



NATIONAL AERONAUTICS AND SPACE ADMINISTRATION  
WASHINGTON, D.C. 20546

APR 5 1973

REPLY TO RF  
ATTN OF:

MEMORANDUM

TO: RS/William C. Hayes

FROM: RF/H. Kurt Strass

SUBJECT: Review and Analysis of OMSF Test Planning to  
Identify Potential Programs Suitable for  
Performance at the Plum Brook Facility

REF: Memo from Strass to Jackson dated March 26, 1973

Present NASA planning is to completely shut down the Plum Brook Station by the end of FY 1974 with the major facilities in a standby condition capable of being reactivated in a three month period should the need arise. All possible actions relative to the utilization, preservation and redirection of the resources of this facility are being considered. At the present time, the availability of the Plum Brook facilities is being made known to potential user agencies and civilian organizations.

Inasmuch as several of the major facilities at Plum Brook are truly unique with regard to their capability to provide realistic, full-scale testing of spacecraft and components, it is appropriate that present and future NASA test requirements be analyzed with a view towards identifying possible oversights or potential opportunities to effectively utilize the capabilities inherent in the Plum Brook investments.

The writer recently discussed this general subject with Mr. Charles Donlan (MD-T) as reported in the reference memo. Mr. Donlan was willing to cooperate fully in evaluating test requirements for the Interim Tug and the Tug, but was a bit apprehensive about our re-examining Shuttle test plans. This sensitivity is natural since such an effort may do more harm than good if it is not carefully and quietly conducted. Nevertheless, I am requesting the assistance

RS Date In 1/14/73

By                     

RS File

of your office in this matter and ask that an independent evaluation be performed of Shuttle-related test planning for the consideration of OAST management. In the case of test requirements for the Tug and Interim Tug, Mr. Donlan has indicated that we work through Mr. Phil Culbertson's office (Code MT).

Typical programs which may be effectively handled at Plum Brook include:

- Heat Shields
- Thermal Protective and Control Systems
- Attitude Control Systems
- Orbiting Maneuvering System Engines
- Cargo Bay Systems and Handling Equipment
- Any system required to operate after exposure to launch, space soak, or reentry external environments

The writer presently has information on the capabilities of Plum Brook facilities and will be pleased to provide additional data as desired. An illustrated brochure describing Plum Brook and its capabilities is in final preparation which may also prove helpful.

It is important that this effort be accomplished promptly. The Lewis Research Center is prepared to assist as needed.

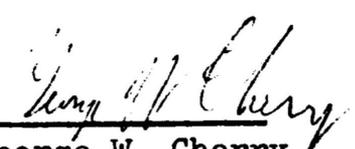
It is envisioned that a two-three man-month effort will be required, with a target for completion by April 27, 1973.



H. K. Strass  
Applications Technology Office

Enclosure:  
Reference Memo

cc:  
RD-M/Mr. Kilgore  
LeRC/Mr. Lundin  
LeRC/Mr. Dugan

Concurrence:   
George W. Cherry

APR 5 1973