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To: kala.golden@nssstc.uah.edu
Subject: Software Safety Litmus Test
Date: Tuesday, July 26, 2016 10:09:53 AM

Kala,

Per NASA Standard 8719.13 (NASA Software Safety Standard), we (NASA Software Assurance) have to determine the “Safety Criticality” of software at the same time as when we do our independent classification.

The criteria for what constitutes “safety critical” software is defined in the standard referenced above, in Appendix A, but I have cut and pasted the wording in this email (see below my signature in this email.

Please read the criteria listed below and let me know if you think the software meets the criteria of “safety critical” or if it does not meet the criteria.

Thank you,

[Customer Satisfaction Feedback](#)

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Software Safety Litmus Test: Software is classified as safety critical if it meets at least one of the following criteria (as per requirement SSS 001):

- a. Causes or contributes to a system hazard/condition/event.
- b. Provides control or mitigation for a system hazards/condition/event
 - (1) Controls safety critical functions.
 - (2) Mitigates damage if a hazard/condition/event occurs.
 - (3) Detects, reports, and/or takes corrective action, if the system reaches a potentially hazardous state.
- c. Processes safety critical commands (including autonomous commanding)
- d. Resides on the same processor as safety critical software and is not logically separated from the safety critical software.
- e. Processes data or analyzes trends that lead directly to safety decisions (e.g., determining when to turn power off to a wind tunnel to prevent system destruction).

f. Provides full or partial verification or validation of safety critical systems, including hardware or software subsystems. (e.g., this can include models and simulations)