

# Example of a Training Resource; the Airmass RGB product

Australian VLab Centre of Excellence

**National Himawari-8**

**Training Campaign**

The Campaign will assist Australian Bureau of Meteorology, WMO Region V and other stakeholders in preparing for the effective use of Himawari-8 data prior to its availability using existing satellite resources.

<p><b>Phase 1: Familiarisation Resources</b> (rapid scan)</p>	<p><b>Learning Outcomes</b></p>	<p><b>Phase 1: Familiarisation Resources</b> (RGB products)</p>
<p><b>Phase 2: Case Studies</b></p>	<p><b>Instructions and Timeline</b></p>	<p><b>Phase 2: Latest Himawari-8 related information</b></p>
<p><b>Tutorial Sessions and Feedback</b> (Phase 2)</p>	<p><b>Objectives</b></p>	<p><b>Tutorial Sessions and Feedback</b> (Phase 1)</p>

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**Introduction and Instructions**

**How Forecasters can use the new Himawari-8 data effectively**

General Comments	Broadscale / Synoptic Scale	Tropical Cyclones	Thunderstorms
Fog / Low Cloud	Fire and Smoke	Volcanic Ash	Dust
Turbulence	Other Features (to be added)	Other Features (to be added)	Other Features (to be added)

**Red-Green-Blue (RGB) Product reference information.**

Dust RGB	Ash RGB	Airmass RGB	Day Microphysics RGB
Additional RGB (to be added)	Night Microphysics RGB	Day Convective RGB	Additional RGB (to be added)

**Useful additional Himawari-8 channels**

**Derived Products**

**Case Studies**

2

EUMETSAT processing of METEOSAT data – Airmass RGB

Beam	Channel	Range	Gamma
Red	WV6.2 - WV7.3	-25 ... 0	1.0
Green	IR9.7 - IR10.8	-40 ... +5	1.0
Blue	WV6.2	+243 ... +208	1.0

CHANNEL COMBINATION

EUMETSAT 0 degree RGB Composite

EUMETSAT = European Organization for the Exploitation of Meteorological Satellites

4

The input beams that go to make up the Airmass RGB.

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North Atlantic Ocean and Northwest Europe  
7 January 2005

3

Channel combination recipe of the Airmass RGB

(For more details see Appendix 2)

Recommended Range and Enhancement

Beam	Channel	Range	Gamma	Gamma 2
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## EUMETSAT processing of METEOSAT data – Airmass RGB

Images courtesy Eumetsat

**Ranges and Enhancements:**

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**CHANNEL COMBINATION**

**COLOUR INTERPRETATION**

- Thick, high-level clouds
- Thick, mid-level clouds
- Jet (high PV)
- Cold Airmass
- Thick, low-level clouds (warm airmass)
- Thick, low-level clouds (cold airmass)
- Warm Airmass
- Warm Airmass

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6.2 micron vs 7.3 micron | 9.7 micron vs 10.8 micron

3000m | 2000m

5000m | 2450m

Moist | Ozone Rich Polar Airmass | Upper level Moisture

Transmitted / emitted | Transmitted | Transmitted / emitted

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construction courtesy B.Zeschke BOM

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6.2 micron vs 7.3micron

9.7 micron vs 10.8 micron

500hPa

850hPa

Moist

Ozone Rich Polar Airmass

Upper level Moisture

208K

243K

transmitted / emitted

transmitted

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