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1	NAME OR TITLE Mr. William Friedman	INITIALS	CIRCULATE
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REMARKS			
<i>J. B. Cruise</i>			
FROM NAME OR TITLE Executive Secretary, EXSAB		DATE 14 Feb	
ORGANIZATION AND LOCATION 17-131		TELEPHONE	

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FINAL

Minutes of the Meeting of the Executive Group for  
National Security Agency Scientific Advisory Board Affairs  
held 12 January 1956

1. A meeting of the Executive Group for National Security Agency Scientific Advisory Board Affairs was held at 0930 on 12 January 1956 in Room 17-131, NSS.

2. Those present at the meeting were:

a. Members:

Dr. S. Kullback, Executive Secretary  
Colonel K. I. Davis, USA  
Captain A. Enderlin, USN  
Mr. P. E. Neff  
Colonel G. W. Wildes (for Captain J. S. Holtwick, USN)  
Mr. A. Levenson (for Brig. General W. M. Burgess, USAF)

b. NSA Scientific Advisory Board members:

Mr. John C. McPherson  
Mr. William F. Friedman

c. Observer:

LCDR J. W. Pearson

3. The Executive Secretary reported that replies had been received from a majority of the Board members in response to the letter announcing the meeting to be held 15, 16 and 17 February 1956. An affirmative reply was received from Mr. H. P. Corwith, Dr. Stewart S. Cairns, and Dr. Howard T. Engstrom. Dr. John von Neumann will attend part of the meetings and will determine which ones after he receives a copy of the agenda. Dr. Clifford C. Furnas, the new Assistant Secretary of Defense (R/D), accepted membership on the Board and will also attend a portion of the meetings. A telegram was received from Dr. H. P. Robertson stating that he would be available to attend the meetings on the afternoon of the 16th and all day on the 17th. He suggested that items which would require his participation be scheduled for those days. Dr. S. S. Wilks will not attend the meeting as he is leaving this month on sabbatical leave in India and Australia.

4. Dr. Kullback asked if there were any corrections to the revised minutes of the EXSAB meeting held 5 December 1955. Mr. Friedman commented that the group should be certain that the wording of the footnote on page 1 is correct. All members agreed that these facts were correct. There were no corrections to the minutes.

5. Dr. Kullback suggested that the group begin arranging the agenda items in time sequence; items of interest to the full Board membership to be scheduled for the last days of the meeting.

Mr. Neff asked if the Long Range COMINT plans and communication estimate would be presented. Colonel Wildes replied that the Long Range Estimate had been submitted to the operating elements and the Service Cryptologic Agencies. He stated that comments received indicated general concurrence in the Estimate with the exception of those submitted by PROD. He indicated that PROD would be requested to review the COMINT portion again and submit their comments by 1 April. General Ackerman had concurred in this procedure. Colonel Wildes expressed the opinion that he thought the Communications Estimate could be submitted to the Board but said that this should be cleared through General Canine. Dr. Kullback pointed out that only a summary of the report need be given and copies of the full report could be made available to the members to read in detail for their comments. Mr. Friedman said that since the report is quite long and would require time to read in full that perhaps it would be better to present only the COMSEC and COMMUNICATIONS parts of the report to the Board this time.

Captain Enderlin and Mr. Neff discussed the best way to present the COMSEC and COM programs and agreed that COM would present communications as they are and COMSEC would present the future plans.

6. Dr. Kullback reported that he had seen Professor Wilks on the morning of 3 January and they had reviewed some of the subjects that would be discussed at the Board meeting. Professor Wilks indicated that when he returned to the States in the fall he would consider the possibility of calling a meeting of the Mathematics Panel. Dr. Kullback said that two projects suitable for the panel would be to have them review the program in NSA-34, the SCAMP project, and comment on these activities.

Mr. McPherson introduced the problem of programming and considerable discussion followed on what has been accomplished in this field at NSA as well as in outside organizations. Dr. Kullback said that an attempt should be made to consider the development of an appropriate symbolism for cryptanalysis to simplify the problem of mechanically translating them into the language of the machines. Mr. McPherson said that if the Agency wanted assistance from the Board on this problem, a request for assistance should be presented to the Board. Dr. Kullback said Mr. Lathroum from NSA-35 was working on related problems and suggested that he be asked to attend the meeting and present his problems; an outline of what he proposes to do and indicate that if any Board members are in a position to assist they should contact him.

7. Captain Enderlin said that he was prepared to report on "Recent developments in communications as they affect NSA, and general NSA problems of communication" on any day that the group agreed upon. He suggested that the report on future communications be tied in with his report. (Captain Enderlin left the meeting at 1010.)

8. Dr. Kullback suggested that the tentative agenda which had been distributed be considered item by item to determine which day each item should be considered.

Mr. McPherson said in planning the program for each day, the group should remember that the Board members usually had to leave early on the last day. He also suggested that the first day be a preliminary or introductory meeting.

Dr. Kullback expressed the opinion that Dr. Furnas could probably be present for only one day. In reply to Mr. McPherson's suggestion that Dr. Furnas be given one-half day of indoctrination, Dr. Kullback said that General Canine would probably invite Dr. Furnas to visit the Agency for a tour prior to the meeting.

The Group then considered each item as it appeared on the tentative agenda:

Review and Approval of Minutes of 6-7 April 1955 Meeting.

Mr. Friedman asked whether or not the minutes were still in draft form. Dr. Kullback replied that he had one or two questions to discuss with Mr. McPherson before they were sent out to the Board members. It was agreed that approval of the minutes of the previous Board meeting would be the first item on the agenda and could be approved by the members present.

Review of the Robertson Report and its Recommendations.

Dr. Kullback said that he thought the Robertson Report would be of interest to Dr. Furnas and also since Dr. Robertson would be here for the latter part of the meetings that this item should be on the agenda for Friday. Several members expressed the opinion that this should be the final discussion on the Robertson Report and Mr. McPherson said that the Board would continue to use this report as a check list until a new report was written. Mr. Friedman said he thought another review by a Committee of the Board would be appropriate. A discussion followed regarding the preparation of a new report and it was felt that a general discussion by the Board members after the presentation on the Robertson Report would possibly result in some interesting comments on this subject.

New Board Business.

Mr. McPherson suggested that new Board business be added to the agenda so that the members would have an opportunity to present items for consideration. It was agreed that this would be the last item of business on Friday.

Report on Desirability of Setting up a Separate or Captive Organisation as an Adjunct to the Agency.

Dr. Kullback suggested that this item if included be scheduled for Friday. Mr. Friedman inquired about the status of this item and asked who would make the report on the problem. Mr. McPherson said that the Board had never organized a committee to study the problem and said he had discussed it with General Canine and they had tried to get Professor Wilks to work on it. Mr. Friedman said that the last report he had was that it was being held in abeyance until Dr. Baker's return and suggested that General Canine be asked about the status of this report.

Discussion of Setting up an Exchange Research Fellowship.

Mr. Friedman said that this should also be discussed on Friday and asked if a reply had been received from Mr. Jones, Director, GCHQ. Dr. Kullback brought the group up-to-date on this problem and said that plans were still firm for Dr. Leibler to discuss this with Mr. Jones when he goes to London. It was agreed that this would be one of the items under New Board Business.

NSA Problems of Communication.

Dr. Kullback said that agreement on the presentation of this item had been reached earlier in the meeting and suggested that it be discussed either Wednesday or Thursday. It was agreed that this would be on the agenda for Thursday afternoon.

Report on the Activities of each of the Board Panels.

Mr. McPherson said that he had nothing to report on this item since the Board had been inactive during the last twelve months except for individual consultations. He suggested that perhaps he could be furnished with a list of the individual consultants and bring this to the attention of the Board. Dr. Kullback agreed to furnish Mr. McPherson with this list and said that it would be appropriate at this time to present the problem for the Mathematical Panel which had been previously discussed. Any other problems anyone might have for any of the panels could be presented at this time.

Report on Agency Progress and Programs.

All members agreed that these presentations should be given on the first day of the meeting.

In reply to Mr. Neff's question, it was agreed that PROD, CONSEC, R/D and Staff would each have one-half hour for presentation of their report and fifteen minutes for discussion, allowing 45 minutes in all for each of the reports.

Colonel Wildes asked whether or not a briefing on the college recruitment program and the progress on the building at Fort Meade should be presented to the Board. Both reports were presented at the last meeting of the Board and it was agreed that members should be brought up-to-date on both items. This will be a part of the Staff presentation.

Mr. McPherson said that in this connection he thought someone should give a short briefing on Kelly Field and show how it fits in with the NSA operation. He emphasized that he wanted to bring to the attention of the members that NSA was a large operation. In this connection Colonel Wildes suggested that some mention might be made of foreign collaboration. He added that he would arrange a short briefing on this subject. Mr. Levenson said that PROD would include decentralization in their report which would cover some aspects of this subject.

#### Report on Equipment Acquisitions.

Mr. McPherson said that rather than have this subject as a separate item he would suggest that R/D present this report in connection with their report on progress. Colonel Davis asked if COMSEC would also present a report on their equipment and Mr. McPherson indicated that the Board would be interested in such a report. Mr. Neff said that he had planned for the COMSEC report to include equipments now being service tested. Dr. Kullback agreed that COMSEC should report on equipment that has reached the service test stage and beyond and R/D would report on COMSEC equipments not yet in the service test state and on equipments on the analytical side.

#### Report on Changes in Board Membership.

A list of Board members was circulated to the Group. Mr. McPherson said that perhaps it would be helpful to have someone from Lincoln Laboratories as a member of the Board and suggested Professor Jay W. Forrester as a possible candidate in view of the fact that he is now a member of the Electronics Panel and had been instrumental in arranging visits to Lincoln Laboratories for NSA people. It was agreed that this would be discussed with General Canine.

#### Summary of the PHASE I, II, III Documents on Mechanization.

The group agreed that this subject should be the first item for discussion on Thursday morning. Mr. McPherson said that the summary should not be too detailed but broad enough to let the members know the basic contents and interesting enough so that the individual members would want to come back and read it. Dr. Kullback said that Mr. Hausman, Mr. Hogan and someone from Mr. Schierlmann's office could cover the broad phases of the report and he would make the arrangements.

Discussion of UHF/VHF/SHF Plans was scheduled for Thursday afternoon.

9. The Group arranged the items in order for each day and scheduled the time for each. It was agreed that Wednesday morning, 15 February, would be set aside for the members to read and review written material and the formal meetings would begin at 1300.

Mr. Friedman said that some time should be reserved so that the Board members could make a formal call on General Canine. The agenda was arranged so that the members could visit with General Canine before going to lunch on Thursday.

10. Mr. Friedman suggested that it might be a good idea to recommend to General Canine that an invitation be sent to General Erskine's office for an observer to attend the meetings. All members agreed and Dr. Kullback said that a copy of the agenda could be forwarded so that General Erskine's office could decide which items would be of particular interest to them.

11. Mr. McPherson said that if the Board has any free time perhaps there was some new equipment that the members would be interested in seeing.

12. Mr. McPherson indicated his desire that part of the meetings be held at Arlington Hall Station since the Board as a group usually met at NSS. The group discussed possible arrangements for the meetings to be held at the Hall for one day and it was agreed that with the present agenda as planned it would not be practicable this time. In view of this, Mr. McPherson requested that the next meeting of the Board be scheduled for Arlington Hall Station.

It was agreed that the meetings this time would be held in Room 17-111, Naval Security Station.

13. Dr. Kullback said that he would circulate a tentative agenda to the members of the Executive Group and after he receives comments he will prepare the final agenda for forwarding to Board members. All agreed that there was no necessity for another meeting of the Group prior to the February meeting of the Board.

The meeting adjourned at 1200.



S. KULLBACK  
Executive Secretary  
EXSAB