenigen Wochen teilgenommen hatte.

In der Nähe von Magdeburg gab es ein deutsches Bergwerk in größerer Tiefe, in welchem sich geheime Forschungszentren der Reichsregierung befanden, speziell in Verbindung mit den Atomforschungsprojekten des 3. Reiches unter Leitung des Kaiser-Wilhelm-Institutes Berlin.

In einem solchen unterirdischen Bau befand sich das einzige arbeitende Zyklotron der Welt, eine Beschleunigeranlage, die so leistungsfähig nirgends sonst entwickelt worden war. Als die amerikanischen Besatzungs-Sonderkommandos, die mit höchstem Auftrag und größter Dringlichkeit nach den Geheimwaffenentwicklungen des 3. Reiches suchten, von dieser Anlage erfuhren, wurde ein US-Sonderkommando aufgestellt, das den Berichten der deutschen Mitarbeiter folgend, die Aufgabe erhielt, dieses Zyklotron auszubauen und vor dem Zugriff der Sowjets zu retten bzw. es nach den USA zum Nutzen der dortigen Forschungsarbeiten zu verbringen.

"What was your function in the last months of the war?"

"I belonged to the research groups of the Kaiser Wilhelm Institute in Berlin and was in charge of underground research stations in the Alps of Upper Styria, in Gstatterboden. Special buildings were set up in the mountain there, which worked intensively on rocket technology under Prof. Dadieu from Graz until the end of the war."

"But the Russians will have occupied all that and taken it with them!"

"Yes and no: I have access to documents and facilities that have certainly remained undiscovered until now and I am retrieving papers and reports that I know where they are in order to bring them to the USA."

And then he told me about an amazing and almost sensational mission he had taken part in a few weeks ago.

Near Magdeburg there was a German mine at a great depth in which secret research centers of the Reich government were located, especially in connection with the nuclear research projects of the Third Reich under the direction of the Kaiser Wilhelm Institute in Berlin.

The only working cyclotron [of its type] in the world, an accelerator facility that had not been developed anywhere else with such high performance, was located in such an underground building. When the American occupation special commandos, who were searching for the secret weapons developments of the Third Reich with the utmost mission and urgency, learned of this facility, a US special commando was set up, which, following the reports of the German employees, was given the task of exploiting this cyclotron and rescuing it from the Soviets or transferring it to the USA for the benefit of the research work there.

[Compare with similar reports on pp. 3761–3772, 4853, 4980–4981, 5050.]

"Wir wurden, zum Großteil deutsche Spezialisten und Sonderkommandotrupps, mit russischen Lastwagen, russischen Uniformen und russischen Ausweisen versehen, bei Nacht und Nebel in das Bergwerk geschickt mit dem Auftrag, dieses Zyklotron auszubauen zu verladen und in die Hände der US-beauftragten Spezialeinheiten zu bringen."

"We were sent, mostly German specialists and special commandos, equipped with Russian trucks, Russian uniforms and Russian ID cards, into the mine at night and in fog with the task of dismantling this cyclotron and loading it into the hands of the U.S. special forces."

"Und das gelang?", fragte ich erstaunt.

"And that was successful?" I asked in amazement.

"Perfekt, wir haben so gut wie unentdeckt, unerkannt und unbehindert diesen Überraschungsauftrag erfüllt, das Gerät ist schon in den USA." [...]

"Perfect, we have fulfilled this surprise mission as good as undetected, unrecognized and unhindered, the device is already in the USA." [...]

Mein Gesprächspartner wurde aufgerufen und verabschiedete sich herzlich.

My interlocutor was called and said goodbye warmly.

"Glückauf", rief ich ihm zu, "mach 's gut, vielleicht auf Wiedersehen später in Graz!"

"Good luck," I called out to him, "take care, maybe we'll see you again later in Graz!"

Viel später, im Jahre 1966, kam mir ein Sonderbericht der "Presse", Wien, in die Hände, daß große Bombengeschwader der USA in den letzten Kriegswochen nahe Magdeburg wichtigste Forschungszentren des 3. Reiches in mehrfachen Wellen bombardiert hatten, weil es sich um Atomforschungszentren Deutschlands handelte, die zerstört werden sollten, um diese nicht in die Hände der vorrückenden, vor den Amerikanern eintreffenden, Sowjettruppen fallen zu lassen.

Much later, in 1966, I came across a special report in the Vienna "Press" that large U.S. bombing squadrons had bombed the most important research centers of the Third Reich in several waves near Magdeburg in the last weeks of the war, because these were nuclear research centers in Germany that were to be destroyed so that they would not fall into the hands of the advancing Soviet troops arriving before the Americans.

So bestätigte sich der Bericht meines Gesprächspartners in Liezen und fand eine Teilerklärung, deren voller Umfang wohl bis heute in Geheimakten ruht bzw. bei Teilnehmern in verschlossenen Erinnerungen und Wissensvorgängen lebt, die wir nicht kennen.

This confirmed the report of my interlocutor in Liezen and found a partial explanation, the full extent of which is probably still kept in secret files today or lives among participants in closed memories and knowledge processes that we do not know.

[S. 71:] Die Gattin des weithin bekannten Rektors der Universität Graz, des führenden Wissenschaftlers Prof. Dr. Armin Dadieu, kommt sehr schnell zum Kernpunkt ihres Anliegens.

[p. 71:] The wife of the widely known rector of the University of Graz, the leading scientist Prof. Dr. Armin Dadieu, very quickly came to the heart of her request.

“Lieber Herr Soucek, bitte helfen Sie meinem Mann und retten Sie ihn! Es drohen ihm sowohl die Auslieferung an Tito als auch eine Anklage seitens der alliierten Besatzungsmächte, die ihn wegen seiner Funktion und seines Ranges als Gauhauptmann der Steiermark einkerkern wollen. Sie wissen ja auch sicher, daß er als Wissenschaftler seines Ranges den Sowjets eine begehrte Beute wäre. Mein Mann befand sich bei Kriegsende im Forschungszentrum Gstatterboden, wo er mit seinen Mitarbeitern die im Auftrag des Kaiser-Wilhelm-Institutes, Berlin, eingerichteten und vom Kriegsforschungsrat bzw. dem Verteidigungsministerium unter Minister Speer geführten unterirdischen und in die Berge verlagerten Einrichtungen kontrollierte. Seine Aufgabe war es, diese Forschungsarbeiten vordem Zugriff der Alliierten zu sichern und die Arbeitsgruppen vor einer Gefangenschaft durch die Sowjets zu bewahren.”

Dear Mr. Soucek, please help my husband and save him! He is threatened with extradition to Tito as well as prosecution by the Allied occupying powers, who want to imprison him because of his function and rank as Gauhauptmann of Styria. As I’m sure you know, as a scientist of his rank he would have been coveted prey for the Soviets. At the end of the war, my husband was at the Gstatterboden research center, where he and his staff controlled the underground facilities set up by the Kaiser Wilhelm Institute in Berlin and run by the War Research Council and the Ministry of Defense under Minister Speer and relocated to the mountains. His task was to secure this research work from the Allies and to protect the research groups from being captured by the Soviets.”

[S. 94–105:] Dadieu wurde zu einem Treffen nach Wien bzw. auf den Semmering eingeladen, um sich mit seinem früheren Chef des Kaiser-Wilhelm-Instituts, Prof. Peter Adolf Thiessen, zu treffen, einem der führenden Atomforscher des 3. Reiches, der in Berlin und ganz Deutschland die bedeutendsten Atomforschungsanlagen errichtet hatte, die verschiedensten Forschergruppen dirigierte, die an der deutschen Atombombe arbeiteten und unter anderem auch Dadieus geheime, unterirdische Forschungsstätten in Gstatterboden führte bzw. kontrollierte. [...]

[pp. 94–105:] Dadieu was invited to a meeting in Vienna and on the Semmering to meet with his former head of the Kaiser Wilhelm Institute, Prof. Peter Adolf Thiessen, one of the leading atomic researchers of the Third Reich, who had built the most important atomic research facilities in Berlin and throughout Germany, directed the various research groups working on the German atomic bomb and also managed or controlled Dadieu’s secret, underground research facilities in Gstatterboden. [...]

Was wir in dieser Stunde noch nicht genau und im ganzen Umfang wußten, war, daß die Sowjets in den ersten Nachkriegsmonaten über 25.000 deutsche Spitzenkräfte der Geheimwaffenentwicklung zur Verteidigung mit glänzenden Vertragsbedingungen angelockt hatten, kontrollierten und dann in einer Nacht- und Nebelaktion als Gefangene nach Rußland gebracht hatten. So auch Männer wie Prof. Thiessen.

What we did not know at that time was that in the first months after the war, the Soviets had lured more than 25,000 top German secret weapons developers for defense purposes with brilliant contract conditions, controlled them and then brought them to Russia as prisoners in a night and fog operation. This included men like Prof. Thiessen.

Während die Amerikaner die Spitzengruppen der Geheimwaffenentwicklungen unter Führung Wernher von Brauns, die Elite der Peenemünder Raketen- und Weltraumforscher, gefangen genommen und in die USA gebracht hatten, zusammen mit der modernsten und letzten Entwicklung an Raketenprojekten, Plänen, Modellen, Fabrikanlagen und Serienerzeugnissen von V-1 bis V-9, den serienreifen interkontinentalen Fernschußraketen, die auch Atomsprengköpfe nach den USA hätten fliegen können, also kriegsentscheidend waren, hatten sich die Russen neben den in ihren Zonen gefundenen Rüstungsprodukten, Einrichtungen und Spezialisten auch entscheidender Köpfe der Atomforschung bemächtigt, wie Prof. Thiessen, Manfred von Ardenne und Dr. Riehl, dem führendsten Mann der Welt zur Herstellung von reinem Uran, der Ausgangsbasis für den Bau von Atombomben.

While the Americans had captured the top groups of secret weapons developers under the leadership of Wernher von Braun, the elite of the Peenemünde rocket and space researchers, and brought them to the USA, together with the most modern and latest developments in rocket projects, plans, models, factory equipment and series products from V-1 to V-9, the production-ready intercontinental long-range missiles, which could also have flown nuclear warheads to the USA, i.e. were decisive for the war, the Russians had seized not only the armaments products, facilities and specialists found in their zones, but also key minds in nuclear research, such as Prof. Thiessen, Manfred von Ardenne and Dr. Riehl, the world's leading man in the production of pure uranium, the starting point for the construction of atomic bombs.

Dadieu gehörte selbst zu diesen Forschern und stand bis Kriegsende in laufendem Kontakt mit Prof. Thiessen, dem Kaiser-Wilhelm-Institut und dem Reichsforschungsrat Berlins unter Minister Speer bzw. Hermann Görings Führungsorganen.

Dadieu himself was one of these researchers and was in constant contact with Prof. Thiessen, the Kaiser Wilhelm Institute and the Reich Research Council in Berlin under Minister Speer and Hermann Göring's leadership until the end of the war.

Dadieu wollte wissen, wer der Überbringer war, und wie man sich diese Zusammenkunft in der Sowjetbesatzungszone gedacht hatte. Wir waren uns sofort darüber im Klaren, daß Dadieu von einem solchen Treffen in der Russenzone nie mehr frei zurückkehren würde, daß man ihn als wichtige Beute entführen und nach der Sowjetunion verbringen würde und er vermutlich schon bei diesem Treffen gar nicht mit Prof. Thiessen zu einem Gespräch käme, sondern dessen Name nur als Leimrute zum Einfangen des "Paradiesvogels Dadieu" diene. [...]

Dadieu wanted to know who the messenger was and how this meeting had been planned in the Soviet occupation zone. We were immediately aware that Dadieu would never return free from such a meeting in the Russian zone, that he would be kidnapped as important prey and taken to the Soviet Union and that he would probably not even have a conversation with Prof. Thiessen at this meeting, but that his name would only serve as bait to catch the "game bird Dadieu." [...]

“Hast du, Hans [Dadieu], in deinen Forschungs- und Geheimwaffenentwicklungen keine direkte Kenntnis davon gehabt, wieso die Ankündigungen von Dr. Goebbels in der Wochenzeitung “Das Reich” und in seinen Reden immer wieder darin gipfelten, daß der Sieg Deutschlands nahe und unaufhaltsam sei, daß die Entscheidung zu Gunsten des Deutschen Reiches im 2. Weltkrieg noch 1945 fallen würde?”

“Natürlich hatte ich als oftmaliger Besucher Berlins bei Thiessen und im Kaiser-Wilhelm-Institut laufende Kenntnis der allgemeinen Steigerung und Verbesserung unserer Waffentechnik, unserer neuen industriellen Ergebnisse, von der Panzerfaust bis V 2, von den Schnorchelbooten bis zu den Raketenjägern, aber die Geheimhaltung war so streng, für jeden Teilbereich so bedingungslos getrennt, daß ich selbst an der Spitze bestimmter Projektarbeiten keinen Entwicklungsstand in der Atombombenforschung oder im Fernraketenbau kannte. Jeder von uns war auf seine Zielsetzungen verschworen, aber nur Thiessen, Minister Speer und das Führerhauptquartier wußten in den letzten Kriegsmonaten Einzelheiten der Schwerpunktentwicklungen, verfügten über die Resultate und trafen die Entscheidungen.”

“Aber du hast doch wie ich die im Herbst 1944 erfolgten Hinweise aus der Feder und dem Munde von Dr. Goebbels gekannt:

“Dankdem Geist der deutschen Wissenschaftler sind wir nicht mehr weit von dem Zeitpunkt entfernt, daß wir einen Teil der Erde in die Luft sprengen könnten.”

Wie er wörtlich 1944 im “Reich” schrieb, deutlich auf die Atomkraft anspielend, die dank Hahn 1939 durch die Entdeckung der Atomspaltung Deutschland allein zugänglich war, derübrigen Welt weit voraus.”

Dadieu erwiderte:

“Did you, Hans [Dadieu], in your research and secret weapons developments, have no direct knowledge of why the announcements of Dr. Goebbels in the weekly newspaper “Das Reich” and in his speeches repeatedly culminated in the fact that the victory of Germany was near and unstoppable, that the decision in favor of the German Reich in the Second World War would still fall in 1945?”

“Of course, as a frequent visitor to Berlin for Thiessen and the Kaiser Wilhelm Institute, I had ongoing knowledge of the general increase and improvement of our weapons technology, our new industrial results, from the Panzerfaust to V 2, from the snorkel boats to the rocket fighters, but the secrecy was so strict, so unconditionally separated for each sub-area, that even at the top of certain project work I knew no development status in atomic bomb research or in long-range rocket construction. Each of us was conspiring to achieve our goals, but only Thiessen, Minister Speer, and the Führer’s headquarters knew the details of the main developments in the final months of the war, had the results at their disposal and made the decisions.”

“But you, like me, were aware of the information that came from the pen and mouth of Dr. Goebbels in the autumn of 1944:

“Thanks to the spirit of the German scientists, we are not far from the time when we could blow up part of the earth.”

As he literally wrote in 1944 in “Reich,” clearly alluding to atomic power, which, thanks to Hahn’s discovery of atomic fission in 1939, was available to Germany alone, far ahead of the rest of the world.”

Dadieu replied:

"Natürlich wußten wir, daß die verschiedensten Forschergruppen unter strengster Geheimhaltung, voneinander unabhängig, an zukunftsweisenden Systemen arbeiteten. Aber alle diese Arbeiten unterlagen dem strengen Führerbefehl, daß jeder Geheimnisträger nur soviel über seinen Aufgabenbereich wissen durfte, wie dieser zur unmittelbaren Aufgabenerfüllung im Rahmen seines Wirkungsbereiches an Kenntnissen benötigte.

Nachdem ich als Mitarbeiter des Reichsforschungsrates unter dem Präsidenten des Kaiser-Wilhelm-Institutes Berlin, Prof. Dr. Adolf Thiessen, für feste Raketentreibstoffe zuständig war, wußte ich, daß in Peenemünde Dr. Walter Thiel für die Raketenantriebssysteme führend arbeitete."

Dr. Thiel studierte bereits die Möglichkeit, als Raketenantrieb Atomenergie zu nutzen. Aber als, infolge von Verrat, im August 1944 durch eine Welle von Fliegerangriffen in der Wohnsiedlung des Raketenforschungszentrums Peenemünde auf Usedom über siebenhundert Forscher mit ihren Familienangehörigen getötet wurden, starb auch Dr. Thiel mit Frau und Kindern. Mit ihm wurden alle seine Arbeitsergebnisse vernichtet und blieben auch für die alliierten Sieger verloren.

Welchen hohen, überlegenen Stand unsere Geheimwaffenforschung einschließlich der Arbeiten an deutschen Atomwaffen erreicht hat, wissen heute in letzten Einzelheiten nur die USA und die Sowjetunion, die sich der deutschen Spitzenleistungen als Siegesbeute bemächtigten. [...]

Der Anteil der deutschen Atomforschungsergebnisse an der Atombewaffnung Amerikas bleibt ebenso ein Geheimnis in den Archiven der USA, wie die Ergebnisse deutscher Vorleistungen in den Händen der Sowjetunion, die deutsche Spitzenforscher wie Prof. Thiessen und Manfred von Ardenne mit vielen anderen Spezialisten gefangen nahm und für sich arbeiten ließ.

Of course, we knew that the most diverse research groups were working on forward-looking systems in the strictest secrecy, independently of each other. But all this work was subject to the Führer's strict order that every person working in secrecy was only allowed to know as much about his area of responsibility as he needed to know in order to directly fulfill his tasks within his area of responsibility.

Having been responsible for solid rocket propellants as an employee of the Reich Research Council under the President of the Kaiser Wilhelm Institute in Berlin, Prof. Dr. Adolf Thiessen, I knew that Dr. Walter Thiel was working in Peenemünde as a leader in rocket propulsion systems."

Dr. Thiel was already studying the possibility of using atomic energy for rocket propulsion. But when, as a result of betrayal, over seven hundred researchers and their families were killed in a wave of air raids on the housing estate of the Peenemünde rocket research center on Usedom in August 1944, Dr. Thiel and his wife and children also died. All the results of his work were destroyed with him and remained lost to the Allied victors.

Today, only the USA and the Soviet Union know the final details of the high, superior level of our secret weapons research, including the work on German nuclear weapons, which seized Germany's top achievements as spoils of victory. [...]

The share of German nuclear research results in America's nuclear armament remains just as much a secret in the archives of the USA as the results of German preliminary work in the hands of the Soviet Union, which captured top German researchers such as Prof. Thiessen and Manfred von Ardenne along with many other specialists and made them work for itself.

In diesem Zusammenhang erzählte ich Dadieu von einer außerordentlichen Begegnung mit einem hochrangigen ungarischen General, als ich mich—noch verwundet—im gleichen Zugabteil auf der Bahnfahrt von Berlin nach Wien Mitte Januar 1945 befand.

Am Vortag meiner Rückreise aus Berlin, wo ich mich auf Grund eines Sonderauftrages zur Entgegennahme neuer Einsatzbefehle befand, besuchte ich den Leiter der Privatkanzlei Adolf Hitlers, Herrn von Blankenburg, mit dem ich seit 1938 befreundet war. Von Blankenburg nahm mich zu einer Lagebesprechung zu Reichsminister Dr. J. Goebbels mit, in der dieser den geladenen Sondergästen aus höchsten deutschen und europäischen Führungs- und Regierungspositionen unter faszinierenden Erklärungen in seiner bekannten mitreißenden rednerischen Kraft wörtlich erklärte:

"Die Aufgabe der deutschen Wehrmacht in Erfüllung der Verteidigung des Deutschen Reiches besteht darin, die Feinde Deutschlands noch sechs Monate vom Reichskern fernzuhalten, denn dann wird dank der Entwicklung unserer modernen, neuen Geheimwaffen dieser Weltkrieg in 24 Stunden also am selben Tag, mit dem Sieg Deutschlands und seiner Verbündeten beendet sein."

Noch stärkstens beeindruckt von den am Vortag erlebten Erklärungen des Propagandaministers Dr. Goebbels betrat ich mein Zugabteil zur Rückreise nach Wien und weiter in mein Lazarett, wo ich mich zur endgültigen Ausheilung meiner Verwundungen befand.

Mir gegenüber hatte ein älterer, weißhaariger Herr Platz genommen, der sich mir im Laufe der Reise nach vertraulichem und angeregtestem Gespräch als hochrangiger ungarischer General vorstellte.

Nach mehr als einer Stunde Bahnfahrt wandte sich der General überraschend und vertraulich zu mir:

In this context, I told Dadieu about an extraordinary encounter with a high-ranking Hungarian general when I was—still wounded—in the same train compartment on the train ride from Berlin to Vienna in mid-January 1945.

On the day before my return from Berlin, where I was on a special assignment to receive new deployment orders, I visited the head of Adolf Hitler's private chancellery, Mr. von Blankenburg, with whom I had been friends since 1938. Von Blankenburg took me to a briefing with Reich Minister Dr. J. Goebbels, in which he literally explained to the invited special guests from the highest German and European leadership and government positions with fascinating explanations and his well-known rousing oratory power:

"The task of the German Wehrmacht in fulfilling the defense of the German Reich is to keep Germany's enemies away from the Reich core for another six months, because then, thanks to the development of our modern, new secret weapons, this world war will be over in 24 hours, i.e. on the same day, with the victory of Germany and its allies."

Still highly impressed by the statements made the day before by the Minister of Propaganda, Dr. Goebbels, I entered my train compartment for the return journey to Vienna and on to my military hospital, where I was in the process of finally healing my wounds.

An elderly, white-haired gentleman had taken a seat opposite me, who introduced himself to me as a high-ranking Hungarian general during the course of the journey after a confidential and animated conversation.

After more than an hour's train ride, the general turned to me surprisingly and confidentially:

[Cf. pp. 4549–4550, 4587, 4627–4665, 4679–4681, 4766, 5038, 5218, 5380, 5454–5466, 5658–5659.]

"Schauen Sie, lieber junger Freund, Sie sind für mich ein frontbewährter Offizier und offenbar bedingungslos Ihrer Nation und der Verteidigung Europas verschworen, dazu noch Schriftsteller von höchstem Verantwortungsbewußtsein zur Rettung vor dem Kommunismus. So kann ich Ihnen von meinem Besuch als Vertreter der ungarischen Regierung in Berlin erzählen, weil man uns mit anderen verbündeten Regierungsvertretern der Achsenmächte in den letzten Tagen die jüngsten Entwicklungen der deutschen Geheimwaffen vorführte.

Wir wurden an der Ostsee in ein Sperrgebiet der Wehrmacht geflogen und es geschah folgendes: Als Zielgebiet zeigte man uns eine vielleicht 20–25 km entfernte kleine Insel und beschoß diese mit einer neuartigen Bombe, aus einem Flugzeug abgeworfen. Diese Bombe wirkte so beispiellos, daß von der Insel nichts mehr zu sehen war, sie war im Wasser verschwunden![4]

Mit dieser neuen Waffe werden Sie den Krieg gewinnen, Deutschlands Sieg ist nicht mehr aufzuhalten. Ich gratuliere Ihnen!"

Das waren seine Worte. Der General betonte:

"Weitere Einzelheiten möchte ich Ihnen nicht berichten, weil wir zur Geheimhaltung aus ganz natürlichen Gründen von Seiten Ihrer Regierung veranlaßt wurden, aber diese Gewißheit wollte ich Ihnen mitgeben, weil Sie ein so überzeugender Repräsentant des jungen Deutschland für mich waren."

4 [...] Der "Schwedische Beobachter" bericht vom Verschwinden einer Insel nach Beschuß durch eine deutsche Sonderwaffe.

"Look, dear young friend, you are for me a front-line officer and obviously unconditionally sworn to your nation and the defense of Europe, in addition to being a writer of the highest sense of responsibility to save us from communism. So I can tell you about my visit to Berlin as a representative of the Hungarian government, because in the last few days we were shown the latest developments in German secret weapons together with other allied government representatives of the Axis powers.

We were flown to a Wehrmacht restricted area on the Baltic Sea and the following happened: We were shown a small island perhaps 20–25 km away as a target area and bombarded it with a new type of bomb, dropped from an airplane. This bomb had such an unprecedented effect that nothing could be seen of the island, it had disappeared into the water![4]

With this new weapon you will win the war, Germany's victory can no longer be stopped. I congratulate you!"

Those were his words. The general emphasized:

"I don't want to tell you any more details because we were induced to secrecy for quite natural reasons on the part of your government, but I wanted to give you this certainty because you were such a convincing representative of young Germany for me."

4 [...] The "Swedish Observer" reports on the disappearance of an island after bombing by a German special weapon.

[Compare with similar reports in Sections D.10–D.11.]

Theodor Soucek. 4 May 2001 filmed interview with Heiko Petermann [Karlsch 2005, p. 203]. [Joseph Goebbels speaking with German military officers on 6–7 January 1945:]

Meine Herren, es kommt darauf an, dass die deutsche Wehrmacht den Feind vom Reichskern sechs Monate fern hält, dann wird die neueste Waffe, über die wir verfügen, zum Einsatz kommen, und in 24 Stunden wird dieser Krieg mit dem Sieg Deutschlands entschieden sein.

Gentlemen, it is important that the German Wehrmacht keeps the enemy away from the central Reich for six months, then the newest weapon we have will be used, and in 24 hours this war will be decided with the victory of Germany.

Maximilian Brunner. 2017. *Armin Dadieu: Versuch der Biographie eines Nationalsozialisten.* Thesis, University of Graz.
https://unipub.uni-graz.at/obvugrhs/download/pdf/1703351

[From the sources cited in this thesis, during the war Armin Dadieu was a senior administrator for at least two secretive research institutes (at Hörgas and Gstatterboden); he may have been involved with other secret research facilities as well (see p. 4624). These sources indicate that Dadieu was not merely connected with nuclear research or uranium mining, but that he was part of the German atomic bomb program. In his unpublished manuscript, Dadieu appeared to claim that by the end of the war in Europe, he knew that a horrifically powerful bomb—the German atomic bomb—had been successfully developed but that officials wisely refrained from using it. The curious mention of research on military applications of "artificial thunderstorms" may have been some nonscientific person's attempt after the fact to describe real scientific work that had been conducted during the war on particle accelerators, perhaps for electronuclear breeding or for directed energy weapons.]

[S. 35:] In den letzten Zeilen seiner Memoiren berichtet Dadieu von einer von abziehenden Wehrmachtseinheiten blockierten Straße bei Frohnleiten, dass er deswegen eine Nacht in Hörgas, wo er ebenfalls ein Institut leitete, verbringen musste und dass er am nächsten Morgen, als "die Russen bereits da" waren, seine Flucht zu Fuß weiter setzte. Obwohl er sich schon in amerikanischen Gebiet wägte, wurde Dadieu von russischen Truppen aufgespürt und verhaftet.[140] Mit dieser Episode beendet er seine autobiographischen Aufzeichnungen:

Nach einer Füsilierungsszene, an der alles dran war, haben sie mich abtransportiert, um mich in Trieben zu der dort stationierten russischen Division mit Dolmetschern zu bringen. Zusammen mit zirka fünfzig Leuten habe ich in Strechau eine sehr unangenehme Nacht verbracht. Am Morgen auf dem Weg zwischen Strechau und Trieben, an einer Stelle, wo der Wald ganz nahe an die Bundesstraße herankommt, habe ich ein 'Halt' provoziert und bin in einem unbewachten Augenblick in den Wald gesprungen und damit den Russen nach 22stündiger Haft entkommen. Damit war diese Geschichte für mich vorbei.[141]

[140–141:] DADIEU, Aus meinen Aufzeichnungen. 1978, p. 341.

[p. 35:] In the last lines of his memoirs, Dadieu tells of a road near Frohnleiten that was blocked by retreating Wehrmacht units, that he had to spend a night in Hörgas, where he also ran an institute, and that the next morning, when "the Russians were already there," he continued his escape on foot. Although he was already in American territory, Dadieu was tracked down and arrested by Russian troops.[140] He ends his autobiographical notes with this episode:

After a fusilization scene where everything was up, they took me away to bring me to the Russian division stationed there in Trieben with interpreters. Together with about fifty people, I spent a very unpleasant night in Strechau. In the morning, on the road between Strechau and Trieben, at a point where the forest came very close to the main road, I provoked a 'halt' and jumped into the forest at an unguarded moment, thus escaping from the Russians after 22 hours of detention. That was the end of the story for me.[141]

[140–141:] DADIEU, From My Notes. 1978, p. 341.

[S. 111:] Einen eindeutigen thematischen Bruch liefert das zwölfte und letzte Kapitel des Manuskriptes: Hier geht Dadieu nicht mehr per se auf dessen persönliche Kriegserfahrungen und Fronterlebnisse ein, sondern berichtet über die Schrecken der 'neuen Waffe', "welche die innersten Kräfte der Materie entfesselt und so ein Ausmaß der Vernichtung erreichen läßt, das jeden Widerstand zerstört". Diese eben erst entwickelte Bombe gleiche seinem Wortlaut nach "vielmehr den Mitteln, die man verwendet um schädliche Insekten samt ihrer Brut bis in die letzten Winkel zu vertilgen". "Der rechte Mann jedoch wird immer eine Waffe wählen die viel von ihm verlangt und welche auch dem Gegner Chancen gibt", führt Dadieu diesen Absatz weiter aus und kommt wieder auf seine Fliegertruppe sowie auf die speziellen Attribute, die man als Pilot beziehungsweise als Bordschütze mitbringen müsse, zu sprechen, ehe seine Aufzeichnungen ganz enden.[454]

[454] Private Kriegsaufzeichnungen Armin Dadieu, Kapitel 12, p. 31, Privatsammlung Renate Moszkowicz.

[S. 134:] Abseits dieser zitierten Textauszüge versucht sich der Journalist im Zuge der Aufarbeitung verschiedener Geschehnisse immer wieder an einer Charakterisierung Dadieus, beziehungsweise, an einer Erläuterung seiner Taten und seines Wirkens. So wird einerseits berichtet, Dadieu habe in Gstatterboden an der deutschen Atombombe sowie auch an der Entwicklung künstlicher Gewitter als Kriegswaffen geforscht, andererseits wiederum wird er als 'gemäßigter' Nationalsozialist bezeichnet, der durch seine Haltung vor dem 'Anschluss', aber auch danach, auf einer Femeliste des radikalen Flügels der Partei stand.[543] Es wird sogar erwähnt, Dadieu habe gemeinsam mit Seyss-Inquart noch in den letzten Stunden der 'Volkserhebung' versucht, den Einmarsch der Deutschen Wehrmacht zu verhindern, um Österreich eine gewisse Eigenständigkeit zu bewahren.

[543] Vgl.: DICHAND, GRAZ. 8.1.1988, p. 21 (Teil 3).

[p. 111:] The twelfth and final chapter of the manuscript provides a clear thematic break: Here Dadieu no longer deals per se with his personal war experiences and experiences on the front, but reports on the horrors of the 'new weapon,' "which unleashes the innermost forces of matter and thus allows an extent of destruction to be achieved that destroys all resistance." According to his wording, this newly developed bomb is "much more like the means used to exterminate harmful insects and their brood down to the last corner." "The upright man, however, will always choose a weapon that demands a lot from him and which also gives the enemy a chance," Dadieu continues this paragraph and returns to his air force and the special attributes that one must have as a pilot or gunner before his notes come to an end.[454]

[454] Private war records of Armin Dadieu, Chapter 12, p. 31, Private Collection Renate Moszkowicz.

[p. 134:] Apart from these quoted text excerpts, the journalist repeatedly attempts to characterize Dadieu and explain his deeds and his work in the course of coming to terms with various events. On the one hand, Dadieu is reported to have researched the German atomic bomb in Gstatterboden as well as the development of artificial thunderstorms as weapons of war; on the other hand, he is described as a 'moderate' National Socialist who, due to his attitude before and after the Anschluss, was on a femelist of the radical wing of the party.[543] It is even mentioned that Dadieu, together with Seyss-Inquart, tried to prevent the invasion of the German Wehrmacht in the final hours of the 'national uprising' in order to preserve a certain degree of independence for Austria.

[543] Cf.: DICHAND, GRAZ. 8.1.1988, p. 21 (Part 3).

Nr.	Verlagerte Institute der THG	Ort	Beginn	Zone
1.	Anorganisch-technische und	Turrach	11. 1944	br
	analytische Chemie (Müller)	tw. MHS Leoben	11. 1944	su
2.	Darst. Geometrie (Horninger)	Freilassing, Bayern	04. 1945	am
3.	Elektromaschinenbau (Höpp)	Gstatterboden	?	am
4.	Festigkeitslehre (Pirkl)	Gröbming	02. 1945	am
5.	Maschinenelemente (Steller)	Öblarn, Schloß Gstatt	12. 1945	am
6.	Mechanische Technologie —	Liezen	01. 1945	am
	Werkstoffkunde (Slattenschek)	tw. Graz, Bürgerg. 4	09. 1944	su
7.	Mechanische Technologie —	Gusen, OÖ. (geplant,		
	Werkzeugmaschinen (Härtel)	keine Durchführung)	—	—
8.	Mikrochemie und	Grundlsee, Villa Karajan	02. 1945	am
	Geochemie (Hecht)	tw. Neuhofen, NÖ.	?	su
9.	Organische Chemie (Seka)	Gstatterboden	01. 1945	am
10.	Physik (Kohlrausch)	Hörgas bei Gratwein	09. 1943	su
11.	Physikalische Chemie —			
	Abt. der THG (Dadieu)	Gstatterboden	?	am
12.	Städtebau (Hoffmann)	Übelbach (nur Pläne usw.)	04. 1945	su
13.	Straßenbau (Gottstein)	?	01. 1945	?
14.	Strömungslehre (Winter)	?	?	?
15.	Strömungsmaschinen (Lindner)	?	?	?
16.	Techn. Biochemie (Gorbach)	Gaishorn	?	su
17.	Technische Mechanik	Perg, OÖ. Schloß Auhof	12. 1944	am
	(Federhofer)	tw. Gusen, OÖ.	12. 1944	am
18.	Verbrennungskraftmaschinen	Klaus, OÖ.	12. 1944	am
	(Pischinger)	tw. Gusen, OÖ. (Werkst.)	01. 1945	am
19.	Wasserbau (Schoklitsch)	Liezen	01. 1945	am
20.	Wärmetechnik (Engel)	Gstatterboden	?	am

Abb. 30: Übersicht über bekannte Institutsverlagerungen und Besatzungszonenzugehörigkeit der jeweiligen Orte bis zur Zonenfestlegung im Juli 1945. Nach dem Bombardement im November 1944 wurden vom zuständigen Außenstellenleiter des Reichsplanungsamtes, Prof. Dr. Adolf Härtel, viele Institute der THG — mindestens 20 von 32 — verlagert. Bei Kriegsende befanden sich die meisten davon in den alliierten Besatzungszonen. Wie die Karte der fünffach besetzten Steiermark zeigt, befanden sich 9 verlagerte Institute (Nr. 1, 3 — 6, 8, 9, 19 u. 20) und ein Institutsteil (Nr. 11) in der amerikanischen bzw. britischen, und nur 2 verlagerte Institute (Nr. 10 u. 16) und 2 Institutsteile (Nr. 1 u. 12) in der sowjetischen Zone.

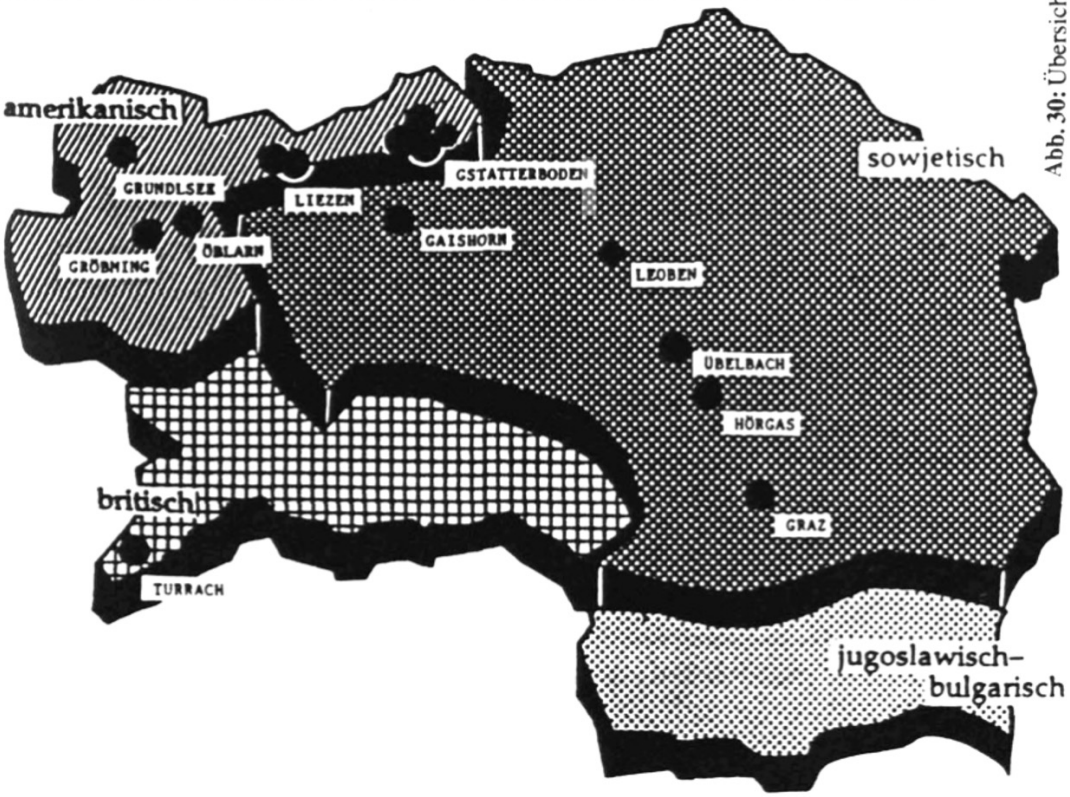


Figure D.756: Some wartime research sites in southeastern Austria, including Hörgas and Gstatterboden [Weingand 1995, pp. 60–61; https://diglib.tugraz.at/die-technische-hochschule-graz-im-dritten-reich-1995].

Letter from J. Edgar Hoover to Harry Hopkins. 9 February 1945. Franklin Delano Roosevelt Library, Hyde Park, New York. Small Collections, Box 1, Folder 3, ATOMIC BOMB FILE. https://blog.nuclearsecrecy.com/wp-content/uploads/2013/09/1945-Hoover-to-Hopkins-German-spies.pdf

As you are well aware, the Army for the past two years has been vitally interested in a highly secret project for the development of an atomic explosive. This explosive, as you know, involves the release of energy through the shattering of atoms of heavy elements.

During the period that the Army has been engaged in the supervision of this experimentation, numerous efforts have been made by the Soviets to obtain the highly secret information concerning the experimentation and this Bureau has been actively following such Soviet efforts.

The German Government has also been interested in the same type of experimentation in Germany and has attempted to get information regarding the atomic experimentation in the United States.

Recently, in connection with the operation of a radio station by a German agent under control of the Federal Bureau of Investigation but which station the Germans believe to be a free station, an inquiry was received from Germany containing the following questions regarding the status of atomic explosive experimentation in the United States:

> First, where is heavy water being produced? In what quantities? What method? Who are users?
>
> Second, in what Laboratories is work being carried on with large quantities of uranium? Did accidents happen there? What does the protection against Neutronic Rays consist of in these Laboratories? What is the material and the strength of coating?
>
> Third, is anything known concerning the production of bodies or molecules out of metallic uranium rods, tubes, plates? Are these bodies provided with coverings for protection? Of what do these coverings consist?

We have already advised the appropriate authorities in the War Department concerning these German inquiries.

I thought the foregoing would be of considerable interest to the President.

[The Germans sounded very concerned about criticality accidents with large quantities of unshielded uranium housed in the same laboratory. That is generally only a problem with highly enriched uranium, and suggests that the Germans may have had large quantities of highly enriched uranium and may have already had a criticality accident. See p. 4626 for a report of what sounds like a criticality accident.]

PW Intelligence Bulletin 1/47, 13 March 1945 [NARA RG 165, Entry NM84-79, Box 1915]. See document photo with diagram on p. 2622.

17. Uranium Explosive

O/Lt GOTT, a chemist, OC coy in PW's bn (959 Gren Regt) had been granted indefinite leave to resume his former position as director of a chemical laboratory in S Germany. This laboratory was experimenting with uranium. It produced 1/10 milligram of an explosive which, when accidentally set off, destroyed the plant and killed the scientists engaged in the experiments. O/Lt GOTT maintained that if subsequent experiments and production have proceeded without accident, enough of the explosive should now (Feb 45) be available to "destroy England in one blow".

(Source: Lt Helmut SCHWOTZER 959 Gren Regt captured 25 Feb vic WELLDORF)

[This is a description of a laboratory somewhere in southern Germany that was enriching uranium—producing and accumulating enough uranium (235) for novel highly explosive weapons to attack the United Kingdom (and perhaps other Allied targets).

The laboratory had what sounds like a criticality accident. The interpretation of the PW's remarks that seems to make the most scientific sense is that the accident released an energy equivalent to 1/10 milligram of mass converted to energy. Using $E = mc^2$ and converting to the equivalent energy of tons of TNT, 1/10 milligram of mass would correspond to $(10^{-7}\text{ kg})(3\cdot10^8\text{ m/s})^2/(4.184\cdot 10^9\text{ J/ton TNT}) = 2$ tons of TNT. That would certainly be enough explosive energy to destroy a laboratory, and that explosive energy plus the accompanying radiation would kill any personnel at the site.]

See p. 4625 for German concern about criticality accidents. Since the German nuclear weapons program was so highly compartmentalized and secretive, personnel who were producing and accumulating enriched uranium may not have been informed about the risk of criticality accidents and about safety precautions necessary to prevent them.

Wilhelm Haus, letter from the Wetzlar Court Prison to the Chairman of the 1st Criminal Chamber of the District Court in Limburg on 20 June 1947. Hessian Hauptstaatsarchiv Wiesbaden, section 463, number 920, pp. 109–112. [Porezag 1996, p. 46]

Etwa Anfang Februar 1945 erzählte mir der damalige Wehrkreisbeauftragte, Ingenieur Marsch aus Gießen, im Beisein meines damaligen ständigen Kreiswirtschaftsberaters, Dr. Hans Hensoldt, in meinem Dienstzimmer von neuen Waffen und dem 'Schweren Wasser', welche bald eingesetzt werden sollten und kriegsentscheidend wären.

Around the beginning of February 1945, in my office in the presence of my former ever-present economic council adviser, Dr. Hans Hensoldt, the then Military District Supervisor, Engineer Marsch from Giessen, told me about new weapons and 'heavy water' that were supposed to be used soon and would be decisive for the war.

Ebenfalls im Februar 1945 besuchte mich der Oberingenieur Coenders von den Röchling-Werken im Buro. Er erzählte mir von neuen Waffen, die aber nicht vor April eingesetzt werden könnten. Herr Coenders war öfters beim Führer gewesen und hatte den ersten Fritz-Todt-Preis erhalten, so daß ich des Glaubens sein konnte: Der Mann weiß sehr viel. Auch er sprach vom Sieg.

Also in February 1945, I was visited in my office by Chief Engineer Coenders from the Röchling factory. He told me about new weapons which however could not be used before April. Mr. Coenders had often been with the Führer and had received the first Fritz Todt Prize, so I could be sure: The man knows a lot. He also spoke of victory.

Am 26. März 1945 abends erschien auf meiner Dienststelle der damalige Gauamtsleiter von Koblenz, Andreas Bang. Er zeigte mir ein Flugblatt, welches über dem Westerwald und dem Siegerland abgeworfen wurde. Dieses Flugblatt vom Oberkommando der Deutschen Wehrmacht forderte die Bevölkerung auf, eine Zone von 50 km vom Rhein zu räumen, da mit dem 1. April neue, kriegsentscheidende Waffen eingesetzt würden, die den deutschen Sieg verbürgten. Ein gleiches Flugblatt wurde mir am 28.3.45 in Frankenberg/Eder gezeigt.

On the evening of 26 March 1945, the then Office Head of Koblenz, Andreas Bang, appeared in my office. He showed me a leaflet, which had been dropped over the Westerwald and Siegerland regions. This leaflet from the High Command of the German Armed Forces urged the population to clear a zone of 50 km from the Rhine, as on April 1, new war-decisive weapons would be used, which would guarantee German victory. A similar leaflet was shown to me on 28 March 1945 in Frankenberg/Eder.

Hätte ich eine deutsche Niederlage vor Augen gehabt, hätte ich den Befehl zur Vollstreckung des Standgerichtsurteils wohl nicht befolgt, denn bei einer Niederlage hätte ich keine Folgen wegen Nichtbeachtung eines gegebenen Befehls zu fürchten brauchen.

If I had envisioned a German defeat, I would probably not have followed the order for enforcing the court-martial's judgment, because in a defeat I would have had no need to fear consequences for non-compliance of a given instruction.

NARA RG 77, Entry UD-22A, Box 165, Folder ALSOS MATERIAL

FORM NO. 64 SECRET

Office Memorandum · UNITED STATES GOVERNMENT

DATE: 13 March 1945

TO : General Groves

FROM : Captain Britt

SUBJECT:

Attached is paraphrase of a radiogram from The Military Attache, Madrid, Spain, and a radiogram disseminating the information to Major Calvert.

Major Abbott, who received the radio, in Col. Moses' office, stated that the source and its evaluation was B-0 (usually reliable - truth cannot be judged) that no more information is available unless specific questions are asked. Major Abbott is taking no action to answer the radiogram.

The attached radiogram to Major Calvert was dispatched and no action is being taken to obtain further information from the source.

BRITT

SECRET

file in Germany

From U. S. Military A, Madrid Spain

to W D

M 048 10 March 45

To Shaef Caserta and Milid Sr Nr 048 re our 041 on Allied Equip. that we received the German questionnaire on, well the source (b) that we got this from says that the Gestapo claims; a new weapon is claimed that will cause destruction of millions of men, it is not chemical but physical for destruction of atoms and will soon be used. Rumors (several) are current of same nature. Possibly propaganda only.

041 is Cm in 800 (1 March 45) G-2

Action G-2

Info OPD

Novy

Figure D.757: Left: U.S. Military Attaché, Madrid. 10 March 1945. "The Gestapo claims... a new weapon is claimed that will cause destruction of millions of men, it is not chemical but physical for destruction of atoms and will soon be used." Right: A. E. Britt to Leslie Groves. 13 March 1945 [NARA RG 77, Entry UD-22A, Box 165, Folder ALSOS MATERIAL].

U.S. Military Attaché Madrid. 4 April 1945. Destruction of the Atom as German Secret Weapon. [NARA RG 77, Entry UD-22A, Box 165, Folder ALSOS MATERIAL] [See document photos on pp. 4630– 4631. See also p. 4628.]

A member of the Gestapo in Madrid early in March stated that the Germans would soon use a new secret weapon for smashing the atom by physical means which would cause the death of millions of people.

2. Upon further investigation of source of above information, it was ascertained that informant was under the influence of liquor when he made his statement and our contact expressed the belief that it might readily be propaganda.

3. Rumors concerning the use of atom destruction as a weapon have recurred frequently since October 1944. It is reliably reported that during recent weeks, the subject has been frequently discussed in the German Embassy in Madrid. [...]

5. In August, 1944, Dr. Schmidt Losberg, one of the directing heads of the Speer organization in Germany, informed contact that atom destruction was the third project under study for secret weapons and that experiments were being made by I. G. Farben Industry and the more important electric manufacturing companies such as AEG and Siemens-Halske. The first project was the use of V1 and V2 bombs with possible distance development to bomb the United States. The second project was the use of bacteria and gas. [...] Secret experiments were being conducted by the SS in forests located somewhere in Germany. [...]

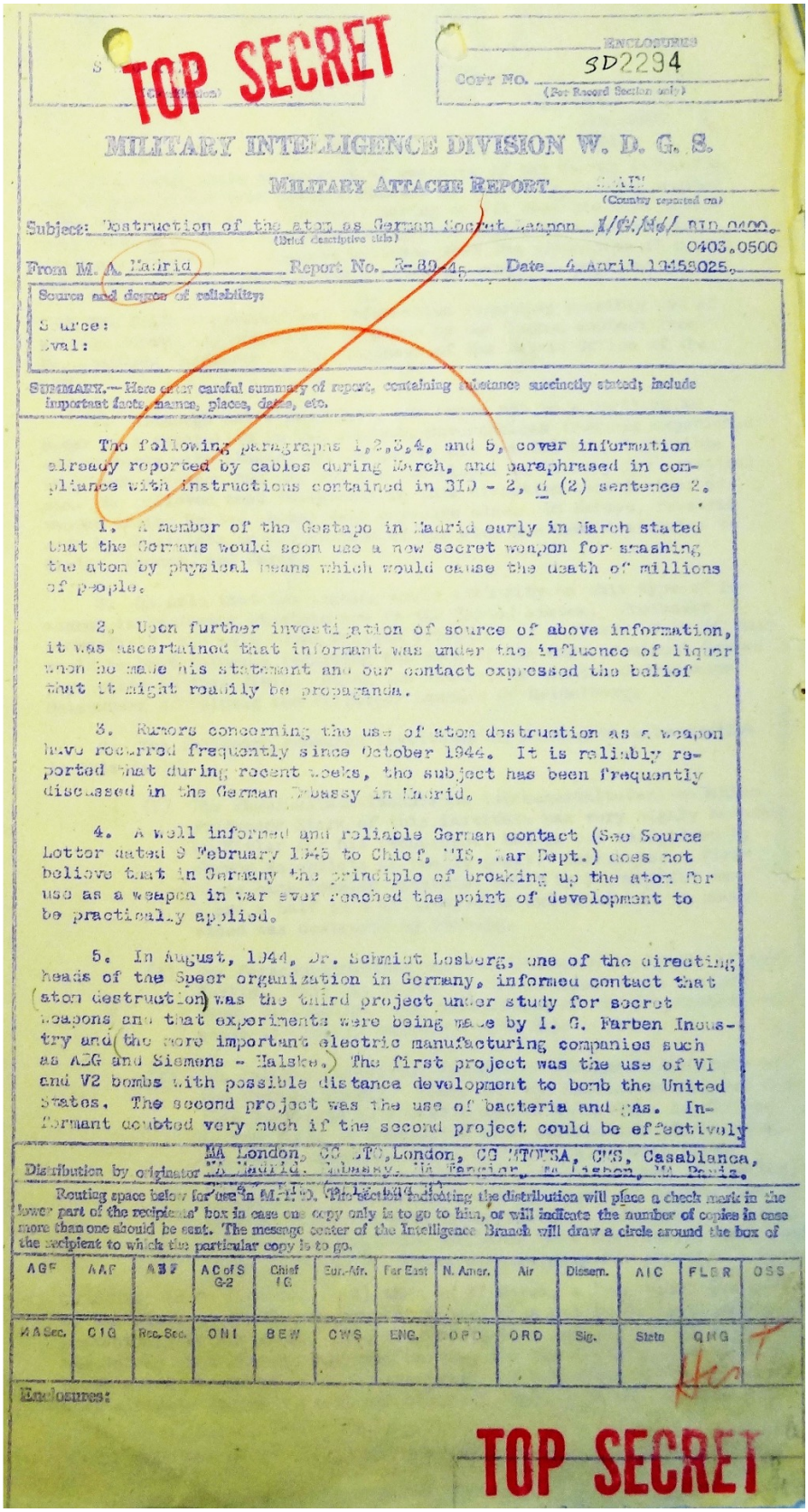
COMMENT: It is reported (C-2) that on 27 March, a "pep talk" was given to the Staff at the Germany Embassy urging them not to be discouraged by present Allied successes. The tide would soon change, it was said and the German High Command was only waiting for the right moment to turn loose a secret weapon of such devastating effect against the Allied Armies that ultimate German victory was assured. This talk may have been for propaganda.

A similar report has come from Bilbao that German sympathizers there have been told that a new secret terrifying weapon would soon be used and that Germans has been warned to prepare to use gas masks if the Allies retaliate with gas.

According to a "B" source on 31 March, Lieut. General Kramer, German Air Attaché in Madrid told Lindenberg, head of the Lufthansa in Spain, that preparations had been completed for use of an atom destroying bomb. Lindenberg did not believe this possible.

[This document contains details that agree with many other sources quoted in this appendix:

- Several independent sources within this document reported the development of German nuclear weapons.
- Reports of a German atomic bomb greatly intensified beginning in October 1944, which coincided with the first successful test explosion of a prototype atomic bomb (Section D.10).
- Germany had been spending the months since then working to produce enough atomic bombs to use them in a strategic strike against Allied targets.
- The development of German atomic bombs was a huge industrial program involving companies such as I. G. Farben, AEG, and Siemens-Halske.
- The German government feared that if they did use their atomic bombs, the Allies would retaliate with a devastating chemical attack on the German populace.]



TOP SECRET

ENCLOSURES
Copy No. SD2294
(For Record Section only)

MILITARY INTELLIGENCE DIVISION W. D. G. S.

MILITARY ATTACHE REPORT — MAY (Country reported on)

Subject: Destruction of the atom as German Secret Weapon (Brief descriptive title) 0403.0500

From M. A. Madrid Report No. 3-89-45 Date 4 April 19458025

Source and degree of reliability:
Source:
Eval:

SUMMARY.—Here enter careful summary of report, containing substance succinctly stated; include important facts, names, places, dates, etc.

The following paragraphs 1, 2, 3, 4, and 5, cover information already reported by cables during March, and paraphrased in compliance with instructions contained in 310 - 2, d (2) sentence 2.

1. A member of the Gestapo in Madrid early in March stated that the Germans would soon use a new secret weapon for smashing the atom by physical means which would cause the death of millions of people.

2. Upon further investigation of source of above information, it was ascertained that informant was under the influence of liquor when he made his statement and our contact expressed the belief that it might readily be propaganda.

3. Rumors concerning the use of atom destruction as a weapon have occurred frequently since October 1944. It is reliably reported that during recent weeks, the subject has been frequently discussed in the German Embassy in Madrid.

4. A well informed and reliable German contact (See Source Letter dated 9 February 1945 to Chief, MIS, War Dept.) does not believe that in Germany the principle of breaking up the atom for use as a weapon in war ever reached the point of development to be practically applied.

5. In August, 1944, Dr. Schmidt Losberg, one of the directing heads of the Speer organization in Germany, informed contact that (atom destruction) was the third project under study for secret weapons and that experiments were being made by I. G. Farben Industry and (the more important electric manufacturing companies such as AEG and Siemens - Halske.) The first project was the use of V1 and V2 bombs with possible distance development to bomb the United States. The second project was the use of bacteria and gas. Informant doubted very much if the second project could be effectively

Distribution by originator: MA London, CG ETO, London, CG MTOUSA, CWS, Casablanca, MA Madrid, Embassy, [illegible], MA Lisbon, MA Paris.

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MA Sec.	CIC	Rec. Sec.	ONI	BEW	CWS	ENG.	OPD	ORD	Sig.	State	ONG	

Enclosures:

TOP SECRET

Figure D.758: U.S. Military Attaché Madrid. 4 April 1945. Destruction of the Atom as German Secret Weapon [NARA RG 77, Entry UD-22A, Box 165, Folder ALSOS MATERIAL].

used on a large scale on account of weakness of the German Luftwaffe. Secret experiments were being conducted by the SS in forests located somewhere in Germany. A chemical having an oil base has been developed which when it is spread on the ground begins to evaporate and spreads a poison gas. Contact believes that the production of poison gas in Germany has been greatly increased during the past two years.

6. The following additional information regarding possible use of an atom destroying weapon was obtained by our German contact from Dr. Wolfgang Marguerre, Chief Engineer of the Madrid Office of the AEG.

7. Although not a physicist, and hence not in a position to speak as a specialist on the subject, nevertheless from his experience and contacts with others, Mr. Marguerre did not believe it possible that such a weapon had as yet been developed in Germany for practical use. He believed that researches in this direction were further advanced in the United States than anywhere else. In Europe, research work by physicists on destruction of the atom had been restricted to Berlin, London, and Paris.

8. He said that the leading world authority on this type of research is Professor Einstein now in the United States. Professor Sommerfield, the well known British Scientist is another. Both of them would be best informed regarding the work of the most prominent German physicists in this field. Among the latter, he mentioned Professor Heisenberg of Leipzig and Professor Lennard of Heidelberg.

9. The following research institutes in Germany have been active in this field:

(1) Die Physikalisch-Technische Reichsanstalt-Berlin-Dahlem. Professor Stark of this Institute was very highly honored by Hitler for his researches, but is not recognized by German scientists as really great. Dahlem had a first class high-tension apparatus built by Siemens for handling 1 and a half to 2 million volts but which, it is understood was destroyed by bombing.

(2) Das Forschunginstitut der AEG (Research Institute of AEG) Berlin. This was headed by Dr. Ramsauer whom contact knows personally. The development of the Electron-microscope is closely connected with this problem.

(3) Das Forschungsinstitut Siemswerke (Research Institute of the Siemens works). Ruska and von Borries associated with this Institute have distinguished themselves in the research field in connection with destruction of the atom. The Nazis decorated Ruska with the gold merit cross (Verdienstkreuz) and publicly referred to the high value of his work in connection with a weapon of destructive possibilities hitherto unimaginable. Informant, however, has from the beginning believed that the rewards and prominence given to Dr. Ruska were largely for propaganda purposes.

COMMENT: It is reported (C-2) that on 27 March, a "pep talk" was given to the Staff at the German Embassy urging them not to be discouraged by present Allied successes. The tide would soon change, it was said and the German High Command was only waiting for the right moment to turn loose a secret weapon of such devastating effect against the Allied Armies that ultimate German victory was assured. This talk may have been for propaganda.

TOP SECRET

8025.

A similar report has come from Bilbao that German sympathizers there have been told that a new secret terrifying weapon would soon be used and that Germans had been warned to prepare to use gas masks if the Allies retaliate with gas.

According to a "B" source on 31 March, Lieut. General Kramer, German Air attache in Madrid told Lindenberg, head of the Lufthansa in Spain, that preparations had been completed for use of an atom destroying bomb. Lindenberg does not believe this possible.

1520 - ALBERT L. HOFFMAN,
Lieut. Colonel, AUS.,
Asst Military Attache.

Figure D.759: U.S. Military Attaché Madrid. 4 April 1945. Destruction of the Atom as German Secret Weapon [NARA RG 77, Entry UD-22A, Box 165, Folder ALSOS MATERIAL].

the relationship with Eva Braun had a sexual consummation. Hitler gave the impression of a timid man who could not become active himself. This may have been the reason for his frequent and sudden unfounded excitement.

With few exceptions, there were no real ladies in Hitler's circle. For a certain period of time, Magda Goebbels, who was a lady, received Hitler in her house. It was hoped that this environment would have a beneficial effect, but because of the usual intrigues nothing came of it. Through men like Hoffmann and Gauleiter Wagner, only a low class of women was brought into Hitler's circle. He had the Munich Kuenstlerhaus renovated in 1937 at his own expense for the benefit of the artists. On his occasional visits there, he was confronted with ballet dancers, movie extras, and student actresses, brought there on the last-minute orders of Wagner. They were supposed to represent artists' gatherings, and Hitler did not see the farce behind it because he never approached the women. He had no idea what went on after his departure, either at the Kuenstlerhaus or in the houses of Bormann and Wagner and in the Prinz Karl Palace. I never took part in these festivities, but was well informed on them by my SD personnel. The general public also knew what went on because the participating women were prone to speak of their experiences with the influential Party members. Serious artists and ladies would have no part in these activities, even at the earlier stages in the Kuenstlerhaus when Hitler was there. The wives of Hitler's oldest and best comrades remained plain and simple; for this reason, they were criticized by his entourage, and later by Hitler himself, and eventually were ostracized from the group.

5. Giesing: Report on Hitler

a. Preliminary Description

I knew Adolf Hitler from 22 July 1944 to 7 October 1944, the period in which I made examinations of his ears, his left maxillary cavity, and his larynx to determine if he had sustained serious injury when he was catapulted from his Bunker during the attempted assassination on 20 July. I also made two physical and neurological examinations of him, one on 26 August 1944, and the other on 3 October 1944. During this time I had approximately fifty-five talks with Hitler on diverse topics. We met only once later, accidentally, in mid-February 1945. I shall try to present a short characterization of his physical constitution, his personality, his mental capabilities, and his willpower as I observed them during my frequent, but short visits to his Bunker. I am aware of the incompleteness of my characterization, for I am neither a trained psychiatrist or neurologist nor an expert on military or political matters.

My first impression of Hitler was not of a powerful and feared man with a fascinating, hypnotic personality. He seemed to me, from my first observance, an aged, almost exhausted man who had to use sparingly the remainder of his strength. I did not find his eyes soul-penetrating nor his nature tyrannical, as they had been described to me by the press, the radio, and by the accounts of other men. However, I do not hesitate to admit that I had a strange, uneasy feeling when, on 22 July 1944, Brandt suddenly ordered me to treat Hitler's ears. This feeling became intense during the time that I had to wait in a small room of Hitler's Bunker for the appearance of this "tremendous, mystical superman". That is how his chief adjutant, Gen Schmundt, had described him to me. I would have preferred that my first encounter with Hitler had taken place in a larger room so that Hitler would have had to walk a few steps towards me and I could have had a chance to observe him -- even though only for a few minutes -- before being introduced. Nevertheless, in the circumstances as they were, I was the doctor and he only the patient. A realization of this relation, perhaps, prevented me from having a foregone feeling of inferiority and insignificance as I faced the head of the state. In addition, the confidence shown me by Hitler, after he had looked at me silently for a short while, facilitated the bridging of the gap in rank and importance.

Figure D.760: F. J. Trauttsmansdorff. March 1947. OI Special Report 36: Adolf Hitler: A Composite Picture. Military Intelligence Service Center.

and even higher gambling debts than I did. I feel sorry for his wife and his nice children, but this Aurean stable has to be swept with an iron broom, no quarter given. If I don't root out these traitors completely, there might be more of these damned things, and the poor German soldier up there on the line has to pay with his life for the stupidity of these people. I'm really thankful to Rehmer, who mastered the situation so quickly up there in Berlin. What I need is more of that kind of excellent and politically clever officers, and then I wouldn't be afraid of the future. But this bunch of cowards in Berlin sends me this even more cowardly Stauffenberg. If he had at least been enough of a man to stay next to me with his briefcase — but as it is, the bullet that hit him was really wasted. I have often wondered what these people wanted. To end the war and then have their government of jokers start peace negotiations with the enemy because their bunch was too cowardly and too incapable to go on with the war? As though Mr Stalin, Mr Churchill and Mr Roosevelt would have given a hoot about our sudden desire for peace. The Russians would have been in Berlin within eight days, and that would have been the end of Germany forever."

(7) Attitude in February 1945

Hitler and I sat down on a bench in the corner. He seemed more aged and stooped than ever. His face was pale as usual, and he had large bags under his eyes; his hands too were pale and the fingernails bloodless. He spoke clearly but in very low tones. I immediately noticed the strong tremor of the left arm and hand. Because the tremor increased when the hand was not supported, Hitler kept his arm on the table or his hand on the bench throughout the conversation. I had the impression that Hitler was exhausted and rather absent-minded, and no longer concentrated well. Twice he asked me where my family lived, and twice I told him that they lived in Krefeld. Just after I had answered his question the second time, he suddenly began to talk about the war. He said, "Well, Germany is in a difficult position, but I'll master the situation. The Anglo-Americans will find that they're very much mistaken in thinking that their victory is certain. They're going to have a tough time. I'm going to commit my V-weapons soon, and then the war will be brought to a glorious end. The problem of atom splitting has been solved a long time ago, and it has been so far developed that we can make use of this energy for weapons. These people are going to see something. This is the weapon of the future, and with it Germany's future is secured too. Providence has already shown me this last and victorious road, and I know that the final turn of fortune is about to come." Hitler said these things mainly to himself, looking at a point on the floor. The tremor of the left arm was clearly apparent when he let the arm hang. Then he asked me again where my family was. I repeated that they were in Krefeld, and he said, "Nothing can happen to them there, that is certain. The West Wall will hold, absolutely, and our V-weapon will decide the war in no time at all. Doctor, I want you to believe firmly that this is so." He looked at the floor for some time, and then suddenly began to speak again. "If the war should take an unfavorable turn after all -- well, all of us will have to go down in a decent manner. I shall place myself at the head of my troops and die as a soldier. But Providence has led me safely so far, and I shall go my prescribed road no matter what happens." He stood up quickly and extended his hand, looking past me into empty space. He did not say anything more, but walked away with tired steps towards a large open door where Linge was waiting for him.

6. Hasselbach: Hitler

a. Knowledge and Mental Capacity

Hitler's general knowledge was amazing in view of the fact that he had not attended even high school. As he matured, a tremendous thirst for knowledge, an indefatigable diligence, and an enviable memory furnished him sufficient knowledge to dominate every discussion, and to express well-founded, if sometimes rather surprising ideas in many fields.

Conforming with his task as a politician, his main interest lay in the field of history, which he made the basis of his political views and

Figure D.761: F. J. Trauttsmansdorff. March 1947. OI Special Report 36: Adolf Hitler: A Composite Picture. Military Intelligence Service Center.

F. J. Trauttsmansdorff. March 1947. OI Special Report 36: Adolf Hitler: A Composite Picture. Military Intelligence Service Center. **[See document photos on pp. 4632–4633.]** **https://www.cia.gov/readingroom/docs/OSS%20-%20SSU%20-%20CIG%20EARLY%20CIA%20DOCUMENTS%20%20%20VOL.%205_0008.pdf**

Giesing, Erwin Oberstabsarzt in charge of EENT clinic in the military hospital at Loetzen, East Prussia. On 22 July 1944, he was called by Brandt to examine Hitler's injuries from the 20 July explosion. He treated Hitler's ears, nose, and throat from July to October 1944. [...]

5. Giesing: Report on Hitler

a. Preliminary Description

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(7) Attitude in February 1945

Hitler and I sat down on a bench in the corner. He seemed more aged and stooped than ever. [...] He said, "Well, Germany is in a difficult position, but I'll master the situation. The Anglo-Americans will find that they're very much mistaken in thinking that their victory is certain. They're going to have a tough time. I'm going to commit my V-weapons soon, and then the war will be brought to a glorious end. The problem of atom splitting has been solved a long time ago, and it has been so far developed that we can make use of this energy for weapons. These people are going to see something. This is the weapon of the future, and with it Germany's future is secured too. Providence has already shown me this last and victorious road, and I know that the final turn of fortune is about to come." Hitler said these things mainly to himself, looking at a point on the floor. The tremor of the left arm was clearly apparent when he let the arm hang. Then he asked me again where my family was. I repeated that they were in Krefeld, and he said, "Nothing can happen to them there, that is certain. The West Wall will hold, absolutely, and our V-weapon will decide the war in no time at all. Doctor, I want you to believe firmly that this is so."

[The above passage was translated from Giesing's diary entry for 13–15 February 1945: Erwin Giesing. 1944–1945. Diary. Institut für Zeitgeschichte, Munich. p. 176. https://fpp.co.uk/Hitler/Giesing/]

Monthly Intelligence Summary. March 1945. [NARA RG 77, Entry UD-22A, Box 168, Folder 202.3-1 LONDON OFFICE: Combined Intell Rpts.]

a. In a broadcast by German Home Service the program took the form of two Germans discussing the reasons for the Germans continuing to fight. The following conversation was noted:

> "In the air war a first victory has likewise been won by the German mind over material. The..... retaliation weapon goes on its destructive uncanny way without needing men or a costly return flight..... Do not forget that all these things had to be created at five minutes to twelve out of nothing. We need time to exploit all possibilities, to make them reality. Our enemies know this and this is the point of this gruesome race for time."

It was also recalled that "Hitler once said: 'May God forgive me for the last ten minutes of the war!'"

Henry Picker. 2009. *Hitlers Tischgespräche im Führerhauptquartier.* 2nd ed. Berlin: Propyläen-Taschenbuch bei Ullstein.

[S. 42:] Und um wieviel mehr Tote, Kriegsbeschädigte, Flüchtlinge und Zerstörungen wären zu beklagen gewesen, wenn Hitlers Gegner nicht—wie Churchill sagte—"fünf Minuten vor 12 Uhr" gesiegt gehabt und im Frühjahr 1945 damit Hitlers neue Rundumverteidigung vereitelt hätten. Denn mit den in Peenemünde entwickelten, auch ihre Ziele in den USA erreichenden "Interglobalraketen" A 9 und mit den kleinkürbisgroßen, im Lichterfelder Forschungsamt der Reichspost nach Mitteilung Schaubs bis zur Prototyp-Reife durchkonstruierten "Uraniumbomben" (mit ihrer Vollzerstörungskraft im 3-km-Radius) hätte Hitler, wenn er diese Waffen de facto noch einsatzbereit bekommen hätte, das Leid, die Grausamkeit, die Härte, die Ausdehnung und die Dauer des II. Weltkriegs mit Sicherheit vervielfacht.

[p. 42:] And how much more death, war damage, refugees, and destruction would have been the result if Hitler's opponents had not won—as Churchill said—"five minutes before midnight" and thus thwarted Hitler's new end-run defense in the spring of 1945. For with the A-9 "interglobal rockets" developed in Peenemünde, which also reached their targets in the USA, and with the small-pumpkin-sized "uranium bombs" (with their full destructive energy in a 3-km radius), which according to Schaub's information had been developed to ready prototypes at the Reichspost's research office in Lichterfeld, if Hitler had been able to make these weapons actually deployed, the suffering, the cruelty, the harshness, the extension, and the duration of World War II would certainly have been multiplied.

[S. 245:] Der durch Treibstoffmangel und Luftunterlegenheit bedingte endgültige Mißerfolg wirkte dann ab Februar 1945 doppelt niederschmetternd auf ihn. Während sein Geist zupackend, sein Namens- und Zahlengedächtnis präsent blieben, wurde er körperlich zum Greis. Nur unter Aufbietung aller Kräfte bewegte er sich—aschgrau im Gesicht, mit dicken Tränensäcken unter glanzlosen Augen—fast schleppend durch die Räume seines letzten FHQu, der Berliner Reichskanzlei. Auf seine neuen Waffen, insbesondere die Uraniumbombe hoffend, stimulierte aber immer noch der Glaube an seine "Mission" ein erstaunliches Durchhaltevermögen bei ihm. Noch am 11. März 1945 besuchte er die Oderfront und bemühte sich, sie mit Durchhalteparolen zum Standhalten zu bringen.

[p. 245:] The final failure caused by lack of fuel and air inferiority had a doubly devastating effect on him from February 1945 onward. While his mind was sharp and his memory for names and numbers remained present, he physically became an old man. Only with the exertion of all his strength did he move—ash gray in the face, with thick bags under dull eyes—almost dragging himself through the rooms of his last Führer Headquarters, the Berlin Reich Chancellery. Hoping for his new weapons, especially the uranium bomb, the belief in his "mission" still stimulated an amazing staying power in him. As late as 11 March 1945, he visited the Oder front and tried to make it hold out with slogans of endurance.

[S. 493:] Hitlers letzter Frontbesuch erfolgte am 11. März 1945 an der mittleren Oderfront in Schloß, Freienwalde bei der 9. Armee. Hitler beschwor den Oberbefehlshaber, General Theodor Busse, und seine Offiziere, den russischen Ansturm auf Berlin wenigstens so lange aufzuhalten, bis seine neuen Waffen einsatzbereit seien. Er verwies auf das Beispiel des Generalfeldmarschalls Ferdinand Schörner, der mit seiner "Heeresgruppe Mitte" Schlesien und den böhmischen Raum mit unverminderter Kampfkraft verteidige. Und er erklärte abschließend: "Jeder Tag und jede Stunde sind kostbar, um die fürchterlichen Waffen fertigzustellen, welche die Wende bringen!"

[p. 493:] Hitler's last visit to the front took place on 11 March 1945, on the middle Oder front in Freienwalde Castle with the 9th Army. Hitler implored the commander-in-chief, General Theodor Busse, and his officers to delay the Russian onslaught on Berlin at least until his new weapons were ready for use. He referred to the example of Field Marshal Ferdinand Schörner, who with his "Central Army Group" defended Silesia and the Bohemian region with undiminished fighting strength. And he concluded: "Every day and every hour is precious to complete the terrible weapons that will bring about the turnaround!"

Mit den "fürchterlichen Waffen" war nach Schaub vor allem die prototypreif durchkonstruierte "Uranium-Bombe" gemeint, die in der Größe eines kleinen Kürbis in einem unterirdischen SS-Werk im Süd-Harz (mit einer Produktionskapazität von 30 000 Arbeitskräften) hergestellt werden sollte. Das Werk wurde 1945 nach der bedingungslosen Kapitulation Deutschlands von der Roten Armee nach der UdSSR verlagert. Die gelegentliche Mitteilung des US-Präsidenten über die amerikanische Entwicklung einer Atombombe tat Stalin daher mit absolutem Desinteresse ab. Den deutschen Atom-Praktiker Manfred von Ardenne aber zeichnete er mit dem damaligen sowjetischen "Nobel"-Preis, dem "Stalinpreis", aus.

According to Schaub, the "terrible weapons" meant above all the "uranium bomb" with the size of a small pumpkin which was to be produced in an underground SS plant in the southern Harz region (with a production capacity of 30,000 workers). The plant was relocated to the USSR by the Red Army in 1945 after Germany's unconditional surrender. The statement around that time by the U.S. President about the American development of an atomic bomb was therefore dismissed by Stalin with absolute disinterest. He did, however, award the German nuclear practitioner Manfred von Ardenne with what was then the Soviet "Nobel" Prize, the "Stalin Prize."

[S. 531:] 9. 6. 1942 mittags (Reichskanzlei)

Hitler freute sich über die Rüstigkeit der beiden alten Herren, die beim Essen links und rechts von ihm saßen und die er verstohlen immer wieder betrachtete: Reichsschatzmeister Schwarz und Reichspostminister Ohnesorge.

[p. 531:] 9 June 1942 noon (Reich Chancellery)

Hitler was pleased with the sprightliness of the two old gentlemen who sat to his left and right during dinner and whom he secretly looked at again and again: Reich Treasurer Schwarz and Reich Post Office Minister Ohnesorge.

Dr. Ohnesorges "Reichspost-Forschungsanstalt" in Berlin-Lichterfelde und Klein-Machnow, wo—parallel zu einem erfolglosen Professoren-Team [Heisenberg et al.]—tatsächlich ein Prototyp der deutschen "Uranium-Bombe" konstruktionsreif entwickelt wurde, stattete Hitler bei Berlin-Aufenthalten Besuche ab, bei denen Dr. Ohnesorge nicht einmal den Hitler begleitenden Militäradjutanten Engel die Forschungsanlagen mit besichtigen ließ. Der 1872 geborene Ohnesorge verstand sich auf Geheimhaltung. Er war im I. Weltkrieg Chef der Telegraphendirektion des Großen Hauptquartiers gewesen. Nach dem Kriege an diversen Oberpostdirektionen tätig, wurde er 1929 Präsident des Reichspostzentralamtes in Berlin-Tempelhof und 1933 Staatssekretär, 1937 Reichsminister im Reichspostministerium. Von Haus aus Mathematiker und Physiker, hatte er als Elektro- und Elektronikspezialist zahlreiche, von aller Welt übernommene Erfindungen gemacht (z. B. die der Fernkabel-Telephonie aufgrund der Vierdrahtschaltung).

At Dr. Ohnesorge's "Post Office Research Institute" in Berlin-Lichterfelde and Klein-Machnow—parallel to an unsuccessful team of professors [Heisenberg et al.]—a prototype of the German "uranium bomb" was actually developed ready for production. Hitler paid visits during which Dr. Ohnesorge did not even let the military adjutant Engel, who accompanied Hitler, visit the research facilities near Berlin. Ohnesorge, born in 1872, was a man who understood secrecy. During World War I, he had been head of the telegraph directorate of the supreme headquarters. After the war, he worked in various senior postal administrations, becoming president of the Post Office Central Department in Berlin-Tempelhof in 1929 and state secretary in 1933, then head of the Post Office Ministry in 1937. A mathematician and physicist by training, he had made numerous inventions as an electrical and electronics specialist that were adopted from all over the world (e.g. the invention of long-distance cable telephony based on the four-wire circuit).

Hitler, der ihn seit 1920 kannte, bewunderte an dem schweigsamen Mann, daß, er aus seinen und seiner Mitarbeiter Erfindungen stets praktisch anwendbare Resultate zu entwickeln verstand. Unter den Mitarbeitern Ohnesorges in der Reichsforschungsanstalt finden sich u. a. solche Kapazitäten wie der Atomphysiker Baron Manfred von Ardenne. Der Uranbrenner in Kummersdorf fiel 1945 in sowjetische Hände. 1 kg Uran 235 entwickelte die Explosionskraft von 20 000 t chemischen Sprengstoffs. Die Amerikaner zündeten den Prototyp ihrer ersten Atombombe am 16. Juli 1945 in New Mexico auf dem Versuchsgelände Alamogordo.

Hitler, who had known him since 1920, admired that the quiet man always knew how to develop practical results from his and his colleagues' inventions. Among Ohnesorge's collaborators at the Reich Research Institute are such experts as the nuclear physicist Baron Manfred von Ardenne. The uranium reactor in Kummersdorf fell into Soviet hands in 1945. 1 kg of uranium-235 developed the explosive energy of 20,000 tons of chemical explosives. The Americans detonated the prototype of their first atomic bomb on 16 July 1945 in New Mexico at the Alamogordo test site.

[S. 586:] Auch die Flüssigstoff-Fernrakete 'Rheinbote' und die USA-Fernrakete A9 waren erst 1945 einsatzbereit.

[p. 586:] Also the liquid-material long-range rocket 'Rheinbote' and the USA long-range rocket A-9 were not operational until 1945. [Rheinbote had solid propellant. Did Picker mean the intended payload was liquid material?]

[S. 683:] Am 7. Juli 1943 empfing Hitler die Erbauer der Weltraum-Rakete V2, den Oberst Walter Dornberger und den Diplomingenieur Wernher Freiherr von Braun, im FHQu, sah voller Begeisterung ihre V-2-Farbfilme und ernannte Dornberger zum Generalmajor und v. Braun zum Professor. Die Ernennungsurkunden unterschrieb er persönlich. Immer wieder betonte er seine Verehrung für den 1894 in Herrmannstadt (Siebenbürgen) geborenen Professor Hermann Oberth, der mit seinen wissenschaftlichen Erkenntnissen und Berechnungen die Flüssigstoffrakete V2 und die späteren Weltraumraketen erst möglich gemacht hatte.

[p. 683:] On July 7, 1943, Hitler received the builders of the V-2 space rocket, Colonel Walter Dornberger and the graduate engineer Wernher Freiherr von Braun, at the Führer Headquarters, watched their V-2 color films with enthusiasm and appointed Dornberger a major general and von Braun a professor. He personally signed the certificates of appointment. Again and again, he emphasized his admiration for Professor Hermann Oberth, born in Herrmannstadt (Transylvania) in 1894, whose scientific knowledge and calculations had made the V-2 liquid fuel rocket and the later space rockets possible in the first place.

Über 2000 Wissenschaftler und Ingenieure ließ, Hitler für die Entwicklung der Flugkörper-Feststoffrakete V1 und die der Flüssigstoffraketen V2 (= A4) und A9 vom Wehrdienst freistellen. Bis Anfang 1945 wollte er auch die—gegen die USA konstruierte—Fernrakete A-9 serienmäßig und zielsicher einsatzbereit haben. Er hoffte, mit dieser Interkontinental-Rakete die USA "friedensbereit" schießen zu können, zumal wenn er erst einmal den Raketenkopf mit mehreren kleinen Uranium-Bomben hätte bestücken können. Bereits 1943 ließ, er an der Nordspitze der ost-kanadischen Halbinsel Labrador durch U 537 eine Wetterstation hierfür errichten.

Hitler had over 2000 scientists and engineers exempted from military service for the development of the V-1 missile/solid rocket [for launching it] and the liquid fuel rockets V-2 (= A-4) and A-9. Up to early 1945, he also wanted the A-9 long-range rocket, intended against the USA, to be ready for series production and completely operational. He hoped that this intercontinental rocket would make the USA "amenable to peace," especially if he could have equipped the rocket warhead with several small uranium bombs. As early as 1943, he had a weather station built for this purpose [trans-Atlantic guidance] at the northern tip of the eastern Canadian peninsula of Labrador by submarine U-537.

Ich habe aus militärischen Geheimhaltungsgründen Hitlers Raketen-Ausführungen seinerzeit nicht mitaufgezeichnet. Hitler äußerte sich z.B. am 5. Mai 1942 recht ärgerlich, daß, die Peenemünder über alle möglichen Erfindungen und Entwicklungen ihre eigentliche Aufgabe, Raketen-Waffen zu bauen, vernachlässigten.

For reasons of military secrecy, I did not record Hitler's rocket plans at the time. Hitler, for example, on 5 May 1942, was quite annoyed that the Peenemünde people, pursuing all kinds of inventions and developments, neglected their actual task of building rocket weapons.

[Henry Picker (German, 1912–1988) was a lawyer whom Hitler invited to attend and take notes on many of his mealtime meetings and conversations. After the war, Picker published those notes, along with his own postwar commentary, as *Hitlers Tischgespräche*, or *Hitler's Table Talk*. Many former officials of the Third Reich vouched for the accuracy of Picker's recollections and comments.

Picker openly stated that he did not take notes on the more secret meetings, and of course he would have been excluded from many secret meetings. However, through his conversations with Hitler and others within the inner circle, Picker learned the gist of some of the most important secret weapons programs. He mentioned a few details about them, and those details agree well with information from other sources in Appendices D and E:

- Werner Heisenberg's group never even got close to producing a nuclear weapon.
- However, a program that involved Reichspost scientists such as Manfred von Ardenne and was managed by Wilhelm Ohnesorge did produce a prototype uranium fission bomb.
- A 30,000-person underground facility in Thuringia was set up to mass-produce such fission bombs, but was interrupted by the end of the war. The facility had reached a sufficient point of readiness, though, that it was removed by Soviet forces and taken back to the Soviet Union to help start the nuclear weapons program there.
- The nuclear weapons program was so secretive that even one of Hitler's military adjutants, Gerhard Engel (German, 1906–1976) was not allowed to tour the nuclear production facilities. Whatever Engel learned directly or indirectly was likely one of Henry Picker's sources of information. Picker wrote repeatedly that another of his key sources of information on the secret weapons programs was another of Hitler's adjutants, Julius Schaub (German, 1898–1967).
- The uranium fission bomb was approximately the size of a pumpkin. For a spherical fission implosion bomb, the inner nuclear components and the outer conventional explosive components would have been produced separately. While the complete fission implosion bomb would have been much larger than a pumpkin, the inner nuclear core would have been pumpkin-sized. Plausible physics estimates (p. 5157) are that the uranium tamper and the key nuclear components within it would have had a radius of ∼11 cm, or a diameter of ∼22 cm. If the surrounding aluminum pusher were also included, the radius would have been ∼23 cm, or the diameter ∼46 cm.
- The fission bomb had a radius of destruction of approximately 3 km, or an explosive yield (p. 5142) of roughly $(3000 \text{ meters}/85.5 \text{ meters})^3$ tons, or ∼40 kilotons. That would have been approximately twice the yield of the first U.S. fission bombs.
- The fission bomb was designed to be delivered by a rocket such as the A-9.
- The A-9 rocket was intended to strike targets in the United States. To achieve that sort of range, the A-9 would have had to be launched on top of a larger A-10 first stage. Thus whenever Picker mentioned the A-9, he was apparently referring to the complete A-9/A-10 intercontinental rocket.
- Prototypes of the A-9/A-10 rocket were completed and ready for launch before the war ended.
- Mass-production of the A-9/A-10 was planned and facilities were built, but those operations were interrupted by the end of the war.
- Hitler considered it vital for the German military to hold geographical areas that were closely associated with the nuclear weapons and intercontinental rocket programs until those weapons could be used. Those areas included Silesia, Bohemia, Thuringia, and the Berlin area.]

Werner Wächter
(1902–1946)

A chief deputy of
Joseph Goebbels
(1933–1945)

Captured, interrogated, and
executed by Soviet Union
(1945–1946)

Figure D.762: Werner Wächter, one of the chief deputies of Joseph Goebbels.

[The following pages present original Russian reports (plus English translations) regarding postwar Soviet interrogations of Werner Wächter. Wächter (born in 1902) was one of the chief deputies of Joseph Goebbels from the 1930s until the end of the war. In September 1945, he was captured by Aleksei Sidnev, head of Soviet NKVD forces in Berlin. Wächter was interrogated in September by Sidnev and again in October 1945 by Sidnev's NKVD boss, Ivan Serov. Wächter was executed by the Soviet Union in 1946.

During World War II, Wächter had a high-ranking and well-connected position, and (according to these interrogations) he received information from multiple official and unofficial channels that:

- Germany had a large program throughout the war to develop nuclear weapons and by 1943 was already very close to attaining its first nuclear weapon.
- By the end of the war in Europe, Germany possessed a significant number of nuclear weapons, and it was on the verge of using them against several targets in the Soviet Union and the United States when the war ended.
- Long-range bombers capable of transporting atomic bombs to the United States and deep into the Soviet Union had been constructed.
- A number of these long-range bombers were actually stationed at an airfield near Celle (a documented German nuclear site) and also "were concentrated at other airfields."
- Rockets more advanced than the standard V-2 (A-4), capable of carrying an atomic bomb and traveling from Germany to the United States, were under development and almost ready by the end of the war.]

Aleksei Sidnev to Ivan Serov. Letter regarding NKVD interrogation of Werner Wächter. September 1945 (filed away 20 October 1945). [FSB Archive, Moscow]

In. No. 2343
20.10.45

TOP SECRET.-

TO THE DEPUTY PEOPLE'S COMMISSAR OF INTERNAL AFFAIRS OF THE USSR

Colonel-General

COMRADE SEROV

SPECIAL MESSAGE

In addition to the special messages of 6 and 10.9.45 regarding the detainee

WÄCHTER Werner, born 1902, former
Chief of Staff of the NSDAP Propaganda Directorate

we are transmitting additional materials received as a result of further investigation of the case.

As already reported, WÄCHTER, in addition to the post of Chief of Staff of the Propaganda Directorate, also held the post of Chief of the General Armament and Construction Reporting, which is part of the Propaganda Ministry.

The tasks of reporting included:

First, joint work with the Speer Ministry of Armaments to review and accept into production the latest inventions in the field of military technology. To carry out this task, WÄCHTER was subordinate to: Referent Etlich from the Speer Ministry; the head of the military-economic department of the General Staff, Reuter; the representative of the Aviation Ministry, Schroeter; and Doctor Wiebe from the Propaganda Ministry.

The invention projects were checked by special commissions and then passed on to the scientific consultant Professor Dietrich. In their finished form, the proposals of the reporting office were forwarded to the head of the production department of the Ministry of Armaments Saur.

During the interrogation, WÄCHTER gave a number of examples regarding those latest inventions that passed through his reporting office.

In 1943, the office examined and approved a 21 cm caliber jet aircraft weapon for firing at ground targets. Testing of this weapon yielded positive results.

The Messerschmitt factories developed and launched into production a project for a jet fighter, the fuel for which was special grades of oil, which was very important given the shortage of ordinary gasoline that the German economy had been experiencing recently.

At a meeting on this issue, Sauer and Speer stated that German industry was capable of producing up to 5,000 aircraft monthly in November 1944. Speer proposed to eliminate the fuel difficulties by building several hundred small hydrogenation plants capable of producing up to 3,000 tons

of synthetic gasoline per month. According to WÄCHTER, these plants were built and began operating. As a result of these measures, the fuel situation improved significantly, since the scattered small plants had very little exposure to danger [from Allied bombing].

In the same year of 1944, projects were developed for very long-range bombers capable of bombing military manufacturing centers of the Soviet Union in the Urals and industrial facilities in North America. These bombers were supposed to be used to transport atomic bombs.

WÄCHTER reports that, according to the report of Air Force Colonel [Hajo] Hermann, at one of the meetings with Hitler, the latter very sharply singled out Goering for the failure of the Aviation Ministry to implement the program for the construction of these aircraft. Soon after this meeting, the aviation industry was transferred to the Speer Ministry, where General Field Marshal of the Air Force Milch also transferred to work.

The main manager of all work on the latest types of weapons was General [Walter] Dornberger, who was responsible for the production of the V-1 and V-2, as well as atomic bombs.

A direct inventor of the V-2 missiles was engineer Dr. Paul Heylandt.[16] While the V-1 missile was launched by a machine device [catapult] and had a very limited range, the V-2 could hit targets located in the middle of the Atlantic Ocean with its missiles. Heylandt informed WÄCHTER that work was being done as a result of which the V-2 missile would be able to rise to 120 km in altitude and hit industrial targets in North America. A standard V-2 missile could reach an altitude of 80 km.

WÄCHTER knows that the V-2 missile is fired from the HARZ region and near the city of Saalfeld (Thuringia).

Heylandt was also the organizer of the construction of large oxygen liquefaction plants. These plants were of great importance in the V-2 production program, since it was precisely with the help of liquid oxygen that the engines that launched the V-2 rockets operated. Liquid air factories were located in Erfurt, Frankfurt, and Munich (Linde company). The missile itself was manufactured at the Rax plant on the outskirts of Vienna, at a test plant near the town of Bodensee (Swiss, border), and at Peenemünde (near Stettin).

The head of the testing center in Peenemünde was Freiherr von Braun.

Already in 1943, WÄCHTER learned in a conversation with the chief engineer of the propaganda ministry, [Hans] Dominik, that a lot of work was being done to invent atomic bombs. Later, in conversations with Professor Dr. Erich Schumann [pp. 4186–4255] and Prof. [Rudolf] Mentzel, WÄCHTER learned that the work on atomic bombs was being carried out at the Kaiser Wilhelm Institute in Berlin. The head of the production department of the armament ministry, [Karl-Otto] Saur, and his deputy, Feldmann, were personally responsible for the production of atomic bombs.

The most knowledgeable people in this regard should be General Dornberger and Dr. Erich Schumann, who worked specifically on scientific research questions related to the production of the atomic bomb.

Schumann was simultaneously a professor of physics, biology, medicine, and music, and was known to the general public as a professor of music.

[16] https://repository.si.edu/bitstream/handle/10088/30574/Winter%20Neufeld%20Heylandt.pdf

According to WÄCHTER's testimony, Schumann lived in Berlin until the end of April and should be in the city to this day. (Schumann is being sought [pp. 3294–3296]).

WÄCHTER himself does not know the factories where the atomic bomb was manufactured and designed, since he was not admitted to the secret meetings on this issue held at Speer's [office].

The second task of the general office headed by WÄCHTER was to conduct so-called economic propaganda. This included: propaganda for saving coal, water, electricity, propaganda for intensive work, the struggle (agitational) against "chatterboxes", spies, etc.

All the largest posters on this topic were published on the initiative of WÄCHTER.

The reporting office also published a special magazine titled "A Handbook for Propagandists," which gave advice and instructions to the propagandists of the regional offices.

Finally, the function of the armament reporting office included propaganda about new weapons. It was assumed that as a result of this propaganda it would be possible to convince the German people to hold out to the last degree, since a new victorious weapon would soon come into action.

WÄCHTER also testified that he headed a special council for repairing Berlin streets damaged by the bombing.

The investigation into WÄCHTER's case continues. Further results will be reported separately.

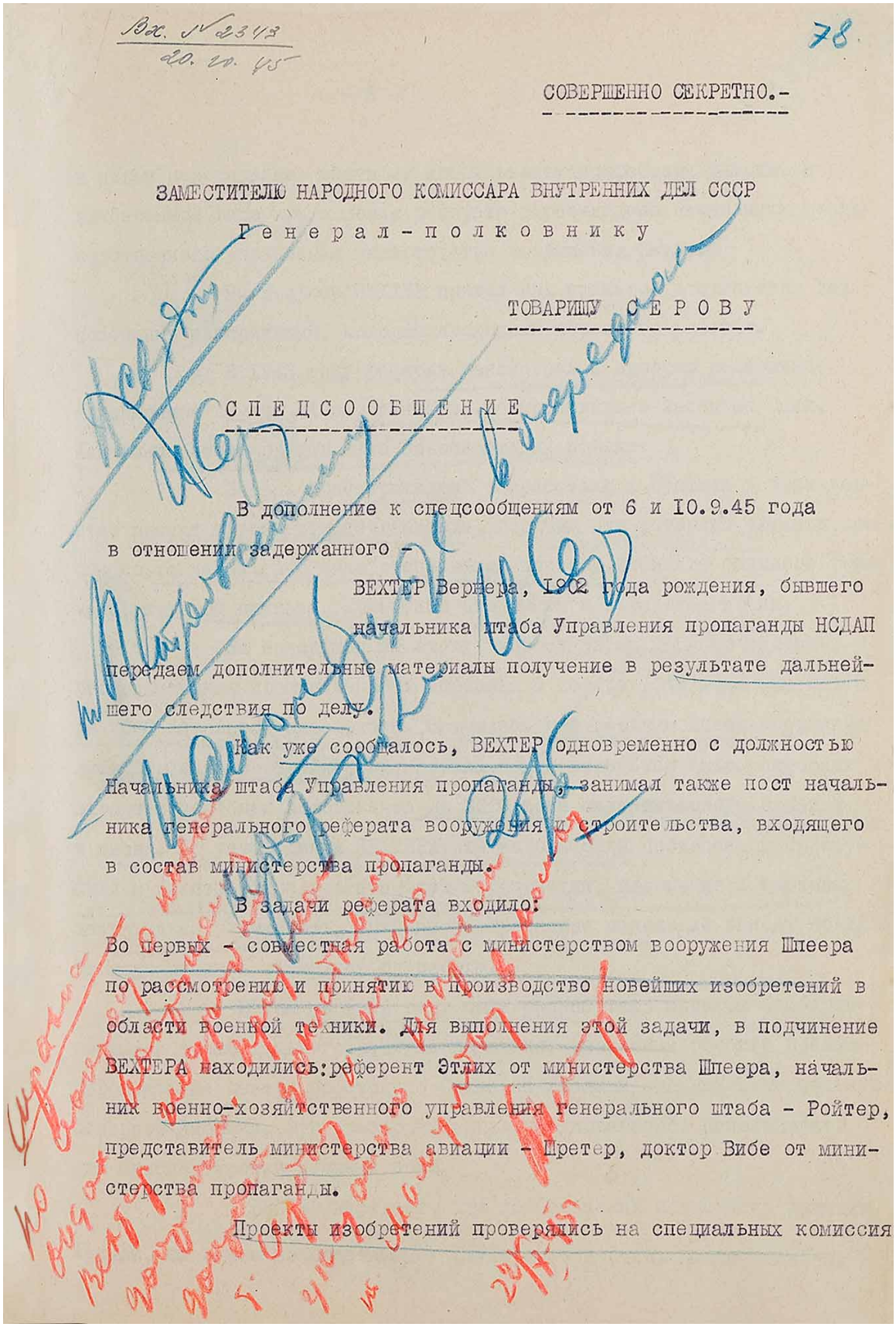
CHIEF OF THE OPERATIONAL SECTOR OF THE NKVD BERLIN

Major-General SIDNEV.-

" " September 1945.

No 2/ .....

[See document photos on pp. 4644–4648.]



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СОВЕРШЕННО СЕКРЕТНО.-

ЗАМЕСТИТЕЛЮ НАРОДНОГО КОМИССАРА ВНУТРЕННИХ ДЕЛ СССР
Генерал-полковнику
ТОВАРИЩУ СЕРОВУ

СПЕЦСООБЩЕНИЕ

В дополнение к спецсообщениям от 6 и 10.9.45 года в отношении задержанного -

ВЕХТЕР Вернера, 1902 года рождения, бывшего начальника штаба Управления пропаганды НСДАП передаем дополнительные материалы получение в результате дальнейшего следствия по делу.

Как уже сообщалось, ВЕХТЕР одновременно с должностью Начальника штаба Управления пропаганды, занимал также пост начальника генерального реферата вооружения и строительства, входящего в состав министерства пропаганды.

В задачи реферата входило:

Во первых - совместная работа с министерством вооружения Шпеера по рассмотрению и принятию в производство новейших изобретений в области военной техники. Для выполнения этой задачи, в подчинение ВЕХТЕРА находились: референт Этлих от министерства Шпеера, начальник военно-хозяйственного управления генерального штаба - Ройтер, представитель министерства авиации - Шретер, доктор Вибе от министерства пропаганды.

Проекты изобретений проверялись на специальных комиссия

Figure D.763: Aleksei Sidnev to Ivan Serov. Letter regarding NKVD interrogation of Werner Wächter. September 1945 [FSB Archive, Moscow, courtesy of Matthias Uhl].

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и затем передавались научному консультанту профессору Дитрих. В законченном виде предложения реферата пересылались начальнику производственного управления министерства вооружения Зауэр.

На допросе ВЕХТЕР привел ряд примеров в отношении тех новейших изобретений, которые проходили через его реферат.

В 1943 году реферат рассмотрел и одобрил реактивное авиационное оружие 21 см. калибра, обстреливающее наземные цели. Испытание этого орудия дало положительный эффект.

Заводы "Мессершмидта" разработали и пустили в производство проект турбинного истребителя, горючим для которого служили особые сорта масел, что было очень важно при том дифиците обычного горючего, которое ощущала германская экономика в последнее время.

На совещании по этому вопросу Зауэр и Шпеер заявили, что германская промышленность способна в ноябре 1944 года выпускать до 5000 самолетов ежемесячно. Затруднения с горючим Шпеер предлагал ликвидировать постройкой нескольких сотен маленьких гидравлических заводов способных изготовлять до 3000 тонн синтетического бензина в месяц. По утверждению ВЕХТЕРА эти заводы были построены и приступили к работе. В результате этих мероприятий, положение с горючим значительно улучшилось, так как разбросанные маленькие заводы почти не подвергались воздушной опасности.

В том же 1944 году были разработаны проекты бомбардировщиков очень дального радиуса действия, способных бомбить военно-строительные центры Советского Союза на Урале и промышленные объекты Северной Америки. Эти бомбардировщики предполагалось использовать для траспортировки атомных бомб.

ВЕХТЕР передает, что по сообщению полковника авиации Герман, на одном из совещаний у Гитлера, тот очень резко указывал

Figure D.764: Aleksei Sidnev to Ivan Serov. Letter regarding NKVD interrogation of Werner Wächter. September 1945 [FSB Archive, Moscow, courtesy of Matthias Uhl].

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Герингу на не выполнение министерством авиации программы строительства этих самолетов. Вскоре после этого совещания авиационная промышленность была передана в ведение министерства Шпеера, куда перешел также работать генерал-фельдмаршал авиации Мильх.

Основным руководителем всех работ по новейшим видам вооружения являлся генерал Дорнбергер, который отвечал за производство Фау-I и ФАУ-2, а также атомных бомб.

Непосредственным изобретателем снарядов ФАУ-2 был инженер доктор Пауль Хайландт. В то время, как снаряд ФАУ-I стартовался машинным приспособлением и имел очень ограниченный радиус действия, ФАУ-2 мог поражать своими снарядами цели расположенные на середине антлантического океана. Хайландт сообщил ВЕХТЕРУ, что производятся работы, в результате которых снаряд ФАУ-2 сможет подниматься до I20 клм. высоты и поражать промышленные объекты Северной Америки. Обычный снаряд ФАУ-2 мог подняться до высоты 80 клм.

ВЕХТЕРУ известно, что орудие ФАУ-2 производили свою стрельбу из области ГАРЦ и вблизи города Саальфельда (Тюрингия).

Хайландт являлся также организатором строительства больших заводов сжижающих кислород. В программе строительства ФАУ-2 эти заводы имели большое значение так, как именно при помощи жидкого кислорода действовали приборы пускающие в действие ракеты ФАУ-2. Фабрики жидкого воздуха были расположены в Эрфурте, Франкфурте и в Мюнхене.(фирма "Линде"). Сам снаряд изготовлялся на заводе "Ракс" в предместьях Вены, на испытательном заводе у города Бодензее (швейц. граница) и Пенемюнде.(около Штетина.).

~~[illegible] ФАУ-2 [illegible]~~

~~[illegible]~~ ( ).

Figure D.765: Aleksei Sidnev to Ivan Serov. Letter regarding NKVD interrogation of Werner Wächter. September 1945 [FSB Archive, Moscow, courtesy of Matthias Uhl].

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Начальником испытательного завода в Пенемюнде являлся Фрейхер фон Браун.

Уже в 1943 году ВЕХТЕР в разговоре с шефом-инженером министерства пропаганды Доминик узнал, что производятся большие работы по изобретению атомных бомб. Позже из разговоров с профессором доктором Эрих Шуман и профессором Менцель, ВЕХТЕР выяснил, что работу над атомными бомбами проводил Кайзер-Вильгельм институт в Берлине. Начальник производственного управления министерства вооружени Зауэр и его заместитель Фельдман лично отвечали за производство атомных бомб.

Наиболее осведомлены в этом отношении должны быть Генерал Дорнбергер и доктор Эрих Шуман, который специально работал над научно-исследовательскими вопросами связанными с производством атомной бомбы.

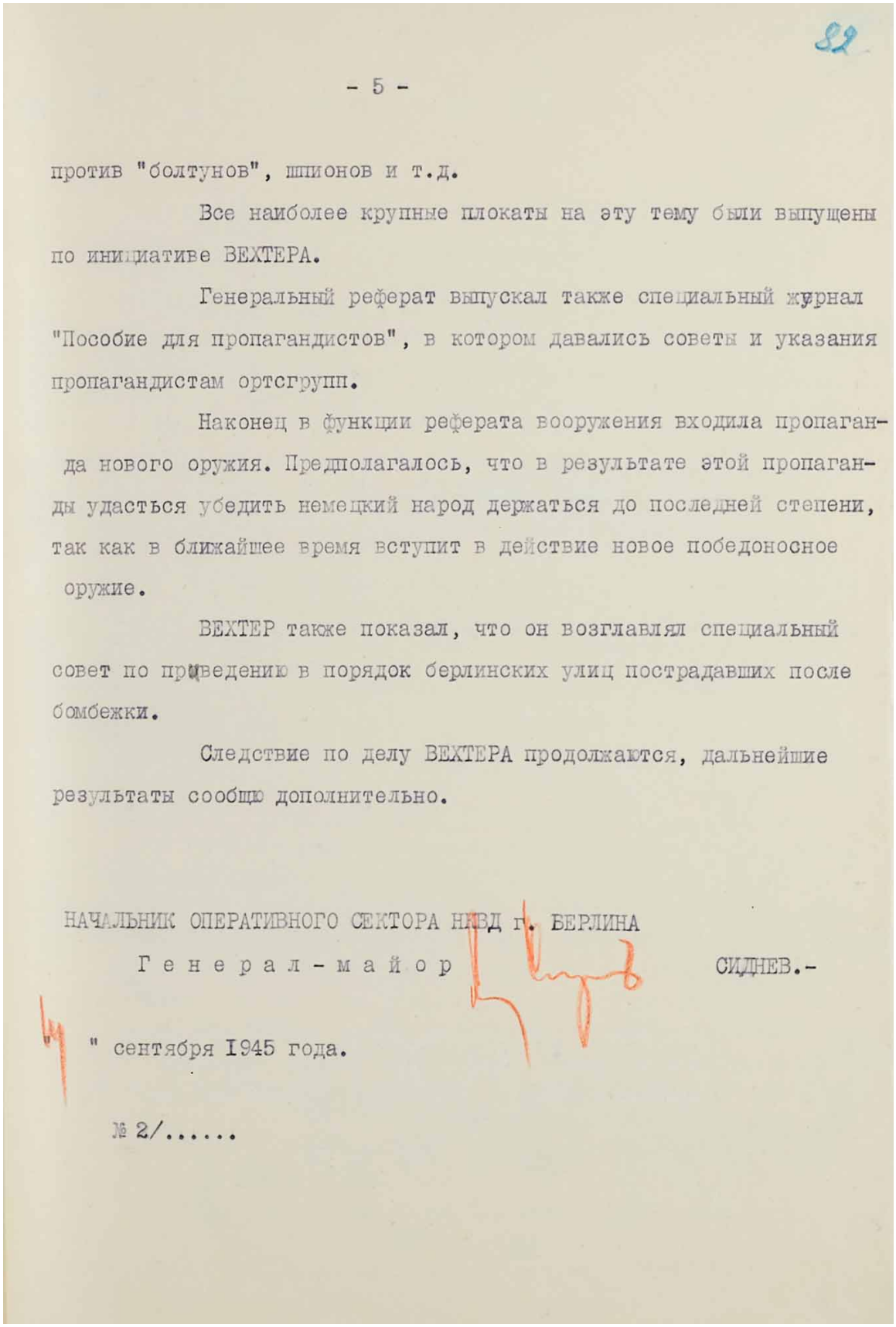
Шуман являлся одновременно профессором физики, биологии, мидицины и музыки, при чем широкой публики он был известен как профессор музыки.

По показаниям ВЕХТЕРА Шуман до конца апреля проживал в Берлине и должен находиться в городе до настоящего времени. (Розыски Шумана проводятся).

Сам ВЕХТЕР не осведомлен на каких заводах изготовлялась и конструировалась атомная бомба, так как он небыл допущен к секретным совещаниям по этому вопросу, проводившимся у Шпеера.

Второй задачей генерального реферата, возглавляемого ВЕХТЕРОМ являлось проведение так называемой хозяйственной пропаганды. Сюда входило - пропаганда экономии угля, воды, электроэнергии, пропаганды интенсивной работы, борьба (агитационная)

Figure D.766: Aleksei Sidnev to Ivan Serov. Letter regarding NKVD interrogation of Werner Wächter. September 1945 [FSB Archive, Moscow, courtesy of Matthias Uhl].



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против "болтунов", шпионов и т.д.

Все наиболее крупные плокаты на эту тему были выпущены по инициативе ВЕХТЕРА.

Генеральный реферат выпускал также специальный журнал "Пособие для пропагандистов", в котором давались советы и указания пропагандистам ортсгрупп.

Наконец в функции реферата вооружения входила пропаганда нового оружия. Предполагалось, что в результате этой пропаганды удастся убедить немецкий народ держаться до последней степени, так как в ближайшее время вступит в действие новое победоносное оружие.

ВЕХТЕР также показал, что он возглавлял специальный совет по приведению в порядок берлинских улиц пострадавших после бомбежки.

Следствие по делу ВЕХТЕРА продолжаются, дальнейшие результаты сообщю дополнительно.

НАЧАЛЬНИК ОПЕРАТИВНОГО СЕКТОРА НКВД г. БЕРЛИНА

Г е н е р а л - м а й о р СИДНЕВ.-

" сентября 1945 года.

№ 2/.....

Figure D.767: Aleksei Sidnev to Ivan Serov. Letter regarding NKVD interrogation of Werner Wächter. September 1945 [FSB Archive, Moscow, courtesy of Matthias Uhl].

Transcript of NKVD interrogation of Werner Wächter by Ivan Serov. 10 October 1945. [FSB Archive, Moscow]

Transcript.

INTERROGATION PROTOCOL

of the arrested WÄCHTER Werner.-

10 October 1945.

WÄCHTER W., born in 1902, native of Erfurt, Germany, former Chief of the Economic Administration of the German Ministry of Propaganda and staff officer of the Main Administration of NSDAP Propaganda with the rank of "SA Gruppenführer."

Interrogation began at 11:50.
Interrogation ended at 17:00.

Question — In previous interrogations you testified that you were aware of the preparations being carried out in Germany for the use of an atomic bomb.

From what sources did you know about this?

Answer — I first learned that the German Ministry of Armaments was preparing to use an atomic bomb from engineer [Hans] DOMINIK [pp. 1218, 1968, 1970].

Question — Who is DOMINIK?

Answer — Dominik (I don't remember his name) worked in the Ministry of Propaganda as a communications engineer and, by the nature of his work, maintained contact with senior engineers, specialists working in the field of secret weapons and, in particular, on the atomic bomb. I had known DOMINIK since 1940 from our joint work in the Propaganda Ministry.

Question — In connection with what and what exactly did DOMINIK tell you about the manufacture of the atomic bomb?

Answer — DOMINIK spoke to me about the atomic bomb in 1943 in one of his private conversations.

He told me that German scientists had succeeded in achieving the splitting of the atomic nucleus and that engineers and specialists were developing methods and ways of practical application of this energy as a means of waging war. To my question—is the enemy working on a solution to this problem—DOMINIK answered that similar work was being carried out by the British and Americans, but Germany, allegedly, was ahead of them in this field by a year and a half. He did not name the exact date of the beginning of this work.

Question — Obviously, corresponding practical work was also carried out in Germany to prepare for the use of the atomic bomb? Can you tell us about it?

Answer — I knew that the Ministry of Armaments was carrying out practical work to prepare for the use of the atomic bomb. I learned about this from my friend, the editor of the secret government bulletin, Hans HERTEL.

As HERTEL told me, in February 1945, on behalf of the Minister of Propaganda GOEBBELS, he went on a business trip to the city of Celle and met there with his acquaintance, the head of the military air force school for special purposes, Colonel Hajo HERMANN, who told him in a private conversation that the school was armed with aircraft of the latest design. These aircraft have a long range and will be armed with this bomb. As Colonel Hajo [HERMANN] stated to HERTEL—the new aircraft were intended for bombing industrial centers of the Soviet Union, located in the Urals and Central Asia, with atomic bombs.

From HERTEL, I know that at the airfield in the city of Celle there were both bombers of the latest design and fighters intended to protect them during flights. In addition, HERTEL reported that aircraft of this design were concentrated at other airfields.

Based on conversations with DOMINIK and HERTEL, I came to the conclusion that the German Ministry of Armaments was preparing to use atomic bombs in 1945. I could also judge this from other facts that were known to me as a leading official of the German Ministry of Propaganda.

Question — What other facts are you talking about?

Answer — I do not have precise information about the exact dates the atomic bombs would have been used against the Soviet Union during the war. However, I would like to tell the investigation about certain signs that give me reason to believe that an atomic bomb could have been used in the war against the Soviet Union in the summer of 1945.

In one of my conversations with him, the State Secretary of the Propaganda Ministry, Dr. [Werner] NAUMANN, speaking about the military and political situation in Germany at the last stage of the war, stated that everything should soon change for the better [p. 4429] and referred to the words of Hitler, who in a narrow circle of trusted people said: “Yes, God forgive me for the last 14 days of the war.”

In addition, at the beginning of 1945, I met with the head of the armament department, [Karl-Otto] SAUR, one of the leaders of German industry and, in fact, the deputy minister of armaments of [Albert] SPEER. SAUR secretly informed me that at present intensive work is being carried out on the production of the newest weapons, which will soon be used at the front.

In the spring of 1945, the inventor from the German Scientific Research Council, Professor [Erich] SCHUMANN, spoke to me about this, stating that he was carrying out a lot of work on a secret weapon that could change the entire course of the war in Germany’s favor [pp. 4186–4255].

Question — What secret weapon did SAUR and SCHUMANN talk to you about?

Answer — They did not tell me what new weapon had been invented, but knowing from DOMINIK and HERTEL that work was underway to make an atomic bomb, I believe that SCHUMANN and SAUR also meant an atomic bomb.

I must state that the conversations with SCHUMANN and SAUR were of a strictly confidential nature and they could not tell me in detail about the manufacture of the new weapon, since it was a special state secret.

Question — It must be assumed that you, as a leading official of the fascist party and the Propaganda Ministry, were also aware of other, more specific facts.

Answer — I told the investigation all the facts known to me and some signs indicating the plans of the German government to use secret weapons and, in particular, an atomic bomb in the war against the USSR in the summer of 1945. I can add that in March 1945, GOEBBELS, in my presence, gave instructions to an employee of the Propaganda Ministry, von BORKE, to put up a horoscope for the month of June, supposedly predicting HITLER's fate, since June was considered especially favorable for HITLER. The predictions of the horoscope, by order of GOEBBELS, were supposed to be distributed among the population of Germany in June 1945.

When compared with other data, I believe that behind this instruction was concealed the intensive preparations for the use of secret weapons, calculated for June 1945.

In addition, in April 1945, GOEBBELS, at a meeting of the employees of the Propaganda Ministry, in a report on the tasks of National Socialist propaganda, stated: "Despite the difficult challenges, we should not lose confidence, since soon a new weapon will be used that will change the entire course of the war."

Question — Can you name the specialists who directly worked on the manufacture of the atomic bomb in Germany?

Answer — I know that the following persons had a direct relationship with all types of secret weapons and, in particular, the atomic bomb: General [Walter] DORNBERGER, head of the office of new types of weapons of the SPEER Ministry, previously lived in Berlin-Charlottenburg, Riehlstrasse. I do not know where DORNBERGER is now.

SAUR, the head of the industry department of the Ministry of Armaments was one of the trusted people of the Minister of Armaments TODT, and then of his successor SPEER. SAUR was actually in charge of the production of all the new types of weapons in Germany. As far as I know, he personally reported every month to HITLER about the quantity of military products manufactured.

FELDMANN (I don't know his name) was SAUR's deputy in the Ministry of Armaments. I know that SAUR and FELDMANN fled to Kulmbach (northern Bavaria) in April 1945.

Professor [Max] PLANCK is one of the oldest leaders of the Kaiser Wilhelm Research Institute. He worked for a long time on the problem of splitting the atomic nucleus, which was known to the leading officials of Germany, including me.

Question — Where is PLANCK currently located?

Answer — I assume that PLANCK lives in Berlin in the Dahlem district. In addition to Planck, Professor [Wilhelm] ZEYSS [pp. 5674–5682], who was in charge of the construction of aircraft intended for dropping atomic bombs, had a direct relationship with secret weapons issues.

From the words of ZEYSS's nephew I know that he currently lives in the suburb of Berlin-Rahnsdorf.

Question — Regarding the production of new types of weapons, besides the V-bomb [V-1], what

do you know?

Answer — I also knew about the production of the new secret weapon "V-2." I knew about this from my close friend HEYLANDT.

Question — Who is HEYLANDT?

Answer — Dr. Paul HEYLANDT, an engineer and inventor. I have known him since 1925. Back in 1930, he told me that he had managed to invent a new type of rocket engine for a car. In 1935, the German Ministry of War confiscated the patent for this invention. However, HEYLANDT continued to work on this invention, but under the control of the Ministry of War, and he was the owner of a rocket engine factory in Berlin.

In 1943, while visiting HEYLANDT at his country house in the Königs Wusterhausen area, he told me that he was working on a new, in his words "terrible and deadly weapon" rocket projectile, which Hitler named "V-2."

According to HEYLANDT, the "V-2" is a rocket-propelled missile of enormous destructive power, loaded with one ton of explosive and with a high flight speed. According to HEYLANDT's calculations, this speed is so high [during reentry] that the missile's controls would become unusable and its practical use would be impossible. He solved this problem by enclosing the missile's control mechanisms in a shell of liquid air [coolant].

HEYLANDT also said that he is working on solving the problem of increasing the flight altitude to 120 kilometers. The fact is that, according to his reckoning, the "V-2" can reach an altitude of 80 kilometers during flight, but this is not enough to fire at the USA from German territory. Having reached an altitude of 120 km, a rocket projectile fired from Germany could reach New York.

Question — Have you personally visited the HEYLANDT plant?

Answer — Yes, I have been to this plant many times, but I have never seen a "V-2." I personally examined 7–8 meter high rocket towers in special halls. The towers were intended for launching "V-2," which gave them a direction of flight.

Later, the HEYLANDT plant was moved to the town of Gassen [Guben or Gablenz?] near Sohmer not far from the city of Cottbus.

Question — What else do you know about the production of "V-2"?

Answer — HEYLANDT told me that in 1943–44 in Belgium, in the area of the city of Liège, underground structures were built for firing the rocket projectile "V-2." Later, these underground structures were destroyed by Anglo-American aircraft, and the remaining equipment was taken to Thuringia in the area of the city of Saalfeld and in the area of Harz, where practical testing of the "V-2" was carried out.

Question — Where else were the test stations located?

Answer — I know from HEYLANDT that there were also testing stations in the Peenemünde area (northern Germany) and one testing site was located on the Swiss border in the Lake Constance area. For the sake of secrecy, the town of Peenemünde was recently renamed "Karlshagen."

HEYLANDT said that he was present at the "V-2" test at the testing station in the Lake Constance

area. According to his stories, the inhabitants of the Swiss border strip were very surprised by the bright light and loud noise produced by the test.

Question — Do you know where HEYLANDT is currently located?

Answer — I know from my brother's wife Charlotte WÄCHTER that HEYLANDT was sent to Moscow by representatives of the Soviet military authorities.

Question — Can you name the persons who were directly involved in the development of secret weapons or were aware of it?

Answer — A person knowledgeable about secret weapons was the former head of the culture department and head of propaganda of the Ministry of Armaments, HOFFMANN.

Question — What do you know about the whereabouts of HOFFMANN?

Answer — HOFFMANN lived in the eastern part of Berlin. My former personal secretary Edith RICHERT, who lives in Berlin-Weissensee, Generalstrasse, can tell about him.

In addition, the person in the know was the secretary for secret affairs of Minister SPEER, Annemarie KEMPF (maiden name WITTENBERG). KEMPF lives in Berlin-Steglitz with her mother WITTENBERG, not far from the Magistracy (Rathaus). I know that KEMPF was in charge of the special secret correspondence of Minister SPEER and personally printed his reports for Hitler on the state of the military industry.

The interrogation transcript from my words is written down correctly and the German language spoken to me is correct:

(WÄCHTER)

INTERROGATOR: COLONEL-GENERAL: (SEROV)

MAJOR: (KOZYREV)

TRANSLATOR: JUNIOR LIEUTENANT: (RUDIN)

[See document photos on pp. 4654–4664.]

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лч.3.

Стенограмма.

ПРОТОКОЛ ДОПРОСА

арестованного ВЕХТЕР Вернера.-

от 10 октября 1945 года.

ВЕХТЕР В., 1902 года рождения, уроженец г.Эрфурт, немец, быв.Начальник Хозяйственного Управления Германского Министерства пропаганды и штабшеф Главного Управления пропаганды НСДАП в звании "группенфюрер СА".

Начало допроса - в 11 час. 50 м.
Конец -"- - в 17 час. 00 м.

Вопрос - На прошлых допросах вы показали о том, что были осведомлены о проводившейся в Германии подготовке к применению атомной бомбы.

Из каких источников вам было известно об этом?

Ответ - О том, что Германское министерство вооружений проводит подготовку к применению атомной бомбы я впервые узнал от инженера ДОМИНИК.

Вопрос - Кто такой ДОМИНИК?

Ответ - ДОМИНИК /имени его не помню/, работал в Министерстве пропаганды инженером связи и по роду своей работы поддерживал контакт с руководящими инженерами-специалистами, работавшими в области секретного вооружения и, в част-

Figure D.768: Transcript of NKVD interrogation of Werner Wächter by Ivan Serov. 10 October 1945 [FSB Archive, Moscow, courtesy of Matthias Uhl].

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ности - атомной бомбы. Я был знаком с ДОМИНИК с 1940 года по совместной работе в министерстве пропаганды.

Вопрос - В связи с чем и что именно говорил вам ДОМИНИК об изготовлении атомной бомбы?

Ответ - Об атомной бомбе ДОМИНИК говорил со мной в 1943 году в одной из частных бесед с ним.

Он рассказал мне, что германским ученым удалось добиться расщепления атомного ядра и инженеры-специалисты занимаются разработкой методов и способов практического применения атомной энергии, как средства ведения войны. На мой вопрос - работает ли противник над решением этой проблемы, ДОМИНИК ответил, что аналогичные работы ведутся англичанами и американцами, но Германия, якобы, опередила их в этом на полтора года. Точной же даты начала этих работ он не назвал.

Вопрос - Очевидно, в Германии проводилась и соответствующая практическая работа по подготовке применения атомной бомбы? Расскажите об этом?

Ответ - Мне было известно, что министерство вооружений проводило практическую работу по подготовке к применению атомной бомбы. Об этом я узнал от своего знакомого редактора секретного правительственного бюллетеня ГЕРТЕЛЯ Ганса.

Figure D.769: Transcript of NKVD interrogation of Werner Wächter by Ivan Serov. 10 October 1945 [FSB Archive, Moscow, courtesy of Matthias Uhl].

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Как рассказал мне ГЕРТЕЛЬ, - в феврале 1945 года по поручению министра пропаганды ГЕББЕЛЬСА он выезжал в командировку в город Целле и встречался там со своим знакомым - начальником военно-воздушной школы специального назначения полковником Германом ХАЙО, который в частной беседе рассказал ему, что школа имеет на вооружении самолеты новейшей конструкции. Эти самолеты обладают большим радиусом действия и будут вооружены атомной бомбой. Как заявил полковник ХАЙО ГЕРТЕЛЮ - новые самолеты предназначались для бомбардировки атомными бомбами индустриальных центров Советского Союза, расположенных в районе Урала и Средней Азии.

Со слов ГЕРТЕЛЯ мне известно, что на аэродроме в г.Целле находились как бомбардировщики новейшей конструкции, так и истребители, предназначенные для охраны их во время полетов. Кроме того, ГЕРТЕЛЬ сообщил, что самолеты такой конструкции были сконцентрированы и на других аэродромах.

На основании бесед с ДОМИНИК и ГЕРТЕЛЬ я пришел к выводу, что германским министерством вооружения велась подготовка к применению атомных бомб в 1945 году. Об этом я мог судить и по другим фактам, которые мне были известны, как руководящему работнику германского министерства пропаганды.

Figure D.770: Transcript of NKVD interrogation of Werner Wächter by Ivan Serov. 10 October 1945 [FSB Archive, Moscow, courtesy of Matthias Uhl].

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Вопрос - О каких других фактах вы говорите?

Ответ - Точными данными о том, что в определенные сроки войны против Советского Союза были бы применены атомные бомбы - я не располагаю. Однако, хочу рассказать следствию об отдельных признаках, которые дают мне основание полагать о возможном применении атомной бомбы в войне против Советского Союза летом 1945 года.

В одной из бесед со мною государственный секретарь министерства пропаганды доктор НАУМАН, говоря о военном и политическом положении Германии на последнем этапе войны, заявил, что в скором времени должно все измениться к лучшему и сослался на слова Гитлера, который в узком кругу доверенных ему лиц заявил: "Да,простит мне бог, последние 14 дней войны".

Кроме того, в начале 1945 года я встретился с начальником Управления вооружения ЗАУРОМ - одним из руководителей германской промышленности и, фактически, заместителем министра вооружения ШПЕЕРА. ЗАУР по секрету сообщил мне, что в настоящее время ведется усиленная работа по изготовлению новейшего оружия, которое в ближайшее время будет применено на фронте.

Об этом же весной 1945 года со мной говорил изобретатель научно-исследовательского совета Германии профессор ШУМАН, который заявил, что им ведется большая работа над секретным оружием, могущим изменить весь ход войны в пользу Германии.

Figure D.771: Transcript of NKVD interrogation of Werner Wächter by Ivan Serov. 10 October 1945 [FSB Archive, Moscow, courtesy of Matthias Uhl].

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Вопрос - О каком секретном оружии говорили с вами ЗАУР и ШУМАН?

Ответ - Они не сообщили мне какое именно новое оружие изобретено, но зная от ДОМИНИК и ГЕРТЕЛЯ о том, что ведется работа по изготовлению атомной бомбы, я полагаю, что ШУМАН и ЗАУР имели в виду также атомную бомбу.

Должен заявить, что разговор с ШУМАНОМ и ЗАУРОМ носил сугубо конфедициальный характер и они не могли подробно рассказать об изготовлении нового оружия, т.к. это являлось особой государственной тайной.

Вопрос - Надо полагать, что вам, как руководящему работнику фашистской партии и министерства пропаганды, были известны и другие более конкретные факты.

Ответ - Я сообщил следствию все известные мне факты и некоторые признаки, свидетельствующие о планах германского правительства применить секретное оружие и, в частности, атомную бомбу в войне против СССР летом 1945 года. Могу добавить, что в марте 1945 года ГЕББЕЛЬС в моем присутствии дал указания сотруднику министерства пропаганды фон-БОРКЕ поставить на июнь месяц гороскопы, якобы, предсказывающие судьбу ГИТЛЕРА, так как июнь считался особенно благоприятным для ГИТЛЕРА. Предсказания гороскопа, по приказанию ГЕББЕЛЬСА, в июне 1945 года предполагалось распространить среди населения Германии.

Werner Wächter

Figure D.772: Transcript of NKVD interrogation of Werner Wächter by Ivan Serov. 10 October 1945 [FSB Archive, Moscow, courtesy of Matthias Uhl].

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При сопоставлении с другими данными, я полагаю, что за этим указанием скрывалась интенсивная подготовка к применению секретного вооружения, рассчитанного на июнь 1945 года.

Кроме того, в апреле 1945 года ГЕББЕЛЬС, на совещании сотрудников министерства пропаганды, в докладе о задачах национал-социалистской пропаганды, заявил: "несмотря на тяжелые испытания, нам не следует терять присутствия духа, так как в скором времени будет применено новое оружие, которое изменит весь ход войны".

Вопрос - Назовите специалистов непосредственно работавших по изготовлению атомной бомбы в Германии?

Ответ - Мне известно, что непосредственное отношение ко всем видам секретного вооружения и, в частности, атомной бомбы, имели следующие лица: генерал ДОРНБЕРГЕР - начальник Управления новых видов вооружения министерства ШПЕЕРА, ранее проживал в Берлине - Шарлоттенбург, Рильштрассе. Где в настоящее время находится ДОРНБЕРГЕР - я не знаю.

ЗАУР - начальник Управления индустрии министерства вооружений, являлся одним из доверенных лиц министра вооружений ТОДТ, а затем его преемника ШПЕЕРА. ЗАУР фактически ведал всеми производством новых видов вооружения в Германии. Как мне известно, он каждый месяц лично отчитывался

Figure D.773: Transcript of NKVD interrogation of Werner Wächter by Ivan Serov. 10 October 1945 [FSB Archive, Moscow, courtesy of Matthias Uhl].

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ГИТЛЕРУ о количестве выпускаемой военной продукции.

ФЕЛЬДМАН /имени его не знаю/ - заместитель ЗАУРА по министерству вооружений. Мне известно, что ЗАУР и ФЕЛЬДМАН в апреле 1945 года бежали в г.Кульмбах /Северная Бавария/.

Профессор ПЛЯНК - один из старейших руководителей научно-исследовательского института "Кайзер-Вильгельм". Продолжительное время работал над проблемой расщепления атомного ядра, о чем было известно руководящим работникам Германии, в том числе и мне.

Вопрос - Где в настоящее время находится ПЛЯНК?

Ответ - Я предполагаю, что ПЛЯНК проживает в Берлине в районе Далем. Кроме ПЛЯНКА непосредственное отношение к вопросам секретного вооружения имел профессор ЦЕЙС, который ведал строительством самолетов, предназначавшихся для бомбардировки атомными бомбами.

Со слов племянника ЦЕЙСА мне известно, что в настоящее время он проживает в предместьи Берлина - Рансдорфе.

Вопрос - Об изготовлении каких новых видов вооружения, кроме атомной бомбы, вам еще известно?

Ответ - Я знал также о производстве нового секретного оружия "ФАУ-2". Об этом мне было известно от моего близкого друга ХЕЙЛАНДТА.

Figure D.774: Transcript of NKVD interrogation of Werner Wächter by Ivan Serov. 10 October 1945 [FSB Archive, Moscow, courtesy of Matthias Uhl].

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Вопрос - Кто такой ХЕЙЛАНДТ?

Ответ - Доктор ХЕЙЛАНДТ Пауль - инженер-изобретатель. Я знаком с ним с 1925 года. Еще в 1930 году он рассказал мне, что ему удалось изобрести новый вид ракетного двигателя для автомашины. В 1935 году военное министерство Германии конфисковало патент на это изобретение. Однако, ХЕЙЛАНДТ продолжал работать над этим изобретением, но уже под контролем военного министерства и являлся владельцем завода ракетных двигателей в Берлине.

В 1943 году, будучи в гостях у ХЕЙЛАНДТА на даче в районе Кенигсвустерхаусен, он рассказал мне, что работает над новым, по его словам "ужасным и смертоносным оружием" ракетным снарядом, название которому Гитлер дал "ФАУ-2".

По словам ХЕЙЛАНДТА "ФАУ-2" ракета-снаряд огромной разрушительной силы, снаряжается одной тонной взрывчатого вещества и обладает большой скоростью полета. По расчетам ХЕЙЛАНДТА эта скорость настолько велика, что управление ракеты приходило бы в негодность и практическое применение ее было бы невозможно. Эту проблему он решил таким образом, что заключил механизмы управления ракетой в оболочку из жидкого воздуха.

ХЕЙЛАНДТ рассказал также, что работает над разрешением проблемы увеличения высотности полета до 120 километров. Дело в том, что по его предположениям "ФАУ-2" при полете может достигнуть высоты 80 километров, но это

Figure D.775: Transcript of NKVD interrogation of Werner Wächter by Ivan Serov. 10 October 1945 [FSB Archive, Moscow, courtesy of Matthias Uhl].

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недостаточно для того, чтобы обстрелять с территории Германии США. При достижении же высотности 120 клм. ракета-снаряд, выпущенная из Германии, могла бы достигнуть Нью-Йорка.

Вопрос - Вы лично посещали завод ХЕЙЛАНДТА?

Ответ - Да, я неоднократно бывал на этом заводе, но "ФАУ-2" мне видеть не довелось. Я лично осматривал в специальных залах ракетные вышки высотой 7-8 метров:. Вышки предназначались для метания "ФАУ-2", которые придавали им направление полета.

Впоследствии завод ХЕЙЛАНДТА был переведен в гор.Гассен под Зомером недалеко от гор.Котбус.

Вопрос - Что еще известно вам об изготовлении "ФАУ-2"?

Ответ - ХЕЙЛАНДТ рассказывал мне, что в 1943-44г.г. в Бельгии в районе г.Люттих были построены подземные сооружения, предназначавшиеся для стрельбы ракетой-снарядом "ФАУ-2". Позднее эти подземные сооружения англо-американской авиацией были разрушены, а оставшееся оборудование вывезено в Тюрингию в район г.Заальфельд и в г.Гарц и там проводилось практическое испытание "ФАУ-2".

Вопрос - Где еще находились испытательные станции?

Figure D.776: Transcript of NKVD interrogation of Werner Wächter by Ivan Serov. 10 October 1945 [FSB Archive, Moscow, courtesy of Matthias Uhl].

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Ответ - Со слов ХЕЙЛАНДТА я знаю, что испытательные станции имелись также в районе Пюнемюнде /Северная Германия/ и одна испытательная площадка находилась на швейцарской границе в районе Боденского озера. В целях конспирации город Пюнемюнде в последнее время был переименован в "Карлсхаген".

ХЕЙЛАНДТ рассказывал, что он присутствовал при испытании "ФАУ-2" на испытательной станции в районе Боденского озера. По его рассказам, жители пограничной полосы Швейцарии были очень удивлены ярким светом и сильным шумом, получавшимся при испытании.

Вопрос - Вам известно, где в настоящее время находится ХЕЙЛАНДТ?

Ответ - Со слов жены моего брата Шарлотты ВЕХТЕР мне известно, что ХЕЙЛАНДТ представителями советских военных властей был направлен в Москву.

Вопрос - Назовите лиц, имевших непосредственное отношение к разработке секретного оружия или же осведомленных об этом?

Ответ - Осведомленным человеком по вопросам секретного вооружения являлся бывший руководитель отдела культуры и начальник пропаганды министерства вооружений - ГОФМАН.

Figure D.777: Transcript of NKVD interrogation of Werner Wächter by Ivan Serov. 10 October 1945 [FSB Archive, Moscow, courtesy of Matthias Uhl].

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Вопрос - Что вы знаете о местонахождении ГОФМАНА?

Ответ - ГОФМАН проживал в восточной части Берлина. О нем может рассказать бывший мой личный секретарь Эдит РИХЕРТ, проживающая в Берлине - Вайсензее, Генеральштрассе.

Кроме того, осведомленным человеком являлась секретарь по тайным делам министра ШПЕЕРА - Анна-Мария КЕМПФ, /девичья фамилия ВИТТЕНБЕРГ/. КЕМПФ проживает в Берлине - Штеглиц у своей матери ВИТТЕНБЕРГ, недалеко от магистратуры /Ратхауз/. Мне известно, что КЕМПФ ведала особой секретной перепиской министра ШПЕЕР и лично печатала его доклады для Гитлера о состоянии военной промышленности.

Протокол допроса с моих слов записан правильно и переведен мне на немецкий язык верно:

/ВЕХТЕР/.

ДОПРОСИЛ: ГЕНЕРАЛ-ПОЛКОВНИК: /СЕРОВ/

М А Й О Р: /КОЗЫРЕВ/

ПЕРЕВОДЧИК: МЛ.ЛЕЙТЕНАНТ: /РУДИН/

Figure D.778: Transcript of NKVD interrogation of Werner Wächter by Ivan Serov. 10 October 1945 [FSB Archive, Moscow, courtesy of Matthias Uhl].

Leroy Vogel. Interrogation Records Prepared for War Crimes Proceedings. Activities of Jürgen Stroop. 1945. https://www.fold3.com/image/232067115

14 Apr Held 20 minute talk with HIMMLER who convinced STROOP that Germany could still win the war. Received instructions to convey this opinion to all HSSPF's in Southern Germany. HIMMLER gave STROOP full freedom of action.

[Jürgen Stroop was an SS general who reported directly to Heinrich Himmler. The above interrogation record indicates that Himmler told him about a weapon so powerful that even in April 1945, it had the potential to help Germany win the war.

In 1949, Stroop spent over eight months in the same Polish jail cell as Kazimierz Moczarski, a dissident journalist who later wrote about his conversations with Stroop. In the conversation below, Stroop confirmed to Moczarski that the powerful new weapon was indeed an atomic bomb.

During the war, Stroop would have had direct knowledge of the development of the German atomic bomb, both from his conversations with Himmler and likely from other conversations within the SS, which was deeply involved in running the German nuclear program in the final years of the war. After the war, on the other hand, Stroop would have been left wondering why the German atomic bomb had not been employed by the end of the war, so his 1949 explanations for that below must be regarded as simply his own speculations.]

Kazimierz Moczarski. 1981. *Conversations with an Executioner: An Incredible 255-Day-Long Interview with the Man Who Destroyed the Warsaw Ghetto.* Englewood Cliffs, New Jersey: Prentice-Hall. p. 214

One day the talk turned to the wonder weapons which Germany had dreamed of producing in 1944–45.

"What were they going to be?" I asked. "Improved V rockets? A new kind of artillery along the lines of the Russian Katyusha? Jet aircraft?"

"None of those, *Herr* Moczarski," Stroop said firmly. "We hadn't started mass-producing jet planes yet, although we had prototypes in the air. I saw one once in my district. It flew amazingly fast. But new planes, rockets, and artillery weren't what Adolf Hitler was after." Stroop paused, then continued dramatically: "We were one step away from discovering a new explosive to be used in aerial warfare."

I tried not to smile.

"You mean you were about the invent the atomic bomb?"

"Exactly. All through the war, German and Anglo-Saxon scientists raced neck and neck to perfect such a weapon. . . ."

"And guess who crossed the finish line first? The Americans at Hiroshima," I said with satisfaction.

"Inevitable, *Herr* Moczarski. Inevitable. We lacked topflight physicists, and our research laboratories had been badly bombed."

Benito Mussolini. 20 April 1945 interview. In: Gian Gaetano Cabella. 1948. *Testamento politico di Mussolini.* Rome: Tosi. p. 45.
https://antonioportobello.wordpress.com/2011/04/24/il-testamento-politico-di-mussolini-lultima-intervista-dettata-corretta-siglata-dal-duce-il-22-aprile-1945-gian-gaetano-cabella/

"Le famose bombe distruttrici sono per essere approntate. Ho, ancora pochi giorni fa, avuto notizie precisissime. Forse Hitler non vuole vibrare il colpo che nella assoluta certezza che sia decisivo.

Pare che siano tre, queste bombe e di efficacia sbalorditiva. La costruzione di ognuna ètremendamente complicata e lunga."

"The famous destroyer bombs are going to be prepared. I have, still a few days ago, received very precise news. Perhaps Hitler does not want to strike the blow except in the absolute certainty that it is decisive.

It seems that there are three of them, these bombs, and of astounding effectiveness. The construction of each is tremendously complicated and time-consuming."

[According to Cabella, this 1948 booklet is a transcript of an interview he conducted with Mussolini on 20 April 1945 (eight days before his execution). Cabella was a journalist who had manufactured propaganda for Mussolini during the war and thus his writings must be treated cautiously.[17]

However, Edoardo Susmel and Duilio Susmel considered Cabella's account of his 20 April 1945 interview with Mussolini to be accurate and included it in their *Opera omnia di Benito Mussolini*, Vol. XXXII, pp. 191–201. Moreover, the details of Cabella's account agree with other sources that Cabella would not have known about at the time he wrote:

- Cabella wrote that he interviewed Mussolini on 20 April 1945 starting at 15:20 (3:20 p.m., pp. 14–16). The calendar of Mussolini's appointments has since been published, and it shows that Mussolini met with a long series of people that day [Guerrazzi 2020, p. 359]. While it does not name Cabella specifically, it shows that Mussolini had a gap in his schedule 15:20–16:00 during which he would have been available to meet with Cabella, exactly as Cabella claimed.
- After the war, Luigi Romersa repeatedly confirmed that he had provided Mussolini with information about German nuclear weapons (pp. 4427–4434).
- Mussolini had other sources of information about German nuclear weapons (e.g., pp. 4366, 4600).
- Mussolini spoke on other occasions about German nuclear weapons (e.g., pp. 4603, 4667).
- According to Cabella, Mussolini spoke of three bombs. If he meant three physical bombs ready for deployment, there were other sources that also spoke of three deployable bombs (e.g., pp. 4182, 4667). If he meant three different types of bombs, with unspecified numbers of each, there were other sources that mentioned three different types of nuclear weapons (e.g., p. 3401).
- According to Cabella, Mussolini thought Germany was reluctant to use the nuclear weapons if they would not have a decisive effect on the war. Other knowledgeable sources said the same thing (e.g., pp. 4668–4670).]

[17] See for example:
Pietro Caporilli. 1962. *L'ombra di Giuda.* Rome: Edizioni Ardita, Roma. pp. 122–123.
Arrigo Petacco. 2002. *Ammazzate quel fascista! Vita intrepida di Ettore Muti.* Milan: Mondadori. p. 200.
Donato D'Urso. Sept.-Oct. 2012. Il Popolo di Alessandria e il Testamento politico di Mussolini. Gian Gaetano Cabella, protagonista del giornalismo della RSI. *Nuova Storia Contemporanea* 16:5:134.

Georg Zachariae. 1948. *Mussolini si confessa.* Milan: Garzanti. Reprinted in 2004 by Milan: BUR; see p. 183. [Zachariae was Mussolini's personal physician.]

Il duce fino all'ultimo momento non aveva perso la speranza che si potesse vincere la guerra; egli era convinto che le armi segrete tedesche avrebbero provocato un capovolgimento della situazione, che appariva ormai disperata. Egli aveva apertamente sostenuto questa sua convizione con tutti coloro che negli ultimi mesi avevano avuto contatti con lui. Anche intrattenendosi confidenzialmente con me era difficile che si lasciasse persuadere della fallacia delle sue opinioni. Verso la fine però egli ammise che la guerra era perduta militarmente, e nel riconoscere l'ineluttabilità della disfatta egli mi diceva che anche il suo destino era segnato.

Until the last moment the duce had not lost hope that the war could be won; he was convinced that the German secret weapons would cause a reversal of the situation, which by then appeared desperate. He had openly supported this belief of his with all those who had had contact with him in the last months. Even talking confidentially with me it was difficult for him to be persuaded of the fallacy of his opinions. Towards the end, however, he admitted that the war was militarily lost, and, in recognizing the inevitability of defeat, he told me that his fate was also sealed.

Erwin Bartmann. 2013. *Für Volk und Führer: The Memoir of a Veteran of the 1st SS Panzer Division Leibstandarte SS Adolf Hitler.* Solihull, UK: Helion.

[pp. 160–161:] 'What I am about to tell you is top secret—you must not repeat this—tell no one.'

Wide-eyed with expectation, Papa and I nodded.

Mama's brows furled. 'Then perhaps you shouldn't tell us, Horst.'

'I trust my own family Mama,' replied Horst, brushing across her concerns. He leaned forward in his seat and whispered, 'As you know, I am responsible for making the telephone connections when calls are made to and from the Air Ministry. Listen to this—the other day I made a connection between Göring and the *Führer*.'

Mama gasped. 'Oh Horst.'

'Göring asked the *Führer* for permission to use three special bombs but he refused. "If I use them in the east they will get us from the west," said the *Führer*.'

Papa pulled his chair closer to the table. 'What were these special bombs?'

'I don't know for sure but they must be powerful—although Göring clearly mentioned three I got the impression there might be more.'

'This is the *Wunderwaffe*,' exclaimed my father. 'Our scientists have done well with their rockets—who would put it past them to come up with something like this? It would really surprise the British if they put one of these special bombs in a rocket.' [...]

[p. 231:] After the war, I became friends with Rochus Misch, a fellow *Leibstandarte* veteran and communications officer in the *Führerbunker* until the final days of the *Reich*. The topic of the special bombs came up in conversation. 'Three bombs,' he said, 'where did you hear that? There were nine.'

There has been much speculation about the possession of atomic weapons by Germany. Whether the bombs that my brother mentioned were conventional or atomic remains a matter of conjecture.

Heinrich Himmler's chief adjutant Werner Grothmann on why nuclear weapons were not used in combat [Krotzky 2002]. For a discussion of the background and reliability of this source, see pp. 3396–3397. See also Grothmann's testimony on pp. 3401, 4271, and 4436.

[S. 13] Himmler hat sich jedenfalls Bericht erstatten lassen und es wurde beraten, was wir jetzt noch machen können. Das eine Problem war die geringe Menge und immer noch die Unsicherheit, wie es im Einsatz klappen würde. Das andere war die Frage nach der tatsächlichen politischen Wirkung.

[S. 13] Manche meinten, ein Volltreffer auf Moskau müßte das erste Ziel sein. Dem ist aber widersprochen worden mit dem Argument, das würde an der Ostfront nichts mehr ändern.

[S. 14] Wenn wir also jetzt auf Hitlers Befehl eine solche Waffe zum Beispiel über London einsetzen würden, ergäbe sich eine völlig neue Situation, aber nicht in unserem Sinne. Wenn die Waffenwirkung den Berechnungen entspricht, fallen zwar wichtige Teile der politischen und militärischen Führung aus, aber viele andere Ebenen, die außerhalb untergebracht waren, bleiben erhalten. Es gibt schwere Verluste unter der Zivilbevölkerung und wenn sich das Entsetzen gelegt hat stellt man fest, dass die Versorgung der englischen Truppen, die im Reich stehen, über ihre Häfen und die unter ihrer Kontrolle weiter möglich ist. Außerdem stehen die Engländer eben auf unserem Gebiet. Und das wichtigste Argument: bei uns glaubte niemand wirklich daran, dass die dann abziehen würden. Ganz im Gegenteil. Ihre Reaktionen gegenüber unserer Bevölkerung konnten wir uns ausmalen. Die andere Seite, die man auch betrachten muß, sind die Amerikaner.

[S. 15] Bei den Besprechungen, die ich erlebt hatte oder über die ich in Andeutungen erfuhr, war keiner so verrückt, eine Waffe einzusetzen, die uns nicht mehr helfen konnte, sondern nach Lage der Dinge alles nur noch viele schlimmer machen würde.

[p. 13] Himmler had in any case come up with a report, and a consultation took place regarding what we could make now. The one problem was the small quantity [of fuel] and always still the uncertainty of how it would work in action. The other was the question of the real political effect.

[p. 13] Some said that a direct hit on Moscow must be the first goal. But this has been countered by the argument that this would not change anything on the eastern front.

[p. 14] If we were now to use such a weapon on Hitler's order, for example to employ it on London, a completely new situation would arise, but not in our favor. If the weapon's impact corresponds to the calculations, important parts of the political and military leadership will fall, but many other levels that have been relocated outside will be preserved. There are heavy casualties among the civilian population, and when the horror has subsided, it is clear that the supply of potential British troops in the Reich is still possible via their ports and is still under their control. Besides, the British are also on our territory. And the most important argument: with us, no one really believed that they would then withdraw. Quite the contrary! We could picture their reactions to our population. The other side, which must also be considered, is the Americans.

[p. 15] At the meetings I attended, or about which I learned in hints, no one was so crazy to use a weapon which could no longer help us, but would only make things even much worse.

[S. 16] Also, der erste Punkt war, dass die Entscheidungsträger wissen mussten, was ihnen persönlich blüht, wenn eine völlig neue, furchtbare Massenvernichtungswaffe von unserer Seite eingesetzt würde, Wirkung erzielt, der Krieg aber trotzdem von uns verloren wird. Was die Sieger dann aus der Genfer Konvention herauslesen würden war klar.

Der zweite Punkt war der hier: Damals lag doch die Forderung nach bedingungsloser Kapitulation schon längst auf dem Tisch. Und die war das Ergebnis der normalen Kriegslage. Was hätte sich dann ergeben nach dem Einsatz unserer Atombombe? Ihnen sind bestimmt auch die Vorstellungen von Morgenthau bekannt. Es würde alles noch viel schlimmer kommen.

[p. 16] So, the first point was that the decision-makers had to know how they personally fared, if a completely new, terrible mass-destruction weapon were deployed by our side and achieved its effect, but the war were nevertheless lost by us. What the victors would then read out of the Geneva Convention was clear.

The second point was that: At that time, the demand for unconditional surrender had long been on the table. And that was the result of the normal war situation. What would have happened after the use of our atomic bomb? You are certainly familiar with the ideas of Morgenthau. Everything would be much worse.

[Grothmann made several points:

- By the end of the war, there was only enough fission fuel for a very small number of bombs.
- With the possibilities of rockets malfunctioning, aircraft getting shot down, or the bombs themselves malfunctioning, there was no guarantee that those bombs could be successfully delivered to Allied targets.
- Even if the bombs were successfully delivered and destroyed a very small number of Allied cities, they would not stop the large Allied military forces that were invading Germany, and in fact they would only inspire the Allied forces to defeat Germany more quickly before it could deliver more bombs.
- If Germany had used nuclear bombs against Allied targets, the Allies would have retaliated with even greater destruction (such as firebombing or mustard gas) against German targets than what the Allies were already doing.
- If Germany had used nuclear bombs against Allied targets, those individuals who were responsible would have been prosecuted for war crimes after the war.
- If Germany had used nuclear bombs against Allied targets, the Allies would have imposed much harsher terms on Germany after the war. Grothmann mentioned the Allied Morgenthau plan that was actually considered but not implemented, which would have eliminated all industry in postwar Germany.

Grothmann's arguments are the same reasons why Germany did not use its stockpile of very advanced nerve gas [Tucker 2006], which was far larger than its stockpile of nuclear weapons as estimated by Grothmann.]

Allen Dulles. 1 April 1945. Cable IN 9061 from Bern, Switzerland to Office of Strategic Services. [NARA RG 226, Entry UD-90, Box 6, Folder 64 SUNRISE] [See document photos on pp. 4671–4672.]

[...] 8. In his conversation with Emperor [Kesselring], latter said to Critic [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"]. Emperor believed this weapon can prolong war but not decide it, but might cause terrible blood bath on both sides. Emperor said if Fuehrer gave him order to use weapon he would surrender his command. [...]

Allen Dulles. 5 April 1945. Cable IN 9470 from Bern, Switzerland to Office of Strategic Services. [NARA RG 226, Entry UD-90, Box 7, Folder 86 BERN–IN OUT 1944–1945]

[...] Following information given by Wood mostly dated middle March when he left Berlin. [...]

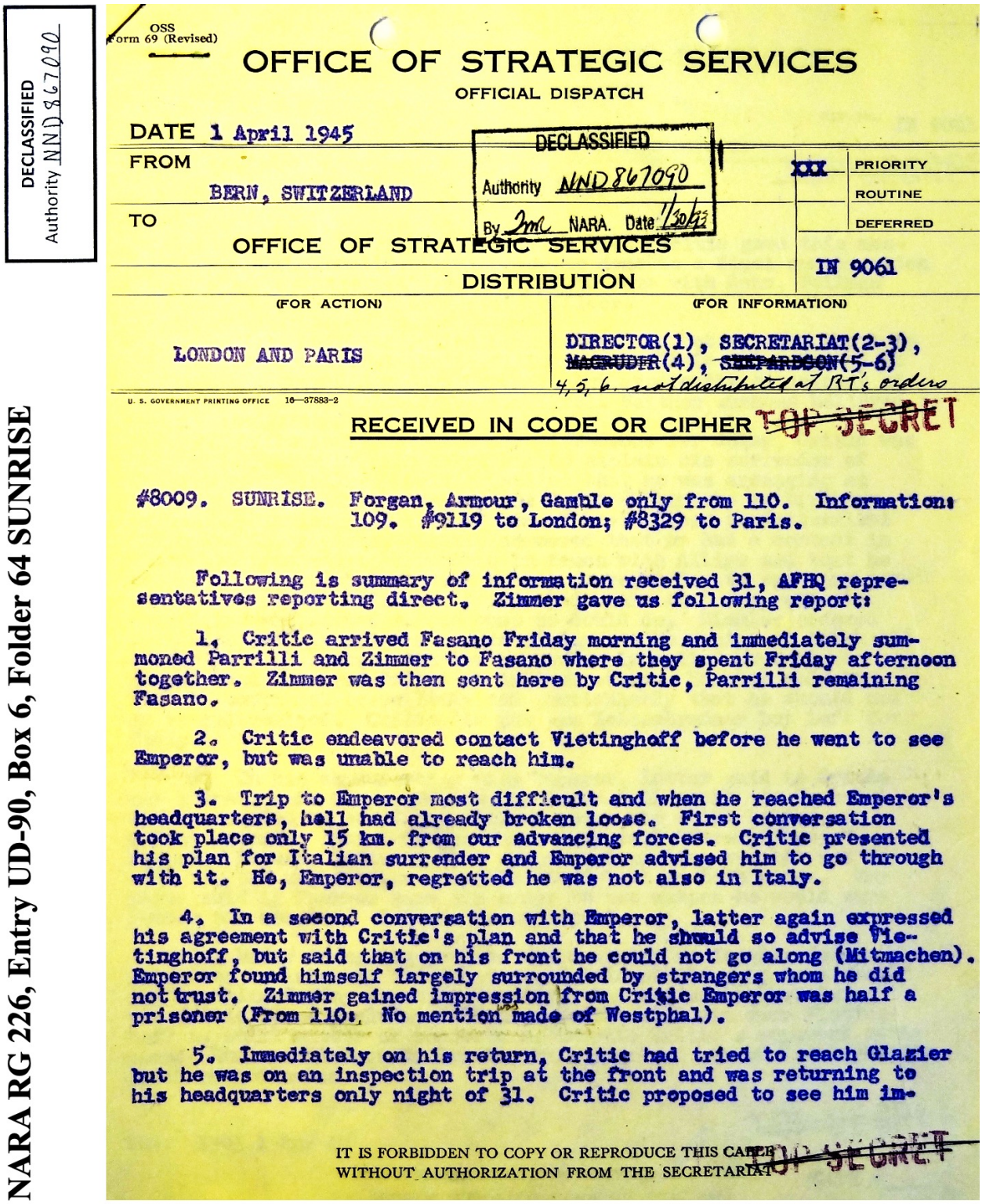
4. Archivabteilung of Foreign Office is located in the Harz near Quedlinburg and archives distributed in old salt mines. Current files were still Berlin middle March.

5. Burning of archives proceeding on large scale and instructions to this effect have been given to every government office in case of danger of enemy occupation. Unfortunately material which Wood had put in his office safe was burned during his last absence from Berlin. [...]

Karlsch 2005, pp. 253–254, 388, citing: CIC Documentation "Adolf Hitler" 1944–1953, Interrogation of Hans Fegelein. 21 September 1945. Institut für Zeitgeschichte (IfZ), Munich, F 135/3, pp. 384ff.

Mit Vorsicht kann dies auch aus einer Befragung von Hans Fegelein, dem Vater Hermann Fegeleins, geschlossen werden. SS-Gruppenführer Hermann Fegelein, seit 1944 Himmlers Verbindungsoffizier im Führerhauptquartier und Schwager Eva Brauns, war noch am 28. April 1945 wegen Fahnenflucht standrechtlich erschossen worden. Sein Vater berichtete den Amerikanern im September 1945 über die dramatischen letzten Kriegstage. Hitler sei sehr erregt darüber gewesen, dass ihm Himmler die neue Atombombe vorenthalten hätte. Er wollte damit noch eine Kriegswende herbeiführen.Im Befragungsprotokoll heißt es: "Die Ingenieure, die zuletzt im Führerhauptquartier waren, und auch der Führer selbst erwarteten täglich den Gefechtseinsatz der Atombombe. Aber Saboteure verhinderten dies." Wer die Saboteure gewesen sein sollen, erwähnte Hans Fegelein nicht.

With caution this can also be inferred from a survey conducted by Hans Fegelein, the father of Hermann Fegelein. SS group leader Hermann Fegelein, since 1944 Himmler's liaison officer at the Führer's headquarters and brother-in-law of Eva Braun, had been legally shot dead on 28 April 1945 because of desertion. His father told the Americans in September 1945 about the dramatic last war days. Hitler was very angered that Himmler had deprived him of the new atomic bomb. He wanted to turn the war around. The survey report states: "The engineers who were last at the Führer Headquarters and also the Führer himself expected the atomic bomb to be deployed every day. But saboteurs prevented this." Hans Fegelein did not mention who the saboteurs were.



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#8009. SUNRISE. Forgan, Armour, Gamble only from 110. Information: 109. #9119 to London; #8329 to Paris.

Following is summary of information received 31, AFHQ representatives reporting direct. Zimmer gave us following report:

1. Critic arrived Fasano Friday morning and immediately summoned Parrilli and Zimmer to Fasano where they spent Friday afternoon together. Zimmer was then sent here by Critic, Parrilli remaining Fasano.

2. Critic endeavored contact Vietinghoff before he went to see Emperor, but was unable to reach him.

3. Trip to Emperor most difficult and when he reached Emperor's headquarters, hell had already broken loose. First conversation took place only 15 km. from our advancing forces. Critic presented his plan for Italian surrender and Emperor advised him to go through with it. He, Emperor, regretted he was not also in Italy.

4. In a second conversation with Emperor, latter again expressed his agreement with Critic's plan and that he should so advise Vietinghoff, but said that on his front he could not go along (Mitmachen). Emperor found himself largely surrounded by strangers whom he did not trust. Zimmer gained impression from Critic Emperor was half a prisoner (From 110: No mention made of Westphal).

5. Immediately on his return, Critic had tried to reach Glazier but he was on an inspection trip at the front and was returning to his headquarters only night of 31. Critic proposed to see him im-

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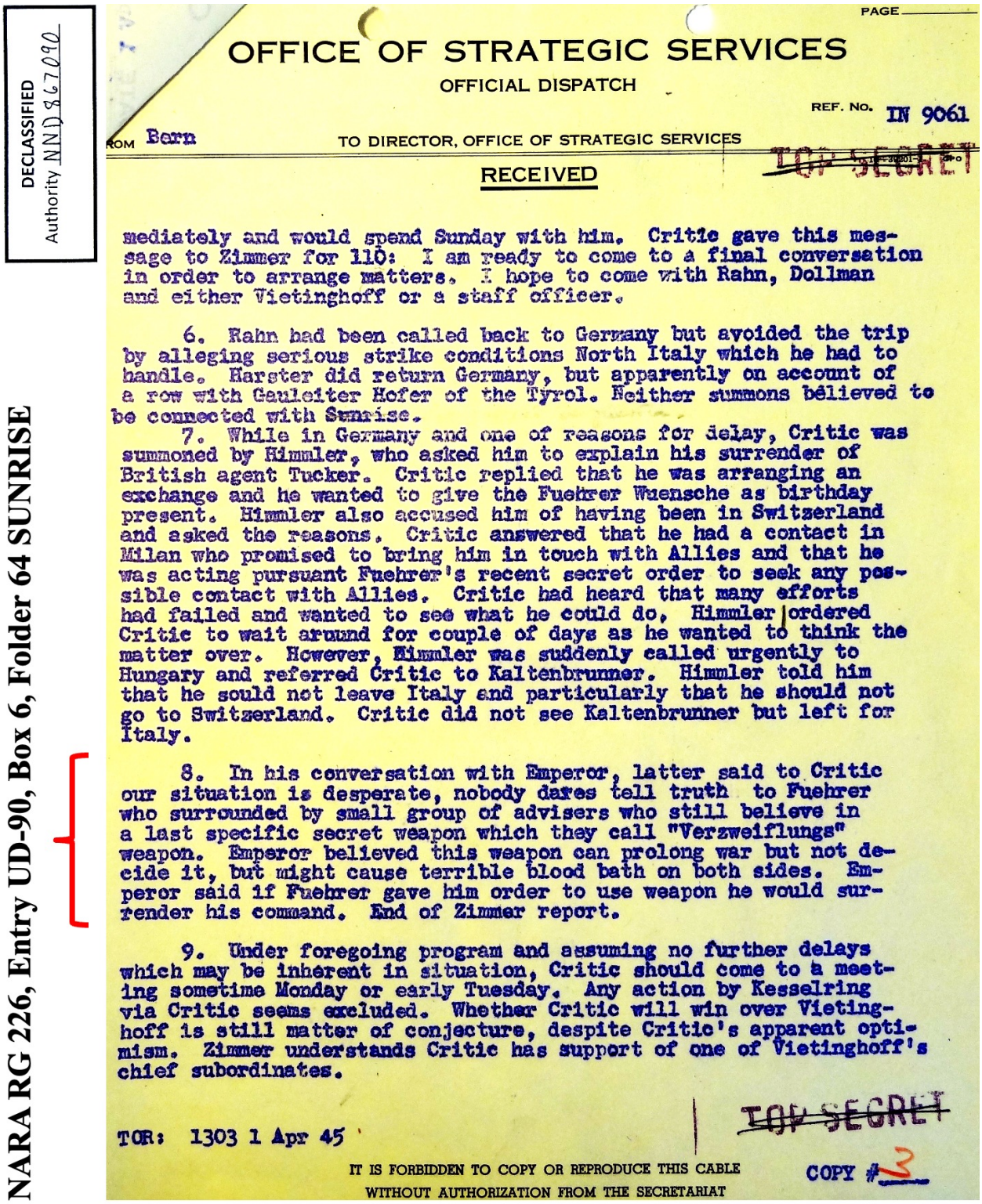
NARA RG 226, Entry UD-90, Box 6, Folder 64 SUNRISE

Figure D.779: Allen Dulles. 1 April 1945. Cable IN 9061 from Bern, Switzerland to Office of Strategic Services. [NARA RG 226, Entry UD-90, Box 6, Folder 64 SUNRISE]



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mediately and would spend Sunday with him. Critic gave this message to Zimmer for 110: I am ready to come to a final conversation in order to arrange matters. I hope to come with Rahn, Dollman and either Vietinghoff or a staff officer.

6. Rahn had been called back to Germany but avoided the trip by alleging serious strike conditions North Italy which he had to handle. Harster did return Germany, but apparently on account of a row with Gauleiter Hofer of the Tyrol. Neither summons believed to be connected with Sunrise.

7. While in Germany and one of reasons for delay, Critic was summoned by Himmler, who asked him to explain his surrender of British agent Tucker. Critic replied that he was arranging an exchange and he wanted to give the Fuehrer Wuensche as birthday present. Himmler also accused him of having been in Switzerland and asked the reasons. Critic answered that he had a contact in Milan who promised to bring him in touch with Allies and that he was acting pursuant Fuehrer's recent secret order to seek any possible contact with Allies. Critic had heard that many efforts had failed and wanted to see what he could do. Himmler ordered Critic to wait around for couple of days as he wanted to think the matter over. However, Himmler was suddenly called urgently to Hungary and referred Critic to Kaltenbrunner. Himmler told him that he could not leave Italy and particularly that he should not go to Switzerland. Critic did not see Kaltenbrunner but left for Italy.

8. In his conversation with Emperor, latter said to Critic 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 "Verzweiflungs" weapon. Emperor believed this weapon can prolong war but not decide it, but might cause terrible blood bath on both sides. Emperor said if Fuehrer gave him order to use weapon he would surrender his command. End of Zimmer report.

9. Under foregoing program and assuming no further delays which may be inherent in situation, Critic should come to a meeting sometime Monday or early Tuesday. Any action by Kesselring via Critic seems excluded. Whether Critic will win over Vietinghoff is still matter of conjecture, despite Critic's apparent optimism. Zimmer understands Critic has support of one of Vietinghoff's chief subordinates.

TOR: 1303 1 Apr 45

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Figure D.780: Allen Dulles. 1 April 1945. Cable IN 9061 from Bern, Switzerland to Office of Strategic Services. [NARA RG 226, Entry UD-90, Box 6, Folder 64 SUNRISE]

T. R. Hogness and F. A. C. Wardenburg. 4 April 1945. Subject: Report on Interrogation of Professor Walter Bothe. [NARA RG 77, Entry UD-22A, Box 166, Folder 32.22-1 GERMANY—Research—TA (1943–June 1946)]

Dr. Bothe said that about two weeks ago, under orders from the German government, all secret documents in connection with his work were burned and this included some correspondence with Heisenberg and all papers relating to the TA project.

Samuel A. Goudsmit and Robert R. Furman. 9 April 1945. TA Report—Detailed Report of Conversation with Gentner on 5 April 1945. [NARA RG 77, Entry UD-22A, Box 167, Folder 32.12-2 GERMANY: Personnel (Jan 45–Dec 45)]

A military committee visited Heidelberg about a week before the German troops retreated and carried out orders to burn all secret documents. This included Bothe's work on uranium and anything else marked "Secret." The fact that these records were destroyed was confirmed by rigorous interrogation of the persons involved. The practice seems to be current and can be expected in other localities. All scientific work seems to be classified whether it is directly connected with war work or not because it is necessary to have a classification in order to get priority for materials.

T. R. Hogness to Francis J. Smith. 9 April 1945. Re: Position of German TA Work. [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)]

All papers and data pertaining to nuclear physics were stamped "secret" and two weeks before the Americans arrived in Heidelberg a general order was issued to the effect that all "secret" papers were to be destroyed.

C.S.D.I.C. (U.K.) S.R.G.G. 1163(C). [Recorded conversation of two German prisoners of war held in the United Kingdom. AFHRA A5415 electronic pp. 84–85]

CS/1948—Generalleutnant BOINEBURG (Comd., BERGEN (HANNOVER)) Captd ALLSTADT 13 Apr 45

CS/1963—Generalmajor FRANZ (Comd., 256 V.G. Div.) Captured BIRNFELD 8 Apr 45

CS/1965—Generalmajor GOERBIG (Comd., SENNE, Captured BAD GRUND 10 Apr 45

Information received: 29 Apr 1945

TRANSLATION

(?) FRANZ: I hope HIMMLER doesn't fire V-6 or V-7.

(?) GOERBIG: Do you really think we still have something up our sleeves?

(?) FRANZ: Yes, I believe so most definitely. I mean to say it wasn't ready; they hadn't advanced far enough to be brought into use. But I'm certain that a lot of experiments were in progress; it is a fact that some of those projectiles could be fired as far as NEW YORK or elsewhere.

(?) GOERBIG: Did you get that from a reliable source?

(?) FRANZ: I know that for certain.

(?) GOERBIG: With what effect?

(?) FRANZ: With a colossal explosive effect, a strong detonation which really would wipe out everything within a radius of 2 or 3 km. However, the thing isn't ready for immediate use yet. They couldn't make any progress, but next time they will and next time a think like this starts it'll be ghastly. If HIMMLER and his faithful followers turn up one day with all the patents etc., with a sample, it will not be viewed with displeasure by STALIN. There is a risk of HIMMLER betraying the V-weapon preparations to the Russians: "Here are half-completed inventions which will give you great power. You can have them on such and such conditions."

[See document photos on pp. 4676–4677.

All three prisoners being held together were very high-ranking generals in the German army who had been captured in mid-April 1945, and thus would have known the very latest wartime information that they had had access to. The British personnel who were secretly recording and translating the prisoners' conversation were somewhat uncertain which prisoner was speaking, but believed that the main speaker was General Gerhard Franz (German, 1902–1975).

On the basis of whatever high-level classified information Franz had seen or heard before he was captured on 8 April 1945, he was certain that:

- In addition to the well-known V-1 and V-2, there were at least five or so other new secret weapons systems that were sufficiently revolutionary to be dubbed V-weapons.

- Those weapon systems had definitely reached the point at which "a lot of experiments were in progress," and some were sufficiently mature that Franz thought they might be "fired" in actual combat at any time.

- Some of the new V-weapons could reach New York. Franz believed "it is a fact" they already existed. He also seemed to believe that there were multiple V-weapons that could reach New York and other U.S. cities ("some of those projectiles").

- There was a weapon "with a colossal explosive effect, a strong detonation which really would wipe out everything within a radius of 2 or 3 km." That sounds exactly like a fission bomb, and Franz's certainty implied that it had already been tested.

- The long-range V-weapons were intended to deliver such fission bombs to New York or other Allied targets. While Franz seemed to imply that the long-range delivery methods were ready to be fired and that the fission bomb had been tested, he apparently felt that the integrated systems of the nuclear-armed intercontinental weapons were still being perfected.

- All of these advanced weapons were completely controlled by "Himmler and his faithful followers," not other branches of the government or even Hitler.]

[redacted] mc clusters vs

C. S. D. I. C. (U.K.)

G. G. REPORT

IF THE INFORMATION CONTAINED IN THIS REPORT IS REQUIRED FOR FURTHER DISTRIBUTION, IT SHOULD BE PARAPHRASED SO THAT NO MENTION IS MADE OF THE PRISONERS' NAMES, NOR OF THE METHODS BY WHICH THE INFORMATION HAS BEEN OBTAINED

S.R.G.G. 1163(C)

CS/1948 - Generalleutnant BOINEBURG (Comd., BERGEN(HANOVER))Captd ALLSTADT 13 Apr 45
CS/1963 - Generalmajor FRANZ (Comd., 256 V.G. Div.) Captured BIRNFELD 8 Apr 45
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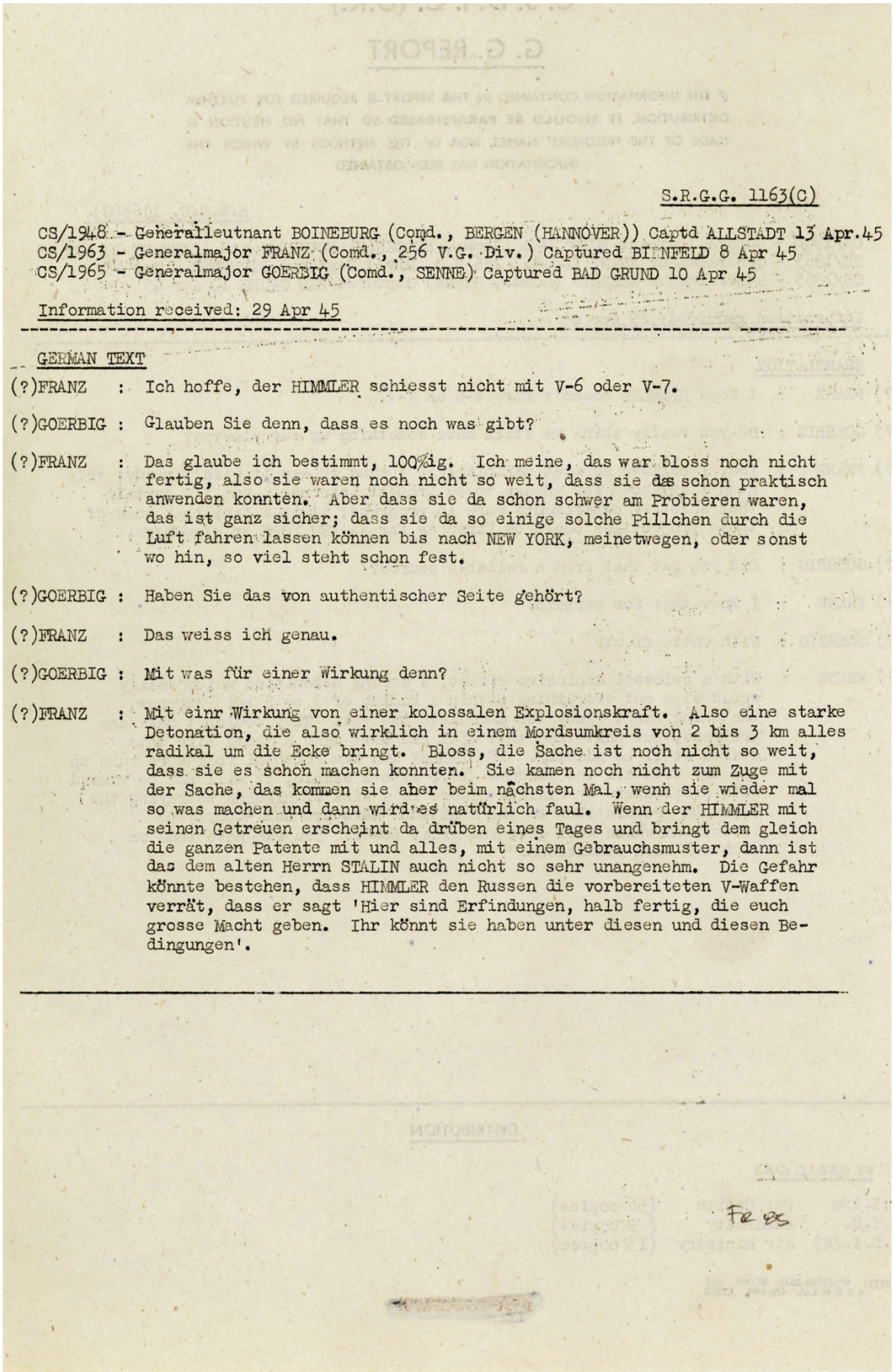
[redacted]

Figure D.781: C.S.D.I.C. (U.K.) S.R.G.G. 1163(C). [Recorded conversation of two German prisoners of war held in the United Kingdom. AFHRA folder 512.619C-6C 1944–1945; AFHRA A5415 electronic pp. 84–85]



S.R.G.G. 1163(C)

CS/1948 - Generalleutnant BOINEBURG (Comd., BERGEN (HANNOVER)) Captd ALLSTADT 13 Apr.45
CS/1963 - Generalmajor FRANZ (Comd., 256 V.G. Div.) Captured BINFELD 8 Apr 45
CS/1965 - Generalmajor GOERBIG (Comd., SENNE) Captured BAD GRUND 10 Apr 45

Information received: 29 Apr 45

GERMAN TEXT

(?)FRANZ : Ich hoffe, der HIMMLER schiesst nicht mit V-6 oder V-7.

(?)GOERBIG : Glauben Sie denn, dass es noch was gibt?

(?)FRANZ : Das glaube ich bestimmt, 100%ig. Ich meine, das war bloss noch nicht fertig, also sie waren noch nicht so weit, dass sie das schon praktisch anwenden konnten. Aber dass sie da schon schwer am Probieren waren, das ist ganz sicher; dass sie da so einige solche Pillchen durch die Luft fahren lassen können bis nach NEW YORK, meinetwegen, oder sonst wo hin, so viel steht schon fest.

(?)GOERBIG : Haben Sie das von authentischer Seite gehört?

(?)FRANZ : Das weiss ich genau.

(?)GOERBIG : Mit was für einer Wirkung denn?

(?)FRANZ : Mit einr Wirkung von einer kolossalen Explosionskraft. Also eine starke Detonation, die also wirklich in einem Mordsumkreis von 2 bis 3 km alles radikal um die Ecke bringt. Bloss, die Sache ist noch nicht so weit, dass sie es schon machen konnten. Sie kamen noch nicht zum Zuge mit der Sache, das kommen sie aber beim nächsten Mal, wenn sie wieder mal so was machen und dann wird es natürlich faul. Wenn der HIMMLER mit seinen Getreuen erscheint da drüben eines Tages und bringt dem gleich die ganzen Patente mit und alles, mit einem Gebrauchsmuster, dann ist das dem alten Herrn STALIN auch nicht so sehr unangenehm. Die Gefahr könnte bestehen, dass HIMMLER den Russen die vorbereiteten V-Waffen verrät, dass er sagt 'Hier sind Erfindungen, halb fertig, die euch grosse Macht geben. Ihr könnt sie haben unter diesen und diesen Bedingungen'.

Fr 85

Figure D.782: C.S.D.I.C. (U.K.) S.R.G.G. 1163(C). [Recorded conversation of two German prisoners of war held in the United Kingdom. AFHRA folder 512.619C-6C 1944–1945; AFHRA A5415 electronic pp. 84–85]

Gordon Young. Dr. V2 Braun Laughs—at London. *Daily Express* (U.K.), Monday, 18 June 1945, pp. 1, 4.

Garmisch-Partenkirchen, Sunday [17 June 1945].

Thirty-four-year-old Dr. Wernher von Braun today told exclusively for the Daily Express the whole story of how he had invented the V2 rockets which bombarded Britain. [...]

I found von Braun in the white-walled bed-sitting-room of General Dornberger, head of the rocket research section.

It is a room in a former museum in this little mountain town in Bavaria, to which rocket scientists from Peenemünde were moved during the Allied advance into Germany.

Here they carried on their V2 experiments right up to the time of the entry of the American Army.

From the start of our talk he made it clear that his one passion in life was the success of his rockets. [...]

"I always thought, and still believe, that rockets will be the future means of high-speed travel."

Here General Dornberger interposed excitedly: "Yes, that's right—why, you may soon be able to develop a rocket plane that will travel at well over 2,000 miles an hour and take you, say, from Europe to America in an hour or so."

"Yes," nodded von Braun. [...]

Von Braun said the maximum range of the rockets used on London was about 225 miles, while that of the best experimental types was about 340 miles. [...]

"And now," said Dornberger, "what we hope is that the world will use our experiences of the last 15 years for rocket development in travel and other ways."

[This story was partially reprinted in other newspapers, for example:

> V2 Rocket Inventor Tells Story of Bomb. *The Advertiser* (Adelaide, Australia), 19 June 1945, p. 4. https://trove.nla.gov.au/newspaper/article/43498163
>
> V2 Rocket Inventor Tells Story of Bomb. *Army News* (Darwin, Australia), 21 June 1945, p. 4. https://trove.nla.gov.au/newspaper/article/47719491

This is one of several independent sources that reported that during the war, Germany successfully produced improved rockets with a range of ∼350 miles (∼560 km) instead of the usual ∼200 miles (∼320 km) for the standard A-4 (V-2), and/or a length of 18 meters instead of the usual 14 meters (p. 5794).

During this 17 June 1945 interview, von Braun and Dornberger appear to have also told Gordon Young about nuclear warheads that were almost ready for the rockets—see the next page.]

Unconditional Bombs for More Jap War Bases Soon: How We Dropped It: By Atomic Raiders. *The Daily Express* (U.K.), 8 August 1945 p. 1, column 1.

[...] General Spaatz, who commanded the U.S. strategic air forces in Europe, said that one of his major worries then was the fear that the Germans had perfected some secret weapon comparable with the atomic bomb.

Date fixed last year

"They were experimenting in this direction in a huge factory at Oranienburg, on the northern edge of Berlin, but we wiped out the factory in a big raid in the spring of this year," he added.

(Gordon Young, cabling from Paris last night, said that the Germans planned to have atomic V2s in use by this month.)

Replying to a question whether the atomic bomb would have speeded the end of the European war, General Spaatz said: "If we had had it, it might have shortened the war by six or eight months. We might not even have had a D Day." [...]

Brigadier-General Thomas F. Farrell, aide to Major-General Leslie Groves, who was in charge of the bomb development programme, disclosed that the date for dropping the first atomic bomb—August 6, 1945—was set well over a year ago.

[George Gordon Young (English, 1908–1963) was a field reporter on staff at *The Daily Express.* He was stationed in continental Europe to find, write, and cable back to the U.K. stories for his newspaper (or others on the wire service) to print. He would not have sent a cable from Paris to his newspaper telling them to add one tangential sentence to an article they had not even finished writing yet—he would have sent a complete story of his own. Judging from the one sentence above, on the evening of 7 August 1945, Gordon Young sent *The Daily Express* an article stating that during the war, the Germans had developed an atomic bomb, had adapted a V-2 rocket to carry it, and had made definite plans to begin launching nuclear-armed V-2 rockets at Allied targets by early August 1945 if the war had continued. Gordon Young interviewed Wernher von Braun and Walter Dornberger in Germany on 17 June 1945 (p. 4678), so this information appears to have come directly from them. The following sequence of events seems likely:

- Gordon Young presumably wrote a story about German plans to launch nuclear-armed V-2s immediately after interviewing von Braun and Dornberger on 17 June 1945. Finding and immediately reporting sensational stories was what he was paid to do.

- A story about atomic bombs, and certainly German atomic bombs, would have been rejected by government censors in June 1945, when the United States was still racing to finish its own highly classified atomic bomb program. This general policy is confirmed by the document on p. 5018, and the censors' specific rejection of Young's June 1945 story is confirmed in the following documents.

- Young did publish a story about von Braun and Dornberger in June 1945, but it mostly covered the well-known conventional V-2 program, with two somewhat cryptic mentions of improved rockets (p. 4678).

- Once the United States dropped an atomic bomb on Japan and publicly announced its capabilities to the world, Gordon Young must have decided to submit an updated version of his original atomic V-2 story for publication, now that (he thought) atomic censorship had been lifted. He filed his story on the evening of 7 August and expected it to be published on 8 August 1945.

- Young's atomic V-2 story, announced in advance by the one sentence in the article above, never appeared in *The Daily Express* or any other European or American newspapers. The government censors must have still banned the story.

- However, as shown below, a version of Young's story went out on the wire to affiliated newspapers in Australia, and a few of them published it before the censors realized what happened.

- The story as it appeared in the Australian newspapers is curiously brief, as if parts were still cut out. Perhaps the Australian newspapers received a brief summary of Young's story, and not the actual story itself. Alternatively, maybe the cautious newspaper editors significantly censored the story themselves, or maybe a government censor in charge of Australia had at least approved part of the story.

- In any event, the Australian stories do reveal the basic details: there was a German atomic bomb, there were V-2 rockets designed to carry that it, and there were detailed plans to begin launching such nuclear-armed rockets by early August if the war had continued. The Australian stories also explicitly confirmed that government censors had prevented Young from publishing his story in June 1945.

- The story was never mentioned again by Gordon Young. The censors were almost entirely successful in erasing the history of what had really happened.

However, in 1947, Squadron Leader E. J. André Kenny (one of the most important British aerial photo interpreters for Operation Crossbow) confirmed that von Braun "had spoken of atomic energy at Garmisch, in 1945" (p. 5763).

See also the testimony given by former Nordhausen forced laborer Alex Baum (p. 5335). Baum remembered that von Braun eagerly expected the arrival of a new rocket warhead with tremendous destructive power.

For further evidence of rockets with nuclear warheads, see the summary of the interrogation of engineer Horst Kirfes (p. 4532), as well as the July 1946 *AAF Review* (p. 5038).

For additional references that escaped historical censorship and mentioned nuclear-armed rockets that were intended to attack Allied targets during the war, see the list of documents on p. 5821.]

Hitler's Physicists Hoped to Blast British Cities with Atomic Bombs. *The Mercury* (Hobart, Tasmania, Australia) 9 August 1945 p. 2. https://trove.nla.gov.au/newspaper/article/26155313

Radio-steered rockets with atomic bombs in their warheads to blast British cities were "weapons to end war," which Hitler's scientists hoped to produce, says Gordon Young, "Daily Express" correspondent in Paris.

"When I met the rocket inventor, Prof von Braun, and Gen Dornberger, head of the Wehrmacht's rocket research branch, they referred to 'much more powerful explosive' with which they had planned to load V-2s," Young says.

"There seemed little doubt that they envisioned the atomic bomb, but nothing could be written then because of a censorship ban.

"The explosion which shattered Hiroshima will have blasted the hopes of von Braun, Dornberger, and 400 other German research workers under guard in Bavaria that the German general staff might be able to keep their atomic bomb for use in another war after just—but only just—failing to use it in this.

"A member of the American Embassy in London recently disclosed that the Germans hoped to have the atomic bomb ready this month."

Nazis Planned to Link Atomic Bomb with V-2's. *The Courier Mail* (Brisbane, Queensland, Australia, 9 August 1945 p. 2). https://trove.nla.gov.au/newspaper/article/50272870

LONDON, August 8 (Special).—Hitler's scientists hoped to produce radio-steered rockets, with atomic bombs in the war heads.

The Daily Express correspondent in Paris, reporting this, says that the rocket inventor (Professor von Braun) and the head of the Wehrmacht Rocket Research (General Dornberger) had referred to "much more powerful explosives" with which they planned to load V-2's.

"There is little doubt that they envisioned the atomic bomb," he writes.

"The explosion which shattered Hiroshima will have blasted the hopes of von Braun, Dornberger, and 400 other German research workers under guard in Bavaria."

The German General Staff had no doubt planned to keep their atomic bomb for use in another war after just—but only just—failing to use it in this.

An American of the Embassy staff in London recently disclosed that the Germans hoped to have had their atomic bomb ready this month.

[The above version of the article from *The Courier Mail* was also reprinted verbatim (with only a few punctuation changes) as: Nazis Planned Atom Rocket. *Army News* (Darwin, Australia) 16 August 1945 p. 3. https://trove.nla.gov.au/newspaper/article/47723184

Note that these stories also reference Herbert Agar's June 1945 statement that Germany had planned to use atomic bombs by 6 August 1945; see pp. 5017–5018.]

August 1945. Germany, Anglo-American controlled. [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)]

Political:
The first reaction was one of astonishment. Then came widespread comment. Everyone is glad that the US and not Russia has the bomb. [...]

Scientific:
A Reuters report states that most of the German scientists who had worked on the atomic bomb are living in the US zone. Other reports indicate that the Germans used heavy water from Norway. Keitel indicated that the Germans never got out of the theoretical stage. There is a widespread rumor in Germany that the bomb was a Hitler invention that had [been] on the verge of completion at the time of the collapse of Germany. Subsequently it was stolen by the allies and used against Japan. [...]

[See document photo on p. 4683 top.]

H. W. Dix to Francis J. Smith. 23 August 1945. [NARA RG 77, Entry UD-22A, Box 174, Folder 10.70 Austria Misc]

From Salzburg, Germany we have received comments dated August 21 about the bomb and the reaction thereto. The cable answer is as follows:

> REACTION TO ATOMIC BOMB IN WESTERN AUSTRIA LARGELY RELIEF AT FACT THAT AMERICA HAS PERFECTED WEAPON WHICH MAY BECOME CHECK ON FURTHER RUSSIAN MILITARY EXPANSION. WIDESPREAD BELIEF THAT BASIC MATERIALS FOR IT AVAILABLE IN QUANTITY ONLY IN AMERICA AND BRITAIN. RUMORS CIRCULATING IN SOME QUARTERS THAT ATOMIC BOMB REALLY GERMAN INVENTION.

[See document photo on p. 4683 bottom.]

Germany. Anglo-American controlled:

Political:
The first reaction was one of astonishment. Then came widespread comment. [redacted]. Everyone is glad that the US and not Russia has the bomb. The serious implications of the bomb were not overlooked, and in the event of another war it was felt that it might mean the end of civilization. In Berlin the majority were interested in the peacetime implications of the weapon. The majority opinion was that the US retain control of the weapon, although a minority wanted it placed under international control. All felt that the quicker the Japanese war was over, the quicker Germany's pressing problems would be taken care of, and since the atomic bomb stopped the war, it was a great blessing.

Scientific:
A Reuters report states that most of the German scientists who had worked on the atomic bomb are living in the US zone. Other reports indicate that the Germans used heavy water from Norway. Keitel indicated that the Germans never got out of the theoretical stage. There is a widespread rumor in Germany that the bomb was a Hitler invention that had on the verge of completion at the time of the collapse of Germany. Subsequently it was stolen by the allies and used against Japan.

Military:
The newspapers state that there is no doubt that this weapon was developed for use against Hitler Germany, and that total destruction of Germany was avoided only by the early collapse.
Von Ribbentrop stated that now no one would be so foolish as to start a war.
Goering stated "A might accomplishment. I don't want anything to do with it, I am leaving this world." Then he added that this made the battleship impractical, although it is true in the past a defense has been evolved against every offensive weapon.
Kesselring stated that the bomb opened up an as yet unsurveyed era in aerial technique. The military effect would be the wiping out of an entire target area, either above or below ground and water. Adequate defense appeared at present impossible. The revolutin in the methods of warfare are here.

NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945-1946)

DECLASSIFIED
Authority NND 947017

S E C R E T

OFFICE OF STRATEGIC SERVICES
WASHINGTON 25, D. C.

23 August 1945

AA-211

To : Maj. Francis J. Smith, Engrs.
5116 New War Dept. Bldg.

From: Technical Section
Col. H. W. Dix HWD

From Salzburg, Germany we have received comments dated August 21 about the bomb and the reaction thereto. The cable answer is as follows:

REACTION TO ATOMIC BOMB IN WESTERN AUSTRIA LARGELY RELIEF AT FACT THAT AMERICA HAS PREFECTED WEAPON WHICH MAY BECOME CHECK ON FURTHER RUSSIAN MILITARY EXPANSION. WIDESPREAD BELIEF THAT BASIC MATERIALS FOR IT AVAILABLE IN QUANTITY ONLY IN AMERICA AND BRITAIN. RUMORS CIRCULATING IN SOME QUARTERS THAT ATOMIC BOMB REALLY GERMAN INVENTION.

NARA RG 77, Entry UD-22A, Box 174, Folder 10.70 Austria Misc

Figure D.783: Top: August 1945. Germany, Anglo-American controlled. [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)]. Bottom: H. W. Dix to Francis J. Smith. 23 August 1945. [NARA RG 77, Entry UD-22A, Box 174, Folder 10.70 Austria Misc].

C.S.D.I.C. (U.K.) G.R.G.G. 341. [Recorded conversation of Walter Dornberger and several other high-ranking German prisoners held in the United Kingdom after the war. AFHRA folder 512.619C-5F 1945, IRIS 212009; AFHRA A5414 frames 760–775; TNA WO 208/4178]

Report on information obtained from Senior Officer PW on 28 Jul – 7 Aug 45 [...]

V THE ATOM BOMB

1. Generalleutnant DORNBERGER gave to SS-Obergruppenführer v. HERFF and Generalleutnant HEIM the following account of German attempts to split the atom:

DORNBERGER: Our people [at Peenemünde] tried to split the atom by means of high tension current. About 50 [or 5 or 15, if misheard by the translator or misremembered by Dornberger?] million volts are needed to get the pitchblende [uranium oxide], mixed with heavy water, to disintegrate. But the amount of energy released was only as much as that put in. We haven't yet got it to the stage where the process will continue independently. That was the result obtained in 1941. There is also another method, not with high tension [voltage] but with some kind of static tension [pressure]. It's not the destruction of the atom, but the disintegration of the atom. That can be harnessed, and considerably less energy is needed. It's done by chemicals which disintegrate [chemical explosives]. That is what this [Hiroshima] appears to be, because chemists were largely involved in those experiments, and not nearly so many physicists.

DORNBERGER (Cont'd): I wanted Professor [Wernher von] BRAUN to give us a lecture on the atom bomb, as the results of the research work could have materially influenced the development of the V-weapons.

DORNBERGER also spoke as below to HEIM and Generalmajor BASSENGE:

DORNBERGER: The IO [interrogation officer] also asked me if we intended to produce one, radio-activated—

HEIM: Was it something to do with your thing?

DORNBERGER: Yes, with tungsten(?) as the motive power. It would be a fine thing if they had it, but I don't believe they can direct the rays. That is the decisive thing we need. Because the speed is a hundred times great than that of our ..... which we have now. [This seems to have been a description of using nuclear energy to obtain much higher exhaust velocities for rocket propulsion.]

[...]

VI THE 'V 2'

1. Generalleutnant DORNBERGER stated as below to Generalleutnant HEIM that HITLER had publicly apologised for his failure to appreciate the full worth of the 'V 2' weapon:

DORNBERGER: The following incident was interesting: When I saw the Führer the last time, which was in May 1943, after I'd shown him a film about us, he was quite taken aback. Formerly

the Führer had always turned the V-2 business down 100%. He said: "If only I'd believed in it!" "If it really comes to anything, Europe is too small for the war", and all kind of things like that. Then he said: "There are two people in my life whose pardon I must ask. One is Generalfeldmarschall v BRAUCHITSCH, who said at the end of each report he made to me: "My Führer, think of Peenemünde!", and the other is you, general, for not having believed in you."

HEIM: It's incredible that he admitted it.

DORNBERGER: he admitted it in front of Keitel and the others.

HEIM: I believe that really is the only thing he ever admitted in his life.

2. DORNBERGER claimed, on the other hand, that he had begged the Führer to stop the V-weapon propaganda, because nothing more could be expected from just one ton of explosive. To this Hitler had replied that DORNBERGER: might not expect more but he himself certainly did.

3. DORNBERGER alleged in the following passage with Generalmajor BASSENGE that the Russians had made offers to men concerned in "V 2" development and had undertaken to double any bids from the American side:

DORNBERGER: The Russians sent one of my engineers to me when I was with the Americans, who told me under the seal of secrecy that he had such and such an offer to make to us on behalf of the Russians. We were to go back to Peenemünde. Peenemünde would be rebuilt and a parallel factory in Russia, and they offered us double what the Americans were offering us, and we could move our families with us and all that sort of thing. We turned it down flat. They tried again to kidnap our leading lights from us—BRAUN at Witzenhausen(?). They appeared at night time in English uniform; they didn't realize it was the American zone. They came to us and wanted to come in. They had a proper pass. But the Americans were quick to realize it and wouldn't let them in. So they got into cars and drove off again. That's how the people work. Real kidnapping, they don't stick to the boundaries at all.

4. DORNBERGER spoke to Generalleutnant HEIM as below about his intention to sell his services to the best bidder:

DORNBERGER: If the English make me a better offer than the Americans within the next fortnight, I'm preparing to work for them at Vancouver. I have given instructions that nothing is to be signed yet., Actually I don't want to work for the English at all, I only want to play them off against the Americans.

5. Asked by Generalmajor v. PFUHLSTEIN whether he spoke English, DORNBERGER replied that with the Englishmen he did not do so on principle. He could understand them quite well but it gave him more time if he pretend otherwise. To PFUHLSTEIN's suggestion that he should not weaken his position by giving too much away, DORNBERGER replied that he intended to reveal no real technical secrets noting of decisive value. Asked by Generalleutnant HEIM whether he was going to America to work there, he replied that he was, or rather that he did not know whether, as a 'general' he would be allowed to go there.

6. DORNBERGER stated to General FINK that KAMMLER had been ordered by the Führer not

to let BRAUN, DORNBERGER and the 450 scientists and technicians at Peenemünde fall into Anglo-American hands but to liquidate them all beforehand.

7. DORNBERGER, in conversation with Generalmajor BASSENGE, made the following miscellaneous remarks dealing with the 'V 2'. He said that:

a. 720 persons were killed in the first raid on PEENEMÜNDE [17 August 1943] and all the work there suffered two months' delay.

b. In POLAND, at the HEIDELAGER, they had once fired a 'V 2' into a concentration camp. He consoled himself with the thought that that would be chalked up to the SS and not to themselves.

c. A German general in a Russian tank had one day appeared in front of one of DORNBERGER's 'Regimenter' which was near ARNSWALDE and had called upon its members by megaphone to come over to the Russians. He had promised them that the TCHOCHINSKI Works were waiting to receive them and would pay them the maximum wages to build 'V 2s' for STALIN.

d. BRAUN and DORNBERGER himself had realised at the end of December 1944 that things were going wrong and had consequently been in touch since that time with the General Electric Company through the German Embassy in Portugal, with a view to coming to some arrangement.

VII GERMAN ATROCITIES

[...]

DORNBERGER: Look, what a fuss they've made about all those concentration camps. In the first place, one can counter them simply, because all the [unsupportive?] ministers and officials have been in concentration camps, and if things had gone as badly as that with them, they wouldn't be alive. Of course, swinish things did happen. At Nordhausen Standartenführer BEHR (?) said: "We've got 6000 people who are ill and cannot be taken away; what shall we do with them?" KAMMLER said: "Get rid of them!" He said: "How am I supposed to get rid of 6,000 people?" "Oh, take them to that rock and then blow it up over them, and then the matter's settled." That's how he dealt with people. The Allies are very much after him. The fellow was ruthless. In Holland, he made Dutchmen build the sites for the V 2, then he had them herded together and killed by MG fire. He opened brothels for his soldiers with 20 Dutch girls. When they'd been there a fortnight they were shot and new ones were brought along, so that they couldn't divulge anything they might discover from the soldiers.

VIII THE 20TH JULY 'PUTSCH'

[...]

They shot FROMM, quite recently, perhaps a fortnight before the collapse. HIMMLER had a persecution mania. He had me arrested on 27 Apr, for not carrying out orders. I only got away thanks to KAMMLER, who was also to be arrested. We both drove off to Garmisch.

[See document photos on pp. 4688–4691.

Dornberger and the other high-ranking German prisoners may have suspected that their conversations were being monitored and thus withheld information or provided false information. Nonetheless, the details given in the preceding document at least sound credible.

This is only an English translation of the German conversations. If a German version was typed up, it was either destroyed or not included with the English copy in this file. Can a German version be located in other archival files? The English translation does not choose the optimum words for translating scientific German, since the translator was probably not overly familiar with scientific details. While it would be better to have the original German transcript, one can still make sense of the English version.

In Section V, Dornberger appeared to describe three different nuclear approaches:

1. An accelerator-driven subcritical fission reactor, with less than a critical mass of unenriched uranium dioxide fuel in heavy water, with a 50(?)-MeV particle beam (either an electron beam from a betatron or an ion beam from a cyclotron) focused on the uranium to initiate and maintain fission reactions. Dornberger said this experiment occurred in 1941, apparently at Peenemünde. It is unclear if larger or more sophisticated experiments were conducted later or at other locations. Even the 1941 experiment could be suitable for electronuclear breeding of plutonium if it were continued long enough and done at sufficient scale (pp. 5133–5134). There were numerous other reports of similar experiments (pp. 3020–3091, 3954–4022, 4504–4510).

2. An approach using chemical explosives to create high pressure, which would then cause the fission of a mass of uranium, resulting in the sudden release of a large amount of nuclear energy. This seems like a clear reference to a fission implosion bomb; there were numerous other reports of the same design (Section D.8). Dornberger was apparently prompted to make this remark by news of the U.S. bombing of Hiroshima. He said that during the war, he wanted Wernher von Braun to give the other Peenemünde staff a lecture on the (apparently quite real) German atomic bomb, since it was intended to be a payload for their rockets.

3. A method of using fission power to obtain much higher rocket exhaust velocities than were possible with chemical rocket propellants. Unfortunately only a snippet of this conversation was recorded and translated, so it is unclear which of several possible nuclear rocket propulsion approaches Dornberger was referring to.

If the SS was willing to launch a V-2 rocket into a Polish concentration camp as Dornberger mentioned here, one could envision the SS also testing a fission bomb on a Polish concentration camp as reported by a number of sources in Section D.11. Perhaps those were even the same test, if the fission bomb was delivered by a rocket instead of an aircraft or other means.

Dornberger said that he and von Braun had been in touch with U.S. representatives months before the end of the war. This information raises an enormous unanswered historical question: How much contact did the Allies have with key German officials, and how much did those contacts influence the course of the war, especially in the final months of the war?

Can U.S./U.K. transcripts and reports on postwar interrogations of Dornberger and von Braun be located and declassified?]

THIS PAGE IS DECLASSIFIED IAW EO 13526

C.S.D.I.C. (U.K.) G.R.G.G. 341, AFHRA folder 512.619C-5F 1945, IRIS 212009

[redacted]

USSTAF (Rear) 1 copy

McClinton coffin control file

C. S. D. I. C. (U.K.)

G. G. REPORT

IF THE INFORMATION CONTAINED IN THIS REPORT IS REQUIRED FOR FURTHER DISTRIBUTION, IT SHOULD BE PARAPHRASED SO THAT NO MENTION IS MADE OF THE PRISONERS' NAMES, NOR OF THE METHODS BY WHICH THE INFORMATION HAS BEEN OBTAINED.

G.R.G.G. 341

Report on information obtained from Senior Officer PW on 28 Jul – 7 Aug 45

The following are the names and secret numbers of the PW referred to in this report:-

M	159	General der Panzertruppen	Von THOMA (GOC German AFRIKAKORPS)	Captured MIDDLE EAST	4 Nov 42
A	1200	Generalleutnant	NEUFFER (GOC 20th Flakdivision)	Captured TUNISIA	9 May 43
A	1201	Generalmajor	BASSENGE (GOC Air Defences TUNIS & BIZERTA)	Captured TUNISIA	9 May 43
M	179	Generalleutnant	Von BROICH (GOC 10th Pz. Div.)	Captured TUNISIA	12 May 43
M	199	Oberst	REIMANN (OC Pz. Gren. Regt 86)	Captured TUNISIA	12 May 43
CS/	22	Generalleutnant	Von SCHLIEBEN (Comd., CHERBOURG)	Captured CHERBOURG	26 Jun 44
CS/	204	Generalleutnant	ELFELDT (Comd., LXXXIV Korps)	Captured near TRUN	20 Aug 44
CS/	274	Generalmajor	WAHLE (Comd., 47 ID)	Captured near MONS	4 Sep 44
LF/	104	Oberst	WILDERMUTH (Festungskommandant LE HAVRE)	Captured LE HAVRE	12 Sep 44
CS/	443	Generalleutnant	HEIM (Commandant BOULOGNE)	Captured BOULOGNE	23 Sep 44
CS/	967	Oberstleutnant	Von der HEYDTE (Comd., Fallschirmjäger Kampfgruppe von der HEYDTE)	Captured MONSCHAU	23 Dec 44
CS/	2227	General der Infanterie	RÖHRICHT (OKH Pool, formerly Comd. LIX AK)	Captured ARTFELD	1 Apr 45
CS/	1850	Generalmajor a.D.	Von PFUHLSTEIN (Former Comd., Brandenburg Div.)	Surrendered WERTHEIM a/M	2 Apr 45
CS/	1999	Generalmajor	KÖNIG (Comd., 12 VGD)	Captured WUPPERTAL	18 Apr 45
CS/	1986	General der Flieger	FINK (Luftgaukommando VII)	Captured HEGGBACH	23 Apr 45

/over

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R-2293

[redacted]

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[redacted]

CS/	2125	Generalleutnant	DITTMAR (Oberkommando des Heeres)	Captured near MAGDEBURG	25 Apr 45
CS/	2379	Generalleutnant	DORNBERGER (Beauftragter zbV des Heeres Werke GMBH)	Captured GARMISCH PARTENKIRCHEN	2 May 45
CS/	2117	SS Obergruppenführer General der Waffen SS	Von HERFF (Chef des Personal Hauptamtes)	Captured FLENSBURG	9 May 45

[redacted]

[redacted]

Continuation of C.S.D.I.C. (U.K.) G.G. Re

- 1 -

I ARRIVAL

Generalleutnant Walter DORNBERGER, 'Beauftragter z.b.V. der Heeres Werke G.m.b.H.' and Inspector of the Long-Range Rocket Arm (Inspekteur der Fernraketentruppe), has now arrived at No. 11 Camp.

DORNBERGER is 49 years old and a Protestant; his home is in BERLIN. He was captured at GARMISCH-PARTENKIRCHEN on 2 May 45.

Some details of his career are as follows:

1914–18	Served as an artillery officer.
Early 1930s	In charge of 'Abteilung Versuch West' at KUMMERSDORF artillery range, set up for the purpose of rocket experiments. Held the rank of 'Hauptmann'.
1933	Chief adviser to the Department for Development and Testing of Weapons (Amtsgruppe für Entwicklung und Prüfung von Waffen), of which his 'Abteilung Versuch West' formed a section.
1935–36	His ideas for powder-fuel rocket propulsion were adopted with a view to the laying of smoke-screens and the 'Nebelwerfertruppe' was accordingly formed. The 'Do-Geräte' took their name from him. Promoted 'Major' and Group Leader (Gruppenleiter) of Group 'D' (DORNBERGER). Persuaded the Army Ordnance Branch to take up liquid-fuel rocket propulsion, as a result of which PEENEMÜNDE experimental site came into being.
1937–38	Promoted and made head of the Testing Department, later 'Wa-Prüf' Department 11, which grew out of his Group 'D'. Appears to have exercised a general supervision over rocket developments since that time.

The story of rocket development as seen by a PW who served under DORNBERGER and described by him in interrogation has been published as S.R.M. 1264.

II DEPARTURES

The following have now left No. 11 Camp and will, therefore, no longer figure in reports in this series:

General der Infanterie	THUMM (Führerreserve OKH)	Captured WELZHEIM	19 Apr 45
SS-Obergruppenführer	Von HERFF (Chef des Personal Hauptamtes)	Captured FLENSBURG	9 May 45
Generalleutnant	SIEWERT (Führerreserve OKH)	Captured NIENDORF LÜBECK	4 May 45
Generalmajor	Von FELLERT (Feldkommandantur 560 BESANÇON)	Captured LANDRESSE	5 Sep 44
Generalmajor	KOHLBACH (Wehrbezirks Kdo. GELSENKIRCHEN-RECKLINGHAUSEN)	Captured WIEDENBRUGGE	9 Apr 45
Generalmajor	KÖNIG (Comd., 12 VGD)	Captured WUPPERTAL	18 Apr 45

III POST-WAR GERMANY

1. The British Labour Government and Post-War GERMANY

a. Generalleutnant ELFELDT and Oberst WILDERMUTH discussed as follows the possible attitude of the British Labour Government towards GERMANY:

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- 2 -

ELFELDT : As regards GERMANY, I think it quite possible that German workers won't be worse off than they would have been under a CHURCHILL government; I think their efforts to form trades unions, and the struggles of the working class will get better support than they would have under CHURCHILL. We shall not get out from here.

WILDERMUTH: More than that will happen. For one thing the Labour Party is more in favour of a reconciliation of nations than the Tories were; secondly they are convinced that GERMANY will be needed as an economic factor in world economy. They take a longer view than the average Tory does. Both these factors will have a favourable effect on our situation. Unfavourable for our situation will be the fact that the Labour Party will not stand up to the Russians as CHURCHILL did. Firstly their social reforms; their economic situation is in a state of revolution – it means a revolution for ENGLAND – a switch-over from 'free economy' to 'planned economy'. That's the point. To achieve that switch-over they need peace without any foreign-political disturbances; they'll be prepared to pay a high price for it, especially if we have to pay the price and not they themselves. That's the disadvantage.

ELFELDT : For instance, in my opinion one thing which will undergo a decisive turn for the bad is this war criminal business.

b. Generalmajor BASSENGE and Generalmajor WAHLE speculated as below upon the Allied attitude to the re-emergence of political opinion in GERMANY:

BASSENGE : (Re: BBC news). What did you think of what was said about the expression of political opinion in GERMANY? They said it was not possible because so many young men were still in PW camps, or something like that.

WAHLE One can't tell whether that's the real reason.

BASSENGE : No, but what did you make of it? That was the interpretation they gave; I noticed that; it was the first time that they had said anything like that.

WAHLE : Well, they don't want to have a united GERMANY at first, and they've got to have some excuses for that, and this is one of those excuses; even to-day's papers put it like that.

BASSENGE : So did you understand it in the same way as I have just said?

WAHLE : Yes, they don't want GERMANY to come into the political picture again yet; they want to leave that until later on, and it's not difficult to find some excuse or other for that.

BASSENGE : No, they have absolute power, the power of the Tartars.

WAHLE : Of course, we have gone from one dictatorship to another, we poor fools.

BASSENGE : The moment a united GERMANY with a government of its own appears, then the antagonism between East and West will become still more evident, so everyone would much rather fish in troubled waters for the present and then see which way the wind blows.

WAHLE : Of course, that's just what I made of it too.

/3

[redacted]

Figure D.784: C.S.D.I.C. (U.K.) G.R.G.G. 341 [Recorded conversation of Walter Dornberger and several other high-ranking German prisoners held in the United Kingdom after the war. AFHRA folder 512.619C-5F 1945, IRIS 212009; AFHRA A5414 frames 760–775; TNA WO 208/4178].

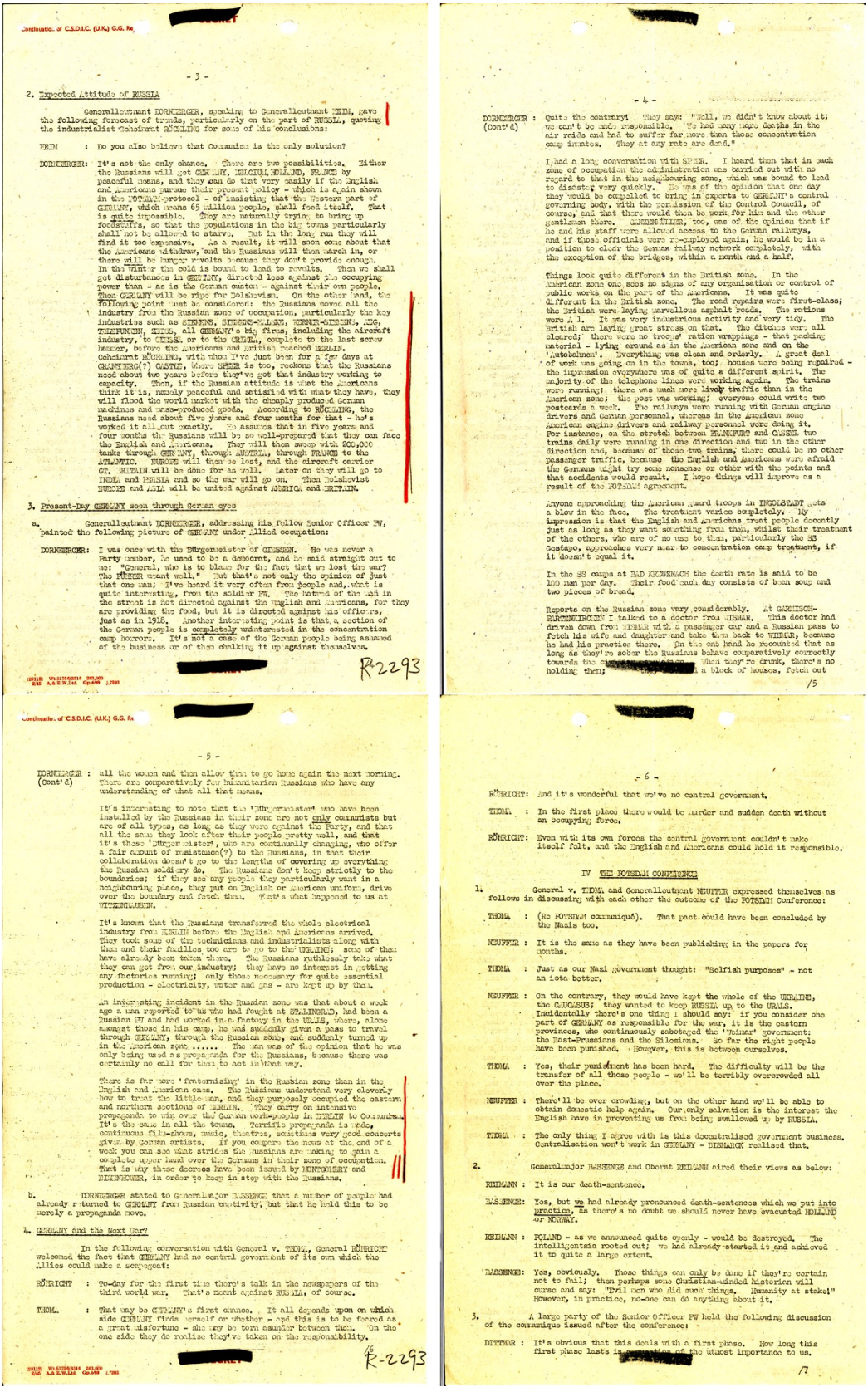


Figure D.785: C.S.D.I.C. (U.K.) G.R.G.G. 341 [Recorded conversation of Walter Dornberger and several other high-ranking German prisoners held in the United Kingdom after the war. AFHRA folder 512.619C-5F 1945, IRIS 212009; AFHRA A5414 frames 760–775; TNA WO 208/4178].

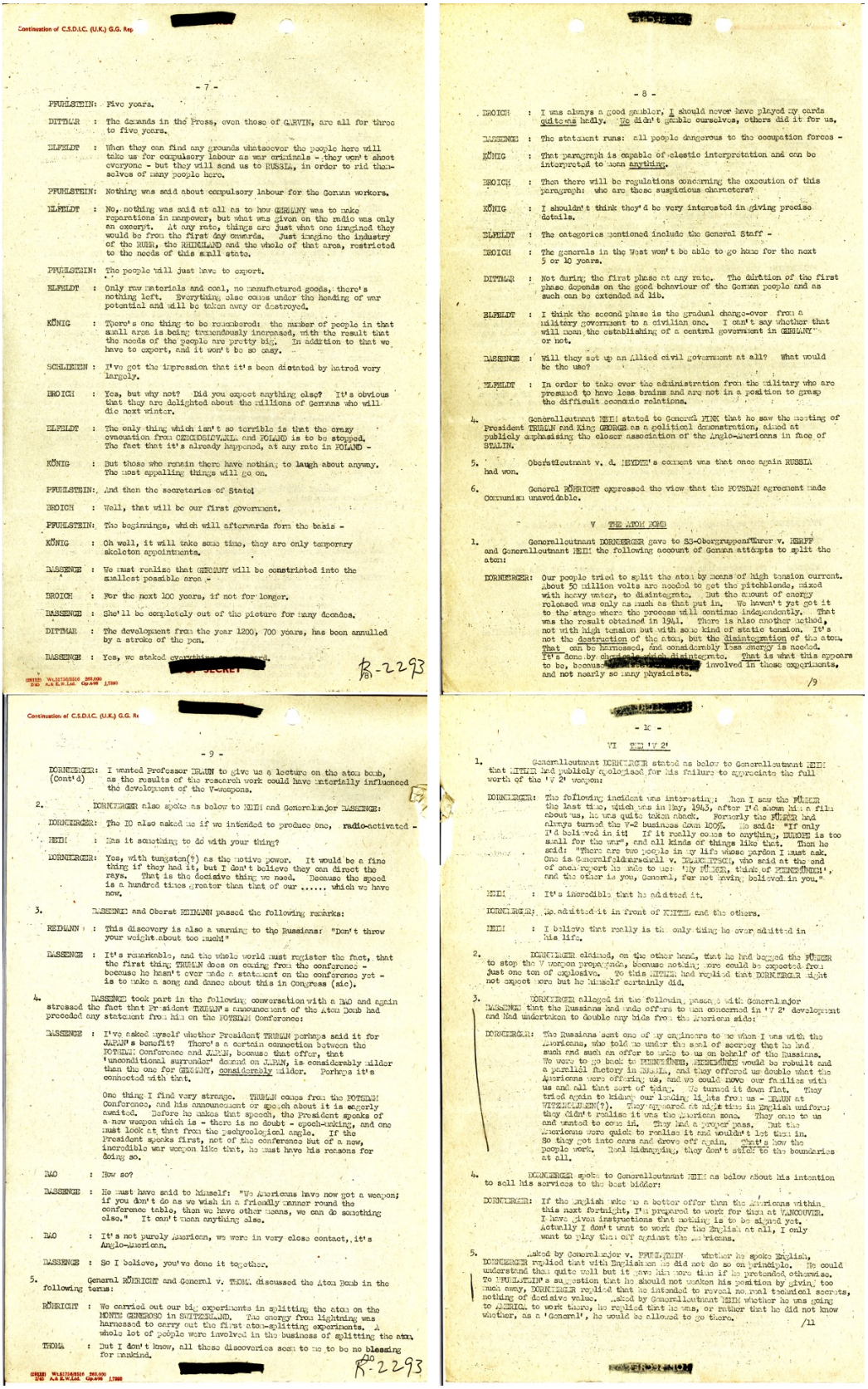


Figure D.786: C.S.D.I.C. (U.K.) G.R.G.G. 341 [Recorded conversation of Walter Dornberger and several other high-ranking German prisoners held in the United Kingdom after the war. AFHRA folder 512.619C-5F 1945, IRIS 212009; AFHRA A5414 frames 760–775; TNA WO 208/4178].

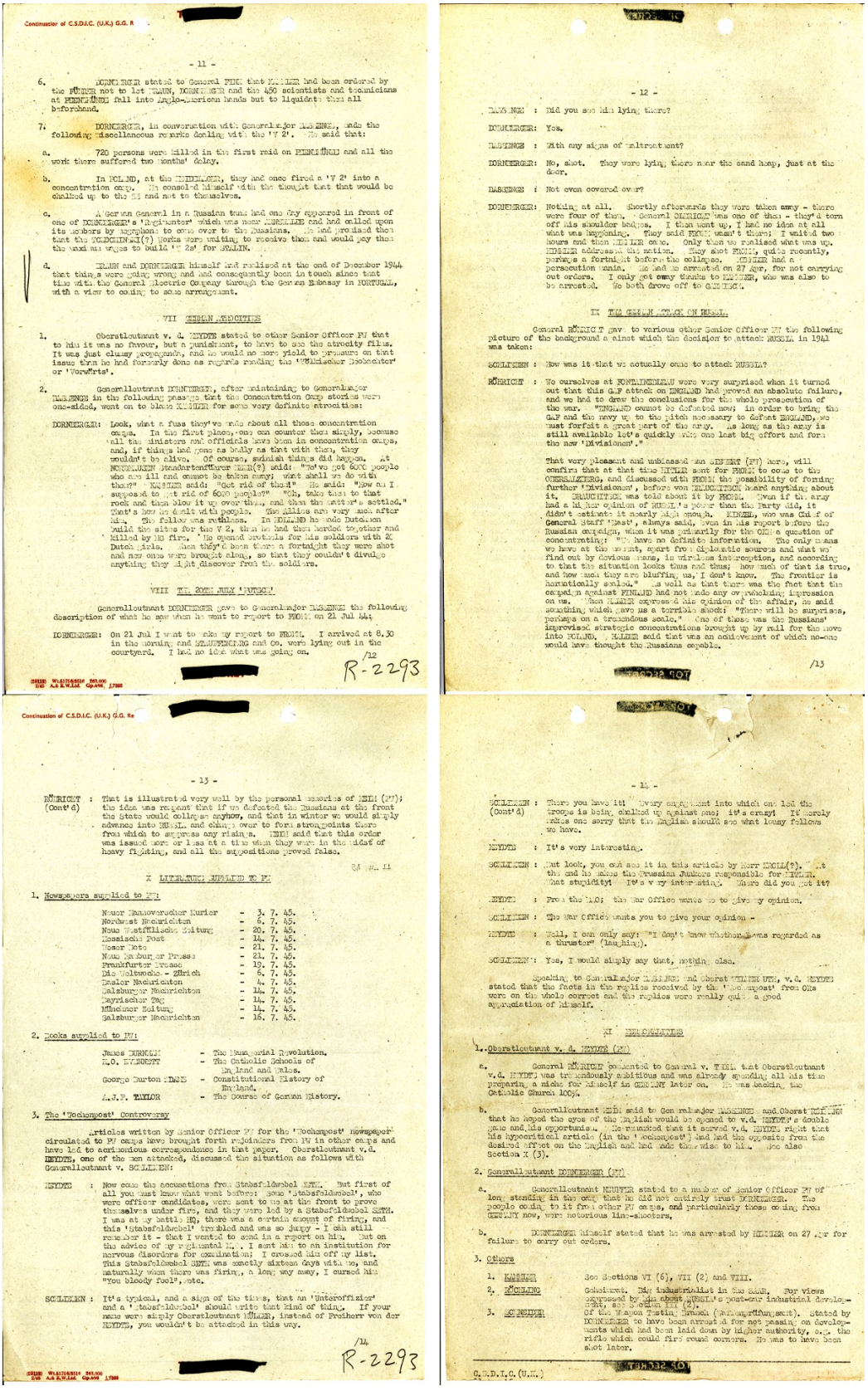


Figure D.787: C.S.D.I.C. (U.K.) G.R.G.G. 341 [Recorded conversation of Walter Dornberger and several other high-ranking German prisoners held in the United Kingdom after the war. AFHRA folder 512.619C-5F 1945, IRIS 212009; AFHRA A5414 frames 760–775; TNA WO 208/4178].

D.14 Allied Belief in the Reality of German Nuclear Weapons

[Both during and after the war, highly placed Allied officials expressed belief in the reality of advanced German nuclear weapons programs. In fact, it appears that after the war, the four major Allied countries found and benefited from materials and expertise from the German nuclear weapons program. All of the relevant wartime and postwar reports with the detailed evidence remain classified or missing entirely from archives. Nonetheless, enough sources are available to prove that those reports did indeed exist, and presumably still do exist.

For convenience, this section is divided into categories of intelligence sources:

D.14.1. U.S. presidential intelligence.

D.14.2. Alsos and other Manhattan Project intelligence.

D.14.3. Dutch intelligence.

D.14.4. French intelligence.

D.14.5. German and Japanese submarines.

D.14.6. High-level interrogations.

D.14.7. U.S. inspections of possible nuclear facilities.

D.14.8. German and Austrian scientists in the United States.

D.14.9. Other intelligence services.

D.14.10. Fritz Lang and the leak that almost revealed everything.

D.14.11. Allied intelligence officials who would/should have known.

Some examples of Allied wartime and postwar intelligence include:

- Vice President Henry Wallace, Vannevar Bush, George Strong, and other top U.S. officials were actively investigating the German nuclear program in 1942 and 1943, but their reports are still classified and unavailable to the public (pp. 4699–4700). Why?

- In two December 1943 cables to Washington, the U.S. Military Attaché in Istanbul warned that "an engineer of the Todt organization revealed in Sofia that the Germans now possess a new type of incendiary far surpassing anything yet used in warfare. The engineer intimated that London would suffer a fate worse than that of Berlin or Hamburg in the near future." The reports added: "The Germans have a weapon in preparation which is more devastating than anything we have ever seen" (pp. 4588–4588). Germany had been mining uranium in Sofia since 1938 (Section 8.8.3).

- In July 1944, Manhattan Project physicists Philip Morrison and Karl Cohen analyzed available intelligence on the German nuclear program and concluded (p. 4739): "Recent evidence essentially confirms our earlier general statements on enemy bomb production. The reports now at hand lead us to conclude: A German "Y" [enrichment] project has been underway since early 1943. A D_2O pile is in operation, but we do not believe that this is on production level. [...] In either case the first completed device could be in enemy hands now." Just exactly what evidence did the United States possess?

- The *Daily Telegraph and Morning Post* reported that in August 1944, the British government had intelligence that Germany was preparing "an atomic bomb" with "an explosive radius of more than two miles," or three kilometers (p. 5011). As noted in Section 8.8.5, 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.

- In September 1944, the *Los Angeles Times* reported that invading U.S. troops in France had found evidence that Germany was preparing a rocket-launched bomb "with an explosive radius of three kilometers" (p. 5012). What exactly was the evidence, and where are the official reports?

- Margaret Suckley, Franklin Roosevelt's secretary, wrote in her diary on 9 December 1944 that Roosevelt had received reliable reports that the Germans had successfully developed a bomb capable of killing everything within a mile and that the German program was "way ahead" of similar U.S. research (p. 4703).

- A tantalizing December 1944 summary report from the Manhattan Project's Foreign Intelligence Unit concluded (p. 4703): "Intelligence indicates that the enemy is working in the project field. It is likely that he has undertaken one or several of the various processes for the production of bombs on a small scale and to have organized an installation equivalent to our project on final utilization. (TAB A)." Unfortunately, instead of TAB A, the collected intelligence evidence for the German nuclear weapons program, the NARA file only includes a note stating: "In the review of this file this item was removed because access to it is restricted" (p. 4707).

- In a 9 December 1944 memo, U.S. Admiral William Leahy stated that on 8 December the Joint Chiefs of Staff discussed the possibility of a "V-3 stratospheric bomb attack" on the United States (p. 4702).

- In March 1945, Gerard Kuiper, a highly knowledgeable investigator in the Alsos Mission, wrote a letter that contradicted what the heads of Alsos were claiming at that time (p. 4766): "One is again surprised to see quotations from U.S. senators who think that the war will be over 'within a few days'. It would be wiser to worry about the chance we still have of losing it if certain high explosives are developed in time. This possibility may, incidentally, be one reason why the Germans are not giving in."

- Rather than heading toward the logical objective of Berlin to topple the German government and beat Soviet forces to the prize, U.S. troops under Generals Patton, Bradley, and Eisenhower rushed straight toward Thuringia. Justifications for this strategy have ranged from preventing Hitler from fleeing south to liberating concentration camps. However, at the very least it seems like an intriguing coincidence that Patton, Bradley, Eisenhower, and other top

Allied officials were personally inspecting the Ohrdruf Truppenübungsplatz military base all together on 12 April 1945 (U.S. forces captured the base on 4 April), only a month after the possible nuclear weapons tests at that site (Section 8.8.12) [Karlsch 2005, p. 218]. Other than photos of the generals and some of the concentration camp victims, none of what must have been numerous detailed written reports about what technologies or documents the U.S. forces found at that and nearby facilities have ever been declassified and released to the public.

- A 31 May 1945 cable from Eisenhower to Washington, D.C. reported: "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" (p. 4974). Eisenhower later told *The New York Times* how seriously he regarded the German nuclear program: "My main concern was that the Germans did not get the atomic bomb to use on us" (pp. 5033–5034).

- Indeed, at the end of the war, Allied investigators personally inspected many sites that conducted work related to the German nuclear weapons program, including sites in Germany (Lüneburger Heide, Hillersleben, I.G. Farben installations, numerous locations in Thuringia, etc.), Austria (St. Georgen an der Gusen, Ebensee, Redl-Zipf, Lofer, etc.), Czech territory (Pilsen, Podmokly, St. Joachimsthal/Jáchymov, etc.), and elsewhere (pp. 3670–3677, 4962–4985). Detailed reports on what they discovered and learned about the German nuclear program have never been publicly released.

- In May 1945, the German submarine U-234 surrendered to the United States. It contained 560 kg of uranium oxide (possibly enriched), bomb detonators, other materials, plans, and technical experts that would have shed light on the German nuclear program. Other submarines carried additional relevant materials, documents, and personnel (Section D.14.5). Where are the many tons of documents, prototypes, and other cargo from the U-234 and the other submarines, as well as all of the reports on the German nuclear and other technology programs that the United States compiled in the process of investigating the submarines' cargoes and interrogating their passengers?

- By the end of the war, SS General (and Dr. Ing.) Hans Kammler controlled and knew the details of virtually all German secret weapons research and development programs, including the nuclear weapons program. According to official histories, Kammler died in early May 1945. However, multiple 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 for many months (and perhaps even many years) after the war (pp. 4914–4961). 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 almost certainly have provided the United States with considerable detail about the German nuclear program and other very advanced developments. (Albert Speer's capture and interrogation resulted in many shelves full of documents.) How can all of that Kammler material be located and declassified from U.S. government archives?

- When nuclear-related censorship was relaxed somewhat after the U.S. atomic bombings of Japan in August 1945, Allied officials made a stunning admission to *Newsweek* (p. 5022): "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."

- In a 25 August 1945 press release, the U.S. Office of War Information stated that "Germany's inner war secrets" included "experiments with the atomic bomb," that "Germans made significant progress in the development of an atomic bomb," and that not all "of the secrets. . . may be disclosed at this time" (p. 5023).

- A 31 August 1945 U.S. report mentioned "Gerald Klein (Dr.), Dipl.-Eng., Manager of LGW. . . Worked at Peenemünde and later became group director of atomic devices in RLM. At present being used by the British. Evacuated by 'T' Force" (p. 5010). 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? Where are the U.K. and U.S. reports on Klein, the organizations named, and the nuclear work?

- A remarkable 14 September 1945 OSS cable revealed (p. 5045): "Our work on this subject is to correlate and cooperate with specially appointed general who has charge of the whole AZUSA [German nuclear] situation and has overall responsibility. . . . 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. . . . 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." Does this OSS cable show that the U.S. started to really appreciate the full 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 (Section 8.8.10)? Who was the "special general" mentioned in this cable—Leslie Groves or someone else?

- The joint chairs of CIOS, U.S. General Thomas Jeffries Betts, Deputy G-2 of SHAEF, and U.K. Ministry of Supply chief advisor and F.R.S. Professor Reginald Patrick Linstead, wrote a 15 September 1945 final report based on specific discoveries by their CIOS investigators (p. 5030): "Certain items have been omitted because of security considerations. . . 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." Thus the CIOS chairs directly 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.

- In September and October 1945, General George C. Marshall made several noteworthy public statements: (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." (2) "At the close of the German war in Europe they [U.S. factories] 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." (3) "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" (p. 5031).

- T. M. Odarenko, a longtime physicist from Bell Telephone, was one of the senior scientists involved in transferring advanced technologies from Germany and Austria to the United States after the war. He wrote of encountering a large group of refugee nuclear scientists in Austria (pp. 4788–4785): "Contrary to the statements, attributed by the U.S. newspapers to the various U.S. atomic experts, that it "would take the Germans some 100 years to solve the problem of atomic disintegration on an explosive basis" (for the manufacture of bombs), the opinion of the members of the Institute themselves was that, given a supply of radium and uranium, and permitting their return to Vienna, where certain of their materials and equipments are stored, they would be able to "complete their work" in some 3 to 6 months. . . . That these claims of the Institute are not to be disregarded too readily would follow from the fact that Prof. [Charles P.] Smyth spent considerable time with the Institute, revisited them several times, and thought it necessary to insist on the most stringent type of control over the scientific activities of the group, as well as on close individual observations." Smyth reported to Leslie Groves, and Odarenko's reports on the nuclear scientists were also forwarded to Groves. The Austrian nuclear scientists were closely monitored and controlled for years by U.S. intelligence and military agencies. For example, the leader of the Austrian group, Georg Stetter, was kept under virtual house arrest by U.S. agents in Austria from 1945 until the 1950s, nearly destroying his career (pp. 4798–4800).

- A large number of Alsos-related documents from Samuel Goudsmit's files remain classified (pp. 4772–4779). Likewise, some very important German-related files from the Manhattan Project's Foreign Intelligence Unit and the OSS remain classified and unavailable (pp. 4812–4827) [NARA RG 77, Entry UD-22A; NARA RG 226]. Even Lt. Col. George R. Eckman's "Final Report on the ALSOS Mission," written in December 1945, seems to be missing from modern archives (p. 3333). There may be countless other relevant files whose absence is not even noted in the archives.

- There is evidence that Dutch intelligence provided important information about the German nuclear weapons program to the United States during and after the war (pp. 4832–4853). Samuel Goudsmit's entire folder of Dutch intelligence on the German nuclear program remains classified and unavailable.

- Likewise, there is evidence that French intelligence gave important information about the German nuclear weapons program to the United States (pp. 4854–4855).

- Werner Grothmann stated that the fission fuel and components of at least one German atomic bomb were found and removed from Germany by U.S. forces in 1945 (pp. 5040–5043). An archived card catalog of U.S. intelligence reports on Germany shows that there were postwar reports containing detailed information on the German atomic bomb, including a 2 January

1946 document labelled "Blueprints of Atomic Bomb," a 28 March 1946 report on "Atom Bomb Research in Germany & Influence on Developments in Soviet Russia," a 4 June 1947 report entitled "Atomic Bomb," a 25 July 1947 report on "Atomic Bomb Detonating Plans," and others. The reports themselves are still classified and unavailable to the public (pp. 5074–5075).

- In private, General Leslie Groves wrote a February 1946 secret memorandum revealing (p. 4806): "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. . . 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. . . However, it is extremely important that these persons be prevented from giving their services to a potential enemy of the United States." In public, though, Groves knowingly and repeatedly made false claims that Germany's nuclear scientists had been few in number and hopelessly backward [Groves 1962].

- At the "Ashcan" interrogation center after the war, Hermann Goering told his Allied interrogators that "Germany was within 90 days of producing its first atom bomb when the war ended" (p. 4894).

- In similar postwar interrogations, Wilhelm Voss, the former director of the Skoda works, told Allied interrogators about the organization and results of the German nuclear weapons program (p. 4914).

- A U.S. Department of Commerce press release praised wartime German scientific accomplishments that were more advanced than those of the United States and that were being transferred to the United States to improve its programs: "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" (p. 5066).

- In July 1946, the U.S. *Army Air Forces Review* published an article stating, "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" (p. 5038).

- In 1946, U.S. Army Air Forces 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." See p. 5073.

- Top Secret 1946 cables from the U.S. Joint Chiefs of Staff to General Joseph T. McNarney (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) ordered him (pp. 5065–5066): "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 and theoretical nuclear physics, including design and operation of devices for producing highly energetic particles, and isotope separation." These Top Secret Orders from the highest level were written over a year after the end of the war in Europe, after the U.S.

had had time to investigate wartime German programs in detail, and they specifically noted advanced nuclear-weapons-related work.

- In a 17 August 1946 interrogation, Edmund Sorg described a piloted version of the V-1 cruise missile armed with an atomic bomb (p. 4896).

- In discussing German rockets as weapons in an August 1947 interview, General William L. Richardson said "there is evidence to believe that the Germans intended to utilize an atomic warhead which would have made this weapon extremely deadly" (pp. 5035–5036). General Richardson would have been a highly knowledgeable and very sober source for this information. What "evidence" did he have?

- In a 19 August 1947 intelligence report that is still heavily censored, Edmund Tilley discussed wartime nuclear weapons work at Tucheler Heide in Poland, including the production of ^{235}U and ^{239}Pu and apparently even 1–5 kg fission pits for atomic bombs. According to Tilley, one of the German scientists most directly responsible for that work, "Dr. Niels" (Walter Nielsch?), had already been taken to the United States for interrogation and/or work (p. 4902).

- Many German and Austrian scientists who appear to have been involved in the nuclear program visited or worked in the United States and/or United Kingdom after the war. They may have provided information about wartime German work and aided the U.S./U.K. nuclear programs. Even basic files for some scientists are still not available to the public. For example, virtually the entire "Foreign Scientist Case File" (Paperclip file) of nuclear physicist Otto Haxel has been redacted in response to recent Freedom of Information Act Requests, and Wernher von Braun's Paperclip file is missing entirely. Furthermore, a large number of additional scientists were interrogated in Europe. The complete interrogation reports and all other files on all of these scientists and engineers should be sought and released.

From examples such as those given throughout this appendix, it is clear that there is an enormous amount of information about the wartime German nuclear weapons program that remains classified and/or hidden by various governments. Why is that the case, if the German program was as small and as primitive as government officials and historians have maintained for 75+ years? What is the true history of the German program? What is the true history of Allied knowledge about the German program, both during and after the war? Where is all of the relevant archival and physical evidence stored now?]

D.14.1 U.S. Presidential Intelligence

[Some of the best Allied wartime intelligence on the German nuclear program was centered around Franklin Roosevelt and the top presidential advisors. Most of the actual intelligence is still not available to the public. From the information that is available, it appears that much of this intelligence came from channels other than the Alsos Mission, which was supposed to be the official intelligence investigation of the German program.

As shown on pp. 4699–4700, Vice President Henry Wallace, Vannevar Bush, George Strong, and other top U.S. officials were actively investigating the German nuclear program in 1942 and 1943, but their reports are still classified and unavailable to the public. Why?]

SECRET

January 8, 1943.

Major General George V. Strong,
Assistant Chief of Staff, G-2,
War Department,
Washington, D.C.

Dear General Strong:

The Vice President, as you know, is interested in the subject which we call S-1. He recently, on his own initiative, made certain inquiries regarding radium production, and I forward a memorandum on this subject which he recently transmitted to me.

This evidence might indicate that increased German activity is not really directed to the production of radium, but to the uranium oxide which makes up a large percentage of pitchblend. The question of whether the ore after treatment in Berlin remains there seems to be a crucial one. If we knew the flow of ore from the Joachimsthal deposit in the last two years, we would know a great deal. The quantities involved are substantial from the standpoint of S-1.

You will remember that we had an indication that there was no unusual activity around some of the principal deposits. It may well be, however, that there is sufficient material available in Germany and Belgium from radium production so that no additional activity at the mines is needed.

I know that your organization was consulted during the preparation of this report, so that you may already have this material. I also note that further material may be sent through this same channel later.

Very truly yours,

FILE COPY

V. Bush,
Director.

Figure D.788: Vice President Henry Wallace, Vannevar Bush, George Strong, and other top U.S. officials were actively investigating the German nuclear program in 1942 and 1943, but their reports are still classified. Why??? [NARA RG 227, Microfilm M1392, Bush-Conant File Relating to the Development of the Atomic Bomb, https://downloads.paperlessarchives.com, pp. 11,357–11,361.]

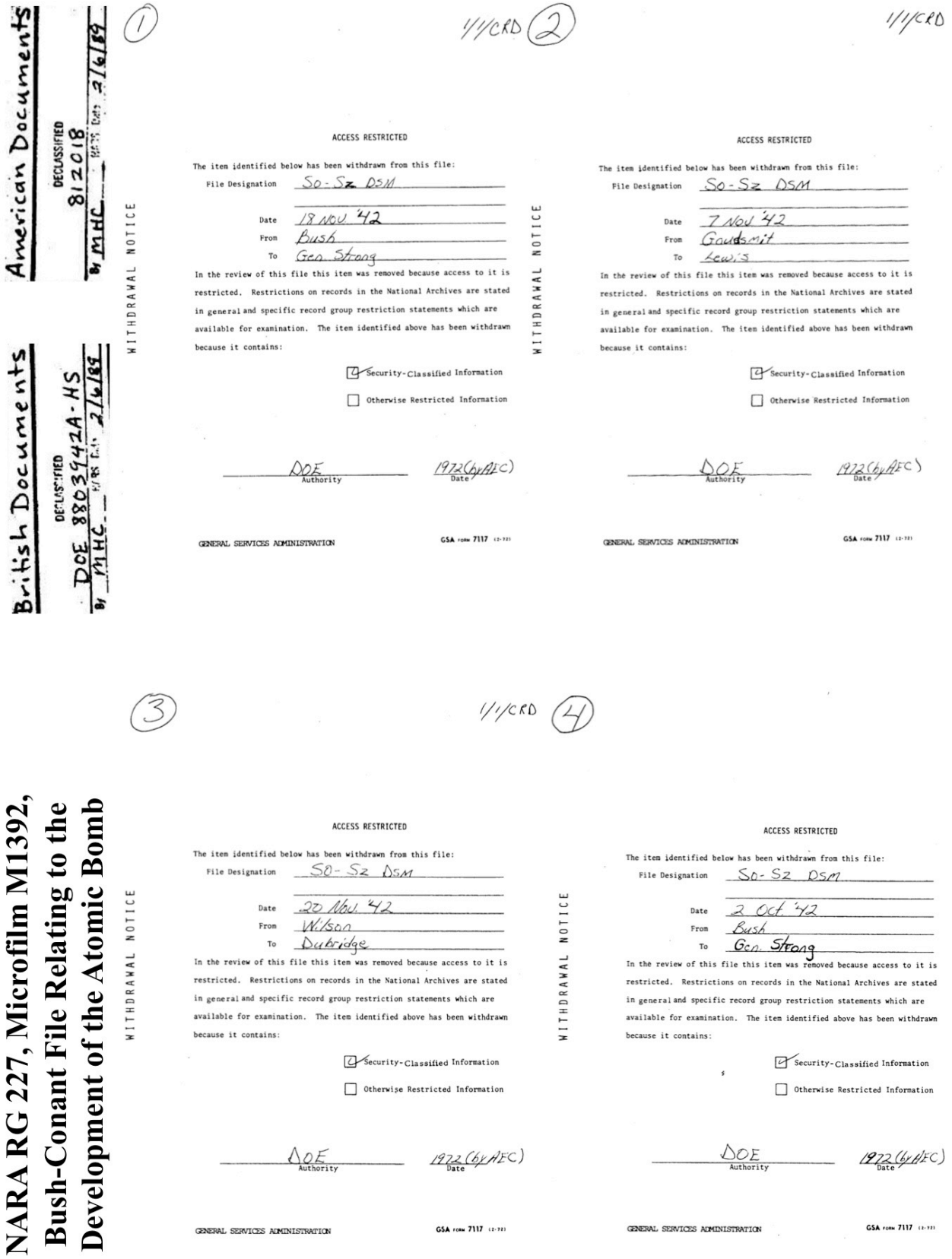


Figure D.789: Vice President Henry Wallace, Vannevar Bush, George Strong, and other top U.S. officials were actively investigating the German nuclear program in 1942 and 1943, but their reports are still classified. Why??? [NARA RG 227, Microfilm M1392, Bush-Conant File Relating to the Development of the Atomic Bomb, https://downloads.paperlessarchives.com, pp. 11,357–11,361.]

Joseph E. Persico. 2001. *Roosevelt's Secret War: FDR and World War II Espionage.* pp. 381–382

The President had sent the rambunctious George Earle, former Pennsylvania governor, former ambassador, and permanent playboy, to Istanbul in 1943 as his eyes and ears. Earle's reports from that den of intrigue had proved a mixed but respectable bag. He had provided FDR with solid, if unwelcome intelligence on what the Russians had done to the Poles in the Katyn forest. He had correctly predicted the German rockets falling on England. But he had overestimated the destruction and underestimated the time for the Germans to rebuild the bombed Ploeşti oil fields. [...]

He fired off a warning to the President on December 5 [1944] that the Germans, already using V-1 buzz bombs and V-2 rockets against England, were about to launch another secret weapon, the V-3, against the American East Coast.

[George Earle's 5 December 1944 report is mentioned in several archival documents, but that report itself does not seem to be available in archives. Can it be located?

Earle's earlier reports on secret activities were correct and highly valuable intelligence. If anything, they underestimated German capabilities, such as their ability to withstand and to repair damage to their oil facilities in Ploeşti, Romania. During his time in Turkey, Earle had close contacts with Wilhelm Canaris, Paul Leverkühn, Franz von Papen, and other highly placed German officials who had inside knowledge of very secret projects.]

Franklin Roosevelt to William Leahy. 7 December 1944. [Franklin Delano Roosevelt Library, Hyde Park, New York. Map Room Files, Box 20. Folder Trips to Warm Springs, Ga. 28 Nov.–8 Dec. 1944]

MR-IN-217 7 December 1944

MEMORANDUM FOR ADMIRAL LEAHY FROM THE PRESIDENT:

In view of message from Lt. Commander Earle 051444 NCR 4414, please tell Joint Staff I am inclined to think Office Civilian Defense and Air Corps and Eastern Frontier of Navy should reconstitute all alert preparations. The telegram is probably a rumor and there may be nothing in it but every precaution should be taken.

RECD 072006Z

Clayton Bissell and Hewlett Thebaud to the Joint Chiefs of Staff. 9 December 1944. Subject: Agreed Joint Evaluation of the Possible Existence of the V-3 Rocket and Probability of Attack against the U.S. [Franklin Delano Roosevelt Library, Hyde Park, New York. Map Room Files, Box 164, Folder Naval Aides. Files: A/16—General Correspondence]

1. The cable from Lieutenant Commander Earle, Naval Attaché, Turkey is probably propaganda and represents a plant by the Germans. There is no reliable information available of German development of a long range rocket other than the V-2.

2. The V-3 may possibly be a rocket of smaller dimensions than the V-2 with a shorter range. It would be possible to launch such a missile from specially designed or modified submarines. Attached is a sketch of a German submarine based in a southern Norwegian port showing a pair of rails extending from conning tower to the bow and terminating at a flat, rectangular surface. The purpose of this is unknown.

3. German attack from Europe of United States cities by long range rockets is deemed impossible now. Small rocket or flying bomb attacks from specially constructed submarines are considered possible. Any such action would be made with propaganda effect rather than material damage as the primary objective.

[The sketch mentioned in this document is on p. 5623.

In this and other documents, Allied intelligence analysts were seemingly puzzled why Germany would go to so much trouble to deliver such a small number of payloads to the United States. They reasoned that a few payloads of conventional explosives would not do much damage to U.S. cities and would only serve a propaganda purpose. The obvious answer, which some intelligence analysts realized but others did not, is that the intended payloads were not conventional explosives. They were probably nuclear weapons as explained in this appendix, or possibly chemical or biological weapons as covered in Appendix A.]

Admiral William D. Leahy. 9 December 1944. Memorandum for the President. [Franklin Delano Roosevelt Library, Hyde Park, New York. Map Room Files, Box 20. Folder Warm Springs, Dec. 9-18, 1944]

Reference MR-in 217

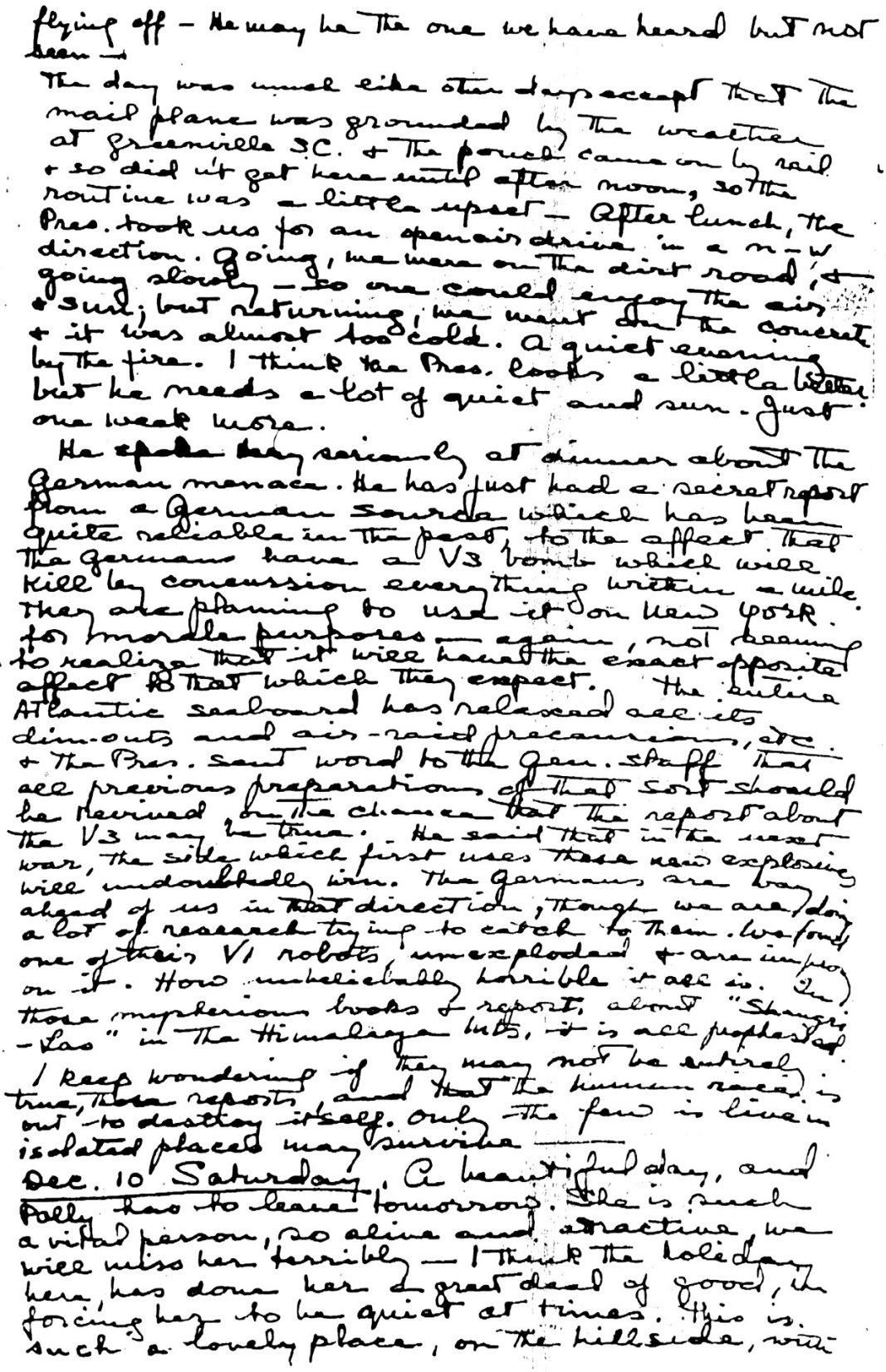
Possibility of V-3 stratospheric bomb attack on U. S. was discussed at a meeting of the Joint Chiefs of Staff yesterday. General Marshall and Admiral King have sent messages to defense commands, sea frontiers and the First Air Force at Mitchell Field ordering precautionary measures taken.

1944 diary of Margaret Suckley, personal secretary of Franklin Roosevelt [Ward 1995, pp. 357–358; Franklin Delano Roosevelt Library, Hyde Park, New York, Margaret Suckley Papers, Journal Group E, 06/30/1944-12/29/1944, Journal Entry 1-253, 9 December 1944].

Dec 9 Friday... A quiet evening by the fire. I think the Pres. looks a little better, but he needs a lot of quiet and sun. Just one week more.

He spoke very seriously at dinner about the German menace. He has just had a secret report from a German source which has been quite reliable in the past, to the effect that the Germans have a V3 bomb which will kill by concussion everything within a mile. They are planning to use it on New York for morale purposes—again, not seeming to realize that it will have the exact opposite effect to that which they expect. The entire Atlantic seaboard has relaxed all its dim-outs and air-raid precautions, etc. & the Pres. sent word to the Gen. staff that all previous preparations of that sort should be reviewed on the chance that the report about the V3 may be true. He said that in the next war, the side which first uses these new explosives will undoubtedly win. The Germans are way ahead of us in that direction, though we are doing a lot of research trying to catch up to them. We found one of their V1 robots, unexploded, & are improving on it.

[Franklin Roosevelt would of course have had access to the very best Allied intelligence on German secret weapons programs, from a wide variety of organizations and sources. His reaction as recorded here appears to have been due at least in part to George Earle's 5 December 1944 report and the flurry of U.S. officials' memos it inspired. However, his reaction also seems to suggest that he had received further information from other sources (the payload of the V-3 was a nuclear weapon, the German nuclear weapons program was way ahead of the U.S. program, etc.). What sources provided the most detailed and accurate information on the true state of the German programs to Roosevelt—Dutch intelligence, French intelligence, Eisenhower's Special Force Headquarters, etc.? Can any remaining classified files that are relevant be located, declassified, and released?]



flying off – He may be the one we have heard but not seen –
The day was much like other days except that the mail plane was grounded by the weather at Greenville S.C. & the parcel came on by rail & so did it get here until after noon, so the routine was a little upset – After lunch, the Pres. took us for an open air drive in a new direction. Going, we were on the dirt road, & going slowly – so one could enjoy the air & sun, but returning, we went on the concrete & it was almost too cold. A quiet evening by the fire. I think the Pres. looks a little better but he needs a lot of quiet and sun. Just one week more.
He spoke very seriously at dinner about the German menace. He has just had a secret report from a German source which has been quite reliable in the past, to the effect that the Germans have a V3 bomb which will kill by concussion everything within a mile. They are planning to use it on New York. for morale purposes – again, not daring to realize that it will have the exact opposite effect to that which they expect. The entire Atlantic seaboard has relaxed all its dim-outs and air-raid precautions, etc. & the Pres. sent word to the Gen. Staff that all previous preparations of that sort should be revived, on the chance that the report about the V3 may be true. He said that in the next war, the side which first uses these new explosives will undoubtedly win. The Germans are way ahead of us in that direction, though we are doing a lot of research trying to catch up to them. We found one of their V1 robots unexploded & are improving on it. How unbelievably horrible it all is. In those mysterious books & reports about "Shangri-Las" in the Himalayan hills, it is all prophesied. I keep wondering if they may not be entirely true, those reports, and that the human race is out to destroy itself. Only the few in live isolated places may survive.
Dec. 10 Saturday. A beautiful day, and Polly has to leave tomorrow. She is such a vital person, so alive and attractive, we will miss her terribly – I think the holiday here, has done her a great deal of good, in forcing her to be quiet at times. This is such a lovely place, on the hillside, with

Figure D.790: 1944 diary of Margaret Suckley, personal secretary of Franklin Roosevelt [Franklin Delano Roosevelt Library, Hyde Park, New York, Margaret Suckley Papers, Journal Group E, 06/30/1944-12/29/1944, Journal Entry 1-253, 9 December 1944].

Enemy Production of Atomic Bombs—Summary, Third Draft. 11 December 1944 [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)]

1. Intelligence indicates that the enemy is working in the project field. It is likely that he has undertaken one or several of the various processes for the production of bombs on a small scale and to have organized an installation equivalent to our project on final utilization. (TAB A).

2. The various methods for the production of U-233, U-235 and Pu-239 have been considered in the light of scientific development, basic materials, and industrial effort required. (TAB B). The liquid thermal diffusion process for production of U-235 on a moderate scale and the pile process using heavy water for the production of Pu-239 on a small scale appear to be the most likely possibilities; the production of U-233 on a useful scale appears to be unlikely. Activities inferred from the intelligence and other reports indicate that these processes could have come into operation during 1943. (TAB C).

3. On the basis of the above analysis it is possible for the enemy to have at least one device in his hands now, but it is improbable for him to have more than three.

[Handwritten in lower right corner:] Cross referenced in Enemy Prod.[uction] of Devices—G[roves?]

[...] TAB A: In the review of this file this item was removed because access to it is restricted.

[What specific information was in Tab A? Can that part of the document be declassified?]

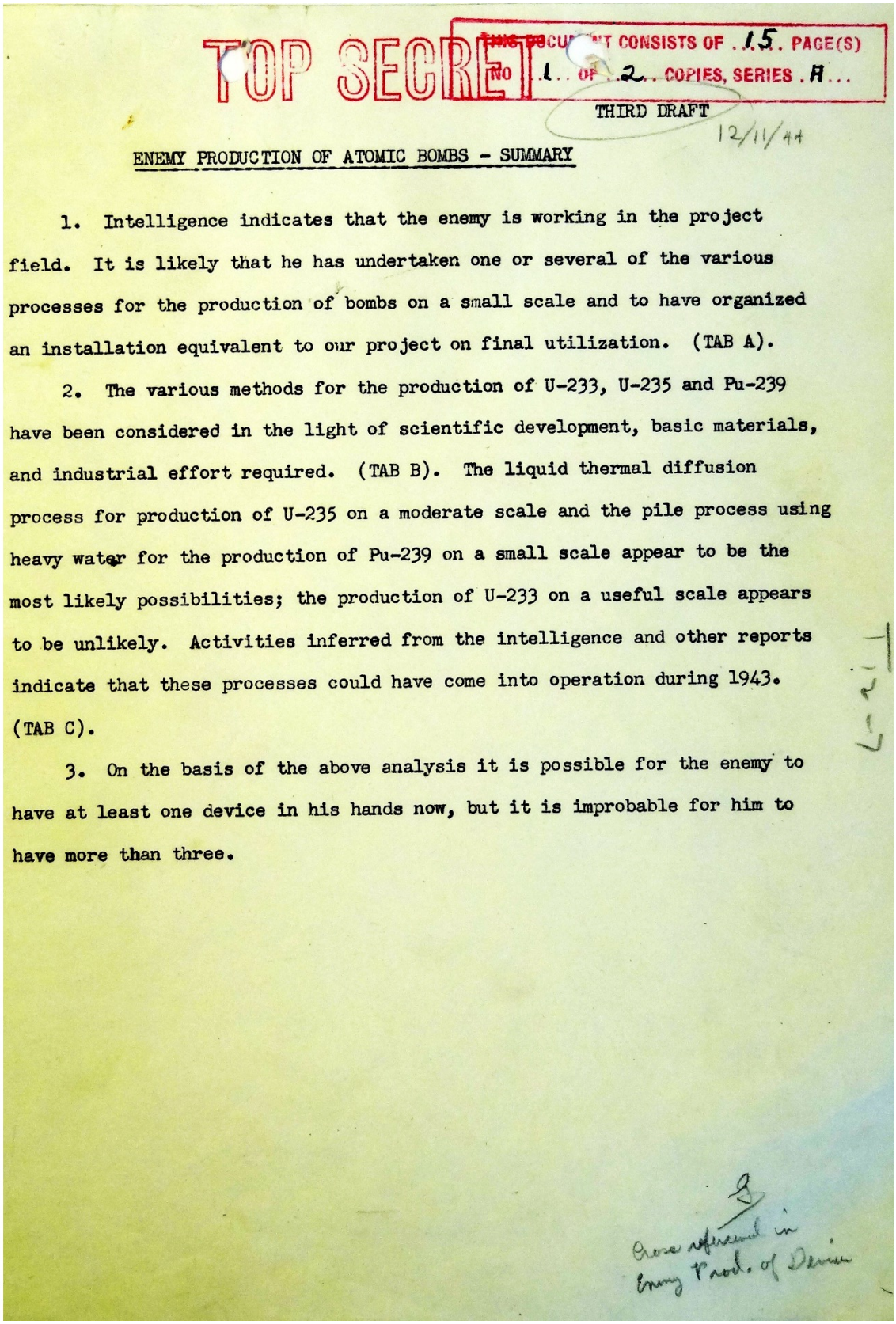


Figure D.791: Enemy Production of Atomic Bombs—Summary, Third Draft. 11 December 1944 [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)].

NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945-1946)

RG 77
Entry 22
Box 171

33
11317

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation 32.60-2 Germany: Summary 1945-46
Tab A

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

WITHDRAWAL NOTICE

NND 917017
Authority

4-8-91 cc
Date

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

Figure D.792: Enemy Production of Atomic Bombs. 11 December 1944. TAB A, which the report summary said contained intelligence showing that Germany was likely producing atomic bombs, remains classified and unavailable [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)].

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ENEMY PRODUCTION OF ATOMIC BOMBS

There is no direct evidence that Germany has undertaken any of the processes known to us for the production of atomic bombs. However, indirect information acquired from intelligence reports and numerous other sources indicate that the enemy has had increasing interest in atomic bomb developments since 1941. It is highly probable that impetus was given this work in Germany when it became evident (late in 1941) that the war would be a long one, and that further acceleration has been given the work as the chances for Germany's winning the war grew progressively worse.

From technical literature published after the usual delay of one and a half to two years it appears that fundamental work in nuclear fission was undertaken during 1939 and 1940, and from patents applied for in 1941 it appears that the beginnings of industrial interest was becoming evident at that time. The demand for the processing of uranium ore on a moderate scale and the manufacture of heavy water at Rjukan in 1942 appear to indicate that these materials were being considered for more than laboratory scale use, and further intelligence infers that the construction of a liquid thermal diffusion plant for the production of U-235 was highly likely during that period. From the shift of eminent scientific personnel to work in the field of nuclear physics and the linking of Heisenberg with the ordnance center at Dresden during 1943 it appears that an installation equilavent to our project on final utilization has recently been organized and, from the continued manufacture of heavy water, the construction of a heavy water pile of what we would call pilot plant size (25,000 kw) appears to have been very probable during that year. At the present date, therefore, it would appear quite likely that the enemy has had a liquid thermal diffusion plant in operation since early 1943 and a small heavy water pile in operation since late 1943. In

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addition, it is estimated that the enemy now possesses 700 tons of uranium metal, 5 tons of heavy water, and 50 tons of thorium metal.

The materials known to undergo fission and which can be used in atomic bombs are isotopes 233 and 235 of uranium and isotope 239 of a new element, plutonium. Isotope 235 of uranium may be produced on a large scale by the liquid thermal diffusion, barrier diffusion, centrifuge, and mass spectrometer processes. Of these, all but the liquid thermal diffusion process involve large development programs, a large quantity of special apparatus, and difficult operating problems. Isotope 239 of plutonium can be produced on a large scale only in an atomic engine or pile. A large undertaking comparable in size with the Metallurgical Project or a small undertaking comparable in size with the Montreal Project could be accomplished with the quantities of materials estimated to be in the hands of the enemy. The amount of isotope 239 of plutonium the enemy could produce, therefore, would depend on the effort he would be willing or able to make. Isotope 233 of uranium can be produced most efficiently with the heavy water atomic engine or pile. However, it can be made only at a very low rate compared with isotope 239 of plutonium, and therefore is ruled out as a plausible undertaking by the enemy.

It is felt to be a reasonable assumption that the enemy has been forced by the strain on his economy to adopt a program requiring no large development program, a relatively small amount of basic materials, and only moderate industrial effort. On this basis, the most likely probabilities appear to be the production of isotope 235 of uranium by the liquid thermal diffusion process at a scale of about 100 grams per day, and of isotope 239 of plutonium by the heavy water pile process at a scale of about 25 grams per day.

An estimate of atomic bomb production from the materials produced on the scales mentioned above must be qualified by the extent of knowledge the

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enemy possesses on final utilization problems. If the enemy progress in this field is such that only simple methods are known to him he can have available one bomb now and one coming in each 3 months. On the other hand, if his progress on final utilization is as advanced as ours he can have available two bombs now and one coming in each month.

NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945-1946)

Figure D.793: Enemy Production of Atomic Bombs. 11 December 1944 [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)].

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TAB B

Methods open to the Enemy

Production processes may be considered under the following headings:

1. U-235 Production
2. Pu-239 Production
3. U-233 Production
4. Partial U-235 production, obtaining U-233, or Pu-239 for final use

1. U-235 Production

Enemy heavy water plays no direct part in this case. The only basic material is uranium, probably in the form of the fluoride or the chloride. The processes used may be the liquid thermal diffusion, barrier diffusion, centrifuge, or electromagnetic.

a. Liquid Thermal Diffusion. This process requires large steam plant facilities and relatively easily fabricated apparatus of a kind that the enemy has had experience with. To raise the material to high concentrations, however, requires tremendous quantities of steam and long equilibrium times.

b. Barrier Diffusion. This process requires an enormous development program on screens, pumps, seals, lubricants, and special materials. It requires also a large amount of steam or electric power, the design, construction and operation of large vacuum systems, and extreme cleanliness of process materials to prevent clogging of the barriers.

c. Centrifuge. This process requires the development of seals, lubricants, and special mechanical equipment on a scale as extensive as that on barrier diffusion. Mechanical perfection of apparatus

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(TAB B)

is required to eliminate extensive maintenance. Manpower requirements for operation are large.

d. Electromagnetic. This process requires a large development program, a large amount of electric power, and a large quantity of specially designed equipment. Mechanical perfection of equipment is necessary to eliminate extensive maintenance. During operation, the equipment requires continuous servicing and replacement of parts.

The simplest of the above listed processes is the liquid thermal diffusion process used with uranium hexafluoride. High concentrations of U-235, however, require a tremendous amount of steam and an exceedingly long time to reach equilibrium.

2. Pu-239 Production

The diverse possibilities for Pu-239 production plants make it worth while to enumerate two routes: one is obvious to the enemy and certain of operation, but rather small in size; the other has even for this country some unsolved problems, but can in principle reach a dangerous scale.

a. Minimal:

This is a plant containing 5 tons of heavy water and about 5 tons of natural uranium. At best, such a plant will yield about 25 grams per day.

b. Maximal:

This is a heavy water seeded plant, with a light water (or even a graphite) reflector. 5 tons of heavy water will maintain 2 such plants, each making some 500 grams per day in 200 tons of uranium (It will be recognized that this is an enormous project, on the scale of the plant at the Hanford Engineer Works)

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(TAB B)

Schedules:

Rate Grams per day	Uranium Tons	Heavy Water Tons	Time to make first grams	Time to reach full rate
25	5	5	8 Months	10 Months
1000	400	5	12 Months	18 Months

3. U-233 Production

If it is assumed for reasons of final utilization that the enemy is constrained to use U-233 and cannot use Pu-239 (not very likely), he may proceed as follows:

a. Minimal:

A heavy water pile using the assumed 5 tons of uranium may give up to 5 grams per day of U-233, using some 3-5 tons of Thorium in the mantle.

b. Maximal:

At great cost the enemy might convert Pu-239 to U-233 in small devices, limited by the Thorium available and his Pu-239 production rate. In this way he might make 10 to 20 grams per day on the minimal Pu-239 production rate discussed in (2), and as much as 50-100 grams per day in say 20 small Pu-239 plants, each using 1/2 kilo of Pu-239 and producing 3 megawatts of heat. He cannot easily convert all his Pu-239 at the maximal rate with only 50 tons of Thorium.

Some Schedules:

Rate Grams per Day	Heavy Water Tons	Metal Need Tons	Thorium Need Tons	Time for First Gram	Time for Full Rate
5	5	20	5	8 Mos.	10 Mos.
10-20	5	20	5	14 Mos.	16 Mos.
50-100	5	700	50	14 Mos.	22 Mos.

4. Combined Methods

The possibility of using partially-enriched uranium, and finishing

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(TAB B)

the separation by chain methods, is attractive from an engineering point of view. It will, however, not much affect the estimates given here.

Such a possibility frees the enemy from the heavy water limitation on his production, but in the maximal case of 2. (Pu-239 production) the limit has already been set by his metal stock. Heat removal still determines plant size.

Should Pu-239 be unusable for him, he can partially enrich, use a light-water moderator but still have a high leakage, and convert enriched metal to U-233. This a much simpler method for large U-233 production than the two-step chain called maximal in 3. above. He can still make no more than some 100 grams per day in the Thorium he has available. It is true that the options available in this route are very many, and not well-explored in this country.

It should be noted that all but route 1. involve large scale radioactivity, which make possible detection, both physically and from espionage, much more readily than does isotope separation.

Figure D.794: Enemy Production of Atomic Bombs. 11 December 1944. TAB B [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)].

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TAB C

Estimate of Enemy Methods

In interpreting the evidence, the experience in this country has been drawn heavily upon. It has been tacitly assumed that the enemy has not improved methods beyond what can be done in this country. Thus it is dangerous to consider the estimates anything but minimum enemy possibilities.

With the above qualifications in mind, the following is a list of the most dangerous enemy possibilities in descending order:

(a) Liquid Thermal Diffusion

(b) Piles of Normal Uranium and heavy water

(c) Centrifuges

The choice of (b) position for piles in spite of the positive evidence of enemy interest is based on the feeling that the known difficulties of utilizing Pu-239 and the large installations required for the production of U-233 would discourage enemy development along these lines. The tardy enemy final utilization effort strengthens the feeling that he could not easily solve this problem. It is believed that the reports on a heavy water pile refer to a pilot plant.

The liquid thermal diffusion method could be used without difficulty to produce metal in 10% concentration. The amount would depend on the quantity of steam producing equipment which the enemy would be willing to divert. The chief difficulty would be the problem of changing from 10% concentration to higher and directly utilisable material.

It is possible only to guess as to how this last step is taken. It will almost certainly be an isotope separation process because transformation of enriched material by a chain reaction demands as much heat removal as transformation of normal material, while isotope separation schemes beginning with

TOP SECRET

(TAB C)

enriched product are of pilot plant size.

The following rough tables indicate the time schedule and requirements of the various methods:

PILES

	Rate grams per day	Uranium Need tons	Heavy Water Need tons	Time Schedule from Start of Construction: To first grams	To full rate
Minimum: (1) Heavy Water and natural uranium	25	5	5	8 Months	10 Months
Maximum: (2) Heavy water see, natural uranium and light water	1000	400	5	12 Months	18 Months

(1) A plant of pilot-plant scale.
(2) A plant of Hanford scale.

THERMAL DIFFUSION

Production Rate: 100 g of light metal per day

Concentration	Construction Time[1]	Equilibrium Time[2]	Metal Requirements[3] Up to Prod.	At Prod.	Steam MM#/hr	Coal Tons/ hr
10	18 mo.	5 mo.	14 T	85kg/d	1.4	43
20	18	8	22	88	1.7	50
50	18	13	36	90	1.8	55
60	18	15	40	90	1.9	56
90	18	23	60	91	1.9	57

[1]Including construction of the steam plant.

[2]Taking Naval Research Laboratory data, assuming no improvement.

[3]Shipping 15.5% out of the feed (to 0.6%).

From these tables alone, of course, it cannot be determined what and how much the enemy is doing. However, the following probable picture can

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(TAB C)

be given based on the very likely assumptions (a) that the enemy program was progressively accelerated as the desperateness of their strategic situation became evident and (b) that they were forced by the strain on their economy to adopt a program requiring only moderate industrial effort:

(1) A tenth-scale liquid thermal diffusion plant begun in early 1942, reaching 50% concentration at this time.

(2) A heavy water pile producing Pu-239 at a 25 gram per day level, started in the middle of 1942, and coming into full production in late 1943. Present construction of additional units is possible.

(3) Additional improvised liquid thermal diffusion capacity -- perhaps as much as two-tenths scale--leading to production of 10% material now or in the near future.

(4) Present desperate effort, beginning in early 1943 to solve the final utilization problems and to bridge quickly the gap between 10% and 50% material.

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TAB D

Final Production

The utility of the final materials produced depends on the degree to which the final utilization problem is solved. If enemy progress is only as far as the relatively simple gun-method of detonation, it is unlikely he can use Pu-239 at all.* In this case 30 kg of pure material is required.

Under these circumstances an estimate of enemy production of the final device can be listed as follows:

1	25g/day	49-D_2O pile yields	no devices
1	100g/day	LTD @ 50% yields	1 device /10 months
2	100g/day	LTD @ + unknown step to 50% yields	1 device /5 months
		equals:	1 device every 3 months

with the first device now possible.

If the enemy final utilization program is as advanced as ours he may be able not only to utilize Pu-239 but even to construct devices with as little as 7 kilos of Pu-239 or 10 kilos of U-235. Under these conditions the following estimates can be obtained:

1	25g/day	49 D_2O pile yields	1 device/10 months.
3	100g/day	LTD @ 50% (as above) yields	1 device/month
		equals:	1 device every month

with two devices now possible, one from the pile and one from the liquid thermal diffusion process.

* The manufacture of U-233 is not considered a practicable means at the probable level of operation of the heavy water pile.

Figure D.795: Enemy Production of Atomic Bombs. 11 December 1944. TAB C and TAB D [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)].

AFHRA 142.0423-13, Folder Jet-Propelled Aircraft—Top Secret Excerpts [AFHRA electronic version pp. 1103–1120].

[The following series of memos was apparently initiated by two of the earlier intelligence reports, George Earle's 5 December 1944 report (p. 4701) and J. Edgar Hoover's 8 December 1944 letter (p. 4605), although neither of those reports is included on this microfilm reel.]

Headquarters of the Army Air Forces to Assistant Chief of Staff, G-2, WDGS. 12 December 1944. Subject: Evaluation of Reports of Very Long Range Secret German Weapons Capable of Devastating a Large Area.

1. Based on Allied scientific research and developments, the Germans may have the capability of developing and using a devastating explosive or force.

2. At the present time, rockets are not capable of 2,000 to 3,000 mile flight, and no such development ~~can~~ should be expected in the near future.

3. It is possible that larger rockets with longer range or heavier war-heads than those presently employed are in the course of development by the Germans, and that actual experiments have been conducted with larger rockets.

4. No specific information has been received by A-2 on the existence of any long range German rockets other than V-1 and V-2.

5. The Germans have the capability of launching from a submarine a V-1, a V-2 or a modified version of either.

1. Incl:
Memo for AC/AS, Intelligence fr G-2 dtd 9 November [sic: December] w/2 reports.

W.M.B. to Operational Deputy. 12 December 1944. Subject: Evaluation of German Guided Missiles Reports Requested by G-2.

1. General Hodges is not satisfied with the draft evaluation of reports as requested by G-2. You may wish to assign someone else to it. There follows a rough outline of the approach general Hodges believes desirable.

2. The evaluation should start off with a list of the more important evidence available to us on the existence of some weapon above and beyond the V-1 and V-2. Such things as, to date unexplained sites, such as Watten—prisoner of war reports which have mentioned the existence of vengeance weapons on a vaster scale—newspaper reports. Specific tonnages, speeds, accuracy, etc. including proposed targets of these rumored weapons, should be given. [...]

What is the least amount of presently known explosive which would "level" an area 40 square kilometers? [...]

3. The complete facilities of the Air Staff should be used in gathering evidence for this—Requirements Division, OC&R, General Gross—Dr. Bowles' office—electronics experts—ordnance, et al should be freely consulted. [...]

Memorandum for [blank.] 14 December 1944. Subject: Evaluation Report on New German Guided Missiles.

1. On 9 December 1944, AC of S, G-2 forwarded to AC/AS, Intelligence copies of reports recently received from U.S. Naval Attaché in Turkey and the Federal Bureau of Investigation with a request for evaluation. Subject reports dealt with range, destructiveness and expected date of employment of some new type (V-3, V-4 or V-5) German rocket bomb.

2. Copy of memorandum prepared in response to above request is attached.

3. Brief of memorandum prepared for your information is also attached.

2 Incl.
Incl. 1. Memo to AC of S, G-2
Incl. 2. Brief of Memo to AC of S, G-2

Memorandum for —. 14 December. Subject: Evaluation of Two Reports on New German Guided Missiles.

1. Reports forwarded by Colonel Moses contain information which has been received before from a scattering of OSS, Underground[,] PW interrogations and German propaganda sources. While they add somewhat to available knowledge, they are not to be interpreted as of immediate a significance. [...]

2. An analysis of the intelligence reports and propaganda now being received on V-3 as compared with those which preceded the appearance of V-1 and V-2 suggests very strongly that German efforts are undoubtedly now being devoted to the production of new rocket bombs which will exceed V-1 and V-2 in range or destructive power. However, it is not believed that sufficient progress has been made to make the V-3 or any other new rocket bomb an immediate threat. [...]

11. Capabilities Based on Scientific Information

a. A rocket or a bomb causing devastation to an area of 40 square kilometers would have to be some explosive force such as atomic energy since known explosives are not capable of such effects unless used in excessive quantities.

To devastate a typical British or German area of 40 square kilometers the following amounts of explosive would be required:

Single charge: TNT: 650,000,000 lbs. [...] [approximately 300 kilotons]

b. German capability of putting into use a long range rocket capable of 2,000 and 3,000 mile flight needs to be carefully analyzed by scientists such as Dr. von Kármán. [...]

14 December 1944. Brief of Memorandum Evaluating Two Reports on New German Guided Missiles.

1. Reports supplied by Naval Attaché in Turkey and FBI are not new and have no immediate significance.

2. Reports on V-3, when compared with the flow of intelligence and propaganda on V-1 and V-2, suggest that any improvements on these weapons are in an experimental stage only.

3. [...] It must be concluded that if the Germans were about to employ any such weapon they would now be flooding the Reich with definite claims. Their failure to do so is significant.

4. Based on the capabilities of known explosives a charge of prohibitive size (approximately a half billion pounds) would be required to devastate 40 square kilometers of built-up area. Some other explosive force such as atomic energy might be employed in considerably smaller quantities, if available. [...] At the present time rockets are not capable of such a 2,000 to 3,000 mile flight, but experimentation may ultimately produce such a rocket.

5. While no specific information has been received by A-2 on the existence of any new long range rocket, it is possible that the Germans are now conducting experiments with rockets having longer range and heavier warheads than V-1 or V-2.

[U.S. intelligence analysts estimated that an explosive yield of approximately 300 kilotons would be required to destroy an area of 40 square kilometers, as the German weapon was reported to be capable of doing. That suggests that the weapon was some sort of fusion-boosted fission bomb or hydrogen bomb (Section D.9), instead of a much simpler and smaller fission bomb.

In view of evidence such as that presented in Appendix E, the intelligence analysts appear to have been too hasty in assuming that intercontinental rockets could not have reached an advanced stage of development in Germany at that time.]

D.14.2 Alsos and Other Manhattan Project Intelligence

[A large number of Alsos-related documents from Samuel Goudsmit's files remain classified, as illustrated by some examples on pp. 4772–4779 [NARA RG GOUDS, Entry UD-7420].

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.

Where is George Eckman's missing December 1945 final report on the Alsos Mission (p. 3333)?

There are many proven or likely cases of Leslie 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. See for example:

- Trying (and failing) to keep German nuclear documents out of the hands of other groups of Allied investigators (p. 3287).
- Dr. Richard P. Fischer (p. 3948).
- Caperton Horseley (p. 3970).
- Charles Chamberlain (pp. 4056–4061).
- "An alert and inquisitive reporter" for *Time* magazine (p. 4185).
- Colonel John A. Keck (p. 4187).
- Gordon Young (pp. 4679–4681).
- Commander Herbert Agar (pp. 5017–5018).
- Fritz Lang (pp. 5076–5081).
- Captain Heinz Stoelzel (pp. 5393–5396).

Can more information about these cases of censorship be uncovered? Can other cases of Allied censorship regarding the German program be identified?

Are there other files on the German nuclear program that remain classified, without even a yellow withdrawal notice card to mark where they should be in the NARA files?

Can all of these files be declassified?]

SECRET

THIS DOCUMENT CONTAINS 3 PAGES.

P. O. BOX 1663
SANTA FE, NEW MEXICO

THIS IS COPY 1 OF 2.

September 22, 1943

Major Robert R. Furman
P. O. Box 2610
Washington, D. C.

Dear Major Furman:

I am writing, as you asked me to, to mention a few things which our agents in Germany should keep in mind. What I can say is by no means complete and I know that you will supplement it.

Clearly one of the most important points to be investigated is the whereabouts and activities of the men who are regarded as specialists in this field and without whom it would certainly be difficult to carry out a program effectively. In what follows I am assuming that information on this subject will not be available to the agents and that they will, at first at least, have to confine their observations to more or less gross physical facts about the installations.

1. Raw Materials

a. The program can certainly not be carried out in any of its forms without uranium. Stocks of this material were captured by the Germans in Belgium, but they have their own sources in Bohemia. It would be extremely important to know with what urgency and on what scale these sources are being worked. It is doubtful whether there is any other military use for uranium with a high enough priority to explain large scale exploitation of these deposits.

b. Various auxiliary substances may or may not be used in the program, and therefore evidence on these is interesting if positive, but not conclusive if negative. The substances which we in this country have thought profitable to use for pile operation are graphite, heavy water and beryllium. There is little doubt that beryllium could have other military applications, but any large scale attempt to produce metallic beryllium or beryllia in compact form and with high purity would seem to us indicative.

Any production of heavy water which goes beyond a liter or so a month seems to us indicative, although according to our own ideas, a production considerably larger than that of the Norwegian plant would seem to be required for the success of the program. It would be interesting to find out what the output of the Rujkven plant is and where the material is shipped. It

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Figure D.796: J. Robert Oppenheimer to Robert Furman. 22 September 1943 [NARA RG 77, Entry UD-22A, Box 170, Folder 32.60-1 GERMANY: Summary Reports (1944)].

SECRET

would also be interesting to find out whether there are other sources of heavy water. All methods of obtaining heavy water known to us require large amounts of power, and for adequate production something of the order of a few hundred thousand kilowatts seems likely. The method used in this country does not involve electric power but does involve consumption of a good deal of fuel.

The production of graphite of high purity would also seem to us significant.

2. Plants

a. The nature of the plants involved in producing the material can vary a great deal, as we know by experience in this country. All methods known to us have in common the use of large amounts of power, and it seems doubtful if any significant plant could be operated on this project with less than a hundred thousand kilowatts. Power up to one million kilowatts is not out of the question. The size of the plant depends on the method used, but certainly a plant smaller than one city block looks unlikely. It seems probable that a plant of this kind would be very heavily guarded, that it would be located beyond present bombing range from Britain, and that it would be not too near the Russian frontier. Bohemia again seems likely.

b. If the Germans are operating a production pile they will be operating it where water is plentiful and where the flow from the plant passes either through open country or through country inhabited by an "inferior race" whom they do not mind killing off. A diffusion plant probably requires no remarkable supply of water, although the power would probably be provided hydro-electrically.

c. There is the possibility that work on this program is being carried out by one of the large chemical industries; for instance, I. G. Farben. In this case it would be quite possible to conceal the plant among the other war projects on the grounds of the company. This seems to us rather less likely on grounds of security, but may not be ruled out. Unfortunately, the physical nature of the plant is sufficiently flexible so that external inspection can probably not identify it.

SECRET

Figure D.797: J. Robert Oppenheimer to Robert Furman. 22 September 1943 [NARA RG 77, Entry UD-22A, Box 170, Folder 32.60-1 GERMANY: Summary Reports (1944)].

SECRET

It would probably be profitable for you to consult some of the members of this laboratory who are well acquainted with Axis physicists, and who may also be able to help by their knowledge of the laboratories and the geography. I should like again to assure you that if you can find time to pay us a visit we will do everything we can to be of assistance to you.

Sincerely yours,

J R Oppenheimer

J. R. Oppenheimer

JRO:pd

P. S. In discussions with staff members here two points have been raised which should be called to your attention. One is that the name of Clusius should have been included in the list of German physicists likely to be working on the problem. He was a pre-war expert in certain diffusion methods. We have been unable to apply these successfully in this country, but are not convinced that the Germans may not have followed them up.

The second point is that if agents can be dropped with a certain amount of equipment which they could safely store, of if agents could transmit material to us, then a very good method of detecting a pile would be to investigate the radioactivity of rivers some miles below any suspicious and secret plant. A few cubic centimeters of water from any of these rivers would enable us to find out whether a pile was operating or not. The necessary equipment is rather elaborate and it seems doubtful whether an agent could handle it in Germany or the occupied countries.

J.R.O.

SECRET

Figure D.798: J. Robert Oppenheimer to Robert Furman. 22 September 1943 [NARA RG 77, Entry UD-22A, Box 170, Folder 32.60-1 GERMANY: Summary Reports (1944)].

J. Robert Oppenheimer to Robert Furman. 22 September 1943. [NARA RG 77, Entry UD-22A, Box 170, Folder 32.60-1 GERMANY: Summary Reports (1944)]

P. O. BOX 1663
SANTA FE, NEW MEXICO

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Major Robert R. Furman
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Dear Major Furman:

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1. Raw Materials

a. The program can certainly not be carried out in any of its forms without uranium. Stocks of this material were captured by the Germans in Belgium, but they have their own sources in Bohemia. It would be extremely important to know with what urgency and on what scale these sources are being worked. [See p. 3404.] It is doubtful whether there is any other military use for uranium with a high enough priority to explain large scale exploitation of these deposits.

b. Various auxiliary substances may or may not be used in the program, and therefore evidence on these is interesting if positive, but not conclusive if negative. [See p. 4026.] The substances which we in this country have thought profitable to use for pile operation are graphite, heavy water and beryllium. There is little doubt that beryllium could have other military applications, but any large scale attempt to produce metallic beryllium or beryllia in compact form and with high purity would seem to us indicative. [See p. 4096.]

Any production of heavy water which goes beyond a liter or so a month seems to us indicative, although according to our own ideas, a production considerably larger than that of the Norwegian plant would seem to be required for the success of the program. It would be interesting to find out what the output of the Rujkven plant is and where the material is shipped. It would also be interesting to find out whether there are other sources of heavy water. [See p. 4027.] All methods of obtaining heavy water known to us require large amounts of power, and for adequate production something of the order of a few hundred thousand kilowatts seems likely. The method used in this country does not involve electric power but does involve consumption of a good deal of fuel.

The production of graphite of high purity would also seem to us significant. [See p. 4110.]

2. Plants

a. The nature of the plants involved in producing the material can vary a great deal, as we know

by experience in this country. All methods known to us have in common the use of large amounts of power, and it seems doubtful if any significant plant could be operated on this project with less than a hundred thousand kilowatts. Power up to one million kilowatts is not out of the question. The size of the plant depends on the method used, but certainly a plant smaller than one city block looks unlikely. It seems probable that a plant of this kind would be very heavily guarded, that it would be located beyond present bombing range from Britain, and that it would be not too near the Russian frontier. Bohemia again seems likely. [See p. 2098.]

b. If the Germans are operating a production pile they will be operating it where water is plentiful and where the flow from the plant passes either through open country or through country inhabited by an "inferior race" whom they do not mind killing off. [See pp. 3874, 3928.] A diffusion plant probably requires no remarkable supply of water, although the power would probably be provided hydro-electrically. [See p. 3755.]

c. There is the possibility that work on this program is being carried out by one of the large chemical industries; for instance, I. G. Farben. In this case it would be quite possible to conceal the plant among the other war projects on the grounds of the company. [See pp. 2089, 3749, 3935, 4443.] This seems to us rather less likely on grounds of security, but may not be ruled out. Unfortunately, the physical nature of the plant is sufficiently flexible so that external inspection can probably not identify it.

It would probably be profitable for you to consult some of the members of this laboratory who are well acquainted with Axis physicists, and who may also be able to help by their knowledge of the laboratories and the geography. I should like again to assure you that if you can find time to pay us a visit we will do everything we can to be of assistance to you.

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J.R.O.

[Where are all the wartime reports from the "agents in Germany"? Where are all the wartime and postwar Allied reports on any water, soil, air, or other samples that were collected and analyzed for signs of the German nuclear, chemical, or biological weapons programs? Can those be located and declassified?]

NARA RG 77, Entry UD-22A, Box 170, Folder 32.60-1 GERMANY: Summary Reports (1944)

THE UNIVERSITY OF CHICAGO

SECRET

DATE November 30, 1943
December 23, 1943

To S. K. Allison DEPARTMENT

From P. Morrison DEPARTMENT

MUC-PM-14
This document consists of 3 pages and 6 figures
No. 1 of 2 copies, Series B

In re: Report on the Enemy Materials Situation

Purpose

From available publications, it is possible to make an amateur survey of the enemy material supply. There is no doubt that the Army has available many more sources of information which can be subject to more detailed analysis. These sources, however, are not available to us at the Laboratory; it, therefore, seemed of interest for our own information to see what we could find using public sources only.

* * *

1. Metal Supply

It is generally agreed that the enemy has sufficient metal available for the purpose. Estimated amount of uranium in ore visible at Joachimsthal is about 1,200 tons.[1] In addition, it is said around the Laboratory[2] that some 800 tons were in stock at Antwerp. It may be noted that B. Rajewsky of Frankfort a. M.[3] speaks of searching for new radium deposits and for extending veins of known deposits, under government auspices, "to meet the increased wartime demand for radium."

2. Moderators

It can be seen from the figures to be presented here that the German moderator situation is rather like ours, in that none of the three preferred moderators seem totally unavailable, but all involve considerable industrial effort to produce the required quantities.

a. Beryllium

The principle commercial source of beryllium, (in the form of beryl; containing about 12% BeO) are Brazil, Argentina and Madagascar. The output from Argentina runs about 30-40 tons[4] per year of BeO. It would be.interesting to see how much of this has gone into Axis hands. The production of Madagascar, which seemed to supply European consumers preferentially before the war, has been as much as 150 tons per year[5] (1936) and here again it would be useful to find out whether Madagascar supplied considerable beryl to Eurpoe when the island was still in Vichy hands. Known deposits occur in many Axis-held sites, but only two that I can find have been mined in commercial quantities. These were in Austria and Italian Eritrea. Neither of these sites has produced sizeable quantities for the world market before. From these figures one might guess that the Germans could have obtained enough beryllium (of the order of 25-50 tons) from these neutral sources. The matter should certainly be checked, if it has not already been done.

Figure D.799: Philip Morrison to Samuel K. Allison. 30 November 1943. Report on Enemy Materials Situation. [NARA RG 77, Entry UD-22A, Box 170, Folder 32.60-1 GERMANY: Summary Reports (1944)]

NARA RG 77, Entry UD-22A, Box 170, Folder 32.60-1 GERMANY: Summary Reports (1944)

The original development work on beryllium metal carried out by Siemens has been put into the hands of two other companies, both in the region of Frankfort a. M. The first company, in the town of Hanau, is the Heraeus Vacuumschmulze A. G.; the second, in Frankfort a. M., specializes in the manufacture of BeO and is known as the Deutsches Gold-und-Silber-scheideamst.[6]

b. Heavy Water

The British and the AAF are clearly well informed about the heavy water plant at Rjukan, Norway! It is interesting that this plant had been described at length in the literature when it was finished in 1929.[7] The plant is built at Rjukan, which is the site of the cheapest electric power in the world, for the synthesis of ammonia by the Haber process. The hydrogen content was obtained by electrolysis and the nitrogen by fractional distillation of liquid air. The plant was designed and operated in close cooperation with I. G. Farben. Installed power is about 240,000 K.W. An enormous electrolysis unit (eight story building, 100 by 200 ft.) was built very close to the power plant to make the line loss small. The liberated gas was compressed and piped several miles to Rjukan for the Haber reaction. The production at Rjukan of Haber process nitrogen gas is a basis for the estimate of heavy water output. It seems fair to assume that the Germans did not install much more generating equipment, etc., because of the large magnitudes involved and the rather vulnerable location of the plant. Calculation shows that from 2 to 3 tons of heavy water are contained in the water electrolyzed per month. Assuming a good separation factor and a continuous electrolysis process, this works out to be about 1/2 ton per month of heavy water of high concentration produced. If the plant has been in operation since the occupation of Norway, with a year out for repairs, 15 tons of heavy water may have been produced. It is interesting to note that the plant at Trail was also a Haber process plant.[8] On the same basis, one estimates the Trail production at about 300 lbs. per month of heavy water. New equipment, however, was probably added at Trail.

It seems reasonable that the Germans would have a heavy water plant using coal for fractional distillation of water somewhere in Germany proper. The coal producing regions in the west of Germany are rather vulnerable; one would like to wee whether in Silesia thereis a plant which burns a lot of coal and puts out no bulky product.

c. Graphite

It has been said around the laboratory that insufficient pure coke is available to the Germans for graphite moderator production. There seem to be no published figures on the micro-constituents of the ash of petroleum crudes available in Europe, but assuming that these are not really much worse than our own mid-continent crudes, one finds that the Germans, under pressure,

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Figure D.800: Philip Morrison to Samuel K. Allison. 30 November 1943. Report on Enemy Materials Situation. [NARA RG 77, Entry UD-22A, Box 170, Folder 32.60-1 GERMANY: Summary Reports (1944)]

NARA RG 77, Entry UD-22A, Box 170, Folder 32.60-1 GERMANY: Summary Reports (1944)

SECRET

could manufacture adequate amounts of graphite. The necessary material for this purpose, besides coal tar pitch and oil, of which they have plenty, is petroleum coke. Petroleum coke can be obtained in almost any refinery, especially if it cracks the crude by the Dubbs or a related process. The coke produced in pre-war years from domestic or Rumanian crudes in Austria, Czechoslovakia, Poland, France and Rumania totals about 35,000 tons per year.[9] If one uses American yield figures and total Axis crude production, one finds a maximum of some hundred thousand tons per year. The electrode industry in Europe, mainly in France and Norway, imported from Texas and Chicago 50,000 tons of petroleum coke on 1939.[10] It is noteworthy that one pound of electrode is consumed for each two pounds of aluminum manufactured. On this basis, Europe needs 100,000 tons per year of graphite electrode. It is desirable that these electrodes be as pure as possible, because the ash materials alloy with the aluminum. Our experience indicates that the electrode manufacturers' requirements are, however, not nearly stringent enough for our purposes. It seems clear, as is generally said around the Laboratory, that most electrode graphite in Europe is made from coal coke, but it seems equally clear that barring unknown chemical difficulties, the Germans could certainly get 5,000 tons of petroleum coke-based artificial graphite. The coke supply is there and the artificial graphite industry is there.

References:

1. Minerals Yearbook, U.S.Bureau of Mines, 1940, p. 765
2. L. Szilard and others
3. Zeits. f. Phys., #8, 2nd vol of 1942.
4. For. Min. Quart, U.S.Bureau of Mines, v. 3, #1 (1940)
5. Same, vol. 1, #4, (1938)
6. Minerals Yearbook, 1936-40
7. J. of Chem. & Met. Eng., 36, 481 (1929)
8. Riegel, Indust. Chem., Reinhold Cu. 1942
9. For. Min. Quart., v. 1 & 2
10. For Commerce of U S., 1940

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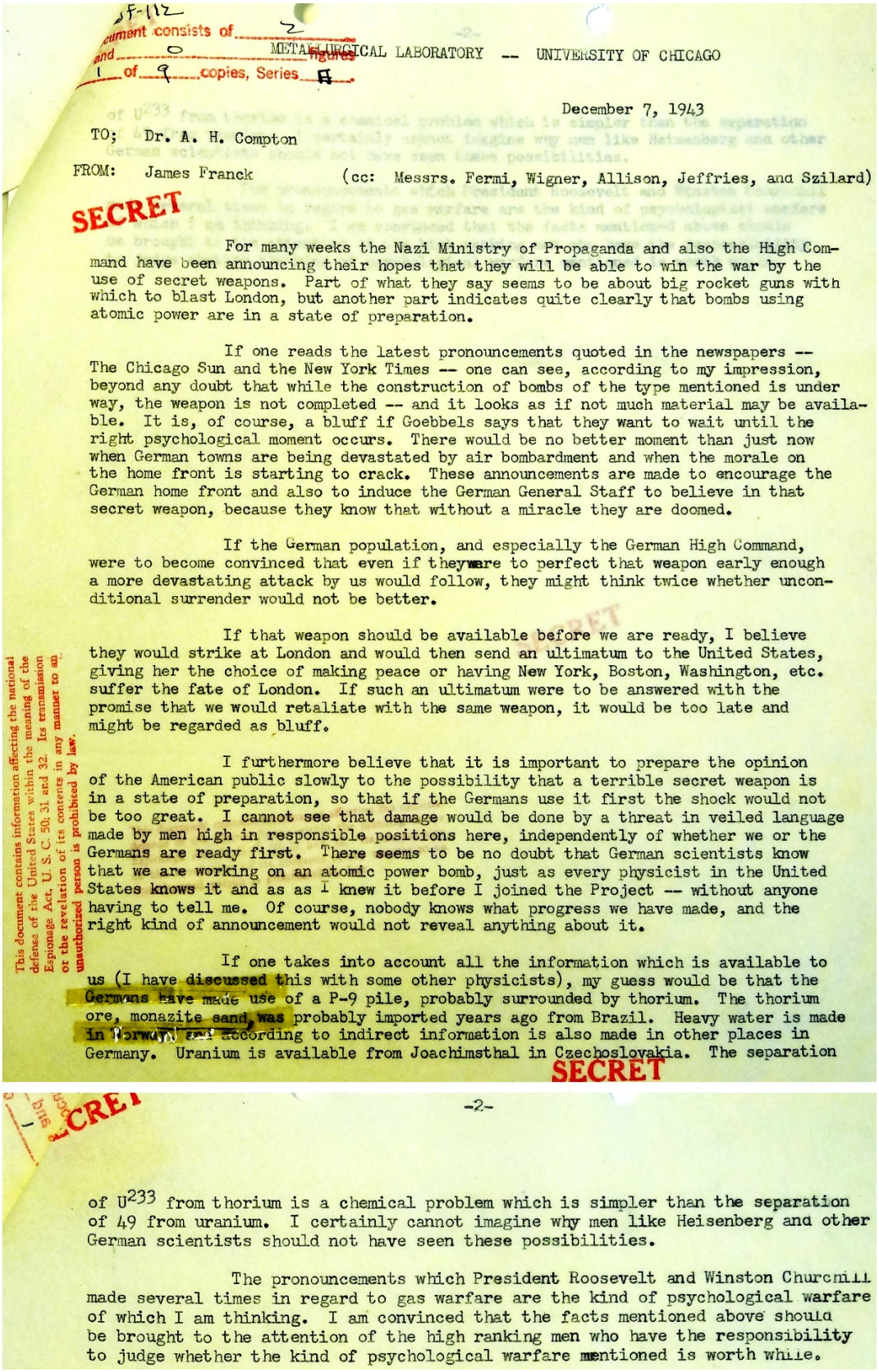
Figure D.801: Philip Morrison to Samuel K. Allison. 30 November 1943. Report on Enemy Materials Situation. [NARA RG 77, Entry UD-22A, Box 170, Folder 32.60-1 GERMANY: Summary Reports (1944)]



SF-112
Document consists of 2 pages and 0 figures
1 of 9 copies, Series A

METALLURGICAL LABORATORY -- UNIVERSITY OF CHICAGO

December 7, 1943

TO; Dr. A. H. Compton

FROM: James Franck (cc: Messrs. Fermi, Wigner, Allison, Jeffries, and Szilard)

SECRET

For many weeks the Nazi Ministry of Propaganda and also the High Command have been announcing their hopes that they will be able to win the war by the use of secret weapons. Part of what they say seems to be about big rocket guns with which to blast London, but another part indicates quite clearly that bombs using atomic power are in a state of preparation.

If one reads the latest pronouncements quoted in the newspapers -- The Chicago Sun and the New York Times -- one can see, according to my impression, beyond any doubt that while the construction of bombs of the type mentioned is under way, the weapon is not completed -- and it looks as if not much material may be available. It is, of course, a bluff if Goebbels says that they want to wait until the right psychological moment occurs. There would be no better moment than just now when German towns are being devastated by air bombardment and when the morale on the home front is starting to crack. These announcements are made to encourage the German home front and also to induce the German General Staff to believe in that secret weapon, because they know that without a miracle they are doomed.

If the German population, and especially the German High Command, were to become convinced that even if they were to perfect that weapon early enough a more devastating attack by us would follow, they might think twice whether unconditional surrender would not be better.

If that weapon should be available before we are ready, I believe they would strike at London and would then send an ultimatum to the United States, giving her the choice of making peace or having New York, Boston, Washington, etc. suffer the fate of London. If such an ultimatum were to be answered with the promise that we would retaliate with the same weapon, it would be too late and might be regarded as bluff.

I furthermore believe that it is important to prepare the opinion of the American public slowly to the possibility that a terrible secret weapon is in a state of preparation, so that if the Germans use it first the shock would not be too great. I cannot see that damage would be done by a threat in veiled language made by men high in responsible positions here, independently of whether we or the Germans are ready first. There seems to be no doubt that German scientists know that we are working on an atomic power bomb, just as every physicist in the United States knows it and as as I knew it before I joined the Project -- without anyone having to tell me. Of course, nobody knows what progress we have made, and the right kind of announcement would not reveal anything about it.

If one takes into account all the information which is available to us (I have discussed this with some other physicists), my guess would be that the Germans have made use of a P-9 pile, probably surrounded by thorium. The thorium ore, monazite sand, was probably imported years ago from Brazil. Heavy water is made in Norway [illegible] according to indirect information is also made in other places in Germany. Uranium is available from Joachimsthal in Czechoslovakia. The separation

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This document contains information affecting the national defense of the United States within the meaning of the Espionage Act, U.S.C. 50, 31 and 32. Its transmission or the revelation of its contents in any manner to an unauthorized person is prohibited by law.

SECRET

-2-

of U^{233} from thorium is a chemical problem which is simpler than the separation of 49 from uranium. I certainly cannot imagine why men like Heisenberg and other German scientists should not have seen these possibilities.

The pronouncements which President Roosevelt and Winston Churchill made several times in regard to gas warfare are the kind of psychological warfare of which I am thinking. I am convinced that the facts mentioned above should be brought to the attention of the high ranking men who have the responsibility to judge whether the kind of psychological warfare mentioned is worth while.

Figure D.802: James Franck to Arthur Holly Compton. 7 December 1943 [NARA RG 77, Entry UD-22A, Box 168, Folder 203.11—Tech. Countermeasures + RW—1943–1944]

THE UNIVERSITY OF CHICAGO

DATE December 7, 1943

TO Dr. A. H. Compton DEPARTMENT

FROM James Franck DEPARTMENT

IN RE:

RECEIVED DEC 8 1943 A. H. COMPTON

SECRET

In compliance with your request, I send you enclosed a memorandum in which I state the reasons why I believe that it would be worth while to have some official statement made, in veiled language, about that which we are doing.

In view of the fact that you want to have my statement tomorrow evening at the latest, together with the criticisms from Allison, Fermi, Wigner, Jeffries, and Szilard, I have sent to each of these colleagues a copy of my statement, with the request that they send their comments directly to you tomorrow.

James Franck.

Enc.
m

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THE UNIVERSITY OF CHICAGO

DATE December 8, 1943

TO A. H. Compton DEPARTMENT

FROM Samuel K. Allison DEPARTMENT

IN RE:

RECEIVED DEC 8 1943 A. H. COMPTON

MUC-SKA-367 1
This document consists of ____ pages and 0 figures
No. 1 of 2 copies, Series A

In view of the recent press reports, I believe that the course of action outlined by Professor Franck in MUC-JF-112 to you of December 7 should be brought to the attention of President Roosevelt.

Samuel K Allison
Samuel K. Allison

dj

Figure D.803: Top: James Franck to Arthur Holly Compton. 7 December 1943. Bottom: Samuel K. Allison to Arthur Holly Compton. 8 December 1943 [NARA RG 77, Entry UD-22A, Box 168, Folder 203.11—Tech. Countermeasures + RW—1943–1944]

SECRET

Metallurgical Laboratory

December 8, 1943

Dr. James Franck

Dr. L. Szilard

MUC # LS #8
This document consists of
3 pages and 0 figures.
No. 2 of 3 copies, Ser. A

You asked me in a communication dated December 7th to indicate my attitude towards your proposal that the Government should at this time make a veiled threat to Germany concerning our potential use of atomic power. I am giving you my views in the following.

I am not in favor of making such a veiled threat at the present time, but I believe that this question will have to be kept constantly in mind and that it might be of very great importance to make a clear announcement just a short time before the Germans are actually using radioactive poisons or their first atomic bomb. I shall therefore in the following try to write down some points of view which appear to me to be relevant.

1. It seems to me that on the basis of the information which is available thus far and on the basis of our knowledge of the ways in which things are done in Germany we have to assume that we had lost, by the middle or at the latest at the end of 1940, our initial advantage in knowledge which we had in 1939. We have to further assume that intensive work (comparable to the work in the early days of the Metallurgical Laboratory early in 1942) was started in Germany in the spring of 1940. We have further to assume that after the fall of Stalingrad many leading men in Germany will have begun to look upon atomic power as the only means to win the war for Germany and have therefore urged the German government to put behind this work a great industrial effort.

In the circumstances, our best hope to beat the Germans in this field lies in the possibility (and I should not be too optimistic about this either) that the German industrial effort put behind this work has been kept in moderate bounds due to the fact that a visible demonstration of the power of an atomic bomb was necessarily lacking until such a bomb had actually been constructed.

In view of this hope I should hesitate to advocate an announcement concerning our work since such an announcement would be seized upon in Germany by those who favor a further expansion of the German work and who at the present time might be opposed by skeptics within the German government.

2. A veiled threat at the present time, while it might do harm as stated above, would probably do little good. In order to do some good the threat would have to be very explicit and specific. An announcement in order to be really useful should achieve the following purposes:

(a) It should impress the population of the Allied countries so that if the first German atomic bomb explodes over London or if the Germans

SECRET

Figure D.804: Leo Szilard to James Franck and Arthur Holly Compton. 8 December 1943 [NARA RG 77, Entry UD-22A, Box 168, Folder 203.11—Tech. Countermeasures + RW—1943–1944]

Metallurgical Laboratory

Dr. James Franck -2- December 8, 1943

force their way into Switzerland by terrorizing them into submission through a demonstration of radioactive poisons, people should know that this is only a temporary setback and that within a reasonably short period we shall be ready to strike back. This effect could, however, only be achieved if we were willing to disclose the general nature of our work, its scope, and time schedule and if we were ready to make a counter demonstration, if not concerning the bomb then at least concerning radioactive poisons. It does not seem that at present it would be advisable or even possible to make a statement which would serve this purpose and such statements which we might at present be in a position to make would most probably sound like a bluff and be very close to a bluff in fact.

(b) It should destroy in the German General Staff the last remaining hope of German victory. In order to achieve this again something more than a bluff is needed. It is quite true that this point is a very important one and that it might shorten the war quite considerably. However, if one is allowed to draw conclusions from the experience of the first World War and the collapse which took place in October 1918, one has to say that there were three factors which brought about that collapse, of which the mental state of the German General Staff is only one. It is true that another factor, the factor of war weariness, is probably as strong in Germany at present as in October 1918. But concerning the third factor the situation is very different. In October 1918 the people who were tired of the war believed to know what was in store for them if the army quit fighting. Wilson's Fourteen Points were generally known and were considered by many as a reasonable basis for the postwar world. Therefore we had a situation in which small groups of determined men could start an upheaval, could count on the benevolent neutrality of the general population, and the General Staff, aware of the fact that they could not win the war in any case, was reluctant to advise strong measures for suppressing the uprisings.

At present the situation is very different. We have not given a picture of the postwar world which could reassure the general public in Germany that even though their present political institutions will be destroyed their everyday non-political life will go on more or less normally. Until the general public in Germany sees some sort of outlines for the post-war world in which they will have to go on living, there will be no successful uprisings whether or not the German General Staff believes that the hope for victory is gone. It follows that any announcement for the primary purpose of robbing the German General Staff of its last hope for victory would have to be correlated with an announcement of our postwar plans if our aim is to bring about a German collapse prior to an actual destruction of the German armed forces.

Since these are clearly political considerations, facts concerning which we have little information such as the willingness of the British and Russian governments of defining the postwar world at the present time must also be taken into account. Therefore I feel inclined to leave the mental state of the German General Staff completely out of consideration and to restrict my proposals to making renewed efforts for the purpose of learning something about the German preparations. If we are able to foretell the time of the first German attack which uses atomic power within a period of months or so, then we could advise the government when and what kind of statement should be released in order to diminish the panic which will most likely follow the appearance of a new weapon of this type.

LS:s L. Szilard

cc: Dr. A. H. Compton

Figure D.805: Leo Szilard to James Franck and Arthur Holly Compton. 8 December 1943 [NARA RG 77, Entry UD-22A, Box 168, Folder 203.11—Tech. Countermeasures + RW—1943–1944]

NARA RG 77, Entry UD-22A, Box 168, Folder 203.11---Tech. Countermeasures + RW---1943-1944

SECRET

THE UNIVERSITY OF CHICAGO

DATE December 8, 1943

TO A. H. Compton

DEPARTMENT

FROM E. P. Wigner

DEPARTMENT

IN RE: MUC-JF-112

RECEIVED DEC 8 1943 A. H. COMPTON

MUC- EPW #39
This document consists of 1 pages and 0 figures
No. 1 of 8 copies, Series A

Dr. Franck asked me to comment on his memorandum of December 7 (MUC-JF-112) to you.

I heartily agree with the main points of Dr. Franck's memorandum. Since we are apparently in the midst of a development which goes ahead as fast as possible, not much point remains in maintaining secrecy on the same level as before.

The question remains as to how far one might go at present in lifting the secrecy of the Tu project. The best way to indicate this, that I could think of, was to write down the text of a paragraph which could be inserted into a declaration. Obviously, the following can serve only as an indication of the extent to which one could and should go in such a declaration according to my opinion.

"We are not scared by the threat of secret weapons. We know of the rocket gun that has been developed in Germany. We also know that by means of what our scientists call chain reaction, large amounts of radioactive materials can be prepared. We are prepared against the use of these, which are, besides, prohibited by international agreements. We also know that extremely powerful explosives can be prepared by similar means, but their manufacturing is very expensive both in terms of money and in terms of raw materials so that we do not devote much effort in this direction and do not think that the enemy does. We are ready to retaliate if any of these weapons, or maybe some others, are used against us".

EPW:jc

SECRET

Figure D.806: Eugene P. Wigner to Arthur Holly Compton. 8 December 1943 [NARA RG 77, Entry UD-22A, Box 168, Folder 203.11—Tech. Countermeasures + RW—1943–1944]

NARA RG 77, Entry UD-22A, Box 168, Folder 203.11---Tech. Countermeasures + RW---1943-1944

SECRET

THE UNIVERSITY OF CHICAGO

RECEIVED DEC 9 1943 A. H. COMPTON

DATE December 9, 1943

TO Dr. A. H. Compton

DEPARTMENT MUC- HDS #13

FROM Dr. H. D. Smyth

DEPARTMENT This document consists of 1 pages and 0 figures

IN RE: No. 1 of 3 copies, Series A

With reference to the discussion that we had last Saturday with Fermi and again on Monday, I would like to suggest the formation of a Committee which should make plans to put into effect if and when our enemies make first use of the weapons which we are trying to develop. This Committee should make plans for action within the DSM projects and also for information to be given to the public should the need arise. In considering each of these objectives it must bear in mind the possibility of either radioactive or explosive action.

DSM Projects Considerations. As typical of the questions which might be considered one may mention the need of altering plans so that radioactive poisons might be produced or of concentrating on the rapid production of 49 or 25, discontinuing production methods that do not seem likely to bear fruit rapidly. It is conceivable that in an emergency operating crews for the electromagnetic separators could be supplied from the professional personnel of the Metallurgical Laboratory and other parts of the project. It is conceivable that one Hanford pile should be built with early possible simplification instead of the three now planned. Perhaps the whole K-25 project should be scrapped.

Public Information. In preparation for the possible use of either radioactive or explosive bombs, plans should be drawn up for informing the public as to what protective action could be taken, what the general nature of the problem is, and possibly something about our own state of preparation. Such information bulletins, which would presumably be broadcast and published when the need arose, should be kept on file and constantly revised in terms of new information.

Needless to say, the above are the crudest kind of suggestions but perhaps will serve as a reminder of the desirability of discussing this possibility with the General.

H. D. Smyth

HDS:s

This document contains information affecting the national [illegible] United States within the meaning of the [illegible] Its transmission

Figure D.807: Henry DeWolf Smyth to Arthur Holly Compton. 9 December 1943 [NARA RG 77, Entry UD-22A, Box 168, Folder 203.11—Tech. Countermeasures + RW—1943–1944].

NARA RG 77, Entry UD-22A, Box 168, Folder 203.11---Tech. Countermeasures + RW---1943-1944

SECRET

THE UNIVERSITY OF CHICAGO

RECEIVED DEC 9 1943 A. H. COMPTON

DATE December 9, 1943

TO A. H. Compton DEPARTMENT

FROM E. Fermi DEPARTMENT

IN RE:

MUC- EF-20
This document consists of 1 pages and 0 figures
No. 1 of 7 copies, Series A

I have a copy of a memo addressed to you by Mr. Franck on December 7. That the recent declarations of the enemy propaganda are not 100 percent bluff seems to be proved by the information that has leaked out as to their substantial interest in the production of heavy water. I do not find that we have elements to guess whether their efforts are at present in the direction of radioactive warfare or of high explosives. I am personally inclined to consider the first as a more immediate possibility, but I believe that we should be aware that the probability of the second alternative is not to be neglected entirely.

The policy that the laboratory should follow to best serve the national interest in these conditions clearly involves the speeding up of our program. Perhaps we should try to get something ready even without attempting to put the production on a very large scale as first result. It might be desirable also to devote more attention than has been done so far to the possibilities of the use of radioactive poisons and to clarify our ideas as to the policies to be followed in case of an enemy attack in this direction.

I do not have a clear feeling whether or not it would be wise at the present moment to enter the kind of psycological warfare that Franck advocates. If the enemy knows enough of our development to be aware that a very considerable effort is spent in this direction, no propaganda statement could be of much effect on the enemy leaders, and presumably could be kept a secret from the people if the leaders decide that this is desirable. On the other hand, I agree with Franck that in case of an enemy attack, some previous declaration that we are about ready to retaliate might make the shock on our public opinion less severe.

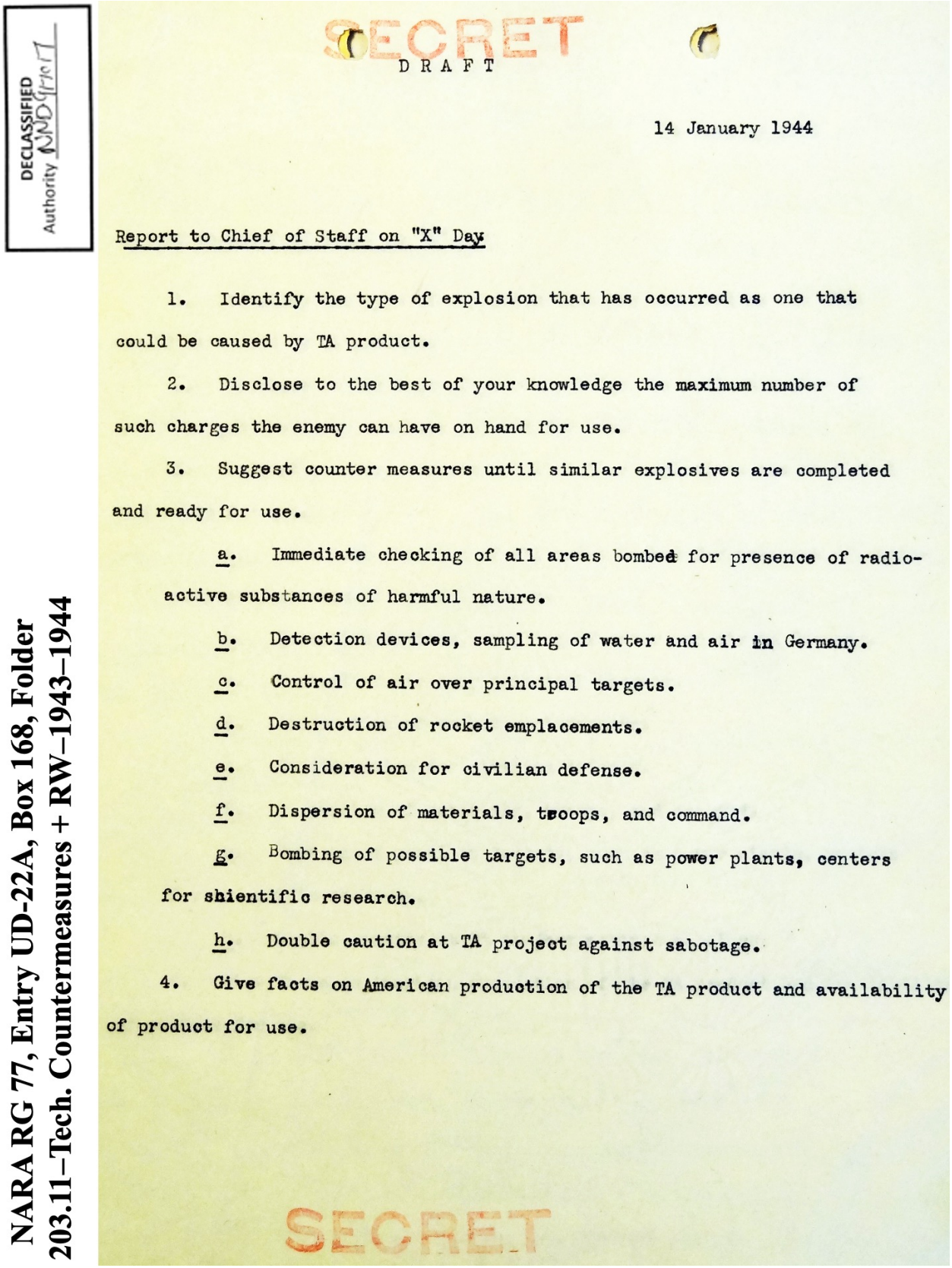
E. Fermi

EF me
cc Wigner
Allison
Jeffries
Szilard
Franck

This document contains information affecting the national defense of the United States within the meaning of the Espionage Act, U.S.C. 50 ; 31 and 32. Its transmission or the revelation of its contents in any manner to an unauthorized person is prohibited by law.

SECRET

Figure D.808: Enrico Fermi to Arthur Holly Compton. 9 December 1943 [NARA RG 77, Entry UD-22A, Box 168, Folder 203.11—Tech. Countermeasures + RW—1943–1944].



SECRET

DRAFT

14 January 1944

Report to Chief of Staff on "X" Day

1. Identify the type of explosion that has occurred as one that could be caused by TA product.

2. Disclose to the best of your knowledge the maximum number of such charges the enemy can have on hand for use.

3. Suggest counter measures until similar explosives are completed and ready for use.

a. Immediate checking of all areas bombed for presence of radio-active substances of harmful nature.

b. Detection devices, sampling of water and air in Germany.

c. Control of air over principal targets.

d. Destruction of rocket emplacements.

e. Consideration for civilian defense.

f. Dispersion of materials, troops, and command.

g. Bombing of possible targets, such as power plants, centers for shientific research.

h. Double caution at TA project against sabotage.

4. Give facts on American production of the TA product and availability of product for use.

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Figure D.809: Report to Chief of Staff on “X” Day [if the explosion of a German atomic bomb is detected]. 14 January 1944 [NARA RG 77, Entry UD-22A, Box 168, Folder 203.11—Tech. Countermeasures + RW—1943–1944].

NARA RG 77, Entry UD-22A, Box 171, Folder 32.7003-1
GERMANY: US Wartime Positive Int. (July 42-June 44)

SECRET

29 February 1944

Meeting with Dr. Oppenheimer - 22 February 1944

1. The necessity for knowing the description and personal traits of seven German scientists was discussed. These were:

Heisenberg
von Weiszacker
Clusius
Flugge
Strassman
Bothe
Dickel

Security was emphasized.

2. Dr. Oppenheimer told all he knew of Heisenberg, von Weiszacker and Bothe. He knew nothing of the others.

3. In a conference with Dr. Tolman, Dr. Oppenheimer and Major Furman, it was decided that:

a. Further information could be obtained from Bethe, Teller, Weisskopf, von Newman, Freish.

b. For security reasons it was decided to discuss these German scientists with Bethe only.

3. Bethe reiterated details on Heisenberg. He added his knowledge of Bothe, von Weiszacker, Flugge. He knew nothing of Strassman, Dickel or Clusius.

4. Suggestions were made as to people in the United States who knew these seven men, i. e., Franck and DeBye.

5. It was decided that:

a. Additional information would be obtained from others in the laboratory without causing undue interest. This information will be sent as it becomes available to Major Furman.

b. Snapshots of all German scientists would be forwarded to Furman. These would be copied and returned.

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Date and place of photograph and names of individuals would be given where possible.

6. It was recommended that Dr. Compton be advised through Peterson of our desire for photographs.

Second Meeting with Oppenheimer and Tolman

1. The letter written to Furman by Oppenheimer on was reviewed and the information obtained to date was related and evaluated. The 700 tons and activity at Czech mines were mentioned.

2. The main thoughts that came out of the meeting were:

a. British no longer aggressive in getting positive information.

b. That in many minds uranium and explosives are linked together.

c. In light of shipments of electrical equipment to Manchuria, movements of German technical men to Manchuria, Japan should be watched.

d. Uranium movement should be watched.

Meetings with Dr. Tolman

1. It was decided that any information on bombs in intelligence reports which might be of use to Parsons would be screened by Dr. Fine.

2. Dr. Lauritzen Taylor may be a useful man to do field work on detection devices in England.

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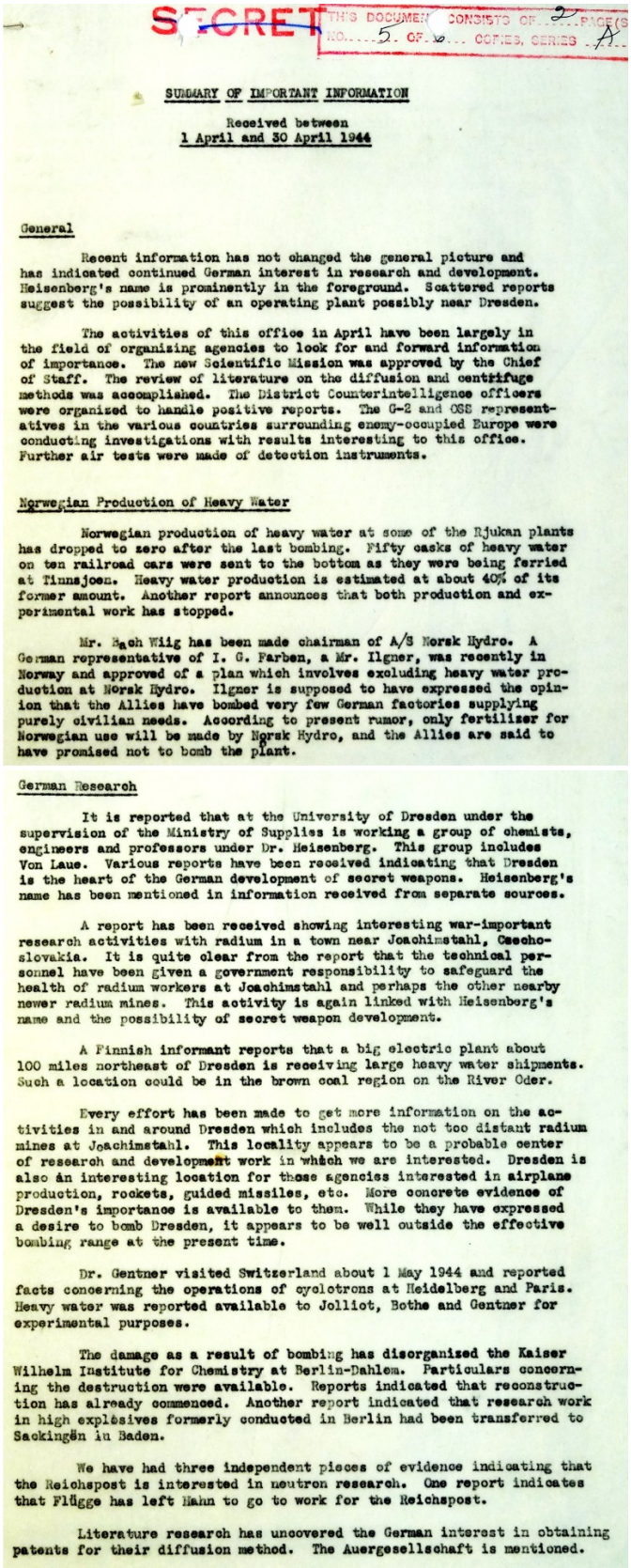
Figure D.810: Robert R. Furman. 29 February 1944. Memo on meetings with Oppenheimer, Bethe, and Tolman [NARA RG 77, Entry UD-22A, Box 171, Folder 32.7003-1 GERMANY: US Wartime Positive Int. (July 42–June 44)].



SECRET THIS DOCUMENT CONSISTS OF 2 PAGES NO. 5 OF 6 COPIES, SERIES A

SUMMARY OF IMPORTANT INFORMATION

Received between
1 April and 30 April 1944

General

Recent information has not changed the general picture and has indicated continued German interest in research and development. Heisenberg's name is prominently in the foreground. Scattered reports suggest the possibility of an operating plant possibly near Dresden.

The activities of this office in April have been largely in the field of organizing agencies to look for and forward information of importance. The new Scientific Mission was approved by the Chief of Staff. The review of literature on the diffusion and centrifuge methods was accomplished. The District Counterintelligence officers were organized to handle positive reports. The G-2 and OSS representatives in the various countries surrounding enemy-occupied Europe were conducting investigations with results interesting to this office. Further air tests were made of detection instruments.

Norwegian Production of Heavy Water

Norwegian production of heavy water at some of the Rjukan plants has dropped to zero after the last bombing. Fifty casks of heavy water on ten railroad cars were sent to the bottom as they were being ferried at Tinnsjoen. Heavy water production is estimated at about 40% of its former amount. Another report announces that both production and experimental work has stopped.

Mr. Bach Wiig has been made chairman of A/S Norsk Hydro. A German representative of I. G. Farben, a Mr. Ilgner, was recently in Norway and approved of a plan which involves excluding heavy water production at Norsk Hydro. Ilgner is supposed to have expressed the opinion that the Allies have bombed very few German factories supplying purely civilian needs. According to present rumor, only fertilizer for Norwegian use will be made by Norsk Hydro, and the Allies are said to have promised not to bomb the plant.

German Research

It is reported that at the University of Dresden under the supervision of the Ministry of Supplies is working a group of chemists, engineers and professors under Dr. Heisenberg. This group includes Von Laue. Various reports have been received indicating that Dresden is the heart of the German development of secret weapons. Heisenberg's name has been mentioned in information received from separate sources.

A report has been received showing interesting war-important research activities with radium in a town near Joachimstahl, Czechoslovakia. It is quite clear from the report that the technical personnel have been given a government responsibility to safeguard the health of radium workers at Joachimstahl and perhaps the other nearby newer radium mines. This activity is again linked with Heisenberg's name and the possibility of secret weapon development.

A Finnish informant reports that a big electric plant about 100 miles northeast of Dresden is receiving large heavy water shipments. Such a location could be in the brown coal region on the River Oder.

Every effort has been made to get more information on the activities in and around Dresden which includes the not too distant radium mines at Joachimstahl. This locality appears to be a probable center of research and development work in which we are interested. Dresden is also an interesting location for those agencies interested in airplane production, rockets, guided missiles, etc. More concrete evidence of Dresden's importance is available to them. While they have expressed a desire to bomb Dresden, it appears to be well outside the effective bombing range at the present time.

Dr. Gentner visited Switzerland about 1 May 1944 and reported facts concerning the operations of cyclotrons at Heidelberg and Paris. Heavy water was reported available to Jolliot, Bothe and Gentner for experimental purposes.

The damage as a result of bombing has disorganized the Kaiser Wilhelm Institute for Chemistry at Berlin-Dahlem. Particulars concerning the destruction were available. Reports indicated that reconstruction has already commenced. Another report indicated that research work in high explosives formerly conducted in Berlin had been transferred to Sackingen in Baden.

We have had three independent pieces of evidence indicating that the Reichspost is interested in neutron research. One report indicates that Flügge has left Hahn to go to work for the Reichspost.

Literature research has uncovered the German interest in obtaining patents for their diffusion method. The Auergesellschaft is mentioned.

Figure D.811: Summary of Important Information Received between 1 April and 30 April 1944 [NARA RG 77, Entry UD-22A, Box 170, Folder 32.60-1 GERMANY: Summary Reports (1944)].

SECRET

DRAFT

9 May 1944

Press Release in the Event of Use of Tube Alloy by the Enemy.

1. News account of actual use by enemy citing its effect upon property and lives, comparing it with the effect of HE projectiles and noting any latent dangers, if any.

2. The nature of the substance. How and where the raw materials are found and refined, the rareness of the materials, the difficulty in manufacture, in assembling, in filling the missile for use.

3. The probable use by the enemy, maximum capacity of plants, number of units per month, expense involved, possible targets.

4. What to do: Disregard stories of of super weapon, do not spread stories of possible catastrophic effects, particularly those mentioning terms like "red death" and other meaningless terms of a frightening nature. Civilian Defense will indicate measures to be taken promptly. Army officials are fully informed.

5. What the United States has developed, equal productxxx,top capacity in production, no time has been lost, every priority has been given to the work, Science is at the front, every qualified man has been trained for this specialized work.

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Figure D.812: Press Release in the Event of Use of Tube Alloy by the Enemy. 9 May 1944 [NARA RG 77, Entry UD-22A, Box 168, Folder 203.11—Tech. Countermeasures + RW—1943–1944].

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THE UNIVERSITY OF CHICAGO

DATE May 29, 1944

To R. R. Furman DEPARTMENT

FROM P. Morrison DEPARTMENT MUC- PM-41

IN RE: Comments on Requirements (SAM 4R 168)

This document consists of 1 pages and 0 figur
No. 1 of 5 copies, Series A

1. Supplies and Auxiliary Equipment

The fluorination and Hex producing plants, while not large, may be sufficiently unusual to stand out in the neighborhood. It would be good to have a little more detailed estimate of what supplies would be shipped to the plant (tank HF, fluorspar, or whatever) and what sort of chemical equipment might be feasible there. Also, what firms would most probably engage in such activity.

2. History of the Plant

It is perfectly true that it is difficult to identify these plants from photos alone, but one cannot help thinking that the growth of these plants must have made an imprint for some distance around. For example, both the LTD and K-25 plants contain miles of piping with a great deal of steam fitting and pumping activity. This would certainly imply an oil refinery or large chemical synthesis plant, of which so many have been built in Germany. Yet out of this plant there is no arrangement for bulk transport of freight cars of rubber or tank cars of oil or any large scale production. This contrast can hardly have escaped railroad workers, operating personnel, and even construction workers. If we have any way to secure information from these groups, it would seem worth while pursuing. Especially an LTD plant into which so much coal pours and out of which nothing comes for almost a year should cause wonder. The centrifuge plant is also an odd one. Here one finds thousands of identical units installed with considerable care by fine machinery firms (could we have a guess on which ones are the most likely) and again no product.

3. Vulnerability

SAM 4R 168 emphasizes the need for uninterrupted operation of these plants. The necessity for tight systems is well known to everyone. It seems clear that such a plant, from which the enemy can hope for victory, will be extremely well guarded, since a rather small but expert raid, like that on the dams, would shortly ruin it. The question then comes as to what policy the enemy is most likely to follow to make his plants secure against bombing, if he began building the plants two years or so ago. This question should have a most probable answer, obtained from people who have watched the efforts of the Germans to move their industry east, and to conceal industrial production. LTD plants are essentially steam plants which are normally rather conspicuous. What we need is an estimate of how much effort the enemy would make to conceal these plants and to locate them in areas believed at that time safe against our bombing.

P. Morrison

PM me
cc K. Cohen
J. King
B. W. Menke

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4-R-168
5-24-44

Industrial Requirements of Separating Plants

Karl Cohen

I. General Requirements of Separating Plants.

We will take as our unit the production of 1 kg. of light metal per day at a concentration of 10% or higher. So far as material and energy requirements are concerned the purity of the product is of very little concern; the mole fraction of the product above 10% effects practically nothing but the equilibrium time of the plant. A plant producing 1 kg. of light metal per day will be referred to as a full-scale plant, and one producing 100 grams of light metal per day as a 10th-scale plant.

The requirement of metal depends on the relative difficulty of producing metal compared to building more stripping section of the plant. In the early stages of our calculations we considered that it would be necessary to strip out 50% of the available light metal from the feed. As we became more skilled in the production of hex, and more cognizant of the difficulties of building separating plants, the amount of stripping dropped first to 30% and then finally to 10% where it is now. However, it must be emphasized that this decision is based on our own supply of metal and our own facilities for producing hex and may not necessarily apply to the Germans. If they should be short of ore they might decide to strip considerably more than we do. Accordingly, we give figures for necessary metal production on two bases; 10% stripping and 30% stripping. These figures will be pretty sure to bracket the actual values. Assuming 10% stripping there is required 1.4 tons per day of metal, or 2.0 tons per day of hex as feed to a going plant. Assuming 30% stripping, the corresponding figures are 0.5 tons per day of metal or 0.7 tons per day of hex. The charge of material in process is about 30 tons of metal for a liquid thermal diffusion plant (45 tons of hex) and about 4 tons of metal (6 tons of hex) for K-25 or centrifuges.

The power requirements for full scale plants differ with the particular type of plant. The K-25 plant at site X has a power plant of 200,000 kw. on site and requires 75 tons of coal per hour. A centrifuge plant on the present design would require about the same amount, but this could probably be improved by better design by a factor of 2. A liquid thermal diffusion plant would require a boiler house consuming 550 tons of coal per hour. All of these plants thus require rather enormous power plants which could not easily be hidden.

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5-24-44

The utilities which are required for these plants are mainly cooling water, pumps, cooling towers and so on. The cooling water required, assuming all the cooling be done by using a river and taking a 5° rise, would be

Liquid thermal diffusion plant - 210 cu. meters/sec.
K-25 - 30 cu. meters/sec.
Centrifuge plant - 15 to 30 cu. meters/sec.

The Elbe at Dresden and the Oder at Breslau have a flux of about 100 cu. meters/sec. No cooling equipment would be needed except for a full-scale LTD plant if the plants were located on either of these rivers.

Leakage of hex in any isotope separation plant will be nil, since the tightness requirements for successful separation are almost unbelievable. K-25 might conceivably lose carbon fluorides to the cooling water in case of a leak, but in view of the value of this product this will be minute. Accidental line breakage in an LTD plant could release hex to the outer air, where it would hydrolyse into an oxide and H.F. Probably not more than the contents of a single tube (~1.5 kg.) could escape this way at one time. K-25 and centrifuges run at below atmospheric pressure and would be enclosed respectively in meticulously air-conditioned cells or vacuum chambers, so this possibility is much less.

Requirements for continuous operation are strict: at least six months for K-25 or centrifuges, and at least a year for LTD.

Personnel requirements are of the order of 2000 men per shift for all plants.

With regard to subdivision we may distinguish between in-line plants like K-25 which could not be subdivided into smaller units, and multiple-unit plants such as a centrifuge plant or an LTD plant which could be divided into almost any number of subdivisions without seriously affecting the operation of the cascade. Because of the conspicuousness which a power plant of the size required for full-scale LTD would have it is almost inevitable that it would be separated into units of 10th-size plants. The centrifuge plant would not have the same reasons for dispersal, and, since spinning centrifuges is not a very simple technique, one might surmise that the degree of efficient subdivision would be less, say units of third to half size. A diffusion plant, as mentioned above could not be subdivided at all.

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5-24-44

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The covered process area of a full centrifuge plant, according to a design which has been proposed in this country, would be 1,000,000 square feet. K-25 at Site X will have 4,000,000 square feet enclosed. LTD might have 600,000 square feet. Buildings in all cases would be about 40-50 feet high. The area of subsidiary plants, such as fluorine plants or metal fluorinating plants are negligible quantities.

We may get some insight into plant requirements by considering American and British practice. The K-25 plant at Site X is situated on a rather small river from which cooling water is drawn. However, most of the load of heat dissipation is carried by cooling towers. The 75 tons of coal per hour is brought into the plant by railroad from nearby mines. On the other hand, the pile at Site W which dissipates one-half million kilowatts of heat energy - about the same as produced by the coal at K-25 - is cooled directly by a large river. The three units are spaced quite widely. The British pilot plants and test floors are located in Wales for security reasons.

Summing up all the evidence here presented and taking into account the particular difficulties of the German economy at present (lack of rolling stock and untenability of Ruhr valley) we can form a most probable picture of German plants:

LTD: Tenth-scale plant or plants, located on rivers or canals near coal fields in central or sout-east Germany. Upper or lower Silesia particularly suitable. No particular characteristics of tenth-scale plants to distinguish from any other medium scale manufacturing enterprise. Large power plant but not excessive. No evidence of recent construction.

K-25: Full-scale plant easily recognizable by large surface area like assembly plant. However, no assembled product. Large power plant, but not excessive. For location, see LTD above.

Centrifuges: Half-scale plant or plants. Possible location as for LTD, but other possibility is behind Berlin, as coal requirement is less. This situation could be defended by capitol's anti-aircraft defenses, and benefit by proximity to fine machinery industry. Not necessarily located on a large river or canal.

NARA RG 77, Entry UD-22A, Box 170, Folder 32.60-1 GERMANY: Summary Reports (1944)

Figure D.813: Karl Cohen. 24 May 1944. Requirements. [NARA RG 77, Entry UD-22A, Box 170, Folder 32.60-1 GERMANY: Summary Reports (1944)]

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II. Some Consideration on German Economy.

It is of interest to see what scale of enterprise could be supported by the German economy in any particular district. The following tables show the breakdown of European coal and lignite production by fields[1]:

Coal Field	Production in 1000 metric tons	Lignite Field	Production (1000 t.)
Germany (1936)		Germany (1936)	
Ruhr	107,478	Rhine	48,754
Saar	11,673	Central(W.of Elbe)	68,420
Aachen	7,634	E.of Elbe+ Silesia	41,395
Lower Silesia	5,042	Others (+ Bavaria)	2,828
Prussian Upper Silesia	21,065	Total	161,397
Saxony	3,462		
Lower Saxony	1,851		
Others	78		
Total	158,283		
Czechoslovakia (1935)		Czechoslovakia (1935)	
Austro-Karwin	7,724	N. Bohemia	11,450
Kladno	1,306	Falkenau	2,739
Pilsen	938	S. Moravia	277
Zadler	469	Others	648
Rossitz	362	Total	15,114
Others	95		
Total	10,894		
Poland (1936)		Poland (1936)	14
E. Upper Silesia	22,020		
Dombrova	5,650		
Cracow	2,080		
Total	29,750		
Belgium (1936)	27,876		
France (1936)	45,226	France (1936)	920
Netherlands (1936)	12,803		

1 Rice, G.S.: Coal-mining in Europe; U.S. Department of the Interior, Bulletin No. 414.

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German coal production increased rather rapidly during the pre-war years, while it remained about constant in the other countries.

Production in Thousands of Metric Tons

Country	1926	1930	1932	1936	1937	1938	1939
Germany							
Coal		142,698		158,283	184,513	186,177	200,000
Lignite	139,877			161,397	183,538	195,312	230,000
Poland							
Coal				29,750	36,218	38,104	
Czech							
Coal		14,600	11,053		16,778	15,800	
Lignite	18,799		15,910	15,949	17,895	14,717	
Belgium							
Coal		27,400		27,876	29,859	29,585	29,847
France							
Coal		47,800		45,226	44,319	46,498)	
Lignite				920	1,015	1,057)	51,000
Austria							
Coal					230	227	
Lignite					3,242	3,342	
Netherlands							
Coal				12,803	14,321	13,488	12,861
Lignite					143	171	197
German Upper Silesia							
Coal		18,000		21,065			
Polish Upper Silesia							
Coal		28,200		27,670	(33,700)	(35,400)	

It should be remarked that German lignite is low quality fuel, which when mined is about 50% water, and has about one-third the heating value of good bituminous coal[2]. The Bohemian lignite is better, with about one-half the calorific value of bituminous coal. Lignite can, however, be burned as mined in special equipment.

2 H. Wesche, "Die Brennstoffe" (Enke, Stuttgart 1936)
M. Dolch "Die Brennstoff u. Ohre Industrien" (Akad.Verlag,Leipzig 1932).

RET LIMITED 4-R-168 7 5-24-44

The pre-war coal producing picture shows that by far the major portion of the coal in Europe was mined in the lower Rhine Valley (about 280,000,000 tons per year of coal plus 50,000,000 tons per year of lignite). Rather extensive deposits of low-grade fuel, located in or near Saxony, were being vigorously developed by the enemy with the aid of mechanical equipment (about 100,000,000 tons per year). Another major center was the Silesian fields (upper and lower) with a combined production of 60,000,000 tons per year of high-grade coal and 50,000,000 tons per year of lignite. Thus, on a purely quantitative basis, the enemy has all the coal he can possibly need - say the equivalent of 500,000,000 tons per year of bituminous coal. This should be compared to the figure of 5,000,000 tons per year needed for a full-scale LTD plant. However, the geographical distribution of the coal producing areas leads to a less favorable picture. The heavily-attacked Ruhr valley is obviously an unsuitable location for a separation plant. Thus it must be placed further East where it will depend on the Saxon or Silesian coal fields. But these fields must be straining to meet the unexpected load caused by the dislocation of production in the western coal fields, and the development of new industries in the East. The enemy appears to have most of his coal in the wrong place: even if he mines it he cannot transport it to where he wants to use it. Under these circumstances 5,000,000 tons of coal a year in the right place is no longer a negligible quantity. The enemy prospects are somewhat brightened by the extreme richness of the upper Silesian fields, which could be developed to almost any capacity.

III. Productive Capacity of Aussig Area.

Aussig is situated in German Bohemia, just outside the pre-war boundaries of Germany. There are about 40,000 inhabitants in the town, of whom about 75% are of German origin. It is the principal traffic center in Northern Bohemia, with the biggest river traffic of any harbor on the Elbe up to Hamburg. It is a center of considerably heavy industry. It is located on the eastern edge of the Bohemian brown coal fields and is connected by railroad with the principal mining town such as Dux (18 miles), Brüx (27-1/2 miles) etc. It is also connected with the field around Falkenau by the Eger river. The railroad line running from Aussig to Carlsbad has a branch line leading to Joachimsthal (5-1/2 miles). The pre-war production of brown coal in Czechoslovakia ran about 18,000,000 tons per year, of which 85% was from the Aussig field.

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Remembering that the heating value of brown coal is only about 1/3 to 1/2 as much as that of bituminous coal, the requirement of a full-scale LTD plant in tons per year of brown coal would be between 10 and 15 million tons per year. Thus the Czechoslovakian coal field could not support a full-scale LTD plant without completely disorganizing production in such important industries as the Skoda Armament Works and so on. However, it could easily support a tenth-scale LTD plant, or any other separation plant. The Elbe at Aussig has a flow of about 100 cubic meters per second, and so would supply ample cooling water. The region is just outside of bombing range reckoned at 600 miles from Foggia or from London.

Dresden is 53 miles from Aussig by rail or by river. It is not particularly noted for heavy industry, its main items of manufacture being cigarettes and chocolates. The Technische Hochschule at Dresden is the main institution of learning and had in 1938 130 tutors and about 3,000 students. There doesn't seem to be any compelling reason why Dresden should be chosen as the headquarters of a scientific team connected with a plant at Aussig. A conceivable explanation of the presence in Dresden of two of Heisenberg's collaborators might be that the Zeiss-Ikon factory which is located there is developing new optical instruments.

Figure D.814: Karl Cohen. 24 May 1944. Requirements. [NARA RG 77, Entry UD-22A, Box 170, Folder 32.60-1 GERMANY: Summary Reports (1944)]

PLANT DESCRIPTION: 49 PRODUCTION

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P. Morrison

May 31, 1944

MUC- PM-415
This document consists of 4 pages and 0 figures
No. 1 of 5 copies, Series A

General:

It is fair to preface this account with a personal estimate that the enemy is not likely to be engaged in full-scale 49 production. He is likely to have made a chain-reactor, probably even to pilot-plant scale, but little more. The reasons for this estimate have been given elsewhere. The possible methods of construction for a chain-reacting plant are very diverse, much more so than for any of the other types of plant. We cannot exclude the enemy's using a method very different in detail from the ones here implied. This report restricts itself, however, to the general features of plants which from U.S. experience appear simplest and most feasible under the enemy's conditions.

Scale and size of installation:

Enemy production of one device per month is a dangerous scale for us; he could secure nearly decisive effects starting only now, since six months or more remain before we reach one device. This will be referred to as military scale; it amounts to a power dissipation of about 400 megawatts (Mw)--about equal to two Hanford units. This is about one third kilo per day of product. Generally speaking, this plant would be a medium-size manufacturing installation, much smaller than the giant HEW plant, or the full-scale LTD plant, described in SAM4-R-168 by Cohen. Even half-scale here, however, is a dangerous plant, if it entered early enough into production.

Material needs:

With the best practical cooling schemes, military-scale units require at least 40 T of uranium, almost certainly as metal, held in the plant. Continuous economic operation requires 1-2 T/d of new metal. Note that the production of five devices on this basis will use at least 200 T of metal, or more probably 300 T of uranium content as ore or oxide. The metal could be recovered in years to come, but the 49 process is actually not more economical in uranium needs on a wartime basis than the isotope separation processes, unless 49 proves to make a much smaller final device.

The most probable second special material is P-9. For military-scale, the enemy needs at least 30 T, and probably upwards of 60 T, of this most expensive material. This requires burning 3 to 5 million T of German coal for steam. P-9 production must have been carried out by the use then of a total boiler capacity burning more than 1 million T/yr. of coal. This will have been done in a low-pressure steam installation at some other chemical or heating plant or plants, and does not represent an excessive burden on enemy fuel resources.

Other materials, notably concrete, will appear in the section on plant appearance. Normal industrial apparatus for the process industries, heat exchangers, pipes and fittings, stainless steel pumps and tanks, make up the list. Considerable heavy materials--Pb bricks, large iron blocks in 100 T lots--might also be expected. Graphite in 100 T lots is also probable.

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Sub-division or combination:

The military-scale plant might be divided into three or four separate units. More likely is the existence of one site of military scale, with some duplication of structures at one site of a square mile or two near a river.

We tend to discount a full-scale plant working combined with a separations unit.

Physical appearance:

The most probable military scale plant looks like this: A river-side site, not very close to a city, on which is situated a medium-scale industrial establishment. Water treatment and cooling provisions bulk large in comparison with other structures at the site. Unusual features include one or several similar structures about 100' on a side and 50-100' high, which are reasonably heavily built and may even resemble large concrete tanks. These are supplied with much water by near-by large pump houses. There is near each such unit a low and very massive concrete structure of similar area, or, alternatively, each unit is connected by a heavy underground or surface railway or by a water-filled canal with a single very massive concrete structure of somewhat larger size. Isolated water and material storage tanks are visible, unless below ground. Large ventilation plants, probably with tall stacks, not accompanied by any sign of furnaces, are to be expected at each massive concrete building. In general, water, ventilation and internal transport facilities are out of proportion to the other process buildings, which tend to be of massive construction. Total roof area is under a half million feet. No heavy loads are brought into or out of the site, though they may be moved around the site. Ground reports and even careful photo-reconnaissance should identify such a plant more easily than one of the separation type, apart from physical means of detection. It must not be forgotten that extensive concealment of the main units by underground construction is possible, and even quite attractive for the main units. Auxiliaries, especially the water-cooling system, must still be left free to the air, or to a river. With effort, however, this medium-size enterprise could be almost completely concealed from aerial cameras.

Economic geography:

Security from bombing and sabotage and plenty of pure, cold, cooling water will alone determine the site. Transport of material is no consideration. The upper stretches of the Danube (or its large tributaries, as the Inn,) the Elbe, and the Oder seem the most likely bets. It is admitted that cooling towers might be used at a site not close to a large river. The plant will surely be in a German region. The plant is reasonably vulnerable to bomb hits, while personnel and material transport offer no large-scale problems for enemy industrial and rail facilities. Water and safety are the prime objectives.

It would be of great value to obtain an opinion from someone familiar with the enemy's methods of plant concealment and relocation. He could estimate to what trouble the enemy will go to hide such a plant, and where, say two years ago, the Germans would have placed a plant to protect it from our bombers.

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Utility needs and transport:

Local steam plant at the site, together with outside power lines, must deliver around 150 Mw of energy (heat and power) with at least 30 Mw of local mechanical stand-by power, available at all times. This implies a medium-sized power plant, with an ordinary smokestack and barge or railroad facilities for 500 to 1000 T of coal a day: more, if no large power lines and substations are at the site.

Cooling water needs are most conspicuous. The site is likely to be beside a large tributary or a principal river. At least 50,000 gpm of water will be needed for all purposes. Either large cooling towers (one for each unit, some 50' on an edge) or river pumping facilities out of all proportion to the coal consumed and the smoke generated by the stacks will be found. It is likely that large reservoirs, probably covered concrete basins, will be installed, as well as high tanks holding several times 10^4 gallons of water. If the site is near a river, it is likely that a large water filtration and treatment installation covering as much as a hundred thousand square feet will be seen. If the plant is not by a river, well-isolated cooling towers or spray ponds must exist.

Usual industrial rail facilities, without signs of bulk output or input once construction is complete, are needed.

Personnel - safety and security:

A thousand men per shift is a fair estimate of the personnel. Special safety and security precautions are likely. Unusual hazards are presented; men will be barred from areas where there is no visible danger, neither heat, high tension, nor vapors. Some personnel will wear instruments as a safety means. Routine blood counts and periodic medical examinations may be made. Some small and specially-guarded store houses or laboratories will be found. The plant will not be an urban one; the site will not be directly up-stream from a large town.

Accidents:

Possible radiation burns and enforced absences of some personnel for anemic conditions may occur. A few instances of pieces of equipment being removed into an isolated area or even buried, some interest in samples of stack gas or river water, may be reported.

Physical detection of such a plant from planes or from river water samples is very probable.

Academic and commercial connections:

Experts from the KWI in Berlin and in Frankfort a. M., connected with the laboratories of Heisenberg and Rajewsky should be visitors or permanent employees. Material suppliers are very likely the Auergesellschaft in Berlin, and the Degussa in Frankfort a. M. The plant construction was probably done by Degussa or I. G., with contact with the academic circles noted above.

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Timing and "strategic" estimates:

This sort of plant contains three to five independent units, each using considerable P-9. The development of the site should have begun in 1940, and an operating pile plant may have existed as early as 1941, long before military-scale was reached. The bulk of construction might have been done then, in 1941-42, while full operation is unlikely before middle 1943, unless he has a huge P-9 capacity for which we have no evidence. These are guesses based on P-9 needs and general conclusions from the enemy literature (especially the technical Al cross-section work of middle '42--see survey report P.) The enemy is given full credit for starting large scale effort in early 1940, one year after fission discovery. By 1941 he was making P-9 at some 10 to 20 T per year. All these times are clearly sheer guesses.

The whole 49 possibility is made unlikely by the difficulty of utilization of product and by German industrial eminence in more normal chemical lines. The general impression of the plant description here given is that this is a plant we could with effort find and destroy, but it is not a plant likely to exist in Germany.

It is true that the slowness of construction assumed is largely due to the expensiveness of P-9. The enemy might with effort use graphite, but then his metal needs and general scale go up almost to HEW levels, a less likely state of affairs. That he is in any case reasonably slow is fortunately demonstrated by the one sure fact that we have to this date felt no bombs.

PM me
cc Cohen
King
Menke

Figure D.815: Philip Morrison. 31 May 1944. Plant Description: 49 Production. [NARA RG 77, Entry UD-22A, Box 170, Folder 32.60-1 GERMANY: Summary Reports (1944)]

NARA RG 77, Entry UD-22A, Box 170, Folder 32.60-1 GERMANY: Summary Reports (1944)

~~SECRET~~ THIS DOCUMENT CONSISTS OF 1 PAGE(S)
NO. 1 OF 5 COPIES, SERIES A

P. O. BOX 1663
SANTA FE, NEW MEXICO

June 5, 1944

Major Robert Furman
P. O. Box 2610
Washington, D. C.

Dear Major Furman:

We have had a request from Dr. Morrison to send you some account of what sort of installation, equivalent to Y, the Germans might have or need. We have discussed this matter informally with you in the past and the present statement is only for the record.

1. The answer to this question is complicated to the point where it may be useless by the fact that the program of Y is a fairly ambitious one and that it may be paralleled in Germany, but that a possible program making less advantageous use of material and requiring a much greater production schedule could be carried out with much more meager facilities and less talented personnel.

2. In general we should say that any program involving the use of 49 would have as indispensable parts a large chemical and metallurgical group, a group working on nuclear physics experimentally, some strong theoretical advice, and an ordnance program, not necessarily very extensive but involving unconventional ordnance problems and at least one proving ground. We should doubt whether even with modest objectives and reasonably long time scale effective use could be made of 49 by an installation with a personnel under 200, and our estimate of the time needed for the development of the necessary methods would be at least two years from the foundation of the organization, and at least six months from the time when macroscopic amounts of 49 would be available.

3. In the case of an organization devoted exclusively to the application of 25 and operating along conservative lines we should again expect a group of experimental nuclear physicists, strong theoretical advice, and a metallurgy and engineering group which might operate with conventional means, but which would undoubtedly need a proving ground of some kind. For this problem we believe that a

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Figure D.816: Luis Alvarez and J. Robert Oppenheimer to Robert Furman. 5 June 1944 [NARA RG 77, Entry UD-22A, Box 170, Folder 32.60-1 GERMANY: Summary Reports (1944)].

NARA RG 77, Entry UD-22A, Box 170, Folder 32.60-1 GERMANY: Summary Reports (1944)

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Major Robert Furman
Page 2
June 5, 1944

minimum of 100 people would be needed and that probably a year and a half would be required to carry out the necessary development. These estimates of time and personnel are minimal and imply no radical development work.

4. It is possible that the Germans may be contemplating other methods of solving the problems of Y than have occurred to us or seem to us promising. Any installation would have to have a rather strong group in experimental nuclear physics, would have to have competent theoreticians, engineers and metallurgists. An installation of the size of Y would imply on the part of the Germans an effort to make the most effective use of the material and to provide weapons of great military significance with a somewhat restricted production schedule.

5. It has already been pointed out to you that the position of Heisenberg in German physics is essentially unique. If we were undertaking the Y program in Germany, we should make desperate efforts to have Heisenberg as collaborator. It is hard for us to believe that they would be embarked on this program without taking advantage of his help.

Sincerely yours,

Luis W. Alvarez

Luis Alvarez

J R Oppenheimer

J. R. Oppenheimer

cc: General Groves
Philip Morrison

Figure D.817: Luis Alvarez and J. Robert Oppenheimer to Robert Furman. 5 June 1944 [NARA RG 77, Entry UD-22A, Box 170, Folder 32.60-1 GERMANY: Summary Reports (1944)].

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1. The answer to this question is complicated to the point where it may be useless by the fact that the program of Y is a fairly ambitious one and that it may be paralleled in Germany, but that a possible program making less advantageous use of material and requiring a much greater production schedule could be carried out with much more meager facilities and less talented personnel.

2. In general we should say that any program involving the use of 49 [plutonium-239] would have as indispensable parts a large chemical and metallurgical group, a group working on nuclear physics experimentally, some strong theoretical advice, and an ordnance program, not necessarily very extensive but involving unconventional ordnance problems and at least one proving ground. We should doubt whether even with modest objectives and reasonably long time scale effective use could be made of 49 by an installation with a personnel under 200, and our estimate of the time needed for the development of the necessary methods would be at least two years from the foundation of the organization, and at least six months from the time when macroscopic amounts of 49 would be available.

3. In the case of an organization devoted exclusively to the application of 25 [uranium-235] and operating along conservative lines we should again expect a group of experimental nuclear physicists, strong theoretical advice, and a metallurgy and engineering group which might operate with conventional means, but which would undoubtedly need a proving ground of some kind. For this problem we believe that a minimum of 100 people would be needed and that probably a year and half would be required to carry out the necessary development. These estimates of time and personnel are minimal and imply no radical development work.

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Luis Alvarez

J. R. Oppenheimer

cc: General Groves
Philip Morrison

Robert R. Furman to Leslie R. Groves. 13 June 1944. Subject: Report of Meetings in London from 24 May to 3 June 1944. [NARA RG 77, Entry UD-22A, Box 166, Folder 32.22-1—GERMANY—Research—TA—(1943–June 1946)]

[...] 5. Professor Jensen of Hamburg, who was reporting directly to Bohr on activities in Germany and Norway, has not come out of Germany again since Bohr's escape. It is suspected that he is either dead or came to Bohr with definite intentions to spy.

6. Dresden, often rumored to be active in the project field, was definitely tied to the crossbow project and to hydrogen peroxide, the propellant of the rocket. Little evidence is now at hand which can prove that Dresden is active in the field except in minor experimental research.

7. Bohr has new fears of German activity and after a meeting with me wrote a full report of his feelings in the matter which is attached. A plan was initiated to aid a German scientific publisher who has written neutrals of his intention to escape from Nazi Germany.

8. Several teams parachuted into Czechoslovakia on other business and have been requested to report on activities at Dresden and Joachimsthal. [...]

[This NARA document references attachments that are no longer with it. Where did they go?]

NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 GERMANY: Summary Reports (1945–1946)

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THIS DOCUMENT CONSISTS OF 1 PAGES, NO. 1 OF 3 COPIES, SERIES A

WAR DEPARTMENT
P. O. Box 2610
WASHINGTON, D. C.

REFER TO FILE No. _____

28 July 1944

Subject: Enemy Activity.

MEMORANDUM to Major General L. R. Groves

1. Up until lately there were no signs of government interest in nuclear research except in ways and at laboratories which did not seem adequate for the "Y" problems. Recent reports (Reichspost Laboratory, alternative Kaiser Wilhelm Institute at Bisingen, implied connection of Heisenberg with German Ordnance Research at Dresden) indicate that a high priority government-sponsored project which is involved not with production but with nuclear research, using the top German nuclear physics personnel, may be now underway. There seems to be strong evidence for a German "Y" project, which appears to have begun early in 1943. The reports do not exclude the possibility that they understood the fundamentals of the "Y" problem before then.

2. Enemy production of explosives devices by piles at a dangerous level appears to be very unlikely. This is based partly on the evidence of late beginning of serious activity by nuclear physicists, and partly on the great cost and conspicuousness of sizable production by this means. There is, however, good evidence of small-scale pile operation. It is possible that the enemy is producing 25 by LTD. Critical examination of this method shows that the enemy could produce at a rate of, say, 1/4 kilogram per day without noticeable strain or the need for large installations.

R. R. FURMAN,
Major, Corps of Engineers.

cc destroyed 1 May 47

Figure D.818: Robert Furman to Leslie Groves. 28 July 1944. Subject: Enemy Activity [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 GERMANY: Summary Reports (1945–1946)].

Philip Morrison and Karl Cohen. 31 July 1944. Appraisal of Enemy Bomb Production. [NARA RG 77, Entry UD-22A, Box 168, Folder 203.11—Tech. Countermeasures + RW—1943–1944]

APPRAISAL OF ENEMY BOMB PRODUCTION

Summary

Recent evidence essentially confirms our earlier general statements on enemy bomb production. The reports now at hand lead us to conclude:

1. A German "Y" project has been underway since early 1943. [Project Y = Los Alamos, i.e., production of nuclear bombs.]

2. A D_2O pile is in operation, but we do not believe that this is on production level.

3. It is implied that a separation method is operating at a production level, for it is surely improbable that the enemy will organize a utilization group without something to use.

We include a time schedule, and a technical discuss of the probable means employed.

Enemy production of devices can be as high as:

1. 1 device every 3 months—on the assumption that 30 kg of material are required per device.

2. 1 device every month—on the assumption that 10 kg of material are required per device.

In either case the first completed device could be in enemy hands now.

[Morrison and Cohen then spent several pages of their 31 July 1944 memo explaining their assumptions and calculations that led to these estimates. See pp. 4743–4744 for photos of the complete memo.

U.S. Manhattan Project scientists wrote a number of memos that proposed various scenarios by which Germany could be pursuing a nuclear weapons program that would be consistent both with what little information Allied intelligence had from Germany and also with the scientific requirements of U-235/Pu-239/U-233 production that the Manhattan Project scientists had learned firsthand. The memos shown here are just a few examples.

The basic conclusion of all of these memos was that as far as Allied intelligence and the inherent requirements of nuclear physics could tell, it was entirely possible (although certainly not proven) that Germany could be producing enough U-235, Pu-239, and/or U-233 for nuclear weapons.]

Report by Dr. Morrison & Dr. Cohen

No. 1 of 4, Series A. in Technical Reports File

SECRET

31 July 1944

APPRAISAL OF ENEMY BOMB PRODUCTION

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In either case the first completed device could be in enemy hands now.

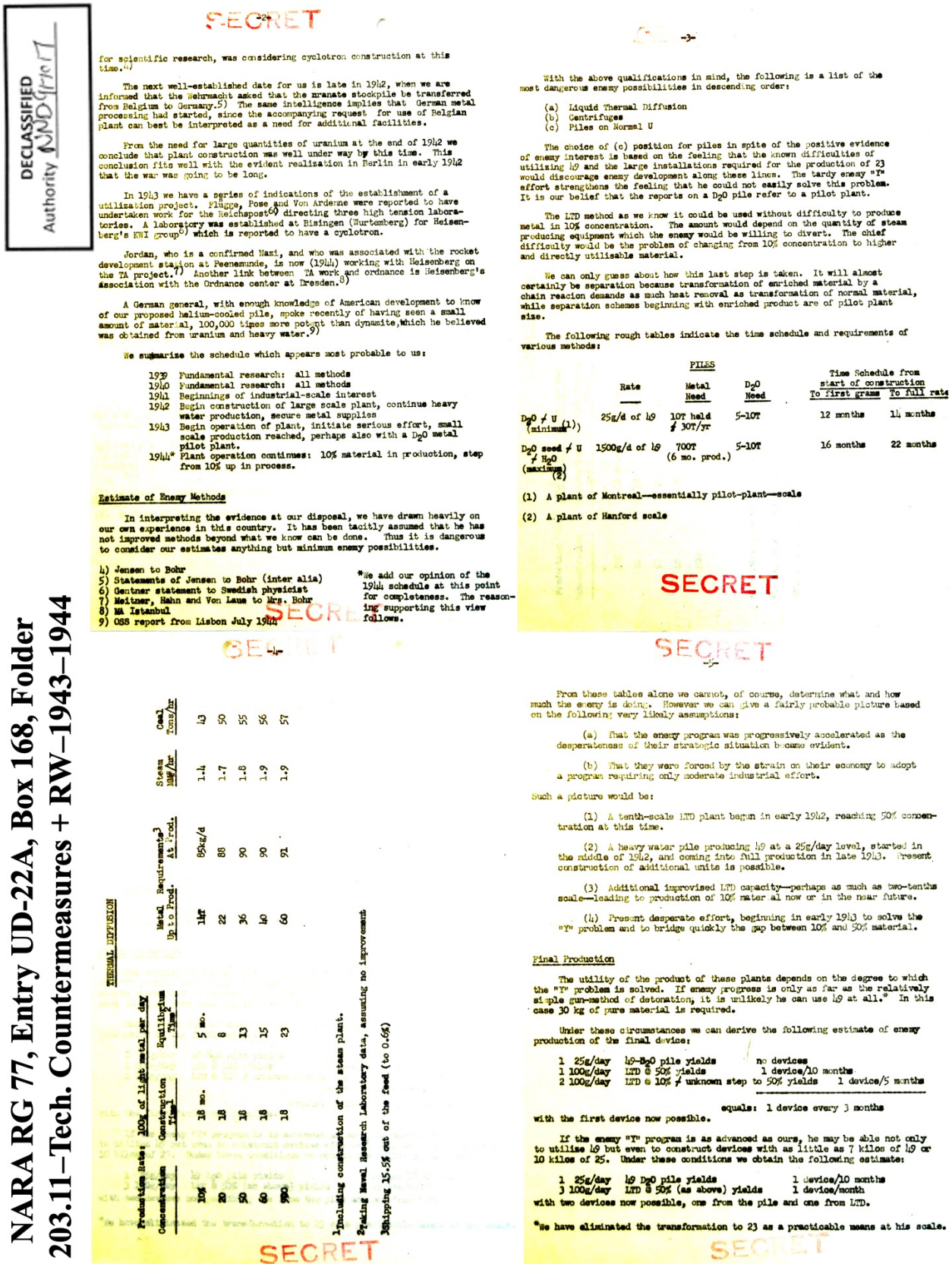
Account of Enemy Development From Present Information.

Enemy work on this problem dates from early 1939 when nuclear fission was discovered. Even before this he had a background of work on isotope separation. During the first two years of the war (September 1939-September 1941) his effort was not well centralized. There was little dislocation of scientists; there was no widespread scheme of draft deferment. A rather extensive program on fundamentals was carried out by several research groups, and many necessary results obtained. Strong interest was shown from the start by the Kaiser Wilhelm Institute in both nuclear properties and separation techniques. We know this mainly from the literature which was published in 1943 after a typical delay of two years. During this period Heisenberg moved to the important post of Director of the KWI for Physics. In September 1941 he told Bohr that he had been fully occupied with TA work in the two preceding years. Patents published in 1941 show industrial interest in the problem.[2]

Throughout 1942 it appears that interest was maintained in the heavy water production from Rjukan, and within Germany on separation methods as well. [3] [4] The Reichspost, the government agency with the best reputation

2) Auer Patent DRP
3) British Rjukan Intelligence
4) Jensen to Bohr

Figure D.819: Philip Morrison and Karl Cohen. 31 July 1944. Appraisal of Enemy Bomb Production. [Y=nuclear bombs, 49=plutonium-239, 23=uranium-233, 25=uranium-235] [NARA RG 77, Entry UD-22A, Box 168, Folder 203.11—Tech. Countermeasures + RW—1943–1944]



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NARA RG 77, Entry UD-22A, Box 168, Folder 203.11–Tech. Countermeasures + RW–1943–1944

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for scientific research, was considering cyclotron construction at this time.[4]

The next well-established date for us is late in 1942, when we are informed that the Wehrmacht asked that the uranate stockpile be transferred from Belgium to Germany.[5] The same intelligence implies that German metal processing had started, since the accompanying request for use of Belgian plant can best be interpreted as a need for additional facilities.

From the need for large quantities of uranium at the end of 1942 we conclude that plant construction was well under way by this time. This conclusion fits well with the evident realization in Berlin in early 1942 that the war was going to be long.

In 1943 we have a series of indications of the establishment of a utilization project. Flügge, Pose and Von Ardenne were reported to have undertaken work for the Reichspost[6] directing three high tension laboratories. A laboratory was established at Bisingen (Wurtemberg) for Heisenberg's KWI group[6] which is reported to have a cyclotron.

Jordan, who is a confirmed Nazi, and who was associated with the rocket development station at Peenemunde, is now (1944) working with Heisenberg on the TA project.[7] Another link between TA work and ordnance is Heisenberg's association with the Ordnance center at Dresden.[8]

A German general, with enough knowledge of American development to know of our proposed helium-cooled pile, spoke recently of having seen a small amount of material, 100,000 times more potent than dynamite, which he believed was obtained from uranium and heavy water.[9]

We summarize the schedule which appears most probable to us:

1939 Fundamental research: all methods
1940 Fundamental research: all methods
1941 Beginnings of industrial-scale interest
1942 Begin construction of large scale plant, continue heavy water production, secure metal supplies
1943 Begin operation of plant, initiate serious effort, small scale production reached, perhaps also with a D_2O metal pilot plant.
1944* Plant operation continues: 10% material in production, step from 10% up in process.

Estimate of Enemy Methods

In interpreting the evidence at our disposal, we have drawn heavily on our own experience in this country. It has been tacitly assumed that he has not improved methods beyond what we know can be done. Thus it is dangerous to consider our estimates anything but minimum enemy possibilities.

4) Jensen to Bohr
5) Statements of Jensen to Bohr (inter alia)
6) Gentner statement to Swedish physicist
7) Meitner, Hahn and Von Laue to Mrs. Bohr
8) MA Istanbul
9) OSS report from Lisbon July 1944

*We add our opinion of the 1944 schedule at this point for completeness. The reasoning supporting this view follows.

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-3-

With the above qualifications in mind, the following is a list of the most dangerous enemy possibilities in descending order:

(a) Liquid Thermal Diffusion
(b) Centrifuges
(c) Piles on Normal U

The choice of (c) position for piles in spite of the positive evidence of enemy interest is based on the feeling that the known difficulties of utilising 49 and the large installations required for the production of 23 would discourage enemy development along these lines. The tardy enemy "Y" effort strengthens the feeling that he could not easily solve this problem. It is our belief that the reports on a D_2O pile refer to a pilot plant.

The LTD method as we know it could be used without difficulty to produce metal in 10% concentration. The amount would depend on the quantity of steam producing equipment which the enemy would be willing to divert. The chief difficulty would be the problem of changing from 10% concentration to higher and directly utilisable material.

We can only guess about how this last step is taken. It will almost certainly be separation because transformation of enriched material by a chain reacion demands as much heat removal as transformation of normal material, while separation schemes beginning with enriched product are of pilot plant size.

The following rough tables indicate the time schedule and requirements of various methods:

PILES

	Rate	Metal Need	D_2O Need	Time Schedule from start of construction: To first grams	To full rate
D_2O + U (minimum(1))	25g/d of 49	10T held + 30T/yr	5-10T	12 months	14 months
D_2O seed + U + H_2O (maximum(2))	1500g/d of 49	700T (6 mo. prod.)	5-10T	16 months	22 months

(1) A plant of Montreal—essentially pilot-plant—scale

(2) A plant of Hanford scale

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From these tables alone we cannot, of course, determine what and how much the enemy is doing. However we can give a fairly probable picture based on the following very likely assumptions:

(a) That the enemy program was progressively accelerated as the desperateness of their strategic situation became evident.

(b) That they were forced by the strain on their economy to adopt a program requiring only moderate industrial effort.

Such a picture would be:

(1) A tenth-scale LTD plant begun in early 1942, reaching 50% concentration at this time.

(2) A heavy water pile producing 49 at a 25g/day level, started in the middle of 1942, and coming into full production in late 1943. Present construction of additional units is possible.

(3) Additional improvised LTD capacity—perhaps as much as two-tenths scale—leading to production of 10% material now or in the near future.

(4) Present desperate effort, beginning in early 1943 to solve the "Y" problem and to bridge quickly the gap between 10% and 50% material.

Final Production

The utility of the product of these plants depends on the degree to which the "Y" problem is solved. If enemy progress is only as far as the relatively simple gun-method of detonation, it is unlikely he can use 49 at all.* In this case 30 kg of pure material is required.

Under these circumstances we can derive the following estimate of enemy production of the final device:

1 25g/day 49-D_2O pile yields — no devices
1 100g/day LTD @ 50% yields — 1 device/10 months
2 100g/day LTD @ 10% + unknown step to 50% yields — 1 device/5 months

equals: 1 device every 3 months

with the first device now possible.

If the enemy "Y" program is as advanced as ours, he may be able not only to utilise 49 but even to construct devices with as little as 7 kilos of 49 or 10 kilos of 25. Under these conditions we obtain the following estimate:

1 25g/day 49 D_2O pile yields — 1 device/10 months
3 100g/day LTD @ 50% (as above) yields — 1 device/month

with two devices now possible, one from the pile and one from LTD.

*We have eliminated the transformation to 23 as a practicable means at his scale.

SECRET

THERMAL DIFFUSION

Production Rate: 100g of light metal per day					
Concentration	Construction Time[1]	Equilibrium Time[2]	Metal Requirements[3] Up to Prod.	At Prod.	Steam MW/hr	Coal Tons/hr
10%	18 mo.	5 mo.	1kT	95g/d	1.4	43
20%	18	8	22	88	1.7	50
50%	18	13	36	90	1.8	55
80%	18	15	40	90	1.9	56
90%	18	23	60	91	1.9	57

[1]Including construction of the steam plant.
[2]Taking Naval Research Laboratory data, assuming no improvement
[3]Shipping 15.5% out of the feed (to 0.6%)

SECRET

Metallurgical Laboratory
P.O. BOX 5207
CHICAGO 80, ILLINOIS
BUTTERFIELD 4300

SECRET

August 1, 1944

TO: R. R. Furman

FROM: P. Morrison

It seems now sensible to make all possible technical preparations against the possible enemy employment of a final device. I should like to make two proposals which carry out my conversation earlier this week:

1. A significant feature of our estimate of enemy capabilities is now the possibility of his success at the Y level. Collaboration on a more or less day to day basis with someone familiar with the fundamental nuclear problems and with the details of the ordnance problems of the Y group should be made possible for Cohen and myself. It is my understanding that you consult leading personnel at Y, but I should prefer to see some such detailed work as was done last weekend at Washington begun by an individual with Y background. If it is absolutely necessary for security reasons, this individual can work independently from the two of us, but he should have access in detail to the source material and to our reports. It seems to me that both Oppenheimer and Alvarez have too great responsibilities to be spared even on a part time basis. They can surely suggest someone who would meet the need.

2. There are a number of technical possibilities which will enable us to derive information from and perhaps anticipate the use of an enemy device.

a) The device will probably not operate on contact. This implies some timing arrangement which, while not unusual for artillery, has apparently not been employed on aerial bombs or on the robot planes. Can we expect to see enemy experimentation or proving tests with such timed explosions, perhaps even over our territory if pilotless means are to be employed? What other ordnance lines could be followed in an effort to gain information on enemy progress? What place has their advanced rocket knowledge and their unfamiliar propellant materials?

b) Actual enemy employment of such a device will provide a chance for us to guess his capacity and the nature of his plant. It would be desirable to know (1) the amount of material employed, (2) the efficiency of utilization, and (3) the nature of the material. From an outsider's point of view, I would expect that such data could be obtained from observation of the area of effectiveness, from collection of samples and their analysis by mass spectrograph or alpha counting (differential or otherwise). The fission product activity to alpha activity ratio would also help. It seems clear that Y not only can estimate whether such experiments are feasible and how they should be done, but also take the responsibility of providing personnel and equipment on a stand-by basis.

SECRET

P. Morrison

PM me
cc: Cohen

Figure D.821: Philip Morrison to Robert R. Furman. 1 August 1944 [Y=Los Alamos/nuclear bombs] [NARA RG 77, Entry UD-22A, Box 168, Folder 203.11—Tech. Countermeasures + RW—1943–1944].

SECRET

STANDARD FORM NO. 64

Office Memorandum · UNITED STATES GOVERNMENT

DATE: 5 August 1944

TO : Major General L. R. Groves

FROM : Major R. R. Furman

SUBJECT :

It is recommended that someone at "Y" be brought up to date on the intelligence reports available in this office at the present time, particularly those concerning the possibility of a German installation equilavent to "Y".

It is further recommended that an individual at "Y" make a plan which can be employed in the event the enemy uses a device in order to determine the size of the charge and particularly the elements used (49, 23, 25).

FURMAN

Mary Ann. For my attention on Wednesday

Call Capt Parsons on this on Wednesday

Write to Marion saying we will be notified when problem is worked out

SECRET

Figure D.822: Robert R. Furman to Leslie Groves. 5 August 1944. [Y=Los Alamos/nuclear bombs, 49=plutonium-239, 23=uranium-233, 25=uranium-235] [NARA RG 77, Entry UD-22A, Box 168, Folder 203.11—Tech. Countermeasures + RW—1943–1944]

SECRET

August 26, 1944

Mr. J. R. Oppenheimer
P. O. Box 1663
Santa Fe, New Mexico

Dear Opje,

I have been interested in the remote detection of explosions involving some thousands of tons of TNT. Major Furman has recently informed me by telephone that Seismic methods for such detection are unsatisfactory. It was impossible for him to supply me with the conditions governing this conclusion. I am, therefore, writing to your laboratory for any information which you may have on these problems. It would be very nice if you could send this material directly to me. If, however, this does not seem consistent with best security procedure, it would be just as satisfactory if you would assure me that these details have been considered in reaching the conclusions of which Major Furman spoke. Essentially, my point in writing is to make sure that the conditions for the experiment have been fully set forth. Here are some questions:

1) Against the background of normal seismic and micro-seismic disturbances, what terrain and with what instrumentation can 10,000 ton explosion be detected? The answer to this question will be a function of the degree of coupling between explosive and the earth. It would be nice to have the limiting cases.

2) In the case of no ground coupling, can such an explosion be detected by low frequency acoustical measures such as the hot wire microphone or an equivalent instrument? Again, what are the background and distance limitations?

3) Should such an event be accompanied with a proportionate amount of activity, what elapsed time would permit of the best localization by air and group samples? Also what upper limit can be set to the elapsed time before air sample detection becomes impractical? I think here of long delays of the order of months.

If your laboratory can supply me with these answers or simply with a statement that the conclusions on the problem have been transmitted to the proper people, I should be quite grateful.

My best regards to everyone, especially to Pete and Kitty.

Yours,

P. Morrison

SECRET

me
cc:R. R. Furman

Figure D.823: Philip Morrison to J. Robert Oppenheimer. 26 August 1944 [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)].

SECRET THIS DOCUMENT CONSISTS OF ____ PAGE(S) NO. ____ OF ____ COPIES, SERIES ____

August 29, 1944

Dr. Philip Morrison
P. O. Box 5207
Chicago, 80, Illinois

Dear Phil:

Thank you for your letter of August 26th. I shall do my best to answer your questions although clear-cut answers which will apply to all likely conditions are in most cases impossible.

1. Ground shock may be estimated from the following facts: If the charge is set off at the surface of the earth, about 20% of the energy goes into the ground. Some of this is used in crater formation, but you will not be far off in taking this figure as an instantaneous energy release for computing seismic signals. In the context in which you are interested there certainly will be many signals from other sources which may be comparable in intensity to the one you are looking for. The one you are looking for will be distinguished by an abnormal length. If the charge is set off 100 feet above ground the energy that goes into the ground is only a few tenths of a percent. If it is set off 1000 feet below ground practically all the energy will go into the earth. It is easy to calculate the amplitude and duration of the pressure pulse from a point source of energy liberated in the ground and this is left as an exercise to the reader.

2. Detection of air blast is probably possible at distances of the order of 100 miles. Here again two precautions are necessary; The wave you are looking for will be distinguished from wind by a sharp front and from the blast from smaller, nearer explosions, by great length. The microphone in which the back surface of the chamber is rigid and is not coupled to the diaphragm and in which the natural frequency of the diaphragm is high, will give a faithful record of such a pulse. The length of pulse to be expected at 100 miles is several seconds. The over pressure is some hundredth's of a pound, and as far as we know the front should be very steep. This method of observation is probably the least affected by the circumstances which you will not know.

3. It is impossible without knowing the details of the set-up to predict what will happen to the activities. With

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Figure D.824: J. Robert Oppenheimer to Philip Morrison. 29 August 1944 [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)].

little surrounding matter and set off well above the ground, they may, and probably will, reach the stratosphere. If a good deal of matter is heated up and carried out by the hot gases, mushrooming may occur as it does with ordinary explosions at a height of some 10,000 feet. What happens after that will depend on the wind and weather. There will probably be a rain.

4. Neutrons are, of course, completely out for remote detection and so are Gamma rays.

In view of the nature of your interest and responsibility I see nothing inappropriate in providing you with such meager information as we have. I am, however, sending a copy of this letter to Lt. Colonel Lansdale so that he may be aware of the extent of the information which you have received.

With all warm regards,

Sincerely yours,

J. R. Oppenheimer

JRO:sb

cc: Major Furman
Lt. Col. J. Lansdale

SECRET

Figure D.825: J. Robert Oppenheimer to Philip Morrison. 29 August 1944 [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)].

NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 GERMANY: Summary Reports (1945-1946)

Around Oct 1944

TARGETS IN GERMANY

1. Berlin

Plants: Auergesellschaft A.G. (Degea). Research and plant facilities of highest importance. Hold a monopoly of U processing in Germany.

Wintershall, A.G. Germany's second largest chemical company. Home office in Berlin. (Hohenzollenstr. 139, Kassel)

Siemens & Halske, A.G., Siemenstadt, Berlin (northwest section) Largest manufacturer of electrical equipment. Reported to have an atomic physics laboratory. Siemens-Schuckertwerke, A.G. a subsidieary also located in Berlin.

Algemeine Elektricitats-Gesellschaft (AEG) Friedrich-Karl-Ufer 2/4 Manufacturer of electrical equipment. Similar to Siemens.

Allgem Radium Akt.-Ges. Radiogen, Berlin
Small radium firm. Should be checked for Ra sales.

Osram Electrical Company. 71 Rigaer Strasse, Berlin. Reported as having an atomic physics laboratory.

Figure D.826: Targets in Germany. October 1944 [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)].

NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 GERMANY: Summary Reports (1945-1946)

Berlin

Kaiser Wilhelm Institutes

KWI for Physics (also called Max Planck Institute)
Berlin-Dahlem, Boltzmannstrasse 20

A central target reported to have new rural locations as well in the Bisingen and Tubingen region.

Personnel: W. Heisenberg - key man
H. Bomke
W. Maurer
H. Pose (recently reported with Reichspost)
Wolfgang Ramm
F. Bopp
K. H. Hocker
A. Klemm
G. Moliere
W. Wefelmeier

KWI for Chemistry, Thielallee 63, Berlin-Dahlem

Probably a service group, but expert in all radio-chemical matters, and in mass-spectroscopy.

Personnel: Otto Hahn, Director, called openly anti-Nazi by many reliable sources but has received two official academic awards in last years. Home address, Allensteinstr 48.

A. Flammersfeld, Nuclear physicist
Otto Erbacher, Experiences radio chemist
K. Phillip
F. Rehbein
Fritz Strassmann
H. Gotte
Brigittee Gysal
C. Lieber
Kurt Sauerwein
W. Seelmann-Eggebert
H. E. Zimens
G. F. Von Droste
Josef Mattauch - leading mass-spectrograph worker
H. Ewald, Associate of Mattauch

Figure D.827: Targets in Germany. October 1944 [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)].

NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 GERMANY: Summary Reports (1945-1946)

Berlin

Technische Hochschule, Berlin Charlottenburg

Involved in early fundamental work.

K. Diebner Reported advisor to Wehrmacht. Key man, probably located elsewhere. Visited Joliot in Paris,

H. Geiger A much-respected elderly man. Likely to be involved in advisory capacity

E. Grassmann
O. Haxel
H. Volz Working on neutrons
E. Stublinger

Laboratory of Manfred von Ardenne, Berlin-Lichterfeld-Ost

Manfred von Ardenne, Well known Nazi inventor. Boasted of U bomb. Connected with Reichspost and University of Berlin laboratories.

Fritz Houtermans, Anti Nazi, Communist
Idse Bartz

Reichspost Laboratory (Amtfur Physikalische Sonderfragen)

This ministry is directed by Wilhelm Ohnesorge, a man with strong Nazi connections and research experience. This organization is reported to directing German work on the subject and has laboratories in rural locations.

S. Flügge, formerly with Hahn
H. Pose formerly with Heisenberg
D. Lyon Young theorist
Von Ardenne and his group are also reported working for Reichspost (see above)

Figure D.828: Targets in Germany. October 1944 [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)].

Berlin

Kaiser Wilhelm Gesellschaft

Alfred Vögler, President
Rudolf Mentzel, vice president
Phillipp Lenard, Senator (pro-Nazi physicist)
Carl Krauch, Senator
Ernst Telschow, business manager

KWI für Physikalische-und-Elektro Chemie

Peter Adolf Thiessen, director. Recently made Leiter der Fachparte "Allgemeine u. Anorganische Chie" of the Reichsforschungsrat.

Laboratory at Osram Electrical Company, 71 Rigaer Strasse Berlin
(Studiengesellschaft fur elektrisch Beleunhtung)
Dr. Schon - director of laboratory
Lt. Peyron, physicist (French liberated prisoner)

Frankfurt a. M.

Plants

Deutsche Gold und Silber Scheideanstalt,
Weissfrauenstrasse 9, Frankfurt - factory and main office building. Controls physical facilities in Germany for manufacture of all precious metals and rare earths. Auer of Berlin is subsidiary.

W. C. Heraeus G.m.b.H., Hanau (near Frankfurt)
Largest refiners of platinum, second largest company in precious metal field in Europe. Most experienced and skillful staff of Metallurgists. Quality of their work has given them almost a complete monopoly in fabrication of rare and precious metals.

Heraeus Vacuum-Schmelze
Affiliate of W.C. Heraeus. Only producer of beryllium alloys in Germany.

Metallgesellschaft A.G.,
Bockenheimer Anlage 45, Frankfurt

I. G. Farbenindustrie, A. G.
Grunenburgplatz, Frankfurt a. M.
The largest chemical combine in Germany, comparable to du Pont in U. S.

Radium-Chemie
Firm handling uranium metal and compounds.

Frankfurt a. M.

University of Frankfurt
Inorganic Chemistry and Nuclear physics

H. Schmitz
H. J. Schumacher
H. Dänzer, theorist, interested in cyclotrons

Kaiser Wilhelm Institute for Biophysics

B. Rajewsky, director
W. Dreblow
M. Dornreich
G. Kahlau
Adolf Krebs
A. Schraub
E. Schraub

Any of this group may also be at Bad Oberschlema, Erzgebirge, which is their field laboratory.

Figure D.829: Targets in Germany. October 1944 [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)].

Strasbourg

University of Strasbourg

H. Noddack, well known inorganic chemist, here since early 1943.
Ludwick Holleck, inorganic chemist with early interest in separation
R. Fleischmann

C. F. Von Weiszacker, associate of Heisenberg, top notch theorist. Once advisor of Hahn.
Karl Bernhardstrasse, 9 F.219 69

Dr. Karl-Heinz Höcker
Daniel-Hirtzstrasse, 1a

Dr. Egon Hiedemann, Schweighauserstrasse, 2 F 211 21
Dr. Wolfgang Finkelnburg, Strassburg-Neudorf, Julius Rathgebierstrasse 43
F 404 71
Dr. Hans Schluge, Sleidanstrasse 6
Dr. Eduard Schreuer (on leave)
Dr. Kurt Osterhammal, Waltharistaden, 14

Munich

University of Munich

Work on isotope separation but not believed to be main program.

Klaus Clusius, leader of group
G. Dickel
K. Starke
L. Waldmann
E. Becker
W. Kolsch
H. Lauckner
W. Gerlach

Kiel

University of Kiel

Hans Martin
K. H. Eldau
Werner Kuhn (now in Switzerland)
W. Walcher
W. Paul, ion source worker

Vienna

University of Vienna

H. Lichtblau, associate of Mattauch (see Berlin)

Institute for Radium Research

B. Karlik

Gottingen

University of Gottingen

H. von Wartenburg
H. Kopfermann, ion source expert
W. Walcher, came from Kiel in 1942 or 1943

Figure D.830: Targets in Germany. October 1944 [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)].

Stuttgart

Kaiser Wilhelm Institute for Metallurgical Research,
Seestrasse 75 and Wilendstrasse 15

This laboratory does fundamental research on metal problems including corrosion.

Werner Koster, director
George Grötze
Albert Kochensdörfer

Cologne (Köln)

University of Cologne.
Considerable nuclear work done here before war

Kirschner
K. H. Lauterjung
H. Neuert

Danzig-Langfuhr

Technische Hochschule

Wilhelm Klemm, leader
K. Grimm
E. Voss

Heidelberg

Kaiser Wilhelm Institute for Medical Research; Institute for Physics

Walter Bothe, director, leading nuclear experimenter in Germany
Group controls cyclotron
W. Gentner, worked with Joliot in Paris on cyclotron
P. Jensen, Institute for Physics
H. Meier-Leibnitz
Wolfgang Reizler
E. Fünfer

Lenard-Institute of University of Heidelberg (not likely to be involved)

August Becker
Ilse Marie Schaper

Hamburg

University of Hamburg
Heavy water production problems seem centered here, with some neutron physics as well.

P. Harteck, well known physical chemist, visited Rjukan
W. Groth)
H. Jensen) Associates of Harteck
K. Knauer, Nuclear physicist
H. Suess
W. Schaffer

Figure D.831: Targets in Germany. October 1944 [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)].

SECRET

P. O. BOX 1663
SANTA FE, NEW MEXICO

Document consists of 1 pages.
No. 2 of 3 copies, series A

2 December 1944

MEMORANDUM TO DR. KARL A. COHEN:

Subject: Extension of Information.

I have, by now, been able to complete the information given us by the source which became available in October 1943. There are two points of interest:

1. The source is unfortunately not able to state explicitly what kind of diffusion was implied by Jensen in the conversations of 1942. It is the impression of the source, however, that half a dozen methods were being investigated, including membrane diffusion and thermal diffusion in both phases. Many other schemes were also involved. The picture which was conveyed at that time was not one of engineering development along a production line, but rather of an extensive research program intended to turn up any possible simple methods, even though they might require a long time in the laboratory stage. Whether sincere or not, our source's informants gave him the impression of working on a post-war effort.

Since that time, of course, as we ourselves have been lead to believe, there has been, no doubt, an enemy re-evaluation of the entire picture. It is fair to conclude that every known method is accessible to the enemy, at least in the laboratory stage.

2. Our source assures me that a heavy water chain was initiated in late 1942. He states further that Harteck and his co-workers not only were concerned about increasing the Rjukan production, but that also they made vague references to the existence of a large distillation plant inside Germany. The reliability of these impressions is, of course, not large.

The recently published statements of Hevesy and the article of the last issue of TIME are strongly indicative of general interest and understanding of the difficult problems of assembly. I propose the following rather speculative argument to which I would like your comments: The enemy has at present no very large production of 25, and a quite small one of 49. He is, therefore, interested in utilizing a minimum amount of material, and of doing that quickly. To this end he has begun to investigate the less straight-forward methods of assembly, simply because they promise results with a minimum of material. On this basis we may expect action from him at any time, even though it will not be in decisive amount. The complex assembly methods which are not necessary for 25 may still be of interest to him, even though we believe 25 his main production, simply because of the great shortening of his time schedule which they make possible.

cc - Major J. F. Smith ✓ SECRET

Phillip Morrison

Figure D.832: Philip Morrison to Karl Cohen. 2 December 1944. Subject: Extension of Information [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)].

OFFICE FOR EMERGENCY MANAGEMENT
NATIONAL DEFENSE RESEARCH COMMITTEE
OF THE
OFFICE OF SCIENTIFIC RESEARCH AND DEVELOPMENT

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MAJ. GEN. CLARENCE C. WILLIAMS

IRVIN STEWART, Executive Secretary

1430 H STREET, NW
WASHINGTON, D. C.

ADDRESS REPLY TO
2101 CONSTITUTION AVENUE
WASHINGTON, D. C.

January 8, 1945

SECRET Limited

To: Major R. R. Furman
From: W. A. Shurcliff and P. C. Fine
Subject: Brief appraisal of (A) German TA Status, and
(B) Alsos Strassburg Mission.

Explanation: This brief appraisal was requested by you on 5 Jan. 1945.

Part A Brief Appraisal of German TA Status

What We Know: On the basis of Preliminary study of Alsos material alone, we can state with at least moderate assurance that:

German nuclear physicists have been working on the theory of fission piles, as part of a program having high priority.
"Large scale" experiments (probably on piles or pile segments) have been carried out near Berlin.
In at least one (unspecified) phase of nuclear physics, technical problems have been mentioned as more pressing than the scientific questions.
Germany considers nuclear physics to be very important; she has set up an agency reporting directly to Goering to work in this field; she has kept her best physicists at work in this field; she has released some scientifically-qualified men from the army to help out.
On the other hand, in at least one university (Strassburg, in Alsace), the nuclear physics equipment has been mediocre and security has been poor.

What We Do Not Know: We know virtually nothing about:

German research on fission bombs and atomic poisons.
Any methods Germany may have for producing enriched U, or 49, or 23.
Any stores Germany may have of enriched U, or 49, or 23.
The extent of German industry's activity in this field.
Germany's familiarity with our program.
(We guess that Germany has not placed her greatest emphasis on military applications; we guess that she has stressed development of power piles and that she lags behind us even here; we guess that she is by now convinced that USA is interested in military uses in this war.)

Part B Brief Appraisal of Alsos Strassburg Mission

The Alsos Strassburg Mission did an excellent job in promptly locating and seizing the principal quarters and remaining scientists, and in looking through the remaining files and promptly forwarding to USA the more interesting items, - all despite great handicaps. The material thus obtained has been extremely interesting. It may be that in future cases of this kind the Germans will not leave so many documents around and it will then be necessary to obtain information to a large extent by questioning captured scientists and by examining laboratory equipment.

We understand that the Mission had inadequate quarters, inadequate office equipment, and no photostating equipment in their Paris office or in the field.

W. A. Shurcliff
Technical Aide, NDRC

Paul C. Fine
Paul C. Fine
Technical Aide, NDRC

Figure D.833: W. A. Shurcliff and Paul C. Fine to Robert R. Furman. 8 January 1945. Subject: Brief appraisal of (A) German TA Status, and (B) Alsos Strassburg Mission [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)].

SECRET

This document consists of 2 pages.
No. 2 of 3 copies, series A.

P. O. Box 1663
Santa Fe, New Mexico

January 10, 1945

Mr. Karl Cohen
P. O. Box 41 - Station J
New York 27, New York

Dear Karl,

I have delayed in answering your letter of December 14 partly to settle my own thoughts and partly to watch the events in Belgium. I am ready now to act on a premise very different from the one on which we based our planning this fall in Washington. If then we made the guess that the Germans might resist no longer than one or two months, now we should expect them to fight on their frontiers, east and west, at least into late summer. If Major Smith and the other responsible officers will accept this interpretation of the news, it is clear that a fresh start is needed for the whole work.

We have at present, a working organization in the theater; we have absolutely certain intelligence of the enemy interest and of his possession of raw materials; we have some results (which I do not know) from interrogation of enemy targets. I believe we should begin this year with the intention of going all out for positive intelligence. If we need new contacts with other agencies, if we need more personnel, if we need a re-evaluation of schedules and possibilities, let us get them. Certainly the burden of this work will fall on the people in the theater; I should like to see Furman, Goudsmit, and Smith make these plans together.

For my own part, I am most anxious to hear from the other side. By now, there should be a feeling in ALSOS of what the problem is like. Insofar as I am supposed to aid in evaluation of the enemy progress, I feel not very competent without conversation with our people overseas.

The direct preparation of counter-measures looks somewhat less important to me now than it did before I got to Y. There are two reasons: The construction of small-scale devices is capable of more variants than I had thought, which makes more costly and less reliable the possible counter-measures; more important, the damage done by a few devices is not so great as I had believed. Taken together, these imply that many schemes are simply not worth while. Two general measures, however, still appear to me to be of the highest importance, and are still feasible in a matter of months: These are (1) the preparation of an adequate medical and control organization, on a skeleton basis, directed against the radiological hazards of a device, and (2) the formulation of a policy, with its implementation worked out on paper, of what to do the day the Germans drop a gadget. They have already claimed the use of atomic bombs in the recent break-through, according to the newspapers here, and there has been no reaction. This may indicate that we need not worry about the matter, that routine censorship will handle it, but I am sure that a real bomb will have a bigger impact than those dropped simply by the DNB. At any rate, we should come to some decision, and there is not much time.

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Figure D.834: Philip Morrison to Karl Cohen and Francis J. Smith. 10 January 1945 [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)].

SECRET,

Page 2. January 10, 1945
To: Mr. Karl Cohen

It is clear that few really technical matters are involved in all this. We have mainly to make up our own minds, and to act. If I can be of any help, I should be glad to come to Washington, preferably after the 22nd of January. Especially if someone is in town from the theater, would I like to come.

Even if it is not thought worthwhile to have a conference at this time, I will prepare a detailed account of what I would like to see done, both on the side of positive intelligence and on the counter-measures.

There are too many loose ends and false starts in this work now. The enemy is still capable of offensive action, and clearly has won himself many months of time, while we have considered him beaten. This situation is a dangerous one for our peace of mind, if for nothing else. If I can help by coming to Washington for a few days, I am your man.

Yours,

Phil

P. Morrison

cc - Major F. J. Smith ✓

NOTE:

Your letter of January 3rd arrived before I mailed this. I leave the meeting up to you and Frank; I am sure there are now no barriers not indicated in the text above.

I should be most unwilling to let you drop these worries without a long talk about them. Perhaps we will all be able to do that, if the news is good. I know nothing of it, but I am always an optimist.

Phil

Phil

SECRET

Figure D.835: Philip Morrison to Karl Cohen and Francis J. Smith. 10 January 1945 [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)].

NARA RG 77, Entry UD-22A, Box 165, Folder ALSOS MATERIAL

TOP SECRET

WAR DEPARTMENT
P. O. Box 2610
WASHINGTON, D. C.

REFER TO FILE No. _____

23 January 1945

Subject: Additional Personnel and Equipment for MID Scientific Mission.

To: Major General Clayton Bissell, Assistant Chief of Staff, G-2, U. S. Army, Washington, D. C.

1. Up to the present I have, as you know, had two men attached on temporary duty to the Alsos Mission for the purpose of exploiting particular targets in the European Theater of Operations. When Strassbourg was captured there was discovered through the aid and cooperation of the Alsos much evidence that proved that Germany is making a real effort in the field in which I am interested. As a result many and widespread sites are now known, each of which demands thorough exploitation by specially qualified personnel.

2. The evidence gathered at Strassbourg also showed that among the many targets pertaining to our particular field there are two areas of especial importance. The first area comprises the city of Berlin and the surrounding country within a radius of fifty miles. The second area comprises the country around Bisingen-Hechingen in the Black Forest in southwest Germany. To exploit these two areas efficiently with the present staff of Alsos would be an impossible drain on its personnel and equipment. Accordingly it is recommended that there be added to the Alsos Mission a qualified group whose duties will be exclusively limited to those special targets which will affect this project. This group will, of course, be under the command and administration of the Alsos Mission for operations in the field.

3. Our experience with the work of Alsos has been very satisfactory. The personnel has gained invaluable experience in securing scientific intelligence data and it is felt that full advantage would be taken of Alsos' experience.

4. It will be necessary to increase table of organization and table of equipment of Alsos. It is therefore requested that a staff study similar to the one herewith attached be approved so that Alsos will be able to function properly.

L. R. GROVES,
Major General, C. E.

Incl. (in dupl.)

TOP SECRET

Figure D.836: Leslie Groves to Clayton Bissell. 23 January 1945. Subject: Additional Personnel and Equipment for MID Scientific Mission [NARA RG 77, Entry UD-22A, Box 165, Folder ALSOS MATERIAL].

SECRET

Locations of Plants & Laboratories Engaged in Secret Work:

Bohnenland	Office of Censorship Report 7/21/43
Brandenburg	" " " " "
Dresden	MID Report 4/12/44 "War Production in Dresden Area" Message fr MA Turkey 2/25/44
Friedrichshafen	MID Report 4/27/44 "War Production in Friedrich-shafen Area"
Griesheim	MID Rpt Supp #2 "Bacteriological & Chemical Warfare in Axis Europe"
Immenstadt	MID report 1/27/44 "Bacteriological & Chemical Warfare" MID report 4/27/44 "War Production in Friedrichshafen Area"
Kluftern	MID report 4/27/44 "War Production in Friedrichshafen Area"
Markdorf	" " " " " " "
Meahrisch-Ostrau (Moravska-Ostrava)	OSS ltr - message fr Istanbul 5/4/44
Ober Raderach	MID Report 4/27/44 "War Production in Friedrichshafen Area" Letter fr Col. White (Calvert) 5/16/44
Rathenow	Office of Censorship report 7/21/44
Sackingen	MID Report 4/27/44 "War Production in Friedrichshafen Area" OSS ltr - message from Bern 4/18/44
Schrobenhausen	Letter from Col. Castles (Calvert) 5/19/44
Semmering	MID Report Supp. #2 "Bacteriological/Chemical Warfare in Axis Europe"
Troppau (Opava)	OSS ltr - message from Istanbul 5/5/44
Weimar	OSS Report S-2635/44 (Dora)
Voecklabruck	Memo from Lansdale 1 July 44 (ASF Int. Bulletin 10)

SECRET

Figure D.837: Locations of Plants & Laboratories Engaged in Secret Work. January 1945 [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)].

SECRET

This ument consists of 1 pages.
No. 1 of 3 copies, series A

P. O. Box 1663
Santa Fe, New Mexico

29 January 1945

Major F. J. Smith
P. O. Box 2610
Washington, D. C.

Dear Major Smith:

It goes without saying that the report of the recent material which you sent me last week was much the most interesting document I have read for some time. I am quite eager to have a chance to look over the original material myself. It turns out that in the next two or three weeks the work here is such that I feel quite willing to come to Washington at your convenience. If you will let me know a week or so before you want me to leave for the East, I shall be there. I would appreciate it if Karl could arrange to be in Washington for at least a day or two while I am there; I think we will have a good many things to talk over at such a meeting.

My strongest impression from the material was, like yours, one of relief and optimism. The documents raise a good many questions, however, the most important one of which is - what about a bomb? There are references to this objective, but no sign of organization or technical work toward it. As a long shot, I will guess right now that there is such work but that the Strassbourg Group were not involved. This is the most important question I should like to try to settle by examining the documents. I hope there are available reports of interrogation of the targets.

I shall expect to hear from you soon setting a date for my coming East.

With best wishes.

Yours,

P. Morrison

P. Morrison

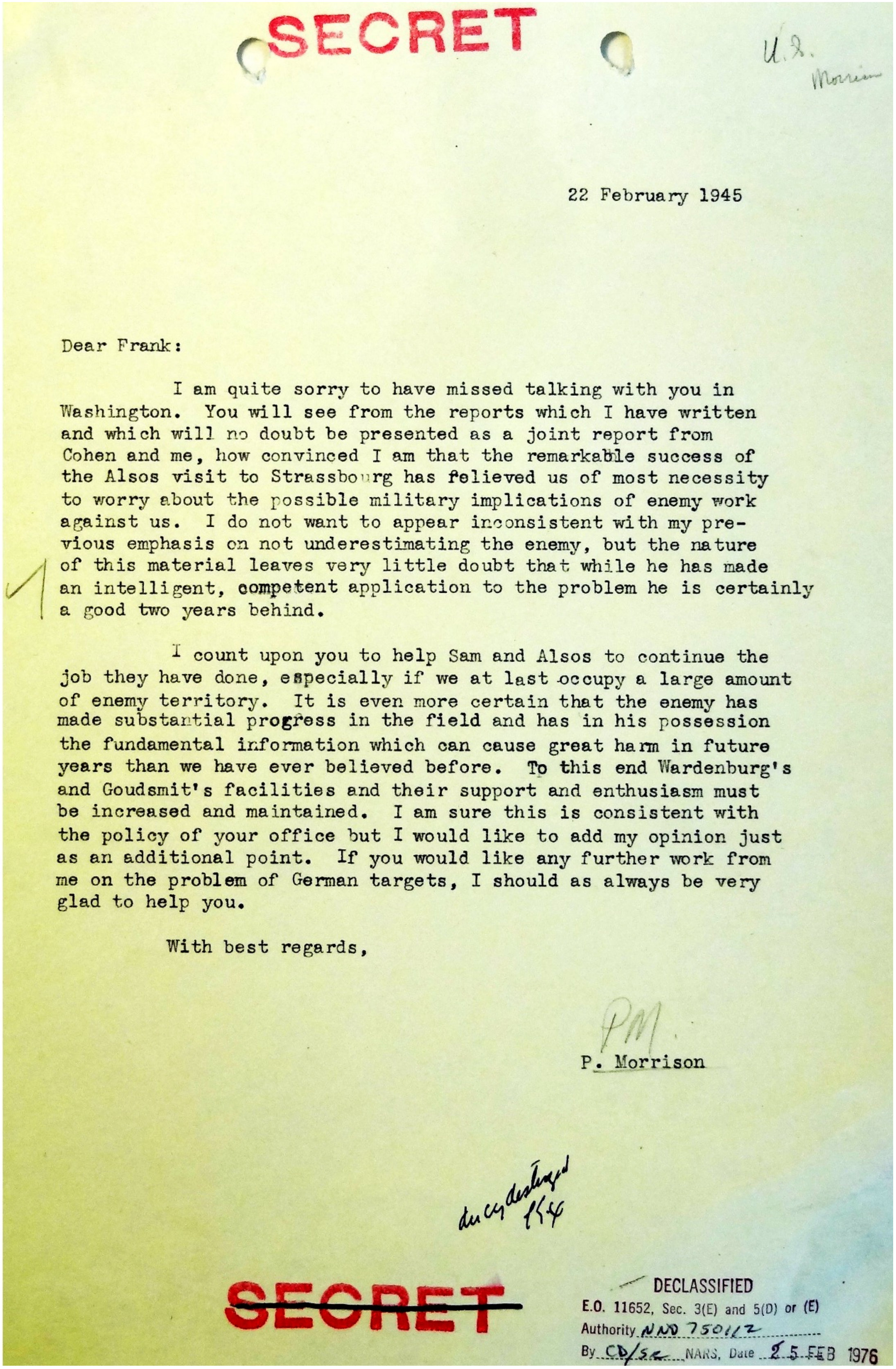
cc - Karl Cohen

SECRET

Figure D.838: Philip Morrison to Francis J. Smith. 29 January 1945 [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)].

DECLASSIFIED
Authority 917017

NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 GERMANY: Summary Reports (1945–1946)



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22 February 1945

Dear Frank:

I am quite sorry to have missed talking with you in Washington. You will see from the reports which I have written and which will no doubt be presented as a joint report from Cohen and me, how convinced I am that the remarkable success of the Alsos visit to Strassbourg has relieved us of most necessity to worry about the possible military implications of enemy work against us. I do not want to appear inconsistent with my previous emphasis on not underestimating the enemy, but the nature of this material leaves very little doubt that while he has made an intelligent, competent application to the problem he is certainly a good two years behind.

I count upon you to help Sam and Alsos to continue the job they have done, especially if we at last occupy a large amount of enemy territory. It is even more certain that the enemy has made substantial progress in the field and has in his possession the fundamental information which can cause great harm in future years than we have ever believed before. To this end Wardenburg's and Goudsmit's facilities and their support and enthusiasm must be increased and maintained. I am sure this is consistent with the policy of your office but I would like to add my opinion just as an additional point. If you would like any further work from me on the problem of German targets, I should as always be very glad to help you.

With best regards,

PM

P. Morrison

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DECLASSIFIED
E.O. 11652, Sec. 3(E) and 5(D) or (E)
Authority NND 750112
By CD/SC NARS, Date 25 FEB 1976

Figure D.839: Philip Morrison to Francis J. Smith. 22 February 1945 [NARA RG 77, Entry UD-22A, Box 171, Folder 32.60-2 Germany: Summary Reports (1945–1946)].

TOP SECRET

Monthly Intelligence [illegible]mary February 1945

4. Tailfingen

A paper discovered in the Strassburg investigation bore a letterhead indicating that the present address of KWI für Chemie is now located at Tailfingen approximately 20 miles S-SE of Hechingen. Air photos of Tailfingen have been obtained but revealed no evidence of such an institution. This of course does not preclude the possibility of the institute being there.

5. Oberndorf am Neckar.

A report was received stating that new weapons that had not yet been employed are being made at OBERNDORF am NECKAR. Significance was attached to this report because of the adjacency of Oberndorf to the Hechingen area. Air photos and Interpretation Reports covering this area reveal no new construction or that there were aircraft catchment wires strung across the Neckar at this locality as was first reported. No further action is being taken in regard to the area for the present.

6. REICHSPOST.

An A.D.I.K. Report states that the REICHSPOST RESEARCH GROUP formerly located in Berlin Tempelhof has been widely dispersed and that one large branch is now located at KLEIN-MACHNOW. A target dossier on Klein Machnow (near Berlin) is being prepared and will be included in our target list.

7. Saalfeld-Thüringia.

A report dated 19 April 1944 was received from OSS stating that a new weapon is being manufactured in an underground factory at SAALFELD-THURINGIA, Germany. The report added that experimental laboratories formerly in Berlin have been transferred to STRASBOURG and installed in a hospital there. The casings and tubings for the weapon were reported to be manufactured in the mechanical workshops in Bitschwiller (Haut-Rhin). Some significance is attached to this report because of the fact that a laboratory of interest to us has been discovered in a hospital in Strasbourg. Air coverage of the Saalfeld area has been obtained and is now being studied.

8. Tegernsee.

As a result of a report that a second Forschungstelle has been established at TEGERNSEE, aerial photos of the place were obtained. Nothing to indicate T A activity was observed in these photos, but the possibility of such activity at Tegernsee is not precluded by this.

TOP SECRET

Figure D.840: Monthly Intelligence Summary for February 1945 [NARA RG 77, Entry UD-22A, Box 168, Folder 202.3-1 LONDON OFFICE: Combined Intell Rpts.].

TOP SECRET

Monthly Intelligence Summary February 1945

9. Heidelberg (I.G. Farben)

A P/W is reported to have stated that an elaborate "atom-smashing" apparatus is in operation at the I.G. Farben plant in Heidelberg. Major Furman has arranged for further interrogation of the P/W.

10. Leitmeritz.

An ungraded report indicated that the production of precision instruments for V-3 is being carried on by the Germans in the town of LEITMERITZ in Sudetenland. According to this report, a large volume of electric power is being directed to the factory. A power survey and aerial coverage of the area have been obtained and are being forwarded to General Groves' office for review.

11. LEHESTEN.

An OSS report states that possible manufacture of long range projectiles is being carried on in a semi-underground installation about 1.5 K.M. north of Lehesten in Germany. T A interest in the report arises from the fact that Siemens and Halske are said to be in charge of the plant, and a reference to the breaking down of water by electrolysis at this site. Aerial coverage has been requested.

III T A INFORMATION FROM OTHER SOURCES

1. C.S.D.I.C.

P.W. Oberjäger Ahlbrecht was interrogated by a British Army officer. The discussion was directed to the manufacture and use of "heavy water" by the Germans. P.W. stated that there exists a Reich Research Council headed by Staatsrat ESSER (this is believed to be phonetic spelling and to probably refer to A. Esau.) P.W. is familiar with the heavy water plant at Norsk Hydro but says the Germans do not really need it as they have sufficient electrolysis in Germany. P.W. stated that he was told by a person in authority that the whole importance of heavy water had collapsed.

This information is not thought to have especial significance and the P.W. people do not believe the prisoner to have anymore information than this.

IV MATERIALS

1. Auergesellschaft.

Because of what is believed to be the improbability of our gaining possession of the X materials thought to be stored at Auergesellschaft,

TOP SECRET

Figure D.841: Monthly Intelligence Summary for February 1945 [NARA RG 77, Entry UD-22A, Box 168, Folder 202.3-1 LONDON OFFICE: Combined Intell Rpts.].

Gerard P. Kuiper to Frederick E. Terman. 13 March 1945. [University of Arizona Libraries, Special Collections, Gerard P. Kuiper Papers, Box 57, Folder 15, ALSOS Mission (1), 1945, p. 61. https://speccoll.library.arizona.edu/collections/gerard-p-kuiper-papers]

[...] One is again surprised to see quotations from U.S. senators who think that the war will be over "within a few days". It would be wiser to worry about the chance we still have of losing it if certain high explosives are developed in time. This possibility may, incidentally, be one reason why the Germans are not giving in. Few people here [in Alsos] expect an immediate collapse.

[By late 1944, Samuel Goudsmit seemed convinced that there was no German nuclear weapons program. This letter shows that even in mid-March 1945, shortly before the end of the war, Gerard Kuiper and other members of Alsos were still deeply concerned that there was indeed a German nuclear weapons program, and that it was on the verge of deploying a final product. What information had Kuiper or other members of Alsos discovered themselves or learned from others?]

TOP SECRET

Monthly Intelligence Summary For April, May, June, 1945 (Continued)

d. From his present location, St. Wolfgang, near Salzburg, the King has been in constant touch with his homeland, and has received visits from practically all of the ranking political leaders of all parties.

e. Considerable popular support is evident for a recent proposal made at a meeting of the Socialist Party that CROWN PRINCE BAUDOUIN, LEOPOLD'S 15-year old son, should succeed and that PRINCE CHARLES should remain Regent until BAUDOUIN becomes of age.

f. The reasons for popular disapproval for the King's return appear to be:

1. His record in war.
2. His second marriage.
3. The popularity of the Prince Regent.

Popular feeling does not seem to be directed against the monarchical form of government but merely to LEOPOLD as monarch.

2. Material.

a. Union Miniere du Haut Katanga, Brussels, Belgium has been requested to purchase from Henricot Company two tons of Ferro-Uranium, which they are reported to have on hand.

b. All of the Stassfurt material, approximately 1215 tons, has arrived in London where it is being prepared for shipment to the states.

3. Miscellaneous.

A Special Detention Center was set up in Belgium where our guests were kept for six weeks after which they were brought to England where they are now living.

II BRITISH.

1. Political.

British Scientists including some with knowledge of TA were invited to a celebration of the 220th Anniversary of the Founding of the Soviet Academy of Science. After discussion with this office, the British forbade eight of their scientists to attend. Inasmuch as these eight men had already accepted, the last minute restriction resulted in a distinctly unfavorable reaction which found its way into the newspapers and on the floor of Parliament. The Russian Press also commented on this. Other than the publicly voiced objections, however, no repercussions have been noted. The following named British Nuclear Physicists were invited to the celebration:

TOP SECRET

Figure D.842: Monthly Intelligence Summary for April, May, June 1945 [NARA RG 77, Entry UD-22A, Box 168, Folder 202.3-1 LONDON OFFICE: Combined Intell Rpts.].

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thly Intelligence Summary For April, May, June, 1945 (Continued)

2. Scientific.

The 220th Anniversary of the Soviet Academy of Sciences was attended by a delegation from Czechoslovakia.

3. Material.

A survey of the mines at St. Joachimstahl was conducted by Captain DAVIS and Mr. GATTIKER. It was determined that the annual output of "X" oxide is approximately 15 tons with excellent prospects for continued yield at this rate for another ten years.

V FRENCH.

1. Political.

a. Arrangements were made with ATC, Paris, for our Paris office to receive a daily list of all French civilians booking passage at Paris, Lyons, Dijon and Marseille terminals of the North Africa and Middle East lines.

b. At the request of Major SMITH, a representative of this office met Dr. Bertrand L. GOLDSCHMIDT on his recent arrival in London. Dr. GOLDSCHMIDT was advised that the services of this office were at his disposal and was also given the address of our Paris office.

c. Pierre AUGER is working with the Centre National de Recherche Scientifique where he is concerned with reorganization of scientific teaching.

d. The French newspaper "Humanite" announced that the following persons were invited to attend the 220th Anniversary of the founding of the Soviet Academy of Science:

AUGE (believed to be AUGER); LEMOINE; MAURAIN; LANGEVIN; JOLIOT CURIE; Emile BOREL; Elie CARTAN; August CHEVALIER; Josef PERES; Andre MASON; Eugene AUBEL; Rene AUDUBERT; Camille BLOCH; Maurice CAULLERY; Jaques CHAPELON; Maurice FRECHET; Pierre GRASSE; Jaque HADAMAR; Irene JOLIOT CURIE; Jaques NICOLLE; Francis PERRIN; Jaques TREJOUEL; Henri LAUGIER; Charles LAURENT; Albert (?DEMOLON); Maurice LEMANCHE.

LANGEVIN will ill and did not attend. JOLIOT and his wife did attend and from newspaper accounts it appears they took an active part.

TOP SECRET

Figure D.843: Monthly Intelligence Summary for April, May, June 1945 [NARA RG 77, Entry UD-22A, Box 168, Folder 202.3-1 LONDON OFFICE: Combined Intell Rpts.].

TOP SECRET

Monthly Intelligence Summary For April, May, June 1945 (Continued)

velopment, a program was initiated by this office to determine in detail the extent of German Espionage against TA in the states including the names of persons who may have been used as agents in such an undertaking. In order to co-ordinate this program, conferences were held with X-2 Branch, OSS and the Legal Attache, American Embassy, London, the two agencies who bear the ultimate responsibility for determining the German Intelligence picture. Arrangements were made so that this office will be notified when any German Intelligence personnel of possible TA interest are picked up.

At this writing several Germans have been interned who may be presumed to have information of value to this office. Most notorious of these are KALTENBRUNNER, Chief of the Reichs Sicherhriyd Hauptamt and SKORZENY, one of his most important aides, who is believed to have directed sabotage operations. Both of these men have been subjected to prolonged interrogation by both American and British authorities. A report of these interrogations is still in process of being prepared and will be furnished to this office upon completion. Included in the interrogation of these men was a list of questions submitted by this office designed to ascertain if they possess any knowledge of TA significance.

2. FRIEDRICH OLMES.

Friedrich OLMES is a young German who came into favor with HITLER, KALTENBRUNNER and SKORZENY as the result of inventing an important anti-tank weapon. Upon interrogation, he claimed to have assisted SKORZENY in preparation for sabotage against Russia but not against the U.S. He also evidenced some knowledge of German TA efforts and claimed that he had discussed the subject with HITLER who said that,"The Germans led the world in TA and that the Americans had arrived at the theoretical solution but had not solved the practical problems." Of particular interest was OLMES' statement that information on American TA was obtained by German scientists through friends in Switzerland and Sweden. He named the persons from whom he acquired the information and an effort is now being made to locate them for interrogation. OLMES also named several persons who, according to him, had been engaged in dispatching agents to the states. These men are being hunted and will be interrogated when found.

3. GEORGE MICHAEL ERTL.

ERTL was arrested May 14 by SCI in Munich. He was a civil employee of SD Leitabschnitt Munich, Amt VI in which capacity he was responsible for Economic and Technical Information on Foreign Countries. Later he was transferred to Amt III C1 where he was responsible for Technical Science - Technical University arming and research work.

TOP SECRET

Figure D.844: Monthly Intelligence Summary for April, May, June 1945 [NARA RG 77, Entry UD-22A, Box 168, Folder 202.3-1 LONDON OFFICE: Combined Intell Rpts.].

Monthly Intelligence Summary for July and August 1945

TOP SECRET

b. The French Press states that France now has a "Sixieme Bureau" which is in constant touch with French scientists. The French paper "SAMEDI SOIR" describes a machine used by the Sixth Bureau which keeps French scientists abreast of scientific developments in all subjects. The machine appears from its description to be an elaborate mechanical library.

2. Scientific.

a. A French newspaper stated that a Research Service has been organized by Jean PERRIN and Henri LANGIER and is now in the hands of JOLIOT-CURIE. This article bemoans the fact that very limited funds are at the disposal of this service and that the researchers are represented by a "poor team of scientists" whose labor is not honestly rewarded and whose status has not been clarified.

VI GERMAN

1. Intelligence.

a. During a conversation with Lise MEITNER in Sweden, one of the informants of this office was given a letter from MEITNER to be delivered to Prof. HAHN. MEITNER was under the impression that HAHN was at Tailfingen. In the letter MEITNER criticizes HAHN for his failure to oppose the Nazi regime.

Major RITTNER has asked that this letter not be delivered because he fears it would have such a psychological effect on HAHN as to create a difficult problem in connection with detaining him. The letter has not been delivered.

b. American authorities are reported to have seized the 700 room German Patent Office in Berlin and found "almost all" the patent records intact. These patents are now being catalogued and as soon as the cataloguing is complete a representative of this office will conduct a search for TA patents.

c. Dr. GOUDSMIT submitted a report dated 10 August in which he stated that the use of the atomic bomb has resulted in renewed confidence of the German people in HITLER as they now think he was not lying when he promised them some terrible weapon which would end the war. GOUDSMIT also states that he considers it unfortunate that HAHN and STRASSMAN were not named as the discoverers of uranium splitting, because since the whole scientific world knows that they are the discoverers, he fears that the omission might be misconstrued as having some sinister purpose.

d. The Guests have now been installed in a house in England where they are under constant technical supervision. Copies of the reports have been studied here and forwarded to Washington. The following conclusions have been drawn from a study of these reports:

TOP SECRET

Figure D.845: Monthly Intelligence Summary for July and August 1945 [NARA RG 77, Entry UD-22A, Box 168, Folder 202.3-1 LONDON OFFICE: Combined Intell Rpts.].

TOP SECRET

VIII SWEDEN

1. Intelligence.

a. An agreement was concluded between the foreign ministers of Sweden and Belgium providing for an exchange of goods under which Sweden will supply wood pulp, ball bearings, timber and iron ore in return for industrial diamonds, steel goods, coke and non-ferrous ores. This agreement was reported in Daily Digest of World Broadcasts.

b. The 220th Anniversary of the Russian Academy of Science was attended by five Swedish scientists headed by Professor SVEDBERG. According to monitored broadcasts, the Swedes were much impressed both by the accomplishments of Soviet science and by the fact that the Russians were so frank and open in exhibiting their discoveries to scientists of other countries.

2. Publicity.

Swedish newspapers carrying publicity about the atom bomb were forwarded to Washington.

IX CENSORSHIP.

a. The wives of H. SHEARD and D. J. LITTLER, who were working at "Y" at the time, signed the notice of censorship of incoming and outgoing mail at that establishment on 9 July 1945.

b. The Paris edition of "STARS AND STRIPES" for 1 July 1945 contained an article headlined "Nazi Progress In Atomic Field Veiled by U.S." Investigation revealed that this censorship violation resulted from negligence on the part of a censor. The body of the article contained only slight and insignificant reference to atomic weapons. The censor was admonished by Col. MERRICK, his superior officer.

c. At the request of Col. CONSODINE this office has subscribed to the following British scientific publications:

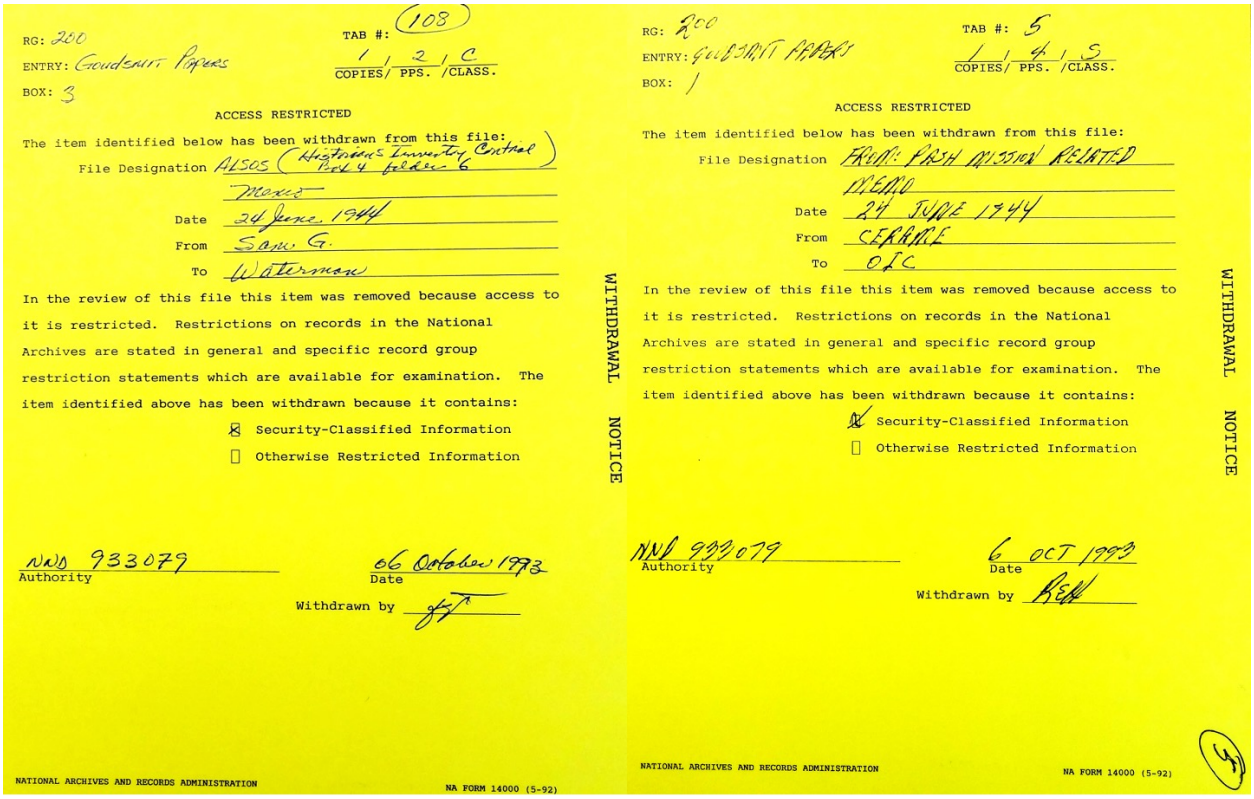
"Proceedings Of The Royal Society"
"Proceedings Of The Physical Society"
"Nature"
"Proceedings Of The Cambridge Philosophical Society"
"Transactions Of The Farraday Society"
"Philosophical Magazine"

These magazines are being hastily scanned in the London Office upon receipt and then forwarded to Washington.

d. On 6 August 1945, the first atomic bomb was dropped on Hiroshima in Japan. Two days previous to this the London Office was advised that the bomb would be used in the next few days. Captain DAVIS was immediately dispatched to the continent in order to control undesirable publicity from ALSOS and also to carry instructions to Pierre

TOP SECRET

Figure D.846: Monthly Intelligence Summary for July and August 1945 [NARA RG 77, Entry UD-22A, Box 168, Folder 202.3-1 LONDON OFFICE: Combined Intell Rpts.].



RG: 200
ENTRY: Goudsmit Papers
BOX: 3
TAB #: (108)
1 / 2 / C
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Memo
Date 24 June 1944
From Sam G.
To Waterman

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MEMO
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From CERRACE
To OSC

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MEMO WERNER
Date 27 JUNE 1944
From HEIC
To CHIEF, MIS

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NA FORM 14000 (5-92)

RG: 200
ENTRY: Goudsmit
BOX: 6
TAB #: 6
1 / 1 / S
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation PASH Mission Related
Ltr
Date 10/5/44
From Fisher
To Colby

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

NND933079
Authority
10/6/93
Date
Withdrawn by

WITHDRAWAL NOTICE

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NA FORM 14000 (5-92)

Figure D.847: Many Alsos-related documents from Samuel Goudsmit's files remain classified [NARA RG GOUDS, Entry UD-7420].

RG: 200
ENTRY: GOUDSMIT PAPERS
BOX: 1
TAB #: 4
1 / 24 / S
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation FROM: PASH MISSION RELATED MEMO W/ATT
Date 17 OCT 1944
From ADAMS
To HAM

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

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6 OCT 1999
Date
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NA FORM 14000 (5-92)

RG: 200
ENTRY: Goudsmit Papers
BOX: 3
TAB #: 104
1 / 13 / S
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation (UNTITLED)
— ENTIRE FOLDER —
Date 00/00/44
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

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NND 933079
Authority
06 October 1993
Date
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NA FORM 14000 (5-92)

NARA RG GOUDS, Entry UD-7420, Boxes 1–9

DECLASSIFIED
Authority NND 933079

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 Off. Box 4 Folder 4)
— 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

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NND 933079
Authority
06 October 1993
Date
Withdrawn by

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION
NA FORM 14000 (5-92)

RG: 200
ENTRY: Goudsmit
BOX: 6
TAB #: 7
1 / 4 / S
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation PASH Mission Related
W/memo w/att
Date 4/3/45
From Kemble
To Horton

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:

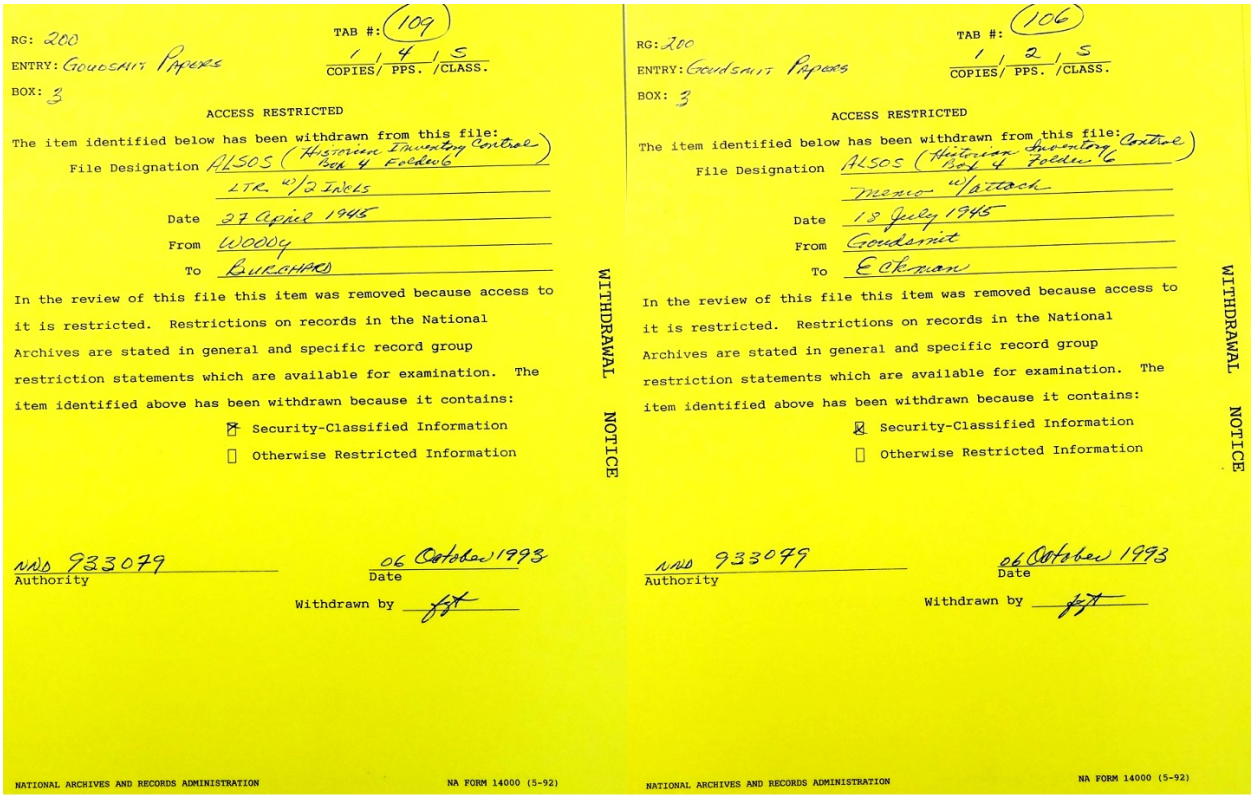
☒ Security-Classified Information
☐ Otherwise Restricted Information

WITHDRAWAL NOTICE

NND 933079
Authority
10/6/93
Date
Withdrawn by 4

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION
NA FORM 14000 (5-92)

Figure D.848: Many Alsos-related documents from Samuel Goudsmit's files remain classified [NARA RG GOUDS, Entry UD-7420].



RG: 200
ENTRY: Goudsmit Papers
BOX: 3
TAB #: (109)
1 / 4 / S
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation ALSOS (Historian Inventory Control Box 4 Folder 6)
LTR. w/2 Incls
Date 27 April 1945
From Woody
To Burchard

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

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NND 933079
Authority

06 October 1993
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RG: 200
ENTRY: Goudsmit Papers
BOX: 3
TAB #: (106)
1 / 2 / S
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation ALSOS (Historian Inventory Control Box 4 Folder 6)
Memo w/attach
Date 13 July 1945
From Goudsmit
To Eckman

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)

NARA RG GOUDS, Entry UD-7420, Boxes 1–9

DECLASSIFIED
Authority NND 933079

RG: 200
ENTRY: Goudsmit Papers
BOX: 3
TAB #: (107)
1 / 3 / S
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation ALSOS (Historian's Inventory Control Bx. 4 Folder 6)
Memo
Date 07 August 1945
From Goudsmit
To Subj: Dissemination of Energy Scientific

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)

RG: 200
ENTRY: Goudsmit Papers
BOX: 3
TAB #: (105)
1 / 3 / S
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation ALSOS (Historian Inventory Control Box 4 Folder 6)
Memo
Date 10 August 1945
From Goudsmit
To Hahn

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

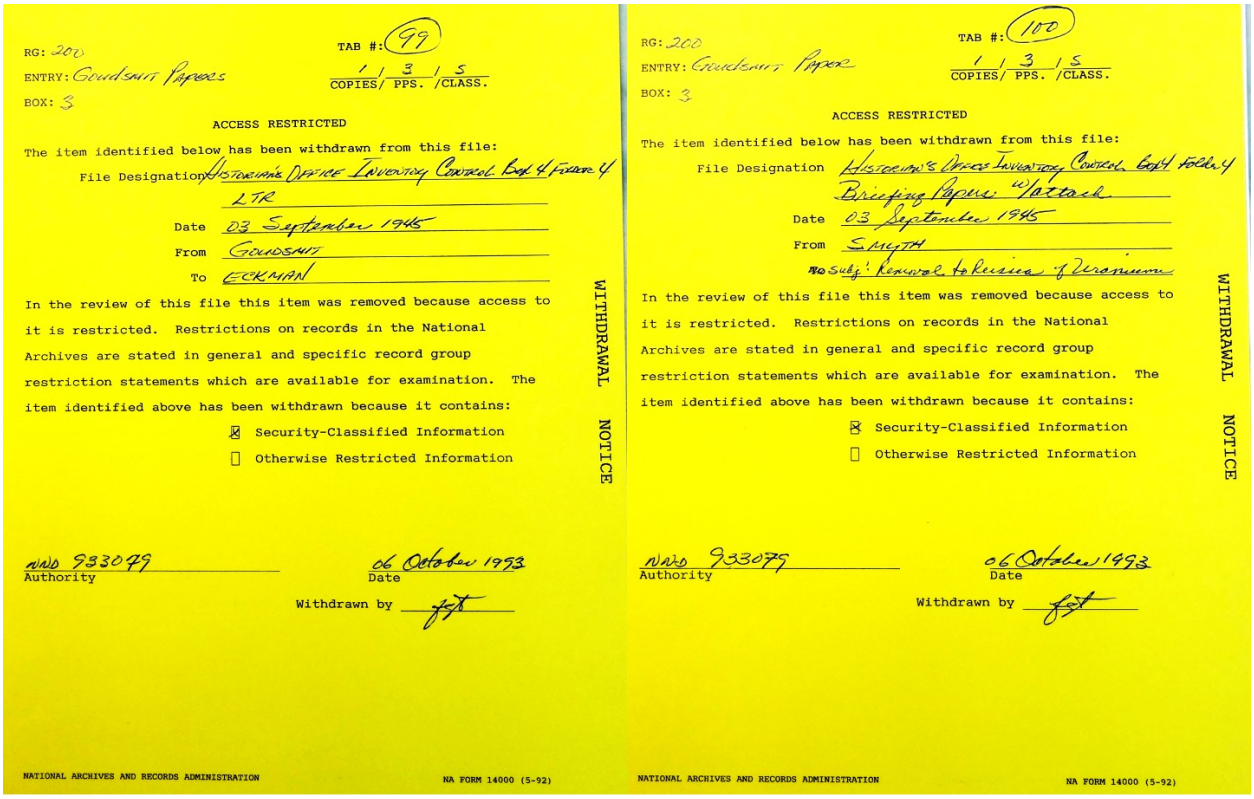
NND 933079
Authority

06 October 1993
Date

Withdrawn by

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION NA FORM 14000 (5-92)

Figure D.849: Many Alsos-related documents from Samuel Goudsmit's files remain classified [NARA RG GOUDS, Entry UD-7420].



RG: 200
ENTRY: Goudsmit Papers
BOX: 3
TAB #: 99
1 / 3 / 5
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation Historian's Office Inventory Control Box 4 Folder 4
LTR
Date 03 September 1945
From GOUDSMIT
To ECKMANN

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)

RG: 200
ENTRY: Goudsmit Paper
BOX: 3
TAB #: 100
1 / 3 / 5
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation Historian's Office Inventory Control Box 4 folder 4
Briefing Papers w/attach
Date 03 September 1945
From SMYTH
Subj: Removal to Russia of Uranium

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

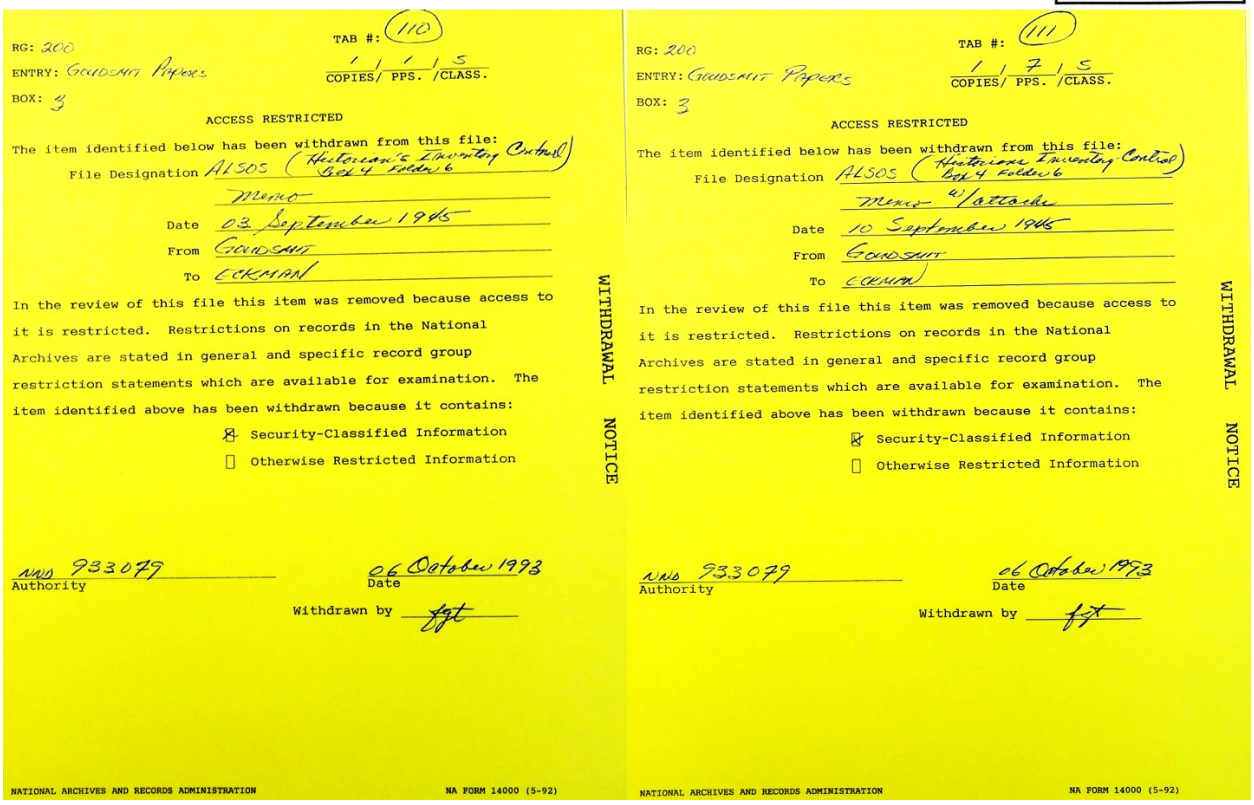
WITHDRAWAL NOTICE

NND 933079
Authority
06 October 1993
Date
Withdrawn by

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION NA FORM 14000 (5-92)

NARA RG GOUDS, Entry UD-7420, Boxes 1–9

DECLASSIFIED
Authority NND 933079



RG: 200
ENTRY: Goudsmit Papers
BOX: 3
TAB #: 110
1 / 1 / 5
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation ALSOS (Historian's Inventory Control Box 4 Folder 6)
Memo
Date 03 September 1945
From GOUDSMIT
To ECKMANN

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)

RG: 200
ENTRY: Goudsmit Papers
BOX: 3
TAB #: 111
1 / 7 / 5
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation ALSOS (Historians Inventory Control Box 4 Folder 6)
Memo w/attachs
Date 10 September 1945
From GOUDSMIT
To ECKMANN

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:

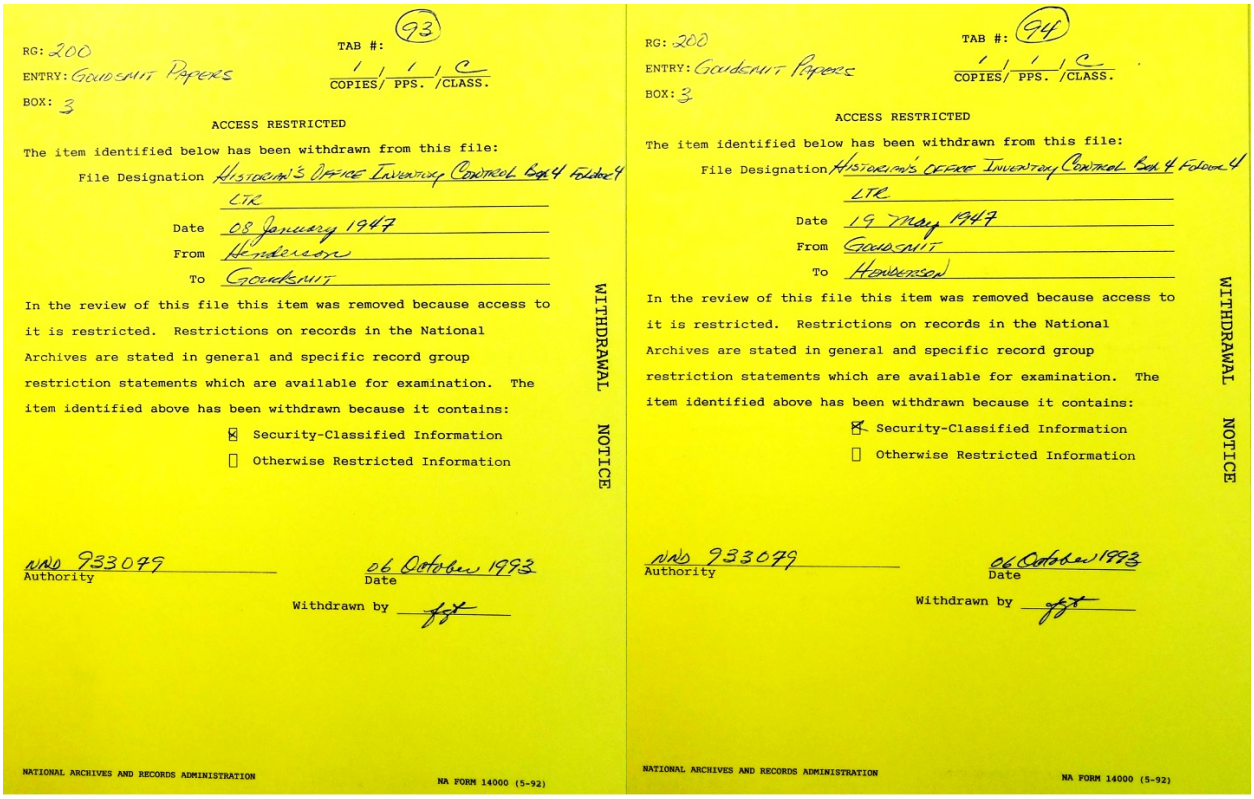
☒ Security-Classified Information
☐ Otherwise Restricted Information

WITHDRAWAL NOTICE

NND 933079
Authority
06 October 1993
Date
Withdrawn by

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION NA FORM 14000 (5-92)

Figure D.850: Many Alsos-related documents from Samuel Goudsmit's files remain classified [NARA RG GOUDS, Entry UD-7420].



RG: 200
ENTRY: Goudsmit Papers
BOX: 3
TAB #: (93)
1 / 1 / C
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation Historian's Office Inventory Control Box 4 Folder 4
LTR
Date 08 January 1947
From Henderson
To Goudsmit

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 fgt

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION
NA FORM 14000 (5-92)

RG: 200
ENTRY: Goudsmit Papers
BOX: 3
TAB #: (94)
1 / 1 / C
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation Historian's Office Inventory Control Box 4 Folder 4
LTR
Date 19 May 1947
From Goudsmit
To Henderson

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 fgt

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION
NA FORM 14000 (5-92)

NARA RG GOUDS, Entry UD-7420, Boxes 1–9

DECLASSIFIED
Authority NND933079

RG: 200
ENTRY: Goudsmit Papers
BOX: 3
TAB #: (95)
1 / 1 / C
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation Historian's Office Inventory Control Box 4 Folder 4
LTR
Date 22 May 1947
From Henderson
To Goudsmit

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 fgt

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION
NA FORM 14000 (5-92)

RG: 200
ENTRY: Goudsmit Papers
BOX: 3
TAB #: (96)
1 / 1 / C
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation Historian's Office Inventory Control Box 4 Folder 4
LTR
Date 10 June 1947
From Henderson
To Goudsmit

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:

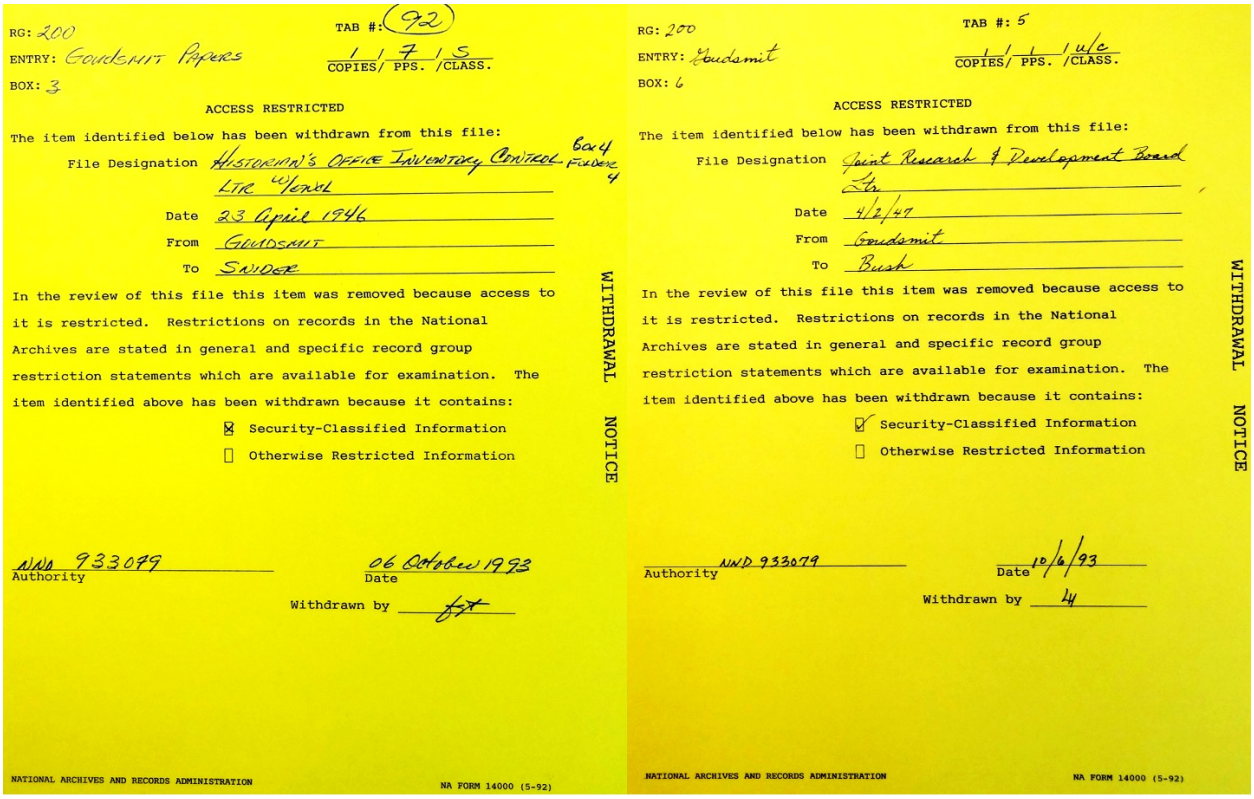
☒ Security-Classified Information
☐ Otherwise Restricted Information

WITHDRAWAL NOTICE

NND 933079
Authority
06 October 1993
Date
Withdrawn by fgt

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION
NA FORM 14000 (5-92)

Figure D.851: Many Alsos-related documents from Samuel Goudsmit's files remain classified [NARA RG GOUDS, Entry UD-7420].



RG: 200
ENTRY: GOUDSMIT Papers
BOX: 3
TAB #: (92)
1 / 1 / 7 / S
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation HISTORIAN'S OFFICE INVENTORY CONTROL Box 4 Folder 4
LTR W/ENCL
Date 23 April 1946
From GOUDSMIT
To SNYDER

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

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NND 933079
Authority
06 October 1993
Date
Withdrawn by

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION NA FORM 14000 (5-92)

RG: 200
ENTRY: Goudsmit
BOX: 6
TAB #: 5
1 / 1 / 1 / U/C
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation Joint Research & Development Board
Ltr
Date 4/2/47
From Goudsmit
To Bush

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

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NND 933079
Authority
10/6/93
Date
Withdrawn by 4

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NARA RG GOUDS, Entry UD-7420, Boxes 1–9

DECLASSIFIED
Authority NND933079

RG: 200
ENTRY: GOUDSMIT Papers
BOX: 3
TAB #: (97)
1 / 2 / C
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation HISTORIAN'S OFFICE INVENTORY CONTROL Box 4 Folder 4
LTR
Date 10 NOVEMBER 1948
From GOUDSMIT
To HENDERSON

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

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NND 933079
Authority
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Date
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NATIONAL ARCHIVES AND RECORDS ADMINISTRATION NA FORM 14000 (5-92)

RG: 200
ENTRY: GOUDSMIT Papers
BOX: 3
TAB #: (103)
1 / 2 / C
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation HISTORIAN'S OFFICE INVENTORY CONTROL Box 4/Folder 4
LTR
Date 07 April 1967
From GOUDSMIT
To Linnaterm

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:

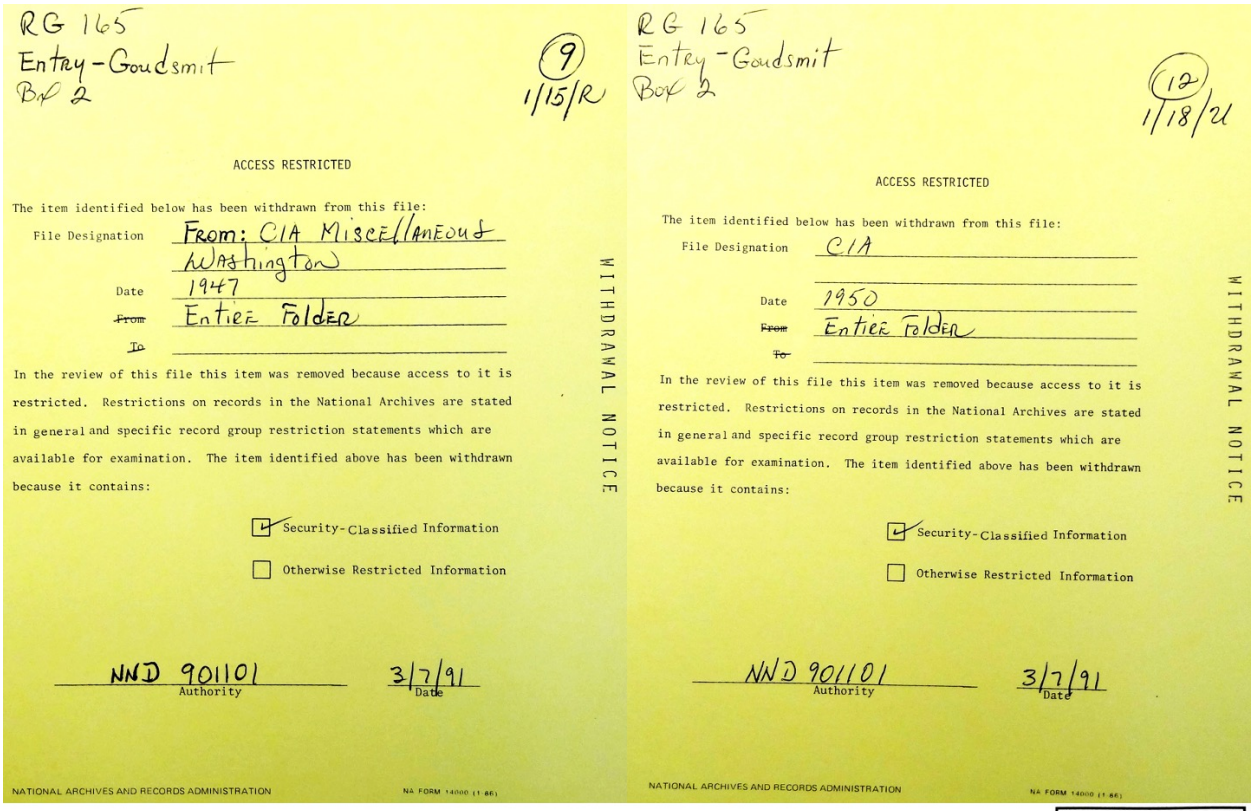
☑ Security-Classified Information
☐ Otherwise Restricted Information

WITHDRAWAL NOTICE

NND 933079
Authority
06 October 1993
Date
Withdrawn by

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION NA FORM 14000 (5-92)

Figure D.852: Many Alsos-related documents from Samuel Goudsmit's files remain classified [NARA RG GOUDS, Entry UD-7420].


RG 165
Entry - Goudsmit
Box 2

(9)
1/15/R

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation: From: CIA Miscellaneous Washington
Date: 1947
~~From~~: Entire Folder
~~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 901101 Authority
3/7/91 Date

WITHDRAWAL NOTICE

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

RG 165
Entry - Goudsmit
Box 2

(12)
1/18/21

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation: CIA
Date: 1950
~~From~~: Entire Folder
~~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 901101 Authority
3/7/91 Date

WITHDRAWAL NOTICE

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

NARA RG GOUDS, Entry UD-7420, Boxes 1–9

DECLASSIFIED
Authority NND 933079

RG: 200
ENTRY: Goudsmit Papers
BOX: 3

TAB #: 113
1 / 92 / C
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation: C.I.A. (Historical Inventory Central Box 4 Folder 10)
— ENTIRE FOLDER —
Date: 1954
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 933079 Authority
06 October 1993 Date
Withdrawn by jbf

WITHDRAWAL NOTICE

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION NA FORM 14000 (5-92)

RG: 200
ENTRY: Goudsmit Papers
BOX: 3

TAB #: 27
1 / 7 / S
COPIES/ PPS. /CLASS.

ACCESS RESTRICTED

The item identified below has been withdrawn from this file:

File Designation: Folder #2 Secret Documents Nuclear Aircraft...
Entire Folder
Date: 1955
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:

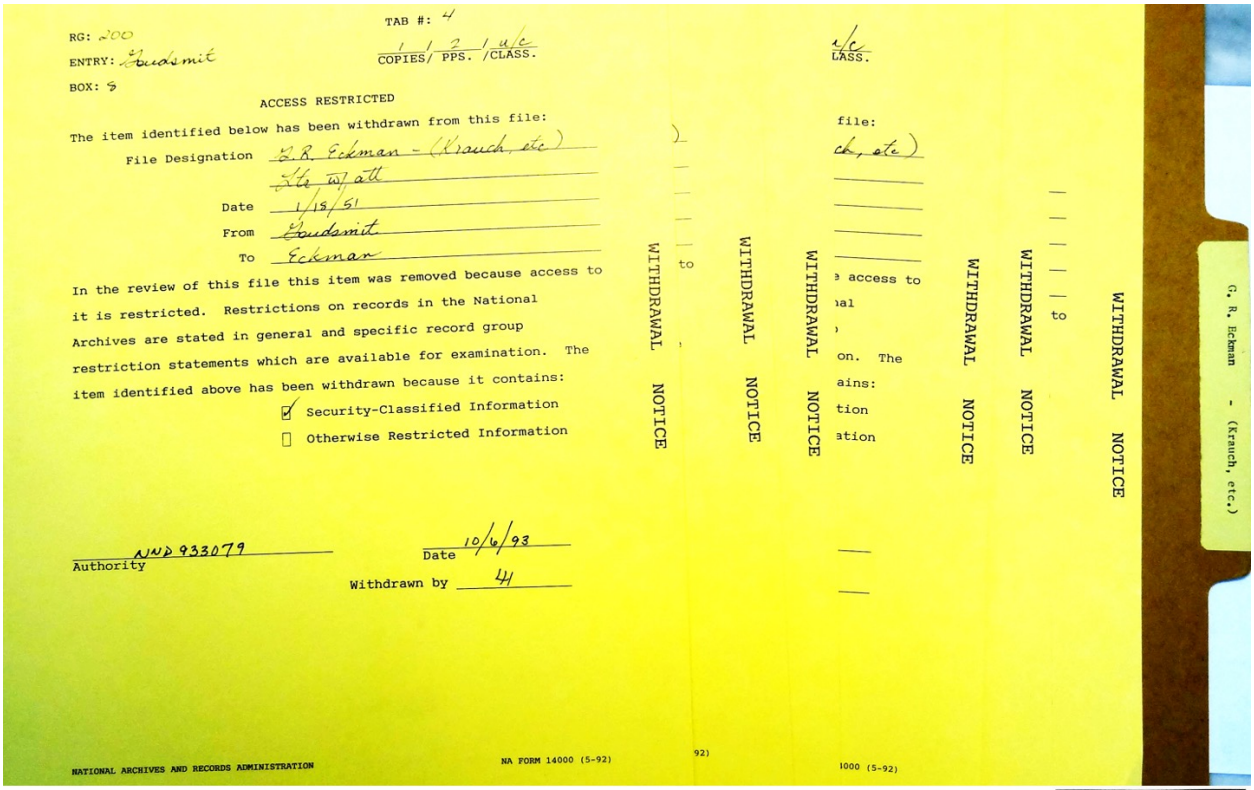
☑ Security-Classified Information
☐ Otherwise Restricted Information

NND 933079 Authority
5 October 93 Date
Withdrawn by jbf

WITHDRAWAL NOTICE

NATIONAL ARCHIVES AND RECORDS ADMINISTRATION NA FORM 14000 (5-92)

Figure D.853: Many Alsos-related documents from Samuel Goudsmit's files remain classified [NARA RG GOUDS, Entry UD-7420].



NARA RG GOUDS, Entry UD-7420, Boxes 1–9

DECLASSIFIED
Authority NND933079

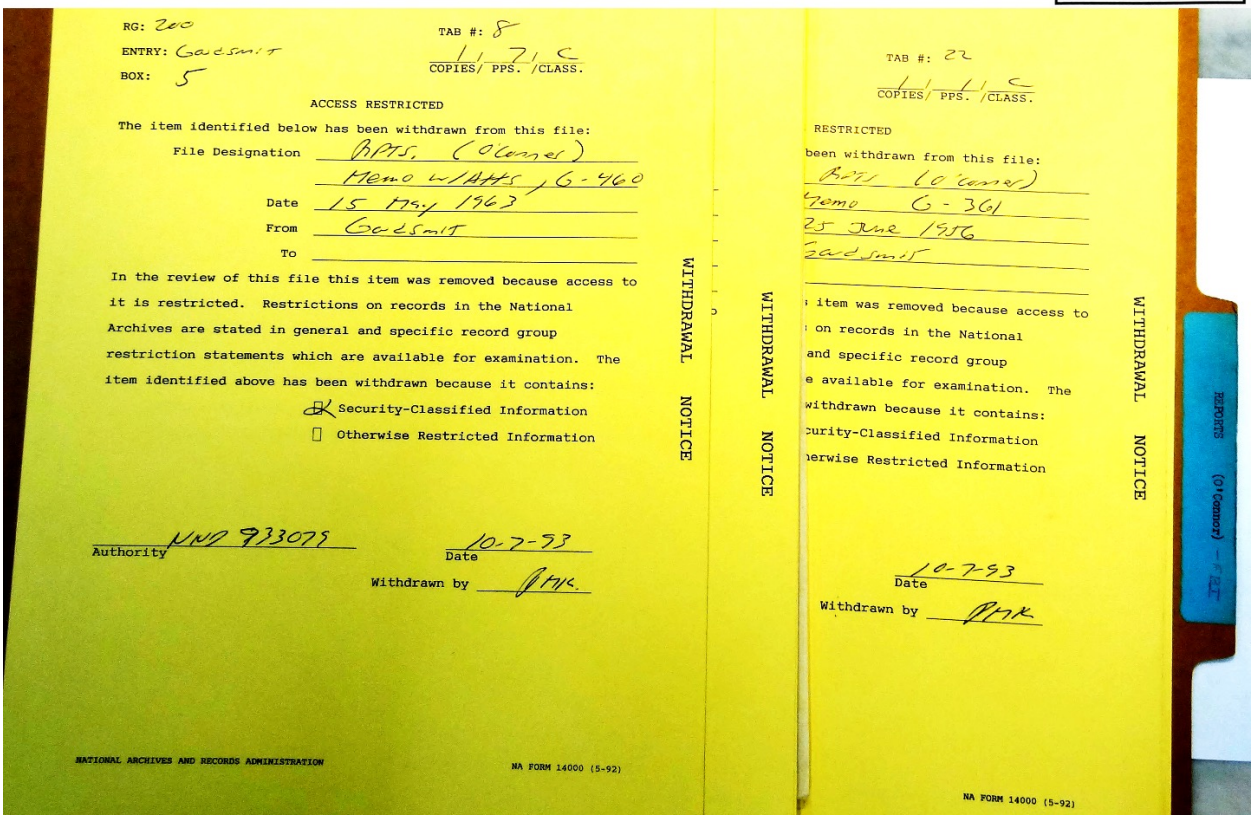


Figure D.854: Many Alsos-related documents from Samuel Goudsmit's files remain classified [NARA RG GOUDS, Entry UD-7420].

OSS. TOP SECRET—CONTROL Number 67. Subject: Experts on Atomic Fission. Late 1945 (?). [NARA RG 226, Entry A1-215, Box 6, Folder WN26150–26164]

1. The following list includes the names, approximate locations, field of interest, and relative importance of the scientists now living in Germany who are outstanding for their theoretical knowledge of atomic fission.

NAME	ADDRESS	FIELD	RATING
BAGGE	Goettingen	Nuclear physics	B
BERKEI, Fritz	Berlin	Nuclear physics	B–C
*BONHOEFFER, K. F.	Leipzig	Phys-chemistry; heavy water	A
*BORN, Dr. H. J.	Berlin-Karlshorst	Bio-physics	B
BOTHE, Prof. Walter	Heidelberg	Nuclear physics	A
BRILL, Prof. Dr. R.	Darmstadt	Inorganic chemistry	A
BRUNA, Dr. Otto	Tailfingen	Nuclear physics	B–C
CLUSIUS, Klaus	Munich	Nuclear physics	A
CZULIUS, Werner	Berlin (?)	Nuclear physics	B–C
DAENZER, Dr. H.	Heidelberg (?)	Nuclear physics	A–B
DIEBNER, Dr. K.	Br. Zone	Nuclear physics	C
DIECKEL	Munich	Nuclear physics	B
DOPEL, R.	Leipzig (?)	Nuclear physics	B
DROSTE, Dr. G. von	Berlin-Dahlem	Nuclear physics	B
ERBACHER, Prof. Otto	Tailfingen (?) (May be in Berlin-Dahlem)	Nuclear physics	B
EWALD, Dr. Heinz	Tailfingen (?)	Mass spectroscopy	B
FLAMMERSFELD, Dr. Arnold	Berlin-Dahlem	Theoretical physics	B
FUCHTBAUER, Prof. Dr.	Beboldehausen (Formerly Bonn)	Spectroscopy	B
FLÜGGE, Siegfried	Goettingen (?)	Nuclear physics	A–B
GENTNER, Dr. Wolfgang	Heidelberg	Nuclear physics	B
GERLACH, W.	Bonn	Nuclear physics	B
GERTHSEN, Prof.	Berlin	Nuclear physics	A–B
GOTTE, Dr. Hans	Tailfingen (?)	Nuclear physics	B
GRASSMAN, E.	Berlin (?)	Nuclear physics	C
GROTH, Dr. Will	Hamburg	Physical chemistry	B
HAHN, Prof. Dr. Otto	Goettingen	Nuclear physics	A
HARTECK, P.	Hamburg	Nuclear physics	A
HAXEL, O.	Berlin (?)	Nuclear physics	B
HILSCH, Dr. R.	Erlangen	Experimental physics	B
HEISENBERG, Werner	Goettingen	Nuclear physics	A
*HILGERS, Dr.	Berlin-Oberschoeneweide	Nuclear physics	C

HINTERBERGER, Dr. Heinrich	(?—is Austrian)	Mass spectroscopy	B
HOCKER, Karl Heinz	Hechingen	Nuclear physics	C
HOFFMAN, Prof.	Leipzig	Physics	B
HOUTERMANS, Fritz G.	Goettingen	Physics	B
JENSEN, Dr. J.	Hannover	Theoretical physics	B
JORDAN, Pasqual	Berlin	Theoretical physics	A
JUILFS, Dr.	Berlin	Theoretical physics	B–C
KIRCHNER, Dr.	Garmisch	Nuclear physics	B
KLEMM, Dr. Alfred	Tailfingen (?)	Nuclear physics	B
KLUGE, Dr.	Berlin (?)	High frequency cables (AEG)	C
KOCHENDORFER, Dr. Albert	Stuttgart	Physics	B
KOPPERMANN, H.	Goettingen	Nuclear physics	A
KOSSEL, Prof. W.	?	Physics	A
LAUE, Max von	Goettingen	Nuclear physics	A
LINDNER, Dr. Roland	Tailfingen (?)	Nuclear physics	C
MATTAUCH, Dr. Joseph	Tailfingen	Nuclear physics	A
MECKE, Prof. Dr. F.	Freiburg	Theoretical physics (Spectroscopy)	B
MOLIERE, G.	Heckingen	Theoretical physics (Cosmic Rays)	B
PHILIPP, Kurt	?	Physics Geiger-Mueller counters	B
POHL, Dr. R. W.	Goettingen	Physics	A
POSE, H.	Leipzig (?) Heckingen (?)	Nuclear physics	B
RAMSAUER, Prof. Dr. K. W.	Berlin (?)	Physics	A–B
REGENER, E.	Weissenantal (Ravensburg)	Cosmic radiation; physics of ionosphere	A
REHBEIN, F.	Stadtilm, Thur.	Nuclear physics	B–C
RIEZLER, Prof. Dr. W.	Garmisch	Nuclear physics	B
RUCHARDT, E.	Munden	Nuclear physics	B–C
SAUERWEIN, Kurt	Tailfingen	Theoretical physics	B
SCHMIDT, Dr. Theo	Greifswald (N. of Berlin)	Theoretical physics	B
SEELMANN-EGGEBERT, Dr. Walter	Tailfingen	Nuclear chemistry	B
STRASSMANN, Dr. Fritz	Goettingen	Nuclear physics	A
*STEIMEL, Dr.	Berlin (?)	Electronic tubes	B
WALDMANN, Dr. Ludwig	Tailfingen	Theoretical physics	A
WEIZSAECKER, Carl Fred. von	Goettingen	Nuclear physics	B
WIRTZ, Karl	Goettingen	Nuclear physics	B
*ZIMMER, Dr.	Berlin-Karlshorst	Bio-physics	B

(Asterisks denote men who have been invited to work in Russia but have declined.)

2. Any of these men becomes an important intelligence target whenever it appears that his services have been sought by any other nation. Any attempts to recruit these scientists should be reported in detail; especially the name and German address of the man, exactly what he is being recruited for, where he would go, and all inducements offered. This information should be forwarded by the quickest means possible.

3. The following is a list of German scientists known to be working in the USSR at the invitation of the Russians.

ARDENNE, Baron Manfred von: Germany's foremost builder of cyclotrons. Taken to Russia June 1945; now reported in Taupse on Black Sea. Rating: A.

HERTZ, Prof. G.: Partially Jewish; non-Nazi. Went to Russia in June 1945 with 25 assistants. Rating: A.

MIE, Dr.: Nazi; physicist. Arrived Moscow July 1945. Rating: C.

RIEHL, Prof. N.: Non-Nazi; Director of Research for the Auergesellschaft AG Oranienburg, Berlin. Radio chemist. Went to Russia June 1945. Rating: A.

STEENBECK, Dr.: Nazi; atomic physicist and rheotron expert. Arrested by Russians and sent to Moscow in September 1945. Rating: A.

THIESSEN, Prof. P. A.: Former Director Kaiser Wilhelm Institute for physical chemistry. Taken to Russia in October 1945 with two assistants and VON ARDENNE. Rating: B.

VOLMER, Prof. M.: Non-Nazi; physical chemist. In Russia with HERTZ. Rating: A.

4. The activities of these men are of the greatest interest, as are those of any other men who may be added to the list. If any of these men returns to Germany information as to his whereabouts should be forwarded at once.

5. The names and activities of engineers and other technical experts possibly connected with atomic research also become of great intelligence interest when such men are known to be working for other nations or to have been successfully recruited or even approached by another nation. Full details are required.

[This is the final version of a list that was created and distributed by the Alsos Mission. There was a similar but separate list for Austrians such as those Georg Stetter's group—see the following pages. If the U.S. government truly believed that these scientists knew and accomplished so little during the war, why were they so concerned about what these scientists might tell or do for other countries that wanted to develop nuclear weapons?

In some respects this list shows a remarkably detailed knowledge of wartime German nuclear work, including many relatively obscure scientists. In other respects this list reveals areas of ignorance about the wartime German nuclear program. It underestimates the importance of some people. For example, it assigns the lowest value (C) to Diebner, who appears to have been instrumental in running the nuclear program, and gives a B to Jensen, who went on to win a Nobel Prize for his nuclear work. It also omits a number of important people.]

Todos M. Odarenko. FIAT 63. *Activities of the Second Institute of Physics of the University of Vienna.* [The original German version of this report is G-345.]

[See document photos on pp. 4786–4787.]

1.0 Introduction.

The material presented here on the activities of the Second Physics Institute of Vienna University was obtained from Prof. Stetter, as the result of my visit to Thumersbach and to Zell-am-See between October 10 and 13, 1945. The primary purpose of the visit was to establish the contribution of the Institute to the atomic work on the so-called "Uran-Motor" project, and to determine the work of the Institute on radiation absorption materials. Two days were used for interviews with Prof. Stetter and his associates, at the end of which a series of reports were obtained, the English translation of which is attached herewith, as Appendix I.

Although some of these reports, and additional documents, were removed from the Institute earlier by Prof. Smyth of the Alsos Mission, the reports obtained were translated and are released herewith as a matter of record. The original German reports were turned over to the Naval Intelligence Division, Navy Department, Washington, D.C.

2.0 General Observations on the Institute and its Work.

2.1 The Institute.

The Institute, with its present component parts, was the largest and the most important research organization in Austria. Before the war, it was involved primarily in the so-called pure research. During the war, it became engaged in certain special problems, of which the Uran-Motor project was one. In addition, the problems relating to the radar field, high frequency development work on testing equipment and the radiation absorption materials, received a certain amount of attention. A very brief review of these activities is undertaken below. A series of the reports prepared by the members of the Institute is attached for a more searching study.

2.2 Work in Nuclear Physics.

Not having been intimately connected with the work on atomic energy release, I am not in a position to fully evaluate the importance of the Institute's work in this field. The significance of the work of the Institute, from the point of view of the potential utilization of its research, was very sketchily discussed in my reports on "Atomic Bomb Research in the Russian Zone of Czechoslovakia", dated October 26, 1945, and on "Problems of Displaced Scientists Now Residing in the American Zone of Austria", dated October 26, 1945.

Contrary to the statements, attributed by the U.S. newspapers to the various U.S. atomic experts, that it "would take the Germans some 100 years to solve the problem of atomic disintegration on an explosive basis" (for the manufacture of bombs), the opinion of the members of the Institute themselves was that, given a supply of radium and uranium, and permitting their return to Vienna, where certain of their materials and equipments are stored, they would be able to "complete their work" in some 3 to 6 months. Some small scale experiments were claimed to be performed successfully by the Institute before the end of the war in Europe.

That these claims of the Institute are not to be disregarded too readily would follow from the fact that Prof. Smyth spent considerable time with the Institute, revisited them several times, and thought it necessary to insist on the most stringent type of control over the scientific activities of the group, as well as on close individual observations. Perhaps equally significant are the indications of the substantial interest of the Russians in several members of the Institute.

Incidentally, the following list of materials was obtained from Prof. Stetter, as held in Vienna by Prof. E. Haschek of the Vienna University: a mass-spectrograph, amplifiers, oscillographs, an X-ray equipment, various testing devices for work on nuclear physics, 200 kg. of Wolfram, some Beryllium, Heavy water, 500 kg. of Lead, a small quantity of Uranium, (most of the Uranium had been removed by the Russians from the laboratories of the University).

As a result of the forced idleness, the group has occupied itself with the problems of Uranium split-up on a considerably more concentrated basis than they were able to do in Vienna. They also managed to attract the attention to this problem of other members of the scientific body in the region around Zell-am-See. I am inclined to think that, given an opportunity, such as their return to Vienna, and some sort of inducement, the Institute would concentrate on this problem to the exclusion of other activities, with a good chance of success.

2.3 Radiation Absorption Material.

This problem, and the contribution of the group to it, was discussed in a separate report on "Radar Camouflage-Radiation Absorption Material".

[Georg Stetter and his fellow Austrian researchers were heavily involved in both the wartime fission and fusion programs (pp. 3372–3375, 4330–4345, 4784–4800, 4992).

The information from Odarenko was forwarded directly to Leslie Groves—see pp. 4794–4795.

"Prof. Smyth" was Charles P. Smyth, a Princeton chemistry professor and member of the Alsos Mission. He should not be confused with his brother Henry DeWolf Smyth, a Manhattan Project physicist who wrote the August 1945 "Smyth Report" that gave public information about the U.S. atomic bomb program.

As a result of the reports of Odarenko and Smyth, the Austrian nuclear scientists were closely monitored and controlled for years by U.S. intelligence and military agencies. For example, Georg Stetter was kept under virtual house arrest by U.S. agents in Austria from 1945 until the 1950s, nearly destroying his career (pp. 4796–4800).]

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- 3 -

Figure D.855: Longtime Bell Telephone physicist Todos M. Odarenko interviewed Georg Stetter and some of his group members soon after the war and wrote, "Contrary to the statements [by Goudsmit...] that it 'would take the Germans some 100 years to solve the problem of atomic disintegration on an explosive basis' [...] the opinion of the members of the Institute themselves was that [...] they would be able to 'complete their work' in some 3 to 6 months." [FIAT 63]

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That these claims of the Institute are not to be disregarded too readily would follow from the fact that Prof. Smyth spent considerable time with the Institute, revisited them several times, and thought it necessary to insist on the most stringent type of control over the scientific activities of the group, as well as on close individual observations. Perhaps equally significant are the indications of the substantial interest of the Russians in several members of the Institute.

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2.3 Radiation Absorption Material.

This problem, and the contribution of the group to it, was discussed in a separate report on "Radar Camouflage-Radiation Absorption Material".

2.4 Radar and Radio Frequency Work.

Figure D.856: Longtime Bell Telephone physicist Todos M. Odarenko interviewed Georg Stetter and some of his group members soon after the war and wrote, "Contrary to the statements [by Goudsmit...] that it 'would take the Germans some 100 years to solve the problem of atomic disintegration on an explosive basis' [...] the opinion of the members of the Institute themselves was that [...] they would be able to 'complete their work' in some 3 to 6 months." [FIAT 63]

Todos M. Odarenko. 26 October 1945. Problem of Displaced Scientists Now Residing in the American Zone of Austria. [NARA RG 77, Entry UD-22A, Box 167, Folder 32.12-2 GERMANY: Personnel (Jan 45–Dec 45)]

1. This memorandum is prepared for Col. R. M. Osborne, Chief of FIAT, and Dr. H. P. Robertson, Chief of Scientific and Technological Branch of FIAT, upon their request to point out certain problems arising out of the presence of a very large group of displaced German and Austrian scientists, now residing in and around Zell-am-See, south of Salzburg, Austria. [...]

3. The total number of scientists is not known to the undersigned. It was variously estimated for him by the officers of G-2 and OSS in Salzburg as being between 150 to 250 individuals. They come from the high institutions of learning originally located in Berlin, Insbruck, Graz, Wien, Dresden, etc. A complete list of the evacuated organizations might be in the hands of OSS, Salzburg, or in the hands of Education, Religion, Muniment and Fine Art Office of the military government of Salzburg. [...]

6. Among these evacuees there is a very large group of capable scientists who worked in the field of nuclear physics and chemistry and who have been carrying this work with such facilities as they have been able to assemble. There are two (or possibly more) institutes which were directly involved before the end of the war in a secret German project called "Uranmotor" whose purpose was to split uran atoms in order to obtain a powerful source of intra-atomic energy. It is apparent that the end result of this work is a method of obtaining an explosive release of atomic energy, or atomic bomb. The two groups definitely identified with the Uranmotor project are Kaiser Wilhelm Institute and Institut für Neutronenforschung. Professor Stetter, Professor Mattauch, Professor Thirring, Dr. Schintlmeister, Dr. Jentschke, Dr. Ortner, Dr. Ing. F. Focke are some of the names reported to the undersigned to have been directly involved in the project and capable of completing it as soon as the opportunity will present itself.

7. The undersigned spent a day with one of these groups, namely Professor Stetter and his men. He was assured that the work on the project reached the state before the end of the war when small scale experiments were completed and were quite satisfactory. The present status is that if given an opportunity to return to Vienna, where certain equipment and raw materials were left (and are still intact in the hands of Professor E. Haschek, Poltzman Gasse S, Wien IX) and given a supply of uran, the project could be completed in three to six months with the available personnel and equipment.

8. Professor Smyth of the Alsos Mission visited the region and Professor Stetter's group three times (last on August 14, 1945) and spent considerable time with them. It is reasonable to assume that he is fully cognizant of the significance of the experience and qualification of the group, since his recommendation to OSS in Salzburg was to keep the group under a "constant and strict survey". [...]

10. It must be also kept in mind that because of the decision of the United States not to share the secrets of atomic explosion with other nations, there is an ever increasing desire on the part of certain nations to arrive at the solution of the atomic disintegration problem by an independent method. The undersigned has some information indicating that USSR has a large scale research organization with the best of German scientists working on the problem and expect the solution shortly. They are also reputed to be anxious to get certain of the men now in Austria to join their organization. Thus, it would appear that a careful consideration must be given promptly to the disposition and utilization of the scientific personnel in Austria. It has been repeatedly stated to the undersigned by the occupational officers in Austria that the final decision on the disposition of the displaced scientists in Austria must come from the highest quarters in USFET, and that if the decision does not come soon enough it might come too late. [...]

[See document photos on pp. 4790–4793.

Georg Stetter and his fellow Austrian researchers were heavily involved in both the wartime fission and fusion programs (pp. 3372–3375, 4330–4345, 4784–4800, 4992).

The information from Odarenko was forwarded directly to Leslie Groves—see pp. 4794–4795.

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As a result of the reports of Odarenko and Smyth, the Austrian nuclear scientists were closely monitored and controlled for years by U.S. intelligence and military agencies. For example, Georg Stetter was kept under virtual house arrest by U.S. agents in Austria from 1945 until the 1950s, nearly destroying his career (pp. 4796–4800).]

we have copy H.S.L.

CONFIDENTIAL October 26, 1945

PROBLEM OF DISPLACED SCIENTISTS
NOW RESIDING IN THE AMERICAN ZONE OF AUSTRIA

1. This memorandum is prepared for Col. R. M. Osborne, Chief of FIAT, and Dr. H. P. Robertson, Chief of Scientific and Technological Branch of FIAT, upon their request to point out certain problems arising out of the presence of a very large group of displaced German and Austrian scientists, now residing in and around Zell-am-See, south of Salzburg, Austria.

2. These scientists were assembled in the American occupied zone of Austria by the process of evacuation of whole laboratories or small groups of scientists by the various G-2 and OSS Branches, and sometimes by the officers of the military units in the area, from the zones now occupied by USSR, Great Britain and France. The undersigned understands that in certain cases the evacuation from the neighboring zones was carried hurriedly and without necessary authorization, and that it is possible that even now a complete list of the scientists so transferred to the American Zone might not be fully complete.

3. The total number of the scientists is not known to the undersigned. It was variously estimated for him by the officers of G-2 and OSS in Salzburg as being between 150 to 250 individuals. They come from the high institutions of learning originally located in Berlin, Insbruck, Graz, Wien, Dresden, etc. A complete list of the evacuated organizations might be in the hands of OSS, Salzburg, or in the hands of Education, Religion, Muniment and Fine Art Office of the military government in Salzburg.

4. Since these men were removed to their present locations primarily for a subsequent scientific and technological exploitation and are controlled by military intelligence groups, no direction has been established for their scientific activities. For this reason these have been scheduled and carried on in a somewhat arbitrary manner by the individual displaced groups. At this moment there is a rather free exchange between the groups of their problems, of their methods of attacking the problems and of the communal use of such equipment as has been salvaged during the evacuation or built by the evacuees subsequently.

Figure D.857: Todos M. Odarenko. 26 October 1945. Problem of Displaced Scientists Now Residing in the American Zone of Austria. [NARA RG 77, Entry UD-22A, Box 167, Folder 32.12-2 GERMANY: Personnel (Jan 45–Dec 45)]

5. Most of these scientists are fundamentally quite harmless individuals, anxious to carry on their research activities and to obtain some means of the public recognition of their work through publications or through correspondence. All are anxious to return to their homes or to attach themselves to some functioning research institution. Some of them were members of the Nazi party.

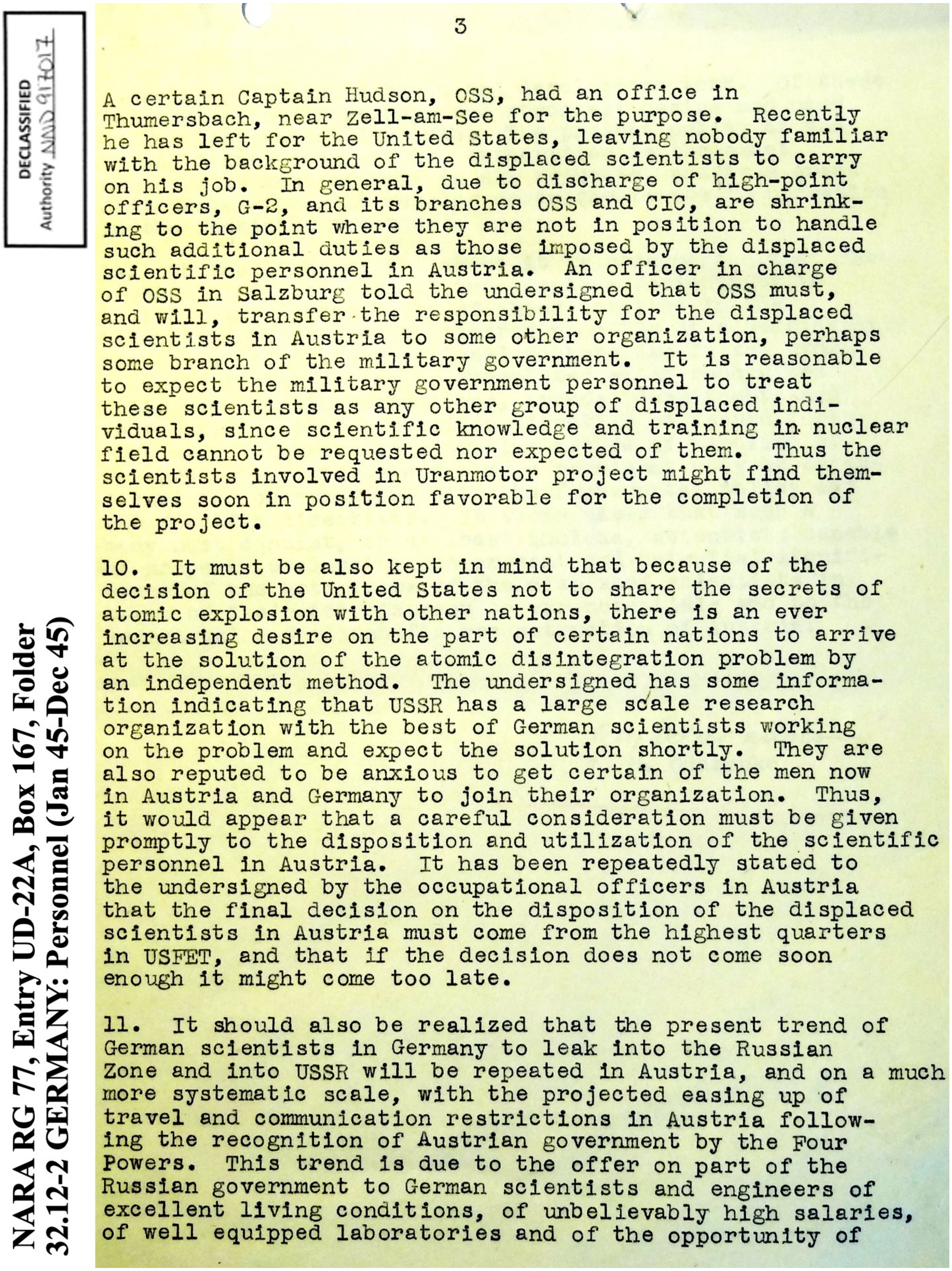
6. Among these evacuees there is a very large group of capable scientists who worked in the field of nuclear physics and chemistry and who have been carrying this work with such facilities as they have been able to assemble. There are two (or possibly more) institutes which were directly involved before the end of the war in a secret German project called "Uranmotor" whose purpose was to split uran atoms in order to obtain a powerful source of intra-atomic energy. It is apparent that the end result of this work is a method of obtaining an explosive release of atomic energy, or atomic bomb. The two groups definitely identified with the Uranmotor project are Kaiser Wilhelm Institute and Institut fur Neutronenforschung. Professor Stetter, Professor Matauch, Professor Thiering, Dr. Schindelmeister, Dr. Jentschke, Dr. Ortner, Dr. Ing F. Focke are some of the names reported to the undersigned to have been directly involved in the project and considered capable of completing it as soon as the opportunity will present itself.

7. The undersigned spent a day with one of these groups, namely Professor Stetter and his men. He was assured that the work on the project reached the state before the end of the war when small scale experiments were completed and were quite satisfactory. The present status is that if given an opportunity to return to Vienna, where certain equipment and raw materials were left (and are still intact in the hands of Professor E. Haschek, Poltzman Gasse 5, Wien IX) and given a supply of uran, the project could be completed in three to six months with the available personnel and equipment.

8. Professor Smythe of Alsos Mission visited the region and Professor Stetter's group three times (last on August 14, 1945) and spent considerable time with them. It is reasonable to assume that he is fully cognizant of the significance of the experience and qualification of the group, since his recommendation to OSS in Salzburg was to keep the group under a "constant and strict survey".

9. Until recently the occupational authorities in Austria kept a reasonably close supervision of the movements of the members of scientific organizations in Austria.

Figure D.858: Todos M. Odarenko. 26 October 1945. Problem of Displaced Scientists Now Residing in the American Zone of Austria. [NARA RG 77, Entry UD-22A, Box 167, Folder 32.12-2 GERMANY: Personnel (Jan 45–Dec 45)]



3

A certain Captain Hudson, OSS, had an office in Thumersbach, near Zell-am-See for the purpose. Recently he has left for the United States, leaving nobody familiar with the background of the displaced scientists to carry on his job. In general, due to discharge of high-point officers, G-2, and its branches OSS and CIC, are shrinking to the point where they are not in position to handle such additional duties as those imposed by the displaced scientific personnel in Austria. An officer in charge of OSS in Salzburg told the undersigned that OSS must, and will, transfer the responsibility for the displaced scientists in Austria to some other organization, perhaps some branch of the military government. It is reasonable to expect the military government personnel to treat these scientists as any other group of displaced individuals, since scientific knowledge and training in nuclear field cannot be requested nor expected of them. Thus the scientists involved in Uranmotor project might find themselves soon in position favorable for the completion of the project.

10. It must be also kept in mind that because of the decision of the United States not to share the secrets of atomic explosion with other nations, there is an ever increasing desire on the part of certain nations to arrive at the solution of the atomic disintegration problem by an independent method. The undersigned has some information indicating that USSR has a large scale research organization with the best of German scientists working on the problem and expect the solution shortly. They are also reputed to be anxious to get certain of the men now in Austria and Germany to join their organization. Thus, it would appear that a careful consideration must be given promptly to the disposition and utilization of the scientific personnel in Austria. It has been repeatedly stated to the undersigned by the occupational officers in Austria that the final decision on the disposition of the displaced scientists in Austria must come from the highest quarters in USFET, and that if the decision does not come soon enough it might come too late.

11. It should also be realized that the present trend of German scientists in Germany to leak into the Russian Zone and into USSR will be repeated in Austria, and on a much more systematic scale, with the projected easing up of travel and communication restrictions in Austria following the recognition of Austrian government by the Four Powers. This trend is due to the offer on part of the Russian government to German scientists and engineers of excellent living conditions, of unbelievably high salaries, of well equipped laboratories and of the opportunity of

Figure D.859: Todos M. Odarenko. 26 October 1945. Problem of Displaced Scientists Now Residing in the American Zone of Austria. [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)

carrying on their research and development work. Of these the last offer is perhaps the strongest desire and need of the displaced scientists. The present policy of the United States occupational authorities is the exact opposite to that of USSR in all respects, and is a great deal weaker than the working arrangements now in operation in the remaining two zones.

12. In the light of the above it is recommended that the problem of disposition of the displaced scientists in Austria, and particularly of those involved in the Uranmotor project, be considered promptly at a sufficiently high level of the occupational authorities in the ETO, that a definite policy be formulated which recognizes fully the existing conditions, trends, commitments and declarations, that a specific directive be issued forthwith with reference to a special method of handling of the Uranmotor experts and that a permanent body be established for carrying out both the fundamental policy and the specific directives. It seems clear that such a body must consist, or at least include, scientists capable of properly evaluating the present and potential significance of the activities of the displaced scientists in terms of their contribution to war potentials and to the industrial and scientific reconstruction of Austria.

T. M. Odarenko

Figure D.860: Todos M. Odarenko. 26 October 1945. Problem of Displaced Scientists Now Residing in the American Zone of Austria. [NARA RG 77, Entry UD-22A, Box 167, Folder 32.12-2 GERMANY: Personnel (Jan 45–Dec 45)]

TOP SECRET

COPY NO. 1 OF 2 COPIES, SERIES A

26 November 1945

Subject: Problem of Displaced Scientists in American Zone of Austria.

MEMORANDUM to Major General L. R. Groves

1. A recent report from JIOA "concerning certain problems arising out of the presence of a very large group of displaced German and Austrian scientists" in the American zone of Austria is substantially as follows:

a. These scientists were evacuated - in some cases with whole laboratories - to the American Zone in Austria by various G-2 and OSS branches and sometimes by the military units in the area from zones now occupied by Russia, Great Britain, and France. The list may not be complete because it is understood transfer often took place without authorization and hastily; but it is variously estimated that they number about 150-250. They are said to have come from "high institutions of learning" in Berlin, Dresden, Granz, Innsbruck, Vienna, etc. It is possible a complete list of them is in the hands of OSS, Salzburg or at the Education, Religion, Monument & Fine Arts office of the Military Government in Salzburg.

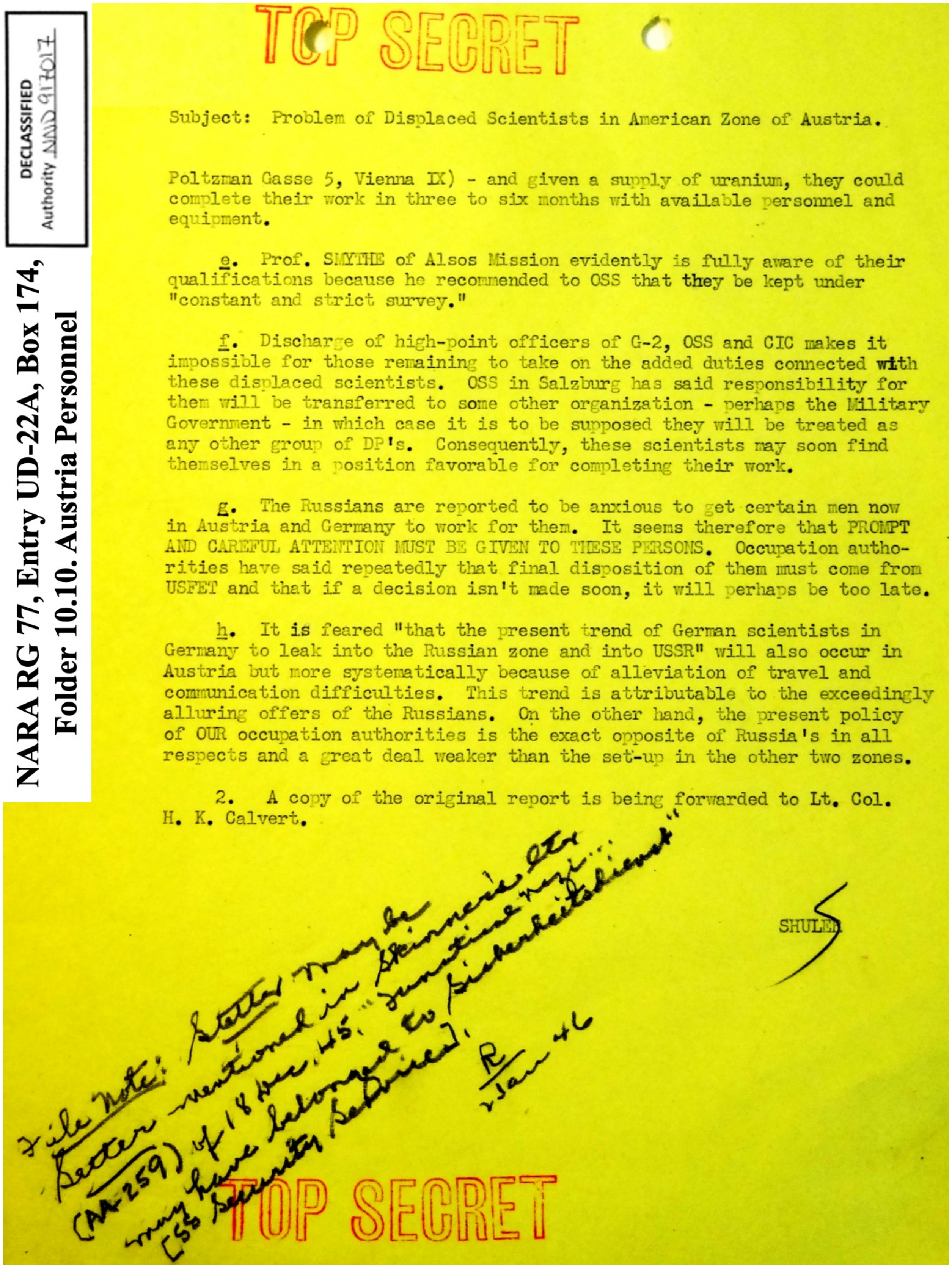
b. Their scientific activities are without direction: work is done in a rather arbitrary manner; there is free exchange of information concerning problems, methods of experimenting, and "communal use of such equipment" as was salvaged during the evacuation or as was built by the evacuees since.

c. Most of them are harmless; anxious to carry on their research and to obtain recognition of it through publication or correspondence and desirous of returning home and becoming members of "functioning research" institutions again. Some were Nazis.

d. Among them there is a very large group of capable nuclear physicists and chemists who have been working with make-shift equipment. Profs. STETTER, MATTAUCH, THIERING, Drs. SCHINDELMEISTER, JENTSCHKE, ORTNER, and F. FOCKE are names of some of them reported to have been connected with German research on a "Uranium Motor" project before war's end conducted by Kaiser Wilhelm Institute and the Institute for Neutron Research. They are reported capable of completing the work as soon as the opportunity arises. STETTER and his group assured ODARENKO that German research had progressed to where small-scale experiments were completed and satisfactory. If they could return to Vienna - where certain equipment and raw materials were left (and still intact in hands of Prof. E. HASCHEK,

TOP SECRET cc-file Austria

Figure D.861: W. R. Shuler to Leslie R. Groves. 26 November 1945. Subject: Problem of Displaced Scientists in American Zone of Austria [NARA RG 77, Entry UD-22A, Box 174, Folder 10.10. Austria Personnel].



DECLASSIFIED
Authority NND 917017

NARA RG 77, Entry UD-22A, Box 174, Folder 10.10. Austria Personnel

TOP SECRET

Subject: Problem of Displaced Scientists in American Zone of Austria.

Poltzman Gasse 5, Vienna IX) - and given a supply of uranium, they could complete their work in three to six months with available personnel and equipment.

e. Prof. SMYTHE of Alsos Mission evidently is fully aware of their qualifications because he recommended to OSS that they be kept under "constant and strict survey."

f. Discharge of high-point officers of G-2, OSS and CIC makes it impossible for those remaining to take on the added duties connected with these displaced scientists. OSS in Salzburg has said responsibility for them will be transferred to some other organization - perhaps the Military Government - in which case it is to be supposed they will be treated as any other group of DP's. Consequently, these scientists may soon find themselves in a position favorable for completing their work.

g. The Russians are reported to be anxious to get certain men now in Austria and Germany to work for them. It seems therefore that PROMPT AND CAREFUL ATTENTION MUST BE GIVEN TO THESE PERSONS. Occupation authorities have said repeatedly that final disposition of them must come from USFET and that if a decision isn't made soon, it will perhaps be too late.

h. It is feared "that the present trend of German scientists in Germany to leak into the Russian zone and into USSR" will also occur in Austria but more systematically because of alleviation of travel and communication difficulties. This trend is attributable to the exceedingly alluring offers of the Russians. On the other hand, the present policy of OUR occupation authorities is the exact opposite of Russia's in all respects and a great deal weaker than the set-up in the other two zones.

2. A copy of the original report is being forwarded to Lt. Col. H. K. Calvert.

SHULER

File Note: Stetter may be better mentioned in Steinnecke ltr (AA-259) of 18 Dec 45, "[illegible] may have belonged to Sicherheitsdienst" [SS Security Service].
R
2 Jan 46

TOP SECRET

Figure D.862: W. R. Shuler to Leslie R. Groves. 26 November 1945. Subject: Problem of Displaced Scientists in American Zone of Austria [NARA RG 77, Entry UD-22A, Box 174, Folder 10.10. Austria Personnel].

TOP SECRET

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CROSS REFERENCE SHEET

MAIN SUBJECT: INCOMING TOP SECRET CABLE

CLASSIFICATION NUMBER: 205.2

TO: WAR DEPARTMENT FOR WDGID

DATE OF COMMUNICATION: 23 November 1946

FROM: CG USFET Frankfurt Germany

BRIEF SUMMARY:

See below

CROSS REFERENCE NUMBERS:

10.10

Following cable received from United States Forces Austria:

"Subjects are Professors George Stetter and Willibald Jentschke, noted Austrian nuclear physicists presently in our custody at Zell Am See, Austria. Both names appear on the United State Forces Europen Theater 90 name denial list. During October Doctor Garin alias engineer Samsanov, a Russian civilian, visited the wife of Doctor Jentschke on several occassions in her Vienna home. He stated that he was aware of the fact that her husband was under contract to the United States but felt that he would reconsider and accept employment in Moscow. Although Garin's offers were very generous, Mrs. Jentschke declined them.

"Garin implied during the conversations that the Moscow Research Institute was somewhat disappointed in the work Schintlmeister was doing. (Schintlmeister was an assistant to Stetter and Jentschke and is presently in Moscow). To substantiate this it is the opinion of several noted professors at the University of Vienna that Schintlmeister, although an outstanding nuclear physicist is not capable of progressive research in atomic energy without collaboration of Jentschke and Stetter with whom he has always been teamed. We believe that the Russians will vigorously attempt to secure the services of Stetter and Jentschke and although they are outspoken anti-Communistic, they obviously have a natural and exceptionally keen scientist's desire to continue their work and will eventually accept an attractive Russian offer. We

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TOP SECRET

CARDED

- 2 -

also fear the possibility of their being contracted in our (Lipmed Russian) agents and kidnapped as was Schintleister.

"It is therefore, urged that special consideration be given this case and that subjects be removed from the American Zone in Austria to prevent their falling into Russian hands."

Stetter and Jentshke and families are being moved to Landshut without delay. Recommend they be shipped to the United States under project PAPERCLIP for denial purposes. Your approval requested soonest.

Figure D.863: Georg Stetter was kept under virtual house arrest by U.S. agents from 1945 until the 1950s [NARA RG 77, Entry UD-22A, Box 174, Folder 10.10. Austria Personnel].

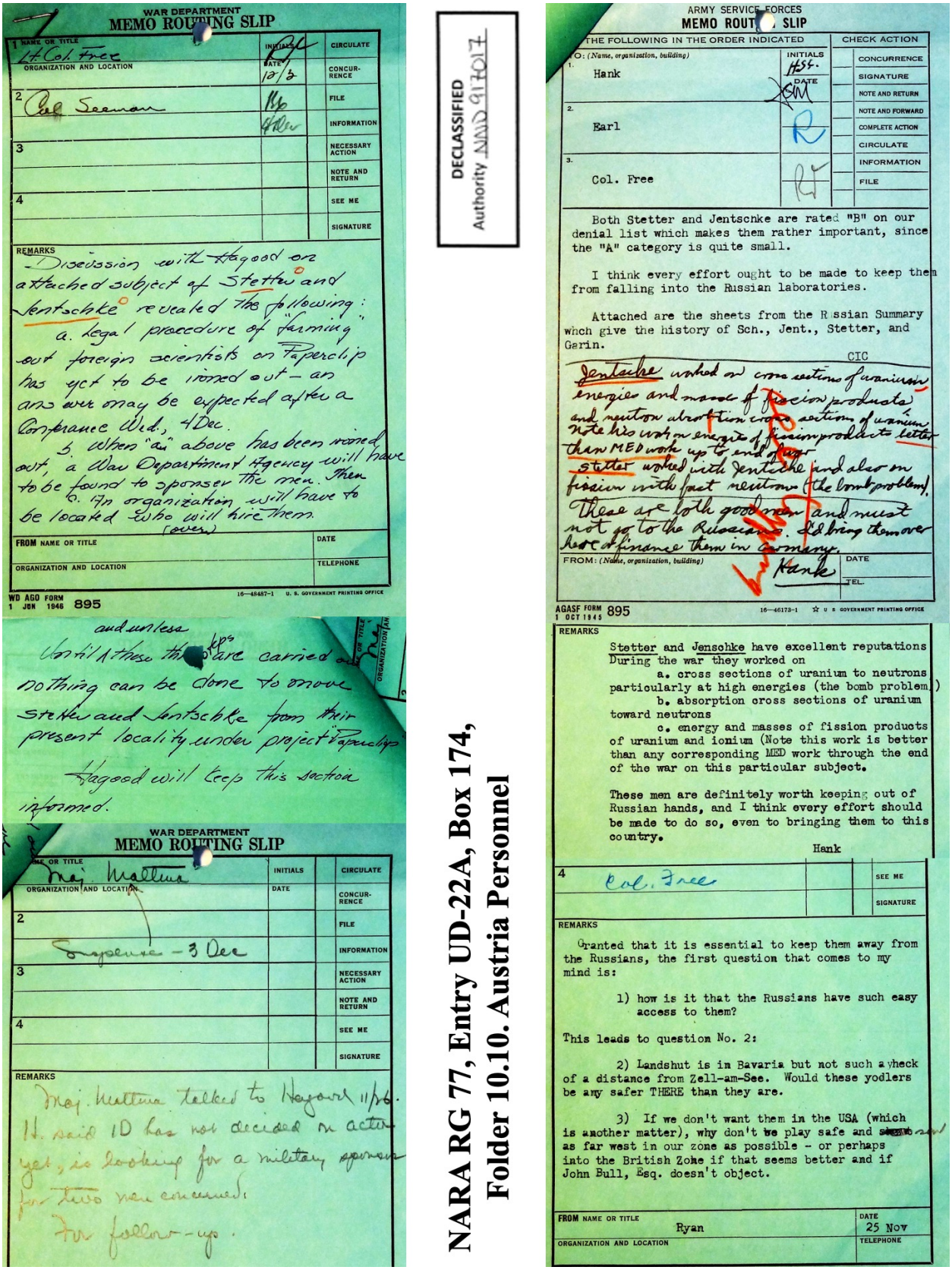

Figure D.864: "Stetter and Jenschke... During the war they worked on a. cross sections of uranium to neutrons particularly at high energies (the bomb problem)... c. energy and masses of fission products of uranium and ionium [thorium] (Note this work is better than any corresponding MED [Manhattan Engineering District] work through the end of the war on this particular subject." [NARA RG 77, Entry UD-22A, Box 174, Folder 10.10. Austria Personnel].

NARA RG 319, Entry A1-134B, Box 749, Folder 23 Nov 95 Georg Stetter XA001081

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UNTER INTELLIGENCE C RPS
Salzburg Detachment
UNITED STATES FORCES AUSTRIA
APO 541

CONFIDENTIAL

G-2

MBH:lb
Zell am See Section
Date: 9 April 1946

Subject: Members of the Physics Institute II of the Vienna University (Zweites Physikalisches Institut)

SUMMARY OF INFORMATION:

Reference is made to letter, dated 21 January 1946, from Hq. Rainbow University, 42nd Infantry Division, Subject: "Civilian Scientist Groups in Kreis Zell am See", and to MOIC, Land Salzburg Detachment, CIC, Zell am See Section, dated 9 April 1946, Subject: "SCHINTLMEISTER Josef, Dr., Scientist".

The Institute, together with a large part of its scientific equipment, had been moved from Vienna, IX, Boltzmanngasse 5, to Thumersbach, Bezirk Zell am See, in March 1945, according to Professor Dr. Georg STETTER, head of the Institute in Vienna, who was in charge also in Thumersbach.

Reports obtained from him, giving brief personal data on the members of the Institute and containing detailed information on the research work completed and contemplated by Subject Institute as well as a list of the members of the Institute and their present location, are attached to the original and file copies of this report.

On 7 January 1946 the scientific equipment was shipped badk to Vienna on instructions from Major SELKE, USFA Education Officer, according to Dr. BIBERSCHICK Walter, member of the Institute.

Dr. STETTER stated that the attached reports had been submitted to IOSS, G-2, USFA, last year. As yet no word had been received from the American authorities on further research assignments.

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MEIR BEN-HORIN
Special Agent,CIC

Approved: Gerald J. Weber
SAIC CIC
Land Salzburg Detachment

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EVALUATION:

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Figure D.865: Georg Stetter was kept under virtual house arrest by U.S. agents from 1945 until the 1950s [NARA RG 319, Entry A1-134B, Box 749, Folder 23 Nov 95 Georg Stetter XA001081].

NARA RG 319, Entry A1-134B, Box 749, Folder 23 Nov 95 Georg Stetter XA001081

COUNTER INTELLIGENCE CORPS
(430 th CIC Detachment)
LAND SALZBURG SECTION
APO 541 U. S. ARMY

CONFIDENTIAL

CIC Salzburg
Ref. No. S-2315

Zell am See Subsection
16 July 1948

SUBJECT: STETTER Prof. Dr. Georg (20th Bi-Weekly Report)

FROM : CIC, Land Salzburg Section, Zell am See Subsection

TO : Chief, CIC, Land Salzburg Section

1. Subject is currently residing at the Park Hotel, Thumersbach, Bezirk Zell am See, with his wife. His daughter is attending school in Innsbruck, French Zone, Austria.

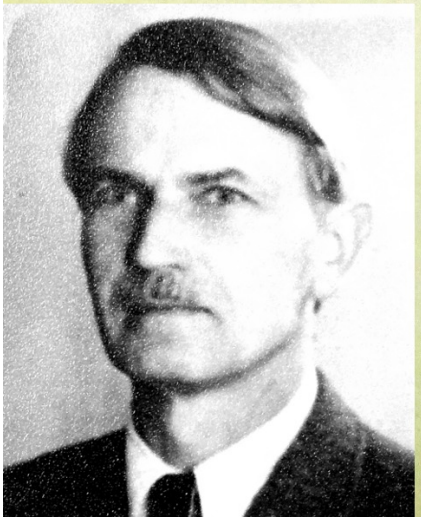
2. Recently Subject started to write a book on Nuclear Physics (Kernphysik), however, he is having difficulties as he does not have access to a library.

3. Subject's work on the device to remove dust from the air in coal mines is currently at a standstill as he does not have money to build a final model. A copy of the report Subject sent to the Salzburg Land-Government concerning his tests is attached to this report as Appendix "A".

4. Except for the fact that his rheumatism is apparently getting worse, even under treatment in Salzburg, Subject appears to be in a cheerful state of mind.

Charles W Foss

CHARLES W FOSS
Special Agent, CIC



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Authority of Originator, by N. F. Mincin

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Figure D.866: Georg Stetter was kept under virtual house arrest by U.S. agents from 1945 until the 1950s [NARA RG 319, Entry A1-134B, Box 749, Folder 23 Nov 95 Georg Stetter XA001081].

NARA RG 319, Entry A1-134B, Box 749, Folder 23 Nov 95 Georg Stetter XA001081

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SECURITY INFORMATION

AGENT REPORT
(SR 380-320-10)

1. NAME OF SUBJECT OR TITLE OF INCIDENT
STETTER, Dr. Georg,
Patent Concerning Production of Atomic Energy (TIM 700), Technical Intelligence, Vienna

2. DATE SUBMITTED
9 November 1953 mh

3. CONTROL SYMBOL OR FILE NUMBER
HO 01081
V-36742

4. REPORT OF FINDINGS

On 26 October 1953, Informant 1063 submitted the following information to this Office:

On 22 October 1953, Informant interviewed Prof. Dr. Georg STETTER at the First Physical Institute of the University of Vienna, concerning STETTER's atomic energy patents. STETTER stated that he owned no patents concerning atomic energy and that he did not contemplate applying for any. STETTER further stated that he had worked with nuclear physics during World War II, but that his notes and papers were seized by the Soviets in 1945 and that he had not worked with nuclear physics since 1945. STETTER is currently employed as head of the First Physical Institute of the University of Vienna and experimenting with dust particles. (C-3)

On 29 October 1953, the files of this Region were examined, concerning Georg STETTER and revealed the following information:

A/R V-34833, STETTER, Dr. Georg, dated 20 March 1953, reveals that STETTER accepted a position at the University of Vienna as head of the First Physical Institute. (C-3)

A/R V-33629, dated 23 January 1953, Subject: "STETTER, Georg", reveals that STETTER was flown to Vienna on 26 October 1952 for the purpose of arranging employment at the University of Vienna. (B-3)

STETTER is listed in numerous files of the Region as a prominent Austrian scientist and a former member of the NSDAP who was removed from his position as head of the Second Physics Institute at the University of Vienna because of NSDAP membership. STETTER is also listed on the Austrian Objective List of the JIOA. (C-3)

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DIR 5200.10

5. TYPED NAME AND ORGANIZATION OF SPECIAL AGENT
ROBERT A. SNEDEKER, S/A CIC
430th CIC Region "C" (Vienna)

6. SIGNATURE OF SPECIAL AGENT
Robert A. Snedeker

DA FORM 1 APR 52 341 REPLACES WD AGO FORM 341, 1 JUN 47, WHICH MAY BE USED. AGL (1) 12-52-200M-30093

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SECURITY INFORMATION

Figure D.867: Georg Stetter was kept under virtual house arrest by U.S. agents from 1945 until the 1950s [NARA RG 319, Entry A1-134B, Box 749, Folder 23 Nov 95 Georg Stetter XA001081].