Communications Subteam
Weekly Updates, Spring 2025

Week 1

Team Progress:

- Defined current progress and milestones for the first few weeks of Spring 2025
- Filed subsystem issues on GitHub for FSW, GS hardware, and GS SW / infrastructure
    - https://github.com/cmu-argus-2/FSW-mainboard/issues
    - https://github.com/cmu-argus-2/Comms-GS-Hardware/issues
    - https://github.com/cmu-argus-2/GSW-backend/issues
    - https://github.com/cmu-argus-2/Comms-GS-Database-Interface/issues

Individual Progress:

- Akshat Sahay
    - Merged FSW updates for the v2 mainboards to main branch
        - https://github.com/cmu-argus-2/FSW-mainboard/pull/61
        - Contained HAL changes, driver changes and improved modularity within the comms task
        - Issues in other subsystems blocked merge and required some bug fixes, issue has been created to address these bugs
    - Started comms + CDH integration
        - Planned GS commands for CDH added in comms message database
        - Met with CDH FSW people (Ibrahima and Alexis) to discuss interfacing
- Adrian Walker
    - Got GPS code onto FSW repo
        - Need to still create PR and merge
        - Mounted the GPS module to a current main board
        - Still need to test
    - Started trying to understand the licensing needed for the cubesat launch
    - Started reviewing board designs
        - Reviewed Battery Board V3

Week 2

Team Progress:

- More progress on FSW integration for the GPS subsystem
- Integrated FSW and GSW for processing new CDH commands (more details in FSW report)

Individual Progress:

- Adrian Walker
    - FSW - GPS Integration
        - Initial HIL test completed

            - Need to get data as ints rather than strings for logging and latency
        - Avionics - Battery Board reviewed
        - Avionics - XY Board reviewed

Week 3

Team Progress:

- Even more progress on FSW integration for the GPS subsystem

Individual Progress:

- Adrian Walker
    - FSW - GPS Integration
        - Made GPS driver changes
        - HIL testing?
    - Reviewed XY Board
    - Reviewed Z+ Board
- Swati Anshu
    - Onboarded
        - Read through GSW-backend repository
        - Read through FSW-mainboard state machine protocol
    - Created preliminary state machine for GS
    - Coding in progress for the GS state machine
    - Brainstormed ways to increase data transmission rate with Akshat