



HASDM needs from GOES-R

The key point is to get products from GOES-R that will operationally support HASDM:

1. the EXIS integrated 26-34 nm bandpass to create the S10 index, calibrated to the historical time series of this index
2. the EXIS Lyman-alpha 121 nm measurement to create $\frac{1}{2}$ of the Y10 index, calibrated to the historical time series of this index
3. the XRS 0.1-0.8 nm measurements to create $\frac{1}{2}$ of the Y10 index, calibrated to the historical time series of this index
4. the EXIS 280.0 nm Mg II core-to-wing ratio measurement to create the M10 index, calibrated to the historical time series of this index

Potential issue:

- S10 bandpass is not directly measured and has some modeling in it
- this is THE key index (accounting for some 70% of the thermospheric density variation above 200 km) and it will be critical to get this right
- effort will require multiple parties: LASP instrument team, NOAA operations, SET validation, and US AFSPC feedback.