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**MINUTES OF THE THREE MEETINGS OF
THE AD HOC COMMITTEE ON VOA JAMMING,
WITH THEIR RESPECTIVE APPENDICES**

Appendix 11 to the Report of the IAC Ad Hoc Committee on VOA Jamming.

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List of persons attending all or part of the meetings of the
IAC Ad Hoc Committee on VOA Jamming.

Dr. H. M. Chadwell, OSI/CIA
Mr. R. L. Clark, OSI/CIA
Mr. F. R. Gracely, OSI/CIA
Mr. W. K. Harvey, OSO/CIA

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[Redacted]

Mr. F. A. Voigt, CIA
Capt. K. M. Gentry, USN, CNO Comm. and ECM
Mr. W. E. W. Howe, ONI
Capt. J. R. Dennis, USN, AFSA
Dr. L. W. Tordella, AFSA Navy Comm. Station
Lt. Col. G. E. Branch, USAF Comm. and ECM
Lt. Col. H. H. Towler, USAF A-2
Maj. W. S. Trites, USAF A-2
Mr. D. C. Trafton, USAF Comm.
Col. C. V. Bromley, USA G-2
Mr. M. D. Post, AC of S, G-2
Maj. E. N. Jenkins, OCSigo. Comm. and ECM
Mr. R. F. Packard, State R/SPS
Mr. W. K. Scott, State, VOA
Mr. J. F. Thompson, State, VOA
Dr. M. Henderson, AEC, Int.
Mr. F. W. Reynolds, FBI

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IAC AD HOC COMMITTEE ON VOA JAMMING

CORRECTED MINUTES OF THIRD MEETING

Held 15 May 1950 at 0930 Hours
Room 2519 "M" Building
Washington, D. C.

1. The minutes of the second meeting were considered and approved, as corrected.
2. Col. Bromley's statement was discussed briefly, but no recommendation was made or action taken.
3. The committee also discussed the Statement of the utility and application of technical intelligence for the VOA problem which had been prepared by the International Broadcasting Division, Department of State as a supplement to their earlier Statement of VOA Intelligence Requirements. APPENDIX A.
4. Mr. Packard requested that the committee now proceed directly to the task of preparing its report for the IAC; the conclusions and recommendations of the committee should be addressed specifically to the Recommendations contained in Mr. Armstrong's memorandum to the DCI. At the suggestion of the committee, Mr. Clark appointed a subcommittee composed of Capt. Gentry, USN, Mr. Packard, and Mr. Clark to draft such a report. It was further suggested that the report incorporate the statements made to the committee by Mr. Scott (APPENDIX B) with those made by Mr. Clark and Mr. Packard.
5. The committee adjourned sine die after instructing the subcommittee to prepare a final report of the committee findings.

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APPENDIX A

DEPARTMENT OF STATE

STATEMENT OF VOA INTELLIGENCE REQUIREMENTS

There follows an elucidation of the uses which VOA would make of intelligence, if available, regarding various technical and operational factors of USSR Jamming of the VOA. The Department's memorandum of 24 March 1950 to the Director of Central Intelligence and the tabs thereto set out clearly the problem presented by USSR Jamming and the importance of penetrating to the listeners. This memorandum also pointed out that some useful data had been received and states in some detail the types of information that would be most useful.

Jamming is now spreading to language programs other than Russian and Ukrainian as well as to the Morse code Russian language news transmissions of VOA. By technical manipulations and selective assignment of present VOA facilities to the various program services, some improvement in penetration has been obtained. The small amount of intelligence received so far has been of great value. However, it has been insufficient to meet the technical planning and operational requirements of VOA. The mere fact that the intelligence information obtained has been so useful clearly indicates that more and complete information on a continuing basis would result in substantial improvement in penetration of Jamming.

The types of information on Soviet jamming listed in Tab B of the Department's memorandum of 24 March 1950 would, assuming as complete information as possible, be used generally as follows.

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(Letters refer to Tab B):

- (A) VOA recognizes that the purposes noted here are not within its cognizance. However, if the purpose of jamming is purely political and is directed solely against freedom of information, VOA would be able to produce strong political commentaries for broadcast purposes, thus strengthening the line. This assumes that the information could be declassified and its source protected.
- (B) The importance of this information to the VOA is obvious. It is difficult or impossible to estimate the techniques and/or effort to be applied or expended in overcoming unknowns. Quantitative factors are of vital concern in respect to frequencies, facilities and hours, and they form about the only basis for estimate of the value of proposed activities.
- (C) Power represents the primary limitation upon the effectiveness of Jamming equipment. Emission types may be considered the second factor determining effectiveness and are of interest not only in estimating the capabilities of Jamming equipment but also in evaluating the effectiveness to be expected from any proposed countermeasures. Details of equipment serve to complete the information.

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- (D) Factors of location and grouping are of great importance because of the propagational factors revealed. The use of certain frequencies may be possible and effective or impossible and ineffective in direct relation to the relative position of transmitter and target, time of day and the season. This information being common, the location may enable VOA to fill in a complete picture in respect to general and specific trends and current usage of jamming facilities.
- (E) Information as to mobility of the jammers is required in order to evaluate the flexibility of the jamming systems and the resulting complication of counter-action.
- (F) Information concerning antennas is required to complete the picture of jamming efficiency and for the intelligent preparation of countermeasures on the most effective and economical basis.
- (G) Information concerning methods of operation would provide direction for counteraction in use of VOA facilities and further such action, if approved by proper authority, as would provide for countermeasures including jamming of coordination and control systems and circuits.

In order to most effectively assign VOA facilities, both those now in use and those under construction or projected, to the various program services while at the same time intelligently allocating facilities to

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the Russian and Ukrainian programs, it is necessary that VOA have as much of these types of information as possible. It is not possible to state in a detailed manner the precise use that will be made of the requested intelligence until some further intelligence has been received and its type and completeness determined. Any information would be useful. Very little is now being received. However, the use to which intelligence can be put is simply set out in the following example, assuming that evaluated intelligence indicated that the Russians could bring only one jammer up on 9740 KC and that it was only strong in the Moscow area, VOA could immediately put one of the higher powered transmitters on 9740 KC and keep it there with the knowledge that generally unjammed coverage was being obtained.

Intelligence would bring VOA up to a higher level of penetration because of better strategic operation and would provide for better planning.

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APPENDIX B

The following presentation of conclusions was made by Mr. Scott, and the committee agreed that it might be used as a frame of reference for the drafting group:

1. Existing scientific knowledge and techniques do not offer a technical solution to overcome Soviet jamming of VOA on a sustained basis, if that jamming is carried to the ultimate extent in retaliation to all degrees of increased VOA operations.
2. The effectiveness of the penetration effort can be increased by knowledgeable manipulation of the transmitting facilities, and technical intelligence of Soviet jamming would increase VOA ability to do so.
3. Intelligence on Soviet jamming would assist in policy considerations to determine the broadcast facilities needed to carry out an expanding foreign information program. For example, the Secretary of State should have knowledge regarding the following questions:
 - a. Does the USSR have the capability of effectively jamming all United States broadcasts (1) to the Soviet Union, (2) to satellite states, regardless of the power and location of VOA transmitters?
 - b. If the existing jamming capabilities of the USSR are not sufficient to effectively silence VOA signals in all parts of the Soviet Union and satellite states, what is the present percentage of VOA penetration in each major target area?

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- c. What is the probable rate of increase in the effectiveness of Soviet jamming; do we know how many new jamming transmitters have been installed during the past 12 months; during the past 6 months? Have we sufficient intelligence to estimate the rate of increase?
- d. To what extent would USSR capabilities be reduced by increasing the number and power of transmitters beaming broadcasts to the Soviet Union and satellite areas (b)(1)
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4. The possibility of receiving all intelligence which would be useful is remote.
5. The possibility of an appreciable increase in technical intelligence through existing intelligence agencies, even with diversion of all available facilities, is not likely, due in part to equipment and location problems.
6. Resources of the FCC, ██████, CIA, Army, Navy and Air Forces and their present commitments preclude adequate diversion of existing facilities to the VOA problem.
7. Additional technical intelligence that would be of value could be obtained by establishing a properly located and equipped monitoring service.
8. In order to obtain a maximum degree of useful intelligence, it will be necessary to establish a monitoring facility directed specifically to this problem.

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IAC AD HOC COMMITTEE ON VOA JAMMING

CORRECTED MINUTES OF SECOND MEETING

Held 13 April 1950 at 1030 Hours
Room 1276 "Q" Building
Washington, D. C.

1. Mr. Clark, presiding, called for a discussion of the minutes of the first meeting. Several changes were made, and the minutes incorporating these changes were approved.

Capt. Dennis further requested from State a clarification of Paragraph 3.d. concerning reports of eight megawatt stations.

2. Capt. Gentry questioned the usefulness of the information of Tab B to the VOA even if it were available. Mr. Clark said he would like to go through all the questions and examine each from the purely intelligence standpoint. After some discussion, it was decided to examine Tab B on the basis of the intelligence effort involved in obtaining the answers. This was done and the decisions reached are indicated on the survey form, APPENDIX C. A consolidated score card was promised for distribution before the next meeting.

3. Following the completion of the survey of Tab B, Col. Bromley stated the Army's position and read the prepared statement, APPENDIX D. A brief discussion of the Army's views followed. Capt. Gentry said he believed it was not the function of the Committee to discuss these views. Mr. Scott requested that the Army's views be placed in the record and that a study of the statement be placed on the Committee Agenda. Dr. Chadwell suggested that further discussion of these subjects should be a consideration of the next meeting.

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4. Mr. Clark suggested the possibility of declassifying the group and inviting the FCC to sit in with the Committee at its next meeting in order to save time since the Security Council would have representatives from the FCC anyway. It was decided that consideration of such action would be placed on the agenda of the next meeting.

5. Mr. Clark stated, in reply to a question concerning the purpose of the next meeting, that the purpose would be to find out which technical operations are possible and what intelligence is needed.

6. Mr. Thompson stressed the idea that numerous receivers are in the hands of expert listeners. Mr. Packard requested answers by the Committee to the following three questions:

a. What can the intelligence agencies reasonably do now with available information?

b. Should we allocate any monitoring facilities now in an effort to approach this problem?

c. Should we allocate any other additional facilities in an effort to approach the problems?

In line with the above Mr. Scott was requested to prepare for distribution, in advance of the next meeting, a written statement which the Committee could consider in deciding what can be done, what intelligence is required, etc. It was also requested that Mr. Thompson be available again for a later analysis of technical operation.

7. The meeting was adjourned at 1325 with the date of the next meeting to be determined by the date of availability of Mr. Scott's written statement.

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APPENDIX D

Statement for Ad Hoc Committee
by Colonel C. V. Bromley

1. The Assistant Chief of Staff, G-2 does not agree that sufficient evidence has been produced before this ad hoc committee to show that present intelligence effort in support of the VOA is insufficient to meet the requirements of the Department of State. It is submitted that failure of VOA to penetrate Soviet jamming is a technical matter and that no amount of intelligence would change the existing physical factors under control of the Soviets.

2. As for redirection of effort and reallocation of priorities during the interim period the Army feels that existing military commitments preclude placing VOA requirements on any priority that would curtail the present program. VOA requirements form a specialized program not directly linked to military requirements and should be considered apart.

3. Research and development are under study by the Signal Corps. Here again we encounter the dissimilarity of the VOA problem with that of the military. As pointed out in the technical discussion of the first meeting, jamming of VOA and military communications are not comparable. It would appear that ultimate solution of VOA problems should be sought through employment of competent research personnel outside the Department of Defense.

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IAC AD HOC COMMITTEE ON VOA JAMMING

CORRECTED MINUTES OF FIRST MEETING

Held 5 April 1950 at 0930 Hours
Room 1517 M Building
Washington, D. C.

1. Dr. Chadwell, presiding, stated the purpose of the committee and suggested Mr. Clark as chairman and Mr. Gracely as technical secretary. The Chairmanship was turned over to Mr. Clark, who suggested the following agenda:

- a. General discussion of the technical problem; clarification of the requests by State.
- b. Technical possibilities of counteracting jamming.
- c. Detailed appraisal of the intelligence required.
- d. How needs can be satisfied by monitoring, covert operation, etc.
- e. Who is best equipped to do each of the above.

2. Mr. Packard presented the case for State, pointing out that:

- a. The CIA had been asked to coordinate the intelligence effort.
- b. Intelligence information has been sufficient.
- c. No one group is particularly at fault.
- d. A decision regarding technical possibilities and priorities is prerequisite to final establishment of intelligence priorities.

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e. Preceding the final settlement of intelligence priorities, an interim intelligence effort of six months duration should be made to:

(1) Conclude the study of existing facilities, and

(2) Reallocate monitoring, with emphasis on a joint monitoring service.

3. Mr. Scott then gave for State a summary of the technical background:

a. The VOA is rapidly becoming the only means of getting information into the USSR.

b. VOA has considerable support from the public and from Congress, including in late 1949 a supplemental appropriation of \$11,500,000.

c. Plant facilities include 38 high-frequency transmitters, several high-power medium-wave transmitters and four relay bases.

d. A new technique of IF jamming, first observed four months ago, has caused great alarm. New jammers up to eight megawatts have been rumored.

4. Captain Gentry stated for the record that RDB practice provides only for the terms jamming and anti-jamming, not counterjamming. He also stressed the advantage the jammers always have in the local areas and the great cost of a solution in terms of time and money.

5. Mr. Packard commented upon:

a. Differences of opinion of technical success.

b. Insistence of VOA as a basis.

c. Withholding of intelligence for security reasons.

d. Decisions on certain policy matters by the NSC.

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6. Mr. Clark summarized the technical information surrounding

[redacted] The question was then raised by several members whether any responsible engineer or body of engineers, either in or outside of the intelligence agencies, would promise substantial relief on the problem. On this question the military departments were essentially in agreement that there is no adequate solution among orthodox technical methods. The State Department, however, contends that:

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a. The VOA has not been entirely blanked out and that the pursuit of orthodox methods is still applicable to some degree.

b. The Department is unwilling to abandon the prospect that further technical developments are possible.

7. Captain Gentry stated for the record: Barring the willingness of State to introduce technical witnesses, it is suggested that the military departments go on record as contending that a genuine technical solution is not available with existing scientific knowledge and techniques, and that outside consultants be employed. The Army and the Air Force concurred.

There was general support for the possibility of increasing effectiveness of penetration of jamming from an operational standpoint by the use of all possible relevant intelligence.

8. After consideration on limiting discussion [redacted] to the VOA, it appeared to be the sense of the committee that discussion be so limited.

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9. For the record, [redacted] was ruled not directly relevant to the VOA jamming, State dissenting. [redacted] was unanimously rejected.

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10. It was decided that discussion of the remainder [redacted] be deferred to the next meeting. Time of the next meeting was set at 10:30 a.m. on Thursday, 13 April 1950.

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