

# Aerospace Working Group

2024 Annual Update

Steve VanderLeest



Aerospace · Automotive · Linux Features  
Medical Devices · OS Engineering Process  
Safety Architecture · Systems · Tools

# Agenda

- Mandate
- Look back at major milestone and achievements in 2023
- Current focus and activities
- What's coming up in 2024 and areas and opportunities for collaboration
- Onboarding resources and how to get involved

# Mandate

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, and 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.

# 2023 Achievements

- Established the working group, appointed chair Steven H. VanderLeest, The Boeing Company and vice-chair Martin Halle, Technische Universität Hamburg (TUHH)
- Active participation: 61 members; 18 meetings, attendance of 4 to 13, average 7.1
- Webinar: “Xen Hypervisor for Safety-Critical Domain” by Stefano Stabellini
- Two papers related to ELISA at the AIAA/IEEE Digital Avionics Systems Conference: “Enabling Linux in Aerospace Applications” and “Avionics Linux”

# Current Focus and Activities

- White paper: Survey on State-of-the-Art Open Source Linux-Like Operating Systems in Avionics
- Discussion on features required for aerospace

# What's Coming in 2024

- Continued work on white paper, list of features for aerospace
- Identify aerospace use-cases, challenges
- 5 open issues (on github), including attracting broader participation, consideration of Systems Theoretic Process Analysis (STPA)

# How to Get Involved

- <https://lists.elisa.tech/g/aerospace>
  - Subscribe to email distribution and calendar
- <https://github.com/elisa-tech/wg-aerospace>
  - View meeting minutes and other materials