Dimitrios
Vassiliadis
NOAA/NESDIS/SWO
M. Aubrey(2), M. Burek(2), M. Devaney(1), Steven Hill(2), Jacob Inskeep(1), Jeff Johnson(2), Elizabeth Kline(4), Brian Kress(3), Paul T.M. Lotoaniu(3), J. Marshall(1), Nazila Merati, N. Miles(2), G. Millward(2), M. Nakasone(2), Alessandra Pacini(3), C. Pagan(1), Laurel Rachmeler(3), Robert Redmon(3), Juan V. Rodriguez(3), William Rowland(3), Donald Schmit(3)
(1) NOAA/Space Weather Observations, (2) NOAA/Space Weather Prediction Center, (3) NOAA/National Centers of Environmental Information, (4) NOAA/Geostationary Earth-Orbit Observations
Poster
In March 2025, the Space Weather Follow-On (SWFO) program will start making operational solar-coronal images by the Compact Coronagraph 1 (CCOR-1) available to the space weather community. Later in the year, it will provide first-light, non-operational data from an observatory at the Sun-Earth Lagrange 1 (L1) point.
We first give status updates on CCOR-1 flying on the Geostationary Operational Environmental Satellite 19 (GOES-19) since the June 25, 2024 launch and subsequent Post-Launch Test (PLT). Product quality was reviewed twice, in the beta-maturity and provisional maturity reviews of January and February 2025, respectively. CCOR-1 imagery is now ready to be shared publicly, in real time through SWPC and retrospectively at NCEI. We show representative observations of CMEs, streamers, and other structures obtained during PLT, before summarizing the advantages of the coronagraph relative to the legacy LASCO/C3 on board SOHO. Product validation involves monitoring issues such as earthshine and eclipses, and applying mitigations in acquisition and processing. Finally, we outline plans for intercalibration with LASCO and scenarios for synergistic observations with other coronagraphs from space- and ground-based platforms.

Next, the Space Weather Follow On at Lagrange 1 (SWFO-L1) mission is planned to launch to L1 in the fall of 2025. It will carry a second coronagraph, CCOR-2, and instrumentation for plasma (SWiPS), suprathermal-particle flux (STIS), and magnetic-field measurements (MAG). The data will be used to improve on the operational components of the ACE, DSCOVR, and SOHO missions. SWFO-L1 will be a rideshare with NASA’s Interstellar Mapping and Acceleration Probe (IMAP). Together with other new and legacy spacecraft at L1, SWFO-L1 will provide multipoint measurements of the background solar wind and geoeffective structures.

Data from CCOR-1 and SWFO-L1 will be made available through the Space Weather Portal (SPOT) developed at the National Centers for Environmental Information (NCEI) for SWFO and other missions. We briefly describe the data products, outlining types and levels, formats, and documentation in terms of algorithm descriptions, calibration plans, and user guides.

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