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Submitted by the

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Concurred in by the

INTELLIGENCE ADVISORY COMMITTEE

on 28 May 1957. Concurring were the Special Assistant, Intelligence, Department of State; the Assistant Chief of Staff, Intelligence, Department of the Army; the Director of Naval Intelligence; the Director of Intelligence, USAF; the Deputy Director for Intelligence, The Joint Staff, and the Atomic Energy Commission Representative to the IAC. The Assistant Director, Federal Bureau of Investigation, abstained, the subject being outside of his jurisdiction.

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SOVIET CAPABILITIES FOR DECEPTION

THE PROBLEM

To estimate the capabilities of the Sino-Soviet Bloc for deception in a manner or on a scale which would threaten US national security, and to assess the ability of US intelligence to cope with such deception.

SCOPE

This estimate, which differs radically from the normal national intelligence estimate, owes its origin to a recommendation made by the Technological Capabilities Panel, chaired by Dr. Killian, and to NSC Action 1430. Specific recommendation C.4 of the Killian Report reads as follows:

"We need to examine intelligence data more broadly, or to invent some new technique, for the discovery of hoaxes. As a first step, we recommend a National Intelligence Estimate, with adequate safeguards, of our success in keeping secret our most useful techniques of intelligence. This estimate would suggest the extent to which an enemy might be manipulating the information obtained through these sources."

CONCLUSIONS

1. The capability of Communist governments for undertaking operations of deception is greater than that of most other governments because (a) they exert a higher degree of control over the information respecting their countries which becomes available to the outside world; and (b) they need not refrain from deception because of concern that their own general public may be puzzled or misled by operations primarily intended to deceive foreigners.

2. The US has no intelligence method or technique which is completely unknown to the Bloc, and therefore none which is invariably proof against deception. It is true that a great deal of the evidence which we possess concerning the Bloc is of such a nature that it could not have been falsified or distorted. However, such evidence is generally insufficient for the more important intelligence estimates, especially those which deal with Bloc intentions and those which attempt to arrive at an *exact* statement of Bloc strengths, whether political, economic, military, or other. Concerning these matters it is generally necessary to con-

cede that deception is possible, and to inquire whether it is feasible, and if so whether it is likely.

3. Since every intelligence estimate rests on its own particular structure of supporting data, which is often very elaborate, no statement of the degree of susceptibility to deception will apply equally to all. Each estimate must be separately considered, and the evidence on which it is based (including collateral and confirmatory evidence) examined with the problem of deception in mind. We have carried out such an examination for US estimates on five matters of great importance: (a) Soviet heavy bomber strength; (b) Soviet nuclear weapons; (c) three aspects of Soviet air defense; (d) Soviet guided missiles; and (e) Soviet capability to attack the US without warning. The conclusions of this examination are presented in the body of this paper. (*Paras. 48–70*)

4. The chief defenses against deception lie first in the constant and laborious accumulation of information, from independent and widely varied sources, upon every aspect of Bloc affairs. Such an accumulation makes it possible to test new data for reliability against the greatest possible body of knowledge. Ancillary to this is the provision of experts and analysts having a wide variety of skills and perceptions to bring to bear on this data, so that individual preconceptions or shortcomings may cancel out. A second defense consists in the continual search for, and application of, new intelligence techniques. Even though these may be known to the Bloc in principle, they may when first applied, or when first used in a new area of intelligence interest, yield information which can be accepted with reasonable assurance that it is free from deception.

5. Even when such defenses have been developed as far as possible, there will still be circumstances in which deception may be effective. This is most likely in a period of intense international crisis, when sufficient time may not be available properly to collate and evaluate new information, and when the urgency of the situation may not permit reservation of judgment or postponement of decision. It is during such a period that the feasibility of deception, and its potential danger to US security, is at its greatest.

DISCUSSION

GENERAL CONSIDERATIONS

Definitions and Distinctions

6. *Deception*, or *hoax*, as used in this paper, is defined as the act of misleading through deliberate manipulation, distortion or falsification of evidence, in order to induce an adversary to act in a manner prejudicial to his interests. Generally speaking, the methods are as follows: (a) by planting false information; (b) by coloring or distorting otherwise authentic information so as to make it convey a false impression; (c) by selectively releasing some correct information on a subject while withholding essential parts of the total picture; and (d) by releasing plentiful data, whether true or false, with the object of overshadowing and obscuring certain particular items of paramount importance. These various methods may be pursued in combination or singly.

7. For the purposes of this paper, *deception* must be distinguished from *concealment*. The latter aims by withholding information

to prevent the victim from arriving at a correct conclusion; the former aims by manipulating information to make him arrive at a false conclusion. Concealment is intended to foster ignorance, and deception to produce error, and it is with deception that this paper is primarily concerned.

8. The distinction between concealment and deception is theoretically valid, but in practice it is often impossible to separate the two. Deception generally — though not always — depends for success upon an accompanying suppression of truth. Concealment in turn is often made more certain by an accompanying deception intended to divert attention from the truth. In this paper, however, we are examining not the extent of our ignorance of Soviet affairs, nor the capabilities of Soviet security agencies to withhold information, but rather the extent to which the evidence we possess concerning Soviet affairs may be the product of deliberate Soviet deception. Accordingly, we shall as far as possible exclude the element of concealment from the discussion, while recognizing nevertheless that it is usually an essential component of successful deception.

Objectives of Soviet Deception

9. Broadly speaking, Soviet deceptions undertaken against US and allied intelligence would have one of three aims:

a. To lead us to an *underestimate* of Soviet or Bloc strength, capability, or determination, either in some particular respect (e.g., heavy bomber strength; Soviet disposition to support Communist China), or generally. Such an underestimate could be profitable to the Bloc by causing the US and its allies to cut down on the development of countervailing strength, and then to find themselves confronted by superior Bloc power at a time of crisis. At worst it might lead to defeat of the US and its allies in war, because of inadequate preparation.

b. To lead us to an *overestimate* of Soviet or Bloc strength, capability, or determination, either in some particular respect, or generally. Such an overestimate could be profitable to the Bloc by creating unnecessary economic and political strains as the US and its allies strove to build up countervailing power. It could also cause the US and its allies to conduct their affairs with excessive caution, inducing them to accept reverses, or to fail to press advantages and achieve successes, when the true power situation made such courses unnecessary.

c. To *cover* (i.e., to assist in the concealment of) some particular Bloc activity, or some aspect of Bloc policy, by directing the attention of US and allied intelligence to other matters. This may include deceptions designed to mislead as to the time at which some otherwise predictable action is to occur.

10. Any Soviet deception must logically be directed towards one or another of these goals. In practice, however, more modest aims might in certain circumstances be all that the Soviet leaders needed or wanted to achieve. Suppose, for example, a period of intense international crisis, with war an imminent possibility. The problems and uncertainties facing intelligence officers would be very great, and large amounts of contradictory data would be flowing in even in the absence of deliberate deception. At such a time hoaxes which fell short of being wholly convincing would nevertheless serve to puzzle and distract the activities of intelligence. Such hoaxes might accomplish their purpose if they prevented estimates from being timely and firm, even though they did not succeed in causing them to be incorrect. Thus, although the logical aim of deception will always be to induce a false estimate, the practical aim may be simply to hinder and delay the production of a correct estimate, and to cause it to be attended with doubts and reservations.

Soviet Capabilities for Deception

11. Soviet capabilities for deception depend in great part upon the degree to which various US intelligence methods are susceptible to hoax; this problem is discussed at length in paragraphs 24–42 of this paper. Here it is only necessary to point out that since the Soviet state is totalitarian, its rulers can exert an unusually high degree of control over the

information respecting their country which becomes available to the outside world. Publications, speeches, broadcasts, and the like, can be directly controlled. Statistics and other descriptions of Soviet life and achievement can, within limits, be systematically falsified. Observers can be shown what the Soviet government wishes them to see, and excluded from what the government wishes them not to see. Moreover, although Soviet rulers must take into account administrative and operational requirements for reasonably accurate information, they are not answerable to their own public for what they do in this connection. They can decree any practicable operations of deception they wish, and they need not refrain from such operations because of concern that their own general public may be puzzled or misled by hoaxes primarily intended to deceive foreigners. Thus the basic capabilities of the Soviet and other Communist governments for deception are greater than those of any other important governments in the modern world.

12. It is worth noting, however, that the capabilities of the Soviets for deception may frequently depend upon their ability to gain rapid and correct knowledge of the impact of their efforts. In the first place, the Soviets must be reasonably certain that false data they prepare actually reach the proper US (or other foreign) authority. Again, any given phase of a deception operation may be dependent upon the results of preceding phases, and perhaps cannot usefully be undertaken until those results are known. The importance of such factors in the success of a deception operation will vary widely with the nature and aims of the operation. Thus, we cannot usefully estimate in general terms the degree to which present Soviet knowledge of our intelligence activities extends Soviet capabilities for deception, nor can we define the limits which Soviet ignorance of those activities may place upon their capabilities. Even if the Soviets were largely ignorant, a single successful penetration might give them opportunity for a profitable hoax. The only generalization that seems admissible, therefore, is that Soviet capabilities for deception will be diminished by good security measures protecting the US and allied intelligence systems, and will be increased by breaches of this security.

Defenses against Deception

13. Intelligence officers are aware of the possibility that they may be the recipients of information intended to deceive. Each piece of data concerning the Sino-Soviet Bloc is examined with a particularly critical and skeptical eye by US and allied intelligence personnel, to ascertain, if possible, whether it is so intended. In the more technical branches of intelligence research, investigation is constantly in progress to discover the possibilities of deception, to devise methods for defeating them, and to invent new methods of intelligence collecting which may, for a time at least, be relatively immune from hoax. It is clear that the best defense against deception would be to acquire information respecting the Soviet Bloc by methods which the Soviets did not know about, and which consequently they could not use to introduce deceptive data. Generally speaking, however, this defense is not available.

14. The US has no method of intelligence collection or analysis which is completely unknown to the Bloc, nor any method which is entirely invulnerable to hoax. This is not to say that all our evidence concerning the Bloc is equally suspect for this reason; in some circumstances photographs, for example, or the direct observation of competent witnesses, may furnish information which is for all practical purposes incontrovertible. Neither is it true that the Bloc is always aware of the extent to which the US employs various intelligence methods, or of their application to particular problems, or of the success with which they are used, or of the degree of advancement which a particular technique has reached. When a technique is very new, or is newly applied in some particular area of intelligence interest, there may for a time be good reason to believe that its use is unknown to the Bloc, and the data which it produces may be received with substantial confidence that they have not been distorted by deception. As a general rule, however, we consider

it impossible to find assurance against deception through intelligence methods unknown to the Bloc.

15. While no method of intelligence collection can be proved to be invariably free from susceptibility to hoax, nearly all methods will from time to time produce particular data which can be demonstrated to be hoax-free. One sure defense against deception would be for the intelligence community to use only such data, but the result would be an extremely limited view of Bloc affairs, quite inadequate for the needs of policymakers. Accordingly, it is necessary to fall back on large amounts of information which, taken bit by bit, cannot be certified as hoax-free. This would be a serious weakness if each piece of data existed only in isolation from others, but obviously such is not the case. Intelligence estimates very rarely rest on isolated bits of evidence; on the contrary, practically all are based upon a substantial mass of data from independent and diverse sources. The various items tend to support one another and to provide an elaborate structure of evidence which is internally consistent and mutually confirmatory.

16. If such data fit together into a consistent whole, a presumption may thereby be established that the data are hoax-free, even though no single piece, taken by itself, can be proved to be so. As observed above, however, the capabilities of the Soviet government are such that large masses of internally consistent but actually deceptive data might be disseminated for the benefit of foreign intelligence. Hence, the presumption of freedom from hoax must be carefully considered. The strength of this presumption will depend upon (a) what proportion of the evidence can be shown to belong *almost* certainly in the hoax-free class; and (b) how feasible a hoax actually would be in the particular situation and with the particular data under consideration.

17. The evidence bearing on each estimative problem is different, and hence the degree of defense against deception is different in every estimate. In general, however, estimates relating to the more ordinary aspects of Soviet life — the economic system, for example, and much of the conventional military establishment — are based upon a great deal of data from many independent sources. Confirmatory evidence is plentiful, if not always sufficient. Moreover, the feasibility of deception is at its lowest when the false data to be fabricated is voluminous and the correct data to be concealed equally so; when deception would have to involve very large numbers of Soviet officials, or might seriously mislead those officials who were not admitted to the secret. On the other hand, in certain specialized and highly secure aspects of Soviet activity — the guided missile and nuclear weapons programs, for example — information on some of the most important points is scanty and there is rarely much directly confirmatory evidence. To avoid deception in these situations it becomes of the utmost importance to secure data which is inherently hoax-free, and which does not require confirmatory evidence to argue that it is so.

18. Over the general field of intelligence, therefore, the principal defense against deception lies in continual and laborious acquisition of plentiful data from independent and widely varied sources. By this means a new piece of information may frequently be clearly confirmed, and pronounced hoax-free. If such specific confirmation is impossible, new information may nevertheless be accepted as substantially true if it fits reasonably well into the context in which it belongs, and if that context is itself fairly well established. Painstaking research into the whole structure and pattern of Communist society is essential for the purpose of establishing such a context and permitting the testing of new bits of information as they come in. In normal circumstances intelligence would never reach an important conclusion on the basis of information from a unique source if that information could not be guaranteed to be inherently hoax-free and if it were inconsistent with the pattern which had been established and into which it would be supposed to fit.

19. It follows normally that hoaxes, if they are to be of any consequence, must be of large

scale and long continuance.[1] Sporadic deceptions and falsifications of data will be recognized by sophisticated observers because of their inconsistency with the main mass of evidence. If the Bloc desires to have a given piece of misinformation accepted by US intelligence (assuming that the misinformation is on a point of real importance) it must first fabricate considerable amounts of confirmatory evidence, or it must establish in the minds of US intelligence analysts a context or pattern into which the misinformation will fit without undue difficulty.

Self-Deception

20. This leads us to an aspect of deception which cannot altogether be ignored; that of *self-deception,* or the misinterpretation of evidence because of preconceptions, prejudices, or bias. Self-deception is a highly complex matter, most of the aspects of which can be excluded from a paper mainly concerned with deliberate Soviet deception. However, any successful hoax is likely to depend to a considerable degree on the predilection of the victim to accept certain kinds of falsehood, and it must be assumed that the USSR, in any extensive operations of deception, would endeavor to take advantage of what it estimated to be the preconceptions and biases of US and allied intelligence. This is apt to be particularly true in "cover plans." It is at least theoretically possible that we may arrive at a correct description of some Soviet activity and on the basis of our own preconceptions judge it to be of the greatest intrinsic importance, although to the USSR it is important mainly because it has diverted our attention from some other activity. Suppose, for example, that the Soviet heavy bomber program were now intended mainly to cover the progress which the Soviets have made in their guided missile program.

21. There is more than this to self-deception. We have observed above that much data respecting the Sino-Soviet Bloc must be accepted as credible for no better reason than that it fits harmoniously into a previously established context or pattern. This context, once we have formulated it, tends naturally to become somewhat rigid, and the more elaborately it is constructed the more rigid it becomes. Thus, there arises a disposition to reject new and startling information, at least provisionally. Suppose, for example, that there occurred a pronounced weakening of the Soviet state, in its political, economic, or military spheres, or in all three. It is likely that the evidences of such weakening would for a long time fail to be accepted by US intelligence. The USSR would derive advantage from this failure, and might find ways to encourage it.

22. The USSR might, by long-continued and skillful operations, attempt to create in US and allied intelligence organizations the preconceptions that would, at the required moment, become the basis for a successful hoax. In other words, the USSR might contribute to the construction by US intelligence of false patterns of some aspects of Soviet society by which to test new data for consistency. If they could accomplish this, the Soviet leaders might then, at a crucial moment, be able to perpetrate a successful deception without actually falsifying the particular evidence involved, but simply by having previously assured that it would be misinterpreted. The interaction of self-deception with Soviet hoax would be complete. In the general field of intelligence, this form of deception is almost certainly the most difficult to guard against.

The Element of Time

23. Even after everything has been done that can be done to erect defenses against deception, it is clear that in some circumstances time will be the deciding factor. Time is needed to collate and evaluate new information, to see how far it can be confirmed, and

[1] An exception may be the *bluff*, which is usually a form of hoax designed to produce a misreading of intentions. A bluff can be quick and successful, but it requires some background to give it verisimilitude. This background may be either true or false; if it is false, it will probably have been created by an extended operation of deception. Another important exception would be the sort of hoax described in paragraph 10 above. See also paragraph 23 below.

to decide how far it may be accepted as hoax-free. During a period of intense international crisis sufficient time may not be available, and the urgency of the situation may not permit reservation of judgment or postponement of decision. Single bits of dubious and unconfirmable data will probably have to be given a weight which in normal times they would not have. The entire intelligence picture will almost certainly be confused with inconsistent and contradictory reports even if none of them is the product of deliberate Soviet deception. It is at such a time that the feasibility of deception, and its potential danger to the security of the US, is at its greatest.

SUSCEPTIBILITY OF VARIOUS INTELLIGENCE METHODS TO HOAXING

Overt Intelligence[2]

24. By far the greatest volume of intelligence data is procured by overt and commonplace means, from ordinary and easily accessible sources. The materials thus collected come from books, newspapers, magazines, scientific and learned journals, radio broadcasts, official declarations and published documents, speeches, photographs, reports of travellers, and so on. We may stretch this category to include the conversations of US diplomatists and other officials with those of the Bloc, and the interrogation of defectors, returnees, and prisoners of war. The mass of such materials is enormous. It is reduced to shape and significance not only by the labor of intelligence analysts but also by scholars, publicists, and others who have no official connection with intelligence work.

25. The sheer volume of these materials, together with the widely varied skills of the numerous analysts who work on them, would require that any important deception be a large-scale operation. Occasional falsified documents or statistics (assuming that they were falsified sufficiently to make a really significant difference in their meaning) would almost certainly be detected as such because of their inconsistency with other available materials. Moreover, any substantial falsification of figures, reports, directives, etc., which deceived US intelligence might also deceive Communist functionaries who needed to know the truth, and thus produce confusion within the Communist bureaucracy.

26. It is possible, however, for overt intelligence materials to become the vehicle for hoaxes on a grand scale. The history of the USSR is full of examples of massive distortions of fact by Soviet leaders. Judging with the benefit of hindsight, for example, it seems that Stalin succeeded in creating the impression abroad in the years immediately before and after 1950 that the Soviet state was both more ready and more willing to undertake general war than was in fact the case. This impression was based largely on evidence received through overt channels. There is good evidence that the Soviets devote considerable effort to attempts to mislead the mass communication media of the free world.

Espionage and Counter-Espionage

27. In the conduct of espionage it is always assumed that the enemy has the ability to discover the operations and to use them for the purpose of passing deception information. This assumption is valid also in the case of counter-espionage operations, which are designed to effect contact with an enemy's secret intelligence and security services; if discovered by the enemy, such contact furnishes a prime channel for deception. Controlled foreign agents indeed constitute the classical method for planting deceptive material in a nation's intelligence structure.

28. The ability of an enemy to use espionage and counter-espionage channels for passing deception material is considerably affected by the character and level of the agent selected for such a purpose. Thus, for example, an agent who has no plausible means of acquiring information of national importance can-

[2] The various headings under which intelligence methods are considered in this section are adopted for convenience and for the particular purposes of this paper; they do not constitute a logical or scientific classification of intelligence processes, nor even a complete list of methods, and are not intended to do so.

not be used for deception purposes. On the other hand, it is a regular technique to build an agent up to the point where the recipient of information is led to believe that the agent has in fact such access. This is done by slowly improving the quality of information supplied to the agent, by giving the agent plausible stories concerning his ability to acquire such information, and finally, step by step, leading the agent to the point where intelligence would be willing to accept a false report bearing on a matter of national significance.

29. It is, of course, highly unlikely that in normal times decisions of crucial importance to US security would be based upon the reports of one agent, or even of several agents. A successful hoax through clandestine agents would normally require not merely one or two pieces of deceptive information but also a substantial amount of supporting data. In time of major crisis or difficulty, however, the danger would probably be considerably greater. A single agent's report conceivably might provide the last straw of evidence to determine the US decision; time might not be available to test the credibility of the report in adequate fashion. Or, deception might delay a valid intelligence judgment, or render it so tentative as to be of little use. For such a purpose, in time of crisis, deception through clandestine agents would almost certainly be particularly effective.

Liaison with Friendly Governments

30. Liaison with friendly governments, as applied to the US intelligence collection effort, is normally a formal or informal contact with the intelligence or security instruments of those governments. The liaison relationship may thus be viewed as an extension of US capability to collect intelligence or counter-intelligence information on the enemy, and it is as vulnerable to deception as our own independent intelligence effort. An additional hazard is presented by the fact that the friendly government could, if it desired, use the relationship for deceptive purposes of its own, as well as unwittingly at enemy instigation.

31. The Communist powers have the ability to use these US liaison relationships to their profit principally through penetrations of the friendly service, with resulting control of individuals or whole units of the service, as well as through counter-espionage operations directed against the collection efforts of the service. The Bloc also may be able to introduce deception into an established and reputable US line of information by means of covert political pressures directed against a government with whose intelligence service US intelligence maintains liaison. In such an event the intelligence service's liaison with US intelligence might itself be used to conceal the government's intentions or the government's covert relationship with the Bloc. The type and magnitude of misleading information which can be passed by the liaison channel includes the entire range of intelligence and counter-intelligence information exchanged. Its effectiveness is limited only by the US evaluation of the liaison relationship, including the reliability, competence, security, and effectiveness of the services and the degree of success of the enemy's penetration or control.

32. An additional significant factor which enhances the ability of the Bloc to use the liaison channel for deception purposes is that it is difficult and often impossible for US intelligence to trace intelligence information supplied by a liaison service to its ultimate source. Accordingly, under such circumstances, US intelligence customarily knows no more about the source than the liaison service is willing or able to disclose.

Photographs (other than aerial photographs)

38. Photographs and motion picture films are procured by intelligence agencies from a great many sources: commercial photographers, foreign travellers, industries and organizations with foreign contracts, liaison with friendly governments, foreign language documents and publications, and official government releases. Some 30,000 photographs are

received and inspected each month by US intelligence agencies. When such materials have been acquired under reasonably controlled conditions — as for instance when photographs have been taken by a trustworthy Western individual — they are a most reliable and concise source for intelligence data of many kinds. In such circumstances the object photographed may of course be camouflaged, simulated, or otherwise manipulated for purposes of deception; the photograph itself, however, is not a hoax.

39. Photographs emanating from Bloc sources are also highly valuable for the intelligence they yield, but must be used with more caution. Instances are known of deliberate misrepresentation in such photographs, usually accomplished through retouching, or by attaching a false caption. The purpose has been to withhold or disguise military information, to magnify progress in programs of industrial expansion, or simply to confuse by adding to or subtracting from the picture. Skilled analysis will usually show whether a photograph has been tampered with; nevertheless it is possible to alter a photograph in such a way that the change cannot be detected. Such alterations might be used to achieve a significant deception. The change of a caption cannot be detected by analysis of the photograph itself, and the chances of successful deception by this means will depend on the amount of other evidence (including other photographs) which may be available to confirm or deny the reliability of the picture under consideration.

Aerial Photography

40. The methods of deception used against aerial observation usually consist either of (a) hiding objects or installations by means of camouflage or concealment, or (b) simulating objects, installations, or activities by means of decoys and dummies. These are chiefly effective against visual observation as opposed to photo interpretation. Ample evidence exists indicating the capability of the Bloc to make effective use of camouflage materials, new paints, coatings, underground and underwater constructions, infra-red shielding, smoke defenses, techniques for protective use of light and shadow, techniques for concealment of debris, natural features, and use of underground spaces, ephemeral bridges, and dummy military equipment and installations. It generally appears that the major applications of Soviet deception are directed toward tactical situations and the camouflage or concealment of men and combat material. There is little indication of strategic applications to large installations, urban areas, port complexes, etc. Some research and production installations are known to be underground while others have been widely dispersed.

41. Although Bloc control over deception measures is complete, there are still difficult problems to be solved. The USSR might find it (a) physically or economically impossible to camouflage or place underground all important installations, and (b) from a security viewpoint unwise to confine its methods of camouflage or concealment to the most important installations. Moreover, during World War II nearly all the important installations camouflaged or concealed were located by photo interpreters. It is usually impossible to build any important installations without an adequate connecting communications system which is relatively easy to find and almost impossible to conceal, even on photography of small scale.

42. We believe that the present ability of US photo interpreters to cope with deception methods is generally good. The problem, however, is almost certainly becoming more difficult. Even with the best aerial photography it is possible that US forces could miss the comparatively small ICBM sites, if they were protected by a concealment effort of superior quality. It is probable that overflight aerial photography would require substantial technical improvement and supplementation with other kinds of instrumentation in the air, plus the highest quality of photo interpretation employing other sources and evidences from ground reconnaissance, if the ability of US intelligence to cope with decep-

tion techniques in the future were to be fully insured.[3]

THE LIKELIHOOD OF DECEPTION

43. The foregoing sections of this paper have shown that much of the evidence which we possess concerning the Sino-Soviet Bloc cannot be guaranteed to be free from deliberate distortions or falsifications. It has also been pointed out that, in the interpretation of this evidence, we cannot always be sure that we are free from self-deception to which the Soviets may have contributed. It follows that most intelligence estimates concerning the Bloc, based as they are on a complex of evidence, cannot be guaranteed to be free from the influence of deception. It does not follow that, because the influence of deception cannot be proved to be absent, it must be presumed to be present. By definition, intelligence agencies would not know if they were being hoaxed. Nevertheless, US intelligence agencies are confident that most of their estimates are not likely to be significantly vitiated by hoax, even in those instances where the evidence is insufficient to permit a very firm judgment. The reasons for this confidence will be illustrated in the paragraphs which follow.

44. As a preliminary, it will be well to recognize that many things of the greatest importance concerning the Bloc can be established as true beyond any serious possibility of hoax. Some of these are specific facts — e.g., that the USSR has detonated nuclear devices; that it has certain types of aircraft in certain minimum numbers; that it has certain types of other weapons, the description and capabilities of which are known by examination. These and a multitude of lesser particulars, concerning which there can be no possibility of deception, can be combined to establish various general ideas concerning the Bloc which again, as long as they are cautiously formulated and kept sufficiently general, may be considered immune from hoax. Thus, the rough order of magnitude of the Soviet economy and of the Soviet armed forces, and many of the general characteristics of both, can be known beyond serious doubt. At least the minimum scientific, technical, and military capabilities of the Bloc can also be established in a general way simply by measuring the achievements which have been shown to the world. These things provide a base-point for further estimates.

45. Intelligence must press beyond incontrovertible facts and broad generalizations, however, and therefore most estimates are in the domain which cannot be guaranteed to be free from hoax. The estimates of this type fall into two broad classes: (a) virtually all concerning Soviet or Bloc *intentions;* and (b) virtually all of the more *exact* estimates of Soviet and Bloc strengths, whether military, political, economic, or otherwise. With respect to these matters, it is usually necessary to concede that hoax is possible, and to consider whether it is feasible, and if so, whether it is likely.

46. Since every estimate rests on its own particular structure of supporting data, no statement of the degree of likelihood of hoax will apply equally to all. Each estimate must be separately considered, and the evidence on which it is based (including collateral and confirmatory evidence) examined with the problem of deception in mind. We have carried out such an examination for US estimates on five matters of great importance: (a) Soviet heavy bomber strength; (b) Soviet nuclear weapons; (c) Three aspects of Soviet air defense; (d) Soviet guided missiles; and (e) Soviet capability to attack the US without advance warning. The method was as follows: as a first step, some of the evidence could be conclusively shown to be free from the possibility of hoax. The remainder was then *assumed* to be the product of deception, and the difficulty and cost of such deception, roughly assessed, was set against a judgment of the probable advantage which the USSR would gain from the deception. Frequently, by this process a convincing estimate of the likelihood of deception could be reached. If it could not, other lines of argument could

[3] For discussion of certain other methods of intelligence collection in relation to the problem of deception, see Annexes B and E (limited distribution).

sometimes lead to such an estimate, though occasionally no conclusion was possible. The results of the investigation are very briefly summarized in the following paragraphs.[4]

47. By way of caution, it is desirable to recall the distinction between concealment and hoax which was made earlier in this paper, and to emphasize again that we are dealing only with the problem of hoax. The validity and adequacy of an estimate depends not only on whether the evidence on which it rests is hoax-free, but also on whether the evidence is sufficient. With the latter question we are not, in this paper, concerned. Consequently, the judgments which follow do not establish the degree of validity or adequacy of the estimates examined. It is true that if certain evidence is deemed likely to be vitiated by deception, the reliability of the estimate resting on that evidence is diminished. It is not true that an estimate resting on evidence free from hoax is therefore a valid and satisfactory estimate, for the evidence may be insufficient to make it so.

Soviet Heavy Bomber Strength

48. It can be established, beyond possibility of hoax, that the USSR on 26 April 1956 had a minimum of 22 BISON and 12 BEAR aircraft; this number were seen in the air together by competent observers. The essential performance characteristics of these aircraft can also be established, though within certain narrow margins of error. It can also be proved that the USSR has the capability of producing substantially more than this number of these aircraft. Beyond these facts, however, the evidence on which our estimate must be based could be deceptive. Moreover, the deceptions which might have been practiced are not so costly or difficult as to be ruled out on these grounds, in view of the intrinsic importance of the matter of heavy bombers.

49. We have estimated that as of 1 July 1956 the USSR had produced approximately 40 BISON and 40 BEAR aircraft.[5] That this was an *overestimate* produced by Soviet deception may be considered unlikely, primarily because the USSR failed to use certain methods which it could easily have employed to induce us to make an even higher estimate. On the contrary, the latest evidence acquired caused us to reduce our previous figures, and much of this evidence could without difficulty have been withheld or altered by the USSR.

50. It may be, on the other hand, that the USSR had substantially larger numbers of heavy bombers than we believed, and attempted to hoax us into an *underestimate.* According to this hypothesis, the USSR would have presented us with evidence sufficiently consistent and persuasive to lead us to the estimate we made, while successfully concealing evidence of the existence of additional aircraft. The element of concealment would be the essence of this operation; the hoax would be easy of accomplishment but comparatively unimportant. Because a fair amount of evidence from a variety of independent sources yields no indication of the existence of additional aircraft, we believe such concealment to have been unlikely.

51. Concerning future build-up, we have recently estimated that in mid-1960 the USSR will have 500 BISON and 300 BEAR aircraft, in operational units.[6] In the nature of things such an estimate must be based more on de-

[4] A somewhat more detailed account of the examination of the first four topics will be found in Annexes A, B, C, and D (limited distribution). It should be observed that each of these topics is itself quite general in nature, and that the estimates concerning them break down into a large number of subsidiary estimates, many of which must separately be examined for susceptibility to hoax. We have conducted such an examination to the extent that appeared necessary to establish the validity of our judgment on the main problem. Even in the Annexes, however, we can present only a comparatively small number of these subsidiary investigations.

[5] NIE 11-4-56: Soviet Capabilities and Probable Courses of Action; published 2 August 1956.

[6] SNIE 11-6-57: Soviet Gross Capabilities for Attack on the Continental US in Mid-1960; published 15 January 1957. The Assistant Chief of Staff, Intelligence, Department of the Army, did not concur in this estimate of future heavy bomber strength. His non-concurrence was not related to the problem of Soviet deception, however, and insofar as the following argument relates solely to the likelihood of deception through evidence from Soviet sources he concurs in it.

duction and argument, and less on tangible evidence, than an estimate of the current situation. We have no direct knowledge of Soviet plans for a build-up in heavy bomber strength, and even if we had, the plans might change. In one sense, therefore, the likelihood of hoax is negligible because the direct evidence from Soviet sources concerning future strength is so slight as to exert little influence upon our judgment.

52. Our estimate of future Soviet heavy bomber strength is, however, influenced by our estimate of current strength and current capabilities, and by current indications of the development and expansion of air facilities. It is here that the possibility of deception exists. An overestimate or underestimate of the current situation might affect our figures for mid-1960, but in view of the arguments on which that estimate is based, the effect would in fact be slight. The more significant possibility of deception is as follows: Suppose that the Soviets have no military requirement for a substantial heavy bomber force in 1960, but wish us to believe that they have such a requirement and that they will build up to it. Instead of abandoning their current program, therefore, they keep it in leisurely progress as a deceptive measure. They might reinforce the deception during the next year or two by hoaxes designed to increase our estimates of current strength. The primary object, however, would be to distort our estimates of their heavy bomber strength in 1960 and the years thereabouts, and perhaps also our view of their probable future military strategy.

53. The hypothesis would be, then, that while present Soviet heavy bomber strength and production capabilities may be exactly as we have estimated them, the entire show is essentially a hoax for the purpose of misleading us as to the future situation. We consider this an unlikely hypothesis, but there is no evidence available by which it can be conclusively disproved. Our belief in its unlikelihood must be based largely on arguments from general principles: that the Soviets require a powerful intercontinental striking force; that for a period of years the USSR must rely primarily on the manned bomber for this purpose; that therefore the Soviets will build heavy bombers.

54. It is plain that a Soviet hoax leading us to an overestimate of future Soviet build-up in BISON and BEAR aircraft would be the most feasible of any significant hoax connected with the heavy bomber situation. It would be the one most difficult for us to discover if in fact it were attempted. Our estimate rests more upon general understanding of Soviet methods and objectives, and of the nature and probable development of weapons systems, than upon the meager amount of direct and specific evidence which is available. Thus, in the last analysis, our judgment that hoax is unlikely in this particular is valid only so far as our general understanding of the conduct, techniques, and motivations of the Soviet leaders is valid. The possibility of self-deception, to which the USSR may have deliberately contributed, cannot be ruled out.

Soviet Nuclear Weapons[7]

55. We consider that the existence of an extensive Soviet nuclear energy program is established beyond serious possibility of deception.

56. Concerning the specific types of nuclear weapons tested by the Soviets, we conclude that the evidence on which our estimate is based is highly unlikely to have been significantly influenced by deception.

57. With respect to the number of nuclear weapons which the Soviets could have in stockpile, the margin of possible error in our estimate is great. Soviet concealment is effective, and in addition some of the evidence on which the estimate is based could be affected by deception. We cannot say with confidence whether or not it is likely that deception has been attempted. We believe, however, that even if it has been tried and has succeeded, the effect of deception on the estimate can have been only slight.

[7] See NIE 11-2-57: The Soviet Atomic Energy Program; published 7 May 1957 (Restricted Data).

58. Our estimate of the nature and dimensions of future Soviet nuclear weapons programs is based upon an extrapolation of current trends, and the likelihood of error in such projections to the future is considerably greater than in estimates of the current situation. The likelihood of error *through deception,* however, is almost certainly no greater, and may be less, because evidence from Soviet sources plays less part in our estimate of the future than it does in our estimate of the present.

Three Critical Aspects of Soviet Air Defense[8]

59. We consider that our knowledge of the types of fighter aircraft available to the USSR is established beyond serious possibility of hoax. With respect to the numbers of these aircraft, our estimate is based upon evidence which could at least in part be the product of deliberate falsification. Although the numbers involved are much larger than those of heavy bombers, the same general propositions concerning the likelihood of hoax apply (see paragraphs 49–50 above). The performance characteristics of these aircraft are known beyond serious possibility of deception save in one important respect: their electronic equipment. Even in this particular, certain of the characteristics and capabilities of the Soviet equipment are known beyond serious likelihood of hoax; what cannot be established is how many fighter aircraft in fact have this equipment. It is possible that the USSR has deliberately led us into the belief that more aircraft are thus equipped than is in fact the case.

60. Concerning the Soviet aircraft control and warning system, we consider that it would be at least as difficult to fabricate the evidence we possess as to construct and operate a genuine system. Consequently, we consider major deception virtually out of the question. The evidence is not complete, however, and the USSR could deceive us as to the extent of its aircraft control and warning system in the remoter regions of its territory.

61. We estimate that the USSR now has a ground-to-air missile capability as part of its air defense system. The direct evidence of this capability is such, however, that we cannot prove that it is not a hoax. The cost of such a deception would be great but would not be sufficient to rule it out, in view of the importance of the question of air defense. We believe hoax highly unlikely, however, because (a) we know that the USSR has the scientific and technical capability to produce surface-to-air missiles, sooner or later; (b) we estimate that the USSR has a military requirement for such missiles; (c) it is reasonable (though not necessary) to believe from other evidence that the USSR would have produced a surface-to-air missile by this time; and (d) the magnitude of the construction operations at what we estimate to be guided missile sites around Moscow is far greater and more costly than would appear to be required for mere hoax, and, where it can be examined at all, is clearly adequate for genuine missile operations.

62. Even if there be no hoax as to the main point of Soviet surface-to-air missile capability, it remains possible that the direct evidence we possess may have been fabricated by the USSR to give an exaggerated impression of current capabilities. The sites around Moscow may be more numerous and elaborate than is actually justified by the missiles presently available for use at them, even though they may be genuine sites for guided missile operation. We have no basis on which to judge the likelihood of such deception.

Soviet Offensive Guided Missiles[9]

63. The existence of a vigorous Soviet program of research and development in guided missiles can be established beyond any serious likelihood of hoax, though not, perhaps, beyond all possibility of it. Likewise, the fact that Soviet scientists and technicians are ca-

[8] See NIE 11-4-56: Soviet Capabilities and Probable Courses of Action; also NIE 11-5-55: Air Defense of the Sino-Soviet Bloc. A new estimate on this subject is under preparation.

[9] See NIE 11-5-57: Soviet Capabilities and Probable Programs in the Guided Missile Field; published 12 March 1957.

pable of developing advanced types of guided missiles is, we believe, not subject to doubt.

64. Concerning the types and numbers of missiles which the USSR may now possess, and the precise stage of development of those which are not yet ready for production or operational use, the evidence available is exceedingly scanty. Such as it is, we consider that it is in itself virtually immune from hoax. It is far from sufficient, however, and we still have to base our estimate of Soviet guided missile capabilities, both present and future, very largely upon the analogy of US experience. The estimate made in this way can be checked and corrected at a few points by the direct evidence which has recently become available. The influence of hoax on our estimate is, up to this point, negligible by comparison with the influence of concealment.

65. It is possible that the direct evidence which has recently become available may, though in itself genuine, be deliberately released to us by the Soviets for the purpose of persuading us either to an underestimate or to an overestimate of their actual missile capabilities. This would involve an assumption that the USSR had in part successfully concealed either its assets or its deficiencies in the missile field, and since the evidence is extremely scanty we cannot rule out the possibility of such concealment. The direct evidence, however, plays only a small part in determining our estimate, and in most respects the estimate would have been the same without this evidence, though it would have been less confident. Thus, the influence of deception, if deception has been attempted, would have been comparatively slight. The intelligence community, in submitting its estimate of Soviet guided missiles, does so with many reservations, most of which arise not because of the likelihood of hoax but because of the insufficiency of evidence.

Soviet Capabilities for Attack on the Continental US Without Warning[10]

66. Preceding examples have been primarily drawn from estimates of Soviet strengths; they have involved Soviet intentions only in connection with plans for future build-ups. In the present example, however, we are concerned primarily with an estimate of Soviet intentions, an area in which hoax is particularly easy. Barring some unexpected intelligence breakthrough, we are highly unlikely to have direct knowledge of the plans of Soviet leaders. Therefore, a judgment of their intent to attack must be based upon (a) an estimate of Soviet capabilities for such attack, and (b) a correct interpretation of the political, psychological, and military moves which the Soviet leaders make leading directly to the attack. In this discussion, we shall assume that the USSR possesses the general capability to attack, and confine ourselves to the second aspect of the problem.

67. Two conditions are possible: (a) that the Soviet leaders do not intend to attack the US, but desire to persuade us that they do so intend; and (b) that the Soviet leaders intend to attack the US, but desire to persuade us that they will not do so. The first would obviously be the easiest of hoaxes to execute. It might require, for example, no more than the dispatch of a substantial formation of heavy bombers toward the US under such conditions that US intelligence would gain knowledge of the movement. Such a hoax would be extremely dangerous for the perpetrator, and would be unlikely under presently foreseeable conditions, since if successful its effect would presumably be to set off a retaliatory attack which might not be averted in time. Circumstances can be imagined, of course, in which US retaliation would be infeasible, and in this case the deception might be very profitable to the USSR.

68. Assuming now that the Soviet leaders decide to attack at a given time, but desire to persuade us that they will not do so, there are manifold possibilities for deceptive operations. The Soviet leaders could, for example, enter into ostensibly friendly negotiations shortly before the attack, giving every indication that the political crisis (if there was one)

[10] I.e., warning in advance of that furnished by early-warning radar. See NIE 11-3-57: Probable Intelligence Warning of Soviet Attack on the US (to be published shortly).

was about to be settled peacefully. They could confuse US intelligence with many kinds of specific contradictory evidences, along the lines discussed in paragraph 10 above. They could, with no great difficulty, even simulate a deficiency in capabilities, perhaps such a one as would seem to be only of temporary nature, and therefore the more convincing.

69. The Soviets could, also, over a considerable time, build up their state of readiness for attack in such a way as to make almost impossible a determination of actual intent. Training flights of heavy bombers could take place, for example, time after time, until US intelligence would have no way of determining whether or not any given flight was designed for actual attack. All the various subsidiary maneuvers which might be required could be frequently executed for training purposes, and to the same effect. Such moves would not, of course, reassure US intelligence. On the contrary, they would presumably create a condition of more or less permanent alarm and vigilance. Yet there might be nothing to distinguish the ultimate attack, in its earlier stages, from similar military maneuvers which had been often repeated without eventuating in attack.

70. We conclude that the likelihood of successful hoax in connection with a Soviet attack on the US is considerable. In certain circumstances we believe that the Soviets could make it virtually impossible for us to gain advance knowledge of their intent to attack, though this is not to say that we would have been ignorant of their capability to attack without warning. However, the general political circumstances leading up to war are seldom perfectly adapted to the requirements of hoax. Thus, although the likelihood of hoax could hardly be less than high, it cannot be measured more exactly save in full knowledge of the context of circumstances which brought about the decision to attack in this manner.