

APOLLO ASSOCIATE CONTRACTORS

MIT	GUID & NAV EQUIP. - TECH MGMT
AC ELECTRONICS	GUID & NAV EQUIP. - MFG
CHRYSLER	S-I
BOEING	S-IC
NAA S&ID	S-II
DOUGLAS	S-IV & S-IVB
GENERAL ELECTRIC	ACCEPTANCE CHECKOUT EQUIP.
GRUMMAN	LUNAR MODULE
HAMILTON	
STANDARD	SPACESUIT & PORTABLE EQUIP.

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install that equipment in our spacecraft. So, they are not subcontractors to us, but we still have to have the right connections to tie all this stuff together. There is quite a management job in working with these other companies to develop what we call interface control documents which define exactly, to every little bit and piece, how these things all fit together, both technically in their performance and also physically.

Mr. TEAGUE. How do you coordinate that?

Mr. MYERS. We have interface meetings, as we call them, where we define with them all the interactions that occur with the spacecraft and the lunar module. Grumman is really one of the lesser problems in our coordination. The kinds of things we deal with, for example, would be in the docking probe to be sure all the meshes and mechanisms are right. We build a piece called the drogue, that is shipped to Grumman to install in their module, which provides the docking interface directly with us. In addition to that, we have to define the loads, the inertial loads, for example, as we dock, so their structure is built to properly match ours. Wire runs between us are worked out in these interface meetings, and all this is approved by NASA. They sit in on the meetings with us, or we have summary meetings where we finally settle these interface problems. It has worked out quite well with our interface with Grumman. Actually, we have had more problems in the areas of guidance and navigation because their wires sort of run like veins through the spacecraft, and there have been much more detailed technical interfaces there. It has taken more effort with the guidance and navigation equipment than it has with the lunar module.