Developing an **E**nvironmental **A**wareness **R**epertoire of **ABI** **I**magery (*'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

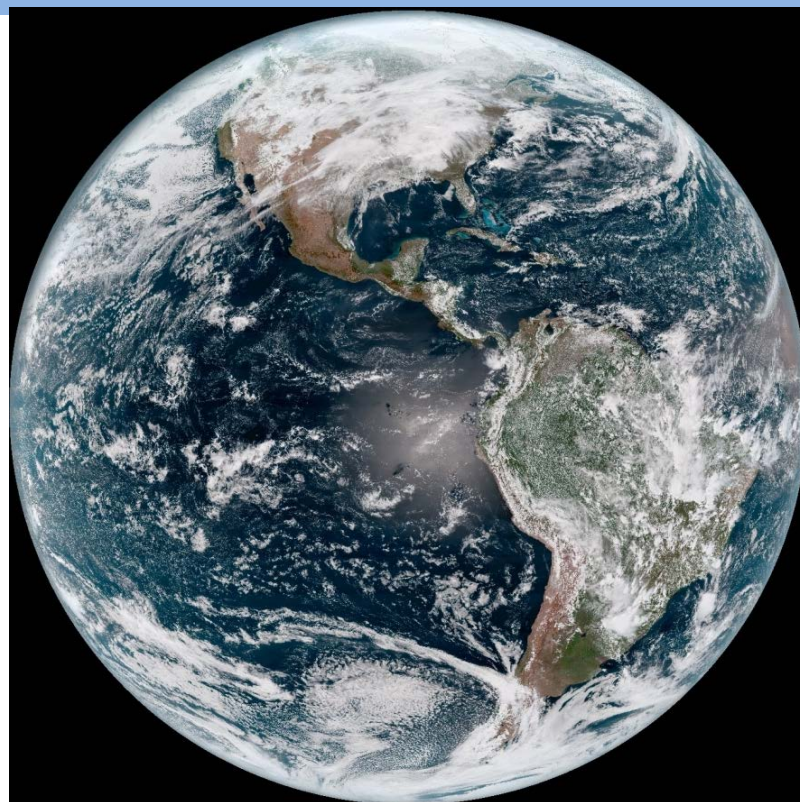**DEAR-ABII will maximize the vast potential of the new GOES-16 sensor technology.**

Figure: GOES16-ABI from 1736 UTC on 28 Feb 2017. True Color RGB using CIRA's Synthetic Hybrid Atmospherically Corrected (SHAC) algorithm.