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## Intelligence Requirements

DD, PROD  
Chief, P/P  
Deputy C/S  
Mr. Patton

S/ASST - Holtwick

24 Sept 54

1. The Director has indicated his desire to submit to USCIB at an early date a paper concerning guidance which is required on Intelligence Requirements.
2. Enclosed is a draft of a Staff Study which I propose to recommend that he use for this purpose.
3. I should like to discuss this paper with you prior to delivering it to the Director. Will you meet with me in Captain Agnew's office at 0930 Friday, 1 October, for this purpose?

J. S. HOLTWICK, JR.  
Captain, U. S. Navy

Encl: A/s  
PROD (3)  
P/P (3)

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## STAFF STUDY

### PROBLEM

To determine the form and manner in which the requirements of Intelligence for information from COMINT sources should be presented to the COMINT-producing organization.

### FACTS AND DISCUSSION

See Appendices A and B.

### CONCLUSIONS

1. Intelligence requirements for information from COMINT sources must be stated in such a form that:
  - a. Each is readily and accurately translatable into COMINT terms of reference. (Appendix B, TAB B)
  - b. Each can be categorized in terms of the type of intelligence the information specified might produce. (Appendix A, para. 7)
2. In order properly to apportion COMINT resources and effort, the Director, NSA, requires guidance which will permit the potential value of any one category of requirements to be weighed against that of any other category.
3. In addition to the general guidance specified above, specific day-to-day guidance at the working level is desirable for each category of intelligence information requirements; and should be provided by the organization having primary interest in that category.

### RECOMMENDATIONS

1. That USCIB note and approve the Conclusions.
2. That USCIB direct the implementation of the actions indicated therein.

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## FACTS AND DISCUSSION

(Additional Facts and Discussion in Appendix B)

CONCLUSIONS

1. In order to control COMINT operations effectively, and to apportion COMINT-producing resources properly, the Director, NSA, requires guidance from the Intelligence community on its requirements for information from COMINT sources.
2. This guidance must be in such a form that it is readily and accurately translatable into COMINT terms of reference (TAB B).
3. This guidance must further be in a form that will permit the relative potential value of any one category of requirements to be weighed against that of any other category.
4. Given guidance in this form, it is the responsibility of the Director, NSA, to:
  - a. Translate it into COMINT terms of reference.
  - b. Determine which segments of the COMINT potential would, if exploited, produce each category of information required.
  - c. Determine the relative cost, in terms of resources and effort, of exploiting each segment.
  - d. Weigh the relative cost of exploitation against the relative value of expected end-product as expressed by the Intelligence community.
  - e. Determine which segments of the COMINT potential must be exploited, and to what extent, in order to fulfill the requirements of the COMINT organization for maintaining technical continuity and readiness to exploit segments of the COMINT potential which might in the future require exploitation.
  - f. Decide what proportion of total COMINT resources and effort is to be devoted to meeting (1) the Intelligence requirements and (2) the COMINT technical requirements.
  - g. Decide what proportion of total COMINT resources and effort is to be devoted to exploitation of each segment of the COMINT potential in order to satisfy these requirements.
  - h. Allocate specific units of resources to specific efforts on specific segments.

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5. The division between segments of the resources and effort devoted to satisfaction of Intelligence requirements should be subject to review and revision by the Intelligence community, which should designate the body and the mechanism by which its opinion and desires can be conveyed to the Director, NSA.

6. Actions taken by the Director, NSA, in carrying out all other responsibilities listed in para. 4, are subject to review only by the USCIB, and to revision only as provided in NSCID No. 9.

7. Intelligence information requirements can be properly evaluated and weighted if they are subdivided into at least five broad categories:

- a. Information on ACTIONS (military, political, economic) being taken by Soviet (USSR and allied nations) governments.
- b. Information on PREPARATIONS for action being made by Soviet governments.
- c. Information on CAPABILITIES of Soviet governments to carry out actions which are potential subsequences of noted ACTIONS<sup>0</sup>PREPARATIONS.
- d. Information on REACTIONS of non-Soviet governments to Soviet actions, preparations or threats of action.
- e. Information on disposition, deployment, posture, or state of readiness of units of Soviet military and industrial forces.

8. As a minimum requirement to meet the criteria set forth in paras. 2 and 3 above, the Intelligence community should:

- a. Segregate Information Requirements placed on the Director, NSA, into the five categories defined in para. 7 above.
- b. Indicate to the Director, NSA, initially and periodically thereafter, the relative value to it which information in each of the five categories listed would have.

9. It would be desirable, further to meet the criteria, to subdivide each of the categories listed into subcategories compatible with COMINT terms of reference, and to assign relative weights of value to each of these subcategories.

10. The current MRL does not adequately meet the stated criteria.

11. It would be desirable for the Intelligence community to re-examine its arrangements for consumer representation in close proximity to COMINT production facilities, to insure that adequate responsiveness to day-to-day fluctuations in specific information requirements was provided for all categories. Requirements of the NIC of the Watch Committee do not now have direct local NSA representation.

~~RECOMMENDATIONS~~

~~It is recommended that the MRL~~

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CONDUCT OF COMINT OPERATIONS

1. The conduct of COMINT operations may be considered as being performed in the consecutive phases listed below:

(a) Determining what non-U.S. communications links exist, and identifying them.

(b) Selecting the target: deciding which communications links are to be subjected to COMINT attack.

(c) Controlling coverage: deciding which collection facilities are to be used, at what times, and for how long, in order to obtain records of the telecommunication transmissions which may occur on the chosen links.

(d) Collecting these records, by intercept or other means.

(e) Controlling processing: determining (1) what processing functions must be performed in order to extract information from the collected records; and (2) where these functions can best be performed in order that information derived thereby can be most promptly delivered to the consumer to whom it is of greatest interest.

(f) Controlling transportation: deciding the form and manner in which collected records are to be sent, and the route which they are to travel, from collection point to processing point(s).

(g) Transporting records to chosen destinations.

(h) Applying processing techniques as necessary in order to extract or make intelligible the factual information contained in or conveyed by the transmissions concerned.

(i) Controlling out-put: selecting those items of factual information which are significant (or most important) in providing intelligence.

(j) Collating and interpreting selected facts in order to produce an item of intelligence information.

(k) Controlling distribution: deciding which consumers are to receive the items; by what means; and in what form.

(1) Publishing and distributing the item to chosen recipients.

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EO 3.3(h)(2)  
 PL 86-36/50 USC 3605

COMINT TERMS OF REFERENCE

1. Regardless of the form in which guidance is received, the ultimate form in which it will be used will be in COMINT terms of reference.

2. The primary COMINT terms to which allocation of effort or resources are referred are those which define links; groups of links which collectively form a "case"; and groups of "cases" which collectively form a "problem", which can be expressed by one trigraph in the [ ] ITA CASE-BOOK notation. A group of "problems" (one or more, depending upon the country involved) form an "objective" in terms of the NSA Operations Analysis Task Index.

3. The primary COMINT terms mentioned above are used in allocation of collection activities, traffic analysis effort, and to a certain extent, fusion effort, and in control of the reporting effort. It will be noted that the terminology is based first on a "national" (geo-political) breakdown; secondarily upon a breakdown by organizations (departments) within nations; and, in the case of Russia and Communist China, subdivision of the secondary categories by areas or other entities.

4. Secondary COMINT terms of reference, used in allocation and control of the other processing effort, are based on "types" of communications which may occur on links studied. The "type" is determined by the degree of security protection (or lack thereof) given to messages transmitted. It will be noted that this is fairly accurately translatable into terms of the security classification given to the textual content of the messages involved; this in turn affords a rough measure of what the sender believes would be the value to an opponent (in this case, the US/[ ] intelligence community) of the information contained in the text of the message. The "task" breakdown of objectives in the Operations Analysis Task Index is in consonance with this secondary COMINT terminology.

5. In the final analysis then, allocation of COMINT resources must be referred to the same terms used in COMINT operations. This means that resources must be apportioned between segments, each segment being composed of one "type" of communications occurring on a group of related "links". The latter may be considered in any grouping which is most convenient and workable: as individual links, or "cases", or "problems", or "objectives".

TAB B

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~~SECRET~~INFORMATION REQUIREMENTS

1. The criteria which must be met by any form of presentation of requirements are:

(a) Requirements must be readily translatable into, COMINT terms of reference, i.e., segments of the COMINT potential.

(b) The form must permit quantitative comparison between the importance or value of the satisfaction of one requirement and that of another.

2. Although the intelligence community desires information which will reveal the intentions, capabilities, and disposition and amount of resources of about 90 foreign nations, the following listed factors will facilitate meeting the criteria specified, in drawing up requirements:

(a) Certain of this information, on certain nations, is vital to national security, and should therefore be of primary, and equal, concern to all consumers, whether they be departments and agencies, or commands.

(b) The remainder of this information, on different nations, and on different organizations within each nation, varies in interest and value between different consumers. It becomes of primary importance to the interested consumer only after battle is joined; and his ability to utilize it is contingent upon the degree to which the intelligence community as a whole has received the information categorized in (a) above.

(c) Within both categories, information on some of the 90 foreign nations is more valuable than the same type of information on others, and

(d) It is much more readily obtainable by non-COMINT means on some of the 90 than on others.

3. Foremost on any list of U.S. intelligence requirements in infor-

which we might have hope of reading while it was still timely.

TAB C

EO 3.3(h)(2)  
PL 86-36/50 USC 3605

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5. A secondary requirement is for a type of information which will facilitate evaluation of the first, i.e. will help to deduce what intent motivated the action or preparations noted. Broadly, this information concerns the capabilities of the Soviet and Satellite nations to carry out any course of action which is a potential subsequence of the actions or preparations observed.

6. Third in importance among intelligence requirements are two categories of information, quite different in nature. Neither category can, as a whole, be given priority over the whole, or parts, of the other. Each must be broken down into sub-categories in order to establish relative importance ratings with respect to each other. One of these cate-



7. The other category consists of what might be termed tactical intelligence. It is intelligence information (on both military and industrial forces) vital to the conduct of military operations. In war time it would probably be given first priority. In a non-shooting war period, however, it is clearly lower on the priority ladder than that described in paras. 4 and 5 above, and to certain of that delineated in para. 6. This is clearly demonstrable by assuming that we devote all COMINT operations to derivation of this type of information, and none to the others hereinbefore mentioned. Thus, it might be possible to furnish the Comdr. FEAF with complete information on the QB, names, weights, and laundry numbers of pilots, and mechanical and navigational ability of planes and crews of the Soviet air force opposing him on the Asiatic Frontier. Unless, however, information was available to alert him that these were preparing to go into action against him, this information would be primarily of historic interest - the FEAF might know exactly who clobbered them, and with precisely what, for what small satisfaction that would be to any survivors.

8. Information requirements have thus been sub-divided into five broad categories:

Information on:



Any presentation to NSA of information requirements by the intelligence community should be, at a minimum, broken down primarily into these categories. Furthermore, USCIB should, at a minimum, advise the Director of the relative weight or importance to be accorded to each of these five categories.

TAB C

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9. A further breakdown of each category is desirable as an aid to allocating NSA (and supporting) resources. Sub-categories of relative importance within each basic category should be established to the maximum extent which USCIB and its INTCOM might find feasible. This is particularly important in the two categories mentioned in paras. 6 and 7: Reactions of non-Soviet nations, and tactical intelligence.

10. The general guidance on requirements supplied by USCIB and its INTCOM, mentioned in TAB C, must be supplemented to a certain degree by specific guidance from the intelligence consumers. At present, this type of guidance is provided primarily for information requirements in the tactical intelligence category, and by persons who are primarily concerned with that type of information. The working arrangements and close collaboration between consumers and producers in this field are badly deficient in the categories of Soviet bloc national actions, preparations, and capabilities. In view of the importance of these, there should be closer working liaison between PROD and direct representatives of those groups concerned with national indications - the IAC, Watch Committee, and National Indications Center.

TAB C

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~~SECRET~~ALLOCATION OF EFFORT

1. Resources must be allocated to each segment of the COMINT potential in proportion to the relative amount of importance or value of that segment to the COMINT effort as a whole. This requires that such segments not only be arranged in priority order, but that each be weighted, i.e. compared, in amount of importance, with one another.

2. Except for technical information, the amount of importance or value of each segment depends upon the value to the intelligence community of the information which could be produced from it.

3. Allocation of effort to any such segment must be conditioned and influenced by consideration of two factors: the value of the information which could be produced; and the cost of producing it. Practically, this cost would be expressed in terms of resources and effort: the percentage of the available whole of each which would have to be utilized in order to produce all, or any part, of the information derivable from that segment.

4. The weighting and categorization described in TAB C is but the initial step, of course, in allocating resources. NSA must analyze each weighted information requirement received to determine: (a) What case or cases (group of links) would be the most probably source of traffic which would produce this information, (b) what type of processing (i.e. reading plain text; T/A; studying groups of Type II messages; recovering lower grade cryptosystems and reading messages sent in them; solving higher grade systems and reading messages encrypted therein) would be required to extract the information from this traffic. (c) How much of this information might be expected to be derived from each type of processing (see above) performed on this traffic. (d) What would be the cost of collecting this traffic and performing each type of processing on it - in terms of coverage hours per day, volume of groups to be transmitted electrically and messages to be transported by courier, per day; number of processing man-hours and machine hours per day required for non-cryptanalytic aspects of processing; and the probable total number of cryptanalytic man-days and machine hours which would be required for solution of the cryptosystems involved.

5. Since there will be few instances in which cases, and types of traffic-processing within them, are neatly congruent with any given information requirement, one other factor must be considered before NSA decides on allocations. That is - what other information requirement(s) might also be partially satisfied by any type of processing performed on the traffic from this case, or group of cases? After determining the extent to which each such other requirement might be satisfied, the relative importance of that requirement must be introduced as a factor which will enable the relative value of attacking that case to be assessed, and compared with the cost of such attack.

TAB D

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APPENDIX "B"

ADDITIONAL

FACTS AND DISCUSSION

- TAB A: Conduct of COMINT Operations
- TAB B: COMINT terms of Reference
- TAB C: Information Requirements
- TAB D: Allocation of Effort

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