



ADCO Overview

Attitude Determination and Control Officer

Flight Operations Division

Who we are:

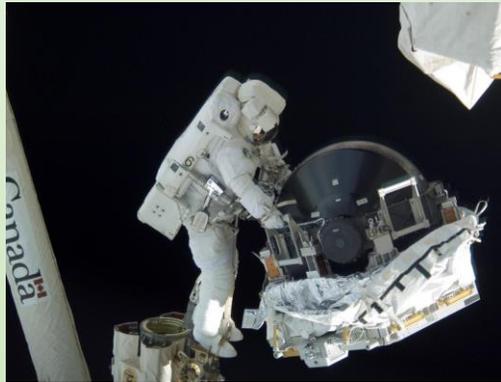
- Motion Control System (MCS) operations and planning
- Execute ISS maneuvers and attitude control mode changes
- Monitor health/status of ISS GPS, rate sensor, and CMG H/W
- Interface with Russian propulsion systems
- Support around the clock 24/7/365 shifts in Houston's MCC



How we can help you:

- ISS attitude maneuvers for instrument calibration or science objectives
- Provide ISS attitude timeline (ATL) via HOSC dropbox*
- Answer questions about MCS operations, including nominal activity planning, nominal ISS complex ops ATL, or contingency response to LOAC, Loss of Pointing, etc.
- Microgravity operations on CMG only control for highly sensitive payloads

**Available in TXT, XML, and HTML formats*



Best Practices:

- Review available ISS MCS briefing material early to understand compatibility between your payload and our operations
- Tell us if:
 - Your payload will require access to real-time ISS nav data
 - Your payload may require calibration at special ISS attitude
 - Your payload has pointing requirements for ISS attitude
 - Your science campaign may require an ISS maneuver
 - Your payload requires strict microgravity environment
- If any of the above describe you: come to externals splinter to ask questions



ADCO phone #s:

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ADCO emails:

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ADCO References for Payload Developers

Link	Access	Description
Attitude Timeline MCC Gateway -> Systems-> ATL	Anyone with MCC Gateway Access	Chronological timeline of all MCS operations that affect attitude control mode or ISS attitude for the next month
MCS Flight Info page https://mod2.jsc.nasa.gov/di/di32/ADCO-Flight-Info/MCS-flt-info.html	Anyone with MCC Gateway Access	Links to ATL as well as backup ATL, as-flown ATL, and other supplemental information
GNC Memo for Payloads <i>(Attitude/GNC section at below link)</i> https://aeonsp.hosc.msfc.nasa.gov/Vaults/Incprep/Externals/SitePages/Home.aspx	Access to HOSC externals Sharepoint	Overview of ISS MCS, including summary of performance parameters (pointing accuracy and attitude hold accuracy) as well as list of nav data available
PPT briefings from externals splinters <i>(Attitude/GNC section at below link)</i> https://aeonsp.hosc.msfc.nasa.gov/Vaults/Incprep/Externals/SitePages/Home.aspx	Access to HOSC externals Sharepoint	High level discussion of ISS MCS operations, including how often we maneuver and fire thrusters and description of how to read details of the ISS ATL



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