Handle via BYEMAN Control System

Approved for Release: 2021/04/09 C05099191

CENTRAL INTELLIGENCE AGENCY WASHINGTON, D.C. 20505

> BYE-2936-64 Cy<u>3</u> 10 JUL 1964

MEMORANDUM FOR: Director, (8) National Reconnaissance Office

SUBJECT : CIA/NRO Fiscal Year 1966 Budget

l. In accordance with your request contained in BYE-22587-64, dated 10 April 1964, attached is the CIA/NRO Fiscal Year 1966 Budget.

2. The attachments to this memorandum are as follows: Tab A is the summary of the Fiscal Year 1966 Budget; Tab B (with Attachments I, II, III, and IV) is the funding required by project for the Fiscal Year 1966 and includes justification of applicable items. Additionally, all program costs are on an obligational basis.

3. As you will recall, our operational concepts for Fiscal Year 1966 were included under Tab A and B of our Fiscal Year 1965 Budget; therefore, they are not included in this submission.

4. Inasmuch as the Fiscal Year 1966 Budget Estimate is subject to less precise justification than Fiscal Year 1965, it is necessarily open to speculation. Accordingly, I consider it necessary in deliberations on the attached budget that I or a representative from my staff take part.

[[Signed] Jack C. Ledford

JACK C. LEDFORD Colonel USAF Director, Program B, (8)NRO

Attachments: As Stated Above

GROUP 1 Excluded from zutomatic

downgrading and declassification

OXCART/KEDLOCK ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

> tiandle via BVEMAN Control System

<u> 700</u>	<u>CEODER</u>
101	OLUSILI

TAB A

SUMMARY - CIA/NRO 1966 BUDGET

(In Thousands of Dollars)

	PROJECT	ESTIMATE FY 1966
,Ι.	AIRCRAFT:	
	OXCART - KEDLOCK IDEALIST STSPIN AIRBORNE COLL./COUNT. ISINGLASS	$ \begin{array}{r} 194,147 \\ 16,996 \\ 37,028* \\ 4,050 \\ 12,450 \\ 8,000 7 \end{array} $
II.	SATELLITES:	
	FULCRUM	156,900
III.	BALLOONS:	
	ELINT (AKINDLE) PHOTO	7,000 6,400
IV.	GENERAL:	
а. С	PHOTO MATERIEL AND PROCESSING EXC R&D ADVANCE R&D	18,500 2,600 <u>7,000</u>
	TOTAL	

*If decision is made to convert SAC A/C rather than buy U-2L's, the IDEALIST budget will be reduced as reflected on page 18A and B.

OXCART/KEDLOCK/ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

TOP SEPT

TAB B

AIRCRAFT (ATTACH I)

(In Thousands of Dollars)

OXCART	194,147
KEDLOCK	16,996
IDEALIST	37,028*
STSPIN	4,050
AIRBORNE COLL/COUNT	12,450
ISINGLASS	8,000
TOTAL	272,671

*If decision is made to convert SAC/A/C rather than buy U-2L's, the IDEALIST budget will be reduced as reflected on page 18A and B.

		OXCART/KEDLOCK/	1
	CIPDEN	ISINGLASS/STSPIN/IDEAL	IST/
I CH	olonil I	FULCRUM/ZOSTER/AKINDLE,	

IUI OLDIEI

(In Thousands of Dollars)

OXCART

Airframe Support		57,951
Engines:		•
R&D Support	80,000 23,936	103,936
Cameras:		
Perkin Elmer Eastman Kodak Hycon	3,600 1,500 2,100	7,200
Radar		1,000
Guidance:		
INS Auto Pilot	2,800 1,000	3,800
Construction		1,600
Operations & Maintenance '		6,500
Airborne Elect Equipment		1,945
Other		10,215
TOTAL		194,147

2 20. econst

ULUHI!

Approved for Release: 2021/04/09 C05099191

رك 🖞

OXCART/KEDLOCK/ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/ Approved for Release: 2021/04/09 C05099191 la vez di se construire di la construire di

(In Thousands of Dollars)

1. OXCART SERVICE CONTRACTS

Base Support (CA-20) а.

This includes instrumentation calibration, operation of base support shops, maintenance of ground support equipment, tool crib/operation, maintenance of chase and administrative aircraft, material handling, inspection test and repair of GFE, Investigative and Safety Engineering Services, Telephone and TWX services and accommodation sales.

Flight Test (FT-21) 23,539 b.

This covers flight test operations crews for A-12, design engineer support, B-6 shop support, repair, overhaul and modification of airplane parts and B-6 material handling.

ECO/ECP and Spares (CT-22) 24,940 C.

ECO/ECP	12,900
Spares	12,040

d. Technical Representatives (SC-23)

6,527

2,945

Following represents TAGBOARD e. Share of above Contracts (not included above):

CA-20	481
FT-21	3,940
CT-22	4,060
SC-23	450
	8,931

OXCART/KEDLOCK/ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

Approved for Release: 202 C05099191

3

ATTACH I

(In Thousands of Dollars)

2. ENGINE RESEARCH AND DEVELOPMENT

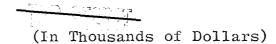
This estimated amount is to support the test stand operation for improvement in performance and durability. This test stand activity further supports the flight test program by surfacing, defining, and resolving high Mach number problems plus confirming feasibility of fixes. P&W experience confirms that R&D programs minimize overhaul and retrofit costs plus insuring immediate response to arising problems, thereby precluding lengthy groundings. 80,000

ATTACH I

OXCART/KEDLOCK/_____ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

Approved for Release: 2021/04/09 C05099191

4



3. ENGINE SUPPORT

a. Spares, GSE

17,850

This item covers profit-bearing spares and GSE for the OXCART program only. As in previous years, this is based on the currently estimated consumption rate and ECO/ECP use.

b. Overhaul

The ratio of four overhauls per month should continue through FY-66, with a total of about 50 overhauls necessary during the year. This amount is for OXCART only.

c. Tech Reps

1,781

4,305

This figure is for OXCART only.

d. TAGBOARD share of total Pratt & Whitney costs is as follows:

Spares	3,060
Overhaul	738
Tech Reps	289
,	4,087

These figures are for information only and are not included in the total above.

5

Approved for Release: 2021/04/09 C05099191

102

(In Thousands of Dollars)

4. OXCART CAMERAS

a.	Perkin Elmer Type I		3,600
	Complete cameras number seven and eight	300	
	Tech Reps	1,300	
	High level technical support	300	
	Maintenance and Over- haul	1,100	
	Spares and other equip- ment	600	
b.	Eastman Kodak Type II		1,500
	Tech Reps	400	
	Maintenance and Over- haul	500	
	Spares and other equip- ment .	600	
c.	Hycon Type IV		2,100
	Maintenance and Over- haul	400	
	Spares	200	
	Tech Reps	300	
	New Systems (3)	1,200	

OXCART/KEDLOCK ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

6

ATTACH I

(In Thousands of Dollars)

5. OXCART RADAR

Covers maintenance and field support of the side looking radar program.

OXCART/KEDLOCK/// ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

ATTACH I

3,800

(In Thousands of Dollars)

6. OXCART GUIDANCE

a.	INS		2,800
	Technical Representa- tives	700	
	Overhaul and Repair of Systems	1,000	
	Spares	1,100	
b.	Auto Pilot		1,000
b.	Auto Pilot Technical Representa- tives	300	1,000
ď.	Technical Representa-	300 400	1,000

OXCART/KEDLOCK/ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

(In Thousands of Dollars)

7. OXCART CONSTRUCTION

Construction contemplated is additional lab space, replacement of trailers with BOQ type facilities, small warehouse, additional fuel storage tank, expansion of utilities distribution lines, paving of additional roads and streets, expansion of REECO maintenance shops, new theater building, new control tower, and runway rehabilitation. Also included in this amount is \$100 for Fairhall A & E. 1,600

OXCART/KEDLOCK/ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

ل منطقات من فاطاط Approved for Release: 2021/04/09 C05099191

ATTACH I

(In Thousands of Dollars)

8. OXCART OPERATIONS AND MAINTENANCE

The FY-66 M&O Budget is based on supporting an average Area 51 population of 1650 people. Approximately \$300 will be allocated to pay for cost of operation of the C-47 shuttle aircraft on the Las Vegas - Area 51 shuttle run.

> OXCART/KEDLOCK/ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

ATTACH I

(In Thousands of Dollars)

9.	OXCART	AIRBORNE	ELECTRONIC	EQUIPMENT	1	.94	45	ź
----	--------	----------	------------	-----------	---	-----	----	---

a.	Equipment	modification	825

b. Field Support 1,120

OXCART/KEDLOCK/ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

Approved for Release: 2021/04/09 C05099191

file ina esta

ATTACH I

(In Thousands of Dollars)

10. OXCART OTHER

ITEK Processor а.

This cost covers field service representatives, minimal spares provisioning, plus costs associated with the flight test program at Area 51. Three or four field technical representatives are planned for FY-66.

b. Air Transportation

Our estimate for this item is that costs will approximate those for FY-65. This covers the maintenance and operation of three constellations the Burbank - Area 51 shuttle run, plus on-call utilization of a Lockheed Jetstar for test and other transport use.

E. G. & G. с.

As in FY-65, our estimates cover four basic areas of overall effort: Operations, System Growth, Research and Applied Physics and Planning and Management. The major portion of the program, "Operations", covers the cost of operating the model and flight ranges at Area 51, plus modifications to the systems as required.

d 。 Firewel

The emphasis on improvement of pilot comfort and equipment reliability will require a fairly constant effort in this regard, and this amount represents a reasonable estimate of costs associated with this item. Also included in this amount is the cost of the five technical representatives at Area 51.

3,000 -3,80

8,000 10,215

700 17

1,650 / 450

1,140 /

OXCART/KEDLOCK/ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

12

· ATTACH I

445 V

(In Thousands of Dollars)

e.

This included funds for suit overhaul, spares support and tech reps at Area 51.

f. Staging Equipment 870 -\75

Equipment which will be purchased includes GSE and items peculiar to staging operations

g. Sub-Systems R&D 1,500 (),

This will provide money for modifications of equipment and for general sub-systems developmental work.

h. Pilot Salaries500 /i. Survival Equipment30 /j. NARMCO Anti-Radar380 /

Level of effort to continue approximately the same basis as in FY-65.



13

and an annual d

ATTACH I

(In Thousands of Dollars)

KEDLOCK

16,996

Airframes Support	11,160	4
Engine Support	5,697	
Guidance:		

INS	None	
A/P	139	
		139

OXCART/KEDLOCK/ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

14

۰.

.

ATTACH I

.

ч,

(In Thousands of Dollars)

KED	LOCK SERVICE CONTRACTS		11,16
a.	Base Support (CA-20)	900	
b.	Flight Test (FT-21)	2,460	
с.	ECO/ECP and Spares (CT-22)	6,000	
	ECO/ECP 3,000 Spares 3,000		
d.	Technical Representa- tives (SC-23)	1,800	
KED	LOCK ENGINE SUPPORT		5,697
a.	Spares, GSE	4,590	
b.	Overhaul	1,107	
KED	LOCK GUIDANCE		139
a.	INS	None	
b.	Auto Pilot:		
	Tech Reps	40	
	Factory Support and Liaison	71	
	Spares	28	

OXCART/KEDLOCK/ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

15

Approved for Release: 2021/04/09 C05099191-----

ATTACH I

(In Thousands of Dollars)

IDEALIST (U-2L)

Tech Reps	3,806
T.M and Spares	8,000
Cameras	4,800
Airborne Electronics	4,242
Aircraft Procurement	6,300
Engine Procurement	7,280
Improved Aero-Med Equipment	1,500
Construction	500
Operations and Maintenance	160
Salaries	440
TOTAL	37,028*

*See page 18 A and B for supplemental IDEALIST budget.

OXCART/KEDLOCK/ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLlApproved for Release: 2021/04/09 C05099191

ATTACH I

(In Thousands of Dollars)

IDEALIST (U-2L)

The costs listed below represent the funds required during FY-66 to phase-out the U-2 and phase-in the U-2L to an operating force level of nine aircraft:

1. Tech Reps

Of the \$3,806, \$2,806 represents technical support on both the U-2 during phase-out and the U-2L. The \$1,000 remaining is for restraining Tech Reps and additional Tech Reps required during transition.

2. T.M and Spares

\$6,000 is for spares required to support the nine aircraft force level of U-2L's and \$2,000 will be required during phase-out of U-2.

3. Cameras

\$3,200 of the \$4,800 is for the purchase of eight additional Delta II's or comparable camera for the U-2L. The remaining \$1,600 is for product improvement and new camera systems, i.e., I.R., color, etc.

4. Airborne Electronics

Included in the \$4,242 is \$3,432 for purchase of nine Electronic Collection packages (at approx. \$220 ea.) plus 30% spares. The remaining \$810 is for mods to present equipment plus general support.

5. Aircraft Procurement

The \$6,300 represents the final cost for airframes (on a buy order of 25 aircraft). Agency aircraft requirements for next five years will be a total of 18 to maintain a nine aircraft operational force level. Total Agency airframe costs (18 at \$1,100 each) are \$19,800 (\$13,500 in FY-65).

17

CARTANTARA

OXCART/KEDLOCK/ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

Approved for Release: 2021/04/09 C05099191

4,800

8,000

3,806

4,242

tur character

ATTACH I

(In Thousands of Dollars)

6. Engine Procurement

*7,280

The \$7,280 is to procure twentysix J-75 engines (at \$280 each) to meet IDEALIST requirements during next five-year period.

7. Improved Aero-Med Protective Equip. *1,500

Of the \$1,500, \$175 is development costs for bigger chutes and integrated harness, \$125 is to test above, \$150 for R&D to reduce size and weight of oxygen system plus the procurement of 14 sets of equipment produced at \$75 each.

* When the U-2L Program is approved, portions of these cost will have to be advanced to FY-65 in order to initiate production and R&D of the respective projects.

OXCART/KEDLOCK/ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

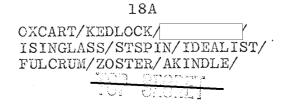
TOT SERVIT

ATTACH I

(In Thousands of Dollars)

IDEALIST (Convert SAC A/C)

Tech Reps	2,806
T. M. and Spares	7,500
Cameras	4,800
Airborne Electronics	4,242
Construction	500
Operations & Maintenance	160
Salaries	440
TOTAL	20,448



<u>ioi</u> dadaal

ATTACH I

(In Thousands of Dollars)

IDEALIST (Convert SAC A/C)

1. Tech Reps

2,806

The 2,806 represents normal technical support for a 9 A/C force level and includes provisions for new systems support in FY 1966.

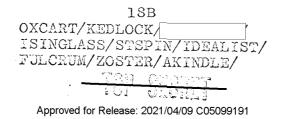
2. T. M. & Spares

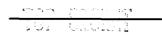
7,500

Represents normal spares support for 9 A/C force level plus two conversions.

3. <u>Cameras</u> (Same as U-2L) 4,800

4. Airborne Electronics (Same as U-2L) 4,242





(In Thousands of Dollars)

STSPIN

550
4,050

OXCART/KEDLOCK/
ISINGLASS/STSPIN/IDEALIST/
FULCRUM/ZOSTER/AKINDLE/
19

ی ۲۰۰۰ د د به رو در در د

Ten energy

ATTACH I

(In Thousands of Dollars)

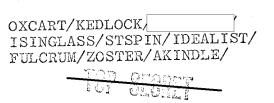
STSPIN

1. Aircraft Procurement

This represents the fourth aircraft in the program. It will be racked and wired for use on operational missions when other aircraft are in IRAN, undergoing modifications or the loss of an aircraft. In addition, it is to be used as a training vehicle. \$2,600 is for aircraft procurement, and \$900 is for 100% spares and initial outfitting.

2. Aircraft Modification

Costs for racking, wiring and other mods less major flight testing of SIGINT equipment.



20

Approved for Release: 2021/04/09 C05099191

550

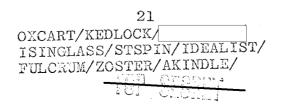
<u>ter ezemi</u>

ATTACH I

(In Thousands of Dollars)

AIRBORNE COLLECTION/COUNTERMEASURES

1.	Aircraft Systems Dev.	
	a. ECM Eq.	5.000
	b. R&D Defense Techniques	2.500
	c. ELINT Eq. Augmentation	1.500
	d. Field Test Support	.700
2.	Parameter Measurement and Stimelint	
	a. Signal Measurement	1.250
	b. Subsonic ELINT Probe	.500
3.	Supporting ELINT R&D	1.000
	TOTAL	12,450



ATTACH I

(In Thousands of Dollars)

AIRBORNE COLLECTION/COUNTERMEASURES

1. Aircraft Systems Development

ECM Equipment Development а.

5,000

(1.) The capability of the False Target Jammer will be increased to cope with 40 type radars simultaneously. There are areas such as Leningrad where the present jamming capacity of 15 type radars is not adequate. Additional development is required to enable the equipment to accommodate the full threat. This equipment is part of the OXCART collection of defensive gear.

(2.) Development of a missile fuze jammer will be initiated following a feasibility study to be conducted in FY 1965. It is contingent upon having obtained some basic fuze parameters, i.e., frequency band and fuze type, on which to base a design. Two basic designs may be required, one to work against the SAM fuze, the other to work against an air-to-air fuze. The development will support either OXCART or IDEALIST (SAM fuze), or STPOLLY/STSPIN (air-to-air fuze).

(3.) Defensive equipment for the U2 will be updated. A study will be made of the threat to be faced by the U2 Prototype ECM gear will be built to deal effectively with an environment which includes the SAM and air-to-air threat. Existing techniques will be used if they are effective over the required time frame. Common signal handling or processing circuitry in the ELINT equipment, i.e., antennas and receivers will be used to minimize the weight and size of the defensive gear. The best candidate for SAM defense is a repeater type jammer with improved

<u>1.22</u> - johnama

OXCART/KEDLOCK ISINGLASS/STSPIN/IDEALIST/ Approved for Release: 2021/04/09 C05099191 FULCRUM/ZOSTER/AKINDLE/

We Children

(In Thousands of Dollars)

AIRBORNE COLLECTION/COUNTERMEASURES 1(3.) Continued

immunity to spoofing. For air-toair defense an inverse gain repeater with a high power output, i.e., greater than 10 watts is promising.

b. R&D Defense Techniques

In the period through 1970 the electronic defensive capability of the Soviet, Chinese and other Satellite government forces will improve. This increased capability can include the use of CW, frequency diversified, wideband frequency dispersed, and laser type radars, with improved ECCM capabilities. Further it is anticipated that the SAM guidance and control systems will be alerted and improved to reduce their vulnerability to jamming or spoofing. During this same period there will be increased requirements to maintain closer track and control of overflight aircraft. In order to meet these challenges the effort now being applied and those programmed for FY 65 will have to be supplemented by better track and control systems to meet the demands for tighter control of overflight aircraft.

c. ELINT Equipment Augmentation

By the beginning of FY 1966 a number of advances in the Soviet radar state of the art is expected. These advances may include the use of CW, frequency diversified, inter-pulse modulated, and nanasecond pulse radars. Continued development of better ELINT systems including high sensitivity, large dynamic ranges, wide band receivers with fine grain frequency measuring capabilities, exotic signal recognition circuity, and wide band detection recorders will be needed. 2,500

23

THE CORRECT

OXCART/KEDLOCK ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/



ATTACH I

(In Thousands of Dollars)

d. Field Test Support

Field test support will be provided to test and evaluate the defensive systems and techniques developed. Included will be Field Test support and performance evaluation related to the False Target Jammer, Missile Range Jammer and U-2 defensive equipment. Field Test support will also be provided for evaluation and training related to the new defensive equipments as developed.

2. Parameter Measurement and Stimelint

a. Signal Measurement

Absolute measurements of the power antenna patterns and other characteristics of Soviet radars are essential in obtaining the necessary design parameters for defensive studies, ECM development, etc. The present efforts in this area ect.) are not adequate to provide information on as timely a basis as is necessary. Accordingly, a modest build-up on this effort is planned in order to improve this situation. The level of effort anticipates the deployment of new radars.

b. Subsonic ELINT Probe

While some radars may be measured during their normal operation, standard operating practice of the Soviets is to keep other critical radars in a nonradiating condition. To obtain vital data on these radars the defenses must be stimulated into action. techniques will continue to be exploited but the necessity for using flight vehicles cannot be avoided in all cases, especially in obtaining fusing data. This budget item provides for initial studies and the development of a subsonic, unmanned vehicle suitable for stimulated parameter measurement programs.

OXCART/KEDLOCK/___/ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

500

700

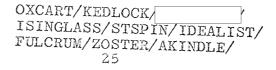
ATTACH I

(In Thousands of Dollars)

3. Supporting ELINT R&D

1,000

Long lead development is critical to the timely realization of specific hardware required in FY 1966 and beyond programs. The requirements here include improved packaging, environment tolerance as well as the development of totally new techniques capable of providing indications of laser intercept, etc.



(In Thousands of Dollars)

ISINGLASS

Airframe and Engine Design and Mockup	5,000
Sensor and Subsystem Development	3,000
TOTAL	8,000

26

C.O.

ATTACH I

(In Thousands of Dollars)

ISINGLASS

1. Airframe and Engine Design and Mockup 5,000

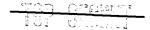
FY 65 funding will provide for initial design only, and it is therefore envisaged that final design work, mockup and limited testing of both airframe and engine will be accomplished in FY 66.

2. Sensor and Subsystems Development 3,000

This includes developmental work on navigation equipment, sensors, communications gear, etc.

OXCART/KEDLOCK ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

27



(In Thousands of Dollars)

SATELLITES (ATTACH II)

FULCRUM

156,900

ZOSTER ______59,500 TOTAL



Olicensi

ین از از از از از از از از هر مرد مربع زیرگیری از

ATTACH II

(In Thousands of Dollars)

FULCRUM

CAMERA	23,400
SPACECRAFT	67,500
BOOSTER	45,200
RECOVERY VEHICLE	10,000
LAUNCH FAC.	7,000
ASSEMBLY INTER. & CHECKOUT	2,800
FILM	1,000
	156,900*

*This represents total project cost estimates. Moneys for booster, launch facilities and recovery vehicle may already appear in other DOD budget forecasts.

> 29A CAL CLARK .

OXCART/KEDLOCK/ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

و بر المع المحمد الم

(In Thousands of Dollars)

FULCRUM (See footnote, page 29 re items 3, 4, and 5)

1. CAMERA

Design and development for the camera system on a two-year schedule beginning in FY 1965. 600

Complete procurement costs for one gualified camera and 10,000 three test cameras.

Procurement of long lead items 9,700 3,100 Labor Costs

2.SPACECRAFT

Complete design and development of six spacecraft; one for environmental testing, one for functional testing, three for test launches 38,000 and one back-up.

Complete facilities and construction. 2,500

Complete production procurement of six operational spacecraft. 27,000

3. BOOSTER

Titan II modification/design costs.

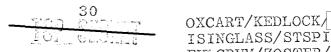
Production and procurement for three test launches. 15,600

Production and procurement of six operational vehicles. 24,000

4. RECOVERY VEHICLE

Complete development program to include three vehicles for test launches, plus necessary environmental and quality tests. 6,000

Production for the operational program will commence in Sept. '65.



ISINGLASS/STSPIN/IDEALIST/ Approved for Release: 2021/04/09 C05099191 FULCRUM/ZOSTER/AKINDLE/

23,400

ATTACH II

67,500

45,200

10,000

a kan sun sun a haa

(In Thousands of Dollars)

Costs are estimated at \$500/ vehicle. 4,000

5. LAUNCH FACILITIES

Construction, equipping and necessary modification for the launch complex.

6. ASSEMBLY INTER. & CHECKOUT 2,800

Provides for centralized assembly, intergration and checkout engineering (60 engineers).

7. FILM

1,000

7,000

ATTACH II

Development and procurement of 7-inch film and associated chemicals.



en de Contrator de las

CLUD

OXCART/KEDLOCK/_____ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/





Brown Constraints

(In Thousands of Dollars)

ZOSTER

.

Design Confirmation and Mockup	7,000
Primary System Development	15,000
Sub-System Development	10,000
Primary and Sub-System Test	10,000
Commitments for Long Lead Items	17,500
TOTAL	59,500

OXCART/KEDLOCK/ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

34

6:1 1.000.00 101 Childing

6

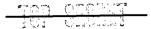
ATTACH II

59,500

(In Thousands of Dollars)

STEF		
1.	Design Confirmation and Mockup	7,000
	Completion of final systems design Indications Satellite System and astruction of space vehicle mockups.	
2.	Primary System Development	15,000
	Development of the total data adling system, from the observing as to the Washington data display.	
З.	Sub-System Development	10,00
	Development of the orbital vehicle, dance, power, control, etc., sub- tems.	·
4.	Primary and Sub-System Test	10,00
com	Ground qualification testing of uponents, systems and sub-systems.	
5.	Commitments for Long Lead Items	17,50
pro	Commitments for long lead items, th as lenses, boosters, auxiliary opulsion systems and data link aponents.	

OXCART/KEDLOCK/	1
ISINGLASS/STSPIN/IDEAL	IST/
FULCRUM/ZOSTER/AKINDLE	/



- j - 🔰

Sala Charles

BALLOONS (ATTACH III)

(In Thousands of Dollars)

ELINT 7,000 PHOTO <u>6,400</u> TOTAL <u>13,400</u>

> OXCART/KEDLOCK/ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

> > 36



ATTACH III

(In Thousands of Dollars)

BALLOONS (PHOTO)

1

6,400

1. Development of Low Radar cross- section cameras and ancillary equipment.	1,200
2. Radar cross-section measurement and analysis.	300
3. Maneuverable balloon develop- ment.	500
4. Launch technique development.	500
5. Operational analysis.	200
6. Ground support equipment.	1,000
7. Development and operational costs.	500
8. Developmental flights, ZI (3 with one flight test system).	400
9. Operational flights system (6).	1,800

38

OXCART/KEDLOC./ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

GENERAL (ATTACH IV)

(In Thousands of Dollars)

	TOTAL	28,100
ADVANCED R&D		7,000
EKC R&D		2,600
PHOTO MATERIAL	& PROCESSING	18,500

39

OXCART/KEDLOCK/ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

Approved for Release: 2021/04/09 C05099191

5 6

A Second A Second and a second and

ATTACH IV

3,500

5,500

7,000

(In Thousands of Dollars)

PHOTO MATERIAL AND PROCESSING

Eastman Kodak

Film and Chemicals

I-HF-47

FP-1500

Processing - PO-1800

Processing and Duplicating Equipment

EG-400

TOTAL

2,500 18,500

7,800

6,200

2,500 16,600 2,600 19,000

40

OXCART/KEDLOCK/ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

ATTACH IV

(In Thousands of Dollars)

PHOTO MATERIALS AND PROCESSING

1. I-HF-47

3,500

5,500

Estimate based on same level of effort as FY-65.

2. FP-1500

a. Same level of effort as FY-65 in Satellite area.

b. Increase to thirty operational . OXCART missions requires approximately \$900 additional.

c. No allowance is made for color film increase; therefore, if color film is utilized, additional funds will be required.

3. PO-1800

Increase to \$7,000 in FY-66 is to estimate cover processing and duplicating of OXCART operational missions.

4. EG-400

Increase represents fund to purchase equipment developed under EB-1492 during FY-65 and FY-66.

OXCART/KEDLOCK/	ľ
ISINGLASS/STSPIN/IDEALI	ST/
ISINGLADO SIDPIN IDIMIZZ	· ·- ·
FULCRUM/ZOSTER/AKINDLE/	



Approved for Release: 2021/04/09 C05099191

2,500

7,000

(In Thousands of Dollars)

EKC

1 6 1

EB-1492 (R&D)

2,600

Same level of effort as FY-65. (Does not include procurement which is being funded under EG-400). This estimate may fluctuate considerably depending on CCB recommendations.

OXCART/KEDLOCK ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

42

4 () a

Approved for Release: 2021/04/09 C05099191

ATTACH IV

(In Thousands of Dollars)

ADVANCED R&D

Research and Development	(General)	5,000
Vulnerability Studies		2,000
TOTAL		7,000

43



And the second s

(In Thousands of Dollars)

ADVANCED R&D

1. Research and Development (General) 5,000

This includes general research and development in the areas of aircraft, satellites and sensors. Utilization of this item will be largely dependent upon results of FY-65 R&D efforts.

2. Vulnerability Studies

Development of tracking sensors and data analysis studies on vulnerability of indications satellite, balloon borne systems, and advanced aircraft systems. Also studies on vulnerability of communications systems associated with indications satellite.

OXCART/KEDLOCK/_____ ISINGLASS/STSPIN/IDEALIST/ FULCRUM/ZOSTER/AKINDLE/

44

Approved for Release: 2021/04/09 C05099191

ATTACH IV

2,000