

MEMO FOR GENERAL KULPA AND [redacted]

10 October 1979

SUBJECT: Program B Support by the MSE Program

Enclosed is a copy of a letter from [redacted] to Mr. Hill. I received this by Dacom from Lt Col Bruce Baron. I prepared the enclosed input for Lt Col Baron. Will keep you informed of Mr. Hill's reply.



2 Atchs:

1. Cy of ltr, 21 Aug 79 [redacted] to Mr. Hill
2. Reply to Dr. [redacted]

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(b)(3)

10/4/79

MEMORANDUM FOR BERNARD LUBARSKY

SUBJECT: Shuttle Payload Specialists (ref your 21 Aug 79 memo)

The DNRO has approved a Manned Spaceflight Optimization Program for all NRO programs. The plan includes manning for support of Program B. Program A has selected highly skilled and physically qualified officers to fill the approved positions. These officers will enter the program as Manned Spaceflight Engineers. During the first two years of their assignments, they will be in a Qualification Program to develop the expertise for manned spaceflight activities. As a part of their Qualification Program they will be assigned to support a specific NRO Program. From the initial cadre of MSE's, one will be assigned to support the [redacted] Program and one will be assigned to [redacted] When they have completed the Qualification Program they will be available for selection as payload specialists for the NRO programs..

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I appreciate your review of the status of the [redacted] program and the need for Manned Spaceflight support. The specific crew requirements for all the programs are a question at this time. However, it will be a benefit to all the programs to have the Manned Spaceflight Engineers with their talent and the knowledge they are developing to assist in the coming years. With the knowledge they gain from the program they work with, they should be the prime candidates for selection as Payload Specialists.

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BYE-14363/79
Copy No. 1

21 AUG 1979

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MEMORANDUM FOR: Staff Director, National Reconnaissance Office

SUBJECT : Shuttle Payload Specialist

1. Recently, Program B had informal internal discussions regarding shuttle payload specialists. The discussions at one time or other included DDS&T, D and DD/OD&E, [redacted] D/SPG and D/SAG. The consensus viewpoint developed is given below.

2. Background: The NASA crew consists of 2-3 permanent members: a commander, a pilot and usually a mission specialist. The mission specialist might not be required for a particular flight, but all shuttle mission classes now contemplated show a mission specialist as a member of every crew. The permanent crew is augmented by 0-4 "non-career" or "visitor" payload specialists, who will be provided by the user. One payload specialist, his seat, suit and expendables have a low Earth-orbit weight charge of about 350-500 pounds for Program B missions, depending on mission duration and method of accounting.

The primary responsibilities of the permanent crew are to manage the orbiter and the orbiter/payload interface and to assist in the payload operation as needed. When the shuttle is in orbit, the mission specialist will be available almost full time for payload duties, and the commander will be available a substantial fraction of the time. The permanent crew training will primarily emphasize the orbiter's operation, but the mission specialist will also be "proficient to fully proficient" with the payload systems, and the commander will be "knowledgeable to proficient" with the payload. The payload user is expected to provide all payload related training for the permanent crew.

Payload specialists are provided by the user when payload management and operation are beyond the capability of the permanent crew. It is expected that the payload specialists would normally, through long-time working association, be highly experienced with the payload. The payload specialist will receive 160-240 formal classroom hours of training on orbiter operations and will be expected to participate in

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SUBJECT: Shuttle Payload Specialist

simulated flight and orbit systems tests. The payload specialist must be trained to operate health, food, hygiene, emergency and support systems in the orbiter. Training would begin perhaps one year before launch and would be part time except for the last two months before the launch, which would be full time.

3. Program B current status: [] has examined the situation, and it is their belief that the permanent crew can perform all the manned functions that are required for the early [] launches, that a payload specialist is not needed, and that the added weight margin resulting from the omission of a payload specialist is much to be desired. They have so informed you.

SPG has studies under way to determine what checkout in low-Earth orbit might be suitable for [] and has taken no position in the matter pending completion of the studies.

4. Long-term Program B considerations: While in the near term it may well turn out that the permanent NASA mission specialist can perform all needed functions, in the long term it may be necessary to have firsthand experience with on-orbit operation of shuttle payloads. This experience would be especially germane to the upgrading of [] to have expendables and critical components (e.g., CMG's) replenished or replaced. With time, on-orbit operations will inevitably grow more complex, and Program B's firsthand experience or lack of it could influence its ability to conceive, develop and operate new, shuttle era, intelligence collection systems.

5. Program B position: In view of the above considerations, Program B's current position is as follows: At this time it appears that early [] flights will not require a payload specialist, and the utility of a payload specialist in [] is under study. However, if payload specialists are necessary, Program B will provide those required for its own program. These specialists could be CIA careerists, contractor employees or military detailees to the relevant program office. Program B will insure that appropriately qualified individuals are available as required.

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