

A professional microphone with a red cable and a black boom arm is positioned on the left. To its right are three concentric, light gray curved lines representing radio waves.

policy
NEWS.

QUICK FACTS ON THE UPDATES TO NASA-STD-8719.13C

POLICY: NASA-STD-8719.13C Software Safety Standard

WHEN: Effective May 7, 2013

WHAT: An extensive section on **criticality analysis** was **added**.

WHY: While tailoring based on criticality always was expected after a Software Safety Litmus Test, there was confusion over how to perform it. The added Software Safety Criticality Analysis section provides details that help ensure software safety risks are tailored correctly. One size does not fit all for requirements. The new standard reflects the importance of considering the levels and severity of risks associated with specific programs and projects, and even different software within a project.

WHAT: The number of **requirements** was **reduced** from 171 in revision B to 66 in revision C.

WHY: Now, the requirements are clearer and streamlined. Also, requirements now covered in NPR 7150.2 NASA Software Engineering Requirements were removed, eliminating any duplication.

WHAT: The **Software Safety Litmus Test** was **streamlined** and its use within the development life cycle was clarified.

WHY: Because the litmus test determines if software is safety critical, it is imperative that this test be completed correctly. For this reason, the litmus test and requirements for conducting it were made clearer and easier to read.

WHAT: Detailed appendices were added including information on potential software issues, a list of design recommendations, and checklists for commercial off-the-shelf software, tools and facility safety.

WHY: Providing these tips and practices in the standard helps with planning software safety efforts. The Software Safety Guidebook is still the best source for detailed safety practice options.

WHAT: Revisions throughout the standard **address facility safety** in addition to flight systems.

WHY: Software affects more than flight systems and the standard needed to better reflect that.

continued on back

QUICK FACTS ON THE UPDATES TO NASA-STD-8719.13C CONTINUED

WHAT: Language was added regarding the **roles** of **acquirer** and **provider**.

WHY: The additions are meant to help ensure successful acquisitions and clarify NASA's role in overseeing them.

WHAT: Requirements were **numbered**.

WHY: Numbers make it easier to reference specific requirements.

TAKE ACTION

Software Assurance practitioners, Safety and Mission Assurance technical authorities, and safety officers should review the changes to this standard and share it with project managers, software engineers and engineering technical authorities.

Have questions regarding the new standard? Contact Martha Wetherholt, NASA Technical Fellow for Software Assurance, at Martha.Wetherholt@nasa.gov.

or

View the official NASA document at
<http://www.hq.nasa.gov/office/codeq/doctree/871913.htm>