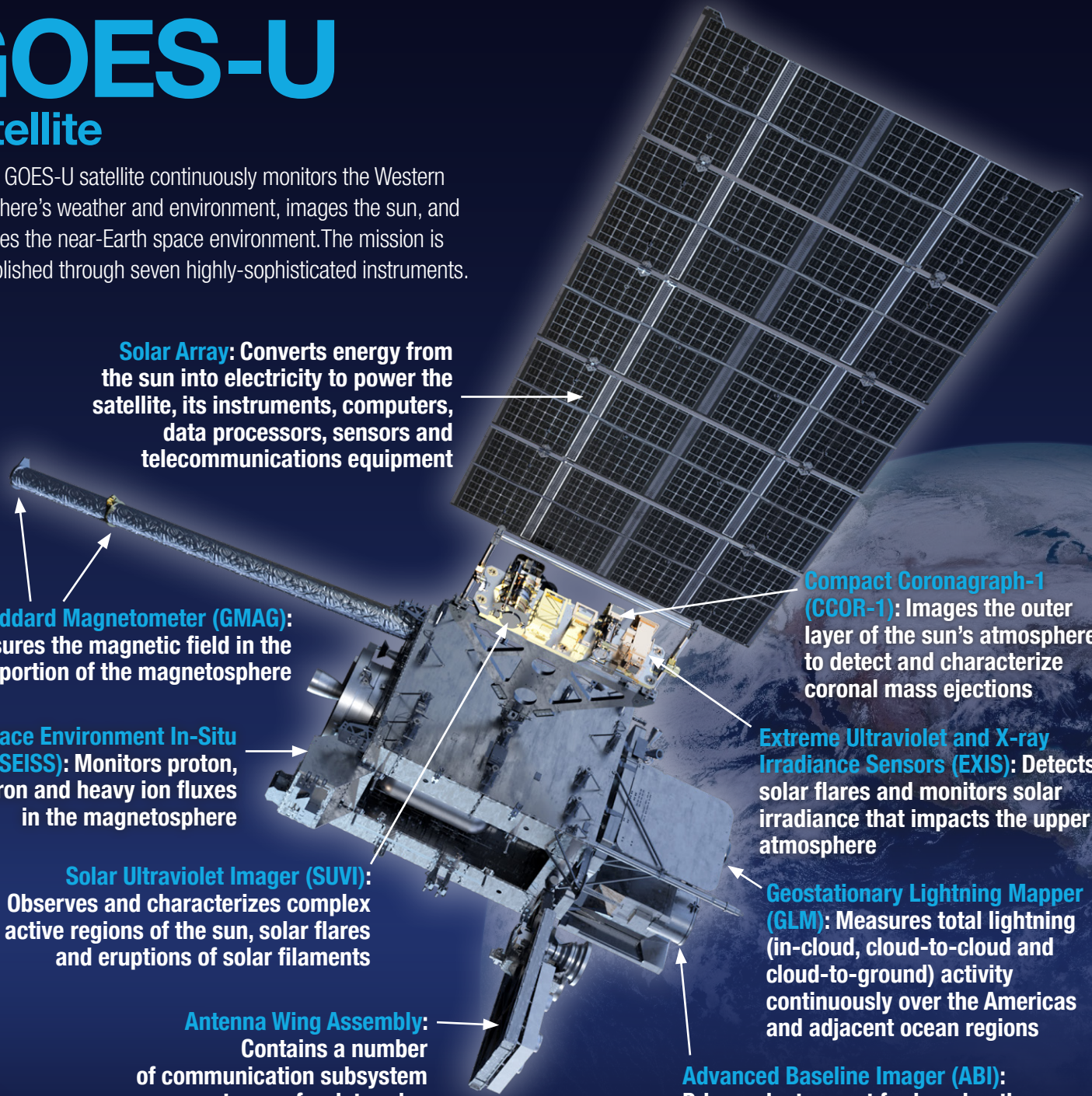
GOES-U
Satellite

NOAA's GOES-U satellite continuously monitors the Western Hemisphere's weather and environment, images the sun, and measures the near-Earth space environment.The mission is accomplished through seven highly-sophisticated instruments.



Solar Array: Converts energy from the sun into electricity to power the satellite, its instruments, computers, data processors, sensors and telecommunications equipment

Goddard Magnetometer (GMAG): Measures the magnetic field in the upper portion of the magnetosphere

Space Environment In-Situ Suite (SEISS): Monitors proton, electron and heavy ion fluxes in the magnetosphere

Solar Ultraviolet Imager (SUVI): Observes and characterizes complex active regions of the sun, solar flares and eruptions of solar filaments

Antenna Wing Assembly: Contains a number of communication subsystem antennas for data relay

Compact Coronagraph-1 (CCOR-1): Images the outer layer of the sun's atmosphere to detect and characterize coronal mass ejections

Extreme Ultraviolet and X-ray Irradiance Sensors (EXIS): Detects solar flares and monitors solar irradiance that impacts the upper atmosphere

Geostationary Lightning Mapper (GLM): Measures total lightning (in-cloud, cloud-to-cloud and cloud-to-ground) activity continuously over the Americas and adjacent ocean regions

Advanced Baseline Imager (ABI): Primary instrument for imaging the Western Hemisphere's weather, ocean and environment

KEY FACTS

Three-axis stabilized attitude control, ensuring a steady observational platform for the mission sensors

3 types of instruments:
- Earth-pointing: **ABI** and **GLM**
- Solar-pointing: **CCOR, EXIS,** and **SUVI**
- In-situ (near-Earth space environment): **GMAG** and **SEISS**

On-orbit life:
15 years
(10 years of on-orbit operation preceded by up to 5 years of on-orbit storage)

Dimensions:
20.0ft x **18.4**ft x **12.8**ft

MASS:
6,450 lb
(11,023 lb fully fueled at launch)

Incorporates a suite of transponder payloads providing communications relay services, including the Search and Rescue Satellite-Aided Tracking (SARSAT) system

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