IN REPLY REFER TO:

Dr. Floyd L. Thompson  
Director  
Langley Research Center  
Langley Station  
Hampton, Virginia  

Dear Tommy:

Please accept my congratulations on the success of the Scout Reentry Heating Experiment on Tuesday morning. The accomplishment of this sophisticated reentry mission represents another significant advance in reentry technology. It has importance not only in extending ground-based data and providing new facts for theoretical studies but also in achieving a check point for the manned spacecraft program.

Those associated with the Reentry Heating Project and the Scout Project should be proud of this success. Please extend my appreciation to Joe Hallissy, the payload manager, and Gene Schult, the vehicle manager, and all the Langley people whose contributions added up to a job well done.

Sincerely,

Ray

Raymond L. Bisplinghoff  
Associate Administrator for  
Advanced Research and Technology
Mr. Joseph M. Hallissy, Jr.
Manager, Scout Reentry Heating Project
Langley Research Center
Langley Station
Hampton, Virginia

Dear Joe:

I have written to Floyd Thompson to extend my appreciation to all of the Langley people concerned with the Scout Reentry Heating Experiment, but I want to express my appreciation to you personally for your work in achieving a very successful flight mission last Tuesday morning. Your leadership and management were a major factor in reaching the mission objectives which are significant not only for the advanced re-entry technology program but also for the manned spacecraft program. Thank you.

Sincerely yours,

Original signed by
Raymond L. Baslinghoff

Raymond L. Baslinghoff
Associate Administrator for
Advanced Research and Technology
Mr. Eugene D. Schult
Manager, Scout Project
Langley Research Center
Langley Station
Hampton, Virginia

Dear Gene:

I have written to Floyd Thompson to extend my appreciation to all of
the Langley people concerned with the Scout Reentry Heating Experiment,
but I want to express my appreciation to you personally for your work
in achieving a very successful flight last Tuesday morning. Your leader-
ship and management were a major factor in achieving excellent perfor-
mane of the Scout vehicle. As you know, the payload mission objectives
were achieved with significant results not only for the advanced reentry
technology program but also for the manned spacecraft program. Thank
you.

Sincerely yours,

Original signed by
Raymond L. Bisplinghoff

Raymond L. Bisplinghoff
Associate Administrator for
Advanced Research
and Technology
NOTE ON SCOUT REENTRY HEATING EXPERIMENT
Submitted for Administrator’s Monthly Summary Report
August 27, 1964

With an assist from a perfect performance by the Scout launch vehicle, the Langley Research Center, on August 18, performed a reentry heating experiment which is expected to provide very important results. In this flight, in which a velocity of about 27,950 feet per second was achieved, the primary objective was to provide a flight test of the performance of a low density charring ablative material in a high enthalpy reentry environment not attainable by ground simulation.

A secondary objective was to assess the engineering performance of the selected material. AWCAT 5026-39 H/G, which is one of the candidate materials for the Apollo heat shield. The charring ablative used had been extensively tested in ground facilities, with a wide variance in results from different facilities. The results of some tests were interpreted as indicating that with the thickness of heat shield material used in the experiment, the material would burn through about half way through the reentry heat pulse. Other data were interpreted as indicating that the material would survive throughout the heat pulse. Excellent telemetry signals were received from the spacecraft after its emergence from radio blackout. Conclusions concerning the performances of the heat shield material must await examination of the telemetry records which is now taking place.

All systems involved in the performance of the experiment operated exceptionally well. The perfect flight of the Scout was accompanied by equally good performance of the 17-inch spherical motor which was a part of the reentry package and imparted the final velocity increment to the reentry package after the fourth stage of the Scout had placed it in the proper trajectory. The preliminary radar velocity of 27,950 feet per second was less than 50 feet per second from the expected velocity of 27,993 feet per second. Impact was about 12 nautical miles from the planned point, about 450 nautical miles southeast of Bermuda. The entry was observed visually and photographed with spectrographic cameras by two NASA aircraft and an aircraft loaned by Sandia. Cine camera records were obtained by the ships Range Recoverer and Sampan Hitch. Telemetry data on reentry was recorded by both NASA ships and by two aircraft furnished by the Eastern Test Range.

The experiment was a part of OART’s Scout Reentry Heating Project managed and executed by the Langley Research Center. Mr. Joseph M. Hallissy, Jr., is Project Manager. The vehicle was launched from NASA’s Wallops Station and Wallops was responsible for launch operations and range operations, including coordination with the Eastern Test Range. The Eastern Test Range provided and operated the two telemetry aircraft. Wallops Station provided and operated two instrumentation ships, the Sampan Hitch and the Range Recoverer. There are two approved experiments remaining in the Scout Reentry Heating Project, one a back-up of the experiment just completed, and one a materials experiment in which recovery will be attempted.
IN REPLY REFER TO:

Mr. Eugene D. Schult
Manager, Scout Project
Langley Research Center
Langley Station
Hampton, Virginia

Dear Gene:

I have written to Floyd Thompson to extend my appreciation to all of the Langley people concerned with the Scout Reentry Heating Experiment, but I want to express my appreciation to you personally for your work in achieving a very successful flight last Tuesday morning. Your leadership and management were a major factor in achieving excellent performance of the Scout vehicle. As you know, the payload mission objectives were achieved with significant results not only for the advanced reentry technology program but also for the manned spacecraft program. Thank you.

Sincerely yours,

Original signed by
Raymond L. Bisplinghoff

Raymond L. Bisplinghoff
Associate Administrator for
Advanced Research and Technology