

INST 154

Apollo at 50

Discussion Questions

Session 20: Apollo 8: Lunar Orbit

1. What were the most difficult parts of the Apollo 8 mission? I am asking here not about which were the most dangerous parts, but rather which parts of the mission required the greatest skill from the astronauts, the launch control team, the mission control team, the recovery team, or some combination of those? These are the issues to which the greatest attention would have been paid in training. So another way to ask this question is how should the limited amount of training time that was available have been allocated?
2. We have discussed the risks of flying Apollo 8 in lunar orbit, but one question against which that needs to be balanced are what would have been the risks of NOT flying Apollo 8 in lunar orbit. There were three alternatives: (1) wait until the Lunar Module was ready (which turned out to be March 1969, about 2.5 months later), (2) fly Apollo 8 on a circumlunar mission without entering lunar orbit, or (3) fly Apollo 8 in high earth orbit but not in the vicinity of the Moon. Each of these decisions would also have involved risks – not just risks that would be result from what was done, but also the risks that would result from not doing things that would still need to be done later. These risks need not just involve human life – there are also (among others) cost risk and schedule risk. Without reference to other benefits (e.g., political prestige), list the **risks** that would have been increased by **NOT** flying Apollo 8 in lunar orbit.
3. Some people have claimed that the cultural significance of humans leaving Earth for the first time on Apollo 8 exceeds the cultural significance of Apollo 11's Moon landing, and that December 1968 is therefore the date from the Apollo Program that will be most remembered. There was, however, no specific effort by NASA to plan commemorative activities for Apollo 8 (as there was for Apollo 11). Should there have been? Why or why not? If so, what should have been done at the time to signify and celebrate the event?