



GOES-R and GEO-XO

Pam Sullivan

GOES-R System Program Director

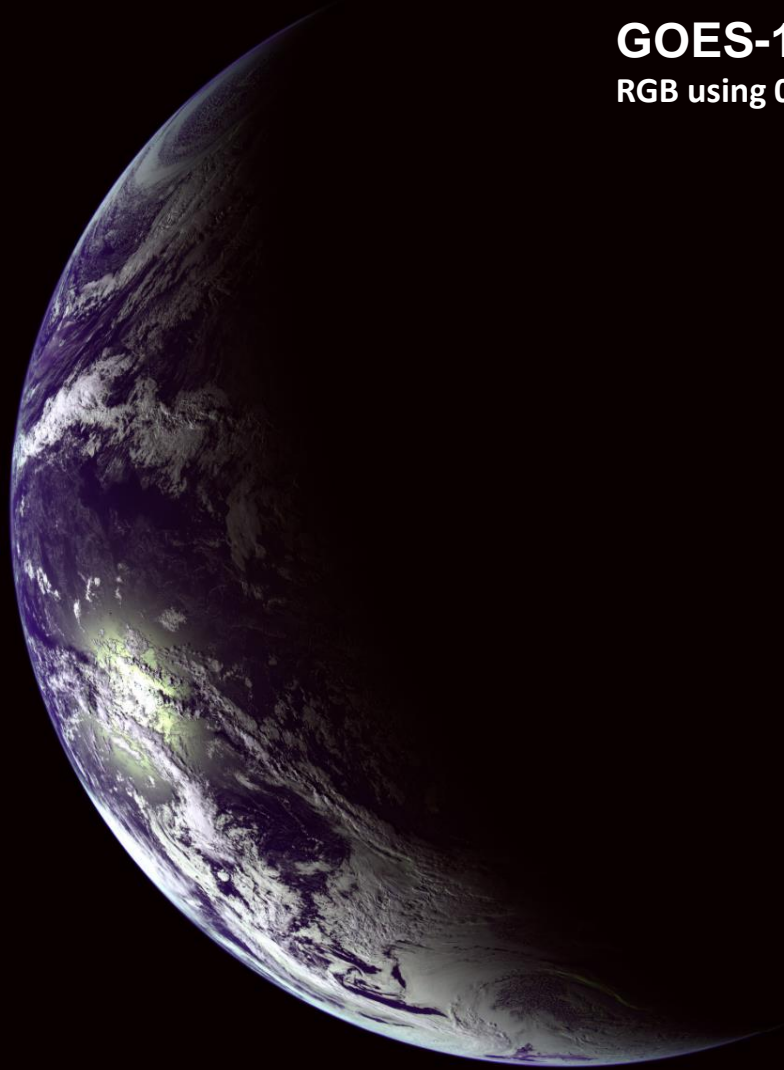
1st JPSS/GOES-R Proving Ground /Risk Reduction Summit

February 24, 2020



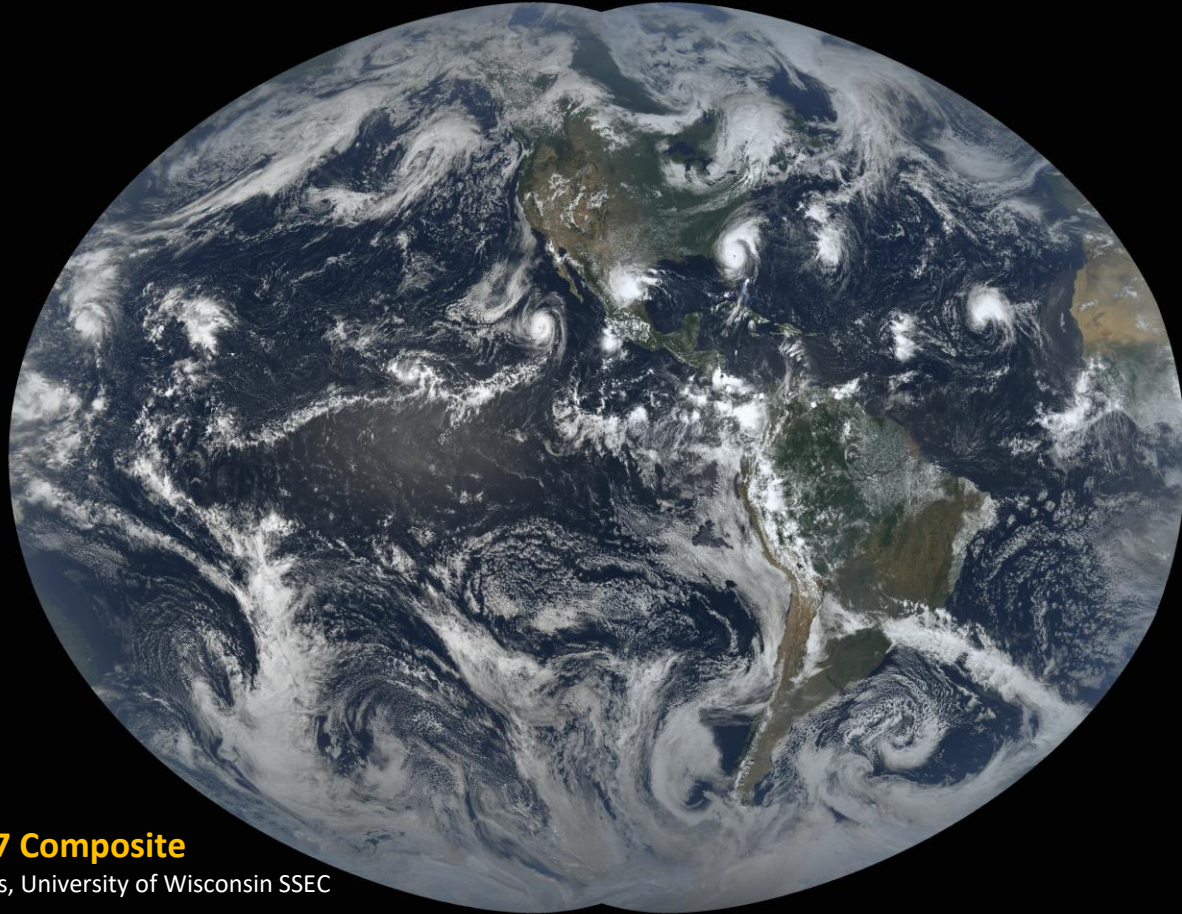
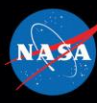
GOES-16 ABI 1st Light, January 7, 2017

RGB using 0.47um, 0.64um, 0.86um





GOES-R Series, From Africa to New Zealand



GOES-16 & 17 Composite

Courtesy Rick Kohrs, University of Wisconsin SSEC



GOES-16 & 17 Update

- GOES-16 in operational service as GOES East since December 2017
- GOES-17 in operational service as GOES West since February 2019
 - Default meso 2 location changed to Alaska on March 5
 - Mitigations for ABI Heat Pipe issue mostly complete; still underway are:
 - ‘Cooling timeline’ being evaluated
 - Conversion of ABI algorithms to enterprise version to enable spectral band substitution
 - Himawari-8 data operational distribution
 - Parallel op of GOES-15 during hot periods in February & August
- Both 16 & 17 transitioned to 10-minute full disk cadence on April 2, 2019
- All data products in operational use, at provisional or full maturity level
- New data products are in development
- *Many more new products being researched, as highlighted this week!*

GOES-T and GOES-U Status

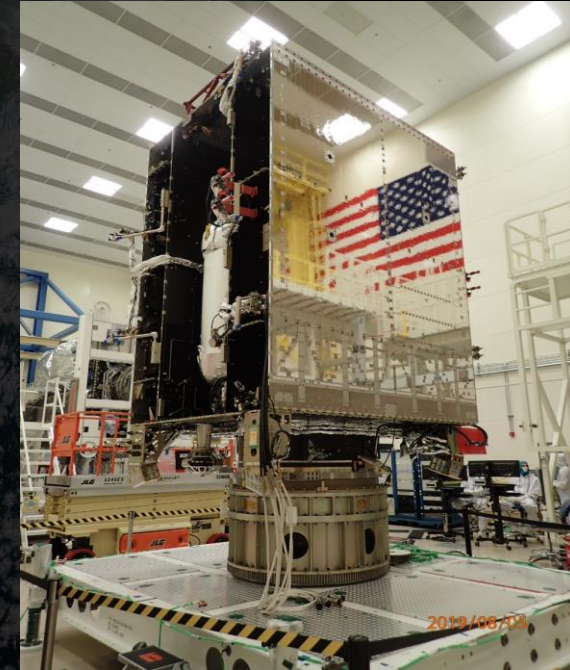
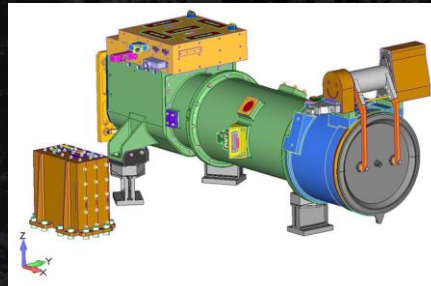
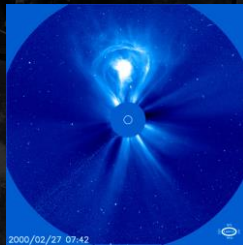
GOES-T

- Spacecraft assembled, awaiting ABI and GLM deliveries
- Selection of the Atlas V 541 to launch GOES-T announced in December 2019
- Launch planned in December 2021

GOES-U

- Integration is underway, including modifications to add the Compact Coronagraph (CCOR) coronal mass ejection detection instrument, which completed CDR in June
- Launch planned 2024

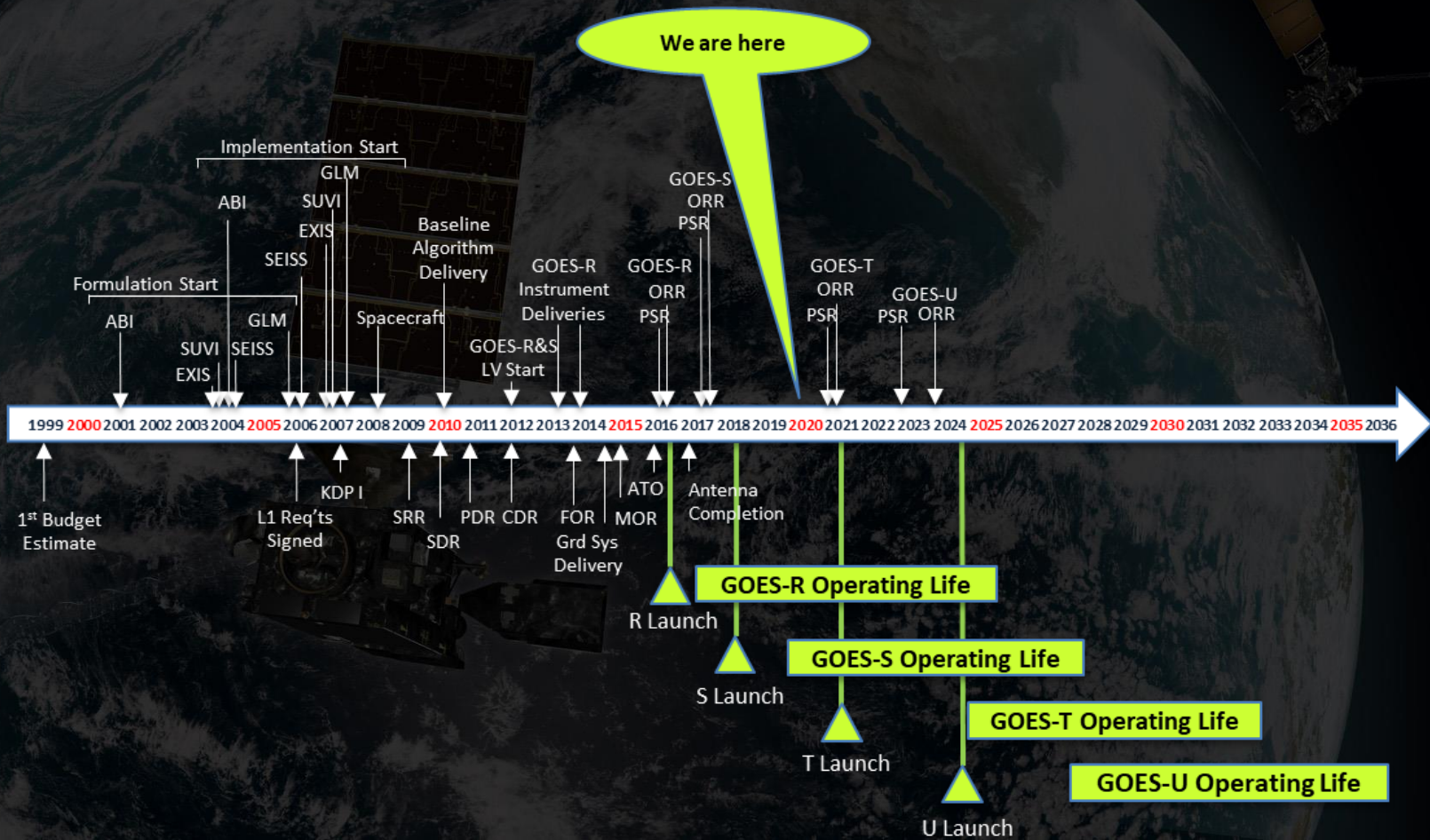
Coronal Mass Ejection from SOHO LASCO



GOES-U at Lockheed

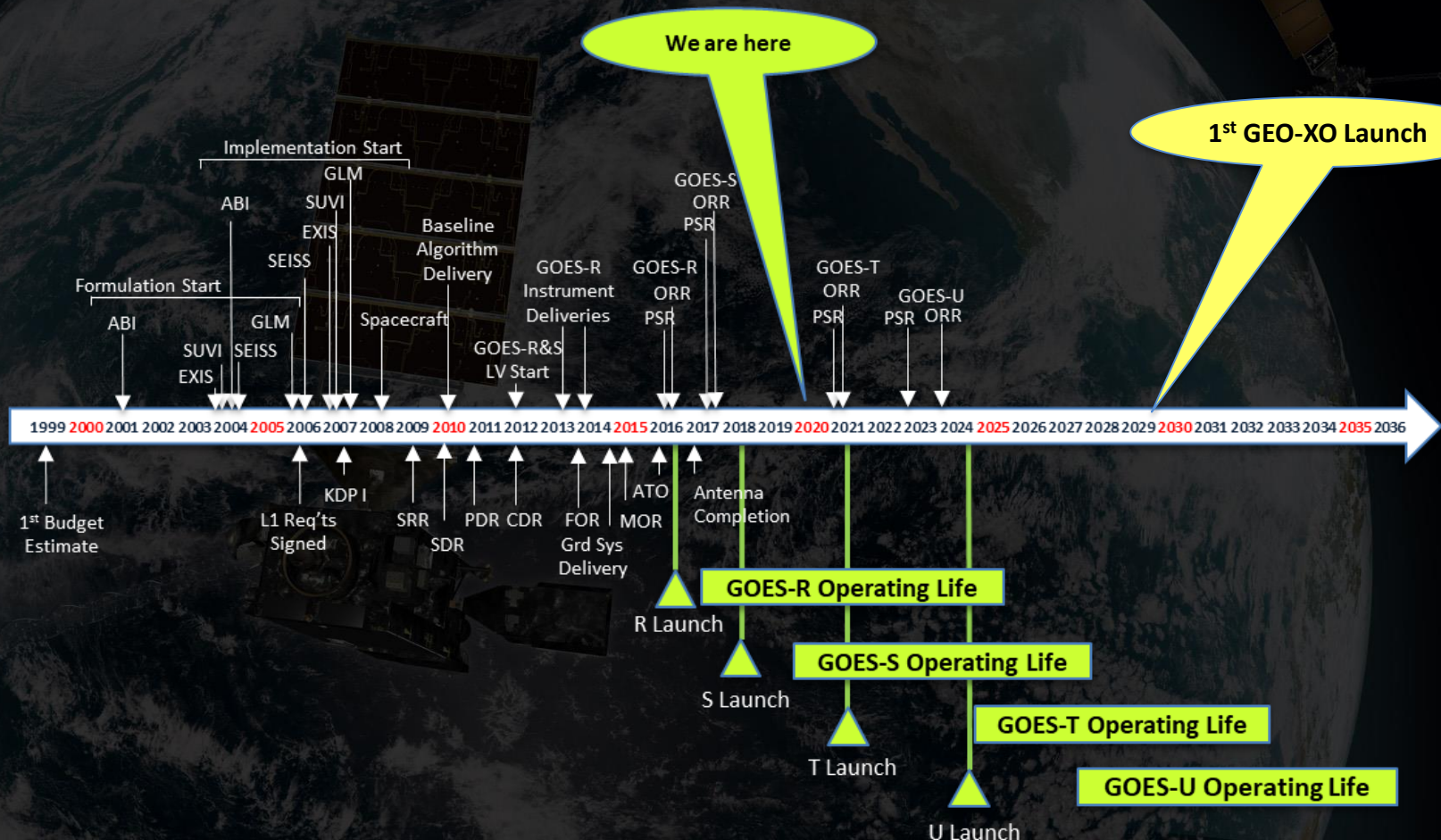


GOES-R Program Timeline





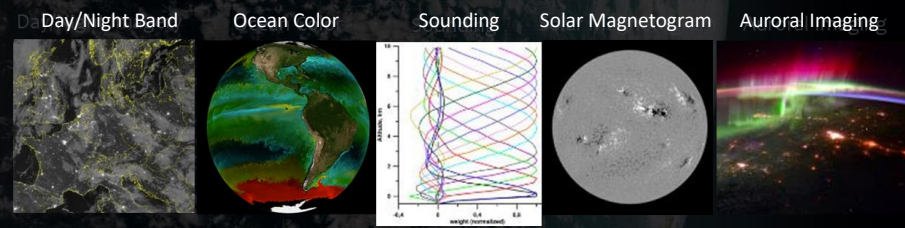
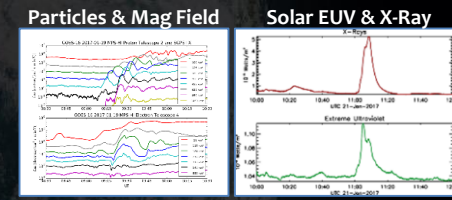
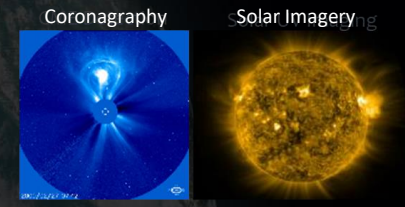
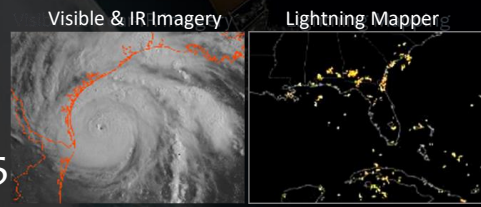
GOES-R Program Timeline





GEO-XO Introduction

- **GEO-XO = Geostationary and Extended Orbits**
 - The initiative planning the missions to follow GOES-R and SWFO
 - Will provide continuity for observations from GEO and Sun-Earth L1
 - Considering expanding to include observations from “Tundra” and L5
- Includes:
 - All NOAA assets deployed above LEO:
 - Government spacecraft
 - Instruments or payloads hosted on commercial or partner spacecraft
 - Potential use of commercial services and observational data
- Operational in the 2030-2050 timeframe
 - Within the next year:
 - Plan for formulation will be defined
 - Industry studies will begin
 - User engagement will begin



Data Continuity, and Potential New Observations



Thank You

