

DEPARTMENT OF THE AIR FORCE  
WASHINGTON

OFFICE OF THE ASSISTANT SECRETARY

November 5, 1965

MEMORANDUM FOR DR. FLAX

SUBJECT: Task Group Report (Alternative Management Arrangements For the [REDACTED])

In response to your October 27 request for an appraisal of the above report, comments are offered in two categories: the collective views of senior members of the NRO Staff (sans me); and my personal opinions on both NRO Staff views and the report itself.

I asked appropriate senior members of the Staff (Worthman, Carter, Howard, Buzard, and Koch) to give me their completely candid thoughts. A summary of their more pertinent views follows:

1. The casual discarding, in the report, of the fully integrated System Project Office because "...the Agreement reflects an obvious desire to maintain organizational identity and responsibility..." was "deplorable" and "distressing" to them. They felt this approach to management was the only valid one for a complex system development, and all alternatives proposed were, in effect, committee-management with all inherent weaknesses. They cited numerous examples of successes for the former, and failures for the latter, and felt the [REDACTED] was far more important than any organizational status or recognition.

2. In short, the Staff believes that you must have a single, authoritative, responsive System Project Director, and should establish a fully-integrated System Project Office (which co-locates all necessary CIA-DOD engineering, procurement, and security people in one office, and empowers these people to speak authoritatively for their "sponsors"). Although the Staff believes the overwhelming management capability to do the job is in SAFSP, they profess not to be anti-CIA, since they also assert that total system assignment to CIA

1 2  
1 7

would be vastly more effective than the "idealistic but impractical social ventures" proposed in the report.

Personally, I basically agree with the Staff on the desirability and effectiveness of a fully integrated SPO--the management alternatives to this approach are inherently weak, are potential trouble-makers, will require more of your attention, etc. However, I am not so positive as they that it is the "only" valid approach. Further, I am convinced the Agreement precludes a fully integrated SPO (as defined in the Report), since it repeatedly refers to "the CIA" and "the DOD" (or AF), not CIA-provided people, DOD-provided people, etc. In that vein, the Agreement specifically states "The CIA will develop the optical sensor sub-system." Therefore we must establish some compromise arrangement which assigns logical responsibilities for system tasks and specific sub-systems to SAFSP and CIA-OSP as organizational entities.

So much for the Staff views and my reactions thereto. Next, I should like to give you my personal views on the Report (as objectively as possible, but undoubtedly prejudiced by my role in its preparation):

1. I repeat my strong personal desire for the fully integrated SPO approach, but reluctantly must recommend against your selecting it in view of the apparent intent and the specifics of the Agreement.

2. I do recommend we try the so-called Segregated SPO approach, with overall system responsibility (and SPD) assigned to SAFSP. The Deputy SPD should be a CIA employee assigned to SAFSP (with no allegiance, per se, to CIA for the duration of such assignment) for this purpose. Additionally, an Assistant Project Director (APD) for CIA activities must be appointed. All CIA activities should be consolidated under this senior CIA representative who is responsible and responsive to appropriate project direction of the SPD. Both and CIA-OSP must exercise considerable restraint in dealing with this individual.

3. I believe SAFSP is the only logical choice for overall system responsibility, and to provide the SPD, on the basis of personnel skills and experience, and personnel resources available to them. In the middle management field, CIA has virtually no one (other than Crowley and Ledford) with

system management experience and background. There are many such people in SAFSP or AFSC. If total system responsibility for [REDACTED] should be assigned to CIA-OSP, then I recommend an experienced Air Force Colonel or Brigadier General be assigned to CIA as the SPD.

4. I have very firm convictions on the matter of co-location. There is no question about the necessity for co-locating a "line" DSPD, and I recommend the same for the APD (plus an appropriate portion of his office). Coordination and interface would, at best, be quite difficult if the SPD/DSPD and the APD were 2500 miles apart--particularly so, for the first year or so.

5. With regard to the responsibility of the APD, I believe CIA-OSP should be charged with the Sensor Module as defined in the Management Report. The prime reason for this is that it will enhance the Government's ability to hold the camera contractor responsible for the key factors associated with proper camera functioning (i.e., mounting and alignment, thermal control, critical film handling, peculiar electronics and pneumatics, etc).

6. The Technical Evaluation Group proposed that the sensor source selection include the camera sub-system and a combined Sensor/RV module (as one unit). Although this is a third option in the Management Report, I recommend against it for several reasons. First, these are in fact two separate modules (different types of structures--monocoque vs truss; different thermal requirements, etc) and will be built as such, in any event. The interface between the two modules--for example, in film path alignment--is not nearly as critical as the Technical Group imagines. Last, I do not wish to foster--unless there are overriding reasons--another CORONA "environment". Assigning CIA everything forward of the OCV would almost parallel the CORONA Program and encourage the same kinds of management problems we have today (only more serious, because concurrent sub-system development is involved in [REDACTED]). Therefore, since the RV Module (see Management Report definition) is a separate element, its development responsibility should be assigned to SAFSP.

7. I believe the Management Report recommendation that the OCV contractor also build the sensor module shell and RV module (in effect, the entire spacecraft sans payload), and be the system integrator, is most significant. Hopefully, despite split responsibilities among Government Agency/Department, this will facilitate system engineering, structural integrity, and simplify interface matters. This contractor should design and build the sensor module shell and deliver it to the camera contractor for camera sub-system integration and test.

8. Lastly, an early selection of the system engineer (whatever management approach is selected) is vital to the work of the three Source Selection Task Groups. I question that these groups could do an effective job in the absence of the overall detailed specifications which the SE must provide. I urge the designation of the organization responsible for the SE at the earliest possible date.



JAMES I. STEWART  
Brigadier General, USAF  
Director, NRO Staff

[REDACTED]

DEPARTMENT OF THE AIR FORCE  
WASHINGTON

OFFICE OF THE ASSISTANT SECRETARY

2 November 1965

MEMORANDUM FOR BRIGADIER GENERAL [REDACTED]

SUBJECT: Comments on Task Group Report on Alternative Management Arrangements for [REDACTED]

1. The whole thrust of this paper emphasizes "maintain organizational identity and responsibility and fully utilize overall organizational assets" rather than addressing the major problem--the managing of the development of the new system. This preoccupation with organization position cannot contribute anything but increased problems to the development of the new system.

2. Perhaps one should, before commenting on the various alternatives, examine in some detail the "overall organizational assets of both organizations"--I know the assets of [REDACTED]--management experience in systems, numerous capable officers with camera development experience, numerous contracting officers with R&D contracting experience. What resources and experience does CIA-OSP have? Will a listing of these assets be long or short? Perhaps all of these alternatives should be submitted to [REDACTED] and CIA-OSP as RFP's. Let them come back with proposals on people and their experience who will man the offices.

3. The timely development of the system is a big enough technical problem to absorb all the energies of the SPD and his office without adding the unnecessary complication of individuals or agencies "maintaining an organizational (institutional) position." Without total dedication by the entire program office to the successful development of the system the program will fail.

4. An observation--regardless of the management scheme selected there will eventually be one strong man who in reality becomes the program director or the program will fail.

[REDACTED]  
Control System

~~SECRET~~

~~SECRET~~

5. The key question in judging the various alternatives has to be "who can make and enforce decisions on critical matters." From the various alternatives proposed one can answer this question for a number of functions which must be performed in the SPO.

TABLE 1

<u>MGT FUNCTIONS</u>	<u>DECISION MAKER</u>			
	<u>NRO SPD</u>	<u>FULLY INTEGRATED SPO</u>	<u>COSPD</u>	<u>SEGREGATED SPO</u>
SYSTEM ENGINEERING	NRO	SPD	DNRO	DNRO* (SPD)
SYSTEM INTEGRATION	NRO	SPD	DNRO	SPD
INTERFACE DEFINITION	NRO	SPD	DNRO	DNRO**
INTERFACE REVISION (A CONTINUING TASK)	NRO	SPD	DNRO	DNRO**
SYSTEM SPECIFICATION (A CONTINUING TASK)	NRO	SPD	DNRO	DNRO**
BUDGET	NRO	SPD	DNRO	DNRO**
SCHEDULES	NRO	SPD	DNRO	DNRO**
TECHNICAL TRADEOFFS (DAILY TASKS)	NRO	SPD	DNRO	DNRO**
RF ALLOCATIONS				
TESTING CONSIDERATIONS				
POWER REQTS & ALLOCATIONS				
ENVIRONMENT SPEC				
STABILITY REQ'T'S.				
TELEMETRY ALLOCATIONS & REQ'T'S.				
COMMAND A&R				
SMEAR BUDGET	NRO	SPD	DNRO	DNRO**
TEST PHILOSOPHY	NRO	SPD	DNRO	DNRO**

\*Document says SPD will assign to one of the organization

\*\*Document says team effort of SPD, DSPD, and APD but does not specify who makes and enforces decisions. Further statement is made "...organization not possessing the SPD becomes responsible both to the DNRO and the other organization."

~~SECRET~~

Interface definitions are iterative, not static, documents. The SPO is engaged daily in interface decisions. These decisions must be made promptly based on complete knowledge and thorough understanding of consequences. Penalty for indecision--fait accompli by contractors and/or schedule slips.

5. I will comment in more detail only on the Fully Integrated, CO-SPD and Segregated SPO alternatives.

a. Fully Integrated SPO - The only logical choice if one really wants to get this system built. The CIA can be assigned responsibility for the camera sensor by the SPD. The CIA people are a part of the SPO and report to the SPD. Similar arrangements are recognized in other documents on systems management.

"Representatives of participating organizations, as members of the SPO team, are directed by the SPD, even though they are not in the same chain of command. The "team" represents organizational capabilities, together with resources, made available throughout the functional structure...."

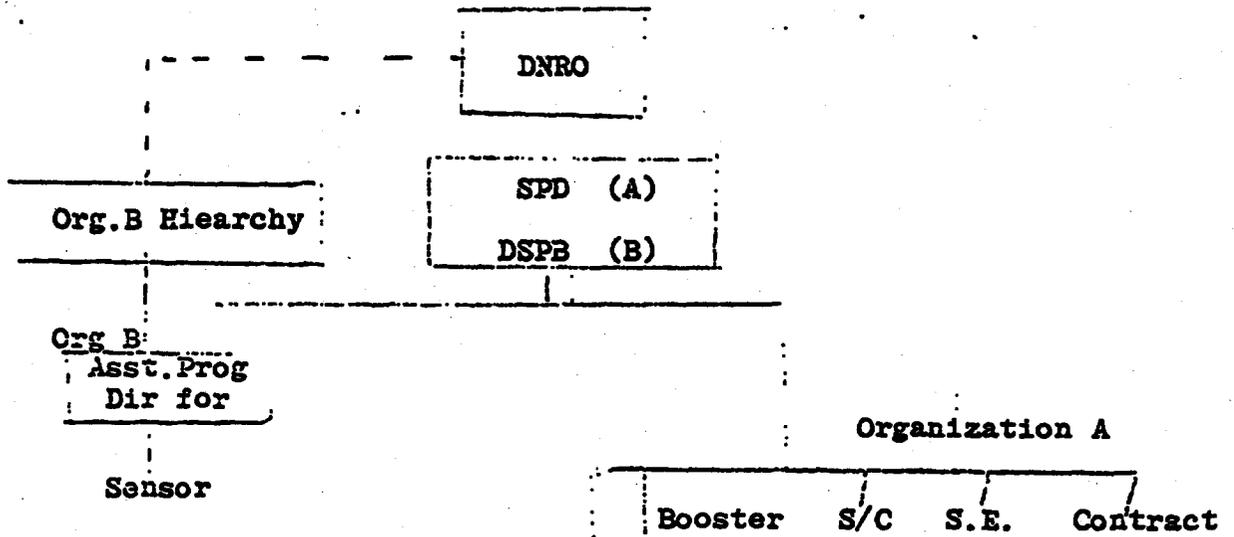
To my mind a refusal or reluctance to organize in this manner indicates that there is a greater interest in pursuing organizational aims than in pursuing an FOSS development program. Or stated more bluntly "If we can't build the camera on our terms then there ain't gonna be no new system."

b. CO-SPD. Once upon a time there was a program named "ADVENT"--a military communications satellite involving the Air Force and the Army. The Air Force wanted to have complete control of milconsat and build the entire system--satellite, satellite borne comm gear, and grd stations. So did the Army.

A compromise was developed--Air Force would build the satellite, Army would build the satellite payload and the grd stations. This killed the program.

c. The segregated SPO - A committee to resolve the day to day problems in the development of the system.

~~SECRET~~



The SPD has no real authority over the APD since the latter works at home in the environment of his organization.

The only essential difference between this and the CO-SPD is that the SPD and DNRO are both frustrated and get ulcers whereas in the CO-SPD it is only the DNRO who suffers.

6. Contractors will spend the first year jockeying for position (divided government responsibility will cause government agencies to do the same and will exacerbate the situation exponentially). The government serves as referee in interface disputes between the contractors. Who referees between the government agencies?



FRANK S. BUZARD  
Colonel, USAF

RECEIVED  
LOS ANGELES  
MAY 1964

~~SECRET~~



1 2  
4 4

~~TOP SECRET~~

DEPARTMENT OF THE AIR FORCE  
WASHINGTON

OFFICE OF THE ASSISTANT SECRETARY

2 November 1965

MEMORANDUM FOR COLONEL WORTHMAN

SUBJECT: TASK GROUP REPORT; COMMENTS ON

In reply to your request of 29 October 1965, I have reviewed the subject document. My comments generally follow the text, commencing with Section III. (Management Approaches).

a. Overall System Responsibilities in the NRO

At first look, such a proposal is the direct antithesis of my understanding of the functional role of a staff. However, from its inception, the NRO Staff was not intended to conform to the normal staff functions, although it has been vigorously aimed in that direction in the recent past. With realignment of management philosophy and a removal of handcuffs, this approach may be the only saving grace for the deep trouble [redacted] finds itself in due to the NRP Agreement and due to an overly-developed desire to "preserve the identity" of the contributory agencies.

b. Fully Integrated System Project Office

I think it is essential that a single, responsible System Project Director (SPD) be designated under this or any other NRP Program; however, I do not agree that a "Deputy System Project Director (DSPD)" from the "other side" is a necessity, or is even really desirable. In my opinion the second-in-command should perform Executive Officer or Chief of Staff functions. In any case, his selection and his functional employment should be at the discretion of the SPD (assuming there is one).

Ample proof exists that this management technique is the best way to manage a military system project and my intuitive feeling is that it might even work middling well if the CIA-OSP were designated the responsible agency.

c. Co-system Project Directors

This system might produce something if Damon and Pythias were co-directors; if it were to be a short program (preferably

EXCLUDED FROM AUTOMATIC  
DOWNGRADING: EOD DIR 5200.10  
DOES NOT APPLY

MADE [redacted] SYSTEM ONLY

~~TOP SECRET~~

COPY 1 OF 2 COPIES  
PAGE 1 OF 2 PAGES

SLESS [redacted]

~~TOP SECRET~~

under 10 days); if we could dispense with the "collective authority" philosophy; and if we had a full-time DNRO, and/or an NRO Staff whose responsibilities and authorities in these areas were clear. Having none of the above, such a system would act to preserve identities but little aplomb. Here, I think Santayana's definition of a fanatic would apply - "one who redoubles his efforts while losing sight of his aims." Much of the NRO Staff's and DNRO's time would be expended in refereeing a continuous wrestling match. In view of the fact that single management decisions must be made throughout such an arrangement, why not make the hard decision at the beginning?

d. The Segregated System Project Office

No amount of shell-gaming is going to correct the fact that a program needs a hard-nosed Director and a tiger from an Exec. plus a method whereby this pair can achieve support and response from the associated agencies. The management method proposed herein appears to be a mask of confusion.

With respect to split responsibilities, it is apparent that FOSS is going to have to be played with a rigged deck, therefore CIA will become responsible for the Sensor Module with or without the Recovery Module. This is the simplest management decision of all.

At this juncture I should like to note that throughout this document (and the Annex to the NRP Agreement) I note a recurring imprimatur which reflects a CIA-possessed expertise in optical sensor systems which may be more illusion than fact. Why has this never been questioned?

In summation:

- a. Single integrated program management for [REDACTED] is essential.
- b. Definition of a realigned NRO Staff responsibility and authority is highly desirable.
- c. The document requires severe pruning.

[REDACTED]  
Captain, USN

EXCLUDED FROM AUTOMATIC  
REGRADING; DOD DIR 5200.10  
DOES NOT APPLY

2  
[REDACTED] [REDACTED]

~~TOP SECRET~~

COPY 1 OF 2 COPIES  
PAGE 12 OF 12 PAGES

SATSS [REDACTED]

DEPARTMENT OF THE AIR FORCE  
WASHINGTON

OFFICE OF THE ASSISTANT SECRETARY

2 November 1965

MEMORANDUM FOR BRIGADIER GENERAL [REDACTED]

SUBJECT: Comments on Task Group Report

1. In accordance with your request, I have reviewed the Task Group Report dealing with alternative management arrangements for the [REDACTED] System. My comments are contained in the following paragraphs.

2. I believe that the report covers the spectrum of possible management arrangements for this system under the ground rules which were established. My comments will therefore be directed to points you may want to emphasize in your personal appraisal to Dr. Flax.

3. All of my experience points to the fact that a complex and important systems development task demands strong centralized management with clear assignment of responsibilities and recognized and enforceable authority if it is to succeed. Management arrangements must be as simple as possible in order to focus effort on the development task as opposed to management interfaces. In general to the extent that any arrangement does not adhere to this principle, there is a corresponding decrease in the probability of success of the project. Deficiencies can range all the way from increased dollar cost and slipped schedules to a complete debacle such as Advent. In a sense, the national importance of any system can be judged by the extent to which people and organizations are willing (or are directed) to submerge parochial interests, and establish and respond to strong centralized management. The ballistic missile programs, including Polaris, are obvious examples. Air Force participation in Mercury and Gemini are also pertinent. It would seem that if the [REDACTED] system is indeed important and essential to national security, organizational prerogatives should be considered secondary to a strong centralized management arrangement.

Handle via [REDACTED]  
Control System

TOP SECRET

TOP SECRET  
DO NOT DISSEMINATE

100-100000-100000  
100-100000-100000  
100-100000-100000

~~TOP SECRET~~

4. In this light, if it is the intent of the agreement to maintain organizational identity and responsibility, the best arrangement one can hope for is a federation. Such arrangement is inherently limited to integrating or perhaps coordinating any common objectives and relevant capabilities of the participating organizations. However, organizational prerogatives remain paramount. I don't see how any arrangement based on such a principle can be successful in carrying forward a complex enterprise which depends on successful solution of intricate development and engineering problems.

5. In summary, I believe there are overriding considerations to support a fully integrated system project office.



Colonel, USAF

Handle via   
Control System

~~TOP SECRET~~

UNCLAS

~~TOP SECRET~~

DEPARTMENT OF THE AIR FORCE  
WASHINGTON

OFFICE OF THE ASSISTANT SECRETARY

MEMORANDUM FOR GENERAL [REDACTED]

SUBJECT: TASK GROUP REPORT

The Task Group Report seems to have covered all the alternative management approaches. Comments with regard to each of the proposed schemes are given below:

a. Overall System Responsibilities in the NRO: Generally, the assignment of direct project responsibilities and authorities is not done in a Headquarters staff. The NRO/NRP is not a normal staff. The Presidential directive of 1 September 1960 establishes the single line of authority from the SecDef to the Secretary of the Air Force to a Field Program Director, and specifically excluding program review by OSD and Air Staff, which could make this arrangement a feasible one. The Apollo and Voyager Programs are run by Program Directors at the NASA Headquarters and direct lines to field units. An organization dedicated to the furtherance of the program objectives instead of pre-occupation of maintaining organizational identification will assure a successful project.

b. Fully Integrated System Project Office: The apparent rationale fundamental to the development of this particular alternative is out of context with the other alternatives. If it is interpreted that the 11 August Agreement is dedicated to maintaining organizational identities instead of the best management for the project then it may be worthwhile to start working on a new agreement. There are no cons that I can identify that would recommend against this particular solution. It appears to me that it would be equally applicable regardless of the Director, hence the Deputy, or the location. Since all of the management approaches are very strongly dependent on individual personalities this particular arrangement would suffer the least consequences because of a personality clash either on a personal basis or on an organizational basis. This approach is overwhelmingly more suitable for the [REDACTED]

c. Co-system Project Directors: This arrangement probably can work, but with continuous difficulties. Personalities of the co-directors will clearly determine whether this is a workable system or not and as a result this feature of it becomes its major weakness. There is no requirement for co-location and it is

[REDACTED]

Copy 1 of 2 Series  
[REDACTED]

particularly well suited for instructed delegates. The Director of the NRO would be much better served with a single man charged with the responsibility for the development of the program rather than two people regardless of how well the responsibilities are identified and assigned. The other undesirable major weakness that should be identified is a high probability that a constant stream of both minor and major disagreements will necessarily be pushed to the DNRO for solution. The recommendation that one of the co-SPDs may arbitrarily be designated as responsible for on-orbital operations seems to me to be as difficult a decision as a selection of a single program director. Whatever rationale applies would also apply to the program director selection as well. It certainly is not clear that it should be an attribute of this solution that all participating agencies should have equal and common ground for coordination, cooperation, or non-cooperation. The total program knowledge and total control of individual agency responsibility by each of the participating agencies is a function of the individuals as a first order rather than whether they are a co-director, director, or the deputy director. Certainly, the participation of more than one agency, whether they have a detailed specific charter from DNRO or from a Program Director, will necessitate coordination between these two agencies. The management arrangement of the integrated proposal with a single program director is far superior to a co-management arrangement.

c. The Segregated System Project Officer: The title prejudices the conclusions before one has actually studied them. I am sure that you could select people such as a senior representative who was designated as an Assistant Project Director who would devote his time to mis-management rather than management. On the other hand, people can make this type of management arrangement (by committee and at long range) work, also, albeit, more difficult. One wonders what the committee motivation was that caused this approach to be considered.

I would certainly agree with the conclusion of the Task Group that the advantages in the precision and management direction which a single system project director offers is by far the more desirable. It is also more desirable that Systems Engineering and Technical Direction as well as Systems Integration should be assigned by the system Program Director to the organization he determines most competent to accomplish those functions.

It is my view that option two of ~~Responsibilities~~ Responsibilities, where the CIA-OSP is responsible for the entire Sensor Module with the structure for this module being provided by the same contractor

~~Control System~~  
Control System

as the OCM is the best of the considered task assignments. There appears no rationale as to why the RV module should be designated as a part of the sensor module. Indeed, there is a very clean and clear interface between the RV and Sensor Module that should be maintained.

  
Colonel, USAF