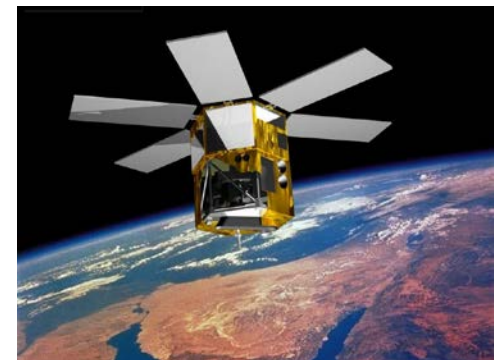




International Satellite Imaging Spectroscopy – ISIS Technical Committee

Co-Chairs: Alex Held, CSIRO - Australia
Karl Staenz - University of Lethbridge - Canada

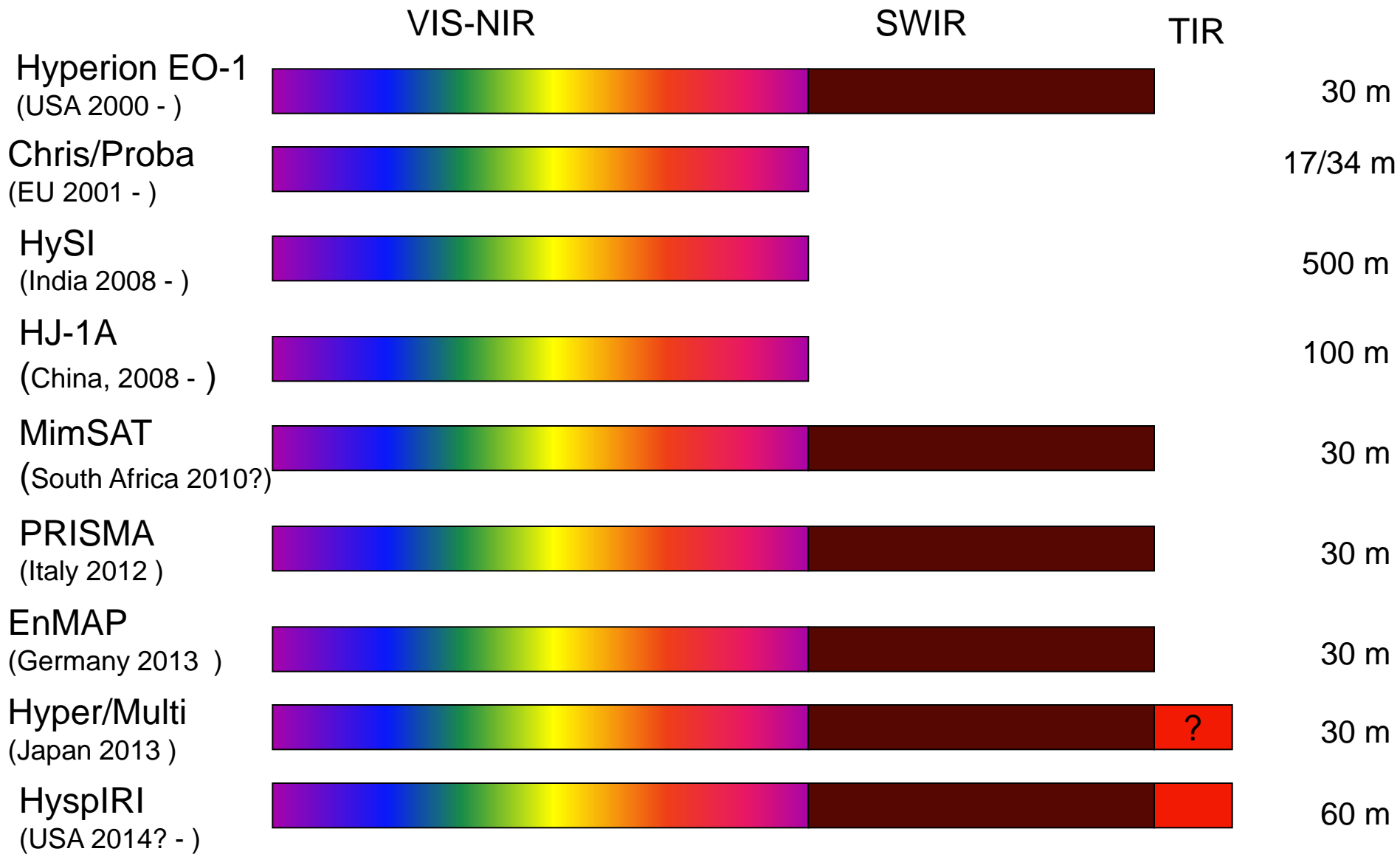
July, 2009



Background

- The ISIS TC provides a forum for technical and programmatic discussion and consultation among national space agencies, research institutions and other spaceborne IS data providers.
- Main goals of the ISIS are to share information on current and future spaceborne imaging spectroscopy (“hyperspectral”) missions, and to seek opportunities for new international partnerships to the benefit of the global user community.
- An initial “ISIS Working Group” was established in November 2007, realising the large number of countries planning imaging spectroscopy (‘hyperspectral’) satellite missions with little mutual understanding and coordination.
- Meetings of the WG have been held in Hawaii (2007), Boston (IGARSS 2008) and Tel Aviv (EARSeL 2009).

Current and Planned Civilian Satellite Missions





Inaugural Meeting of ISIS WG

Hilo, Hawaii, November 2007



Bryan Bailey (USGS), Greg Asner (Carnegie), Bruce Quick (USGS), Andreas Muller (DLR), Joe Boardman (AIG), Karl Staenz (ATIC), Hermann Kaufmann (GFZ), Benoit Rivard (Univ Alberta), Steve Ungar (NASA), Jan van Aardt (CSIR), Hiroji Tsu (ERSDAC), DeWayne Cecil (NASA/USGS), Rob Green (JPL), Alex Held (CSIRO), Duke Takahashi (WSI), Stephen Ward (Symbios Communications), Nagamitsu Ohgi (JAROS),

Main Topics for GRSS ISIS TC

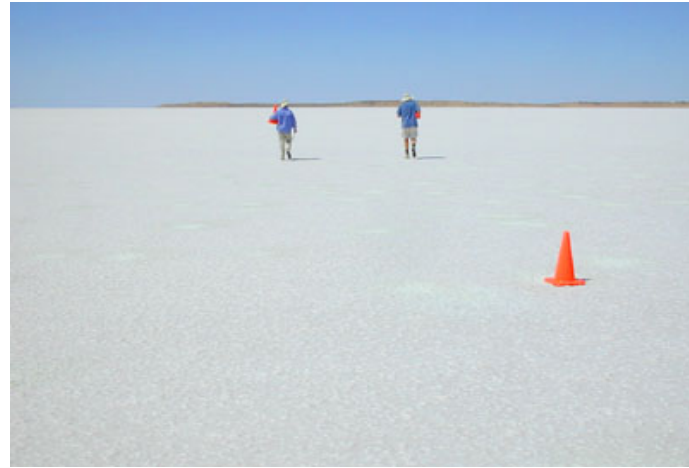
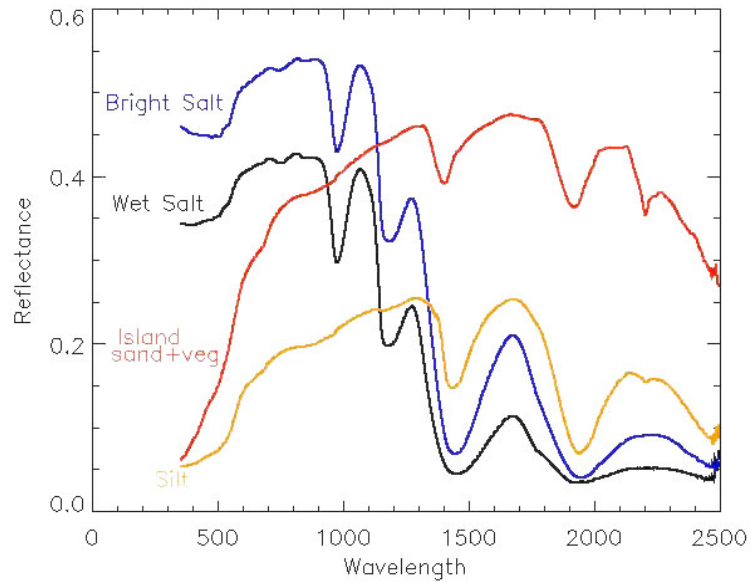
- Not about hyperspectral science and applications development (this is well covered elsewhere).
- Primarily about multiple satellite mission planning, and data interoperability aspects
- Specific discussions on:
 - interoperability among missions,
 - ‘best practice’ mission implementation,
 - mass data management challenges,
 - establishment of global reference cal/val sites and regular field campaigns and
 - ‘Global’ hyperspectral products.

Main Topic (2): Moving from Science Missions to Operational Missions

- Space Agencies are delivering the satellite infrastructure ...so where to go from here.
- In next 3-5 years, agencies need to begin to concentrate on other aspects of missions:
 - Data Downlinks & Archiving Infrastructure
 - Set up Reference Calibration Sites
 - ‘Streamlining’ and ‘Parallelising’ of Base Processing (Raw format – Atmospheric Correction and Geo-rectification)
 - Post-Processing into ‘Global Standard Products’ (talk more to end-users and commercial sector)
 - Efficient Global Data Networks and Delivery Systems (use upcoming communications satellites?)
- Opportunities for non-satellite operating agencies and the airborne hyperspectral industry!

Next Concrete Steps for ISIS

Establishment of Key Post-launch Spectroscopy Instrument Calibration & Validation Sites



Next Meeting

E.g., IGARSS July 26-30, 2010
Hawaii, USA

[http://www.grss-
ieee.org/Resources/TechCommittees](http://www.grss-ieee.org/Resources/TechCommittees)

Required Support from IEEE GRSS

- Maintenance of ISIS website
- Secretariat support for annual TC meetings (~20 participants)
- Travel support for selected TC members
- Hosting of proposed special workshops
 - ISIS TC – IGARSS Workshop on development of 'Global Hyperspectral Products'