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Handwritten signatures and initials

19 December 1967

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MEMORANDUM FOR: Director of Central Intelligence
SUBJECT : OXCART/SR-71 Information for EXCOM Meeting

1. This memorandum is for your information only.

2. The EXCOM meeting scheduled for 1600 hours 20 December 1967 was called to review the scheduled phase-out of the OXCART program and determine if any revision in earlier decisions should be made. You will recall that the schedule agreed to earlier was removal of the OXCART from Kadena in late January or early February so that the SR-71 could be in place and assume responsibility for North Vietnam missions by 15 February. It was further agreed that we would maintain an operational capability at [redacted] through 31 March 1968 and that all aircraft would be placed in storage immediately after 31 March and [redacted] closed as soon thereafter as practicable.

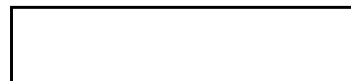
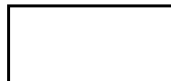
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3. During the last couple of months a number of activities have been carried out to determine readiness of the SR-71 to take on the mission and to reevaluate some of the relative capabilities of the OXCART and SR-71. The two major questions addressed were a comparison of the vulnerability of the two aircraft in the defensive environment of North Vietnam, and a comparison of the cameras and other on board equipment. Both studies have been completed and we presume that the EXCOM will be verbally briefed by NRO on the results. A paper summarizing the results of the

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NRO review(s) completed.

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studies has been made available for our review.

4. On the question of vulnerability, we went into the study knowing that the OXCART had a significant advantage in that it had three different proven jamming systems available for use with an option to use any appropriate combination of two on a given flight. The SR-71 had no proven countermeasure system available for use. As a result of the debates on vulnerability, the SR-71 project office looked into a wide variety of equipment and at the moment appears to have settled on using one of our jammers plus a new Air Force jammer that is in the experimental stage. In a computer simulation it appears that if these jammers actually perform to specification they will remove any advantage we had on vulnerability and in fact some numbers would argue that they might provide a slight improvement. It is important to stress, however, that one of these jammers had never been put on the SR-71 and our experience shows that a large number of technical problems have to be resolved before reliability is assured. Therefore, on this point we must note that if the jammer arrangement works as planned, the SR-71 will probably be able to survive in the North Vietnam environment, but based on our experience we think it foolish to commit the aircraft until thorough testing has been completed. We have serious doubts that such tests could be accomplished before the February date.

5. As to the so-called sensor evaluation, the comparison is clearer. Our camera covers some 63 miles in a single swath with resolutions varying from about 1-1/2 feet directly under the aircraft up to about 4-1/2 feet at the edges. Of course this is a proven capability with 22 missions flown and only 1 case in which a part of the mission did not result in a completely satisfactory camera operation. The SR-71 has 3 camera systems plus a

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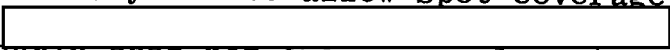
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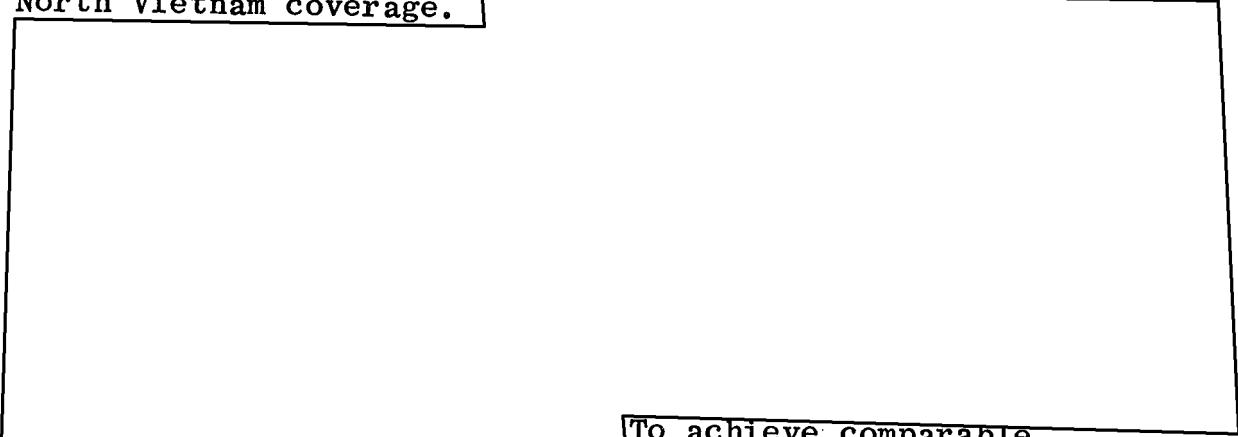
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The 3 conventional cameras are called: Terrain Objective, Operational Objective, and Technical Objective. The first of these, the Terrain Objective, is a mapping system and has no significance as an intelligence gathering device. The Operational Objective has about the same resolution as our camera but covers only some 23 miles even though 2 cameras are used. The Technical Objective was designed to be a high resolution system to allow spot coverage of individual targets



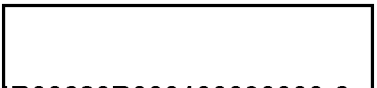
The tech camera clearly does not even come close to performing up to specifications and I think it will be agreed that it has no real capability to be helpful on the North Vietnam coverage.



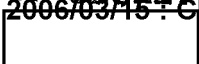
To achieve comparable coverage the SR-71 would have to fly two to three times as many missions. More important, however, is the fact that our schedule has been totally dictated by weather and it just isn't possible to fly three times as much as we have been doing unless you want to fly 2 or 3 aircraft on the same day. Our experience indicates that such a schedule would require 6 or more aircraft at Kadena rather than the 3 which we have been using. In any case, the cost per target coverage would clearly go up and we think by a factor of 3 or more.

6. I presume that a number of questions will be directed to you by Mr. Nitze. I have tried to anticipate

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a few of the most likely to help you in responding.

a. QUESTION: Is it possible for the Agency to continue to operate the OXCART beyond the dates when operations are now scheduled to be terminated?

b. ANSWER: Yes, it is possible to continue operations with the OXCART program if the decision to extend is reached now and additional funds are made available. However, even at this point in time our capability is becoming marginal indeed. We have already phased out 101 people and no replenishment is planned. Extension would necessitate immediate steps to acquire additional qualified personnel, particularly from the U. S. Air Force. Our spare parts picture is also marginal and orders placed even today would not provide various critical parts for several months. We would probably have to resort to cannibalism of some other aircraft until new parts are delivered. Although the contractors have been extremely cooperative, they, too, have been losing key personnel who are not interested in tying a career to a dying program. The contractors will need heat to keep enough qualified people on the program. The period involved in an extension is very critical. I feel strongly 3 months, i.e., through the end of the fiscal year, is the absolute minimum practicable and I consider it debatable whether an extension should be accepted unless for a considerably longer period. A day-to-day operation of this program is just not practical and I think we have been extremely fortunate that the morale of the people has remained sufficiently high to support a reliable operation. One more short extension in my view is a bit too much and I have great concern that we would fall flat on our face if we tried it.

a. QUESTION: Would you consider it a serious loss if the OXCART is brought home and the SR-71 is not successful in carrying out the type missions now being flown?

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b. ANSWER: Yes, it would be a significant loss in that should the SR-71 for any reason fail to provide the coverage now provided by BLACK SHIELD we would no longer have the present degree of confidence in our ability to detect the introduction of offensive missiles in North Vietnam. This in itself would be a serious intelligence gap; however, in addition to the loss of an offensive missile search capability, considerable information would be missing on the status of North Vietnam surface-to-air missile units, the pre-strike and post-strike coverage needed for target planning and bomb damage assessment, and the broad coverage of the North Vietnam logistics network. Admittedly, low level reconnaissance could fill some of the requirements, but at the likely additional expense of aircraft and crews. Coverage of the highly-defended Hanoi area would be sharply curtailed and intelligence on the road and rail network from Communist China would be seriously restricted. BLACK SHIELD support to tactical operations has been significant. The status of targets would be acquired only with additional risk of more aircraft and crews.

a. QUESTION: How much additional money would be required to continue the OXCART program through the end of this fiscal year?

b. ANSWER: It is estimated [redacted] in new NRO funds would be required. Since [redacted] has already been allocated for FY 68, this would raise the total NRO FY 68 funding to [redacted]. The [redacted] requirement for new funds is, therefore, roughly proportionate to the total operating cost for FY 68. It is noted that the total FY 68 estimate of [redacted] is substantially below the [redacted] estimate which we previously submitted and now forecast as a normal budget for 1 year. This is because, in consonance with phaseout guidelines, we have allowed our stocks to diminish well below the operating level we would have normally maintained. In addition, during

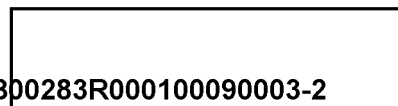
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this fiscal year we have eliminated many modifications and updating of items that would normally have been undertaken. The additional costs for the 3 months' extension are as follows:

	<u>Total FY 68</u>	<u>3 Months' Extension</u>
Aircraft maintenance and overhaul	[Redacted]	[Redacted]
Engine maintenance and overhaul		
Maintenance modifications and overhaul of airborne systems, etc.		
Operation and maintenance		
Pilots' salaries and equipment support		
FY 68 totals		
Less already allocated		
New funds required		

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a. QUESTION: How much would a full year's extension of the program cost?

b. ANSWER: An extension of the OXCART Program for 1 full year would be [Redacted] in NRO funds plus [Redacted] for fuel, and [Redacted] in CIA costs. (This is identical to the proposed annual budget which we presented to you on 11 December 1967.) The detail of the funds' requirement is as follows:

Aircraft maintenance and overhaul	[Redacted]
Engine maintenance and overhaul	
Maintenance modifications and overhaul of airborne systems, included: cameras, navigations, countermeasures, etc.	

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Operation and maintenance

Pilots' salaries and personal equipment

Total
Fuel
CIA Costs

a. QUESTION: Do you think it likely that requirements for use of this type aircraft will develop in areas other than North Vietnam?

b. ANSWER: I think our planning must be on that assumption. You will recall that there was a recent request from the Commander-in-Chief Pacific to cover North Korea with the OXCART but that request was disapproved by the 303 Committee. We certainly have continued concern about our lack of photographic coverage of South China and a situation could develop which would dictate the use of a more advanced aircraft there. We are still flying the U-2, but as

restrictions and limitations have increased. As the CHICOM Air Defense capability improves we may find it impossible to operate the U-2 in certain parts of China. Although I recognize that various drone programs have been scheduled to help fill this gap, it is my impression that none of these programs appear to be able to take the job on today and I gather that some of the developmental programs are having difficulty. In addition to the Far East, I have continuing concern about the Middle East and believe we may well face situations there in the next couple of years that will demand extensive aerial reconnaissance. Since the Russians have already provided good defensive equipment to some of the countries of concern in this area, I would have the same, or maybe even greater concern, for use of U-2s or drones in that area.

a. QUESTION: Is there any real difference between a CIA reconnaissance effort using civilian pilots and a purely military reconnaissance program using military pilots?

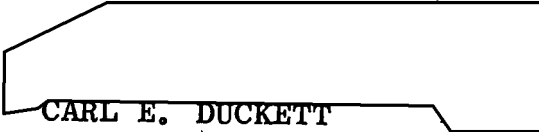
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b. ANSWER: The answer to this question depends on the world situation at the time and the actual individuals who make up the 303 Committee. I personally believe that there are times and situations when the government would be willing to approve manned reconnaissance overflights under civilian auspices while they would not approve a similar operation using military equipment and personnel. I continue, therefore, to be concerned about totally giving up the capability to exercise that option should the need arise. I base this not so much on whether the pilot is a military officer, but much more on the command control system that would be in use. As you know, we literally direct our manned reconnaissance program right from the Headquarters Building and I can personally intervene at any time even after the operation is underway. A significant side benefit is that the people directing the missions and the people doing the actual analysis of the information are in constant contact and each has a clear understanding of the other's problems, limitations, etc. I don't see a practical way for this kind of close relationship to exist if the operation is carried out under regular military procedures.

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 CARL E. DUCKETT
 Deputy Director
 for
 Science and Technology

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