Update from the European Space Agency

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SST related activities at ESA

- ESA continues to support SST related activities in a variety of areas from spacecraft and instrument implementation and operation to applications research.
- Copernicus Sentinel-3A and B are providing the operational dual-view SST capability from the SLSTR instrument (excellent validation results using shipborne radiometers as part of the ESA FRM4SST study)
- Sentinel-3C/D in final stages of preparation: S3C launch in 2023 (TBC by EC) with 3D afterwards (2024-28 timeframe).
- Applications Contracts: FRM4SSWT, Ocean Virtual Lab, WorldCurrent, Data assimilation, Regional Initiatives in the Arctic Ocean etc
- ESA is now planning support to the next CEOS shipborne radiometer intercalibration experiment building on FRM4STS (http://www.frm4sts.org/) project held in 2016 at the National Physical Laboratory (NPL) and at Wraysbury for the SST field campaign

Copernicus HPCM and Next Generation

- LSTM: Multi-channel TIR radiometer (scanning): 30-50m spatial resolution SST (11:30-1500 local time), Coverage 56S-84N including major islands >100 km2 up to 100 (200 km goal) offshore every 1-2 days (TBC). 13 bands in 7.5 - 12.63um spectral range, NEdT 0.1 - 0.05K. (SST from 10.5, 10.95. 12.63um but the product is not yet baselined). Now entering Phase B2/C/D.
- CIMR: Conically scanning multichannel microwave radiometer: L- (<60 km), C/X-(<15 km), Ku-(5km) and Ka-band (4 km) H, V, S3 and S4 channels, >1900 km swath, providing 95% global (no hole at the pole) coverage each day. SST and SIC primary mission objectives. NEdT 0.2K for C-band. Now entering Phase B2/C/D.
- Copernicus Next Generation: S3-NG Optical is now progressing with various concepts under study to maintain continuity of Sentinel-3.