A First Look at Imagery from Himawari-8

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Introduction

Himawari-8 was launched by the Japanese Meteorological Agency (JMA) on 7 October 2014. It carries the Advanced Himawari Imager (AHI), a state-of the-art instrument providing unprecedented temporal, spectral, and spatial resolution in a geostationary orbit. The AHI is very similar to GOES-R's Advanced Baseline Imager (ABI) (scheduled for launch later this year), so NOAA is very interested in learning as much as possible about the AHI. JMA agreed to provide a data feed to NOAA, and over the last 9 months much work has been involved in looking closely at the new spectacular imagery and testing out experimental new products. This poster provides some examples of the new imagery and products.

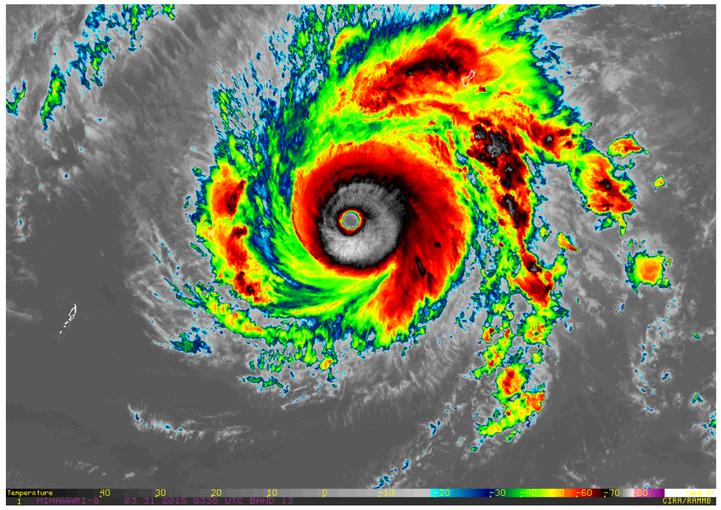

Figure 1: We began receiving data on 31 March 2015, and the very first feature looked at was intense Typhoon Maysak in the west Pacific. This is the first time we've had 2 km IR data from a geostationary orbit.

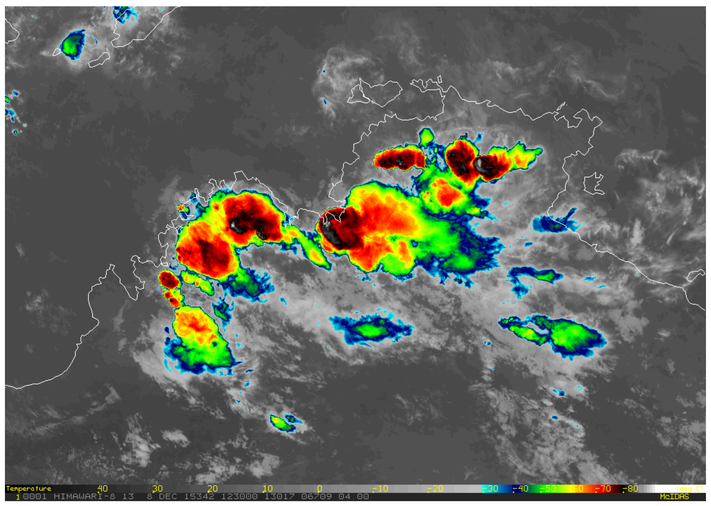

Figure 2: Convection over northwestern Australia from 8 Dec. 2015. The 2-km resolution allows for a very detailed look at the thunderstorm top structure.

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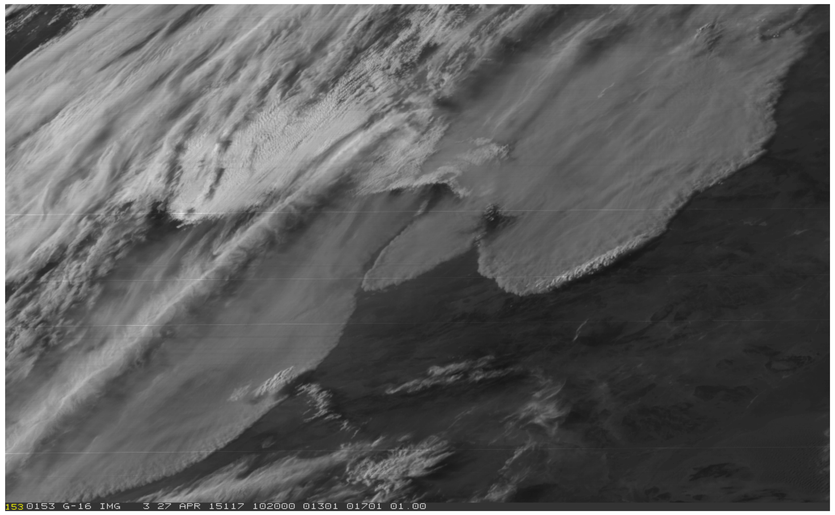

Figure 3: In addition to improved IR resolution, the 0.64 µm Visible band provides 500-m resolution, also the highest available from a geostationary platform. This example shows a massive dust storm in northwestern China from 27 April 2015.

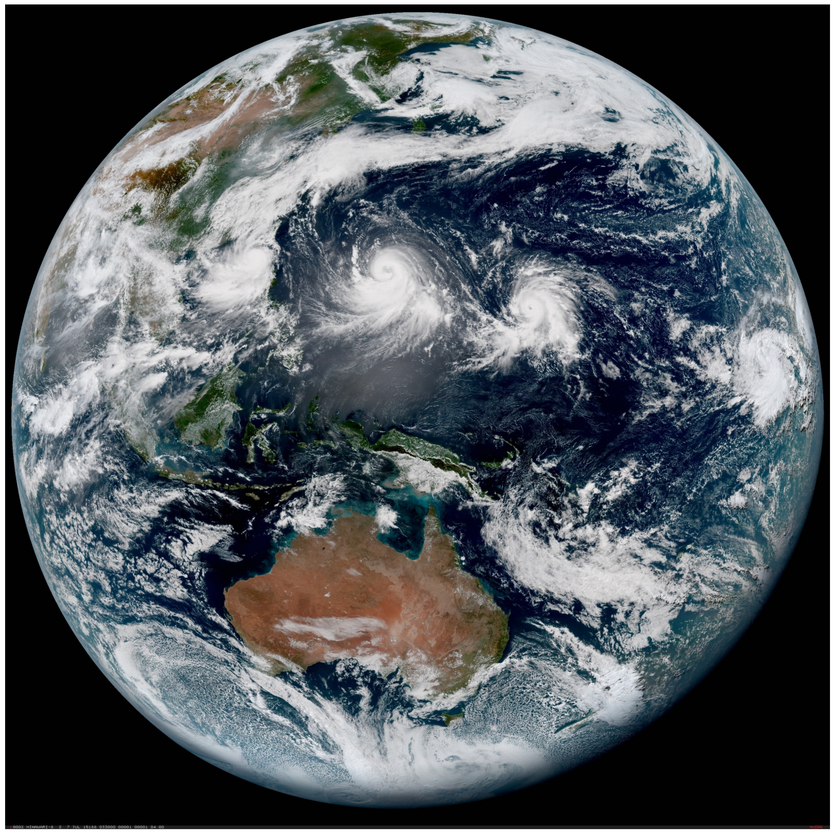

Figure 4: Himawari-8 became operational on 7 July 2015, and this full disk image was from that day at 0330 UTC. It was created using the Hybrid Atmospherically Corrected True Color method, developed at CIRA. I ***strongly*** urge you to see Dr. Steve Miller's talk at 5:15 pm today (Wed.) on this topic.

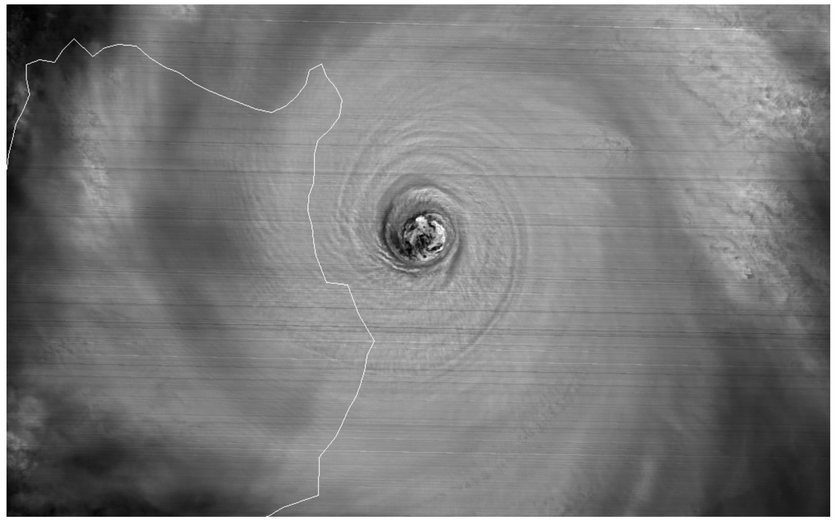

Figure 5: Typhoon Noul east of the Philippines on 10 May 2015 provided some amazing 2.5-minute imagery. Ask me to show you the animated example on my laptop.

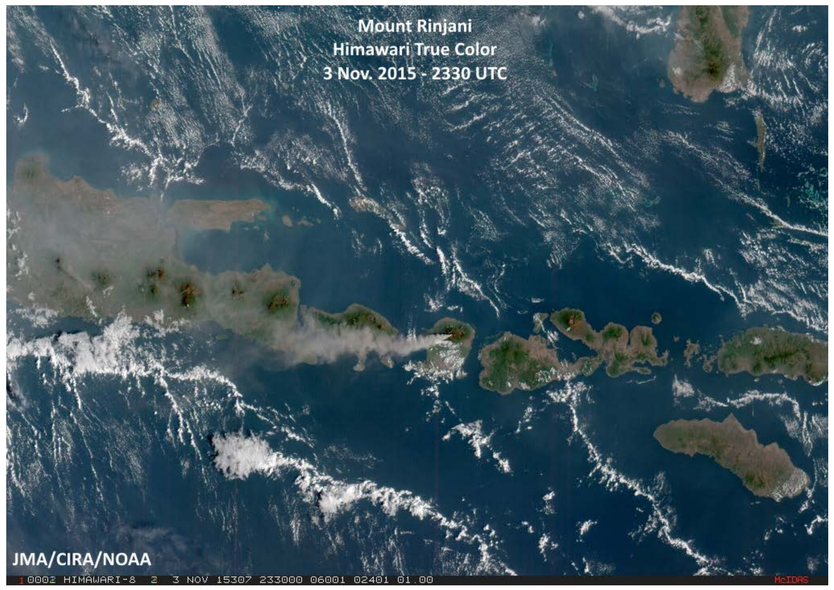

Figure 6: The ability to view true color imagery from a geostationary platform has opened the door to applications we've never yet had. Here, a brown ash cloud can be seen spreading westward from Mount Rinjani in the Philippines on 3 Nov. 2015. Ask me to see a full animation of this example

Himawari Imagery on the Web

Real-time Himawari-8 imagery can be found on RAMMB/CIRA's website here:
http://rammb.cira.colostate.edu/ramsdis/online/himawari-8.asp
and on CIMSS Real Earth here: **https://realearth.ssec.wisc.edu/**
A Himawari Loop of the Day page can be found here:
http://rammb.cira.colostate.edu/ramsdis/online/loop_of_the_day.asp

All Himawari data are courtesy of JMA.