

Interpreting the Cloud Type RGB



Product Benefits

- It combines cloud height with cloud phase and cloud optical depth information.
- It effectively detects thin cirrus clouds over other clouds and cloud free land/sea.
- Snow and ice on the ground are clearly delimited from high-level (thin) ice clouds.
- It detects supercooled water clouds.
- It provides good colour contrast between cloud types.
- Coastlines and surface features are visible.



Product Limitations

- Limited to daytime applications.
- The categories “high and low clouds” are rather coarse classifications.
- Less suited for particle size discrimination.
- Unable to detect thin cirrus over opaque high clouds.
- Small colour contrast between mid-level water and ice clouds.
- Snow has similar colour to low- and mid-level (ice) clouds.
- Mid-level thin clouds might not be detected in a moist atmosphere.
- Colour shades depend on atmospheric moisture.

Ref: <https://eumetrain.org/sites/default/files/2021-05/CloudTypeRGB.pdf>



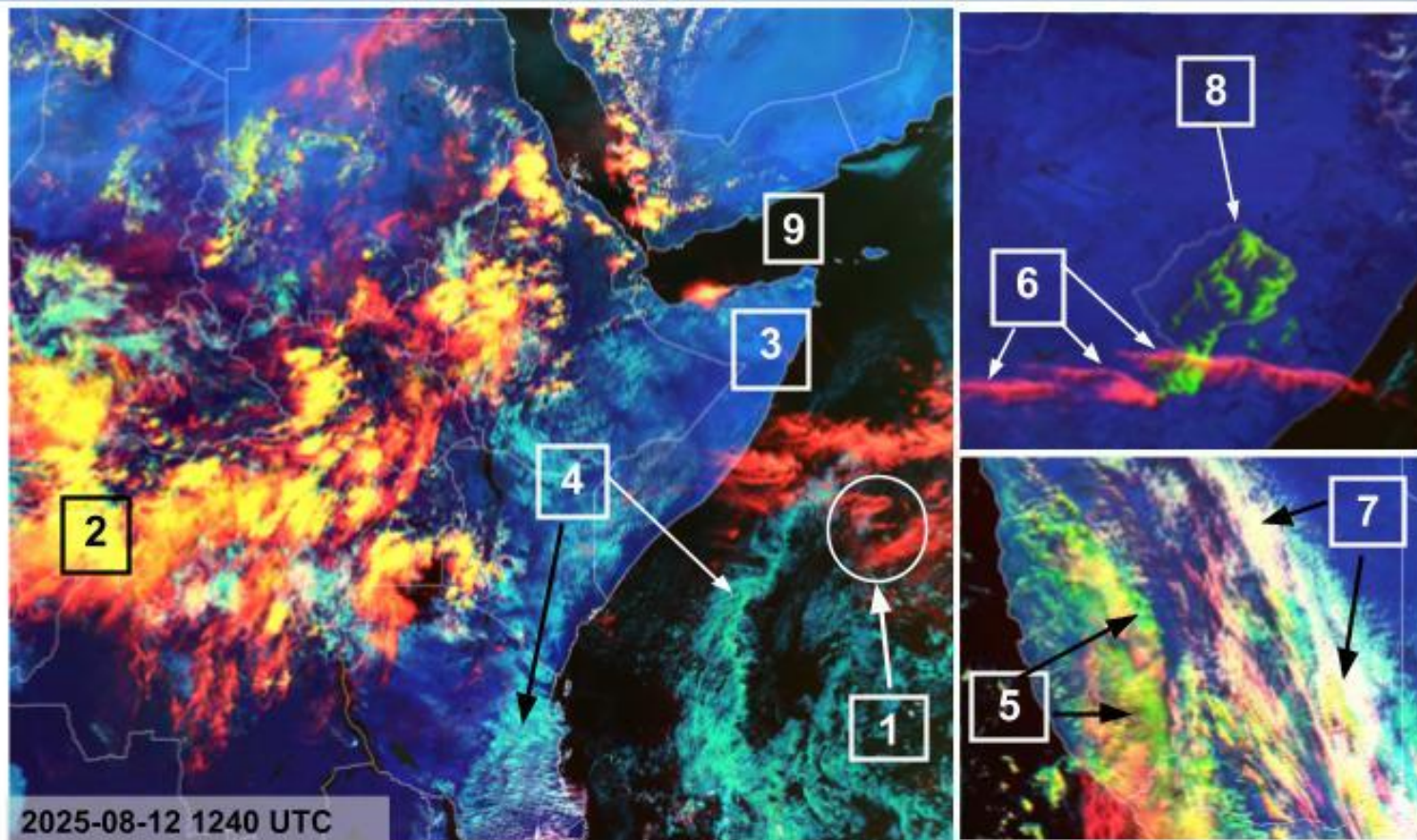
Quick Guide



Cloud Type RGB

Interpretation

- 1** Thin cirrus clouds over land and sea (darker red over the sea)
- 2** Thick ice clouds (multi-layered Cloud with ice on top)
- 3** Land
- 4** Low to mid-level water cloud
- 5** Mixed phase cloud (at low and mid-level)
- 6** High and thin water cloud (more orange if ice is present)
- 7** Supercooled water cloud
- 8** Snow on the ground
- 9** Sea (ice free)

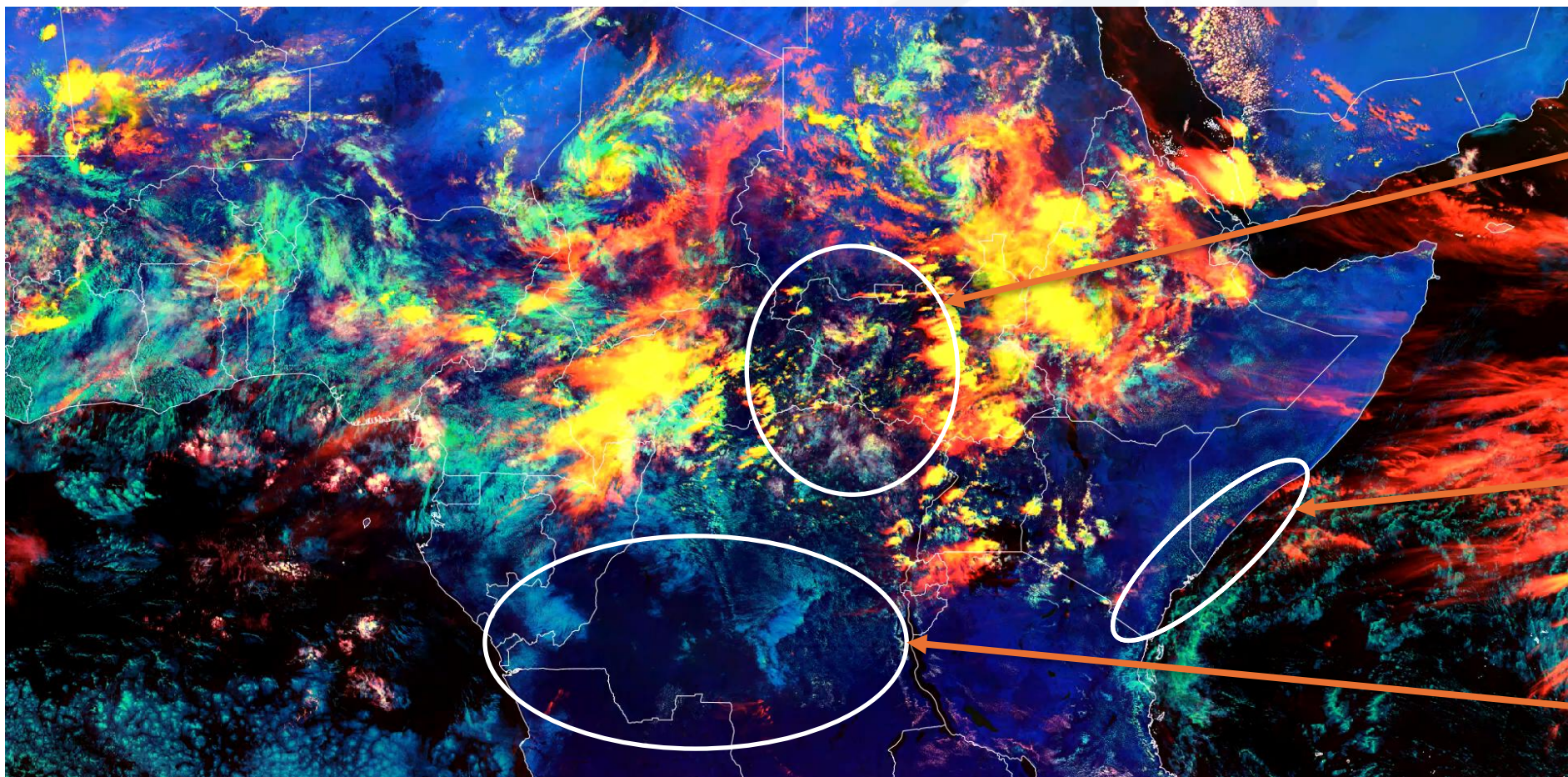


RGB = NIR 1.3; VIS 0.6; NIR 1.6





Animation



Thick ice
clouds/convective
clouds

Development of
sea breeze front

Low water
clouds



Thick ice clouds

High thin cirrus clouds in bright red

Low water clouds

Small shallow cells of a sea breeze front

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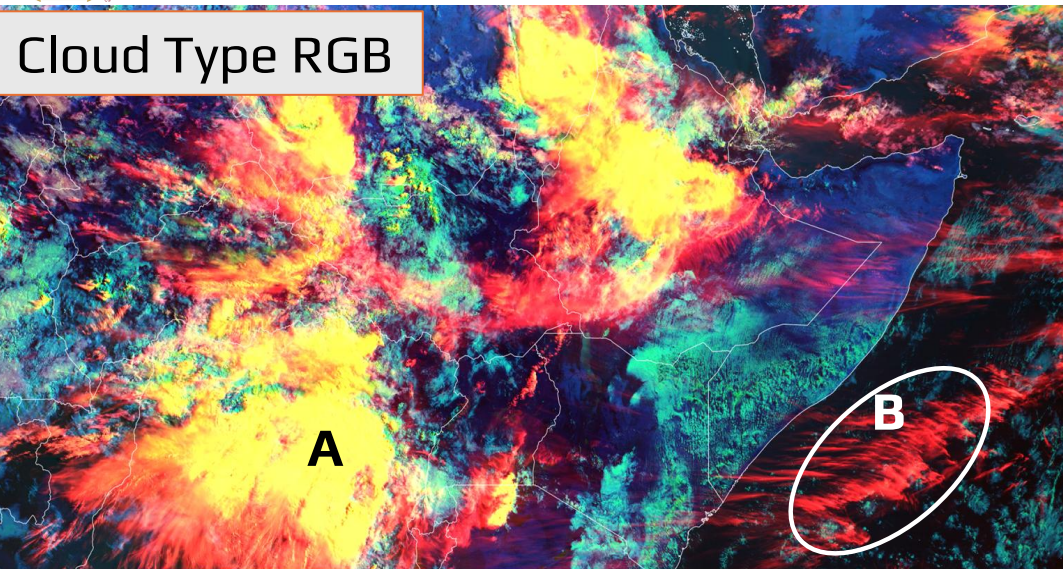
2025-08-15 06:30:00 UTC



Image Comparison

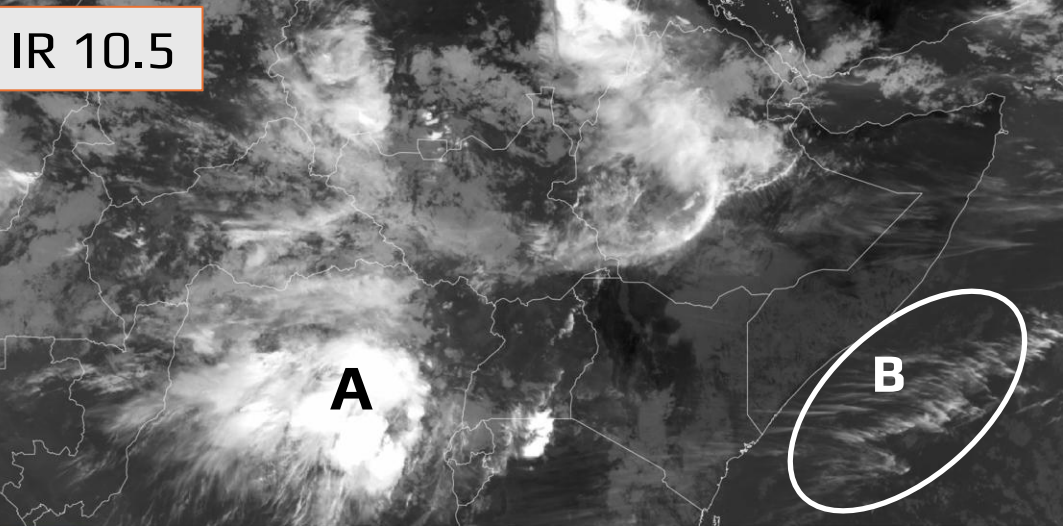


Cloud Type RGB



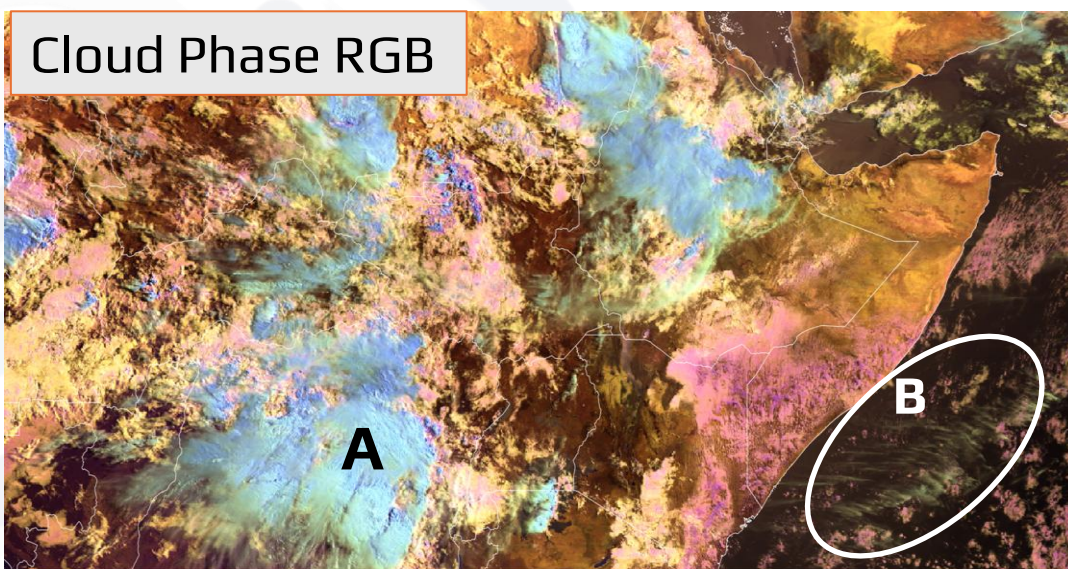
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IR 10.5



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Cloud Phase RGB



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A = Thick ice clouds/convective clouds
B= Thin cirrus clouds



Practice applying your new knowledge by answering the questions on the Moodle page