

LSI-VC-14 Actions & Decisions

Version 1.0

Actions

LSI-VC-14-01	Libby and Matt to prepare an edition of the CEOS-ARD Newsletter on multi-modal applications of CEOS-ARD, starting with the USGS RCMAP and CSIRO NovaSAR examples.	Q1 2024
LSI-VC-14-02	Ensure that the discussion on whether georeferenced products might be considered ARD, or is a map projection strictly required, features in the context of the OGC ARD SWG.	ASAP
LSI-VC-14-03	Matt, Dave and Peter to discuss the best approach for elevating the existing WGISS and WGCV terminology to make it more visible on the CEOS website.	LSI-VC-15
LSI-VC-14-04	<p>USGS team to follow up with Tom Sohre following the WGISS-56 meeting regarding the discussions there about consistent front-end APIs across CEOS for data search and discovery as an important enabling technology for cross-cloud data access. Also reflect on the SEO's inputs to WGISS-56 on this topic.</p> <p><u>Context:</u> A statement of recommendations / desires for CEOS to address regarding the search, discovery, access, use and exploitation of cloud-based EO data could be helpful. E.g., a unified metadata API (e.g., STAC) that has flexibility for different data types and sources; a process by which notifications of updated/new dataset releases or reprocessed collections can be pushed to data hosts; a solution for authoritative data source identification, etc.</p>	After WGISS-56
LSI-VC-14-05	LSI-VC Secretariat to organise a coordination meeting between the LSI-VC Leads, CEOS-ARD Oversight Group Lead, CEOS SEO, Radiant Earth, and Matt Hanson to discuss the approach to OGC ARD SWG community engagement and STAC, now that Matthias Mohr is contracted to support.	COMPLETE <i>Initial coordination call held on 24 October 2023</i>

LSI-VC-14-06	<p>Following the potential endorsement of the Combined “CEOS-ARD for SAR” PFS on October 11, Hari Priya and the ISRO team to fit their existing self-assessment for EOS-04 / RISAT-1A products (Level-2B Terrain Normalised Product, India Mosaic Data Product) into this new PFS format, before submission for peer review. Hari Priya will also confirm the exact number of products that are being submitted.</p>	<p>IN PROGRESS</p> <p><i>Updated self-assessment tracking for end November submission</i></p>
LSI-VC-14-07	<p>Matt to ensure the ISRO, ESA and KARI CEOS-ARD roadmaps are accurately captured on the ceos.org/ard tables (RISAT-1A products, NovaSAR, NISAR, Resourcesat-2/2A, KOMPSAT-3, KOMPSAT-5).</p>	<p>December 2023</p>
LSI-VC-14-08	<p>LSI-VC Leads to summarise options for addressing the issue related to high resolution datasets and the 0.5 pixel rRMSE sub-pixel accuracy requirement of the SR PFS, for debate and decision at LSI-VC-15.</p> <p>Discussions should consider the:</p> <ul style="list-style-type: none"> ● Impact of this requirement on the applicability of CEOS-ARD to ‘New Space’ and industry generally; ● Core motivations for CEOS-ARD (stackable, time series analyses) ● Stopgap downsampling approach used by KARI and whether this is something that would be officially recommended to other VHR satellite operators ● Scientific rigour vs. inclusivity discussions and approach used by the SAR CEOS-ARD team (i.e., requiring documentation and leaving it up to users to decide dataset applicability for their applications). 	<p>Decision on way forward at LSI-VC-15</p>
LSI-VC-14-09	<p>Brian to close the loop with the NASA Black Marble team, sharing the results of the SEO’s nighttime lights occlusion study and recommend to them that an occlusion mask layer be included in their standard products. Also discuss with the team whether this needs to be included as a Threshold or Target requirement in the Nighttime Lights PFS. This occlusion mask might also be needed in other PFS, in relation to satellites that are pointing – particularly relevant in the ‘New Space’ context.</p>	<p>COMPLETE</p> <p><i>Report of meeting with NASA Black Marble team here</i></p>

LSI-VC-14-10	Sarah Cheesbrough (UK Satellite Applications Catapult) to share with USGS and the LSI-VC team: details of the methodology used to assess user needs in the context of the UK EO Data Hub.	ASAP
LSI-VC-14-11	LSI-VC Leads to reflect on the slides provided by Yves Crevier (CSA) and organise a follow up call to discuss next steps on actions.	Q4 2023
LSI-VC-14-12	CEOS-ARD Comms team to follow up with Zheng-Shu Zhou (CSIRO) regarding the impact and increased user base that their NovaSAR CEOS-ARD has facilitated, as input to a future CEOS-ARD Newsletter article.	Q1 2024
LSI-VC-14-13	Hari Priya and Zheng-Shu Zhou to connect regarding the NovaSAR CEOS-ARD, seeing if the work done by CSIRO might be transferable to the planned ISRO CEOS-ARD product, for efficiency (give the ISRO team a head start) and to potentially maximise interoperability of resulting products.	December 2023
LSI-VC-14-14	Zheng-Shu, Sarah Cheesbrough, Hari Priya to connect with other NovaSAR partners to explore opportunities for sharing of CEOS-ARD processes, data intercomparison exercises, interoperability studies and definition, etc. <u>Context:</u> It would be beneficial if all NovaSAR partners were developing CEOS-ARD datastreams that are consistent and interoperable to the maximum extent possible. This international collaboration is a unique opportunity to explore questions around interoperability, differing processes, etc.	December 2023
LSI-VC-14-15	LSI-VC Secretariat to update the contact email address on the PFS documents to ard-contact@lists.ceos.org .	IN PROGRESS
LSI-VC-14-16	LSI-VC Secretariat and Ake to update ceos.org/ard to reflect the endorsement of the Combined CEOS-ARD for Synthetic Aperture Radar PFS. Labels distinguishing the different types of SAR CEOS-ARD will be retained in the CEOS-ARD products table.	COMPLETE

LSI-VC-14-17	Andreia to work with her LSI-VC Co-Leads to refine the questions for the survey of CEOS Agencies regarding ARD, before distribution to the rest of the team. Target a teleconference in Q1 2024 to finalise the set of questions to send out to agencies.	Q1 2024
LSI-VC-14-18	Andreia and Dave to ensure the timeline for the update of the CEOS-ARD Industry Engagement Strategy reflects similar engagement activities that will take place in the context of the OGC ARD SWG.	ASAP
LSI-VC-14-19	USGS team to connect Cody Anderson with Darren Ghent regarding the calibration of the Landsat LST datasets and their applicability to the LST CDR actions communicated by WGClimate. This is just a first step – further discussion is needed and there are perhaps other current and future observations, broader than just Landsat.	IN PROGRESS <i>Planning call before Christmas</i>
LSI-VC-14-20	Steve Covington and Medhavy Thankappan to engage with Bob Ryan (USGS Contractor) regarding participation in the Surface Reflectance Quality, Equivalency and Consistency Project.	Q4 2023
LSI-VC-14-21	Expressions of interest for participation in the Surface Reflectance Quality, Equivalency and Consistency Project to be sent to Simon Oliver < Simon.Oliver@ga.gov.au > (CC: Matt, Medhavy).	Q4 2023
LSI-VC-14-22	The SEO will work with WGCV and WGISS to define plans for a “New Space” ARD interoperability project using the CEOS Analytics Lab, based on Interoperability Framework Factors.	ASAP
LSI-VC-14-23	Libby to announce the endorsement of Combined CEOS-ARD for Synthetic Aperture Radar PFS once the document is in place and ceos.org/ard website updated.	ASAP
LSI-VC-14-24	Ake to update the references to ‘CARD’ in the SAR metadata specification, replacing ‘CEOS-ARD’. This will be done before the Combined CEOS-ARD for Synthetic Aperture Radar PFS is posted online and announced.	COMPLETE

<p>LSI-VC-14-25</p>	<p>Peter to share paper <i>“A Revised Processing Level Scheme For Earth Observation Data”</i> and related slides with the USGS team so that they might be input into the US side discussions regarding the <i>“2030 Challenge”</i> as well as with Tom Sohre / WGISS, noting Tom’s upcoming WGISS Chair term and the existing CEOS Levels terminology published by WGISS.</p> <p><u>Additional context:</u> Potential uptake of any new schema will need a sustained effort to communicate the concept. Peter is communicating in the European context, and the US <i>“2030 Challenge”</i> discussions between USGS, NASA and NOAA would be another good forum to share this idea. WGISS is another forum that needs to be covered, and the USGS Chair of WGISS for the next two years provides a good opportunity. WGISS has a published CEOS Levels terminology, which could be the target of an update if agreed. The concept was also presented to ARD23 with good reception from commercial participants. Attempts to align the OGC ARD SWG work should also be undertaken.</p>	<p>COMPLETE</p>
<p>LSI-VC-14-26</p>	<p>Steve Labahn to review the list of outstanding issues to address with the Surface Reflectance PFS to see if any other items can be addressed in minor update v5.0.1.</p> <p>One additional potential update could be related to the 0.5 pixel rRMSE sub-pixel accuracy requirement (TBD).</p>	<p>COMPLETE</p>
<p>LSI-VC-14-27</p>	<p>LSI-VC Leads and Secretariat to prepare minor update v5.0.1 of the Surface Reflectance PFS and share with the team for review. An LSI-VC teleconference will be planned for end November to cover the endorsement.</p>	<p>COMPLETE</p>
<p>LSI-VC-14-28</p>	<p>Ake to share KMLs for the ALOS-4 PALSAR-3 QP Bi-monthly QP national coverages over SE-Asia (Thailand, Vietnam, Nepal, Laos, Cambodia) and the monthly QP time-series observations over R&D sites with the ESA POLINSAR team.</p>	<p>ASAP</p>
<p>LSI-VC-14-29</p>	<p>Ake to collate information about sites where QP or compact pol data are being acquired, for communication with the ESA POLINSAR team.</p>	<p>ASAP</p>
<p>LSI-VC-14-30</p>	<p>Hari Priya to provide input to Ake for LSI-VC-14-29.</p>	<p>ASAP</p>

LSI-VC-14-31	<p>Dave Borges (CEOS SEO) to share information on the CEOS Analytics Lab (CAL) with the ESA POLINSAR team.</p> <p><i>Context: CAL is a potential location to collate CEOS agencies' quad pol acquisitions over to be determined sites and provide an access/analysis capability for science activities.</i></p>	ASAP
LSI-VC-14-32	<p>LSI-VC Leads to seek opportunities to raise the ESA POLINSAR Workshop recommendations at the CEOS SIT-39 meeting in April 2024.</p> <p>The recommendations cover requirements for multi-mission, multi-frequency datasets over supersites, overall increased synergy of satellite systems, and the need for new research sites. There may be some connection to make with the CEOS biodiversity theme. This should perhaps also be raised alongside ICGS-SAR & LSI-VC discussions.</p>	SIT-39
LSI-VC-14-33	<p>Alyssa Whitcraft (GEOGLAM) will write a short paper on the GEOGLAM observation requirements, the potential use of the RCA EORES system and MIM Database, and clarify possible next steps and specific requests for CEOS agencies.</p> <p><i>Additional context: The GEOGLAM use case will inform how LSI-VC might gather, organise and align requirements from other thematic areas and users. Aligning requirements to GCMD Hierarchy / USGS RCA EORES input needs could be efficient.</i></p>	ASAP
LSI-VC-14-34	LSI-VC Secretariat to share options for LSI-VC-15 dates around SIT-39 in Tokyo, Japan.	<p>COMPLETE</p> <p>3-5 April 2024 in Tokyo, Japan.</p> <p>Meeting page.</p>

Decisions

Decision 01	The Combined CEOS-ARD for Synthetic Aperture Radar PFS was endorsed.
-------------	--

Decision 02

Agreed in principle to resolve the issue with parameter 1.6 (Map Projection) of the Surface Reflectance PFS (Ref: LSI-VC-13-07) by adopting the same wording used in section 1.7.11 of the recently endorsed Combined CEOS-ARD for Synthetic Aperture Radar PFS, that is, adding “(or geographical coordinates, if applicable)” after the requirement that “*The metadata lists the map projection that has been used...*”.

LSI-VC-13-07: *Schedule a further discussion on whether georeferenced products might be considered CEOS-ARD, or is a map projection strictly required.*

It was agreed that the Surface Reflectance PFS will undergo a minor update to v5.0.1 with this new, relaxed version of parameter 1.6.