Analysis and Opinion

Aviation Week reported on July 29, 2009 that the "space gap" in U.S. manned space flight will be wider than NASA has previously estimated. On July 28th, the Augustine Commission hosted a public meeting at which former astronaut Sally Ride presented findings from a "quick reaction" group formed to address this issue. The group, composed of members from the Aerospace Corporation (a Federally Funded Research & Development Center supporting the US Air Force) and NASA's Program Analysis & Evaluation Office, reported the disappointing news. Following are key findings from the report --

1. NASA has estimated retiring the existing space shuttle program by September 2010. The group forecasted a March 2011 retirement, forecasting a schedule slip of six months.

2. NASA has estimated reaching " initial operational capability " (IOC) for the replacement programs, the Ares 1 crew launch vehicle and the Orion crew capsule by March 2015. The group forecasted a new IOC date of March 2017 -- a two-year schedule slip primarily caused by "inadequate budgets" for NASA's Constellation program (which is overseeing the Ares 1/Orion development).

3. NASA has announced its intention to "deorbit" the International Space Station (ISS) by 2016. If it does so, then the slipped Ares 1/Orion schedule will mean that the new spacecraft will "have nothing to fly to," according to Ms. Ride.

4. Ms. Ride's group advocated extending the ISS beyond 2016, stating that it made no sense to spend 25 years in development, only to gain five years of benefit. Moreover, keeping the ISS in orbit would provide a destination for other programs, including ones being developed by private industry (e.g., SpaceX and Orbital Sciences ).

5. The group stated that other options being studied by the Augustine Commission -- which include use of a human-rated Delta IV vehicle and/or use of a shuttle-derived heavy lift vehicle -- will have only a "negligible impact" on the space gap, perhaps closing the gap by no more than a year or eighteen months.

6. Ride's group recommended extending the existing shuttle program beyond 2010 or 2011, to 2014. This could be done by various methods, including utilizing the one available extra external tank, or by restarting production of external tanks in New Orleans. Ride's group recommended studying this option in concert with development of a shuttle-derived heavy lift vehicle.

In summary, whether the problem stems from inadequate budgets, lack of attention in the post-9/11 environment, or a lack of political vision is beside the point. The truth is that the US leadership position in manned spaceflight is threatened and the current budget fights inside the

Beltway will exacerbate the crisis. We are looking at a "space gap" that is reminiscent of the "missile gap" of the late 1950's and early 1960's -- only this gap is real and requires the immediate attention of the citizens and their elected public servants.