

Safety is a 'One NASA' endeavor

By Manny Skora
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The investigation of the *Columbia* tragedy revealed the need for NASA to improve its ability to verify engineering and safety standards; share technical information, practices and talent; and independently assess the ability to achieve mission success.

To this end, Administrator Sean O'Keefe in July announced the establishment of the NASA Engineering and Safety Center (NESC). As chartered, the NESC will provide independent technical expertise to evaluate problems and supplement safety and engineering activities for Agency programs and projects.

That's a big order. It's also a stimulating One NASA opportunity.

"The NESC will draw on the engineering talents of the best minds across the Agency's 10 field centers," Langley Director Roy D. Bridges, Jr., said.

Administrator O'Keefe has tasked Bridges with the development and start-up of the NESC.

"Roy's experience as an aviator and Shuttle pilot and his intimate knowledge of the intricate Shuttle system and other advanced aerospace systems make him the right person to lead this critical initiative," said O'Keefe.

The NESC will take policy direction from Bryan O'Connor, Associate Administrator for the Office of Safety and Mission Assurance.

"In addition to NASA expertise, the NESC will also tap the nation's top experts in industry, Department of Defense, national laboratories and universities," O'Connor said. "We have a responsibility to make our programs as safe and reliable as we know how. The NESC enables us to more completely fulfill our commitments for assessing risk and making better risk-acceptance decisions."

What the NESC is and is not

The NESC will provide centralized management of independent engineering assessment. NESC experts will use state-of-the-art tools and methods and will have the benefit of adequate funding to perform truly independent assessments and trend analysis. Because NASA will fund the NESC at the corporate level, an unprecedented level of independence will exist.

The NESC does not relieve program managers from their responsibility for safety. Instead, NESC initiatives will complement the engineering and safety efforts of programs and centers. The NESC's credibility and its independent chain of command will assure consideration of all points of view on complex technical issues.

It's a tremendous responsibility but a stimulating opportunity.

How can you help?

The NESC will be based at the Langley Research Center in Hampton, Va., and will have a management office consisting of approximately 30-40 full-time employees.

Another 30-50 senior engineering and safety experts will be located at the centers but assigned full-time to the NESC. This workforce will be supplemented through partnerships with external organizations.

Finally, "ready-experts" at each field center will be a vital part of the team. From across the Agency, 150-200 experts in a variety of technical specialties will be called upon for peer review and critique of flight rationale, mission requirements, testing, trending, lessons learned and the like.

Bridges has chosen Ralph Roe as his special assistant to develop the NESC's implementation plan. Roe, the former manager of the Space Shuttle Vehicle Engineering Office at Johnson Space Center, will assist in the development of new Agency safety initiatives.

"It's a tremendous responsibility but a stimulating opportunity," said Roe. "While the NESC is one of several initiatives in returning the Shuttle to safe flight, its broader objectives include strengthening and expanding the Agency's safety, mission assurance and engineering disciplines for major NASA programs. The NESC is a One NASA effort that will involve all NASA facilities and the top technical experts in NASA and our partner institutions."

What do you have to offer the NESC?

The NESC is currently seeking the Agency's best talent to be a part of this important NASA endeavor. If you are intrigued by this career opportunity, visit <http://nesc.nasa.gov>



Langley Director Roy D. Bridges, Jr., has been charged with the development and start-up of the NASA Engineering and Safety Center. Bridges counts this Agencywide initiative as his first priority.

NESC3 Courtesy of NASA Langley Research Center



Bridges (right) selected Ralph Roe, formerly with JSC's Space Shuttle Vehicle Engineering Office, as his special assistant to manage the implementation of the NASA Engineering and Safety Center.

NESC4 Courtesy of NASA Langley Research Center