

SPACECRAFT DEPLOYMENT  
SEQUENCER SUPPORT

**Aerospace**

*Project  
Management*



*Systems  
Engineering*



*Electrical  
Engineering*



*Software  
Engineering*



# SOFTWARE SATELLITE DEPLOYMENT SEQUENCER WITH MISSION-CRITICAL TIMING CONTROLS

## APPROACH

- Provide remote program support, hardware and software troubleshooting, and subcontract vendor oversight
- Assess software, specifications, requirements, and test protocols
- Provide on-site functional test support and independent functional verification

## RESULTS

- Developed ground support software package to enable engineering testing without access to the complete system
- Identified flow-down discrepancies and resolved them for accurate verification traceability
- Provided recommendations to resolve hardware issues with an I<sup>2</sup>C data bus
- Provided alternatives to address software issues in data encoding and CRC
- Achieved critical program milestone dates

## KEY TECHNOLOGIES

- GNU Radio
- Data encoding schemes (HDLC, NRZ, etc.)
- C, Python
- I<sup>2</sup>C