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File

HEADQUARTERS
ARMY SECURITY AGENCY
WASHINGTON 25, D. C.

WDGSS-14

1 October 1945

SUBJECT: Report on Temporary Duty, ETO

TO: Commanding General
Army Security Agency

1. Pursuant to attached orders (Enclosure 1), I left Arlington Hall Station at 0900 hours on 14 July 1945 and returned to that station at 0900 hours on 14 September 1945. Although the temporary duty was originally scheduled to be of three months' duration, Colonel Cook and I both felt that the work for which SID asked that I be sent to the ETO had been completed at the end of two months and there seemed to be no reason for staying any longer. Attached hereto (Enclosure 2) is a detailed account of my movements and duty on this trip.

2. a. A great deal of useful and important information was accumulated by participation in the work of TICOM. In my opinion the results of the TICOM operation have been extremely fruitful and it will take considerable time to assess and properly evaluate the mass of data gained thereby. It is believed that the innermost secrets of German cryptography and cryptanalysis have been laid bare and we are already in excellent position to give an overall picture of the results the Germans achieved, their successes, and their failures. In a separate paper to be prepared I hope to give a detailed report thereon, but at this moment I think it warranted to state that the British and American achievements in both main fields far surpass those of the Germans.

b. In the cryptographic field the Germans made progress -- but never so rapidly or in so coordinated and integrated manner as to prevent or delay for any considerable length of time the continued reading, by the Allies, of the innermost secrets of German military, naval, air force, or diplomatic high- and low-grade communications. Attempts to improve their cryptographic machinery were nearly always obstructed by jealousies, bickerings, and administrative incompetence on the part of those concerned in the research

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and development work involved. For example, they started in 1939 to improve on the Enigma machine and by May 1945 had produced but a single complete model; in another case, they started work on an all-mechanical machine, an improvement on the Hagelin, in 1941; by May 1945 only a few machines had been produced and saw very little service. They produced a half-dozen different variations of a teletype encipherment machine, each of which except the very last was solved on a daily basis by the British. The early models of these machines were put into service without any serious attempt to study their security. German efforts to produce secure speech secrecy devices were dismal failures.

c. In the cryptanalytic field, they had but a mere half-dozen first-rate technicians and they failed to make even a dent in the high-grade cryptographic machines of the British or the United States. Their greatest achievements were the solution (up to the end of 1943) of the British Naval Cipher No. 3, British Naval Code, and American Strip Cipher using 30 strips regularly. When the channel interruption system was introduced in the last-mentioned system, they could do nothing further with it. They were completely baffled by our Sigaba traffic; they apparently did not even attempt a serious study of our SIGCUM or SIGTOT traffic, possibly because they were not too successful in intercepting it; they were apparently absolutely oblivious to or unaware of our SIGSALY transmissions. Their cryptanalytic deficiencies may, in part, be attributed to faulty organization and internecine warfare: there were at least half-dozen different, uncoordinated and competing cryptanalytic establishments, each one jealous of its own secrets and unwilling to cooperate except in a sporadic and faltering manner with any one of the other establishments. If there was a high-level coordinating agency, TICOM has failed to uncover it thus far. However, it does appear that the Germans had considerable, if not almost complete success with Russian military and naval cryptography--because it presented in most cases only the most elementary of cryptanalytic and traffic analysis problems.

d. It must also be stated that while the Germans had very little success, judged by our own standards, with British and United States high- and medium-grade material, they did not lack for certain important information gleaned from traffic analysis. The latter success was only possible because of our own shortcomings in radio procedures, practices, and security doctrine. A wide field for improvement in this respect remains for us to explore and to propagandize, with the hope of bringing about changes in attitude on the part of signal operating personnel.

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3. My second visit to GC & OS can hardly be said to have been as interesting as my first: V-E Day and the imminence of V-J Day had diminished activities and operations to but a mere shadow of their former stature. An air of the graveyard and tomb hung over each of the "huts" and buildings. Gone was the bustle, hurry, sense of urgency, and hum of wheels turning; every day fever faces were seen. However, I found the visit interesting nevertheless and was glad of an opportunity to renew acquaintance with many old friends, all of whom endeavored to impress me with their earnest desire to continue our collaboration during the peace and to cement further the cordial relations that existed at the end of the war.

2 Incls:

1. Copy of orders
2. Account of movements & duty on trip

WILLIAM F. FRIEDMAN
Director of
Communications Research

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WAR DEPARTMENT
 The Adjutant General's Office
 Washington 25, D. C.

AG 201 Friedman, William F.
 (10 Jul 45)OB-S-B

hak - 2B-939 Pentagon

11 July 1945.

SUBJECT: Travel Orders, Shipment IJ-Paris-YC.

TO: The Commanding General,
 Air Transport Command;
 The Chief of Transportation,
 Army Service Forces.

1. Mr. William F. Friedman, P-8, is hereby directed to proceed from Arlington, Virginia, to Washington, D. C., for further movement by air, on or about 14 July 1945, to Paris, France, and to such other places within the European Theater as may be directed by the Commanding General, United States Army Forces there on temporary duty for a period of approximately ninety (90) days, and upon completion of this temporary duty to return to Arlington, Virginia. UST-3-10975-WDP-JUL.

2. Prior to departure from the continental United States, he will be required to have completed the prescribed immunizations in conformity with current War Department instructions.

3. Regulations governing the procurement of military clothing and equipment in the United States are published in Section I, Circular 399, WD, 1944. Mr. Friedman is in Group 6. A uniform is required by the overseas commander. (Note Tab A, attached.)

4. Just prior to departure for port of aerial embarkation, he will advise correspondents that all mail will be addressed to him at APO 24441, c/o Postmaster, New York, New York. Upon arrival at destination overseas, he will contact the nearest Army Post Office to arrange for receipt and dispatch of official and personal mail. Civilian personnel using an APO mailing address are not entitled to the free mailing privilege.

5. Baggage to accompany the individual will be marked with the owner's full name, will be limited to sixty-five (65) pounds, and will accompany the individual to the port of aerial embarkation. Baggage will not be marked so as to disclose the overseas destination.

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Travel Orders, Shipment IJ-Paris-YC. (Cont'd.)

6. Travel by military, naval or commercial aircraft and common carrier is directed as necessary in the military service for the accomplishment of an emergency war mission and is chargeable to 601-3 P 432-02 212/60425 S 99-999.

7. In lieu of subsistence, a flat per diem of \$6.00 while within and \$7.00 while outside the continental limits of the United States is authorized in accordance with existing law and regulations while traveling and absent from permanent station. No per diem is authorized while traveling on board ships where the cost of passage includes meals.

8. The Chief of Transportation, Army Service Forces, Washington, D. C., will issue Certificate of Identification, WD, AGO Form No. 65-11 to Mr. Friedman with assimilated rank of Field Grade Officer. Upon the return of Mr. Friedman to the United States, Certificate of Identification will be surrendered to the Commanding General, Port of Entry.

9. Mr. Friedman is designated as official courier for the purpose of transporting official documents. Each package or envelope containing official matter which is to be exempt from examination will be sealed and will bear on its exterior cover the inscription "Official United States Army Communication, Exempt from Censorship", followed by the signature and official title of the authority dispatching the documents, who will furnish the courier with a letter addressed to the Collector, United States Bureau of Customs, Port of Aerial Embarkation, Washington, D. C., so describing the exterior cover or covers of the communications to be exempt from censorship as to enable the Customs Collector to identify them.

10. He is authorized to carry a camera, film and equipment and, subject to the restrictions of the theater commander, to take such photographs as may be necessary for the accomplishment of his mission.

11. In the interest of security there should be no discussion with unauthorized persons of the overseas destination involved herein.

12. The Commanding General, Air Transport Command, and the Chief of Transportation, Army Service Forces, will each furnish the transportation for which he is responsible and coordinate with all concerned.

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Travel Orders, Shipment IJ-Paris-YC. (Cont'd.)

13. Mr. Friedman may be contacted thru Captain Robert S. Travis, Military Intelligence Service, War Department, Washington, D. C., telephone REpublic 6700, extension 72468.

By order of the Secretary of War:

/s/ Donald M. Davis
Adjutant General

1 Incl.
TAB A.

COPIES FURNISHED:

CG, ETO (8); CO, PoAE, Wash., D. C. (2);
OPD, WDGS (1); APS, AGO (2); Mr. Friedman, THRU:
Capt. Travis (10); Capt. Travis, MIS (2);
Ch/Transp., ASF (Maj. Warker) (1).

I certify that this is a true copy:


THURMAN R. HAMMAN
Major, Signal Corps

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DETAILED MOVEMENTS

1945

- 14 July -- Left Washington Airport at 1130 hours (ATC terminal) by C-54 airplane. Stops at Newfoundland and Azores.
- 15 July -- Arrived Orly Field, Paris, France, at 2340, local time. Billsted at Hotel Franklin.
- 16 July -- Reported in at ETO HQ; OCSigO; SID HQ. Preliminary conference with Colonels Bicher and Cook.
- 17 July -- Continued conference with Colonel Bicher and Cook; review of SID current operations and situation; conference with Captain Wilkins, in charge of historical projects, SID.
- 18 July -- Continued conference with Colonels Bicher and Cook; conference with them and with Lieutenant Colonel Hilles, MIS representative in ETO, in regard to SIGTOT installation at Bletchley Park in British area. Formal call on and luncheon guest of General Rumbough, CSigO of ETO.
- 19 July to 25 July, inclusive -- Began one week's motor trip into U. S. Occupation Zone in Germany, with Colonel Bicher and Lieutenant Colonel Allen, on inspection tour of SID installations in Germany, including the following: (a) The Vierling Laboratory (an important TICOM target); (b) SID Advanced HQ (Detachment D), at Rüsselsheim; (c) 116th Signal R. I. Company at Scheyern; (d) 118th Signal R. I. Company at Rosenheim; (e) fixed intercept station at Grosse Gerau. Visited Berchtesgaden en route.
- 26 July -- SID HQ in Paris. Continued conference with Captain Wilkins on historical project; conference with Colonels Bicher and Cook on TICOM matters; review of new TICOM documents; discussions with regard to new ETO security document; discussion with regard to box of OKW/Chi documents recovered from Lake Schliersee.
- 27 July -- En route to London with Colonel Bicher, by ATC; reported SID HQ at Weymouth Street. Review of TICOM situation and matters with Lieutenant Colonel Johnson.

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- 28 July -- To Bletchley Park with Colonel Bicher; lunch and conference with Commander Travis; formal TICOM meeting in afternoon; tour of TICOM HQ and informal discussions with TICOM representatives.
- 29 July -- Visit to CSDIC HQ at Beaconsfield, to listen in on interrogation of an important German P/W (Mettig). Conference with Captain Ginsburg of CSDIC.
- 30 July to
7 August inclusive -- TICOM HQ; study of TICOM documents and preparation of special questions to be put to P/Ws; discussions with TICOM members on current matters; conferences with Major Seaman, Mr. Lewis, Brigadier Tiltman, Captain Hastings, Paymaster Cmdr. Dudley-Smith, Mr. Hinsley. Tour through Bourbon section with Colonel Pritchard. Conferences with Mr. Ben Shute, chief MIS representative on Combined Historical Project, and with Mr. Birch (GO & CS), Editor in Chief of the Project.
- 8 August -- Spent day in London, visiting Berkeley Street. Conference (and lunch) with Captain Hastings and Major Stone (MIS representative at Berkeley Street); conference with Mr. Kendrick, technical head; conference with Lieutenant Colonel Johnson on TICOM matters. Courtesy call on Brigadier General Van Voorst, Assistant U. S. Military Attache.
- 9 August to
14 August inclusive -- Continued work at Bletchley Park. Study of new TICOM documents; TICOM meetings and discussions; conferences with Major Seaman and Mr. Lewis on Bourbon project; conferences with Mr. Shute and Captain McCown (SSA representative on historical project).
- 15 August -- Official V-J Day. Trip to Cambridge with Cmdr. Travis to tour Cavendish Laboratory and visit Professor Vincent.
- 16 August to
24 August inclusive -- Continued work and conferences as per 9-14 August cited above; conferences with Brigadier Tiltman and Cmdr. Travis; conferences with Mr. G. L. S. Williams on intercept and intercept control for Berkeley Street traffic; conferences with Dudley-Smith on questions arising from TICOM operations.
- 25 August -- Second visit to CSDIC HQ to listen in on further interrogations of German P/Ws (Huettenhain, Fricke, et al).

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- 26 August -- In London, second visit to Berkeley Street; continued discussions with Mr. Williams and conferences with Messrs. Catty, Rees, Kendrick.
- 27 August -- Continued conferences at Berkeley Street; lunch
and with Captain Hastings; visit to Queens Gate House
28 August to tour special Berkeley Street tape-reading operation; conferences with Lieutenant Colonel Johnson on TICOM and SID matters.
- 29 August -- To Frankfurt, by air, via Paris.
- 30 August -- Conferences with Colonel Cook on TICOM matters;
to second visit to Detachment D (EARN) and to Inter-
2 Sept cept Station at Grosse Gerau; formal call on and
inclusive luncheon guest of Major General Lanahan, OSigO, USFET; tour through Signal Corps installations at USFET HQ with General Lanahan; continued conferences with Captain Wilkins on historical project.
- 3 Sept -- To London with Colonel Cook, by air.
- 4 Sept -- To Bletchley Park with Colonel Cook for last formal TICOM meeting.
- 5 Sept -- Completion of TICOM work; final farewells to
to GC & OS people, etc.
7 Sept
- 8 Sept -- Return to London; made arrangements for return to U. S. by air.
- 9 Sept -- Final visits to Berkeley Street; conferences with
and Captain Hastings, Messrs. Williams, Kendrick,
10 Sept Catty, etc.
- 11 Sept -- Left London for Prestwick, by air; to Iceland;
to return to Prestwick on account of bad weather;
14 Sept to Azores, thence Bermuda and New York, where
inclusive arrived at 0300 hours, 14 Sept; then by rail to Washington, arriving at 0830.
- 14 Sept -- Reported in at SSA, HQ, 0900.

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