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~~SECRET~~ NATIONAL RECONNAISSANCE OFFICE

WASHINGTON, D.C.



OFFICE OF THE DIRECTOR

8 April 1971

MEMORANDUM FOR MR. PACKARD

SUBJECT: Future of Drones and Aircraft in Overhead  
Reconnaissance

For some time I have been considering making a recommendation to you that we eliminate NRO Program Office D which handles drones and aircraft for overhead reconnaissance purposes. Such an organization would also have an impact on the CIA/OSA covert U-2 capability which would allow them to make similar adjustments if appropriate. I have become increasingly convinced that we should be expending our efforts on upgrading our satellite activities, rather than trying to continue with air-breathing vehicles. We have not flown a U-2 over unfriendly territory since March 1968. The only overhead reconnaissance capability which we have at the moment with air-breathing vehicles and which stands a good chance of survival over defended areas is our SR-71s.

We have had essentially no successful drone coverage in our flights over China. To achieve this capability with drones, we will have to spend some more money. The Ryan 147 drones are considered obsolete for the purpose in mind. TAGBOARD is not obsolete, but has not yet reached an operational stage. During the past two years we have not spent any money on new TAGBOARD development activities, but have concentrated on trouble-shooting and fixing the current design. The program has operated at a very austere budget level during this period. Simultaneously, we have been considering terminating TAGBOARD. At each ExCom meeting there has been a question of whether to put it in storage or make one or two more flights. To date we have not faced up to the decision to either kill the program or to put it on a paying basis.

The advantage of manned systems and drones is supposed to be that they have a quicker reaction than satellites. In the case of

**TAGBOARD**

**CORONA**

**GAMBIT**

**HEXAGON**

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our U-2s and SR-71s, I think this is a real advantage. Nonetheless, the political atmosphere is such that there are no areas of the world of strategic significance where we are willing to have manned overflight of denied territory. I am sure the State Department would be overjoyed to hear that we had decided to spend future development money in upgrading our satellites rather than trying to improve our drones. The fact that we have the SR-71s for real emergencies allows us to make decisions about drones which we might not otherwise be willing to do. So far, we have not demonstrated that the TAGBOARD has the quick response capability which is needed. Neither do we have this capability in the satellites, so we will have to spend money to get such a quick response on one or both systems. I definitely believe such a capability is needed.

A substitute for quick response on the part of satellites is to have one in orbit all the time. We have discussed this over the past few months and have made the statement to Kissinger, Rogers, etc., that for about \$100 million a year extra we would have a satellite on orbit all the time. Although the requirement which they had in mind was a little different, having one on orbit all the time would take care of situations such as the South China weather problem. There we have the situation of the weather opening up for a period of a few days, but this usually happens when we don't have a satellite on orbit. We are moving already toward more days on orbit. For example, here are the actual and planned number of days on orbit from 1968 through 1974 for approved programs.

	<u>Total No. of Days in Orbit</u>						
	<u>(Calendar Year)</u>						
	<u>1968</u>	<u>1969</u>	<u>1970</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1974</u>
CORONA	116	79	76	15	(1)		
GAMBIT	67	68	63	76	108	108	114 <sup>(2)</sup>
HEXAGON	-	-	-	90	120	180 <sup>(3)</sup>	165
TOTAL	183	147	139	181	228	288	279

- (1) CORONA Missions 1115/6/7 are not included  
 (2) GAMBIT assumed to have 30 day life as of mid CY 74.  
 (3) HEXAGON assumed 45 day life starting CY 73 - 7th vehicle.

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A decision to have a vehicle on orbit continuously can be put into effect within a year. This is roughly the amount of time for the TAGBOARD to certify that it has indeed achieved a satisfactory degree of reliability so that we can trust it in flights over denied territory. I wonder if we would not be smart to spend our money on satellites rather than on drones.

The other capability which people seem to want is a daily return of data and we of course are getting ready for an April ExCom decision on whether we should develop this capability in the form of the near real-time EOI system or the FRO system or both. In order to acquire such a capability, which is some three or more years away, constraints have caused us to terminate all activities leading to a Very High Resolution system capable of some 1" to 5" resolution. In addition we are trying to achieve

An interim step towards satisfying the daily return of data is to fly our existing systems more often during the ensuing years so we have a current generation satellite on orbit every day until we have the new systems. Once the new systems are available, such a capability follows automatically (subject to our launch strategy). I am not in a position to state today what the financial implications of this proposal are, but I am already convinced that we should not spend very much money on fixing TAGBOARD when there are other less provocative things that we could do with satellites.

By saying that I believe we should get out of the use of drones and aircraft for overhead reconnaissance, I do not mean to imply that they do not have a continuing general reconnaissance role. Specifically, I think that we should use our U-2s and drones for more COMINT than we are now doing. We will shortly have good evidence on the capability of the U-2 in this role as they will soon start to fly in Southeast Asia. We already have Combat Dawn drone experience. This experience leads us to believe that there is indeed a future for this type of vehicle. Similarly, I believe that there is a weapons carrying role for drones which ought to be exploited. The Air Force HAVE LEMON (defense suppression) program will be the first step in demonstrating such a capability.

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If I decided to recommend closing down our office which handles airplanes and drones, the principal problem we would be faced with is what to do with the U-2s. I propose in that case that all U-2s go to the regular Air Force and that we have a contingency plan whereby these U-2s could (under NRO direction) be called back for use for overhead activities any time they are needed. This capability could be kept available through either overt or covert channels. Such a move of course has implications in both the supporting Air Force elements (Program D) and CIA/OSA. I am examining these areas before making a recommendation to you. I will be in touch with you as my thoughts on this matter become more concrete.

  
John L. McLucas

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