



Remote Sensing Applications Division (RSAD)

CDR Program Office

Weekly Report for March 4, 2011
John J Bates, Chief

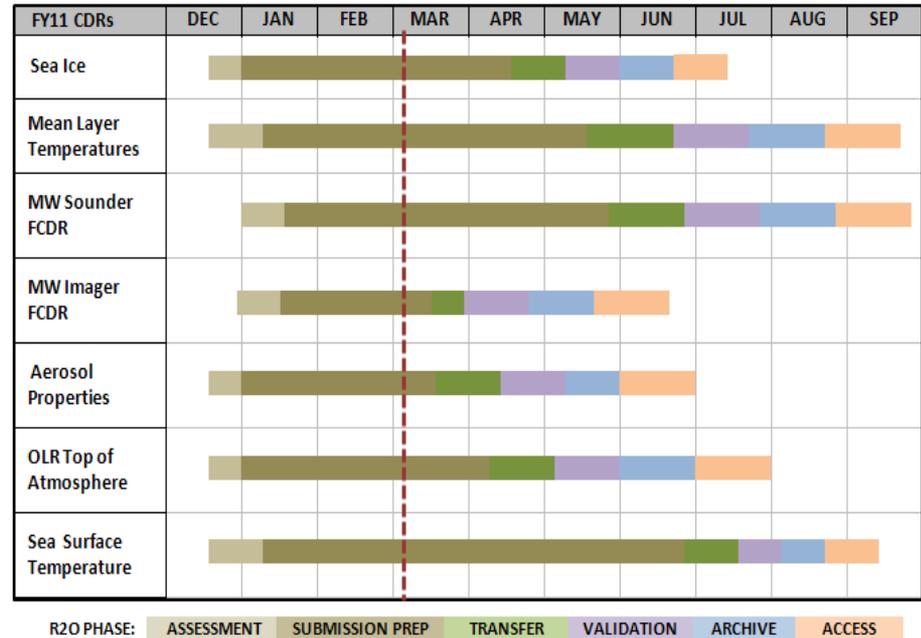


CDR Program Office

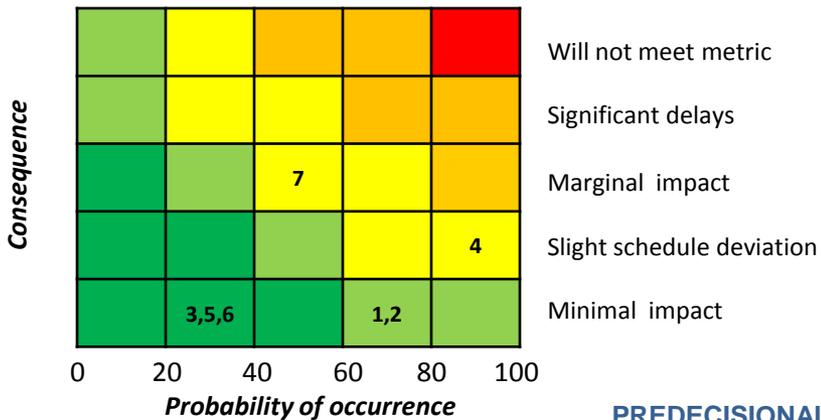
FY11 Climate Data Records

Weekly Report – Mar 4, 2011

1. **Sea Ice**
 - PI can't work on docs, data, or code until Apr
2. **Mean Layer Temperatures**
 - Received SA questionnaire
3. **Microwave (MW) Sounder FCDR**
 - Received SA questionnaire
4. **Microwave (MW) Imager FCDR**
 - Documentation efforts will cause a schedule slip
5. **Aerosol Properties**
 - Subsetting CDR dataset and converting to NetCDF
6. **Outgoing Longwave (LW) - Top of Atmosphere**
 - Completed processing of the last year in time series
7. **Sea Surface Temperature**
 - Awaiting cost estimate and funding decision on documentation



Risk Matrix



Risk and Mitigation

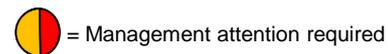
MW Imager FCDR –

- POC is responsible for file conversion and documentation
- PI delivered source code and HDF dataset only

Sea Surface Temp –

- Reordering various portions of data to try and fill in data gaps
- Source code documentation requires additional hire

PREDECISIONAL DRAFT INFORMATION



Sea Ice

CDR Product: TCDR - Sea ice concentration/extent/area estimates, 1979-2010 (20 GB)

GEOSS Societal Benefit: Climate, Water, Ecosystems, Agriculture

Project Status

- Determined the scope of source code and ancillary deliverable, data format, and metadata standards
- Started on Submission Agreement document
 - Sent and received info requested by Phil
 - on-going discussion on file-level metadata
- Verified delivery schedule with PI
 - CDR coding to start in April (most likely 15)
 - Project done by the end of July

Next Action / Milestone

- CDR program to provide documentation templates to PI
- PI to send POC sample doc and code



Project Risks

- **PI unable to work on docs and data conversion until Apr**
- NSIDC will be serving the data to the public, PI concerned about long term support
- The codes that will be delivered are modular pieces of a much larger code and will require effort to separate and document

ID	Task Name	Status	Start	Stop	FY11 Q1			FY11 Q2			FY11 Q3			FY11 Q4		
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	Initial Assessment	100	12/7/2010	1/7/2011												
2	Transfer Prep	40	1/7/2011	5/15/2011												
2a	Comment Source Code	50	1/15/2011	4/15/2011												
2b	Create Documents	50	1/7/2011	4/15/2011												
2c	Convert data from binary to NetCDF	0	3/1/2011	5/15/2011												
3	Transfer Code, Docs, and Data	0	4/15/2011	5/22/2011												
4	Validate Code, Docs, and Data	0	5/1/2011	6/10/2011												
5	Archive Code, Docs, and Data	0	5/15/2011	6/22/2011												
6	Provide Access to Code, Docs, and Data	0	6/15/2011	7/15/2011												

Mean Layer Temperatures

CDR Product: TCDR - Monthly gridded anomalies for three layers (LT, MT, LS), 1978-2010 (60 GB)

GEOSS Societal Benefit: Energy, Climate, Ecosystems

Project Status

- Received Submission Agreement questionnaire from PI
 - Data is in ASCII format

Next Action / Milestone

- Work on source code and documentation



Project Risks

- Data is ASCII format – Mike Urzen will convert to NetCDF
- PI has limited resources available to work on code clean up, comments and documentation

ID	Task Name	Status	Start	Stop	FY11 Q2			FY11 Q3			FY11 Q4		
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	Initial Assessment	100	1/1/2011	1/15/2011	█								
2	Transfer Prep	20	1/15/2011	5/30/2011		█	█	█	█				
2a	Comment Source Code	50	1/15/2011	3/15/2011		█	█						
2b	Create Documents	20	3/15/2011	4/30/2011			█	█					
2c	Format Data for delivery	0	4/30/2011	5/30/2011					█	█			
3	Transfer Code, Docs, and Data	0	6/1/2011	6/30/2011						█	█		
4	Validate Code, Docs, and Data	0	7/1/2011	7/30/2011							█	█	
5	Archive Code, Docs, and Data	0	8/1/2011	8/30/2011								█	█
6	Provide Access to Code, Docs, and Data	0	9/1/2011	9/30/2011									█

Microwave Sounder FCDR

CDR Product: FCDR - AMSU-A Brightness Temperature, CH 7 & 9; 2001 - 2010 (100 GB)

GEOSS Societal Benefit: Climate, Water, Ecosystems

Project Status

- Received Submission Agreement questionnaire

Next Action / Milestone

- Expect CH9 at end of April, and CH7 in July



Project Risks

- Minimal
- PI concerned about source code release

ID	Task Name	Status	Start	Stop	FY11 Q2			FY11 Q3			FY11 Q4			
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	
1	Initial Assessment	100	1/1/2011	1/15/2011	█									
2	Transfer Prep	50	1/15/2011	5/30/2011		█	█	█	█					
2a	Comment Source Code	50	1/15/2011	3/15/2011		█	█							
2b	Create Documents	50	3/15/2011	4/30/2011			█	█						
2c	Format Data for delivery	50	4/30/2011	5/30/2011					█	█				
3	Transfer Code, Docs, and Data	0	6/1/2011	6/30/2011							█	█		
4	Validate Code, Docs, and Data	0	7/1/2011	7/30/2011								█	█	
5	Archive Code, Docs, and Data	0	8/1/2011	8/30/2011									█	█
6	Provide Access to Code, Docs, and Data	0	9/1/2011	9/30/2011										█

Microwave Imager FCDR

CDR Product: FCDR - Intercalibrated SSM/I Brightness Temperatures (v6), 1987 – 2010 (1720 GB)

GEOSS Societal Benefit: Climate, Water, Ecosystems

Project Status

- POC is in process of converting data to NetCDF
- Received non-NetCDF data in archive (Jul 1987-Aug 2010)

Next Action / Milestone

- **Work with POC to revise delivery schedule**
- Complete conversion to NetCDF
- Work on documentation



Project Risks

- PI will not assist making the data an operational CDR
- RSAD will be responsible for converting data to NetCDF, documentation, and commenting the code.
- Received PI's coefficient description – POC can create documentation but will likely not meet current schedule

ID	Task Name	Status	Start	Stop	FY11 Q1			FY11 Q2			FY11 Q3		
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
1	Initial Assessment	100	1/1/2011	1/15/2011				■					
2	Transfer Prep	20	1/1/2011	2/28/2011				■	■	■			
2a	Comment Source Code	40	1/1/2011	1/30/2011				■	■				
2b	Create Documents	10	1/1/2011	2/28/2011				■	■	■			
2c	Format data for delivery	10	2/1/2011	2/28/2011					■	■			
3	Transfer Code, Docs, and Data	50	3/1/2011	3/31/2011						■			
4	Validate Code, Docs, and Data	20	4/1/2011	4/30/2011							■	■	
5	Archive Code, Docs, and Data	0	5/1/2011	5/31/2011								■	■
6	Provide Access to Code, Docs, and Data	0	6/1/2011	6/30/2011									■

Aerosol Properties

CDR Product: TCDR - Aerosol Optical Thickness (AOT), 1981 – 2010 (430 GB)

GEOSS Societal Benefit: Disasters, Health, Climate, Ecosystems

Project Status

- Ops branch is converting to NetCDF
- Code documentation is ready for review
- Approved CDR subset – Researching best way to serve to public
- Coordinating with archive branch on naming conventions
- Tom has created an ATBD using new template – feedback to follow

Next Action / Milestone

- Start the HDF to netCDF conversion
- Get with access branch to determine best way to flag CDR variables



Project Risks

- Minimal for IOC
- Good candidate to test NRT production (FOC); would require significant changes to the current manual intensive process

ID	Task Name	Status	Start	Stop	FY11 Q1			FY11 Q2			FY11 Q3			
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	
1	Initial Assessment	100	11/29/10	12/15/10										
2	Transfer Prep	60	1/1/2011	3/15/2011										
2a	Comment Source Code	100	1/1/2011	1/30/2011										
2b	Create Documents	70	1/1/2011	3/15/2011										
2c	Subset CDR variables	5	2/1/2011	2/14/2011										
2d	Format to netCDF	5	2/15/2011	2/28/2011										
3	Transfer Code, Docs, and Data	5	3/1/2011	3/31/2011										
4	Validate Code, Docs, and Data	0	4/1/2011	4/30/2011										
5	Archive Code, Docs, and Data	0	5/1/2011	5/31/2011										
6	Provide Access to Code, Docs, and Data	0	6/1/2011	6/30/2011										

PREDECISIONAL DRAFT INFORMATION

Outgoing Longwave Radiation - Top of Atmosphere

CDR Product: FCDR - HIRS OLR Time Series, monthly mean, 2.5 deg, 1979 – 2010 (CDR : 20 MB, Orbit Files: 700 GB)
GEOSS Societal Benefit: Energy, Climate, Ecosystems

Project Status

- Received core source code and passed security review
- Received SA questionnaire from PI
- PI converting IDL code to Fortran
- Completed processing for last year in time series

Next Action / Milestone

- Start submission agreement process
- Work on creating necessary documentation (PI needs ATBD template)
- Convert to NetCDF



Project Risks

- Minimal risk involved

ID	Task Name	Status	Start	Stop	FY11 Q1			FY11 Q2			FY11 Q3			FY11 Q4		
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	Initial Assessment	100	11/29/2010	12/15/2010												
2	Transfer Prep	75	12/15/2010	2/28/2011												
2a	Comment Source Code	90	12/15/2010	1/30/2011												
2b	Create Documents	75	1/1/2011	2/28/2011												
2c	Format data for delivery	50	3/1/2011	3/31/2011												
3	Transfer Code, Docs, and Data	0	4/1/2011	4/30/2011												
4	Validate Code, Docs, and Data	0	5/1/2011	5/31/2011												
5	Archive Code, Docs, and Data	0	6/1/2011	6/30/2011												
6	Provide Access to Code, Docs, and Data	0	7/1/2011	7/31/2011												

PREDECISIONAL DRAFT INFORMATION

Sea Surface Temperature

CDR Product: TCDR - Pathfinder v5.2, Daily nighttime and daytime global SST fields, 1981-2010, (4000 GB)

GEOSS Societal Benefit: Climate, Water, Ecosystems, Agriculture

Project Status

- Received NetCDF conversion code and a sample of NetCDF output from NODC
- First reprocessing completed but some data gaps were present

Next Actions / Milestone

- Waiting on cost estimate for documentation
- 2nd reprocessing: Get missing data from CLASS, incorporate lake temp climo field



Project Risks

- Test output still needs to be QC'd
- Processing from level 1b to HDF has been accomplished for all sats, some missing data gaps exist
- Source code documentation requires additional hire
- Final SST data set will be maintained at NODC

ID	Task Name	Status	Start	Stop	FY11 Q1			FY11 Q2			FY11 Q3			FY11 Q4		
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	Initial Assessment	100	11/29/10	12/15/10												
2	Create HDF product (v5.2) 1981-2010 (UoM)	50	12/15/10	4/7/11				N18	N16	N7	N9	N11	N14			
3	Convert HDF to netCDF (NODC)	25	2/1/11	4/30/11												
4	Comment Source Code	5	2/15/11	6/30/11					NODC				CICS Hire?			
5	Create Documents	5	2/15/11	6/30/11					NODC				CICS Hire?			
6	Transfer Copy of Data, Code and Docs	5	5/1/11	7/15/11								Data			C&D	
7	Validate Data, Code and Docs	5	6/1/11	7/31/11									Data		C&D	
8	Archive Data, Code and Docs	0	7/1/11	8/15/11										Data	C&D	
9	Provide Access to Data, Code and Docs	0	8/15/11	9/15/11												
	(Point to Data served at NODC)															

PREDECISIONAL DRAFT INFORMATION

BACKUP CDR -- ISCCP D1

CDR Product: TCDR - Mean Cloud Amount, 2.5 deg res, 3 hourly, 1983-2008, (1.4 GB)

GEOSS Societal Benefit: Energy, Climate, Water, Agriculture

Project Status

- NSTR
- ISCCP is a backup CDR to ensure the NCDC performance metric is successfully met.
- Initial Assessment – Data and source code are very mature (could easily fill the gap if any of the FY11 CDRs fail to deliver)
- Product is already being archived

Next Action / Milestone

- No effort - unless it looks like one of the others may fail, then primary work will be on documentation



Project Risks

- Minimal

ID	Task Name	Status	Start	Stop	FY11 Q1			FY11 Q2			FY11 Q3			FY11 Q4		
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	Initial Assessment	Complete	11/29/10	12/15/10												
2	Transfer Prep		12/15/2011	2/28/2011												
2a	Comment Source Code		12/15/2011	1/30/2011												
2b	Create Documents		1/1/2011	2/28/2011												
2c	Format data for delivery		3/1/2011	3/31/2011												
3	Transfer Code, Docs, and Data		4/1/2011	4/30/2011												
4	Validate Code, Docs, and Data		5/1/2011	5/31/2011												
5	Archive Code, Docs, and Data		6/1/2011	6/30/2011												
6	Provide Access to Code, Docs, and Data		7/1/2011	7/31/2011												

PREDECISIONAL DRAFT INFORMATION

FUTURE CDR -- Global Surface Albedo

CDR Product: TCDR – GOES coverage Surface Albedo, 10 day blocks, 4 km res, 2000-2003 (initially), (XX GB)

GEOSS Societal Benefit: Climate, Ecosystems, Agriculture

Project Status

- Should be able to process a GOES test set by end of May
- Initial Assessment revealed it would not meet CDR IOC requirements by FY11, but the High Visibility of this project will ensure that work continues to progress as quickly as possible

Next Action / Milestone

- Stage GOES test data
- New timeline will need to be established



Project Risks

- Requires extensive coordination with EUMETSAT for code, documentation and validation

ID	Task Name	Status	Start	Stop	FY11 Q1			FY11 Q2			FY11 Q3			FY11 Q4		
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	Initial Assessment		11/29/10	12/15/10												
2	Stage 4 yrs of GOES data		12/15/10	1/14/11												
3	Write GOES preprocessing sw		12/8/10	1/7/11												
4	Write Model Ozone/H2Ov ingest		1/7/11	2/6/11												
5	Generate GOES-12 LUT		1/1/11	1/31/11												
6	Format Data for archive (NetCDF4)		1/1/11	3/2/11												
7	Receive/test AREA ingestor		3/3/11	5/20/11												
8	Processing - 4 year POR		5/1/11	7/30/11												
9	Transfer Remaining Docs		6/22/11	7/7/11												
10	Validate Code, Docs, and Data		7/8/11	7/15/11												
11	Archive Code, Docs, and Data		7/16/11	8/7/11												
12	Provide Access to Code, Docs, and Data		8/8/11	8/18/11												

PREDECISIONAL DRAFT INFORMATION



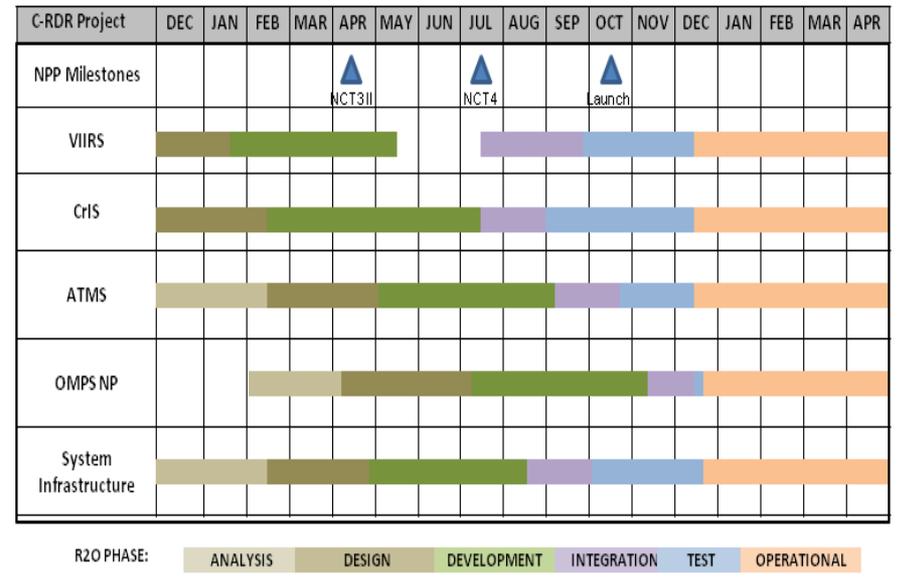
CDR Program Office

NPP/JPSS Climate Raw Data Records (C-RDRs) Project

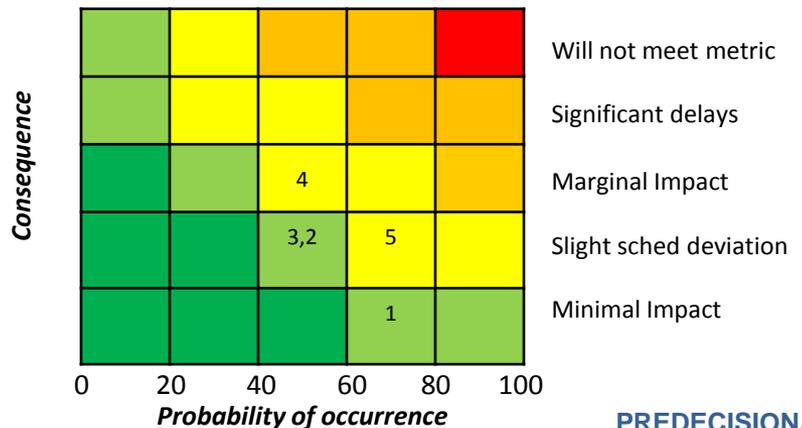
Weekly Report – Mar 4, 2011

1. **VIIRS**
 - Evaluating ADL for processing aggregated granules
2. **CrIS**
 - Defining the netCDF4 structure for the C-RDR
3. **ATMS**
 - IDPS ATMS algorithm executing in ADL at NCDC
4. **OMPS NP**
 - **Postponed** to focus resources on system infrastructure
5. **System Infrastructure**
 - Working with RSAD projects to define process to ingest and transfer data to CLASS

Draft of System Acceptance Test (SAT) distributed.
 Received 6 orbits of test data from CLASS. Data is in CLASS aggregations but has no science value. Will use to start testing ingest.



Risk Matrix



Risk and Mitigation

- VIIRS, CrIS, ATMS, OMPS NP, System Infrastructure -**
- Short schedule to NPP launch on October 2011. Hiring additional software developers on hold. Need to re-adjust the schedule.
 - Operational software is under maintenance, updated versions may affect C-RDR ported version. Working with old (2007) version of CrIS code.
- System Infrastructure –**
- Availability of automated receipt of NPP RDRs from the CLASS system. Need to test ingest of RDRs from CLASS and develop an automated mechanism for re-requesting data.
 - Capability of CLASS to ingest and archive C-RDRs.

PREDECISIONAL DRAFT INFORMATION

Visible Infrared Imaging Radiometer Suite (VIIRS)

C-RDR Product: Raw sensor measurements with usage and provenance metadata in easily accessible netCDF4 format

GEOSS Societal Benefit: Climate, Water, Ecosystems, Agriculture, Biodiversity, Energy

Project Status

- Ported operational algorithms (NASA Land PEATE)
- Defining the C-RDR format, data, and metadata
- Preparing the VIIRS C-RDR Product Specification for review
- Developing software to create the C-RDR
- Converting the supporting data files to netCDF4
- Merged latest Land PEATE and IDPS modifications into C-RDR baseline
- Evaluating IDPS latest release changes in Algorithm Development Library (ADL) baseline
- Evaluating ADL for processing granule aggregations

Next Action / Milestone

- Development complete for the VIIRS C-RDR



Project Risks

- NPP Launch Date: October 25, 2011
- Complexity of the NPP/JPSS RDRs and operational software
- Operational software is under maintenance, updated versions may affect C-RDR ported version

Project Schedule

ID	Task Name	Status	Start	Stop	FY11 Q1			FY11 Q2			FY11 Q3			FY11 Q4			FY12 Q1			FY12 Q2		
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1	Analysis	Completed	10/23/2009	5/4/2010																		
2	Design	Completed	5/6/2010	1/5/2011																		
3	Development		1/6/2011	5/13/2011																		
3a	Develop VIIRSS processing component	30%	1/6/2011	3/4/2011																		
3b	Test VIIRS processing component		3/7/2011	5/13/2011																		
4	Integration		7/21/2011	8/26/2011																		
5	Test		9/1/2011	12/19/2011																		
5a	Dry Runs/some with launch data		9/1/2011	12/12/2011																		
5b	System Acceptance Test		12/12/2011	12/19/2011																		
6	Operational		12/20/2011																			

PREDECISIONAL DRAFT INFORMATION

Cross-track Infrared Sounder (CrIS)

C-RDR Product: Raw sensor measurements with usage and provenance metadata in easily accessible netCDF4 format
GEOSS Societal Benefit: Climate, Water, Energy

Project Status

- Ported operational algorithms (Space Dynamics Lab at Utah State)
- Defining the C-RDR format, data, and metadata
- Merging updated IDPS code and formats into the C-RDR baseline
- Tracking down a version of the CrIS code with telemetry updates
- Defining the netCDF4 structure for the C-RDR and developing software for writing the C-RDR

Next Action / Milestone

- Complete definition of CrIS C-RDR



Project Risks

- NPP Launch Date: October 25, 2011
- Need updated version of CrIS code. Current version - 2007.
- Complexity of the NPP/JPSS RDRs and operational software
- Operational software is under maintenance, updated versions may affect C-RDR ported version

Project Schedule

ID	Task Name	Status	Start	Stop	FY11 Q1			FY11 Q2			FY11 Q3			FY11 Q4			FY12 Q1			FY12 Q2		
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1	Analysis	Completed	8/16/2010	11/24/2010	█	█	█															
2	Design	80.00%	11/26/2010	2/15/2011			█	█	█													
3	Development		2/16/2011	7/22/2011					█	█	█	█	█									
3a	Develop CrIS processing component	10.00%	2/16/2011	5/11/2011					█	█	█											
3b	Test CrIS processing component		5/12/2011	7/22/2011							█	█	█									
4	Integration		7/25/2011	8/19/2011										█	█							
5	Test		9/1/2011	12/19/2011													█	█	█	█		
5a	Dry Runs/some with launch data		9/1/2011	12/12/2011													█	█	█	█		
5b	System Acceptance Test		12/12/2011	12/19/2011																	█	
6	Operational		12/20/2011																			█

Advanced Technology Microwave Sounder (ATMS)

C-RDR Product: Raw sensor measurements with usage and provenance metadata in easily accessible netCDF4 format
GEOSS Societal Benefit: Climate, Water, Energy

Project Status

- Obtained ported operational algorithms (Space Dynamics Lab at Utah State)
- Working to get the ported IDPS software running at NCDC
- Evaluating IDPS algorithms in ADL
- IDPS ATMS algorithm in ADL executing at NCDC

Next Action / Milestone

- Define the C-RDR data and metadata



Project Risks

- NPP Launch Date: October 25, 2011
- Complexity of the NPP/JPSS RDRs and operational software
- Operational software is under maintenance, updated versions may affect C-RDR ported version
- Developer shares time working NPP and CLASS issues.

Project Schedule

ID	Task Name	Status	Start	Stop	FY11 Q1			FY11 Q2			FY11 Q3			FY11 Q4			FY12 Q1			FY12 Q2		
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1	Analysis	Complete	10/29/2010	2/10/2011																		
2	Design		2/11/2011	4/29/2011																		
3	Development		5/2/2011	9/7/2011																		
3a	Develop ATMS processing component		5/2/2011	6/27/2011																		
3b	Test ATMS processing component		6/28/2011	9/7/2011																		
4	Integration		9/8/2011	10/20/2011																		
5	Test		10/21/2011	12/19/2011																		
5a	Dry Runs/some with launch data		10/21/2011	12/12/2011																		
5b	System Acceptance Test		12/12/2011	12/19/2011																		
6	Operational		12/20/2011																			

Ozone Mapping Profile Suite (OMPS) Nadir Profiler (NP)

C-RDR Product: Raw sensor measurements with usage and provenance metadata in easily accessible netCDF4 format

GEOSS Societal Benefit: Climate, Energy

Project Status

- Delayed OMPS NP development to focus resources on system infrastructure and other sensors

Postponed

Next Action / Milestone

- Obtain IDPS software when the OMPS modifications stabilize



Project Risks

- OMPS NP C-RDRs will not be available at launch. Mitigation: hire another developer for OMPS NP.
- Complexity of the NPP/JPSS RDRs and operational software
- Operational software is under maintenance, updated versions may affect C-RDR ported version

Project Schedule

ID	Task Name	Status	Start	Stop	FY11 Q1			FY11 Q2			FY11 Q3			FY11 Q4			FY12 Q1			FY12 Q2		
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1	Analysis		2/1/2011	4/12/2011																		
2	Design		4/13/2011	7/7/2011																		
3	Development		7/8/2011	11/15/2011																		
3a	Develop OMPS NP processing component		7/8/2011	9/1/2011																		
3b	Test OMPS NP processing component		9/2/2011	11/7/2011																		
4	Integration		11/8/2011	12/7/2011																		
5	Test		12/8/2011	12/19/2011																		
5a	Dry Runs/some with launch data		12/8/2011	12/12/2011																		
5b	System Acceptance Test		12/12/2011	12/19/2011																		
6	Operational		12/20/2011																			

PREDECISIONAL DRAFT INFORMATION

C-RDR System Infrastructure

C-RDR Product: Infrastructure to automate the production of the C-RDRs.

GEOSS Societal Benefit: None

Project Status

- Analyzing existing ingest and dissemination capabilities.
- Working with CLASS to test ingest of RDRs.
- Working on database infrastructure design.
- Working on the Archive Recommendation Package for C-RDRs.
- Analysis complete of existing infrastructure.
- Working with RSAD projects to define process to transfer data to and from CLASS.
- Received aggregated test data from CLASS.

Next Action / Milestone

- Complete design of system infrastructure.



Project Risks

- NPP Launch Date: October 25, 2011
- Need to hire additional software developer to meet schedule.
- Ability of CLASS to provide full stream of RDRs and ability to ingest stream of C-RDRs.
- Need to develop an automated re-request mechanism for CLASS.

Project Schedule

ID	Task Name	Status	Start	Stop	FY11 Q1			FY11 Q2			FY11 Q3			FY11 Q4			FY12 Q1			FY12 Q2		
					Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1	Analysis	Completed	9/29/2010	2/10/2011	█																	
2	Design		2/11/2011	4/22/2011				█														
3	Development		3/7/2011	8/9/2011				█			█											
3a	Develop & Test sensor algorithms processing		4/25/2011	8/9/2011				█			█											
3b	Develop & Test ingest		3/7/2011	4/8/2011				█														
3c	Develop & Test dissemination		4/11/2011	5/27/2011				█														
4	Integration		7/21/2011	9/28/2011							█											
5	Test		9/1/2011	12/19/2011										█								
5a	Dry Runs/some with launch data		9/1/2011	12/12/2011										█								
5b	System Acceptance Test		12/12/2011	12/19/2011													█					
6	Operational		12/20/2011														█					



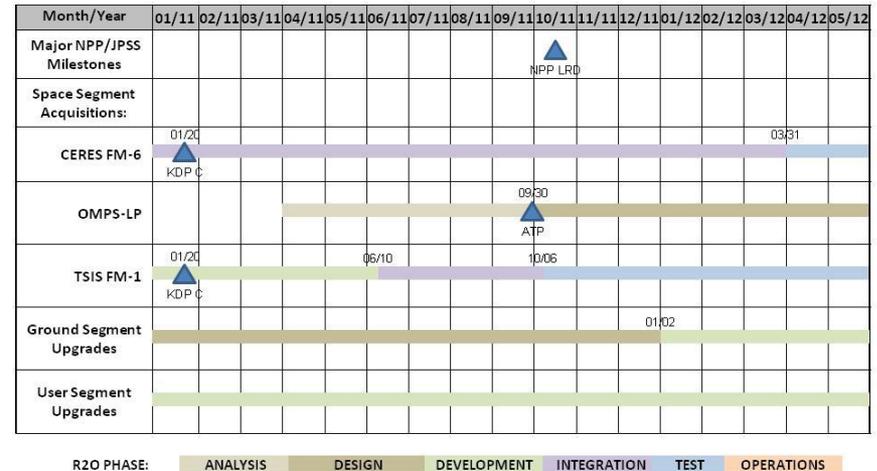
CDR Program Office

JPSS Climate Sensors and Program Status

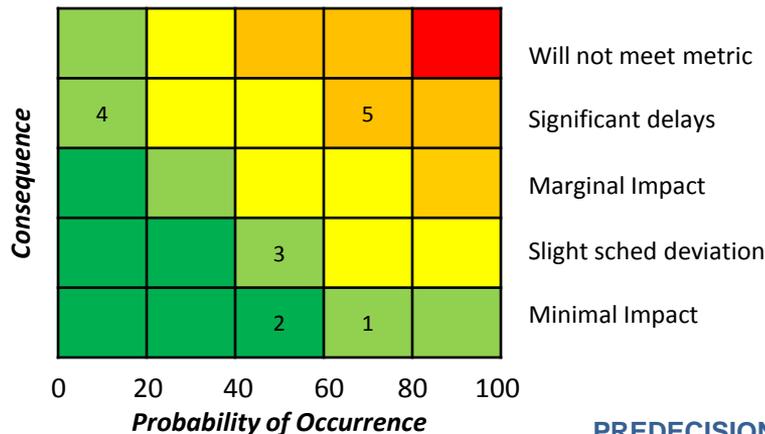
Current Status

- ① ➤ JPSS Climate Sensors are all on track:
 - CERES FM-6 will fly on JPSS-1
 - OMPS-LP will fly on JPSS-2
 - TSIS FM-1 will fly on a TBD Free-Flyer
- ④ ➤ JPSS Program is still in transition:
 - JPSS L1RD, Version 4.4, dated December 15, 2010 is latest draft; it still has not been signed
 - Launch Readiness Dates (LRDs) are 2015 for JPSS-1 and 2018 for JPSS-2
 - NOAA/NESDIS/OSD will provide funding to JPSS Program for Ground Segment Upgrades and post-delivery support
- ⑤ ➤ User Segment Upgrades are behind schedule

Current Schedules



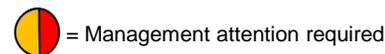
Risk Matrix



Risks and Mitigation

- While TSIS FM-1 acquisition is on track, platform it will fly on is still TBD
- FY-11 funding for CERES FM-6, OMPS-LP, and TSIS FM-1 R2O transition activities, and User Segment upgrades may be in jeopardy due to Congressional actions
 - Could cause significant delays in the delivery of these capabilities and readiness for NPP and JPSS-1 launches
- R2O Transition and Instrument Support teams for CERES FM-6 and TSIS FM-1 are needed ASAP
 - Need to support JPSS Instrument Staff and NASA/LaRC CERES Science Team meetings

PREDECISIONAL DRAFT INFORMATION



Clouds & Earth's Radiant Energy System (CERES) FM-6

Purpose: Continuity of Earth Radiation Budget (ERB) Measurements

GEOSS Societal Benefit: Climate

Project Summary

- CERES will fly on the NPP and JPSS-1 satellites which have LRDs in late 2011 and 2015, respectively
- NOAA/NESDIS/OSD funded the acquisition of the CERES FM-5 (on NPP) and FM-6 (on JPSS-1) instruments by NASA's Langley Research Center (LaRC) and Northrup Grumman Aerospace Systems (NGAS)
- OSD is also responsible, as the instrument provider, for any required upgrades to the JPSS Common Ground Segment (CGS) and CERES FM-6 post-launch instrument support
- JPSS Program is responsible for integrating and flying the CERES FM-6 instrument on the JPSS-1 spacecraft, post-launch satellite operations, data collection and initial processing, and delivering processed data via the Interface Data Processing Segment (IDPS) to the NOAA Archive

Next Action/Milestone

- CERES Instrument PER is scheduled for February 2011

Project Risks

- Changing the total and shortwave radiometric accuracy requirements to accommodate limitations in the current hardware design for FM-6
 - NASA's performance specifications will become the threshold & NOAA's requirements will be the objective
- Defining the scope of post-launch support
- Negotiating an agreement between NOAA/NESDIS/NCDC and NASA/LaRC for the R2O transition of CERES higher-level data processing (or reprocessing) and Climate Data and Information Record (CDR/CIR) generation capabilities

Project Schedule

ID	Task Name	Status	Start	Stop	FY11 Q2			FY11 Q3			FY11 Q4			FY12 Q1		
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Acquisition of CERES FM-6 Instrument															
2	Acquisition of Ground Segment Upgrades															
3	Acquisition of User Segment Upgrades															
3a	Analysis															
3b	Design															
3c	Development															
3d	Integration															
3e	Test															
3f	Operations															

PREDECISIONAL DRAFT INFORMATION

Ozone Mapping & Profiler Suite-Limb Profiler (OMPS-LP)

Purpose: Continuity of Stratospheric Ozone Measurements

GEOSS Societal Benefit: Climate and Energy

Project Summary

- OMPS-LP will fly on the NPP and JPSS-2 satellites which have LRDs in late 2011 and 2018, respectively
- NOAA/NESDIS/OSD has funded the acquisition of the OMPS-LP instruments by NASA (for NPP) and the JPSS Program (for JPSS-2)
- OSD is also responsible, as the instrument provider, for any required upgrades to the JPSS Common Ground Segment (CGS) and OMPS-LP post-launch instrument support
- JPSS Program is responsible for integrating and flying the OMPS-LP instrument on the JPSS-2 spacecraft, post-launch satellite operations, data collection and initial processing, and delivering processed data via the Interface Data Processing Segment (IDPS) to the NOAA Archive

Next Action/Milestone

- Authorization to Proceed (ATP) decision for the acquisition of the JPSS-2 OMPS-LP is expected by the end of September 2011

Project Risks

- Drafting a Level 1 Requirements Document (L1RD) and securing an agreement between the JPSS Program and NOAA for the acquisition of the OMPS-LP instrument for JPSS-2
- Negotiating an agreement between NASA/GSFC and NOAA/NESDIS/NCDC for the R2O transition of OMPS-LP higher-level data processing (or reprocessing) and Climate Data and Information Record (CDR/CIR) generation capabilities

Project Schedule

ID	Task Name	Status	Start	Stop	FY11 Q2			FY11 Q3			FY11 Q4			FY12 Q1		
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Acquisition of OMPS-LP Instrument															
2	Acquisition of Ground Segment Upgrades															
3	Acquisition of User Segment Upgrades															
3a	Analysis															
3b	Design															
3c	Development															
3d	Integration															
3e	Test															
3f	Operations															

PREDECISIONAL DRAFT INFORMATION

Total Solar Irradiance Sensor (TSIS) FM-1

Purpose: Continuity of Total and Spectral Solar Irradiance Measurements

GEOSS Societal Benefit: Climate and Energy

Project Summary

- TSIS will fly on the NPP satellite and as a free-flyer in conjunction with the JPSS-2 satellite which have Launch Readiness Dates (LRDs) in late 2011 and 2018, respectively
- NOAA/NESDIS/OSD funded the acquisition of the TSIS FM-1 instrument by NASA and the Laboratory for Atmospheric and Space Physics (LASP) at the University of Colorado
- OSD is also responsible, as the instrument provider, for any required upgrades to the JPSS Common Ground Segment (CGS) and TSIS post-launch instrument support
- JPSS Program is responsible for integrating and flying the TSIS FM-1 instrument, post-launch satellite operations, data collection and initial processing, and delivering processed data via the Interface Data Processing Segment (IDPS) to the NOAA Archive

Next Action/Milestone

- Solar Irradiance Requirements Workshop is scheduled for February 23-24, 2011 at LASP in Boulder, CO
- Integration and testing of the TSIS FM-1 instrument is scheduled to begin on June 10, 2011

Project Risks

- Finalizing the Level 1 Requirements Document (L1RD) for TSIS FM-1
- Conducting a mission trade study in conjunction with the JPSS Program to determine the most efficient launch option for TSIS FM-1
- Negotiating an agreement between NASA/GSFC, LASP, and NOAA/NESDIS/NCDC for the Research-to-Operations (R2O) transition of TSIS higher-level data processing (or reprocessing) and Climate Data and Information Record (CDR/CIR) generation capabilities

Project Schedule

ID	Task Name	Status	Start	Stop	FY11 Q2			FY11 Q3			FY11 Q4			FY12 Q1		
					Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1	Acquisition of TSIS FM-1 Instrument															
2	Acquisition of Ground Segment Upgrades															
3	Acquisition of User Segment Upgrades															
3a	Analysis															
3b	Design															
3c	Development															
3d	Integration															
3e	Test															
3f	Operations															

PREDECISIONAL DRAFT INFORMATION

Other Tasks

- Drafting slides for presentation to the NOAA Assistant Administrator for Satellite and Information Services regarding the Research-to-Operations (R2O) transition of CERES operations and data processing capabilities
 - Task was changed to drafting a white paper proposal instead of a presentation
 - Forwarded the draft white paper to John Bates on January 28th; awaiting his feedback
 - Prepared slides for John Bates to use in discussions with NESDIS/OSD on February 17th
- Reviewing cost models for possible application to NCDC's end-to-end Data Stewardship system
 - Completed a Work Breakdown Structure (WBS) for the end-to-end Data Management/Data Stewardship process cost model; provided a copy to Ed Kearns on February 16th; awaiting his feedback
- Participated in Solar Irradiance Requirements Workshop at the University of Colorado's Laboratory for Atmospheric and Space Physics (UC/LASP) via teleconference/WebEx on February 23rd and 24th
- Continuing to forward FY 2011 Grants Program proposals to mail reviewers
 - 82% of mail reviewers have been sent proposals
 - 49% of mail reviews returned

Climate Data Records

as of Feb 28, 2011



Activities

Recent Accomplishments:

NCDC Climate Modeling Stewardship (03/2011)

- Completed Integrated Global Radiosonde Archive (IGRA) version-2 data set and the IGRA-derived version-2 data set.
- Complete draft version of VIIRS Climate RDR product specification document, including data contents and metadata.
- Successfully transitioned Global Surface Albedo CDR baseline algorithm code within NCDC blade server environment.
- Completed archive and data access tasks for Extended Reconstructed Sea Surface Temperature (v03-b) Monthly Analysis (ERSST) data for the FY2010 Climate Data Record project.
- Designed, coded and implemented Advanced Tracking and Resource tool for Archive Collections (ATRAC)

NCDC Climate Modeling Program Planning (03/2011)

- Completed all revisions to Architecture Plans for CERES, TSIS and NPP CDRs
- Completed Work Breakdown Structure (WBS) for the end-to-end Data Management/Data Stewardship process cost model

Schedule

Selected Milestones	FY11				Status
	Q1	Q2	Q3	Q4	
NCDC Climate Modeling Stewardship					
Test /Validate processing of the NASA-GISS International Satellite Cloud Climatology Project (ISCCP).		X			100%
Complete draft version of VIIRS Climate RDR product specification document, including data contents and metadata.		X			100%
Design/Construct Integrated Global Radiosonde Archive (IGRA) version-2 data set and the IGRA-derived version-2 data set.		X			100%
NCDC Climate Modeling Program Planning					
Revised initial Architecture Plans for CERES, TSIS and NPP CDRs		X			100%

Key Issues/Risks

Risk:

NPOESS Preparatory Project (NPP) -- Climate RDR system development depends on operational software under development at NASA. Schedule requires on-time software receipt and porting to the Climate Data Record processing environment.

Mitigation:

Working closely with NASA personnel and testing NASA implementation of the pre-release operational code.

Budget

Obligations

FY10 (\$K)	FY10 Qtr 1	Qtr2	Qtr3	Qtr4	FY11 Q1	Q2
Planned	4,950	4,950	4,950	4,950	4,950	4,950
Actual	4,948	4,948	4,948	4,948	4,948	4,948
Variance	2	2	2	2	2	2

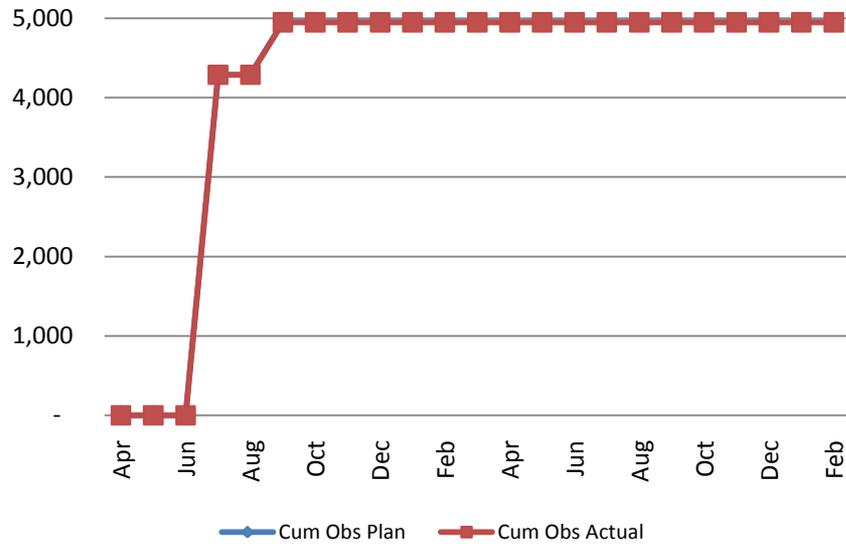
Disbursements

FY10 (\$K)	FY10 Qtr 1	Qtr2	Qtr3	Qtr4	FY11 Q1	Q2
Planned	1,218	2,189	3,125	3,728	4,220	4,622
Actual	676	1,969	2,933	3,676	4,096	4,577
Variance	-542	-220	-192	(52)	(124)	(45)

Climate Data Records

Financial Status Report

CDR Obligations



CDR Disbursements

