

EGU24-11150, updated on 15 Aug 2024
<https://doi.org/10.5194/egusphere-egu24-11150>
EGU General Assembly 2024
© Author(s) 2024. This work is distributed under
the Creative Commons Attribution 4.0 License.



NOAA's Plans for its GEO Program from Today to 2050

Andrew Heidinger¹, Daniel Lindsey¹, Joanna Joiner², and Pamela Sullivan¹

¹NOAA, NESDIS, GEO, United States of America (akheidinger@gmail.com)

²NASA GSFC, Greenbelt, MD, United States of America

NOAA's Geostationary Operational Environmental Satellites (GOES) – R Series is now six years into its operational life with GOES-16 serving as GOES East, GOES-18 serving as GOES West, and GOES-17 in on-orbit storage. The last GOES-R Series satellite (GOES-U) will launch in late April 2024. Together the GOES-R satellites watch more than half the globe – from the west coast of Africa to New Zealand, and from Antarctica to the Arctic Ocean and will continue operations into the 2030s.

To ensure the continuity of these critical observations, NOAA has initiated the mission that will follow GOES-R, the Geostationary Extended Observations (GeoXO) program. GeoXO will expand the weather-centric mission of GOES-R's imagers and lightning mappers by adding a hyperspectral IR sounder (GXS). GeoXO will expand beyond the weather mission by including hyperspectral sensors that measure atmospheric composition and ocean colour.

The first GeoXO launch is targeted for 2032 and the series is expected to be operational into the 2050s. This presentation provides a status on GOES-R operations and will also discuss GeoXO requirements, instrument status and user readiness.