

MINUTES
HABPET TELECON
4 MARCH 1998

Attendees on the teleconference included: Tom Best, Larry Wingfield, Dave Stallings
Lana Couch, Ajay Kumar, Wayne Guy
Lee Bain, Ed Gravlin
John Schaefer, Frank Berkopec, Scott
Thomas, Ron Cull
Dennis Sorges, Tony Damiano

The planned agenda items were accomplished but in a different order:

1. John Schaefer gave an overview of the LERC HTF status. There was a facility valve that failed during testing in 1996. It was proposed to NASA HQ Code R that the valve be fixed for \$3M (not including any facility capability expansion). This proposal was accepted and now the effort is underway. Correct performance capabilities of the HTF were added to the facility capability table.
2. A discussion of how to consistently compare test capabilities was led by Larry Wingfield. He suggested that facility capability comparisons be made along the lines of the required capabilities of the HyTech program. This translates to Mach 4, 6, and 8 at altitudes of 70, 90 and 110 Kft with a minimum nozzle diameter of 42 in to accept a full-scale missile size model. There was also discussion of minimum test article length, usable data taking time (run time), and support system status (fuel types, instrumentation/diagnostics, thrust stand, model injection). Angle of attack capability was discussed but it was determined that this was not a requirement of HyTech at this time but should be considered for follow-on testing. Finally the facilities should be compared relative to cost of testing (this requires a standardized list of items to cost out and a standard test matrix for comparison). Larry was requested to document these test capability comparison areas for the next telecon. During these discussions the table showing hypersonic propulsion facility capabilities was updated for HTT. When the Navy T-Range values come in, the table will be redone and sent to all HABPET members.
3. Dennis Sorges next led a discussion of the T-Range. It is a sea-level facility (no altitude capability) with two bays (one for materials testing and the other for direct connect ramjet testing). It currently runs up to Mach 3 and operates in the blowdown mode with <1min run times. Other performance characteristics include mass flow of 150 lbm/sec and heating up to 300 BTU/lbm. They are currently requesting funding to upgrade the facility with new burner technology and expanded air storage to get 2 to 3 min of run time at Mach 8. Dennis will provide information for the facility capability table on the T-Range.
4. Tom Best led a discussion of the HABPET charter. It was agreed that the Navy personnel should be added as members and would include Dennis Sorges and Steve Lyda. It was also proposed that Lana Couch and Ajay Kumar be labeled as LaRC personnel. Lana Couch recommended specific wording changes to item 3 in the charter to include narrowing the study objectives for HyTech to be freejet testing in

the Mach 4-8 range only. She will get exact wording to Blair Gloss. It was also recommended that items 1-4 be completed by mid-April and then start on items 5-7 to be completed by some later date TBD.

5. Lana Couch addressed test methodologies and test techniques in the final area of discussion from a program perspective. She suggested that in the near future an informal meeting be held with Chuck McClinton and Randy Volland of LaRC to describe their experiences in this area on two recent programs (CDE and HyperX).

Agreeing that the next telecon would be held the end of the week of 9 March concluded the telecon.