ELISA Proposal for Aerospace Working Group 

# Proposed Working Group Name:

Aerospace Working Group

# Proposed WG Chair:

Steven H. VanderLeest

# Proposed Meeting Schedule:

Every two weeks on Wednesday at 16:00 CEST / 14:00 UTC / 10:00 EDT / 7:00 PDT

# Proposed mission statement:

The Aerospace Working Group shall

* Develop use cases to inform and influence Linux architecture and related tools
* Work to derive technical requirements for avionics operating systems
* Seek to enhance and expand avionics software lifecycle processes, practices, and tools to enable use of Linux in avionics systems that are certified to high design assurance levels.

# Goals:

## Goal 1: Avoid Duplication

* Where an existing WG already addresses a common concept/need, the new WG shall not duplicate effort

## Goal 2: Document Use and Cert of Open Source in Aerospace

* The Aerospace WG shall serve as a clearing house to document open source use in certified aerospace systems
* The Aerospace WG shall research methods used by known users

## Goal 3: Create New Use Cases

* The Aerospace WG shall work towards one or more use cases that
  + Highlights the unique needs of the aerospace domain
  + Avoids proprietary intellectual property
  + Provides realistic complexity
  + Requires real-time performance

# Collaboration:

## Internal:

The Aerospace WG shall coordinate with the other industry-focused WGs (automotive, medical device) to avoid duplication of efforts where needs overlap; coordinate with the technical WGs by providing one or more aerospace use cases that highlight distinct aerospace needs; and work with leadership across ELISA to coordinate strategy and advocate for the legitimacy of Linux in safety-critical applications.

## External:

The Aerospace WG will interact with stakeholders in the Linux ecosystem (e.g., yocto) to encourage appropriate tools are available to design, build, deliver, and assure safety-critical software. It will interact with the Xen community to evaluate opportunities to implement ARINC 653 partitioning via a hypervisor. It will interact with the aerospace community by presenting ELISA work and activities in the appropriate forums, such as aerospace and avionics conferences.