The ASMET Project: An overview of the Work Process and Achievements

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Outline

- What is ASMET ?
- Members of the ASMET Team
- The ASMET Work Process
- ASMET Modules

What is ASMET?

The African Satellite Meteorology Education and Training (ASMET), a project that produces training materials to guide/teach African forecasters how to better use satellite images and products to improve their forecasts by integrating the information in their forecast process.

Members of the ASMET Team

- Four CoE: EAMAC, KMD, Morocco NMHS and SAWS
- Training Officers from EUMETSAT
- An Instructional Designer from COMET

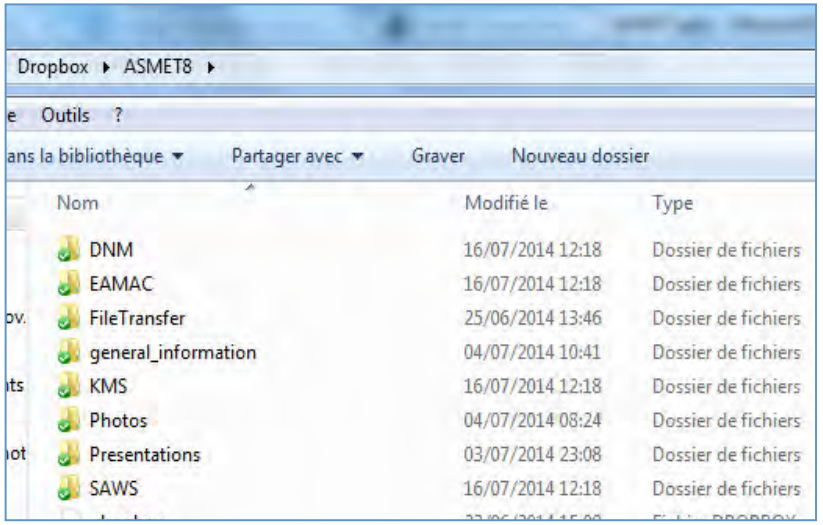
Note: The ASMET Project is Funded by EUMETSAT and Managed by EUMETSAT and COMET.

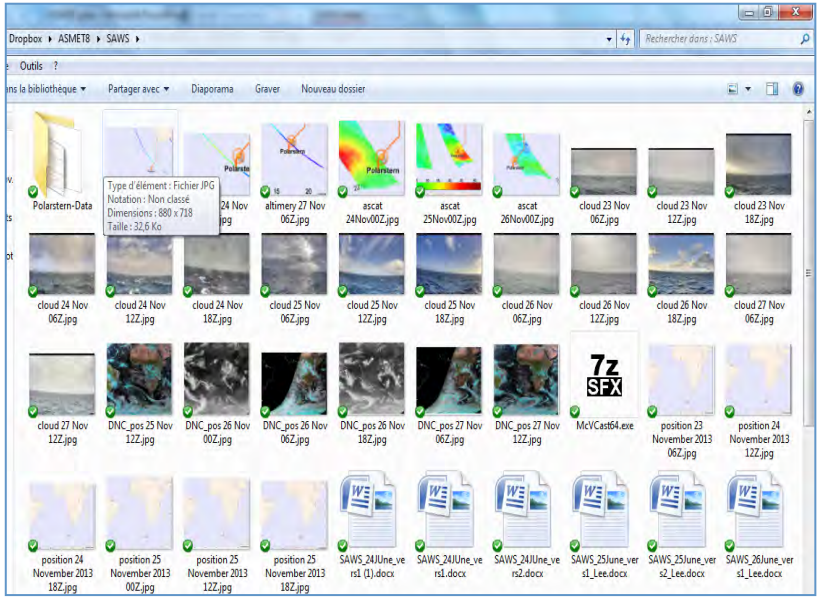
The ASMET Team Work Process

- Before the kickoff meeting
- During the kickoff meeting
  - Present and motivate module title
  - Define target audience
  - Define module objectives
  - Define the forecast process (if applicable)
  - Define data needs
  - Choose case study(ies)
  - Order necessary satellite and NWP data
  - Start working on the script
  - Get necessary helps from EUMETSAT and COMET

The ASMET Team Work Process

- After the kickoff meeting
  - Continue to work on the script
  - Design conceptual models if necessary
  - Seek assistance from other members of the group whenever necessary
  - Make a monthly progress reports
  - Share your script and related documents/files with other members for comments, contributions, clarifications, etc.
  - Integrate contributions and take into account comments and requests for more clarifications





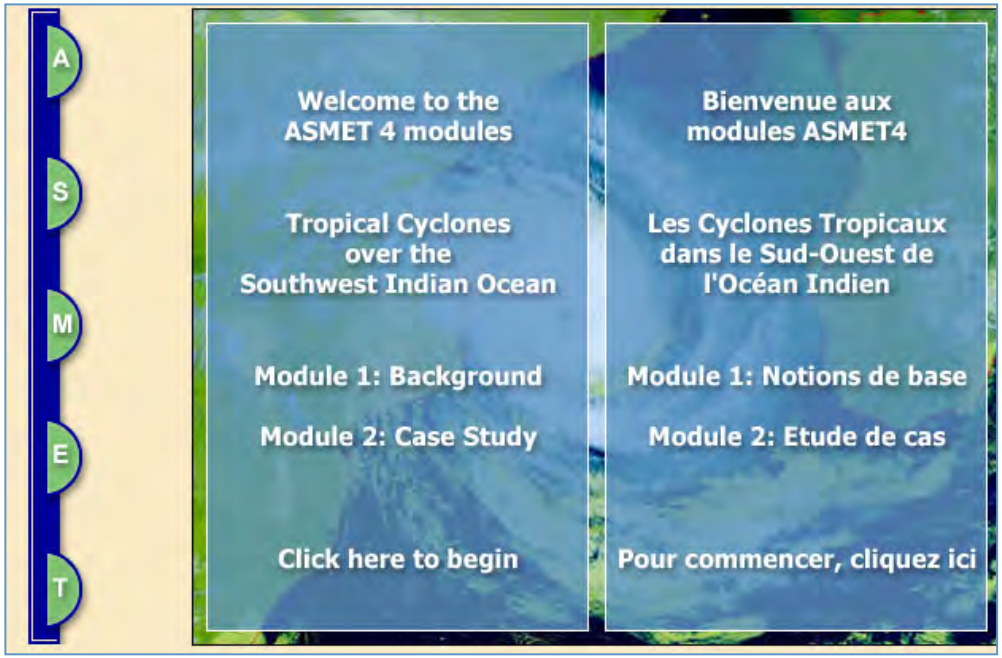
The ASMET Team Work Process

- Finalization Meeting
- Final Design and Publication of Modules
- Modules Advertisement

ASMET modules: ASMET 1, 2, 3, & 4

- ASMET 1: Satellite Meteorology in Africa (1997)
- Integrating Satellite Imagery of the ITCZ into analyses (1998)
- Combining Satellite Imagery and Model Output in Weather Forecasting (2001)

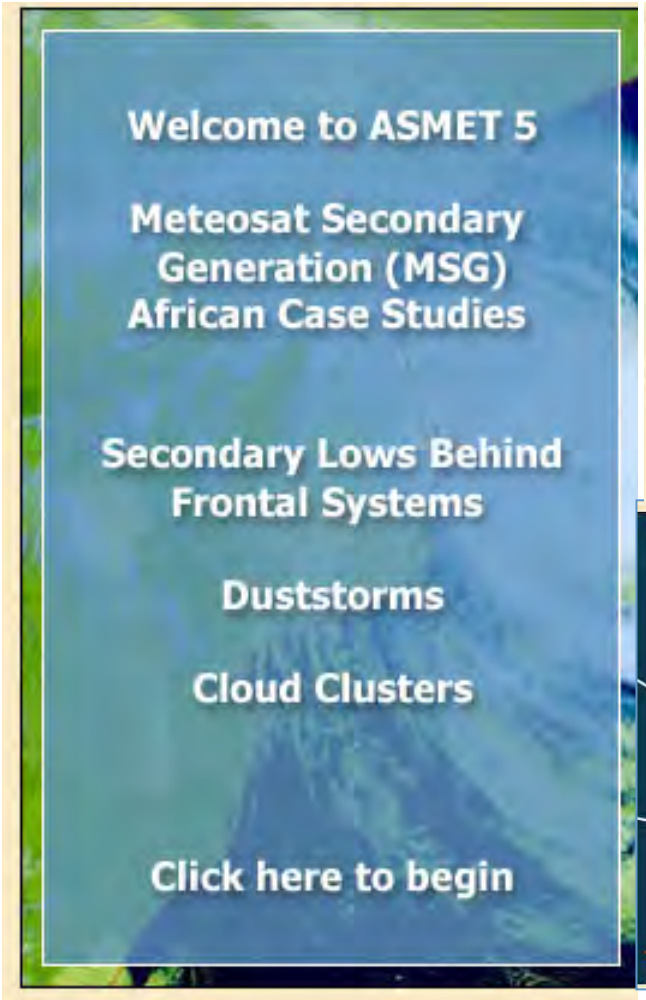
- ASMET 4: Tropical Cyclones over the Southwest Indian Ocean (2006)

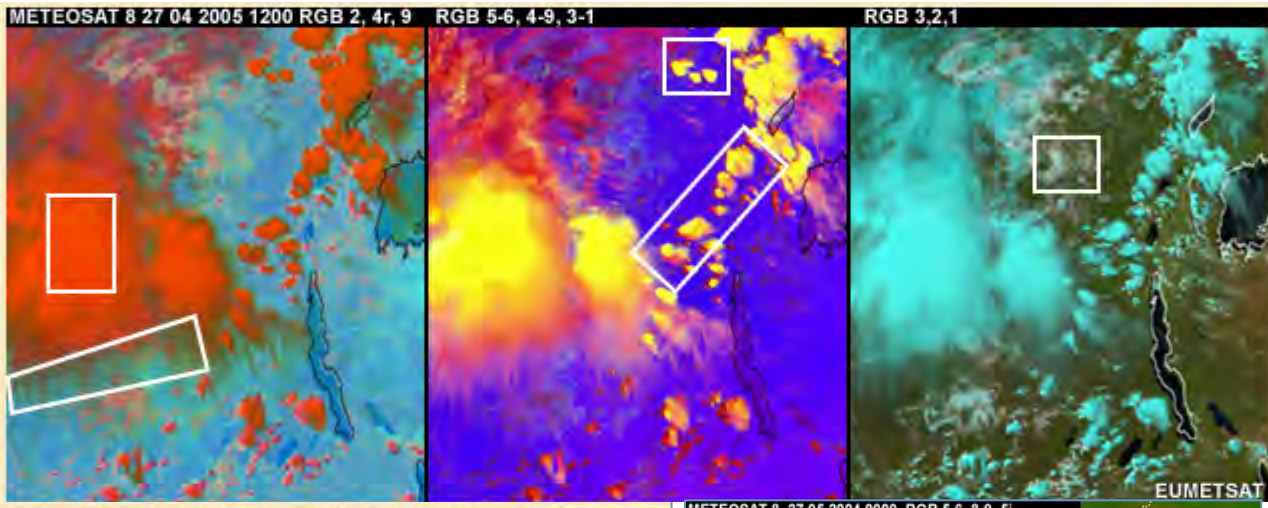


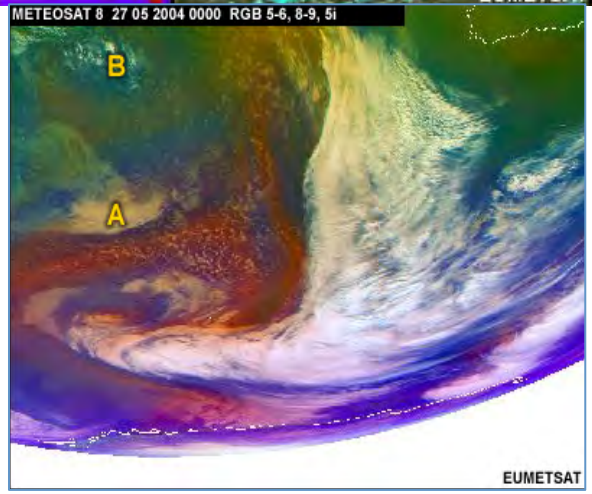
http://oiswww.eumetsat.org/WEBOPS/meteocal/latest/www/resource/asmet4/

ASMET modules: ASMET 5 (2010)

http://oiswww.eumetsat.org/WEBOPS/meteocal/latest/www/resource/asmet5/

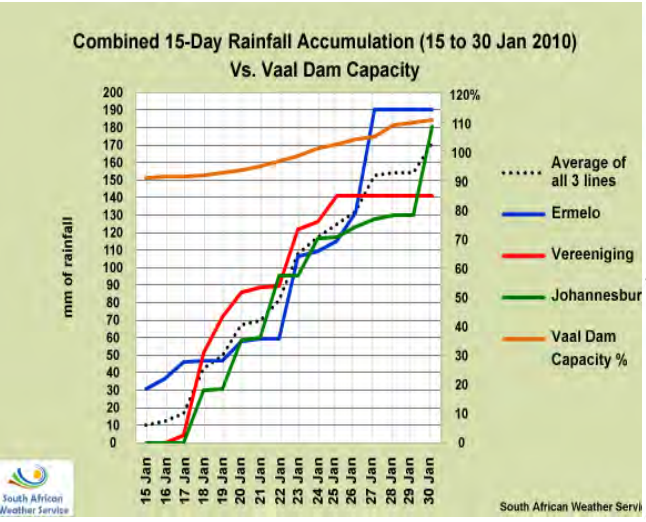


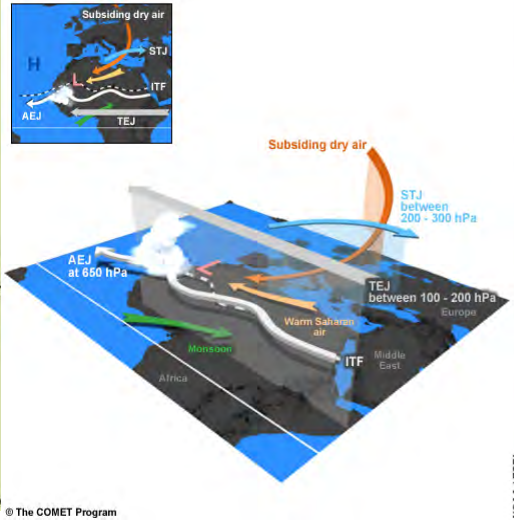


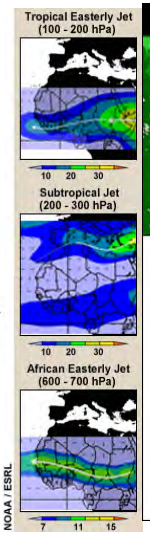


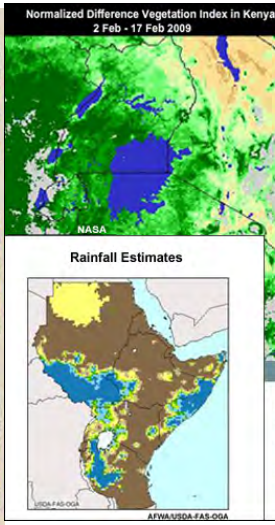
ASMET modules: ASMET 6 (2011)

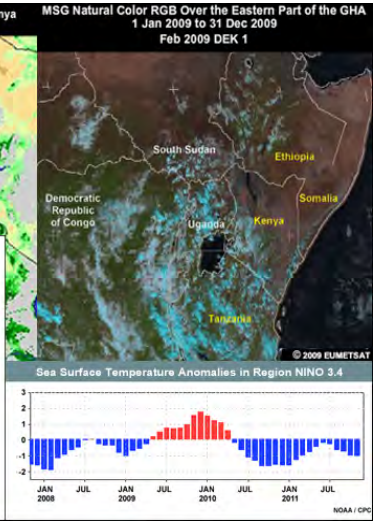
https://www.meted.ucar.edu/communities/asmet/modules.htm





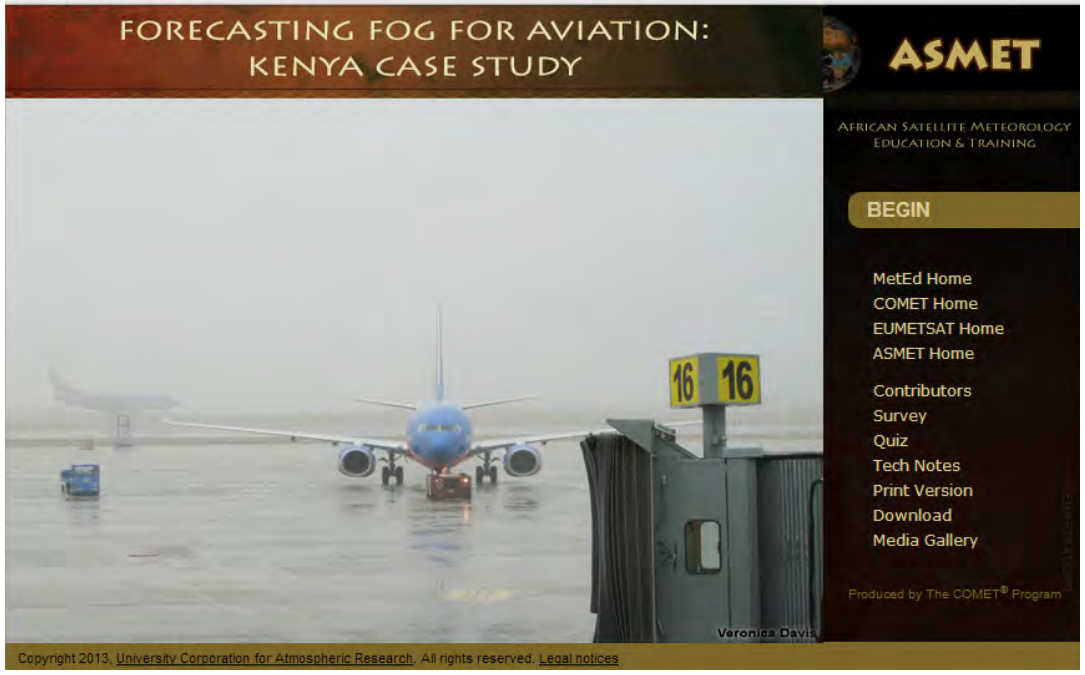


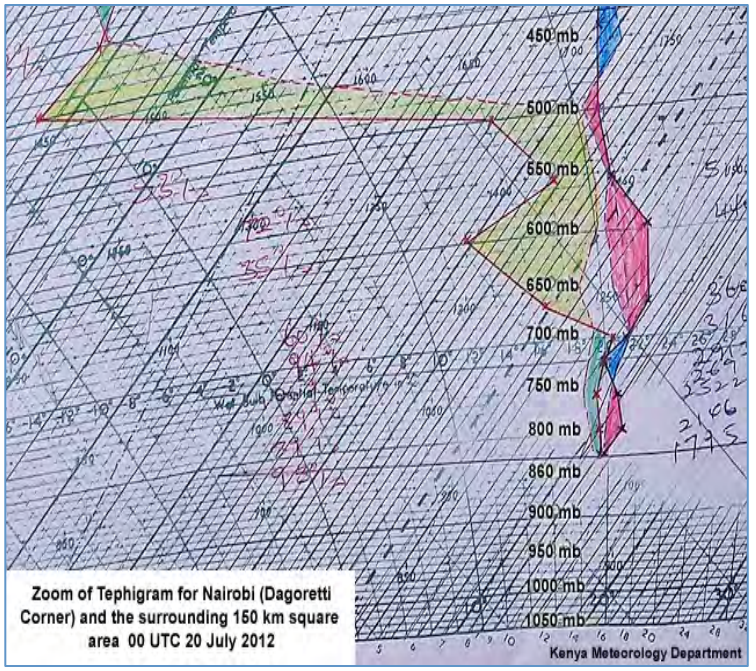


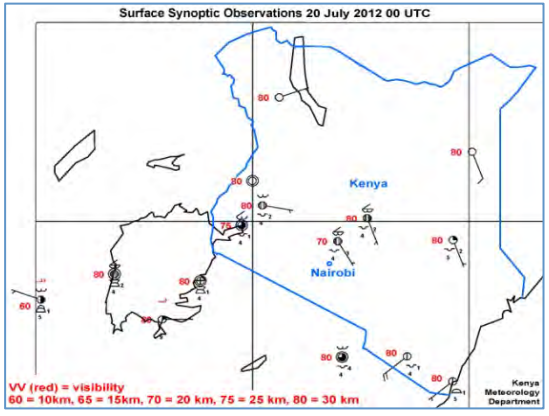


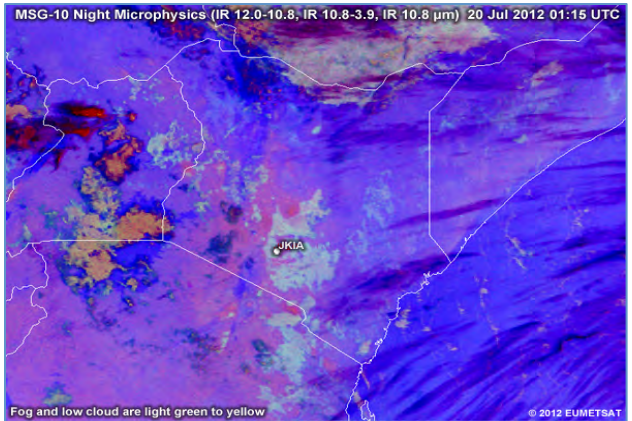
ASMET modules: ASMET 7 (2013)

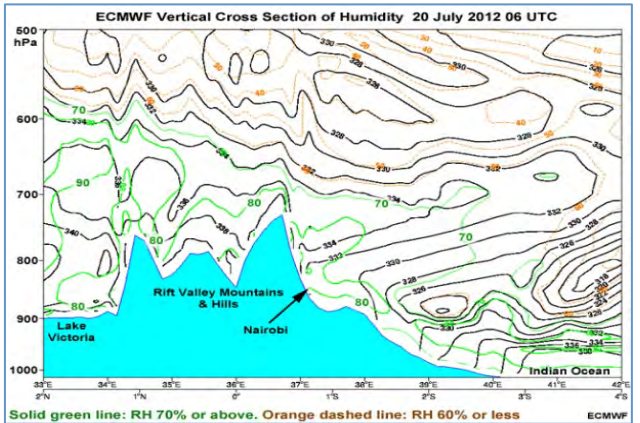
https://www.meted.ucar.edu/communities/asmet/modules.htm





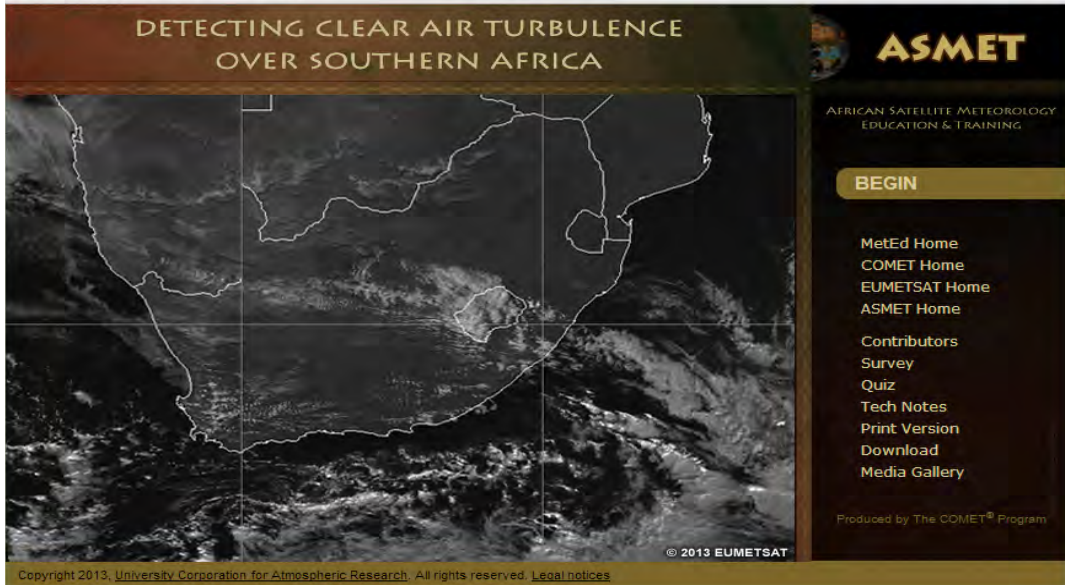






ASMET modules: ASMET 7 (2013)

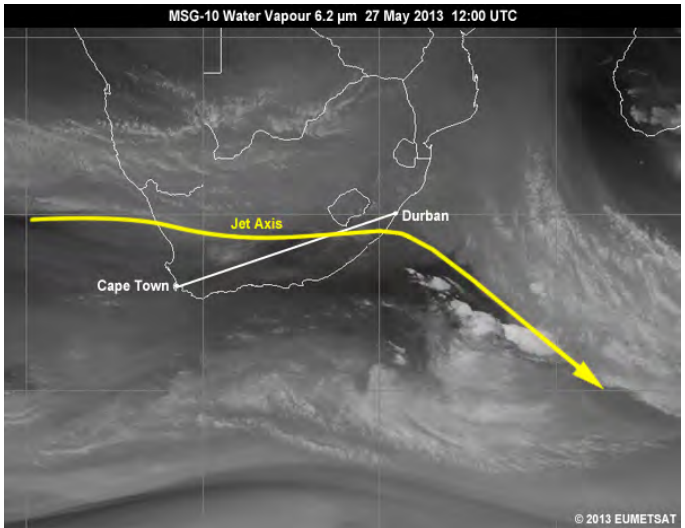
https://www.meted.ucar.edu/communities/asmet/modules.htm



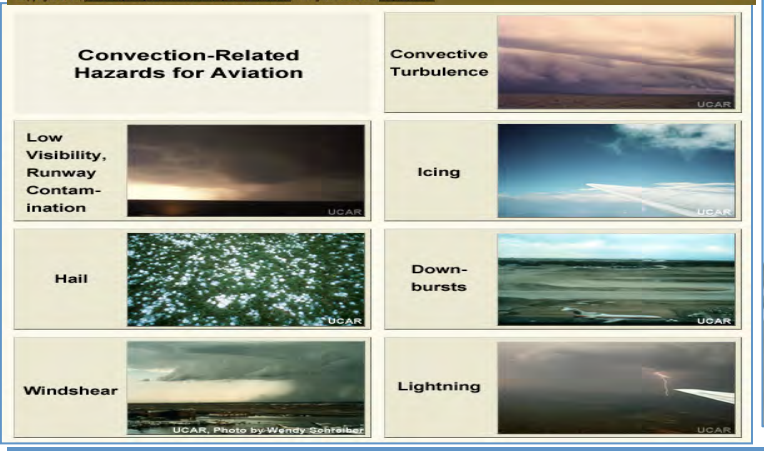
Mental Model

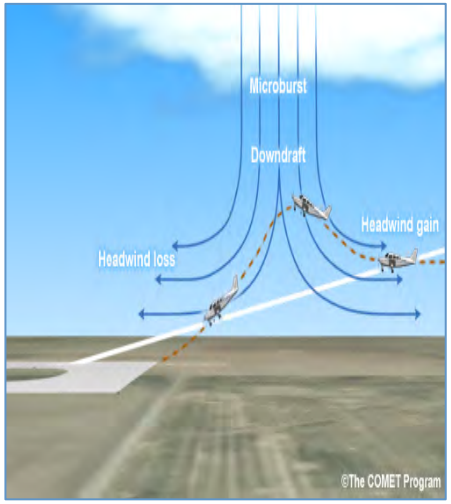
Satellite data			NWP model fields		Tephigrams / aerological diagrams	
WV imagery	HRV	Airmass	200 hPa winds	300 hPa winds	Jet stream	Vertical speed shear
Upper dry and moist zones Location of upper jet	Small-scale features in the cloud pattern	Location of upper low and upper high Location of upper jet	Jet stream found Horizontal wind shear classified as moderate turbulence	Jet stream found Horizontal wind shear classified as moderate turbulence	Jet stream found between 150 and 300 hPa	Severe turbulence indicated between 20000 and 21000 ft at King Shaka

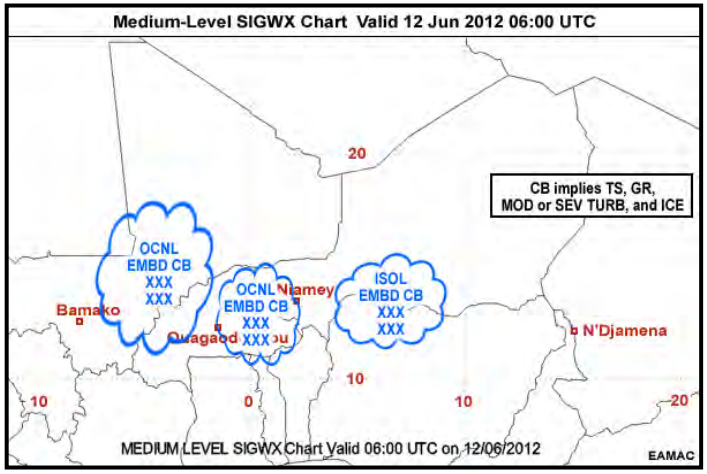
SAWS / The COMET Program

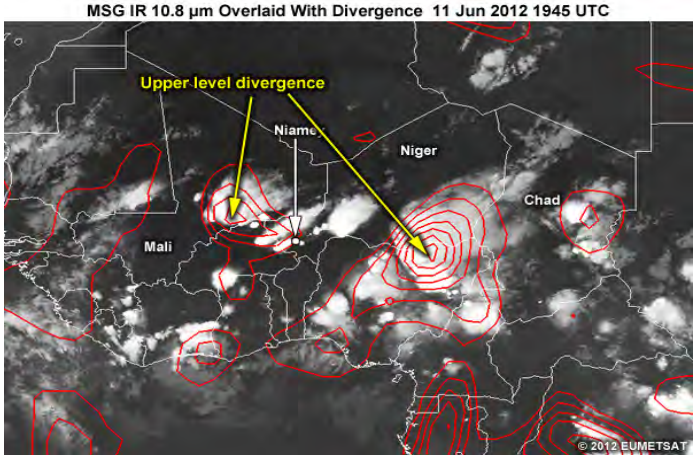


ASMET modules: ASMET 7 (2013)









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METAR DRRN 112030Z 25006KT 6000 TS FEW033 FEW040CB BKN260 36/15 Q1008 **BECMG AT 2145 16020G35KT 1200 BLDU**

Coming Next: ASMET 8

- Marine Forecasting
- Assessing Land Slides Potential
- Cloud Climatology, GII in Forecasting Convection through its life cycle

Merci pour Votre Aimable Attention

Questions/Contributions are Welcome