

## June 7 – New Soyuz Launch Today – Safety Concerns Downplayed

1. A regular 'expedition crew' (long term) launch to the International Space Station will occur today (Tuesday, June 7) at 4:12 PM EDT. This is just after midnight in Moscow and 3:12 AM at the Baykonur launch site in Kazakhstan.

2. The ship is called "Soyuz TMA M2", a designation which reflects the pedigree of the modifications made to the standard Russian manned spacecraft first flown in 1966.

3. Crew commander is veteran cosmonaut Sergey Volkov, with veteran NASA astronaut Mike Fossum as Flight Engineer and Japanese surgeon Satoshi Furukawa (space rookie) as researcher. Fossum will become commander of the space station later in the summer.

4. NASA TV will cover today's event as follows [snip]

5. The crew will join three people already in orbit and comprise "Expedition 28" to the ISS.

6. The next six months will see the FINAL shuttle flight (in July) and possibly the first-ever commercial cargo flight by 'SpaceX' and its 'Dragon' spacecraft (November at the earliest). The first MANNED flight of a commercial 'space taxi' is still at best, four years away.

7. This vehicle is the second of the new generation 'digital Soyuz' with total replacement of the vehicle's control electronics. I discuss the upgrades here (Sep 2010 article):

<http://spectrum.ieee.org/aerospace/space-flight/a-digital-soyuz>

8. The only previous 'digital' mission encountered some shake-down problems, as 'first' flights often do. I discuss them here [March 11, 2011]: <http://spectrum.ieee.org/tech-talk/aerospace/space-flight/digital-soyuz-return-could-be-rocky>

9. In an AP story from the launch site over the weekend, chief NASA astronaut Peggy Whitson was quoted as saying: "There were some software issues that they had the crew in orbit repair last time... The next version will have different software, so they won't have the same issue."

10. My story [linked from graf 8] discusses many of those problems that NASA was extremely reluctant to admit to, and only did so when confronted by tough press questions. But it's even worse -- there were OTHER problems on the first 'digital Soyuz' flight that NASA has refused to discuss and about which NASA has rejected a FOIA request for documents -- on a bogus rationalization.

11. The full story of this coverup and its safety implications is here:

<http://www.thespacereview.com/article/1799/1>

Soyuz landing tests new systems and old secrecy habits [march 14, 2011]. Specifically, there was a serious failure of a cabin pressurization valve while on the launch pad, the third failure of this hardware on three missions, that nearly cancelled the launch. It also introduced an overpressure during landing that flooded the cabin with oxygen, raising the fire hazard nearly to redline. NASA officials refuse to discuss this, with the flippant disclaimer, "Ask the Russians" -- knowing full well the Russians will never answer.

12. Bottom line: No space launch is routine, there are always hazards, and they can only be kept in check, barely, with full honesty. When officials go into denial mode, it's a bad sign. So I'll keep watching!

13. Another hint of trouble is that this launch was delayed nine days because the Russians themselves were not satisfied with the disposition of anomalies from the previous flight. This caught NASA officials by surprise.