

National Aeronautics and
Space Administration
Office of the Administrator
Washington, DC 20546-0001



May 9, 2013

Vice Admiral Joseph W. Dyer, USN (Ret.)
Chair
Aerospace Safety Advisory Panel
National Aeronautics and Space Administration
Washington, DC 20546

~~Joe~~
Dear Admiral Dyer:

Enclosed is NASA's response to a recommendation from the 2013 First Quarterly Meeting of the Aerospace Safety Advisory Panel (ASAP). Please do not hesitate to contact me if the ASAP would like further background on the information provided in the enclosure.

I look forward to receiving continued advice from the ASAP that results from your important fact-finding and quarterly meetings.

Sincerely,

A handwritten signature in black ink, appearing to read "C. Bolden, Jr.", with a long horizontal stroke extending to the right.

Charles F. Bolden, Jr.
Administrator

Enclosure
2013-01-01 Philosophy on the Certification Process

Aerospace Safety Advisory Panel Recommendation

Tracking Number 2013-01-01 Philosophy on the Certification Process

Finding:

NASA and the nation are blazing new trails and attempting new ways of getting to space. It is a trail that is not well marked. One of the areas that has created many questions is: What does it take to approve a human to go to orbit? NASA has its long-proven method for its astronauts. How can it bridge that gap between that program at one end and less rigorous programs, e.g., commercial crew, on the other? This debate has been difficult because NASA does not have a formal policy with rationale that clearly states what types of designs and/or operations must be certified by NASA.

Recommendation:

NASA should develop a philosophical approach to the certification process; specifically, when NASA certification is required and when it is not.

Rationale:

There are some subtle nuances about NASA missions—when are they NASA missions, what kind of crew, etc. There has been good dialog; now is the time to capture that into a single philosophical approach to certification. The Commercial Crew Program (CCP) is working on a white paper on how it will do certification; however, an overarching statement on NASA's philosophical approach to certification would provide needed clarity to all parties.

NASA Response:

NASA concurs with the recommendation. NASA's overarching statement on the Agency's philosophical approach to certification is as follows:

NASA certification is required for all crewed space systems with NASA personnel.

The guiding Agency-level document describing NASA's human rating certification requirements is *NASA Procedural Requirements (NPR) 8705.2B Human-Rating Requirements for Space Systems*. The human-rating requirements in *NPR 8705.2B* apply to the development and operation of crewed space systems developed by NASA and used to conduct NASA human spaceflight missions. The Space Launch System and Orion programs are using this document in their human rating certification process. This NPR may apply to other crewed space systems when documented in separate requirements or agreements.

Since the crew transportation systems under NASA's Commercial Crew Program (CCP) are not being developed by NASA, this NPR does not apply to CCP. However, NASA will still certify the CCP crew transportation systems because NASA personnel are planned to be transported via those systems. Thus, NASA certification is required and NASA is implementing the certification process through FAR-based contracts using the 1100-series documents, which includes the human rating requirements.