

In Accordance with E. O. 12958



on ~~NOV 26 1997~~

21 December 1963

MEMORANDUM FOR: Director of Central Intelligence  
SUBJECT: Final Report on CORONA Management

1. I have examined the CORONA program in some detail for nearly two months, in response to McMillan's proposal for a change in the CORONA management. My study has been broad enough and deep enough to support the following convictions:

- a. I can find no basis for assuming that the proposed change will either improve or continue the daily health of the current M and J CORONA system.
- b. The new management does not provide any real capability for conceiving or developing improved search capabilities.
- c. The change will not provide a full time CORONA Program Director responsive to the DNRO and national needs. Rather it will subordinate the existing SSD Project Office to [REDACTED] who has many other program responsibilities.
- d. The proposal will grant a real monopoly on satellite reconnaissance to the Air Force and will soon standardize procurement and development among all the contractors along traditional Air Force lines.
- e. You have an alternative solution which meets the basic needs of CORONA in a more direct way and within the present framework of NRO.
- f. The alternate solution is to create a new Program E within NRO to be responsible fully and directly to the DNRO for the present CORONA, its

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Control System

improvements, and the development of its successors. This program group should be no more than 20 people and probably should be located in Palo Alto.

g. I believe that CIA can effectively manage and staff such a program in a way that will enhance the performance of CORONA and ensure its improvement.

h. However, you should know that McMillan will violently oppose any modification of his original proposal, as he is now thoroughly committed before his staff, [REDACTED] and the contractors to turning CORONA over to [REDACTED]. It may be just as easy to modify NRO itself as to reverse Brock on this point.

i. However, we are ourselves at a turning point in the NRO and there is no honorable way to loose this one. If we agree to the CORONA transfer, I predict we will never re-enter the satellite field in a meaningful way again.

j. The prospect is not pleasant, but the conflict has been forced upon us by aggressive exploitation of the original NRO agreement.

2. The following pages explore these points in some detail and give one much of the relevant background. It will be difficult to go farther than I have here without visiting ITEK, GE and especially the West Coast facilities. [REDACTED] and I plan to visit ITEK on 23 December and could continue on to the West Coast between Christmas and New Year's.

3. It is recommended that you reject McMillan's proposal in favor of the Program E approach. If you concur, I will draft appropriate letters to Gilpatric and McMillan along the lines you may suggest.

ALBERT D. WHEELON

ALBERT D. WHEELON  
Deputy Director  
(Science and Technology)

Attachment  
As stated

cc: General Carter  
[REDACTED]

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A. RELEVANT BACKGROUND

1. The CORONA Program was conceived as a practical first step toward solving one of the most pressing problems of the intelligence community - photographic search of the entire Soviet Union. It began with a conservative design, but has been progressively improved to a point of extraordinary performance. It is a model of how to conceive, develop and operate both promptly and economically a complete technical collection system focused on genuine intelligence requirements.

2. The basic design, fabrication, and launching has always been and always will be done by contractors. The role of the Air Force and CIA personnel has been to monitor these contractors. The CORONA program has relied heavily on contractor initiative and responsibility from the beginning. Daily coordination of these contractors was supplied by the Program [redacted] office at SSD; a group of about ten semi-technical Air Force officers in Los Angeles. It is supported by an equally small cadre of CIA contracting, security and communications people. The real program direction for this team was supplied for several years by Mr. Bissell and General Ritland.

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This leadership later gave way to a joint CIA/AF Configuration Control Board which meets each month to review payload modifications. The line of program responsibility ran originally from Colonel Battle [REDACTED] to Bissell and Ritland, later to Bissell and Charyk, and most recently to McMillan. It does appear that Scoville and I failed to recognize the need and/or opportunity to play an active role in the management of CORONA. To date, [REDACTED] has not been involved, since Colonel Battle felt that his line of responsibility ran straight to the DNRO.

B. McMILLAN'S PROPOSAL

3. McMillan's second proposal for CORONA management is clearer than the first, but lands on essentially the same square. His basic aim is:

"To establish a single point of authority within the NRO to which he can assign full responsibility for achieving consistently successful results that require the maximum potential of the present system."

He proposes two basic steps:

a. Assign the full responsibility for CORONA to [REDACTED] in Program A.

b. Transfer residual CIA control over the camera payload and recovery system to [REDACTED]

This is certainly one way to go about the problem. This particular solution obviously pleases the Air Force very much, as it consolidates their monopoly of satellite reconnaissance. However, I am inclined to examine his solution on its merits, and the question before us is essentially simple:

"Will CORONA fare better by subordinating Colonel Worthington's small group to [REDACTED] and eliminating CIA influence over the payload contractors?"

4. [REDACTED] is himself an able technical officer, who has a direct line of responsibility to McMillan. He has a staff of 106 officers, enlisted men, and civilians in Program A, of whom only 22 have a similar relationship to McMillan; the remainder are detailed to [REDACTED] by SSD. As Program Director A, [REDACTED] is now responsible for the following NRO satellite programs: [REDACTED] LANYARD,

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ARGON, [REDACTED] weather satellites and advanced planning. His staff is organized with individual project offices which carry the principle responsibility for these programs.

5. If McMillan's CORONA proposal were accepted, Colonel Worthington's group would be transferred from SSD to [REDACTED] and take its place with the other project offices. There is no indication that [REDACTED] has significant resources in his small staff which can be diverted to Worthington's effort. In view of his other program responsibilities, it would be quite unrealistic to assume that [REDACTED] himself will be able to spend much time on CORONA. The net effort of such a change would be to clarify the CORONA line of command, which is very important in McMillan's mind. However, it would appear that a fraction of [REDACTED] time and essentially the same SSD group, less CIA participation, is hardly the "single point of authority" to ensure that CORONA is a consistent success and finds a logical successor.

6. One must next try to estimate the chances that Colonel Worthington's group under [REDACTED] can actually do the job properly. We have only a small number of facts on which to base a judgment:

a. [REDACTED]

[REDACTED]

b. Essentially the same group was responsible for all the SAMOS vehicles. The consistent failure of the SSD and Program A to make SAMOS reliable makes me question whether they can in fact contribute to the "daily health" of CORONA.

c. You will recall the CORONA Improvement Program developed by Colonel Worthington's group this past September. As we now know, their first solo effort at improving CORONA was a classical blunder.

d. The current troubles with MURAL launch failures, and the prolonged delay in J checkouts are occurring during a period when Colonel Worthington is running the program without significant help from CIA.

To be sure, these are only partial indications of the capabilities of [REDACTED] and Worthington, and perhaps they do not give a fair picture. However, it is the only

evidence we have upon which to base a major decision. In my view, it would be most unwise to trust the "daily health" of CORONA to a [REDACTED] Worthington combination.

7. Next let us examine McMillan's proposal to see what effect turning the camera and recovery vehicle contractors over to the Air Force might have. On the positive side, it will unite the contracting and technical direction function. Air Force teams have already visited ITEK and provided them with detailed "recommendations" for improved performance. We are told that the sense of these changes is to regularize the procurement, emphasizing multiple documentation and extensive testing. The latter is important for a program with reliability trouble. However, it is not the CORONA cameras that have been failing, and I believe that one is actually seeing the reorientation of ITEK into a standard Air Force procurement pattern for the sake of standardization. We have good reason to believe that one pays a substantial dollar and time price for converting to standard Air Force procedures. Undoubtedly, one sacrifices substantial flexibility and possibly contractor initiative and responsibility, which have been one of the program's prime assets to date.

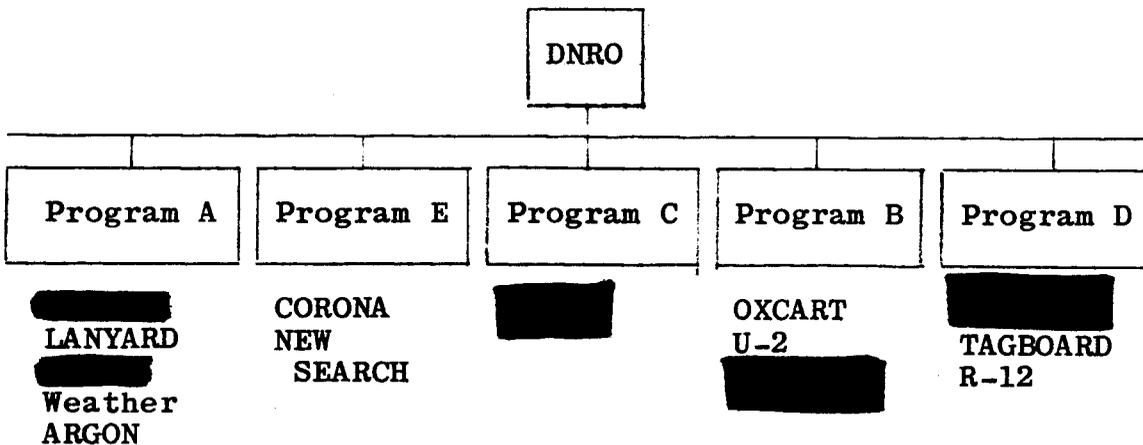
8. All told, the McMillan proposal is not a promising one. Its main effect is to subordinate existing management elements to a man with whom he has a command relationship. It provides no basis for confidence that the daily health of CORONA itself will continue or improve. It provides no adequate base for originating improvements or follow-on search systems. It would substitute orthodox Air Force procurement procedures for those of CIA at the critical contractors. Of course, his proposal is enormously pleasing to the uniformed Air Force, as it completes their monopoly of all satellite reconnaissance. It also eliminates CIA from the only program which could reasonably be used as a base for extension of its own satellite contribution as opposed to breaking into a closed market at some future time. However, the most important aspect of this whole proposal is that it establishes a sole source for satellite system with an organization that has not been particularly successful. I am therefore strongly motivated to find another solution.

C. PROGRAM E PROPOSAL

9. One can construct an alternate proposal by simply implementing the McMillan basic aim in the most straightforward way:

CREATE AN NRO PROGRAM E WHICH WOULD ACT AS A SINGLE POINT OF AUTHORITY WITHIN THE NRO TO WHICH WOULD BE ASSIGNED THE FULL RESPONSIBILITY FOR THE PRESENT CORONA, ITS IMPROVEMENTS, AND ITS SUCCESSORS.

This would provide a full time management for CORONA reporting directly to the DNRO, rather than through intermediaries concerned with other programs. The way in which NRO would then be organized is shown below. A prominent position for CORONA within the NRO is consistent with its overriding importance to the intelligence community, and is certainly far more justified than the [REDACTED]



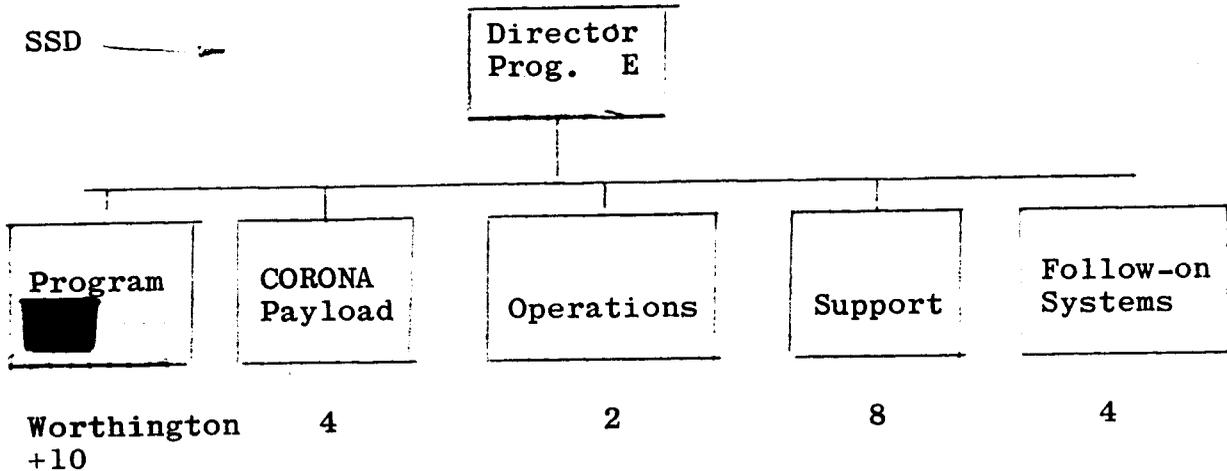
10. The creation of a satellite program directed primarily toward search systems would provide NRO with a much needed

focus on this problem. It is proposed that Program E be responsible for improving the present system and enthusiastic development of a successor in addition to caring for the daily health of existing systems. The Director of Program E would budget for and expend all of the funds necessary to fly the current model and develop follow-ons. His budget would also contain a line item for research in this field, which he could spend directly or delegate to appropriate supporting organizations.

11. A second source for satellite procurement and development would have a healthy effect on all organizations involved; Air Force, CIA and the contractors. Creative competition could then work to the advantage of the intelligence community, and contractors would once again have an alternate outlet for new concepts.

12. We have sized Program E and feel that it can be run with no more than twenty people reporting directly to the Director of Program E. Colonel Worthington's ten man Program [redacted] Office would stay organizationally within SSD but would report to and support Program Director E. The probable breakdown of such a program is shown below:

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13. We believe that the project office should be in Palo Alto so as to be colocated with the Agena Production Center, the payload integration and test facility (Skunk Works), and satellite operations center. An alternate siting would be Los Angeles. However, since the closest watch needs to be kept on Lockheed, the Program Director and his staff should probably operate from Palo Alto. This siting also provides a more independent base for development of new systems following the Livermore/Los Alamos analogy.

14. The last question is who should assume the basic responsibility for staffing and managing Program E. I would prefer that CIA assume the basic responsibility, as we now do for OXCART and the U-2s through Program B. However, I would prefer a completely separate Air Force organization

for CORONA to the [REDACTED] subordination plan now being advanced. CIA management of the program would ensure continuation of the same contractor relationships which have carried the program to its present state. It would also guarantee continued responsiveness to intelligence requirements in this crucial area. It would provide the base from which CIA activity in the satellite area could develop.

15. Before we assume such a responsibility, we must assure ourselves that we can quickly staff and operate Program E with the type of technical and support personnel which will ensure the program's immediate and long range success. We already have two technical men at the Skunk Works in Palo Alto supported by several security, contractor and communication people who could form an immediate nucleus. We have three technical men with specific satellite experience here at Headquarters who could be added to the program almost immediately. We also have a substantial reservoir of strong administrative, contracts, and security people in OSA who could be thrown into the program quickly. The essential link is the Program Director. I feel that John Parangosky is one of the better project engineers I have known and could handle

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the job in good form. He knows the entire contractor and government structure involved and is very highly regarded by all concerned. For this purpose, he could be made available on short notice and take charge in several weeks. For the long run, there is no doubt in my mind that our technical recruiting program is proving successful enough to staff the program indefinitely with top notch people.

16. We now have CIA communications into Palo Alto for the CORONA program and nominal supervision of the Skunk Works via our two payload operations men in residence there. Certainly, we are in as strong a position now as we are likely to be for some time to shoulder such a responsibility. Without such an opportunity for active participation, our existing assets will disappear and we will find it impossible to recruit new men.

D. SUMMARY OF FUBINI-McMILLAN-WHEELON DISCUSSION  
OF CORONA MANAGEMENT

17. The second regular NRO meeting was focused almost exclusively on the CORONA management problem. Fubini, McMillan and I discussed the matter exhaustively for two hours on 19 December 1963. They began by urging strongly that we direct any CIA effort toward a follow-on system and leave daily health of the present system to [REDACTED].

McMillan stated that he was convinced that the best thing that could happen to CORONA would be to freeze it firmly for the next two years, but indicated that McCone and Wheelon would crucify him for making such a motion. I opined that the idea had a good deal of merit, at least until we had a good idea for a follow-on. Their view is that [REDACTED] is a military man "who knows how to carry out orders" and would see that CORONA was frozen. I suggested that if freezing was the proper course, [REDACTED] was not unique in this respect.

18. We then returned to the invention and development of follow-on CORONAs in a separate organization. We agreed that we need a group other than Worthington's to worry about the future. We also agreed that in three years, [REDACTED] had come up with no good ideas. However, I questioned the wisdom of splitting the present program from its follow-on by having [REDACTED] do one and CIA the other. I reminded them that Purcell had recommended upgrading the present model by peaking its performance, rather than going to a new design. They finally agreed that to place the CORONA follow-on in a completely different organization would prejudice the issue and favor a new vehicle - or no change at all.

19. I then gave them my own proposal for creating a separate group (Program E) to be focused on the daily health

of the present system, successive upgrading of its performance, and development of follow-on systems. This single point of responsibility within the NRO is precisely what McMillan had wanted. However, rather than subordinate it to a man with many other programs, it would place it in a primary role, commensurate with its importance to the intelligence community. It would also provide an independent center for research and development directed toward the continuing search problem, rather than putting it in competition with the high resolution spotting systems and other Air Force needs. Fubini was visibly impressed by each of these arguments. Given an even start, I believe that he might cast his vote for the Program E plan. McMillan said very little except to question CIA's ability to man Program E. I got the definite feeling that his hands were tied to the [REDACTED] solution, if not by conviction, by his own previous proposals, and he will be very hard to move. However, I came away from my two hour discussion with a rising conviction that a separate NRO program for CORONA and its successors is far preferable to the [REDACTED] subordination proposal.