Space OS Public Demo Report

Mission Architecture and Orbital Continuity Simulation Framework

---

This document presents a public demonstration overview of Space OS within the IYABOKO Science & Technology ecosystem. Space OS supports mission architecture thinking, orbital pathway modelling, environmental exposure review, telemetry workflow continuity, and simulation-stage research framing.

Project Objective

Space OS explores how mission planning, orbital timing, radiation exposure, communication delay, and relay continuity can be modelled as structured simulation pathways.

Core Demonstration Components

- Orbital pathway analysis
- Mission continuity scoring
- Telemetry delay modelling
- Radiation exposure window review
- Environmental stress simulation
- Continuity-aware mission support planning

Continuity OS Role

Continuity OS provides the scoring layer for mission continuity, telemetry support, stress windows, recovery logic, and validation-readiness reporting.

Public Trust Value

The public demo strengthens transparency by separating conceptual mission simulation from certified aerospace deployment or flight-qualified control systems.

Simulation / Demonstration Test Matrix

Scenario	Main Stressor	Measured Output
Orbital Relay Planning	Path timing and distance	Mission continuity score
Radiation Exposure Window	Solar activity and shielding limits	Risk and recovery pathway
Telemetry Delay Scenario	Long-distance signal latency	Workflow continuity and relay performance
Mission Recovery Path	Partial relay disruption	Alternate route and continuity response

Prototype Demonstration Metrics

- Mission Continuity State: Controlled simulation
- Orbital Pathway Stability: 69% demonstration value
- Simulation Runtime: 1000+ scenario time steps
- Current Status: Simulation-stage and research-stage framework

Boundary Statement

Space OS is a simulation-stage and research-stage framework. It is not presented as aerospace-certified mission software, flight-qualified infrastructure, launch-approved control software, or independently validated spacecraft-control infrastructure.
