From:	Drude, Theodore B. (MSFC-QD34)[Bastion Technologies, Inc.]
To:	kala.golden@nsstc.uah.edu
Cc:	Mccall, Jennie B. (MSFC-QD34)
Subject:	FW: pyCMR SACA form is attached for your review and signature
Date:	Friday, July 29, 2016 12:07:01 PM
Attachments:	Software Assurance Classification Report - pyCMR Project.pdf

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Kayla,

Attached is the Software Assurance Classification Assessment (SACA) for the pyCMR project.

Based on an independent assessment, we concur that it is Class G (per NASA 7105.2B) and non-safety critical.

Next Steps:

- The pyCMR project lead and engineering lead (software lead) need to sign this form and return it to us.
    - If they have a NASA PIV card, they can sign it digitally. Open the PDF and click on the signature boxes #7 and #9.
      Alternatively, please print the form and have them sign it in ink, scan it and email it back. A scanned PDF is the preferred format, if you have to print it.

- After we receive the signed form, Jennie McCall, Software Chief Safety Officer (CSO), will then review sign it.

- We will provide a signed copy back for your records and we will maintain the signed original here for our records.

If you have any questions, feel free to contact me at the phone or email below.

Thank you,

Customer Satisfaction Feedback
Ted Drude
Software Quality Assurance Engineer
Bastion Technologies Inc.
Marshall Space Flight Center
Huntsville, AL 35812
Phone: (256) 544-7563

From: Kala Golden [mailto:kala.golden@nsstc.uah.edu]
Sent: Tuesday, July 26, 2016 11:40 AM
To: Drude, Theodore B. (MSFC-QD34)[Bastion Technologies, Inc.] <theodore.b.drude@nasa.gov>
Subject: RE: Software Safety Litmus Test

For pyCMR, answers are No for all questions on the Software Safety Litmus Test. Please let me know if you need anything else from us. Thank you!

Kala Burson Golden
UAH | Earth System Science Center
Project Coordinator for ESDS Programs and DSIG
256.961.7747
320 Sparkman Drive
CRH 3078
Huntsville, AL 35805

From: Drude, Theodore B. (MSFC-QD34)[Bastion Technologies, Inc.]
[mailto:theodore.b.drude@nasa.gov]
Sent: Tuesday, July 26, 2016 10:10 AM
To: kala.golden@nsstc.uah.edu
Subject: Software Safety Litmus Test

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
Ted Drude
Software Quality Assurance Engineer

Bastion Technologies Inc.
Marshall Space Flight Center
Huntsville, AL 35812
Phone: (256) 544-7563

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)