COPY

MEMORANDUM FOR THE SECRETARY OF THE AIR FORCE

ATTENTION: Under Secretary Malcolm A MacIntyre

SUBJECT: Public Information - Project DISCOVERY

In confirmation of our several conversations, there is attached herewith for your information data and a procedure for public release relating to the Project DISCOVERY program at Vandenberg Air Force Base. The information which may be released is contained in the attached press release and a series of questions and answers. The initial release will be issued by the Department of Defense in the near future. Pending this release, no data relating to this program should be issued by the Department of the Air Force.

In accordance with our agreement, this office has accomplished the necessary clearances throughout the Department of Defense, the OCB, and in the Executive Office of the President.

In view of over-all policy restricting press coverage and public information on firings from Vandenberg Air Force Base, it is requested that all interested agencies within the Department of the Air Force be advised of the contents of this release, the questions and answers relating thereto and the requirement that publicity be limited entirely to the data contained therein.

A preliminary press plan, to be circulated through public information channels for concurrences or comment, is attached for your information. This press plan will be officially transmitted through public information channels, and will, after coordination, cover procedures for further public release on the DISCOVERY series. When releases have been authorized, every effort should be made to insure public understanding that the DISCOVERY series is not associated with project 117L.

Any questions requiring responses beyond the information contained in these documents should be referred to the Director, ARPA. Your attention is invited to the fact that both the launching site and

COPY COPY COPY COPY COPY COPY COPY COPY

the components in the vehicle itself contain elements of military security. This is indicated in the press release and should serve to allay questioning beyond that contained in the press release and the questions and answers.

Roy W. Johnson
DIRECTOR

3 Incls:
Press Release
Questions and Answers
Press Plan

6 November 1958

PROPOSED INITIAL PRESS RELEASE:

The Department of Defense will attempt to launch its first satellite from Vandenberg Air Force Base, California, Pacific Missile Range late this year or early next year, it was announced today by Roy W. Johnson, Director of the Advanced Research Projects Agency. This satellite is part of a series of missile and vehicle launchings designated "DISCOVERY" which will be performed under the direction of ARPA by the Ballistic Missile Division, Air Research and Development Command, Department of the Air Force.

The purpose of this series is to further the development of a number of systems and techniques which will be employed in the production and operation of space vehicles. Initial launchings will have as their primary objective the testing of the vehicle itself and of vehicle subsystems including propulsion and guidance. Later vehicles in the series will carry biomedical specimens and will seek valuable data on environmental conditions useful to the NASA/ARPA joint Man-in-Space program. Live animals will be carried aloft and their recovery attempted in certain of the flights in this series which will serve to develop the techniques involved in providing a suitable environment and recovery.

Much of the data expected to be derived from the "DISCOVERY" series, such as the results of the biomedical flights, will be of general scientific interest and will be unclassified. Other results which will be highly significant for the development of later systems and techniques for space navigation, could be of potential significance to U.S. security and as such will be classified.

The "DISCOVERER" vehicle consists of two stages both of which were originally developed for other programs. The first stage is a Thor booster produced by Douglas Aircraft Company. The second stage is produced by the Lockheed Aircraft Corporation, Missile Systems Division. They were chosen on the basis of technical and scheduling considerations and because they could be combined with a minimum of modifications. The combination is believed capable of orbiting considerably heavier satellites than any previously launched by the United States. The basic vehicle will carry a number of different payloads specially designed for this series. Initial versions of the DISCOVERER will orbit for short periods of time at relatively low altitudes.

Question: Is the Discoverer a reconnaissance satellite?

Answer: No

Question: Is it part of the Weapon System 117L - or Sentry - or Pied Piper program?

Answer: No. Originally, the use of the Thor booster and certain other programs were included in the Weapons System that has, at various times, been publicly identified as a reconnaissance system. The Thor program was separated from this system early this year and assigned by ARPA directive to the Discoverer series. In effect, this enabled ARPA to accelerate the Discoverer program without prejudice to any other component of the weapons system.

Question: If the Discoverer is not part of WS117L, and if it is not a reconnaissance satellite, will it make a contribution to a reconnaissance satellite program?

Answer: Ultimately, the Discoverer, like any satellite that achieves orbital capacity, can be expected to make a contribution to every other satellite program. However, reconnaissance as such is still very much in the research stage and must, of necessity, be considered in terms of a future development.

Question: How many Discoverer launchings will be attempted?

Answer: As yet, no precise number has been established. Because of the nature and variety of the experiments involved and the fact that some will orbit for short periods of time, it is expected that a considerable number will be launched.

Question: Why is Discoverer being placed in a polar orbit?

Answer: Polar orbit is the only one from Vandenberg AFB with hardware presently available. Eastward launch from Vandenberg is prevented by safety considerations. Launch to the West would entail an unacceptable speed penalty.

Question: Why is a low altitude orbit being used?

Answer: High altitudes are not possible with the weight-thrust ratio established for the Discoverer. Because of testing instrument requirements, a rather heavy payload is contemplated.

Question: Why not launch the Discoverer from Cape Canaveral?

Answer: The facilities at Cape Canaveral are overloaded. One of the purposes in constructing a missile range on the West Coast was to reduce the burden on the Atlantic Range.

Question: What is the weight of the Discoverer satellite?

Answer: It is expected to be heavier than any satellite previously launched by the United States. The satellite including the integrated second stage vehicle is expected to weigh approximately 1300 pounds, of which 300 pounds is payload including instrumentation guidance and power supply.

Question: How many stages does the launch vehicle have and of what does each stage consist?

Answer: The main stage is a modified Thor IRBM. The second stage is a new vehicle developed by Lockheed. It is powered by a Bell-Mustler engine. The second stage vehicle, after burn out, will orbit as an integral part of the satellite.

Question: Since it is biomedical, is it part of the joint NASA/MIS program?

Answer: It is a DOD contribution to the joint program.

NOTE: Any further questions should be deferred or referred to DOD as appropriate.

PROPOSED INFORMATION PLAN FOR PROJECT DISCOVERY

A. OBJECTIVE OF PROJECT DISCOVERY

Beginning in late 1958 and extending into 1959, a series of satellites will be launched from the new Pacific Missile Range at Vandenberg A.F.B., California. These satellites will be powered by the Thor missile with a new high energy upper stage known as the Bell Hustler. As such, the program is, in certain respects, a follow-on vehicle program to the Thor-Able combination.

The project is divided into two distinct phases:

1. The first two flights will orbit 300 pound telemetery payloads into 300 mile orbits with orbital lives of perhaps 10 days. These first two flights will provide tests of hardware and payload components and also of the instrumentation and facilities of the Pacific Missile Range and its complex of ground environment stations located in Alaska and Hawaii and possibly the Antarctic.

2. Depending upon success obtained by the first 5 - 7 flights, additional launchings of the DISCOVERY series will take place during 1959 to place up to 500 pound recoverable satellite packages into 300 mile orbits having 24 - 48 hour orbital lives with planned recovery by aircraft or naval vessels upon signal by one or another of the available ground stations. These flights will comprise a series of biomedical experiments with two containing mice; later flights also containing primates.

No follow-on program will be finalized prior to the successful completion of at least five flights. Data derived from the program will be applied to reentry and recoverable satellite space programs of the DOD and NASA.

B. PUBLIC ANNOUNCEMENTS:

1. The objective of this information plan is to insure that the various launchings in Project DISCOVERY receive news treatment related to their actual missions. Public releases on the project will be strictly controlled to insure such treatment. In particular, these flights must be disassociated with any U.S. reconnaissance program for which they have no capability.

2. In recognition of the fact that the first two DISCOVERY launchings have missions distinctly separate from those of the remaining launchings in the series, this public information plan, aside from an initial general release (TAB A), applies to the first two launchings only. Following successful completion of the first two launchings or of the component and range test program, a comprehensive public information plan to apply to the follow-on reentry and recoverable satellite launches for biomedical experiments will be issued by DOD/ARPA. Until release of this second plan, no follow-on announcements relating to the biomedical DISCOVERY project will be issued. Issuance of the over-all plan is not being accomplished at this time because of the requirements that such a plan will await results of the first two launchings. Until release by DOD/ARPA the follow-on program, other than the ARPA release at TAB A, will be classified Confidential.

3. As regards the first phase of project DISCOVERY, no releases or public briefings beyond the release and questions in TAB A will be made until after the first satellite launching has taken place.

4. The actual launch of the first DISCOVERY satellite vehicle should be treated in accordance with procedures established herein.

a. Should the vehicle fail within site of the launch area or prior to the acievement of conditions which might lead PMR to believe the payload was in orbit, the statement provided in TAB B should be made by the Commander VAFB. No other releases should be made.

b. Should the vehicle fail to place the satellite in orbit, but should conditions exist which require determination of this fact in interrogation of tracking stations during a time period required for one or more revolutions of the payload, the statement attached in TAB B will be made by the Commander VAFB. At the time of this release, fact sheets may also be made available to the public concerning the ground environment of the PMR and its associated tracking network.

c. Should the vehicle successfully place the payload in orbit, a press conference will be held at the VAFB as soon as orbit is determined. Participating in this press conference will be the Director ARPA, Commander, ARDC; Commander BMD, or their representatives. The press conference will be initiated by the Director, ARPA, who will make an announcement within the limits of TAB C. Public statements by these officials will emphasize the range and component test aspects of the launching. At the conclusion of the press conference, fact sheets will be made available at VAFB and the Department of Defense, Washington,

including data on the objectives of the launching, the booster and payload utilized, the organizations involved, and the PMR and its associated tracking stations. No indication will be given of future s schedules nor will the facts relating to the second phase be elaborated upon. Analysis of telemetry and other data obtained from instrumentation of the vehicle may be released as appropriate. Interested agencies will develop and submit all proposed releases and fact sheets to DOD/ARPA where they will be approved prior to issuance.

5. Public releases of information on the launching of the second DISCOVERY vehicle in December 1958 or January 1959 should be in accordance with the procedures established herein for the launch of the first vehicle. However, in view of the fact that a new situation will pertain insofar as public information statements are concerned, TABS D and E will be substituted for TABS B and C, respectively.

The press conference at VAFB to be initiated by the statement in TAB E will conform to the tone of the statement. The same guidance will pertain for fact sheets to be issued at VAFB and DOD, Washington, in the event of a successful launch.

No information will be given of future schedules or about the second phase of the DISCOVERY series.

6. This press plan, upon receipt of policy approval within OSD, including ASD (PA) and within the OCB, will be personally presented to all interested operating elements of Lockheed, BMD etc., and details thoroughly coordinated by a designated ARPA representative. Personal

data, home town color, and exhibits will be developed in support of this plan by Commander, BMD.

TAB B

Under the direction of the Advanced Research Projects Agency the Air Force launched the first of the "DISCOVERY" vehicles for test purposes at _____ hours today from the PMR Vandenberg AFB, California. The vehicle in its first test launch, (exploded on the launch pad, failed after _____ seconds of powered flight and destroyed itself, exploded after _____ seconds of powered flight, veered off course after _____ seconds of powered flight and was destroyed, failed to orbit the satellite although the launch appeared perfect).

The launching was intended not only as an initial test of the DISCOVERY vehicle but also to test the tracking, telemetry, and range safety facilities of the PMR. (The flight of the vehicle was successfully telemetered and tracked by the facilities of the range until missile failure, until communications with the satellite were lost _____ minutes after launch). Data is being analyzed to determine cause of (malfunction, failure to orbit the satellite).

TAB C

Under the direction of the Advanced Research Projects Agency, at _____ hours today at the new Pacific Missile Range, the Air Force launched a 300 pound earth satellite using the new DISCOVERY booster system to place the payload in a unique polar orbit.

The satellite, having a period of ____ minutes, was placed into a nearly circular 300 mile orbit and is expected to have a life of about 2-5 weeks. The payload contains a power supply and communications and telemetry equipment only. No scientific experiments are included because of the extent of internal telemetry components needed for test purposes.

The objective of this latest U.S. satellite is two-fold, and complete success has already been achieved on both counts. First, the DISCOVERY launching vehicle functioned perfectly in this first test flight. Second, the satellite was launched to test the tracking, telemetry and range safety facilities of the PMR and its associated tracking network. This network has stations in Alaska, Hawaii. All functioned, and are functioning as planned.

This is the world's first satellite with a polar orbit and its nearly circular orbit is testimony to the advancement in U.S. missile guidance and control techniques. This orbit is derived from the location of Vandenberg AFB and the PMR.

The DISCOVERY booster gives the United States an improved vehicle for future space programs. This new combination was developed by the BMD of the Air Force under ARPA sponsorship.

TAB D

Under the direction of the Advanced Research Projects Agency, the Air Force launched a second DISCOVERY test vehicle at _____ hours today from the Pacific Missile Range at Vandenberg AFB, California. In its second test launch, the vehicle (exploded on the launch pad, failed after ____ seconds of powered flight and destroyed itself, exploded afetr ___ seconds of powered flight, veered off course after ____ seconds of powered flight and was destroyed, failed to orbit the satellite although the launch appeared perfect). As with the first launching day's event it was intended not only as an additional test of the DISCOVERY vehicle but also as a further test of tracking, telemetry and range safety facilities of the PMR. (The flight of the vehicle was successfully telemetered and tracked by the facilities of the range until missile failure, until communications with the satellite were lost ____ minutes after launch). Data is being analysed to determine cause of (the malfunction, failure to orbit the satellite).

The initial launch of the DISCOVERY vehicle took place on ___ Nov. 1958, and resulted in (failure as the boost blew up on the launch pad, failure as the booster blew after ____ seconds of powered flight, partial success as the booster was destroyed after ____ seconds of powered flight, complete success as the booster placed a 300 pound test payload into a nearly circular polar orbit.

TAB E

Under the direction of the Advanced Research Projects Agency, at ___ hours today at the new Pacific Missile Range, the Air Force launched a 500 pound earth satellite using the new DISCOVERY vehicle to place an instrumented payload in a unique polar orbit. (This success comes after the initial attempt to launch a similar satellite on ___ Nov. 1958. This marks the second successful launch of a 500 pound earth satellite using the DISCOVERY booster system within a period of two months). The satellite, having a period of ____ minutes was placed into a nearly 300 mile orbit and is expected to have a life of about two years. The payload contains a power supply and communications and telemetry equipment (similar to those contained in the first DISCOVERY satellite). As with the first DISCOVERY launching, the objective of this latest satellite was two-fold and (again complete success has already been achieved on both counts. First, the DISCOVERY launching vehicle functioned perfectly in the vehicle's second successful test flight, and we are satisfied that it has demonstrated its application for future U.S. space programs. Second, the satellite was launched as an additional test of the tracking telemetry and range safety facilities of the PMR and its associated tracking network. This network, with stations in Alaska, Hawaii and Antartic, (again) functioned and is functioning as planned. This is the world's second satellite with a polar orbit. The fact that we have again attained a nearly circular orbit is a great compliment to the work that has been done on the part of the U.S. missile organizations in the development of guidance and control techniques.