Land Surface Imaging – Virtual Constellation

Zolti Szantoi/COM-JRC
CEOS SIT Technical Workshop 2020
Session and Agenda Item # 3.3.4
Virtual Meeting, 10/11 September 2020
Leadership, membership, changes:

- Adam Lewis (Geoscience Australia) (co-lead)
- Steve Labahn/Tim Stryker (USGS) (co-lead)
- Zolti Szantoi (COM-JRC) (co-lead)

Successfully integrated, based on CEOS Plenary endorsement

- Ad Hoc Space Data Coordination Group for GFOI
  - to become a thematic subgroup on Forests & Biomass
- Ad Hoc CEOS Working Group on GEOGLAM
  - to become a thematic subgroup on GEOGLAM

Meetings

- Monthly telecons with active participation
- LSI-VC 9 - virtual meeting 2020 April 14, 28, May 12, 13
  - CEOS ARD & Standardization
  - Industry & CEOS ARD
  - CARD4L and the Product Family Specifications (PFS)
  - LSI-GEOGLAM, LSI-Forests & Biomass, ARD Strategy
- LSI-VC 10 - virtual meeting
  - series of thematic sessions (as done for LSI-VC-9) across the weeks of October 5 and 12.
  - Additional calls on an ad hoc basis (particular PFS discussion for example)

Active involvement

- Canadian Space Agency
- European Commission
- European Space Agency
- Geoscience Australia
- JAXA
- NOAA
- United States Geological Survey

Periodic Involvement

- Korea Aerospace Research Institute
- National Institute of Aeronautics and Space, Indonesia
- National Space Activities Commission, Argentina
- Institute of Remote Sensing and Digital Earth (RADI), China
- Indian Space Research Organization
LSI-VC outreach activities

- **Industry**
  - Direct contacts with key players (PCI, PLANET, SINERGISE, etc.)
  - CEOS ARD Webinar #1 – July 1, 2020: [Watch Here](#)
    - 500 registrations, 725 views; further webinars planned
    - Analysis Ready Data Strategy and Early Progress: 16th, #5.2, UTC 1240-1430

- **Scientific**
  - IGARSS ARD sessions (2018/19/20)
  - PECORA
  - Geo Week (key side event)
  - Living Planet 2019

- **General**
  - CEOS Newsletter
  - WG on Capacity Development and Data Democracy collaboration
  - Undertake two actions from the WG Climate Coordinated Action Plan
    - LST Climate Data Records and continuity
  - Participation in OGC’s TESTBED16 ARD activity
• **Current endorsed CARD4L Specifications:** Surface Reflectance (SR), Surface Temp (ST), Normalized Radar Backscatter, Polarimetric Radar

• **In progress CARD4L Specifications:** Aquatic Reflectance (Coastal), Interferometric SAR, Geocoded Single-Look-Complex (SLC)

• **First CARD4L Datasets:** USGS Landsat Collection 2 SR & ST. COM/ESA Sentinel-2 SR currently being assessed.

• **Interoperability discussions**
  o LSI-VC and Working Group on Information Systems and Services have been developing the terms
  o The current version will be discussed at SIT-TW and is down for endorsement at CEOS Plenary

• **Supporting discussion around adaptation of the CARD4L Framework to support other domains (SIT TW Session 2.2)**

• **Contributing to realization of the CEOS ARD Strategy:**
  o Contributed to CEOS Interoperability Terminology (WGISS, SIT TW Session 5.2)
  o Involved in ARD and commercial sector paper (SIT TW Session 5.2)
  o Exploring opportunities for CARD4L pilots – for feedback and improvement of specs
LSI-VC online interface

CEOS Analysis Ready Data

CEOS Analysis Ready Data for Land (CARD4L) are satellite data that have been processed to a minimum set of requirements and organized into a form that allows immediate analysis with a minimum of additional user effort and interoperability both through time and with other datasets.

Information for:
- Data Producers
- Data Distributors
- Data Users

http://ceos.org/ard/
GEOGLAM work is now principally executed by GEOGLAM Coordination Team on EO Data Coordination.

Essential Agricultural Variables remain primary focus.

- USER/policy-facing
- Some COVID-related delay.
- Variable characterizations are 90% complete.
- Up next:
  - Gap Analysis
    - Methods?
    - Satellite Data?
    - Ground Data?
    - Compute?
  - Outcomes will drive:
    - Research Agenda
    - EO Data Requirements - observations, ARD, access
    - Core priority products for CEOS Land Product Validation collab?
New Copernicus 100m Global Land Cover collection, 2015-2019

Annual 100m global land cover maps available!

Published on: 2020-09-09

Global Land’s first global 100 m land cover map for 2015 – released just over one year ago – continued to inspire thousands of users with applications in agriculture, biodiversity & nature conservation and natural capital accounting.

Today, Global Land’s land cover team is happy to release annual updates to the 100m global land cover maps, covering the 2015-2019 period, including the same 23-class classification, versatile cover fractions for 10 classes, forest type layer and quality indicators on input data density and the confidence in the detected changes.

https://land.copernicus.eu/global/content/annual-100m-global-land-cover-maps-available