SUMMARY

- SIGNIFICANT SPACE ACCOMPLISHMENTS POSSIBLE AT RELATIVELY LOW COST VIA 1968-69 AAP FLIGHTS--USING APOLLO VEHICLES NOT REQD FOR LUNAR LANDING PROGRAM WITH MOD KITS
- APPLICATION OF APOLLO-QUALIFIED HDWE DESIGNS TO OTHER USES OFFERS MINIMUM RISK/COST/SCHED SOLUTIONS
 - MULTIPLE DOCKING ADAPTER FOR ORBITAL WORKSHOP
 - GROUND SUPPORT EQUIPMENT FOR AF MOL PROGRAM
- USE OF RENOVATED COMMAND MODULES PERMITS SAVINGS OF APPROX \$10 MILLION PER FLIGHT--BUT PROGRAM NEEDS TO **BE STARTED NOW**
- MOD KIT APPROACH FOR LOGISTICS VEHICLE APPLICATION OF CSM CONSIDERED MORE COMPLEX & COSTLY THAN USE OF "BLOCK III" APPROACH
 - SYSTEM DEFINITION STILL REQD
 - SYSTEM AVAILABLE LATE 1970 WITH 1 JUL 67 PROGRAM START

SLIDE 81. AAP SUMMARY

pertains to the multiple-docking adapter for the orbital workshop,

for example.

The use of the renovated command modules, as opposed to the use of totally new vehicles, the third aspect, we think will result in eventual savings in excess of \$10 million per flight. We have to be conservative at this point, but we think this cost saving can be even greater. But, in order to accomplish this, we need to start the program now or many of the spacecraft will just normally land in the ocean and the corrosion process will begin, which then preempts this reuse possibility.

The last point that I have covered relates to the CSM mod kit concept approach. This makes a lot of sense in early flights, but is a very costly and complex way to go for the logistics vehicle. We strongly urge that the system definition of a Block III vehicle be initiated now if we are to provide flight vehicles at a reasonably early date.

Mr. TEAGUE. Thank you, sir.

Mr. Freitag. Mr. Chairman, Len's comments about the refurbished command modules are very valid. I think, for the new members of the committee, it's significant to note that in Gemini we have done this already. One of the major contributions of the NASA program to the Air Force MOL program was that we took the Gemini II space-