

Re: Space Shuttle criticizing will start once it has been retired

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Source: <http://sci.tech-archive.net/Archive/sci.space.policy/2009-01/msg00075.html>

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 - *Date:* Sat, 03 Jan 2009 22:13:36 -0600
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Greg D. Moore (Strider) wrote:

Mercury: 6 flights
MA-7 – landed off course 402km, numerous issues.
MA-9 – many issues, helped lead to cancellation of MA-10

Of course, one of the big ones with Cooper's flight was that the Mercury capsule had been designed to fly a maximum 24 hour long mission, and they tried to extend that to three days without expecting trouble. Right from the beginning, Vostok was designed to fly a week-long mission, and have a ten-day manned capability if it had retro failure and had to reenter via atmospheric orbital decay.

Gemini: 10 flights
Gemini VII – thruster malfunction nearly results in loss of craft and crew. Rest of mission aborted

Apollo: 14 flights (including Skylab and ASTP)
Apollo 1: Need I say more?
Apollo 8: ended up in Stable 2 position, making crew seasick until righted
Apollo 13: Near loss of crew and craft in cislunar space
Apollo 15: One of three chutes failed leading to rough landing
Skylab 3; thruster leak, leads to possible launch of rescue vehicle
ASTP: Near loss of crew after landing due to intrusion of nitrogen tetroxide into crew cabin.

So a total of 24 flights compared to nearly 5 times that number.

So how's that track record again?

The big problem with that argument is that all the Mercury, Gemini, and Apollo spacecraft were intended to be single-mission vehicles that were discarded on return to Earth (despite the Gemini refurbishment and relaunch on the unmanned MOL test mission).

Shuttle was supposed to be able to fly 100 missions per orbiter with around a 1 in 400 loss rate per mission

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minimum, and around a 1 in 1,000 loss rate per mission maximum.

We have gotten nowhere near that in either mission totals or loss rate.

The SSMEs were also to have been capable of flying 100 missions apiece, but again nothing near that has occurred.

What is the actual average per SSME? 10–15 missions each?

Pat

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