

Recent NPL activities of interest to CEOs

WGCV 30

Nigel Fox

2006 Worlds "Bluest Sky":

Rio de Janeiro

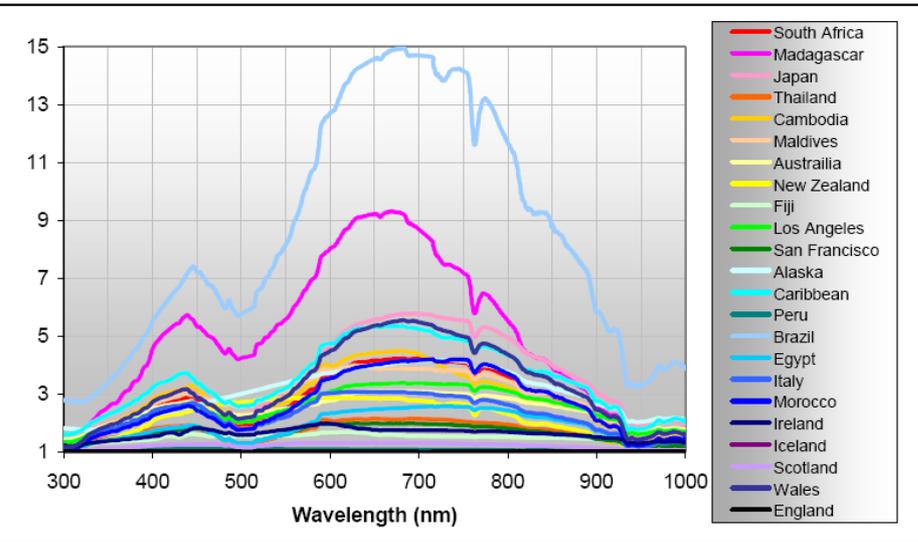
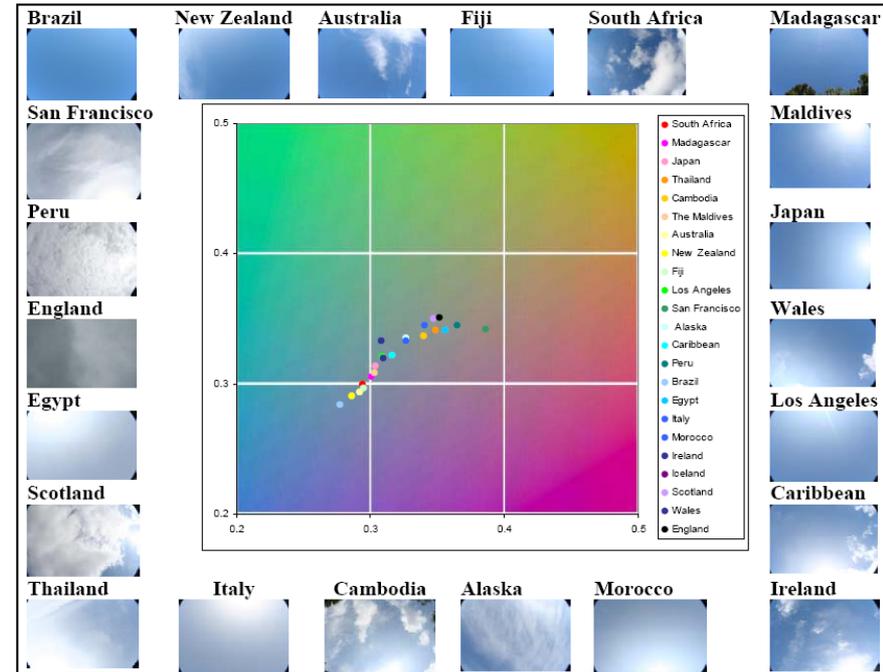


Figure 3: Sky Clarity results - the clearest sky has the highest values.



Directly Overhead



Fish Eye Picture



Horizon Picture

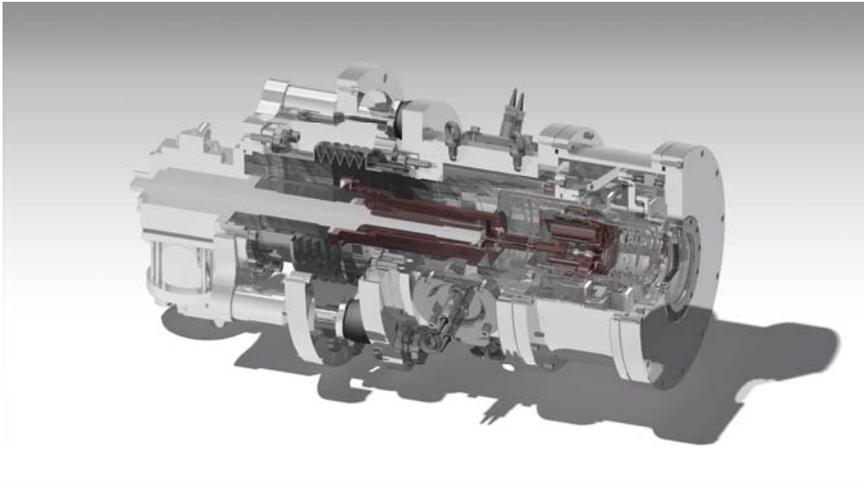
Summary

- Development of EO specific transfer standards and techniques
- “ of “best practise guidance
- Support for sensor calibration (instrument and sub-systems)
 - GERB 4
 - EarthCare
 - Sentinel 3 (SLSTR)
- Consultancy based advice
- IVOS
- QA4EO!!!!
- CEOS comparisons

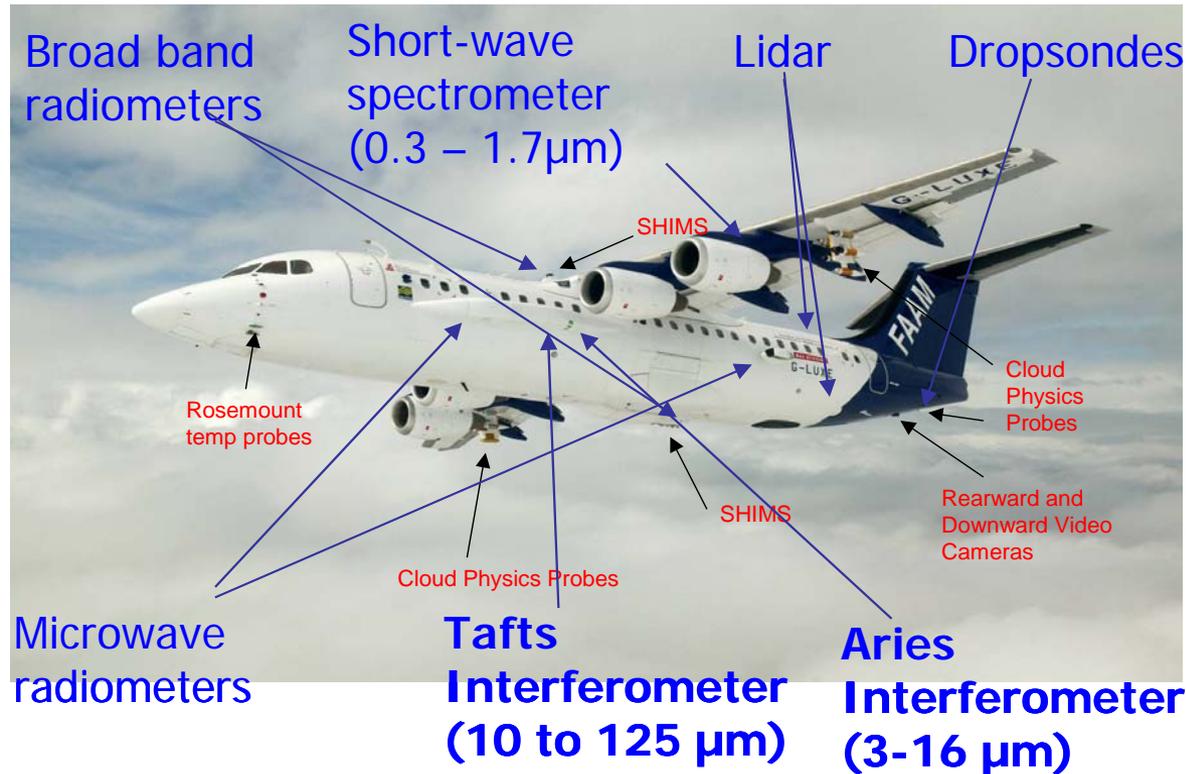
TRUTHS: Cryogenic Solar Absolute Radiometer (CSAR)

CSAR – measures TSI on ground to replace WRR of WMO

- Collaboration with PMOD/WRC Davos and MSSL
- Designed for space flight as primary standard of TRUTHS
- Instrument design now complete and in manufacture
- Testing in Nov 2009



CAVIAR: Continuum Absorption* of Visible and Infrared Radiation and its Atmospheric Relevance (* by WATER)



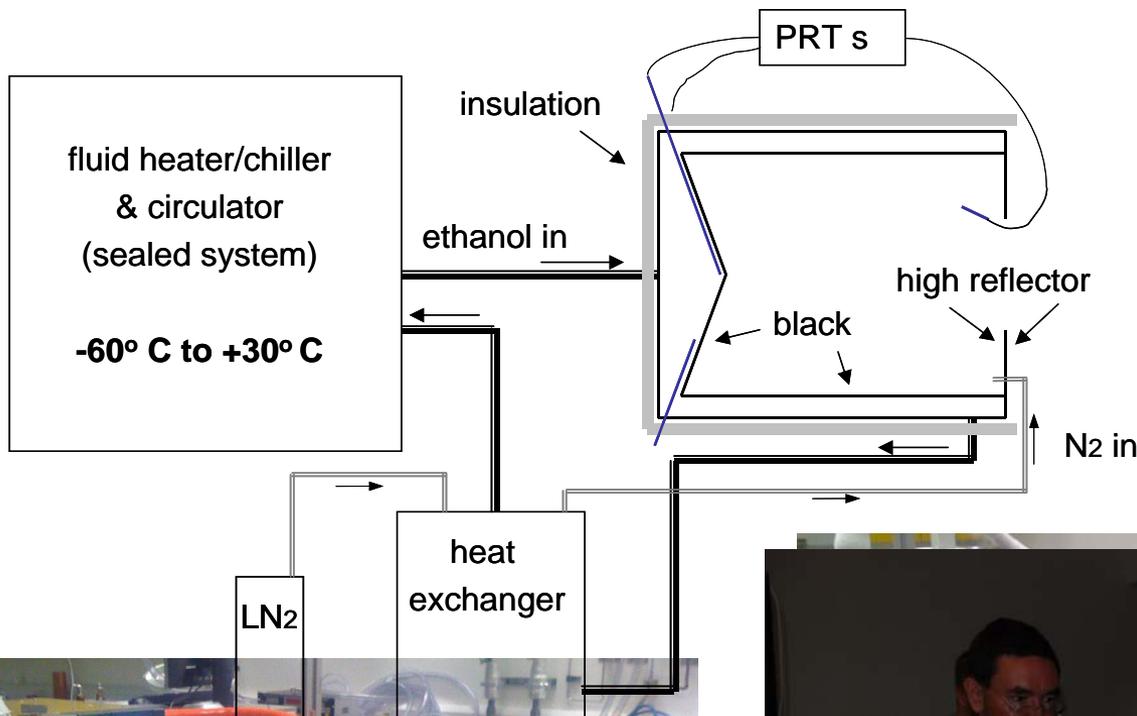
NPL

Calibration

+ ground based FT

Collaboration with consortium UK universities led by Reading and Met office

Calibration standard Black body



210 K to 310 K

Non-vacuum

~ 0.2 % at 300 K

Exit port up to 60 mm diam



FTS

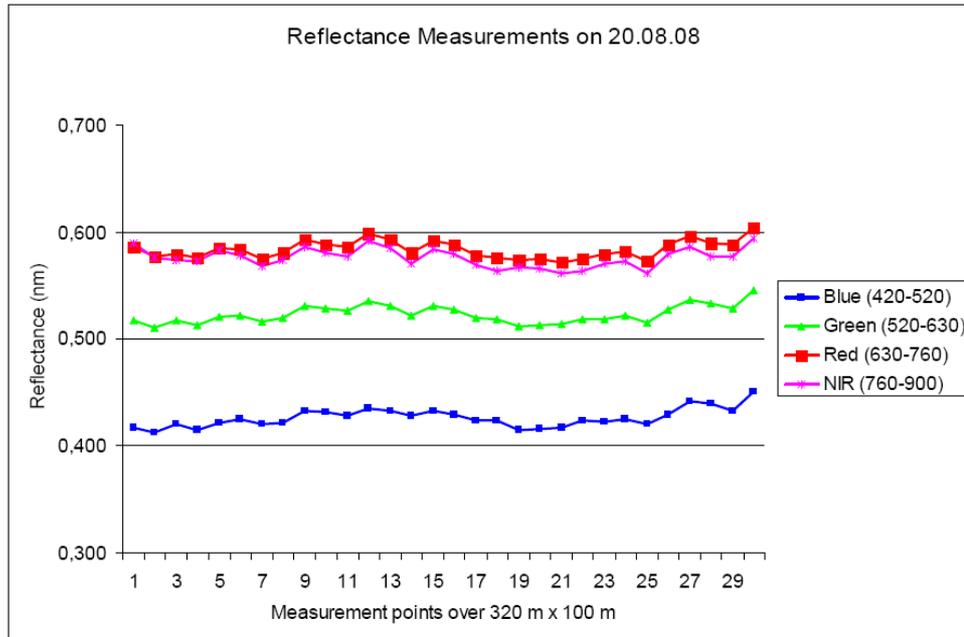
CEOS Comparisons

Brightness T
Land reflectance
Satellites (Dome C)

- Organise participation
- Draft protocol
- SI traceability
- Analyse data
- Publish results



Tuz Golu: site evaluation Aug 08 (with Tubitak Uzay)



Wavelength (nm)	Mean	StDev
Blue (420-520)	0,42631	0,009
Green (520-630)	0,52318	0,008
Red (630-760)	0,58385	0,008
NIR (760-900)	0,57597	0,009

