Three tasks are proposed that will improve the use and interpretation of GOES-R imaging capabilities:

1. Anticipation of tropical cyclone eye formation.

2. Improved understanding of cloud top microphysical variations in tropical cyclones.

3. Use of simulated HWRF IR imagery to improve tropical cyclone wind structure diagnosis from observed IR imagery.

Caption. Six-hourly IR images of Hurricane Mitch starting at 18 UTC 23 October. Dvorak-based intensities from SAB are listed in the upper right portion of the images. During this period of time Mitch transformed from a strong tropical storm with no indication of an eye to a major hurricane.

Improved interpretation and use of GOES-R imaging capabilities in the vicinity of tropical cyclones

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