

INST 154

Apollo at 50

Discussion Questions

Session 12: Mission Operations

1. A fundamental belief in the Mission Control Center of the American Space Program is that missions are actually commanded from the ground (despite one of the astronauts being called the Commander). Why did things evolve in that way? What are the risks of doing it that way? What are the practical limitations on being able to actually do things that way?
2. The astronauts relied very heavily on simulation to prepare for their flights because nobody ever gets enough experience in actual spaceflight to learn by doing. This is a very expensive and time consuming process. What are the limitations of simulation? In other words, what needs to be learned in other ways? What other ways do astronauts have to learn the things that they can't learn through simulation?
3. We know a lot about how astronauts were selected. How were flight controllers selected? What backgrounds did they need? How did the people hiring them recognize who would be good at the job? What weaknesses did the selection process have? How could it have been improved?