Honorable Robert C. McFarlane
Deputy Assistant to the President
for National Security Affairs
The White House
Washington, DC 20500

Dear Mr. McFarlane:

For the record, the NASA position taken at the Senior Interagency Group (Space) meeting of December 3 is as follows:

NASA strongly urges starting production of the fifth Orbiter in FY84 to provide, at the earliest opportunity, a reserve Orbiter to assure continued space transportation services for all users in the event of extended downtime or loss within the fleet (Option III).

The fifth Orbiter maintains the Space Shuttle production base over the next several years. This permits support of Orbiter structural maintenance and repairs, and it allows time to gain experience and understand the Space Shuttle inherent operational capabilities and the market demand for its service. Starting the fifth Orbiter, I believe, is consistent with the President's National Space Policy committing the U.S. to World leadership in space transportation with the Space Shuttle as the Nation's primary space launch system.

Anything less than full production go-ahead of a fifth Orbiter increases its cost, delays the on-line availability of reserve capacity, and fails to reassure our commercial and foreign customers of the Government's intention to provide them with responsive and dependable access to space. The STS is now at the threshold of operations. A decision now to truncate the Nation's Orbiter production capability and space transportation capacity at four Orbiters, before uncertainties in capacity and demand are further understood, prematurely forecloses the Nation's future opportunities and initiatives in space.

Sincerely,



James M. Beggs
Administrator

MOG/CRGunn/djc/53247:12-8-82

cc:
A/J. Beggs F/N. Terrell M/J. Abrahamson A/Official File ←
A/H. Mark ADB/P. Culbertson M/I. Gillam AEM/File
MOG/Gunn

STATE DEPARTMENT POSITION ON FIFTH SPACE SHUTTLE ORBITER

The projections of system capability and demand do not support the need for a fifth Shuttle Orbiter at this time. There needs to be a period of confidence building in the space program prior to commiting sizeable funding to additional Orbiter production. The argument for continued production of a fifth Orbiter as an "insurance" for a four orbiter fleet is not adequately substantiated. Moreover, no persuasive evidence has been provided to suggest that there is substantial risk of national security missions displacing civilian and foreign missions if launch schedule problems arise.

T - William Schneider, Jr.

DEPARTMENT OF COMMERCE

POSITION ON FIFTH ORBITER

The production and delivery of the fifth Orbiter is believed to be in the best interest of the Nation and production should start in FY 1984.

ATTACHMENT 1

8 December 1982
0850 Hours

DCI Position on Fifth Orbiter Issue

The DCI position is that our programs alone do not require a fifth orbiter. From a national perspective, however, we are concerned about our current lack of understanding of the long-term operability of the STS and the potential impact of attrition. Because of this, the need exists to ensure that the U.S. can adequately maintain an operational four orbiter fleet. This requires some reserve capacity to cope with unforseen contingencies and a capability to repair an orbiter after a major incident. Given these needs, we do not believe it is wise to allow the STS orbiter production base to be shut down completely. Alternative 2, by maintaining limited orbiter production capability, will preserve the nation's flexibility to respond to future needs at a modest additional cost compared to Alternative 1. Alternative 2 is our recommended choice.

CONFIDENTIAL

ATTACHMENT 2

## CLARIFICATION OF FIFTH ORBITER OPTION II-- MAINTAIN ORBITER PRODUCTION CAPABILITY

This option maintains the production capacity of selected structural parts and major structural assemblies for an additional 1 to 2 years (depending on the element) beyond the normal close-down of the fourth Orbiter. The selected structural parts are those most likely to be damaged in handling incidents or landing accidents (rudder, elevons, speed brake, landing gear, landing gear doors). These parts will be totally finished and ready for installation on the Orbiter when needed. The major structural assemblies are the wings, aft thrust structure engine compartment, crew module including the nose and cockpit, the mid and aft fuselage sections, payload doors, vertical tail and the Orbit Maneuvering System pods. The wings, engine compartment and mid-fuselage will be delivered in FY86, the other parts and assemblies will be delivered in FY84 and FY85. All the major structural assemblies will be completed only up to the point where they are ready for installation of thermal protection system, plumbing, wire harneses, and major electrical, propulsion and hydraulic components. The cost for Option II (in millions of FY84 dollars) is:

| FY84 | FY85 | FY86 | FY87 | TOTAL |
|---|---|---|---|---|
| $90-110 | $100-120 | $90-115 | $60-90 | $350-435 |

The lead time to deliver an Orbiter will be reduced about 1 to 2 years from the 5 years in Option III (exclusive of engines, which would be started under spares).

For comparison, the cost of Option I to close-down the Orbiter production is:

| FY84 | FY85 | FY86 | FY87 | TOTAL |
|---|---|---|---|---|
| $65 | $85 | $40 | $40 | $230 |

Close-down includes supplemental spares, documentation, storage of tooling and attendant sustaining engineering. Long-lead major structural assemblies are not included in supplemental spares.

For comparison, the cost of Option III to continue full Orbiter production with delivery of the fifth Orbiter in late 1988 is:

| FY84 | FY85 | FY86 | FY87 | FY88 | FY89 | TOTAL |
|---|---|---|---|---|---|---|
| $200 | $325 | $350 | $350 | $320 | $50 | $1,595 |

Attachment 3

9 December 1982

DCI Position on Fifth Orbiter Issue

The DCI position is that our programs alone do not require a fifth orbiter. From a national perspective, however, we are concerned about our current lack of understanding of the long-term operability of the STS and the potential impact of attrition. Because of this, the need exists to ensure that the U.S. can adequately maintain an operational four orbiter fleet. This requires some reserve capacity to cope with unforseen contingencies and a capability to repair an orbiter after a major incident. Given these needs, we do not believe it is wise to allow the STS orbiter production base to be shut down completely. Alternative II, by maintaining limited orbiter production capability, will preserve the nation's flexibility to respond to future needs at a modest additional cost compared to Alternative I. Alternative II is our recommended choice.

The DCI also notes that CIA has recently estimated that the Soviets are undertaking a variety of new space programs that will result in a period of rapid expansion.* Soviet space hardware costs are expected to reach the equivalent of $12 Billion a year by 1986--double the current outlays. The increased costs reflect

- Achievement of a permanent Soviet presence in space

- Advances in the technology available for intelligence collection, photoreconnaissance, and military support satellites

- Expansion of navigation, data relay, communications, and weather satellite networks

- Development of a reusable spacecraft, a reusable space transportation system similar to the U.S. shuttle, two new space launch vehicles, and increasing production of the largerst of the current Soviet space launchers

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