

~~CONFIDENTIAL~~

25 SEP 1959

**Navy Proposal for a Photographic Payload
for the DISCOVERER Satellite Program**

**HQ USAF (AFBAM, Major Floyd)
Wash 25, D. C.**

1. Attached are copies of the following:

a. Letter dated 16 July 1959, from Chief, Bureau of Aeronautics to Commanding Officer, U. S. Naval Air Development Center (Aeronautical Photographic Experimental Laboratory), Johnsville, Pennsylvania, subject: Project TED ADC PH-5066, Preparation of Proposal for Photographic Payload for DISCOVERER Satellite Program, establishment of.

b. Letter dated 20 July 1959, from Chief, Bureau of Aeronautics to Commanding Officer, U. S. Naval Photographic Interpretation Center, subject: Assist in Preparation of Proposal for Photographic Payload for the DISCOVERER Satellite Program, establishment of.

c. Letter dated 31 July 1959, from ARDC to AFBAM, subject: Photographic Payload for DISCOVERER Satellite Program.

d. Message from AFBAM dated 15 August 1959, to ARDC, cite WDZSD-8-64-E.

e. Letter dated 20 August 1959, from ARDC to the ARDC Regional Office, Washington, D. C., subject: Navy Photographic Payload for DISCOVERER Satellite with 1st indorsement from the ARDC Regional Office to ARDC dated 2 September 1959.

f. Letter dated 8 September 1959, from ARDC to AFBAM, subject: Navy Photographic Payload for DISCOVERER Satellite.

2. Mr. Wesley I. Grieve, ARDC Regional Office, Washington, D. C., visited ARDC on 21 September 1959, and provided this office with copies of the letters mentioned in 1a and 1b above. Mr. Grieve stated that ANPA would be contacted directly by the Navy concerning the inclusion of this payload in the DISCOVERER program.

3. It is requested that you establish an Air Force position with respect to the inclusion of this type payload in the DISCOVERER

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Satellite for the purposes stated. It is suggested that you coordinate the position with AFCEM.

DONALD E. BURRUS
Colonel, USAF
Deputy Assistant DC/WS, Missiles
and Military Space Systems
Deputy Commander/Weapon Systems

6 Atch
1-Ltr dtd 16 Jul 59 (C)
2-Ltr dtd 20 Jul 59 (C)
3-Ltr dtd 31 Jul 59 (C)
4-MSG dtd 15 Aug 59 (C)
5-Ltr dtd 20 Aug 59 (C)
6-1st Ind dtd 2 Sep 59 (C) w/basic
ltr dtd 8 Sept 59 (C)

1st Ind (AFDAT)

Hq USAF, Washington 25, D. C.

TO: Hq ARDC, Andrews AFB, Washington 25, D. C.

No Air Force requirement exists for a payload of this type in the DISCOVERER program. The SAMOS development is expected to satisfy this requirement early next year.

FOR THE CHIEF OF STAFF:

14 OCT 1959

JBM 12 Oct 59

6 Atch
w/d

GEORGE B. MUNROE, JR
Colonel, USAF
Technical Executive
Office of Directorate of
Advanced Technology
DC/Development

DISPATCHED

16
14
1959 OCT

HQ USAF
AF DRD

AFDAT

AFCEM

AFCCP-R

AFORD

AFDAT Coord Ctr

2/11/59

Ed. Mason

William Lee. J. K...

~~CONFIDENTIAL~~

RD 10-146

(1455737)



DEPARTMENT OF THE NAVY
BUREAU OF AERONAUTICS
WASHINGTON 25, D. C.

Aer-PH-46

~~CONFIDENTIAL~~

16 JUL. 1959
07419

From: Chief, Bureau of Aeronautics
To: Commanding Officer, U. S. Naval Air Development Center
(Aeronautical Photographic Experimental Laboratory)
Johnsville, Pennsylvania

Subj: Project TED ADC PH-5066, Preparation of Proposal for Photographic
Payload for Discoverer Satellite Program; establishment of (U)

1. Priority: "B" Project Classification: Confidential
2. Costs are Chargeable to: Applicable allotments held by the Commanding Officer.
3. Desired Completion Date: 1 September 1959
4. Operational Objective or Requirement: Partially fulfills IO-13401-2, IO-09502 and IO-13701.
5. Abstract of Project: Prepare a proposal for a photographic payload for consideration in the Discoverer Satellite Program. The U. S. Naval Air Development Center, (Aeronautical Photographic Experimental Laboratory), (APEL), Johnsville, Pennsylvania will be responsible for the adequate and timely completion of the proposal. Technical assistance on the selection of cameras and preparation of a photographic interpretation system will be provided to APEL by the U. S. Naval Photographic Interpretation Center (PIC) under Project TED PIC PH-4769.2. Technical assistance concerning utilization of satellite photography has also been requested from the U. S. Navy Hydrographic Office. Direct liaison between all activities involved is authorized.

At the 23 June 1959 meeting held at the Bureau of Aeronautics, it was agreed that the following assumptions would be adhered to in the design of the payload.

- a. The camera package will be recoverable.
- b. The camera package will be stabilized.
- d. The design of the camera package should be such that it will satisfy a variety of research objectives such as determination of feasibility of using this type of photographic reconnaissance for oceanographic prediction, intelligence utilization and other possible scientific applications.

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854-11378/4
~~CONFIDENTIAL~~

2-141

~~CONFIDENTIAL~~

Aer-PH-46

07419

~~CONFIDENTIAL~~

Subj: Project TED ADC PH-5066, Preparation of Proposal for Photographic Payload for Discoverer Satellite Program; establishment of (U)

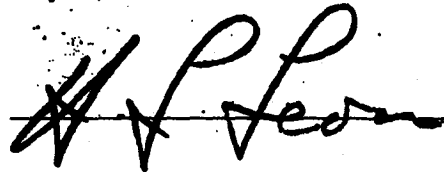
The proposal should be submitted in completed form including all pertinent information deemed necessary during the project. Cost estimates should also be included.

6. Comisant BUAE Project Officer: MR. F. D. GREINKE, PH-46, Photographic Division, Bureau of Aeronautics, Code 1215, Extension 393.

7. Source of Equipment: Not applicable.

8. Disposal of Equipment: Not applicable.

9. Reports required: In lieu of a final report, submission of the proposal will be considered as completing this project. Pertinent comments and recommendations may be submitted in letter form if deemed appropriate.



d. L. LEAH
By direction

Copy to:

CNO (OP-553C)
CNO (OP-922H1)
CNO (OP-743)
CNO (OP-761)
CNO (OP-07T)

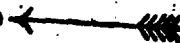
PIC

HYDRO

Chief, U. S. Air Force Washington

Air Research Development Office

Room 4549 MB, Wash., D. C.



059-AF378/4
~~CONFIDENTIAL~~
CONFIDENTIAL



DEPARTMENT OF THE NAVY
BUREAU OF AERONAUTICS
WASHINGTON 25, D. C.

Av-74-46
30 JULY 1959

~~CONFIDENTIAL~~

From: Chief, Bureau of Aeronautics
To: Commanding Officer, U. S. Naval Photographic Interpretation Center
Subj: Project YED PIC PE-4769.2, Assist in Preparation of Proposal for Photographic Payload for the Discoverer Satellite Program; establishment of (U)

1. Priority: "B" Project Classification: Confidential
2. Costs are Chargeable to: Applicable allotments held by the Commanding Officer.
3. Desired Completion Date: September 1959
4. Operational Objectives or Requirements: Partially fulfills IO-13401-2, IO-09701 and IO-4761.

5. Assignment of Duties: Assist the U. S. Naval Air Development Center, (Aeronautical Photographic Development Laboratory) (APDL), Johnsville, Pennsylvania in the preparation of a proposal for a photographic payload for use in the Discoverer Satellite Program. The proposal should include the equipment for installation in the satellite and the equipment at APDL to receive and process the data. Work at APDL is being conducted under IO-09701 and IO-4761. The U. S. Naval Photographic Interpretation Center will provide technical assistance in the selection of camera type, focal length, and resolution required; and in the use of such a satellite system should any feasible use of such a satellite system should be recommended in other areas such as weather surveillance, ice reconnaissance, and intelligence for industrial complexes, etc.).

It should also be kept in mind that the satellite package is only the forerunner of an advanced system which would be based on lessons learned from this project.

In addition to the technical assistance for the camera package, PIC is requested to prepare a proposal ground intelligence interpretation system description for inclusion in the overall proposal. This could be similar to, but more detailed than, the proposal prepared for Project YED PIC PE-4769.1. It is suggested that samples of high altitude balloon and balloon photography now held at PIC be used for illustrative purposes in this portion of the proposal.

Incl #2

059-113740/4
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Subj: Project TED PIC PH-4769.2, Assist in Preparation of Proposal for Photographic Payload for the Discoverer Satellite Program; establishment of (U)

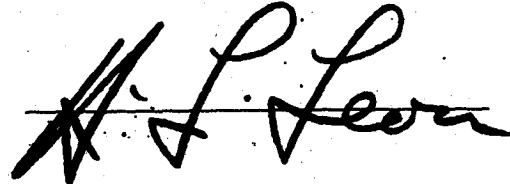
If duplicating and drafting assistance is required by AFEL to prepare the proposal, PIC is also requested to furnish this.

6. Comisant BUAER Project Officer: MR. E. D. GREINKE, (PH-46), Photographic Division, Bureau of Aeronautics, Code 1215, Extension 394.

7. Source of Equipment: Not applicable.

8. Disposal of Equipment: Not applicable.

9. Reports Required: Since the PIC portion of the satellite payload proposal will be included as an integral part of the proposal, only a final letter report of completion is required. Recommendations for future work in this area may be included in this report as deemed appropriate.



E. E. LSON
by direction

Copy to:
CNO (OP-5530)
CNO (OP-922H1)
CNO (OP-743)
CNO (OP-761)
CNO (OP-07T)
NADEVCON
HYDRO

Chief, U. S. Air Force Washington
Air Research Development Office
Rm 4549 MB, Wash. 25, D. C.

259-AF3780/4
~~CONFIDENTIAL~~

MAND SECTION

~~CONFIDENTIAL~~

31 July 1959

SUBJECT: SPECIAL STAFF

(U) Photographic Payload for Discoverer Satellite Program

TO: AFMND (Lt. Col. Battle)
AF Unit Post Office
Los Angeles 45, Calif.

This office has been informed by the ARDC representative at the Bureau of Aeronautics that the U. S. Navy is preparing a proposal for a photographic payload for the Discoverer satellite. Copies of two Bureau of Aeronautics letters ordering this work are forwarded herewith for your information.

FOR THE COMMANDER:

OWORS

[Signature]
ROBERT G. ATWOOD, Lt. Colonel, USAF
Chief, Special Projects Office
for Intelligence and Reconnaissance

- 2 Atchs
- 1. Thermofax cy ltr fr BUAER, 16 July 59 (C)
- 2. Thermofax cy ltr fr BUAER, 20 July 59 (C)

~~CONFIDENTIAL~~

2-143

NAME AND OFFICE SYMBOL	PHONE NUMBER	DATE	INITIALS
<i>[Signature]</i>			

~~CONFIDENTIAL~~
ACTION COPY

PP
RE
P 150202
FM AFHQ ARDC LOSA
TO ARDC
BT

~~CONFIDENTIAL~~ FROM WJZSD 8-64-E FOR RBZYC LT COL ATWOOD
SUBJECT CLN PHOTOGRAPHIC PAYLOAD FOR DISCOVERER STATELLITE
PROGRAM. RECEIPT YOUR 31 JULY 59 LETTER CMM SUBJECT AS ABOVE CMM WITH
TWO BUER LETTERS ACKNOWLEDGED. TO DATE NO CONTACT HAS BEEN MADE
WITH THIS OR BY BUER ON ABOVE SUBJECT. REGARDING NAVY PROPOSAL
AND FOR YOUR INFORMATION ONLY THE DISCOVERER SCHEDULE IS EXTREMELY
CLOSE TO THAT EARLIEST POSSIBLE INCORPORATION OF ADDITIONAL VEHICLES.
FOR A NEW DISCOVERER MISSION SUCH AS THE NAVY PHOTO RECCE PROPOSAL WOULD
BE APPROXIMATELY SEPT 60 SMCLN /DISCOUNTING POSSIBLE SLIPPAGES IN
PRESENT PROGRAM FOR TECHNICAL OR OTHER REASONS/. PARA. AS YOU KNOW CMM
THERE HAS RECENTLY BEEN CONCENTRATED TECHNICAL SEARCHING ON THE
DISCOVERER PROGRAM SMCLN AND DESPITE THE RESULTS OF THE 13 AUG

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PAGE TWO ~~CONFIDENTIAL~~ 7C

FIRING CMM CONSIDERABLE REFINEMENT PARTICULARLY IN THE RELIABILITY AREA
IS YET TO BE ACCOMPLISHED IN THE DISCOVERER SERIES BEFORE A PAYLOAD SUCH
AS A CAMERA LOGICALLY COULD BE CONSIDERED FOR A THOR BOOSTED VEHICLE.
PARA. IN RECOGNITION OF THE ABOVE CMM THE 117L PROGRAM EARLY IN 1958
WAS REORIENTED TO IDENTIFY THE DISCOVERER VEHICLE AS THE TECHNICAL
DEVELOPMENT FORERUNNER TO PROVE FEASIBILITY AND RELIABILITY AND
CONSISTENTLY PLACING VEHICLES INTO PREDICTED ORBITS. THE TECHNICAL
CAPABILITY DEVELOPED FROM THIS PROGRAM HOPEFULLY WILL PROVIDE A SOLID
FOUNDATION OF EXPERIENCE SUPPORTING THE ATLAS BOOSTED SENTRY /SAMOS/
CMM MIDAS AND OTHER ADVANCED SERIES OF FIRINGS. PARA. IN VIEW OF THE
BASIC DEVELOPMENTAL NATURE OF THE DISCOVERER PROGRAM SMCLN AND THE
DEPENDENCE OF THE SENTRY /SAMOS/ AND OTHER PROGRAMS ON SUCCESS OF THE
DISCOVERER PROGRAM SMCLN AND IN VIEW OF THE EARLY 1960 SCHEDULED FIRINGS
OF SENTRY VEHICLES CMM WHICH ARE AIMED AT PHOTO AND OTHER RECCE
OBJECTIVES SMCLN IT APPEARS INADVISABLE TO ENCOURAGE THE PROPOSAL
SUGGESTED BY THE NAVY LETTERS. PARA. SUGGEST YOUR HQ TAKE FOLLOWING
ACTION CLN /A/ AT EARLIEST OPPORTUNITY CMM DETERMINE STATUS AND MAX
DETAILS ON NAVY PROPOSAL WITH OBJECTIVE OF DETERMINING WHAT IS THE
PROPOSED CAMERA DEVELOPMENT AND FIRING SCHEDULES. OTHER ASPECTS OF
INTERSET ARE CLN FIRING CMM MANAGEMENT CMM TECHNICAL REQUIREMENTS OF

~~CONFIDENTIAL~~

PAGE THREE RJWZBK 7C

THE SYSTEM CMM TEC. /B/ ADVISE THIS HQ ASAP ON ABOVE SO THAT AN OFFICIAL
EVALUATION AND REPLY CAN BE MADE. PARA. SUGGEST YOUR CONTACTS AT THIS
TIME BE EXPLANATORY WITHOUT REVEALING DISCOVERER SCHEDULE INFO. ADVISE
RESULTS /A/ AND /B/ SOONEST

BT

15/0346Z AUG RJWZBK

DND SEC
DGV
DGE
DGP
REC STAFF
IDA
DIX
DOD
DDE
DDJ
DDW
DEP COMDRS
DDB
RDR
RDX

20 August 1959

Navy Photographic Payload for Discoverer Satellite

**ARDC Office (Lt. Col. Miersperger)
Room 3816, Main Navy Building
Washington, D. C.**

1. Reference is made to Bureau of Aeronautics Projects TED ADC PH-5066 "(U) Preparation of Proposal for Photographic Payload for Discoverer Satellite Program" and TED PIC PH-4769.2 "Assist in Preparation of Proposal for Photographic Payload for Discoverer Satellite Program."

2. The copies of the above directives furnished us by your office were transmitted to AFMD for their information. A copy of the AFMD reply is attached.

FOR THE COMMANDER:

[Signature]
ROBERT G. ATWOOD
Lt. Colonel, USAF
Chief, Special Projects Office
for Intelligence and Reconnaissance

1 Atch
Cy Twz Conf fr AFMD,
15 Aug 59

20 Aug 59

59-56777

UPON REMOVAL OF INDICATORS
THIS DOCUMENT MAY BE HANDLED AS UNCLASSIFIED

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Ltr, Hq ARDC [REDACTED] 20 Aug 59, Navy Photographic Payload for Discoverer Satellite

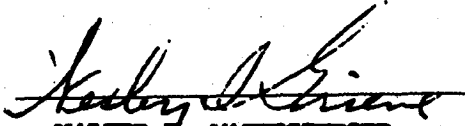
1st Ind

2 September 1959

ARDC Reg Ofc, c/o Dept of Navy, Rm 4549, Munitions Bldg, Wash 25, D.C.

TO: ARDC [REDACTED] LtCol. Robert G. Atwood), Andrews AFB, Wash 26, D.C.

1. The Bureau of Aeronautics is preparing a proposal to ARPA through CNO for an all Navy Discoverer Photographic Satellite. There is no funding at present other than for in house preparations of the proposal. This is a combined effort by the Naval Air Development Center, the Naval Photographic Interpretation Center, and the Naval Hydrographic Office by direction of Captain E. L. Klem, Director of the Photographic Division, Bureau of Aeronautics.
2. The proposal is expected to be completed some time in October 1959. They plan to start development within eight or nine months. They payload will not exceed 150 lbs and will consist of one camera. The camera will have a 5-inch format with 2 1/2-inch focal length. It will be recoverable.
3. The specific camera has not be selected although a Fairchild Camera and Instrument Company proposal is being given serious consideration. It is understood the first satellite will not have mapping capabilities. Later ones may have this capability. It is understood, although not certain, that this study was instigated by ARPA. It is also understood that the Army was invited to submit a proposal.
4. A working meeting on this program will be held at PIC 0930 on 15 September 1959. Mr. Wesley I. Grieve of the Washington ARDC Regional Office plans to attend.
5. It is noted that the Navy has been fully cooperative in making known to the Air Force R&D plans and programs in the Photographic area. It is evident that the Navy may soon have its own satellite program. Air Force cooperation in the exchange of information in this area (Reconnaissance Satellites) would be appreciated and would undoubtedly save time and money for the Military.



WALTER J. MATERSPERGER
Lt. Colonel, USAF
Chief, ARDC Regional Office,
Washington, D. C.

1 Atch:
w/d

~~CONFIDENTIAL~~

2.

29-557137

659-AF3095/1

~~CONFIDENTIAL~~

3 September 1959

SUBJECT: (U) Navy Photographic Payload for Discoverer Satellite

TO: AFEMD (Lt. Col. Edward W. Cutler)
AF Unit Post Office
Los Angeles 45, Calif.

1. We transmitted your teletype dated 15 August 1959, on this subject, to the ARDC Regional Office with the Department of Navy. A copy of their reply is forwarded herewith for your information.
2. Our Regional Office has been requested to provide us with a complete report on the 15 September 1959 meeting. This additional information will be forwarded to you as soon as it is available.

FOR THE COMMANDER:

ROBERT G. ATWOOD, Lt. Colonel, USAF
Chief, Special Projects Office
for Intelligence and Reconnaissance

1 Atch
1st Ind fr ARDC Reg Ofc,
2 Sept 59, 1 cy; w/basic
ltr, 20 Aug 59

IF INCLOSURES ARE NOT ATTACHED)
THE CLASSIFICATION OF THIS CORRESPONDENCE
WILL BE CANCELLED

atwood

OTHER

~~CONFIDENTIAL~~

29-155737

NAME AND TITLE OF SENDER Capt. John H. McElhany/RDZYC	PHONE NUMBER 84175	DATE 8 Sept 59	TYPIST INITIALS HBLF
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