

## Panel: Commercial Crew: On Course to Purposeful Flight

October 12, 2017

1. How do you plan to keep launch crews up to speed and trained (much less retained) with a once year launch schedule?
2. Will the extra seats be for sale to space tourists?
3. Are these projects profitable for Boeing and SpaceX on a standalone basis, or will the return come from private future demand?
4. With Elon Musk's focus on the BFR, how will SpaceX support ISS crew missions out to 2028?
5. With SpaceX being "all in" on BFR and planning to build rockets on for existing customers - how does this square with NASA missions needs and their payback on the crew Dragon investment? Is additional NASA investment needed for BFR for future missions?
6. How much are you planning to charge the Russians for a ride to the ISS?
7. In the development of a crewed vehicle where have you had to lean on NASA expertise more than you originally thought?
8. What do you see as important environmental (water and air quality, and waste reuse) challenges that need to be addressed to ensure future commercial mission success?
9. Is it in the current plan to reuse the capsules or the Falcon 9 at some point? If so, when and what are the drivers for that decision?
10. With Elon's IAC announcement that Falcon 9 production would cease, does this present any new hurdles to crew certification?
11. How do development timelines compare between Apollo crew module and current? Ditto for the Saturn V and SLS.
12. What problems/challenges keep you up late at night? How will you overcome them?
13. Beyond NASA supplied crew, what plans do SpaceX and Boeing have to select and train external crew?
14. Is SpaceX truly invested in crew or using NASA as a stepping stone to achieve Elons's vision?
15. For Benji: when will SpaceX shift commercial satellite launches to repaired pad 40?
16. What would it take to get your photos visible? Could you all put on photo per slide so we can actually see what's going on?
17. For Benji - is SpaceX truly focused on NASA's ISS mission or are you using this (them) as a stepping stone?
18. When will we learn more about the SpaceX spacesuit?
19. Who will fly the first crewed mission?
20. Status of lessons learned from F9-29?
21. Does the business case still close if ISS ends in 2024?
22. How do your vehicles fit into NASA's deep space gateway architecture?