

**House Subcommittee on Aviation Hearing on
"Commercial Space Transportation"**
December 2, 2009
Washington, D.C.

The following are twitter notes taken during the House Subcommittee on Aviation Hearing on "Commercial Space Transportation" hearing. The notes appear in reverse chronological order, so to read them as they were written, you should start with entry #47 and read to entry #1.

1. Greason: suborbital spaceflight will come down to price of cruise. END OF HEARING.
2. OCST works very well together with, both USAF and NASA.
3. Intl competition is significant due to subsidies. US regulatory regime admired worldwide.
4. Long-term indemnification would provide certainty to business. Community. Q: how do govt launch sites work with comml vehicles?
5. Systems planned from suborbital to orbital flights. Cong Boccieri recognized. How to improve comml space travel re indemnification?
6. Currently paying \$50M per astronaut to fly on Russian launchers. Q to Greason. What is beyond suborbital?
7. What is diff between funding ELVs or RLVs? There are 2 different programs not in competition with each other.
8. Dillingham- we've had predictions before, faa needs to expand if predictions come true.
9. Are tours to comml launch pads available? Nield: we'd be happy to work with you on that. Q from Altomire.
10. How muc does it cost to go to space? Greason: \$200K to \$95K. Competitive pressure will drive prices down.
11. Can faa handle increase in activity after Shuttle is retire? Dillingham; yes with expanded resources.
12. Nield. Have worked with USAF for years to establish basic safety standards usable for both military and comml users.
13. Congresswoman Johnson statement. Asking Nield about policies that might have unintended impacts.
14. Brings in the awe of space travel to midwest, plus industrial and financial ramifications.
15. Petri- happy to hear about sensitivity of heavy govt hand on industry development. Q of Teslee- what's in it for WI?

16. FAA will need to match the resources and skill mix with industry growth. (Not Nield.)
17. Prime driver for high launch rate is RLV launches within next 5 yrs.
18. Q to Nield: when will we see 200-300 launches a year. Hard to predict the future. Continue ELV launches, new CRS launches
19. Greason- under current law, OCST needs to work with industry to collect safety indicators.
20. Q to Stevens: question re integrating space flight to Air traffic system. Need to account for this.
21. Q to Dellingham. What safety indicators would you recommend? Due to low activity in industry more data collection needed
22. Q2 re greason's experience. Both sides still working out how to handle new class of vehicles. Value added process.
23. Nield now describing launch licensing process. 5 separate reviews (safety, payload, environmental, financial impact, etc)
24. Asking for govt funding for spaceport planning to mitigate risks to environment, public, etc. Questions now.
25. Wisconsin Aerospace Authority created. Supports Spaceport Sheboigan. Point to Point flights on the horizon.
26. There is a bright future for emerging industry. Teslee statement- OCST successfully executes its mission.
27. ... Passengers don't select vehicles they fly on based on safety. ITAR a problem. Orbital flight v different from subo.
28. Industry is facing incredible pressures for safe flight. There will be no conflict of Safety+Promotion until day when...
29. OCST's safety and promotion role is only reasonable stance at this stage of ind development.
30. OCST has done a good job working with the emerging industry. Vehicles must fly to begin generating revenue.
31. A trained technical workforce is a major concern for the industry. Greason statement-current regulatory regime has encouraged investors ...
32. Govt indemnification expires in 29 days and loss of it could drive business away from US launchers. ITAR is an issue.
33. Faa has struck important balance on safety and promotion. (Lovefest so far. -kd) issues of concern are foreign competition.
34. Govt needs a strategic launch strategy. 3. Stevens testimony- AIA pres. Commending OCST and advisory committee and conference.

35. Federal Indemnification still needed. Safety standards and regs need to be harmonized. Space xport into natl airspace system needed.
36. As industry expands, FaA needs more resources. Faa must be proactive for increased safety. See no need to separate safety-promotion roles.
37. Recommendations; congress should review Safety v. Promotion roles. FAA has taken reasonable steps to fulfill safety oversight role.
38. RLV test flights coming soon. Safety is at the core of our mission. End of statement. Dellingham testimony- study done in 2006.
39. Now talking about comm'l human spaceflight. OCST working closely with COTS and suborbital launch companies.
40. OCST ensures safety by issuing licenses for ELV launches (200th safe launch just last week!), licenses for spaceports.
41. Nield- summary of history, mission, and highlights of Office of Comm'l Space Transportation.
42. 2 reps for Wisconsin Spaceport to testify, incl. Jerry Dillingham, JP Stevens, James Teslee, Mark Hannah.
43. Rep. Petri now giving opening remarks. There are 6 witnesses, jeff Greason (XCOR Pres) among them.
44. Only 2 Congress people at the dais at the outset of the hearings. Each is accompanied by their own counsel.
45. Btw, this hearing is being webcast. Costello aware of emerging comm'l space industry. Dr. George Nield (my boss) and others will testify.
46. Rep. Costello making opening statements. Topic: Update on safety oversight by FAA Office of Comm'l Space.
47. Sorry Peeps. I'll be tweeting notes on the Safety v. Promotion hearing on my personal acct. Sorry in advance.