

APPROVED FOR
RELEASE DATE:
16-Jul-2011

HR70-14

APPROVED FOR RELEASE
DATE: MAR 2002

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7 January 1955

PROJECT OUTLINE

PROPOSAL

In collaboration with the Air Force, to undertake the procurement of (a) 20 high altitude aircraft, (b) photo-reconnaissance equipment, and (c) electronic-reconnaissance equipment, and to prepare for and conduct extensive overflights of the Soviet Bloc in order to provide photographic and, secondarily, electronic intelligence. (Project AQUATONE)

SITUATION

The Lockheed Aircraft Corporation has proposed a very-high-altitude, jet-powered aircraft (designated CL-282). The Corporation is willing to take full responsibility for the design, mock-up, building, secret testing, and field maintenance of this unorthodox vehicle. It therefore appears entirely feasible for a CIA task force to undertake a covert overflight program based upon the CL-282, which 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.

Photographic equipment can be developed which will enable extraordinary intelligence content to be obtained with pictures taken from great altitudes. A single mission in clear weather can photograph a strip of Russia 200 miles wide and 2200 miles long. A spotting camera will take pictures in which the individuals in a city street can be counted from 70,000 feet. Cloud cover will reduce completeness but is not a serious obstacle because missions can be scheduled for good weather and alternate routes for clear weather can be selected in flight.

Analogously, it is believed that automatic electronic intercept equipment (ELINT gear) can be developed which will provide from each overflight essential intelligence data as to locations, characteristics, capabilities, ranges and purposes of Soviet radar, homing identification and missile guidance systems. The possibility that otherwise inaccessible internal U.S.S.R. ultra-high-frequency links might be intercepted and recorded for communications intelligence analysis will also be explored.

The opportunity for safe overflight with the best equipment that can be built at this time will last only a year or

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so because the Soviets will develop radar and interceptors or guided missiles effective for the 70,000-foot region. The CL-282 can be developed and produced extraordinarily rapidly because it is based on a fighter aircraft already in production and uses an engine already tested. Moreover, experience with this aircraft will contribute significantly to the ability of the United States to maintain a lead in the development of still higher altitude aircraft and thus to maintain a safe overflight capability. Therefore, time is of the essence if the existing opportunity is to be exploited and to be extended by continuing development.

OBJECTIVES

Although undertaken primarily to collect photographic and electronic intelligence, this operation will serve a variety of purposes of interest to various parts of the United States Government. The CL-282 will have major utility as a high altitude test platform. The research to be undertaken will include the testing of engine performance, pressurization, and the functioning of auxiliary equipment of all kinds as well as of electronic and photographic equipment at high altitudes. It will also include a study of the capabilities of personnel to perform missions requiring sustained flight at high altitudes and of the utility of equipment furnished to permit personnel to function more effectively. The aircraft will probably be useful also for high altitude air sampling. In the field of intelligence, the operation should contribute significantly to the attainment of the following objectives:

- a. Improve estimates of Soviet ability to deliver nuclear weapons and their capacity to produce them.
- b. Appraise Soviet guided missile development through photographs of testing ranges, etc.
- c. Assess the Soviet order of battle as an early warning indicator.
- d. Provide adequate locations and analyses of Russian targets.
- e. Disclose new developments which might otherwise lead to technological surprise.

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f. Appraise Soviet industrial and economic progress.

COST

The cost of procurement of materiel by this Agency under the program here proposed is expected to total approximately , virtually all of which will have to be obligated in FY 1955. It can be broken down as follows:

EO 12958 3.4(b)(1)>25Yrs

20 Airframes, together with maintenance and testing equipment for the testing of the first one to be delivered

6 complete sets of photographic equipment, each set consisting of 3 configurations

12 sets of electronic search equipment to be used on photographic missions, together with 3 sets of automatic FERRET equipment

EO 12958 3.4(b)(1)>25Yrs

Additional field maintenance equipment

TOTAL

The margin of error in these figures probably does not exceed and it is believed highly unlikely that the total materiel costs could amount to more than . The estimates assume that the Air Force will furnish as a contribution to the project and without cost to the Agency (a) technical assistance and supervision, (b) all equipment regularly furnished as government furnished equipment, including especially 40 engines, and (c) transportation of materiel and personnel to test sites.

In addition to the above, certain non-materiel costs will be incurred in the course of preparation for the mounting of the operation. These will be primarily (a) administrative costs, including especially the cost of developing photo-intelligence and electronic-intelligence requirements, and of mission planning, (b) the cost of pilot recruitment and training, and (c) some part or all of the cost of testing initial items of equipment in the United States. It is expected that

EO 12958 3.4(b)(1)>25Yrs

3

TS-103219

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EO 12958 3.4(b)(1)>25Yrs

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administrative costs can be largely absorbed in existing budgets. Pilot recruitment and training costs might reach a total of [] of which the major part would represent the cost of flight training which is provided by the Air Force and for which the Air Force is normally reimbursed. If the Air Force is prepared to absorb this item, the cost to the Agency of recruitment and training should not exceed [] of which the major part will fall in FY 1955. The cost of the testing program has not yet been estimated. It will fall entirely in FY 1956.

EO 12958 3.4(b)(1)>25Yrs

The above figures contain no allowance for (a) any major costs that may be incurred in the acquisition or preparation of operational bases, (b) the cost of actually mounting the operation, including pay and subsistence of personnel, transportation of personnel and materiel to and between operational bases, and field maintenance, and (c) the cost of processing photographic film and electronic tape.

ORGANIZATION

In view of the clandestine character of the proposed operation, its nature, and the varied results expected to flow from it, it is proposed that this undertaking be organized as a joint CIA/Air Force project in which the CIA will undertake procurement as indicated above, with the assistance of the Air Force in all phases, and will conduct overflights as a clandestine operation. Within the CIA, the Special Assistant to the Director for Planning and Coordination, (SA/PC/DCI) will be in charge of the project, with Mr. Herbert Miller as Executive Officer. He will be supported by other officers temporarily assigned on a part-time or full-time basis as appropriate. Sub-projects will be organized forthwith as components of AQUATONE covering the performance of all the following functions:

1. Airframe procurement (Project [])
2. Procurement of photo-reconnaissance equipment (Project [])
3. Development and procurement of electronic equipment (Project [])
4. Assembly and formulation of photo-intelligence requirements (Project [])
5. Assembly and formulation of electronic-intelligence requirements (Project [])
6. Pilot recruitment and training (Project [])

EO 12958 3.4(b)(1)>25Yrs

EO 12958 3.4(b)(1)>25Yrs

4

TS-103219

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At a later stage, other component projects will be organized as required.

RECOMMENDATION

It is recommended

- a. That the project be approved as outlined above.
- b. That the Special Assistant to the Director for Planning and Coordination be designated as the official in charge of the project and as Approving Officer, subject to the guidance of the Deputy Director of Central Intelligence and the Director of Central Intelligence.
- c. That the procurement of the airframes, photo-reconnaissance equipment and electronic equipment up to the amounts indicated above be authorized, subject to the following provisions:
 - (1) Procurement and contractual arrangements will be those normally employed by the Agency, with such exemptions and restrictions designed to achieve maximum security as may be approved by the Approving Officer.
 - (2) All contractual and procurement documents, arrangements and commitments will be specifically approved in advance by the General Counsel.
 - (3) All commitments and documents which obligate funds in excess of [] will be approved by the Director of Central Intelligence.
 - (4) Appropriate documentation will be obtained from the Air Force and from competent technical advisers in support of procurement contracts and the specifications and descriptions of materiel to which they refer.
- d. That the recruitment and training of pilots and any other action necessary in preparation for the mounting of overflights be authorized, together with expenses incidental thereto initially up to the amount of []
- e. That the Comptroller be authorized to expend funds in the manner and to the extent approved by the Approving Officer within the limitations as to quantity and procedure set forth above.

5

TS-103219

EO 12958 3.4(b)(1)>25Yrs

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f. That the Approving Officer be authorized to arrange for the necessary gathering and formulation of intelligence requirements and mission planning, in cooperation with the Air Force as appropriate.

g. That the Approving Officer be directed to maintain the closest possible security over all phases of AQUATONE.

(Signed)

R. M. BISSELL, JR.
Special Assistant to the Director
for Planning and Coordination

CONCUR:

/s/ C. P. CABELL
Deputy Director of Central
Intelligence

/s/ ROBERT AMORY
Deputy Director (Intelligence)

/s/ RICHARD HELMS for
Deputy Director (Plans)

/s/ LAWRENCE K. WHITE
Deputy Director (Administration)

/s/ LAWRENCE R. HOUSTON
General Counsel

APPROVED: 10 Jan 1955

/s/ A. W. DULLES
Director of Central Intelligence

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