

National Aeronautics and
Space Administration

John F. Kennedy Space Center, Florida
Kennedy Space Center, FL 32899



Reply to Attn of: VA-C

February 23, 2021

TO: Scott Higginbotham, LSP Mission Manager, NASA KSC/VA-C

FROM: Yusef Johnson, Flight Design Analyst, NASA KSC/AIS2

SUBJECT: SPACE HAUC Update Memo

The SPACE HAUC CubeSat, which was originally manifested on the ELaNa 21 mission, and then re-manifested on the ELaNa 36, is now manifested on the ELaNa 37 mission, which is flying on the SpX-23 mission to the International Space Station. This change in launch date warranted a reexamination of compliance with orbital debris requirements.

This memorandum serves as a summary of the results of the updated analysis.

The analysis that was initially updated for the ELaNA 36 launch opportunity showed that the lifetime of SPACE HAUC would be ~0.914 years. Using the new launch date for lifetime analysis, the expected lifetime has been updated to ~2.1 years. DAS 3.1.1, with the latest delivered solar flux data file (dated 16 December 2020), was used for this analysis

There were no difference in the collision risk analysis results due to the launch date change. All high temperature components on SPACE HAUC either demise or have less than 15 J of energy upon impact.

SPACE HAUC is still compliant with all orbital debris requirements.

Please direct any questions regarding this memo to Yusef Johnson, NASA KSC/AIS2



Yusef A. Johnson, Flight Design Analyst