Developing an **Environmental Awareness Repertoire of ABI Imagery** (‘**DEAR-ABII**’) to Advise the Operational Weather Forecaster

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1) **DEAR-ABII speaks directly to NOAA’s development of a Weather Ready Nation by exploiting the multispectral information available from GOES-R ABI. It will contribute to maintain NOAA’s position as a recognized international leader in multispectral imagery applications.**

2) **DEAR-ABII will enable the AHI → ABI transition, demonstration, and vetting of CIRA’s advanced imagery applications to NWS forecasters with the goal of operational implementation in coordination with NESDIS.**

**DEAR ABII will use GOES-16 data to:**

- Demonstrate **true color imagery** for ABI using CIRA’s SHAC algorithm
- Expand the **GeoColor data fusion** product
- Apply the Dynamic Enhancement Background Reduction Algorithm (DEBRA)
- Expand the handling of **low cloud and fog over complex backgrounds**
- Use the 1.38 µm band to **decouple snow and dust products** and for **thin-over-thick (2-layer) cloud detection**
- Demonstrate CIRA’s multispectral cloud/snow enhancement algorithm
- Work closely with NWS and Liaisons

**Special Highlights:**

- ABI True Color Imagery, GeoColor

**DEAR-ABII will maximize the vast potential of the new GOES-16 sensor technology.**