

photographic data to earth. Through such efforts, we may hope to get answers to many of the most fundamental questions about the universe—the nature and number of x-ray and radio sources, the origin of cosmic rays, and finally, the origin and evolutionary history of the stars and galaxies, themselves.”

Dr. MUELLER. Mr. Chairman, I thought that it would be worthwhile to have these requirements stated by some of our leading scientists. I wonder if it would be your desire to place them in the record.

Mr. TEAGUE. Yes, sir. We would like to have them in the record.

Dr. MUELLER. Going on to the use of the Apollo hardware in the follow-on program, in particular in carrying out extended lunar exploration, there are two major courses that we expect to follow, one is the development of a mapping and surveying system which is capable of providing high resolution multispectral pictures utilizing a wide electromagnetic spectral range to cover the lunar surface. The system to be used here is, as you see, in the left-hand view (ML 66-9782, fig. 21), the mapping and survey camera, which is now under development in the Apollo program. We expect to fly it in lunar orbit and leave it in lunar orbit for a period of 28 days and thus permit a complete mapping of the lunar surface in a single mission (ML 66-8965, fig. 22).

Mr. FUQUA. Would this be a manned mission?

Dr. MUELLER. Yes. The man is essential to maintain the equipment to keep it operating and to change films. We would hope also to obtain both stereo coverage and color as well as high resolution photographs of the lunar surface. That is one of the types of missions.

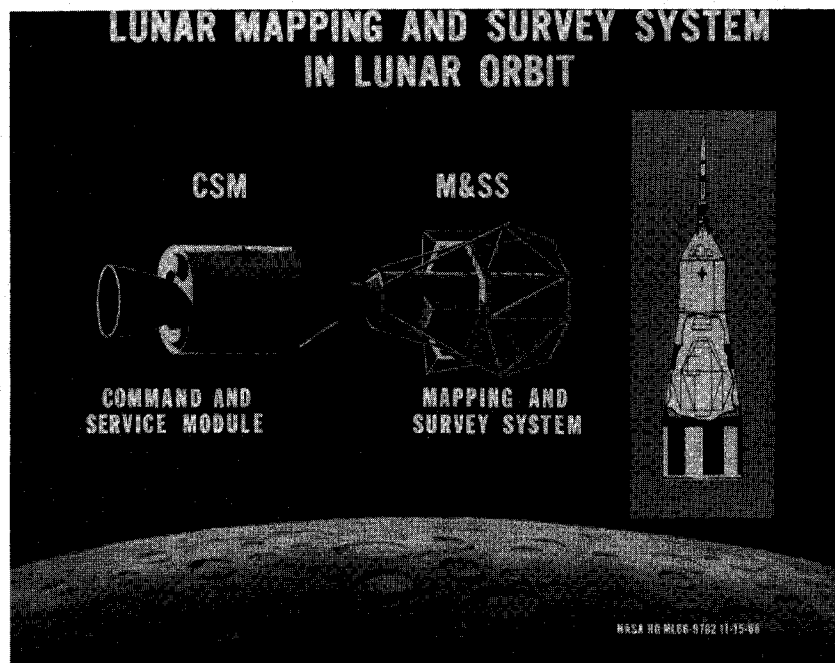


FIGURE 21