

CEOS LAND PRODUCT



SUBGROUP REPORT

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WGCV Plenary, Budapest, Hungary
9-12 May 2006

LPV outline



- Subgroup administrative issues
 - goals and objectives
 - Fred Baret has agreed to take over as the new chair, Sebastien Garrigues has agreed to be vice-chair
- LPV accomplishments
 - Web site initiated and maintained
 - Land cover-best practices document
 - Special Issue – due out July 2006
 - LAI inter-comparison (Garrigues)
- LPV opportunities
 - Global Vegetation workshop
 - Inter-comparison from <60m resolution sensors
 - Interaction with Global Observation of Forest Cover and Land Dynamics (Csiszar)

CEOS Definition



Validation:

the process of assessing by independent means the quality of the data products derived from the system outputs

LPV operates under this definition, but with the understanding that validation activities should consider user accuracy needs and feedback to algorithm improvements.

Mission Statement & Goals

- to foster **quantitative validation** of *higher level global land products* derived from remote sensing data and relay results so they are relevant to users
- to increase the **quality and economy** of global satellite product validation *via* developing and promoting international standards and protocols for field sampling, scaling, error budgeting, data exchange for global land product validation
- to advocate **mission-long validation** and intercomparison programs for current and future earth observing satellites.

Objectives: with GEOSS opportunities

- Work with users to define uncertainty objectives
 - Focus on GEOSS application areas
- Identify opportunities for coordination and collaboration
 - Capitalize on field data networks coordinated through GEOSS
- Develop consensus “best practice” protocols for data collection and description
 - GEOSS could “approve/publish” related document
- To develop procedures for validation, data exchange and management - with a focus on land product validation core sites (done in conjunction with WGISS)
 - GEOSS could “approve” related activities
- To serve as a clearinghouse for accuracy statements on CEOS member global land products (possibly through the CEOS/WMO database?)

http:lpvs.gsfc.nasa.gov

Matches WGCV
page layout and
graphic

Quick links to:

- Listserves
- Announcements
- WGCV
- CEOS and
- CEOS calendar

Welcome to the Land Product Validation Subgroup - Microsoft Internet Explorer


File Edit View Favorites Tools Help

CEOS WORKING GROUP ON CALIBRATION & VALIDATION

Committee on Earth Observing Satellites

Land Product Validation Subgroup

Home Landcover Biophysical Fire/Burn Surface Rad



Mission

To foster quantitative validation of higher-level global land products derived from remote sensing data and to relay results so they are relevant to users

Background

The subgroup on Land Product Validation (LPV) is one of six subgroups of the Working Group on Calibration and Validation (WGCV), which itself is one of two standing working groups within the Committee on Earth Observing Satellites (CEOS, see also [CEOS structure](#)). The six WGCV subgroups are:

- Infrared and Visible Optical Sensors (IVOS)
- Atmospheric Chemistry (AC)
- Microwave Sensors (MS)
- Synthetic Aperture Radar (SAR)
- Terrain Mapping (TM)
- Land Product Validation (LPV)

The Land Product Validation subgroup arose out of the recognition in the late nineties that standardized approaches to global product validation were essential for wide acceptance and use of proposed global land products. Several programs at the time were aimed at global monitoring of Earth processes, many with plans to distribute higher level data products. A common approach to validation would encourage widespread use of validation data, and thus help us to move toward standardized approaches to global product validation. With the high cost of in-situ data collection, the potential benefits from international cooperation are considerable and obvious.

Previous requests for assistance from the original International Global Observing Strategy (IGOS) pilot projects and two subsequent ad hoc meetings of the WGCV identified a clear need for improved international collaboration concerning the validation of land products derived from Earth observing satellites. A new subgroup within the WGCV was proposed to the CEOS Plenary in Stockholm at the end of 1999, receiving full support. The LPV was officially adopted as a subgroup at the WGCV-17 meeting in October of 2000.

The LPV subgroup activities are divided up into four themes that complement the research agenda of the Global Observations of Forest and Land Cover Dynamics (GOFCLD) program, namely biophysical products, fire/burn scar detection, and land cover mapping. In addition to the GOFCLD themes, the LPV subgroup includes an Albedo/Surface Radiation thematic group. Working with GOFCLD, who seek the common goal of coordinated validation of fire products by standardized protocols, LPV aims for similar coordination for all land products.

Subscribe!

LPV subgroup topical mailing lists:

Subscribe:

Unsubscribe:

List:


Announcing...

[Call for papers](#) for LPV special issue in IEEE Transactions on Geoscience and Remote Sensing.

Organization:

LPV is a subgroup of the Working Group on Calibration and Validation.

WGCV is a standing Working Group of the Committee on Earth Observing Satellites



link to 2004
CEOS Calendar

Pull-down menu for
main topical areas:

- Land cover
- Biophysical
- Fire/Burn
- Surface Radiation

Each pull-down lists:

- Background
- Producers *
- Meetings
- Case studies
- Intercomparisons

* input needed

Edited by: Strahler

Authors: Boschetti, Foody, Friedl,
Hansen, Herold, Mayaux,
Morisette, Stehman, Strahler, &
Woodcock

Primary finding:

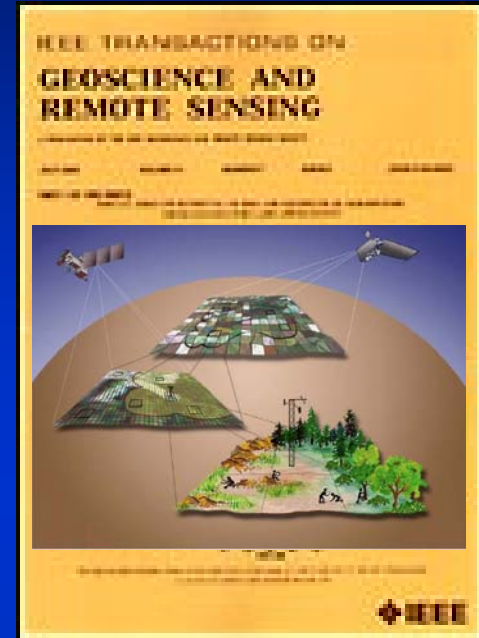
- Call for global inter-comparisons
- “Hybrid” statistical sampling using fixed sites
- Confidence layers (model-based accuracy)

Will be available through the LPV web site.

QuickTime™ and a
TIFF (LZW) decompressor
are needed to see this picture.

LPV “Special Issue” of IEEE TGRS

- Special Issue: describing the state of the art research on both protocol and results for validation and accuracy assessment of global land products
(Morisette, Baret, and Liang guest editors)
- Three “framework” papers
19 “validation results” and
four “user response” papers - an attempt to solicit “user feedback”.



	2004											2005											2006										
	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	N	D	J	F	M									
Announcement																																	
Validation papers				submissions					reviews				revisions			review		final/profs															
User perspective papers							submissions						reviews			revisions		final/profs															
Publication date																																	

July 2006

July 2006

Inter-sensor workshop: GEOSS focus

Long term global monitoring of vegetation variables using moderate resolution satellites

Aug 8-10, University of Montana, Missoula Montana

- Increasing knowledge through combined products,
- Realizing efficiency by avoiding redundancy, and
- Developing near- and long-term plans to avoid gaps in our understanding of critical global vegetation information.

Day 1: program and sensor overview

Day 2: Pilot studies and product-specific break-out sessions

Day 3: Reaction to break-outs and plan development

Aug 7: LPV workshop on long-term VI record

LPV report to WGCV 25 plenary

NTSG Workshops

[http://www.ntsg.umt.edu/VEGMTG/](#)

[You](#) [D. Johnson](#) [TGARS](#) [Yahoo!](#) [LADS](#) [Funds Cont.](#) [SCI Inst. Utah](#) [CV](#) [Travel Manager 8](#) [X500](#) [WEBTADS](#) [Apple](#) [.Mac](#) [Amazon](#) [eBay](#) [News \(1039\)](#)

Numerical Terradynamic Simulation Group

Global Vegetation Workshop 2006

- VI Validation (Aug 7):**
 - [-Home](#)
- Global Veg (Aug 8-10):**
 - [-Home](#)
 - [-Schedule](#)
- Registration:**
 - [-Online {Credit Card}](#)
 - [-Mailing {PDF Form}](#)
 - [-Register a Poster](#)
- Missoula & Montana:**
 - [-Getting to Missoula](#)
 - [-Hotels/Lodging](#)
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 - [-UM Home](#)
 - [-Campus Recreation](#)
 - [-Book Store](#)
 - [-Campus Map](#)
- More information:**

Ms. Youngee Cho
(406) 243-6311, phone
(406) 243-4510, fax
[Email Youngee](#)

Hosted By:

Long term global monitoring of vegetation variables using moderate resolution satellites:

A combined meeting of the third biennial global vegetation workshop at the University of Montana and the Committee on Earth Observing Satellites Working Group on Calibration and Validation.

August 8-10, 2006

**University of Montana
Missoula, Montana**

A number of international organizations are focusing on the requirements for, and the accuracy and use of, Earth observation from space to address both science and applications questions concerning our terrestrial environment. There are now multiple global vegetation products from several similar sensors - with more planned over the next several years. This situation has provided the impetus for the CEOS Working Group on Calibration and Validation (WGCV) through its Land Product Validation sub-Group (LPV) to better coordinate satellite-based global observations of vegetation parameters.

The primary objective of this workshop is to establish a framework to understand the inter-relationship between multiple, global vegetation products so to identify opportunities for:

- Increasing knowledge through combined products,
- realizing efficiency by avoiding redundancy, and
- developing near- and long-term plans to avoid gaps in our understanding of critical global vegetation information.

August 7, 2006

VI Validation Pre-Workshop
Validation of global vegetation indices and their time series (A CEOS Land Product Validation topical workshop)



Call For Posters

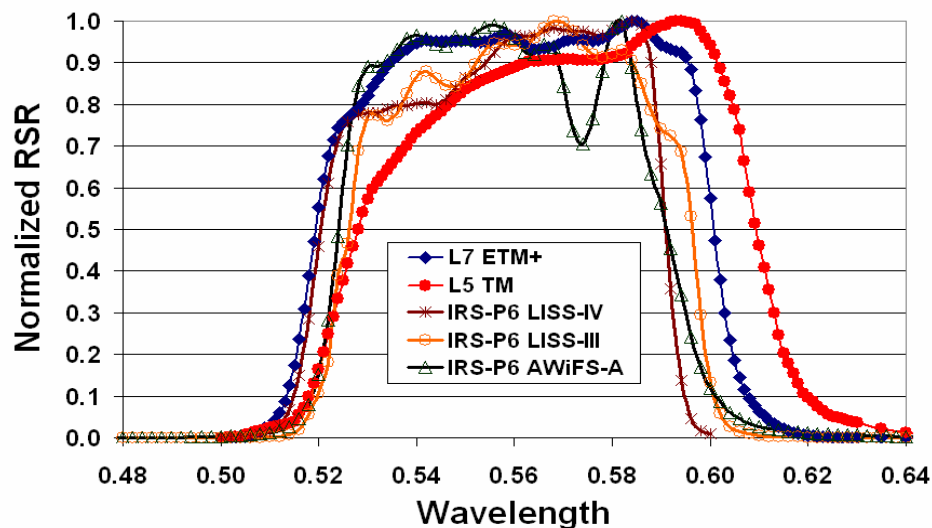
A poster session will run throughout the entire meeting. There will be an initial poster "reception" along with registration on Monday evening, August 7th.

[Submit a Poster for the Meeting from the following specific areas:](#)

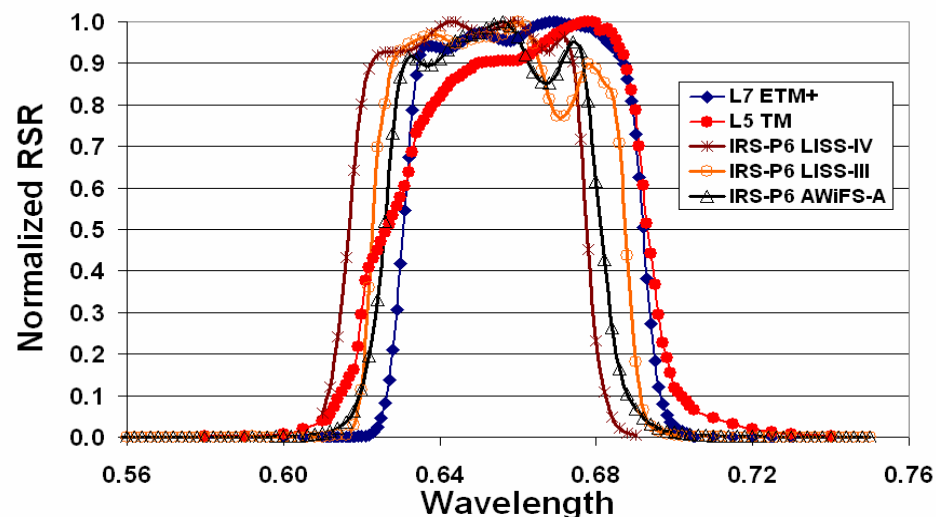
IRS-P6 Relative Spectral Response Comparison

G. Chander (provided by Ed Kaita, NASA Goddard Space Flight Center)

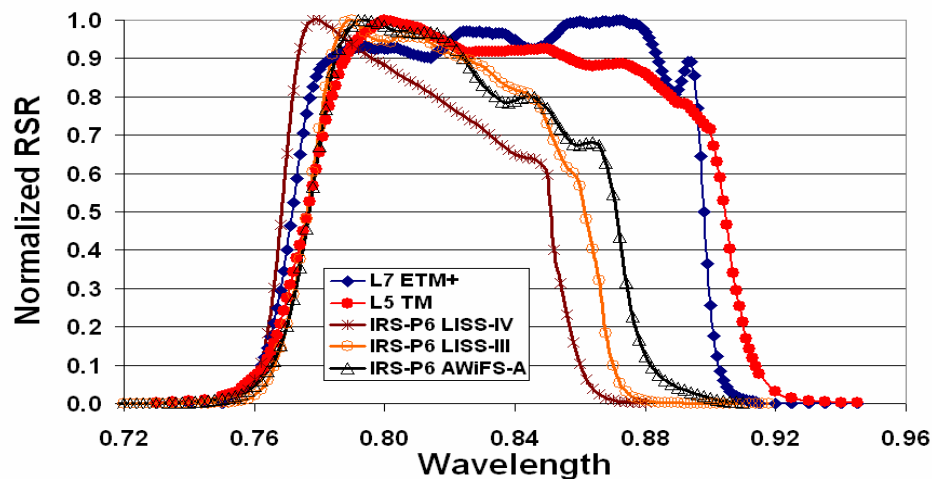
L7 ETM+ & L5 TM & IRS-P6 RSR (Band-2)



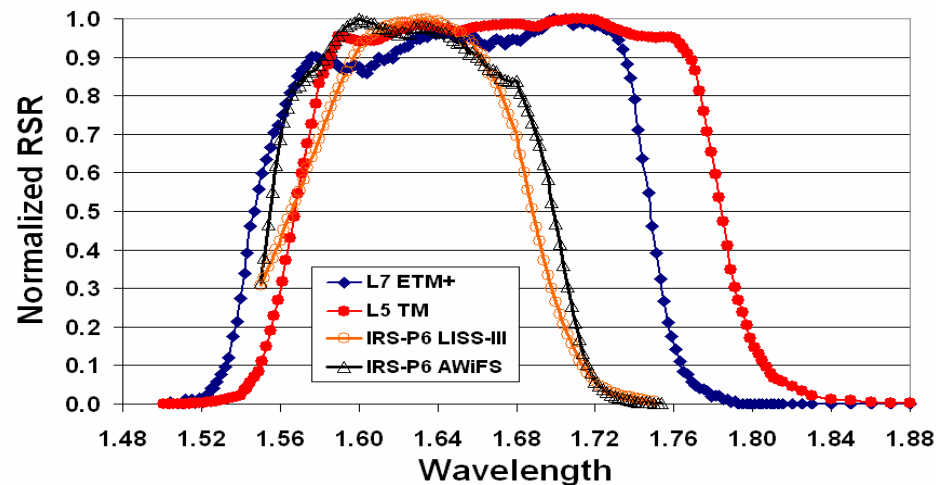
L7 ETM+ & L5 TM & IRS-P6 RSR (Band-3)



L7 ETM+ & L5 TM & IRS-P6 RSR (Band-4)



L7 ETM+ & L5 TM & IRS-P6 RSR (Band-5)



CBERS HRCCD and L-7 ETM+ Cross Calibration

J. Barsi, NASA GSFC

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are needed to see this picture.

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TIFF (LZW) decompressor
are needed to see this picture.

CBERS HRCCD and L-7 ETM+ Cross Calibration

J. Barsi, NASA GSFC

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TIFF (LZW) decompressor
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Less than 60m spatial resolution Inter-sensor comparison

CEOS WGCV should be considering both the radiometric comparison (through IVOS) as well as the implication for higher-order, derived products (through LPV)

The initial step could be to encourage CEOS members to provide repeat and continued coverage from these sensors at the CEOS Land Validation Core Sites

This could be a recommendation for this meeting