

astronomical observations of the planets, Sun, and other bodies while in transit.

It would look at the development and proof testing of manned planetary systems. It would give us some experience on manned planetary operations. It would utilize our presently evolving technology to embark on early manned planetary exploration. It would acquire engineering design input data for application to future systems, and it would provide enhancement of our national prestige.

Mr. FULTON. On Mars and Venus it would give you two reference points in which to determine the effect of the Sun and Earth, so that you would then have some method of calculating other than just have one reference point when we are on the Earth?

Dr. MUELLER. That is correct.

Mr. FULTON. It would have an application to better life on Earth and possibly better man's existence?

Dr. MUELLER. It would be our first opportunity to observe the total operation of the Sun.

Mr. FULTON. It would be very interesting.

Dr. MUELLER. Turning to the actual profile of a typical Mars mission (MT66-10,212, fig. 10) we would launch as we approach the target planet a series of probes; one would be an Orbiter; another would be a Mars Surface Sample Return probe.

There are also some Lander probes which would provide us with information about the atmosphere and the surface on a continuing basis. All of this would be done in a matter of a few days while one was in the vicinity of the planet.

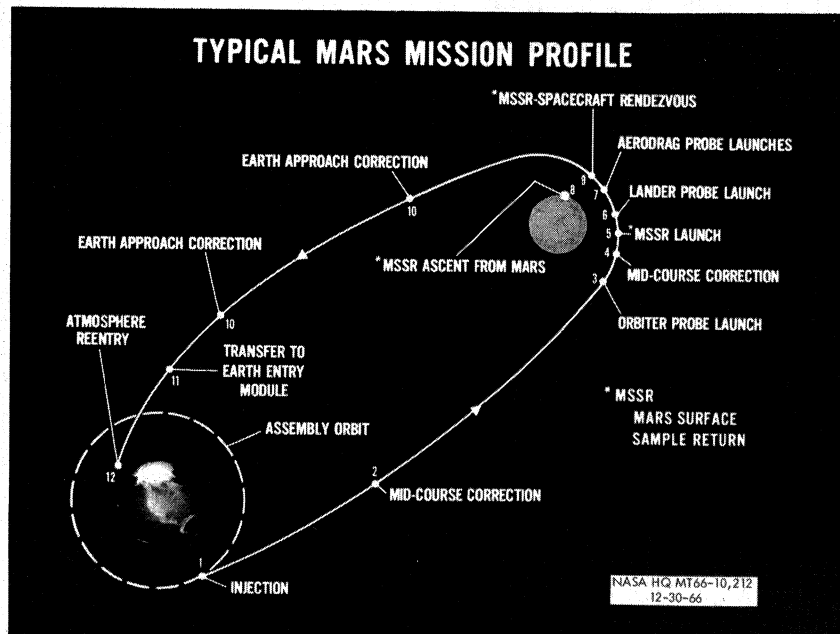


FIGURE 10