

November 5, 1954

Mr. Allen W. Dulles  
Central Intelligence Agency  
Washington 25, D. C.

Dear Mr. Dulles:

Here is the brief report from our panel telling why we think overflight is urgent and presently feasible. I am not sure that we have made it clear that we feel there are many reasons why this activity is appropriate for CIA, always with Air Force assistance. We told you that this seems to us the kind of action and technique that is right for the contemporary version of CIA; a modern and scientific way for an Agency that is always supposed to be looking, to do its looking. Quite strongly, we feel that you must always assert your first right to pioneer in scientific techniques for collecting intelligence--and choosing such partners to assist you as may be needed. This present opportunity for aerial photography seems to us a fine place to start.

With best wishes,  
/s/ Edwin H. Land

Edwin H. Land, Chairman

For: Project 3, Technological  
Capabilities Panel  
Office of Defense Mobilization  
Executive Office of the President

Project Members:

E. H. Land  
James G. Baker  
Joseph W. Kennedy  
Edward M. Purcell  
John W. Tukey

1 Attachment  
Report

Approved for Release  
06 APR 1988

A UNIQUE OPPORTUNITY FOR COMPREHENSIVE INTELLIGENCE -- A SUMMARY

OPPORTUNITY

Collection of large amounts of information at a minimum of risk through prompt development of a special, high altitude airplane. Assurance of thousands of photographs that will yield critical analysis of vast Soviet complexes. Protection of mission by decisive altitude advantage over Soviet interception. This protection good for only a few years, thus assured only through very prompt action.

OBJECTIVES

Providing adequate locations and analyses of Russian targets including those newly discovered.

More accurate assessment of Soviet Order of Battle and of early warning indicators, thus improving our defenses against surprise attack.

Appraising Soviet guided missile development (through photos of test range, etc.).

Improving estimates of Soviet ability to deliver nuclear weapons and of their capability to produce them.

Disclosing new developments which might otherwise lead to technological surprise.

Appraising Soviet industrial and economic progress.

ORGANIZATION

Secret task force under Central Intelligence Agency with strong Air Force staff assistance to equip and carry out entire mission up to point where flow of useful new intelligence is established. Task force to include top experts selected from Government agencies, armed services, universities and industry to provide for most effective application of science and technology toward fulfillment of this objective.

VEHICLE

Special "powered glider" CL-282 aircraft proposed by Lockheed. ALTITUDE - 70,000 feet. SPEED - 500 kt. RANGE - 3,000 n.mi. GROSS WEIGHT - 15,000 lbs. TAKE-OFF DISTANCE - 1,200 feet. CREW - lone pilot in heated, pressurized suit. AVAILABILITY - four aircraft for field use in 17 months assured by Lockheed.

## CAMERAS

Standard Trimetrogon for charting entire overflown strip. Focal lengths from 12 - 48 inches to be used in multiple mounts for main work load. Special long focal length spotting camera for detailing concentrated areas down to objects as small as a man. Clear identification of Roads, Railroads, Power Lines, Industrial Plants, Airfields, Parked Aircraft, Missile Sites and the like within a strip 200 miles wide by 2,500 miles long per flight.

## SCHEDULE

New intelligence to start flowing within twenty months.

## COST

\$22,000,000 to initial flow of significant intelligence. (Includes procurement of design, development and test of six CL-282 aircraft, training and operation of special task force and initial logistic support.)

5 November 1954

MEMORANDUM FOR: Director of Central Intelligence

SUBJECT: A Unique Opportunity for Comprehensive Intelligence

For many years it has been clear that aerial photographs of Russia would provide direct knowledge of her growth, of new centers of activity in obscure regions, and of military targets that would be important if ever we were forced into war. During a period in which Russia has free access to the geography of all our bases and major nuclear facilities, as well as to our entire military and civilian economy, we have been blocked from the corresponding knowledge about Russia. We have been forced to imagine what her program is, and it could well be argued that peace is always in danger when one great power is essentially ignorant of the major economic, military, and political activities within the interior zone of another great power. This ignorance leads to somewhat frantic preparations for both offensive and defensive action, and may lead to a state of unbearable national tension. Unfortunately, it is the U.S., the more mature, more civilized, and more responsible country that must bear the burden of not knowing what is happening in Russia. We cannot fulfill our responsibility for maintaining the peace if we are left in ignorance of Russian activity.

While aerial photography could be the most powerful single tool for acquiring information, it has until now been dangerous to fly over Russia. Up till now, the planes might rather readily be detected, less readily attacked, and possibly even destroyed. Thus no statesman could have run the risk of provocation toward war that an intensive program of overflights might produce. The Air Force has, for a long time, studied a program of overflight as a natural aspect of its Reconnaissance mission and has, in recent months, considered several proposals for airplanes designed for this purpose. While it is important that such research and development continue in the Air Force, for the present it seems rather dangerous for one of our military arms to engage directly in extensive overflight.

On the other hand, because it is vital that certain knowledge about industrial growth, strategic targets, and guided missile sites be obtained at once, we recommend that CIA, as a civilian organization, undertake (with the Air Force assistance) a covert program of selected flights. Fortunately a jet-powered glider has been carefully studied by Lockheed Aircraft Corporation for overflight purposes. This manufacturer proposes to take full responsibility for the design, mock-up, building, secret testing and field maintenance of this extraordinary and unorthodox vehicle, making it feasible for a CIA task force to undertake this vital activity. Such a task force requires highly specialized and able guidance in procurement and operation (by Air Force officers for aircraft, by scientists for photographic and electronic equipment). The Lockheed super glider will fly at 70,000 feet, well out of reach of present Russian interception and high enough to have a good chance of avoiding detection. The plane itself is so light (15,000 lbs.), so obviously unarmed and devoid of military usefulness, that it would minimize affront to the Russians even if through some remote mischance it were detected and identified.

Since the proposed mission of this plane is first of all photographic, and only secondarily electronic, a word should be said about the information expected from the photographs, as well as about the effects of the cloud cover over Russia. Photographs are appended that demonstrate the large information content of pictures taken from these great altitudes. A single mission in clear weather can photograph in revealing detail a strip of Russia 200 miles wide by 2,500 miles long. Cloud cover will reduce completeness, of course, but clouds are not a serious obstacle because one can afford to wait for good weather; alternate routes over clear areas can be selected in flight; and finally, the number of intelligence targets accessible during a single mission is so large that even a partial sampling would yield an extraordinary amount of intelligence.

The opportunity for safe overflight may last only a few years, because the Russians will develop radars and interceptors or guided missile defenses for the 70,000 foot region. We therefore recommend immediate action through special channels in CIA in procuring the Lockheed glider and in establishing the CIA task force. No

proposal or program that we have seen in intelligence<sup>1</sup> planning can so quickly bring so much vital information at so little risk and at so little cost. We believe that these planes can go where we need to have them go efficiently and safely, and that no amount of fragmentary, and indirect intelligence can be pieced together to be equivalent to such positive information as can thus be provided.

It is recommended that

(a) The Central Intelligence Agency establish an initial task force to complete any necessary feasibility studies in a few weeks, and that, assuming successful completion of the studies, the following further actions be taken.

(b) A permanent task force, including Air Force supporting elements, be set up to provide guidance on procurement, to consolidate requirements and plan missions in view of priority and feasibility, to maintain the operation on a continuing basis, and to carry out the dissemination of the resulting information in a manner consistent with its special security requirements.

(c) The procurement of a coordinated system from Lockheed, consisting of CL-282 aircraft with photographic and electronic equipment, be authorized.

(d) Such high altitude overflights be authorized in principle.