Ken Mattingly

NASA Crisis

Apollo 13

As a former member of the support crew of the Apollo 8 and 13 missions, I fully understand the importance of this mission and how crucial it’s to get our astronauts home and safe and sound.

The Apollo 13 command module design is based of that of our last two triumphant missions, Apollo 11 and 12. With space for all the crew members, the PGNCS, heat shield, gyroscopes and carbon dioxide scrubbers, the command module is fully equipped to get these astronauts to Lunar orbit easily. The PGNCS computers allow the astronauts to accurately navigate space, a small telescope and sextant is placed in the module to test the accuracy of the computers. The amount of carbon dioxide scrubbers is suitable to support the crew for 10 days, which is ample time for them to reach lunar orbit and even return back to Earth.

The service module is equipped with fuel cells, solar panels, and liquid Oxygen and Hydrogen tanks and the tanks not only propel the rocket but provide water and power for the command module. To combat Thermal Stratification the tanks had motorized fans built to combine the layers of liquid oxygen that develop. This module has more than enough power, with three cells used specifically for reentry when the other sources of power, power down. I was trained to know everything there is about the CSM. I can be an advisor on how to navigate and preform mid-course correction procedures during the trans-lunar and trans-earth phases of flight.

The lunar module is designed for a two man crew, for a moon mission lasting an estimated one and a half days. It’s designed to be docked to the CSM and undock to start using the descent stage to propel it out of lower orbit and down towards the moon. Once the moon mission is completed, the crew will strip it down to the bare essentials and launch into the ascent and once the crew transfers back the module is discarded.

Due to the Earth’s gravitational force, the ship will miss the Earth by 2500 miles, to tackle that problem the spacecraft will use a circumlunar trajectory. The ship will have to travel around the far side of the moon and use its gravitational force to launch it back towards the earth on course.

If there is a need for an extra helping hand or another qualified advisor, it would be my pleasure to assit this mission in any way possible. With exceptional knowledge in the field of aeronautical engineering with an accompanying bachelors degree from Auburn. I’m ready to offer my support to this mission.