

TRANSMITTAL SLIP		DATE 21 Apr 1960
TO: [REDACTED] O/AC/DPD		
ROOM NO. 508	BUILDING Matomic	
REMARKS:		
<p>[REDACTED] This should have been ret'd to you sometime ago for your files but RMB was holding on to it for some unknown reason. RMB has discussed this with the DCI and ret'd the memo for the DCI so you can keep it in your files now too.</p> <p>[REDACTED] O/DDP</p>		
FROM:		
ROOM NO.	BUILDING	EXTENSION

FORM NO. 241  
1 FEB 55

REPLACES FORM 36-8  
WHICH MAY BE USED.

(6)

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20 July 1959

MEMORANDUM FOR : Deputy Director (Plans)

SUBJECT : CIA Position in USIB Relative to Project TIROS

1. Attached are substantive recommendations with regard to the CIA position on Project TIROS. The USIB is scheduled to consider this problem at its meeting on Tuesday, 21 July 1959.
2. The major problem will be the number of people uncleared for CORONA who sit on the Board. I therefore recommend one of the following courses of action:
  - a. Remove this item from the regular agenda and discuss it separately with those USIB members who cleared for CORONA.
  - b. Arrange with Admiral Frost to delete the item from the agenda, and then hold a private meeting with the representatives of the agencies concerned (i. e. , ARPA, NASA, Air Force, Navy, and CIA).
  - c. If the above two courses of action are too awkward, have the Director refer to the TIROS program as it might affect the DISCOVERER series. Although this might seem mysterious to some members of the Board, he could be taking an objective interest in the over-all missile program without pinpointing attention on CORONA.
3. I strongly recommend either course a or b, above, be followed.

  
Colonel, USAF  
Acting Chief, EPD-DD/P

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Copy [redacted]

17 July 1959

MEMORANDUM FOR : Deputy Director (Plans)  
SUBJECT : Intelligence Aspects of Project TIROS

1. The attached papers were received from Mr. [redacted] Executive Secretary, USIB, on 15 July 1959 and have since been a matter of concern and considerable discussion by DPD staff.

2. In summary, the papers concern Project TIROS which involves the launching in October 1959, from Vandenberg AFB of a Thor-boosted weather reconnaissance satellite having a payload consisting of two television cameras and one infra-red camera which will produce approximately 16,000 feet of film record in five days of orbit. The scheduled orbit will be polar in direction, to gain maximum coverage at an altitude of 400 miles producing a ground resolution of 500 to 600 feet. The mission is to conduct meteorological observations of cloud coverage on a world-wide basis and is being conducted by the U.S. Navy and U.S. Air Force, in accordance with requests made under joint ARPA/NASA programming. The project presently carries a CONFIDENTIAL classification and the ultimate classification will be controlled by NASA, which is oriented toward the free exchange of scientific information and generally unclassified projects.

3. A matter of immediate concern is the possible adverse effect that an unclassified launching of a camera-carrying satellite would have upon the forthcoming CORONA launches scheduled from the same location and within the same and subsequent time period. As you are aware, we have gone to great length to avoid any publicity in connection with the CORONA payloads and have attempted to control the speculation of the technical press that cover the series of launches and the Vandenberg site in general. Publicity centering around Project TIROS may cause speculation as to a similar capability in the CORONA or DISCOVERER series. An open revelation of even a limited quality resolution would indicate a capability in being which, with additional research, could be improved for military reconnaissance objectives. This is the type of speculation we had hoped to avoid or at least have delayed until the Thor-boosted DISCOVERER series was nearing a close, recognizing that it would eventually have to come to pass.

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4. There is, however, an alternate position with regard to this matter: the relatively poor quality of the resolution of TIROS would have little value to the purposes of military reconnaissance. This coupled with the willingness of NASA to give wide distribution to the results on an unclassified basis would indicate no military significance to the end product and convey a false impression as to the state of the art as developed in the CORONA program. Since the information TIROS is seeking to collect is equally important over South Polar regions, TIROS shots could commence when sun angles for CORONA become too low, as in November, December, and January. Additionally, this would clearly indicate that the U. S. was not photographing the Soviet Union since the sun angles would be prohibitively low over most of the U. S. S. R. and its satellites. Therefore the CIA position in this case should be to support the TIROS program provided launches are made during the time period mentioned above.

5. On the other hand, if TIROS is planned primarily for North Polar regions, the sun angles it would require would be similar to those for CORONA. In this event, launch schedules would be in approximately the same time periods each year and priority of pad time could conceivably create a problem as well as an increase in the number of camera-equipped vehicles being launched during the same period. If TIROS launches could collect as valuable weather data from South Polar regions, there would be a relatively easy scheduling problem.

6. CONCLUSIONS. Although presumably the President is aware of both TIROS approval and CORONA approval, there are scheduling problems to be resolved unless one has a clear priority over the other. Conceivably TIROS might be used to further cover the CORONA series of launches since weather reconnaissance is one of its objectives. In any event, detailed cover stories and relationships between the two projects must be discussed with the appropriate NASA and ARPA personnel.

7. RECOMMENDATIONS. It is recommended that the CIA position be established as follows:

a. That arrangements be made with ARPA and NASA to establish relative priorities as between the CORONA and TIROS programs, *with Corons having the higher priority.*

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b. That schedules and appropriate cover stories be developed.

c. Since TIROS resolution will be of poorer quality than CORONA and of no particular value to the intelligence community, that this program be used on an unclassified basis to enhance the security of the CORONA program in the fields of cover and deception.

d. In the event that TIROS requires the same sun angles as CORONA, clear priorities must be established at the highest level since it might endanger the security of CORONA by requiring good sun angles. In this event, CIA should urge that TIROS be held in abeyance until completion of the CORONA series.

  
Colonel, USAF  
Acting Chief, DPD-DD/P

APPROVAL: Para. 7

  
Deputy Director  
(Plans)

Date: 20 July 1959

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USIB-D-33.7/1  
13 July 1959  
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UNITED STATES INTELLIGENCE BOARD

MEMORANDUM FOR THE UNITED STATES INTELLIGENCE BOARD

SUBJECT: Intelligence Aspects of Project TIROS

This memorandum is forwarded for review. In order to allow more time for study of this matter by Board members, Admiral Frost has asked that this paper, which only became available to the Secretariat for circulation today, be placed on the agenda of the 21 July Board meeting, rather than the meeting of 14 July as originally requested.



Executive Secretary

Attachment

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13 July 1959  
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DEPARTMENT OF THE NAVY  
Office of The Chief of Naval Operations  
Washington 25, D. C.

MEMORANDUM FOR THE CHAIRMAN, UNITED STATES INTELLIGENCE BOARD:

Subject : Project TIROS; intelligence aspects of (C)  
Enclosure : (1) Synopsis of the TIROS Project

1. Project TIROS, recently transferred from the Advanced Research Project Agency (ARPA) to the National Aeronautical and Space Administration (NASA), refers to a planned multi-sensor satellite for meteorological observation. This cloud cover satellite will carry two television cameras and one infra-red camera at an altitude of 400 miles and will have an orbit time of 100 minutes. Launching of the first satellite is planned for October 1959, with one to follow in the spring of 1960, and two per year thereafter for the following two years.


2. The U. S. Navy and the U. S. Air Force are engaged in specialized aspects of Project TIROS in accordance with requests made under joint ARPA-NASA programming. Project TIROS appears, at present, to have an overall security classification of CONFIDENTIAL.

3. It is my understanding that NASA is oriented primarily toward the free exchange of scientific information and that it will, logically, not desire to classify its projects. In this case, however, the implications for U. S. intelligence and security appear considerable enough to warrant consideration by the United States Intelligence Board (USIB) of two courses of action:

a. An approach to NASA to apprise it of the implications of TIROS - secured data to the intelligence community and to national security, and

b. The establishment of special security safeguards under USIB in cooperation with NASA for the protection of certain data secured through the TIROS project.

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4. It is requested that this subject be placed on the agenda of the USIB for 14 July 1959.

S/  
L. H. FROST  
Director of Naval Intelligence

7 July 1959




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13 July 1959  
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## PROJECT TIROS

1. TIROS is the short title for "Television Infra-Red Observation System", a cloud cover satellite planned for meteorological observation. The satellite is multi-sensor and will carry two television cameras and one infra-red camera. One wide-angle television camera is designed to cover an 800-mile wide area with resolution of 2.4 miles on the earth's surface. The other television camera is designed to furnish a 75-mile wide strip with resolution of 500 to 600 feet.
2. The vehicle for launching will be a Thor-Delta rocket. Spin axis is to be oriented in space inertially in a fixed position. The orbit altitude will be 400 miles; orbit time will be 100 minutes.
3. Project TIROS is about 70% completed. The first firing is scheduled for October 1959, with one to follow in the spring of 1960, and two per year thereafter for the following two years.
4. Receiving or interrogating stations are being assembled and details for manning them are now being worked out between the National Aeronautical and Space Administration (NASA), the Advanced Research Project Agency (ARPA) and the U. S. Navy Weather Service.
5. Data will be received in two forms--photographic and tape. Processing of the photographic yield from TIROS will be handled by the U. S. Naval Photographic Interpretation Center (USNPIC) in collaboration with the U. S. Naval Photographic Center (USNPC). USNPIC will extract accurate positioning data plus any measurements required and effect feedback of information to the U. S. Weather Service. In addition, five degree squares of latitude, in the form of a grid, will be superimposed on approximately 5,000 selected frames. It is estimated that 16,000 feet of film will be obtained during the first six days of the life of the satellite. Copies of all processed photographs will be supplied to the Air Force Cambridge Research Center for designated special evaluation and interpretation.
6. Project TIROS was recently transferred from ARPA to NASA, except for continuation of the development of meteorological techniques for the

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13 July 1959

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military application of information. The U. S. Navy and U. S. Air Force special participation in the program are unaffected by this change.

7. Up to this point, Project TIROS has been looked upon as basically an unclassified project for weather reconnaissance, although it appears, so far, to have a general security classification of CONFIDENTIAL. Its ultimate classification will be controlled by NASA, which is oriented toward the free exchange of scientific information and generally unclassified projects.

8. Since TIROS will probably provide the first pictures of the earth from a satellite, it would be quite reasonable to expect that, in the absence of agreed security restrictions, the resultant photographs would get immediate wide dissemination by NASA. This would provide the Soviets with free information on the effectiveness of the system for reconnaissance and perhaps even show what we are able to detect behind the Iron Curtain. Such release may not be desirable and its implications should be examined carefully before such an event.