

**Contributed by:**

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**Region:**

Alaska Southeast

**Office:**

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**Date:**

12 July 2016

**Product(s):**

Daytime Microphysics RGB

**Application Area:**

Precipitation

**Feature:**

Precipitating clouds outside radar coverage

**Instrument(s):**

ABI, VIIRS, MODIS, AVHRR

**Works well with:**

Visible Imagery Channels  
Radar Reflectivity

**Related Links:**

[SPoRT Daytime Microphysics RGB Quick Guide](#)

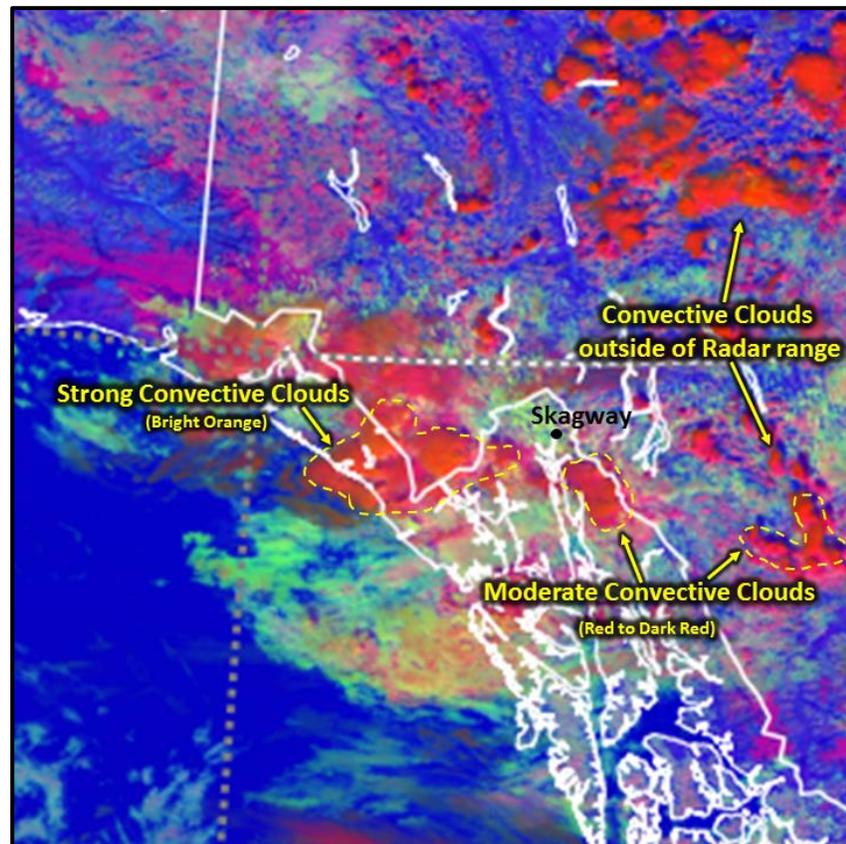
[EUMeTrain RGB Interpretation Guide](#)

**Event Description:**

An upper level low caused easterly flow at mid and high levels into the northern panhandle region, cooling cloud tops. Showers were seen in the northern panhandle, but most of the area was dry with mostly to partly cloudy skies.

**Product Impact:**

The Daytime Microphysics RGB was applied to analyzing areas of precipitation in the Haines, Skagway and Bay region. In-situ observations in the area confirmed the RGB interpretation by recording rainfall at the time of the images. The cloud features in the RGB with orange and red coloring represent strong and moderate convection, respectively. Forecasters had increased awareness and confidence in the location and strength of precipitation in the Skagway airport area. Often, radar beam blockage and coverage are limited in these areas due to the topography and distance from the radar.



**Figure 1.** Daytime Microphysics RGB from VIIRS valid at 2013 UTC, 12 July 2016 over southeastern Alaska.

**Interpretation:**

The thick, high clouds with moderate to weak convection show as red to dark red, due to having little to no blue input as they are very cold, and little green input because the particles are large ice. The high, thick clouds with strong convection appear in bright orange colors due to smaller particles on top having higher reflectivity and increased green contribution. Low stratus clouds appear in blue to bright aqua coloring, due to the small water droplets with high reflectivity, giving a high green contribution and warmer cloud top temperatures causing increased blue contributions.