

SAMOS  
Box 37

227

~~Secret~~  
~~CONFIDENTIAL~~

AFCRQ-PN/Panel

1 Jul 60

(U) Minutes of Joint Meeting of Reconnaissance Panel and SAMOS Working Group, 1 Jul 60

RECONNAISSANCE PANEL AND SAMOS WORKING GROUP MEMBERS

736

1. The Reconnaissance Panel and SAMOS Working Group of the Weapons Board met in room 5E377 on 1 Jul 60 at 0930 hours. The purpose was to hear a briefing on events of the past few weeks concerning the SAMOS system in an attempt to prepare for consideration of the revised SAMOS Development Plan which will be presented to a joint meeting on Wednesday, 6 July. The following briefing was presented by Col Shannon:

a. Recent events:

(1) 27 May 60, Dr. Charyk, Under Secretary of the Air Force, wrote Gen White a memorandum requesting preparation of a revised SAMOS Development Plan.

(2) 1 Jun 60, Gen Wilson signed a letter to ARDC, with info copies to SAC, ADC, AMC and AFBED, directing the preparation of the revised Development Plan and quoting a guidance contained in memo from Dr. Charyk. A copy of this letter is inclosed as Atch 1. At the same time Gen Wilson signed this letter he requested Gen Strother to take the lead in developing an Air Staff position on four questions which were asked by Dr. Charyk and which are quoted in paragraph 4 of Atch 1. Gen Wilson stated that in his view these four questions had operational significance and, therefore, should be considered from an operational point of view.

(3) 7 Jun 60, Dr. York took note of the fact that the Air Force was attempting to resolve some of the controversial points surrounding SAMOS and requested that he be given a briefing at the earliest possible date.

(4) 10 Jun 60, the President wrote a memo to the Secretary of Defense stating that the SAMOS program needed to be carefully reevaluated and directed that a briefing covering the following

SS: 1317 ✓

~~Secret~~  
~~CONFIDENTIAL~~

DOWNGRADED AT 12 YEAR INTERVALS; NOT AUTOMATICALLY DECLASSIFIED. DOD DIR 5200.10

1. 33a

#195

points be presented to the National Security Council:

- (a) What are the intelligence requirements for SAMOS?
- (b) What is the technical feasibility of meeting those requirements?
- (c) What are the Department of Defense plans for the system?

He assigned responsibility for the first and third questions to the Department of Defense and for the second question to his principal scientific advisor.

(5) Subsequent to the above exchange of memos, a three-man team was formed to conduct the NSC briefing, the team consisting of Dr. Charyk, Dr. Ruble and Dr. Kistiakowsky.

(6) Dr. Charyk requested that he be presented a briefing on the new Air Force plans on 5 July so that he could begin to prepare himself for the NSC briefing. Since this briefing must be presented by EMD before the Air Staff has an opportunity to evaluate the new plan, it has been agreed that the Department of Defense will attempt to delay the NSC briefing until after 12 July, thereby, giving the Staff a few days to evaluate the plan presented to Dr. Charyk and recommending any desired changes.

(7) On 29 June a letter to Gen Power was signed by Gen White stating his views and problems in connection with SAMOS and inclosing a copy of the supplemental guidance prepared by Gen Strother's staff in response to Gen Wilson's 1 June memo. Gen White's letter and supplemental guidance are attached as Atch 2 and 3. Subsequently this supplemental guidance was dispatched to ARDC, ADC, etc., with the statement that it had been approved by the Air Staff.

b. As a result of the above, the following schedules of briefings are now in effect:

- 5 July Briefing for Dr. Charyk
- 6 " Briefing to the SAMOS Working Up and Recon Panel in a joint meeting
- 8 " Presentation of the new Development Plan to the Weapons Board
- 11 " (AM) Presentation of the new Development Plan to AFEMD
- (PM) Presentation to Dr. York

c. After explanation of the above events, the briefer presented a summation of the factors that had influenced the Staff in preparing the 1 June and 29 June guidance to AFDC and other agencies. The essence of this briefing is contained in Atch 4.

2  
SS: 4847

~~Secret~~ ~~CONFIDENTIAL~~

2. After presentation of the briefing, considerable discussion ensued. Representatives from Plans discussed their problems in dealing with other agencies involved in approving the Air Force Operations Plan at JCS level and were given the benefit of the Panel thinking in this regard which, in summary, is that we should retain our operational concepts as expressed in preliminary operations plan and Gen White's 29 June letter but that within this framework we should assure all agencies that we are attempting to obtain no special advantage in exploitation of the "take" and further that technicians from other agencies would be welcome to participate in the processing and duplicating of the "take."

3. After this discussion, a discussion of Sub-system I was conducted. It was reported that possibly E2D would recommend that Sub-system I be separated from the SAMOS program as such and assigned to the Cambridge facility as a ground data handling system. In the consensus of the Panel, this action should be supported if recommended by E2D and ARDC, since it probably would result in closer coordination between the development of 436L and Sub-system I. The Panel, however, did not desire to propose this step unless it was recommended by the technical experts in ARDC/AFED.

Meeting adjourned at 1145 .

*Fred W. Dyer*  
FRED W. DYER  
Colonel, USAF  
Chairman, Reconnaissance Panel  
Weapons Board

*James A. Shannon*  
JAMES A. SHANNON  
Colonel, USAF  
Chairman, SAMOS Working Group  
Reconnaissance Panel, Weapons Board

5 Atch

- ✓1. Ltr fm Gen Wilson to ARDC, 1 Jun 60
- ✓2. Ltr fm Gen White to Gen Power, 29 Jun 60
- ✓3. Supplemental Guidance by Gen Strother
- ✓4. Factors considered in Guidance Preparation
- no 5. Roster of Attendance

~~Secret~~

3  
SS: 4847

~~CONFIDENTIAL~~

~~SECRET~~ CONFIDENTIAL

SAMOS  
Box 37

THE PROBLEM

1. To get the Samos program off dead center.

FACTORS BEARING ON THE PROBLEM

2. Facts

a. 17 Nov 59 memorandum from Secretary Gates transferring Samos to the Air Force required:

(1) New development plan to emphasize physical recovery and provide for initial launch of recoverable payloads well in advance of the current schedule (early FY 62).

(2) Holding all steps beyond the current ARPA plan in abeyance pending specific approval from Office of Secretary of Defense.

b. New Development Plan, Development/Operations and Preliminary Operations Plans were submitted in February.

c. April 20 memo from Dr. York, replying to the 15 Feb Development Plan, stated:

(1) Samos program requires further adjustment: photo over ferret, recoverable photo over readout photo.

(2) Authorization to proceed on an interim basis with fund availability of 160.0 M in FY 60 and [REDACTED]

(3) Required AF to submit adjustments in accordance with paragraph a and b above.

d. The Under Secretary of the Air Force has withheld authority for the Air Force to spend \$238,000 for "early fix" in the old Martin Bomber Plant at Omaha. Although he has never forwarded the directive, he has

SS: L&7

~~SECRET~~ CONFIDENTIAL

Atch 4

~~CONFIDENTIAL~~

indicated that he has one from DDR&E requiring this action. As a result this headquarters has directed termination of the contract.

e. The development plan, per se, has progressed far enough to provide a substantial amount of concurrency for an initial operational capability. Facilities that will be available from the development program include:

742

- (1) A control center at Sunnyvale.
- (2) Two tracking and acquisition stations (Vandenberg AFB and New Boston).
- (3) Launch pads (perhaps the most critical item)

f. The Air Force possesses a substantial capability to exploit reconnaissance photography in facilities that have been developed over the years and not specifically for Samos.

g. Substantial opposition to SAC control of the system exists. Following enumeration of apparent reasons for this opposition gives an indication of its scope:

- (1) Lack of trust on the intentions and professional competence, in photographic intelligence matters, of SAC and the Air Force.
- (2) Fear that SAC and the USAF want to become the national intelligence center.
- (3) A predominant feeling that Samos is national, or even international, in character thereby mitigating against control by the major U. S. deterrent force.
- (4) Belief by other agencies that the USAF does not freely and openly share its existing intelligence materials.

2

CS: 4047

*[Handwritten signature]*

Atch 4

~~CONFIDENTIAL~~

~~Secret~~  
~~CONFIDENTIAL~~

(5) Jealousy of SAC.

h. Sub-system I is the subject of much criticism because:

(1) Its complexity is greatly increased by the ELINT requirement and serious questions exist about the state of the sensor art in this area.

(2) Its development has been based on estimates of the type of photographic take that will be received, but serious doubts exist as to the validity of these estimates (Readout vs Recovery).

i. The Air Force, so far, has not adequately responded to guidance from DCD on priorities in the development program.

j. The Air Staff is divided on the question of possible wartime survivability and utility of the system. This question must be treated by a separate study.

k. The Sunnyvale facility can control the operation for a fairly long time but is not adequate to exploit the photography nor to generate the Midas displays.

l. General White has instructed the staff to get a program that will cell rather than lose it.

m. Other recoverable payloads could possibly be developed faster than the E-5, and might have greater potential for solving the basic cover problem and detailed cover than either the E-1, E-2 or E-5.

n. The authority and funds to build the Martin Bomber Plant facility does not expire at the end of the fiscal year.

o. The operational nature of a readout photo system will require frequent coordination between the operators and the agency that makes first phase interpretation of the film.

3  
SS: 4347

~~Secret~~  
~~CONFIDENTIAL~~

Atch 4

~~SECRET~~  
~~CONFIDENTIAL~~

p. The operational nature of a recoverable photo system is such that frequent coordination between the operators and the agency that makes first phase interpretation of the film is not essential.

q. Photography of the USSR is of interest to many agencies, and since it is there are two separate and distinct steps in exploitation of any "take."

(1) Developing the primary film and providing duplicates to all authorized agencies.

(2) Interpretation and other uses of the duplicate copies by all agencies (SAC, ACIC, CIA, Army, Navy, AFIC, etc.)

3. Assumptions:

a. The operational photographic take from the first year's current readout R&D program will be inconsequential (SAC estimates 35 9x18 negatives per day of readout satellite operation).

b. No time phased estimates of take from recoverable packages is possible at this time because:

(1) The E-5, the only recoverable system in the current program, is not yet in the hardware stage and has serious technical problems facing it.

c. We cannot sell a facility in the Martin Bamber Plant for Samos at this time.

4. Criteria

a. Air Force plans for development and exploitation of Samos must be the very best that can be devised.

SS: 4247

~~SECRET~~  
~~CONFIDENTIAL~~

Atch 4

~~CONFIDENTIAL~~  
*Secret*

b. The Air Force desires to retain its basic concepts for Samos operations. Specifically the preliminary operations plan currently under consideration by the JCS should not be violated.

15  
A  
c. It is necessary to break the political log jam that has consistently caused the Air Force's executive agents in this program to spend more time revising development plans than in actually supervising development of the system.

d. The Air Force must obtain and retain support and approval of its plans for development of Samos.

e. Any steps taken to reorient the Samos program must be carefully examined for impact on the Midas program and the Midas program must be adjusted to prohibit slippages in an operational Midas system.

*Secret*

5

33: 4247

~~CONFIDENTIAL~~

Atch 4

~~CONFIDENTIAL~~

DISCUSSION

1. From the list of facts and assumptions it is apparent that Sarnos faces serious problems, both technical and political. The political problems have been magnified by high level disagreement on our technical approach. Further the Air Force has not been properly responsive to prior technical guidance.

2. Serious doubts of our planned primary dependence upon readout photography exist in the scientific community. Our operational system facilities were planned on the basis of the assumption that readout would prove satisfactory. Since this assumption is questioned most seriously, we are accused, perhaps justifiably, of leaping to conclusions supporting a grandiose operational program before we had any justification to do so.

3. The objections to SAC control has many facets. Since the first step in our plans for an operational system involve an interim data processing facility in the Martin Bomber Plant at Offutt, this step has been denied us. Our opposition can attack it on several grounds:

- a. It is designed to expand into the center of our operational facilities, which are themselves questioned.
- b. It will lead to complete SAC control of the system.
- c. The R&D take foreseeable now will be too small to justify this action.

4. It must be recognized that the Air Force is not helpless in photo intelligence capabilities. So far as can be determined no complete study of existing SAC capability vs expected R&D take has been conducted, considering especially recent events. It appears that any attempt to obtain release of funds for an interim facility in the Martin Bomber Plant must clearly show that the entire command workload is such that purely SAC exploitation of reasonable R&D take cannot be conducted within existing capabilities.

~~CONFIDENTIAL~~

~~Secret~~  
~~CONFIDENTIAL~~

1. "Early fix" is recognized as the first step in establishment of a facility for control of the operational system;

2. The plans for operational system facilities are based on the assumption that readout will be the primary operational mode; and

3. The operational system required to operate and exploit readout systems are more elaborate than those for recoverable systems, the political and technical opposition to our present program is able to focus on this seemingly minor issue (only \$238,000 is involved). This opposition is so formidable that we have been directed to withhold this facility, and from this one issue has stemmed most serious questions as to our technical and operational plans.

d. It is not vital to Air Force plans that the initial film processing and duplicating be conducted at the same location that SAC uses for exploitation of the photography. If subsequent studies of this problem indicate that other facilities can do the processing and duplicating job better, the Air Force should not object to their being utilized.

e. Colocation of data handling and Samos control centers is not essential if recoverable systems are the only ones used. However, readout systems probably will require this. This does not address the obvious requirement for exploitation facilities to be immediately available for SAC Hqs. Since SAC Hqs does have a targeting problem requiring Samos systems, a data handling capability must exist there. Therefore, one could state that if the control center is finally located at SAC, there is an urgent requirement for colocation of the data handling and control centers.

RECOMMENDATIONS

1. The Air Force must be responsive to technical directives and develop the best possible program.

~~CONFIDENTIAL~~

~~Secret~~

~~SECRET~~

2. An open-minded approach to the R&D program and the operational facilities required will be extremely difficult for the scientific community to challenge.
3. The Air Force should not insist on an interim facility in the Martin Bomber Plant at this time at the risk of further complication in the program, particularly until it is proven that current facilities are not adequate. This is especially true since it is politically unpalatable.
4. The following items are necessary before we can defend any firm position on additional exploitation facilities requirements:
  - a. Comprehensive review of current exploitation facilities available to the Strategic Air Command.
  - b. Current command workloads.
  - c. Best possible estimates of R&D take (these can be based only on a new development plan, not on existing schedules).
5. Questions of the utility of the Samos system in general war must first depend on the degree of survivability that can be provided. If survivability is possible, other operational factors must be considered — factors such as: reliability, flexibility, competing systems, etc.
6. Concurrency built into the development plan gives a substantial capability to exploit either a readout or recoverable system.
7. Any delay in the Martin Bomber Plant facility has serious implications in the Midas program since the Sunnyvale facility cannot handle the display generating equipment.
8. Interim facilities for processing and duplicating the primary record photography and supplying all users must be made available. Further study of the final answer for the processing and duplicating facilities must be conducted.

33: 4847

~~SECRET~~  
CONFIDENTIAL

Atch 4

~~Secret~~ ~~CONFIDENTIAL~~

RECOMMENDATIONS

1. That the Air Force support the directives that we have received requiring payload development in the following order: recoverable payload, readout payload, ferret payload.
2. That the Air Force adopt a completely open mind on the R&D program and the subsequent facilities required for an operational system.
3. That reconsideration of the hard vs soft problem begin with a technical study of the problem of giving the system survivability.
4. That the Air Force defer any move to establish an interim facility at Offutt until we have more facts on which to base our claims.
5. That consideration be given to the NORAD complex in Colorado as a strong possibility for location of the Midas display generating equipment.

1547

~~Secret~~

~~CONFIDENTIAL~~