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DEPARTMENT OF THE AIR FORCE
HEADQUARTERS UNITED STATES AIR FORCE
WASHINGTON 25, D.C.



REPLY TO
ATTN OF: AFCIN

2 4 JUN 1960

SUBJECT: SAMOS

TO: DCS/D

*Miss by
27 June
C/S to Gen Jones
[Signature]*

1. The current revision of the SAMOS development plan is expected to have a significant impact on future USAF intelligence capabilities. Therefore, the following is submitted for your consideration.
2. The intelligence requirement stated most briefly is for photographic and electronic coverage of the Eurasian land mass. If one must precede the other, the photography has the higher priority. The first requirement is to get a picture of every square mile at any usable resolution; the second is to get pictures of major military and industrial installations at approximately 20 feet resolution and the third is to get pictures of major research and development installations at approximately five feet resolution. The ELINT requirement is to intercept the electronic emissions associated with the major military installations, especially those engaged in research and development. According to the SAMOS engineering analysis and development status reports, both recoverable and readout systems are feasible. The E-1 system which is scheduled for launch this fall, the E-2 systems scheduled for April 1961, and the recovery systems which are being considered for launch in late 1961 and 1962 are all attractive. However, I urge that they each be launched as soon and as often as feasible based on sound R&D test and evaluation. Lash-up programs proposed by contractors through privileged channels should receive the same scrutiny before they are substituted for any of the above. In order to take maximum advantage of the R&D program, periodic design freeze should occur so a few systems can be assembled for evaluation of the reconnaissance potential.
3. According to information available the SAMOS systems now on procurement or to be programmed through 1963, can be launched from pads 1 and 2 at Pt. Arguello; they can be controlled from the Satellite Test Center at Sunnyvale and readout at Vandenberg and New Boston or, as required, recovery attempted by the existing and currently programmed recovery force. The main deficiency is in distribution and exploitation of the reconnaissance data which will become available if R&D objectives are met. As an interim measure, in order to make use of the data collected by the R&D flights, the Air Force must prepare to reproduce and distribute to intelligence organizations all usable photographic images on 9 1/2 inch roll film and all usable ELINT signals on IBM tape and cards.

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4. As soon as the electro-mechanical reliability of Subsystem I has been demonstrated, further tests should be conducted with appropriate intelligence source material in an operational environment. This is necessary because the value of the SAMOS system will be judged by the additional intelligence contributed. This may be the confirmation of the absence of targets in some areas or the addition or change of targets in others.
5. Recent meetings between ARDC, BMD and SAC have disclosed that a minimum essential capability to handle in a reasonable fashion any operational take from the R&D flights beginning with the very first R&D launch is available by:
 - a. Use of presently funded launch facilities.
 - b. Use of Satellite Test Center for satellite control.
 - c. Use of Vandenberg and New Boston readout stations and the ARDC recovery force.
 - d. Installation of photographic reassembly and titling equipment in 544th Reconnaissance Technical Group, Offutt AFB.
 - e. Processing ELINT data at 544th ELINT Analysis Center.
 - f. Construction of a data processing facility at Offutt (approximately 26,000 sq. ft.) for test of Subsystem I in the operational environment with appropriate intelligence source material. The old Martin Bomber Plant is considered an acceptable site for this facility.
6. Operational considerations pertaining to SAMOS and MIDAS become intermingled with the development programs. Because of the spread in the status of development some aspects can be considered together, others separately. For instance, both systems are considered primarily applicable to pre- and post-decisive phase warfare. The survivability of all of both systems is important and should be afforded protection equivalent to that provided the USAF communications net, BMEWS, the Atlas launch pads, air bases, etc. Protection from sabotage is considered more appropriate and feasible than protection from megaton yield weapons. Past planning and site selection has resulted in programming for one integrated SAMOS and MIDAS control center located at Offutt AFB with readout and display of the MIDAS attack alarm to all warning centers. The colocation

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of these two facilities was based on consideration of all known factors available to the Site Selection Board. At this time the factors which were considered are still valid. The inherent efficiency and monetary saving in the present planning merit continued support.

7. I cannot overstress the dependence of the future of the USAF and the nation on collection systems such as SAMOS and MIDAS. Therefore, I urge that the development of these systems as outlined above be pursued with the utmost vigor to assure at least an interim capability not later than September 1960.


JAMES H. WALSH
Major General, USAF
Assistant Chief of Staff, Intelligence

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