



Artemis I and its impact

- Artemis relies on the same DSN ground stations and frequencies as JWST
 - As a human spaceflight program it has higher priority than JWST
- We have known for some time that we would lose a significant number of DSN contacts during the Artemis I flight
- We normally have two 4-hour contacts every day and often more to address some latency issues.
- The precise contact schedule depends critically on the launch date. With some launch date we would experience up to 80 consecutive hours without a contact
 - Such a loss of contacts would severely limit the science output of JWST and possibly lead to idle time



Mitigations

- We have revisited programs to see what low-data rate program could be moved to fill-in these low-contact periods
- We have also established the priority science first but in the absence of suitable science programs we would carry out Cycle 1 calibrations that meet the needs.
- For certain launch dates these mitigations may not be enough and we are considering filler programs. These are unconstrained programs for generic targets and observations modelled on what has been done for HST in similar situations (e.g. image all NGC galaxies).
 - We are in the early stage of this and no specific programs have been proposed at this time
 - If the need arises we would not have time to poll the community



Filler programs

- We suspected we might need some type unconstrained observing program with high scheduling flexibility and this is why we had the “survey” category in Cycle 1.
- Unfortunately we were not able to explain the nature of these programs to the community and few were proposed and none was approved by the TAC.
- We plan to readvertise for such programs in Cycle 2 with a better explanation for the reasons and perhaps changing the name to “snapshot” which is better recognized by the community.
 - The reasons might change but it is likely that these would be useful in the future