

NASA AEROSPACE SAFETY ADVISORY PANEL  
National Aeronautics and Space Administration  
Washington, DC 20546  
VADM Joseph W. Dyer USN, (Ret.), Chair

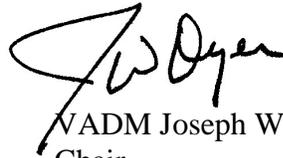
*February 24, 2015*

Mr. Charles F. Bolden, Jr.  
Administrator  
National Aeronautics and Space Administration  
Washington, DC 20546

Dear Mr. Bolden:

The Aerospace Safety Advisory Panel (ASAP) has reviewed the six open NASA responses to their recommendations. The enclosure provides a summary of the open recommendations. The ASAP has added a column to indicate trending status of each of the recommendation.

Sincerely,

A handwritten signature in black ink, appearing to read 'J. W. Dyer', written in a cursive style.

VADM Joseph W. Dyer, USN (Ret.)  
Chair

Enclosure  
ASAP Open Recommendations

## ASAP OPEN Recommendations

<u>Rec. No.</u>	<u>Title</u>	<u>ASAP POC</u>	<u>ASAP Status</u>	<u>ASAP Evaluation of To-Date Responses</u>
2012-01-02	<b>ISS Deorbit Capability:</b> (1) To assess the urgency of this issue, NASA should develop an estimate of the risk to ground personnel in the event of uncontrolled ISS reentry. (2) NASA should then develop a timeline for development of a controlled reentry capability that can safely deorbit the ISS in the event of foreseeable anomalies.	Bagian	Open waiting implementation timeline and the final plan. Provide a timeline for when the detailed planning AND software for controlled ISS deorbit, in both the planned and unplanned conditions, will be finalized and in place.	→
2012-03-01	<b>Software Assurance and CMMI Requirements:</b> All NASA internal safety-critical software development groups should achieve CMMI Level 3 (or an equivalent as established by external validation agent) by the end of FY 14.	Sanders	Open. Pending completion of CMMI ML 3 at KSC expected in Spring 2015. ASAP changed status to yellow due to consistent schedule slip.	↓
2012-03-05	<b>Five Year Roadmap for Continuous Improvement of the Agency's Mishap Investigation Process:</b> NASA should continue to report to the ASAP on the training of the MIT and the investigation Board Chairs in greater detail to include the method, consistency, and quality of training for MIT members and Board Chairs.	Conway	Open. Awaiting development and implementation of safety investigation training program expected in FY2015.	→
2014-01-01	<b>Radiation Risk Decision on Deep Space Mission:</b> The ASAP recommends that (1) NASA continue to seek mitigations for the radiation risk and (2) establish an appropriate decision milestone point by which to determine acceptability for this risk to inform the decision about a deep space mission. This risk choice should be made before NASA decides to go forward with the investment in a future long-term mission.	Frost	Open. Follow on action: NASA should adopt the process as briefed.	→
2014-01-02	<b>Knowledge Capture and Lessons Learned:</b> The ASAP strongly recommends a continuous and formal effort in knowledge capture and lessons learned that will make them highly visible and easily accessible. Modern tools exist to facilitate this and NASA should avail itself of them. NASA's Knowledge Management system should include risk-informed prioritization of lessons and a process to determine which lessons have generic (vs. local or project unique) potential. Further, it should be supplemented by formal incorporation into appropriate policies and technical standards of those lessons that are most important to safety and mission success. Rigor in this area is particularly critical as the experience in specific skills dissipates over time and as engineering talent is stretched across programs.	Sanders	Open. Pending NASA implementing a policy that formally incorporating appropriate policies and technical standards of those lessons that are most important to safety and mission success.	↑

**ASAP OPEN Recommendations**

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2014-AR-05	<b>Processes for Managing Risk with Clear Accountability:</b> NASA should consistently provide formal versus ad hoc processes for managing risk with clear accountability.	Sanders	OPEN. NASA Response provided 1/22/15 proposing a policy change to direct single signature risk acceptance. This is the direction ASAP has recommended. Recommendation will close upon completion of the proposed policy update.	↑

<b>Note on color bars:</b>				
<b>Red highlights what the ASAP considers to be a long-standing concern or an issue that has not yet been adequately addressed by NASA.</b>				
<b>Yellow highlights an important ASAP concern or issue, but one that is currently being addressed by NASA.</b>				
<b>Green indicates a positive aspect or a concern that is being adequately addressed by NASA but continues to be followed by the Panel.</b>				