



ESA Climate Change Initiative

Science Leaders' Break Out Group -- Report

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CMUG Integration Meeting, Hamburg, Jun 2013

www.esa-sst-cci.org



Agenda



- 11.00 Welcome
- 11.05 Matters arising / review actions from last time
- 11.40 News on post-MTR programme: ESA
- 12.30 Phase 2: computational and data collaboration
- 13.00 Long-term sustainability (post-Phase 2)
- Inputs to discussions:
- Plenary discussion (with ESA)
- Science Leader-only discussion (ESA leave)
- 14.50 Deepening inter-ECV collaboration
- 15.20 Review actions
- 15.30 Close



Maturity Indices



- Aim: ensure we can ultimately meet GCOS requirement to measure the maturity of CDRs in a manner that is useful to CCI
- THP synthesized inputs on “Bates” matrix from last collocation
- Concerns such as US-centric documentation etc
- CM presented this CCI perspective at CEOS WG Clim
- Key points
 - keep “metrics of (system) maturity” and “measures of (data) quality” cleanly separated
 - mature system is not (for us) one with fixed algorithms, but one that supports CDR team in a user-driven “nimble improvement cycle”
- CCI view has influenced Core Climax and Bates’ revision
- (ACTION) THP will distribute a draft for a CCI-friendly system maturity index for comment, to form basis of discussions in Living Planet
- CCI SLs interacting with Core Climax process

Phase 2 RFQ process



- (PL) RFQ before 21 June, response 6 September
- SoW + Annex x 13
- Encourage cross-ECV aspects in baseline and option
 - Science and/or system
 - Parallel, administratively independent activities
- All agreed options should have common format and length
 - (ACTION) GL to distribute common document headings
- Joint options organised as follows
- All involved partners submit
 - Title, Science Case, Management and WPs identical
 - PSSA8 costing only for their team
- Geo-return extrapolation was discussed

Phase 2 Data / computation collaborat'n



- SLs will need to consider 3 types of collaboration on data / comput'n
- Sharing of costs/effort in pre-processing steps
 - MERIS 300 m
 - SPOT / Vegetation
 - Fire / LC
- Sharing Level 1b quality/consistency work
 - AVHRR GAC record in 1980s and 1990s
 - VIS and TIR calibration
 - Time and geolocation corrections
 - Cloud and SST
- Sharing instrument knowledge
 - ATSR reprocessing Level 1 b due 2013
- Ongoing retracking projects (Altimeter and Cryosat)
 - Need to re-iterate urgency for these to be timely for CCI Phase 2

Phase 2 Data / computation collaborat'n



- Land-sea mask or Water / non-water mask
- (ACTION) VB to distribute DSWG investigation
- (ACTION) PdF to send link of new 300 m 2005-2010 static mask
- (ACTION) Teams to evaluate whether useful common mask by 15 July



Cross-ECV science



- Identified 5 areas
- Some map on to options that exist in Annexes
- (NB – information flow on SoW, Annexes and options has been uneven)
- 5 corresponding people to promote discussions that hopefully will lead to option proposals on shared science



Post Phase-2 sustainability



- Copernicus, climate service, inc. “provision of ECVs”
- ESA remit in R&D related to CDRs in longer term, but not sustained production
- Phase 3 focussed on embedding Sentinels into CDRs
- EC own Sentinels and will co-operate with “operators”
 - ESA, EUMETSAT, ECMWF, EEA, EMSA, Copernicus Services (inc. in situ)
- CMUG in Phase 2 will help broker CCI CDRs and climate services
 - “Make links to open new avenues for sustainability of CCI CDRs”
- EUMETSAT SAF network
 - EUM commitment to climate monitoring
 - next 5 year cycle starts 2017 and defined by end 2015
 - Many ECVs within mandate, inc. O3, OC
- National inputs: UKSA and CEMS, Denmark GRACE-like mission

Post Phase-2 sustainability SL positions



- One or two ECVs could find a national home
- A few ECVs will consider SAF network, in whole or in part
- Most are looking to Copernicus, at least for sustained production
- Confident about project-based funding if necessary
- Welcome Sentinel-focused Phase 3

- Variety of destinations and ad-hoc/project-style funding would imply break-up of CCI “science network”
- Best solution would retain CCI programme in some sense
 - Cross-ECV and shared level 1 and/or user services
- (ACTION) All SLs present above view to their national group/rep on Copernicus