



Remote Sensing Applications Division (RSAD)

CDR Program Office

Weekly Report for Jan 8, 2015
Ed Kearns, Chief

S t a t u s	CDR PI TM		Assessment		Deliver Drafts						Review and Provide Feedback						Deliver Final Versions						Misc		Archive			Release				
			Assemble IPT	Perform Assessment	Deliver source code sample and README draft	Deliver Flow Diagram Draft	Deliver C-ATBD Draft	Deliver Maturity Matrix Draft	Deliver Sample netCDF dataset	Deliver SA Draft	Provide feedback on source code and README	Provide feedback on Flow Diagram Draft	Provide feedback on C-ATBD Draft	Provide feedback on Maturity Matrix Draft	Provide feedback on Sample netCDF dataset	Provide feedback on SA Draft	Deliver final source code and README	Deliver final Flow Diagram	Deliver final C-ATBD	Deliver final Maturity Matrix	Deliver final netCDF dataset	Pass DSRR	Create Collection Level Metadata	Conduct Security Review	Archive Code Package	Archive Docs	Archive Data	Make data publicly available	Put data, docs, and code on dev web page	Conduct ORR		
1	Ozone - ESRL	Rosenlof Young	x	x	20-May	12-Jun	20-Mar	20-Aug	30-Oct 4-Apr	12-Jun	12-Jun	26-Jun	27-Mar	21-Aug	6-Jan 12-Jun 5-Aug	21-Aug	21-Aug	19-Aug	11-Sep		31-Dec		9-Oct									DEC
2a	SST - WHOI	Clayson Peng	x	21-Feb	12-Dec	3-Apr	20-May	19-Feb	25-Nov	8-Aug	16-Dec	8-Aug	6-Jun	30-Oct	13-Dec	13-Aug	2-Dec	29-Oct	22-Oct	3-Dec		15-Oct		28-Oct							JAN	
2b	Ocean Surface Properties	Clayson Peng	x	21-Feb	12-Dec	3-Apr	20-May	19-Feb	25-Nov	8-Aug	16-Dec	8-Aug	6-Jun	30-Oct	13-Dec	13-Aug	2-Dec	29-Oct	22-Oct	3-Dec		15-Oct		28-Oct							JAN	
2c	Ocean Heat Fluxes	Clayson Peng	x	21-Feb	12-Dec	3-Apr	20-May	19-Feb	27-Jun	8-Aug	16-Dec	8-Aug	6-Jun	30-Oct	8-Aug	13-Aug	2-Dec	29-Oct	22-Oct	3-Dec		15-Oct		28-Oct							JAN	
3a	Cryosphere (APP FCDR)	Key Young	13-Jun	IP 20-Dec	3-Jun		20-Mar 25-Sep	12-Mar	12 Mar 27 Jun		27-Aug		25-Apr	20-Mar	25-Apr		18-Sep														MAR	
3b	Cryosphere (APP-x TCDR)	Key Young	13-Jun	IP 20-Dec	3-Jun		20-Mar 18-Sep	12-Mar	12 Mar 27 Jun		27-Aug		25-Apr	20-Mar	25-Apr		18-Sep														MAR	
4a	AVHRR FCDR (5 CHs)	Minnis Young	x	22-Nov		14-Feb	31-Dec 28-Mar	7-Feb	14-Feb	20-Dec 31-Jul		21-Feb	13-Feb 2-Jun	14-Feb	18-Feb	19-Jun					1TB /day	29-Oct				60 TB CLASS					APR	
4b	AVHRR Cloud Properties - NASA	Minnis Young	x	22-Nov		14-Feb	31-Dec 28-Mar	7-Feb	14-Feb	20-Dec 31-Jul		21-Feb	13-Feb 2-Jun	14-Feb	18-Feb	19-Jun					1TB /day	29-Oct				60 TB CLASS					APR	
5	Vegetation (LAI/FAPAR)	Vermote Matthews	x	17-Jan	24-Jun	2-Jul	10-Sep	10-Sep	16-Jul	6-Nov	29-May	9-Jul	17-Sep	11-Sep	4-Nov	8-Oct	30-Oct	1-Nov	4-Nov	5-Nov	4-Nov	12-Nov	11-Dec	12-Nov	18-Dec	18-Dec	12-Dec	18-Dec	19-Dec	DEC		
6a	Cloud Top Pressure	Menzel Young	x	31-Jan	1-Oct	5-Aug	15-May	5-Aug	21-Oct 11-Jul 25-Jul	21-Sep	29-Oct	29-Oct	29-Oct 10-Jan		4-Nov 24-Jul		2-Oct 6-Nov														MAR	
6b	Total Precipitable Water	Menzel Young	x	31-Jan	1-Oct	5-Aug	15-May	5-Aug	21-Oct 11-Jul 25-Jul	21-Sep	29-Oct	29-Oct	29-Oct 10-Jan		4-Nov 24-Jul		2-Oct 6-Nov														MAR	
7a	Total Solar Irradiance	Pilewskie Inamdar	x	6-Mar	22-Jan	26-Mar	25-Sep	26-Mar	25-Sep	Approved to Archive	9-May	11-Apr	6-Oct	8-Dec	9-Oct																FEB	
7b	Solar Spectral Irradiance	Lean Inamdar	x	6-Mar	22-Jan	26-Mar	25-Sep	26-Mar	25-Sep	Approved to Archive	9-May	11-Apr	6-Oct	8-Dec	9-Oct																FEB	
8	GPCP Monthly	Adler																													FY16	
9	NEXRAD	Nelson Nelson			See	Project	Quad	Chart																							FY15	
10	CMORPH	Xie Prat	x																												FY16	
11	ISCCP	Rossow Knapp	x	x	See	Project	Quad	Chart																							FY16	



Complete



Working



Mgmt Attention



On Hold for NCDC internal resources

CDRP Open Change Requests

Name of CDR	C-ATBD	Data Flow Diagram	Maturity Matrix	VDD	Source Code	NetCDF sample	Dataset	Request to Archive	Approved for Archive	SA	DSRR
Geostationary IR Channel Brightness Temperature - GridSat B1	1/31/2015	1/31/2015	1/31/2015	N/A	√	√	√	√	√	√	Aug-13
Sea Surface Temperature - Pathfinder	Will not be receiving from U of Miami	No change	No change	√	√	√	onhold indefinitely	√	√	onhold indefinitely	onhold indefinitely
Mean Layer Temperature - UAH	Returned to PI for edits	√	N/A	√	onhold indefinitely	onhold indefinitely	onhold indefinitely				
Sea Ice Concentration	Will be modified internally once the DFD is delivered	√	N/A	N/A	√	N/A	N/A	N/A	N/A	N/A	N/A

GST FY14 Subcontracts

PI	CDRs	Impl Plan	QA Procedure	QA Results/ Summary	Annual Report
Christy	Mean Layer Temperature - UAH	√	√		
Ho	- Mean Layer Temperature - UCAR (Lower Stratosphere) - Mean Layer Temperature - UCAR (Troposphere and Stratosphere) - Tropopause Height Climatology	√			
Robinson	Snow Cover Extent (Northern Hemisphere)	√			
Sorooshian	Precipitation - PERSIANN-CDR	√			
Zhang	ISCCP Radiation Budget	√	and QA graphic tools		
Wentz	SSMI(S) Brightness Temperature - RSS	√			
Mears	Mean Layer Temperature - RSS	√			

IOC CDR Issues

1. Preliminary (ICDR) products

Due to the amount of ICDRs, their differing final data update schedules, and the manual archive process to replace the data, I recommend we do not archive the preliminary data.

- Question: How do we provide data access to data that is not archived?



CDR Program Office

OISST Rejuvenation Project

Team Lead:
Drew Saunders

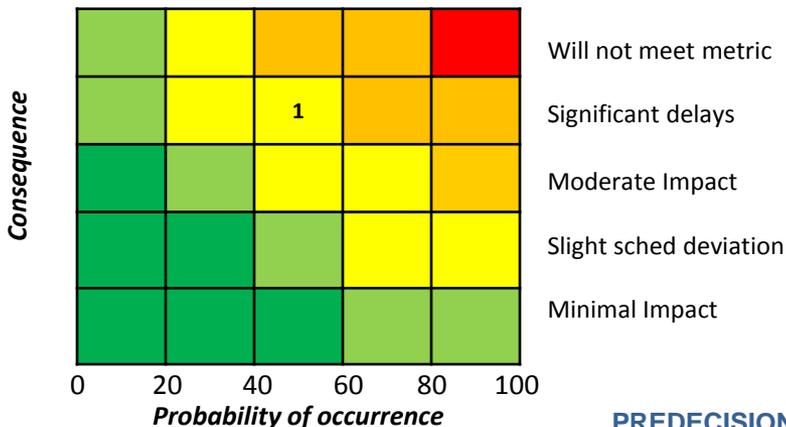
Weekly Report – January 9, 2014

1 ISST – Optimum Interpolated Sea Surface Temperature

- OISST software running on the oisst-dev container.
- Resolving issue with GRADs on oisst-dev.
- Resolving differences in high res ice code to convert to low res ice for SST.
- Submitted ATRAC entry for archive of Navy SST files from NAVO.
- Test validation took longer than expected need to update schedule.
- Resolved differences in 32 and 64 bit runs. Discussed with PI.
- DEV container created.
- Performing dry runs for the System Acceptance Test (SAT).
- Successfully completed 30 day parallel test.
- Comparing NCDC GTS with NCEP ship/buoy data for use. GCAD is resolving issues but requires new operational code.
- AVHRR data for the 15 day delay product is available from CLASS.
- GSTWG discussing inputs and production of preliminary OISST.
- Created a SOP for operational OISST.
- Completed refactoring of each component.
- Conducted Technology Assessment Review.

Monitor Project	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	NOV	
Test	[Red bar]																
Dry Run SAT	[Red bar]																
Setup DEV		[Red bar]															
Verify DEV			[Red bar]														
Setup TEST					[Red bar]												
Dry Run TEST					[Red bar]												
SAT					[Red bar]												
FOC																	
Reprocessing																	
SAs																	
SLA																	
OAD																	

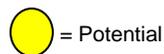
Risk Matrix



Risk and Mitigation

1 Time to progress through the three tier environment. ITB support is required.

PREDECISIONAL DRAFT INFORMATION





CDR Program Office

Federated Archive Search Tool (FAST)

Team Lead:
Linda Copley

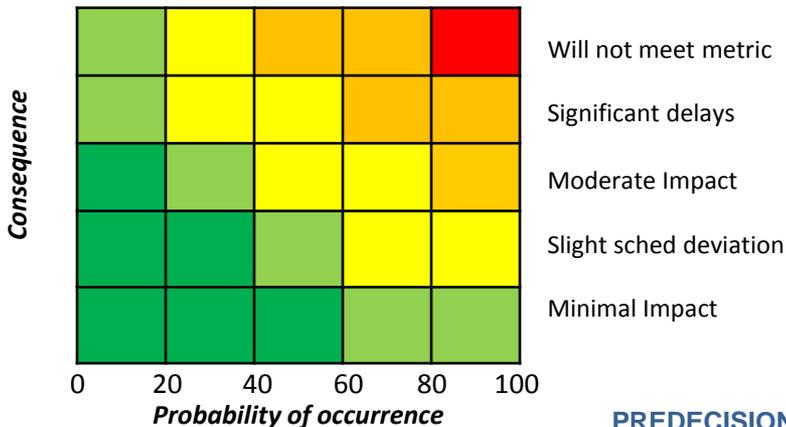
Weekly Report January 9, 2014

1 Federated Archive Search Tool proof-of-concept

- Adding CDR collection level metadata to query CDRs.
- Adding VIIRS thumbnail images.
- Added VIIRS query capability.
- Working on display application to demonstrate query capabilities.
- Connected all data to geographic and date references.
- Designed and loaded VIIRS catalog graph data.
- Designed and loaded Storm Events graph data.
- Loaded FIPS geographic data.
- Installed Neo4j graph database with spatial extension.

FAST Prototype	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	NOV
Proof-of-concept	█															
Demonstrate	█															
Analysis			█													
Recommendation				█												

Risk Matrix



Risk and Mitigation

PREDECISIONAL DRAFT INFORMATION

1/13/2015



= On-track = Potential management action required = Management attention required



CDR Program Office

Ingest Monitoring Tool

Team Lead:
Linda Copley

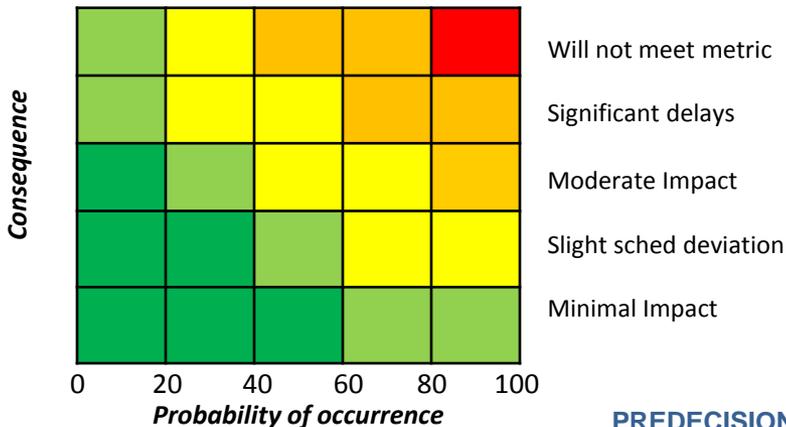
Weekly Report – January 9, 2014

1 Operations Monitoring Tool development

- **Implementing error log monitoring for ingest.**
- Re-engineered design to be compatible with other status monitoring efforts.
- Utilizing SIPGenSys infrastructure.
- Designing module to collect status data from iRODS.
- Working on database design.
- Defined requirements for Phase 1 of the project.
- Phase 1 implements basic functionality.
- Additional datasets can be added in later phases.
- Updated the monitoring project plan.
- Monitoring of operational ingest.

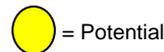
Monitor Project	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	NOV	
Phase 1	[Red bar]																
Status View	[Red bar]																
Dashboard					[Red bar]												
Email Notification						[Red bar]											
Phase II																	

Risk Matrix



Risk and Mitigation

PREDECISIONAL DRAFT INFORMATION





CDR Program Office

Reprocessing VIIRS SDRs

Team Lead:
Jim Biard

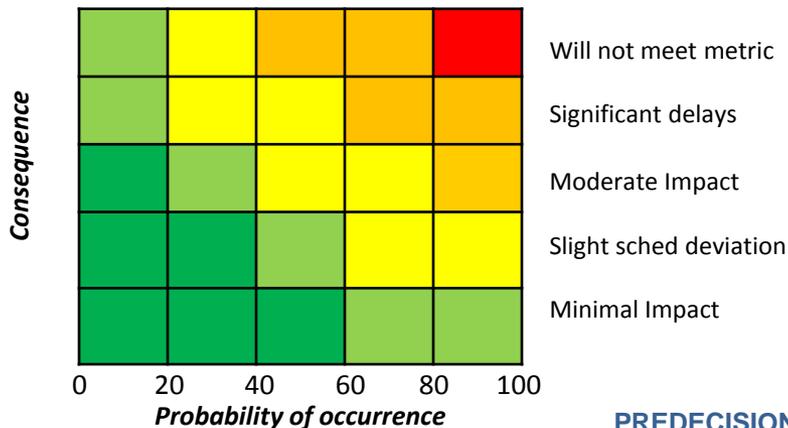
Weekly Report – January 9, 2014

1 Reprocessing VIIRS SDRs

- **On hold as work Obs4MIBs and FAST application.**
- Defined schedule estimates for project.
- Talking with STAR scientists (Changyong Cao, etc) to identify parallelization capability of VIIRS algorithms.
- Developed draft white paper to identify issues and scope.
- Have identified parts of the algorithm that need to 'conditioned' during runtime and will affect reprocessing estimates.
- Discussed scope and goals of the project with CDRP scientist.

Milestone	Begin Date	End Date	Effort (Days)
Develop VIIRS SDR granule comparator	TBD	TBD	10
Obtain data and software	TBD	TBD	5
Configure ADL	TBD	TBD	10
Produce matching reprocessed VIIRS SDR granules	TBD	TBD	20
Analyze requirements for parallel reprocessing	TBD	TBD	5
Develop parallel reprocessing management system	TBD	TBD	10
Determine practical limits on parallel reprocessing	TBD	TBD	20
Write a final report	TBD	TBD	5

Risk Matrix



Risk and Mitigation



CDR Program Office

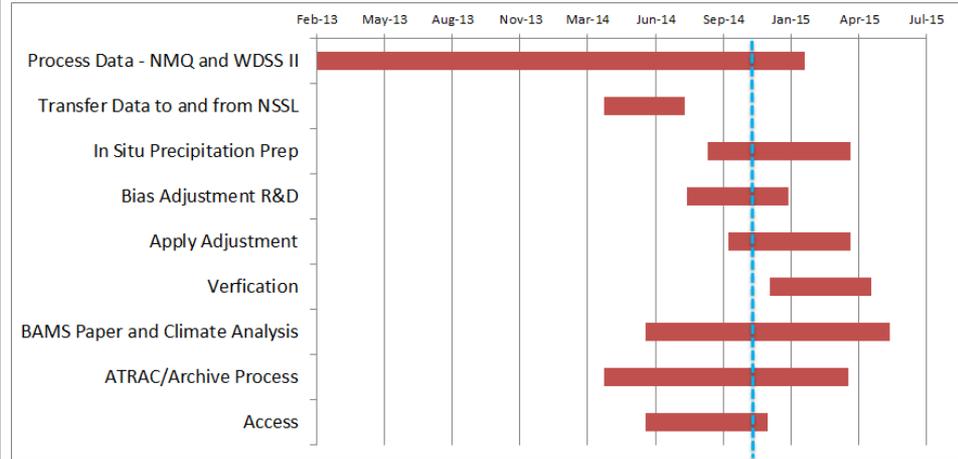
NOAA NEXRAD Reanalysis

Project Manager:
B. Nelson
updated: Dec 18

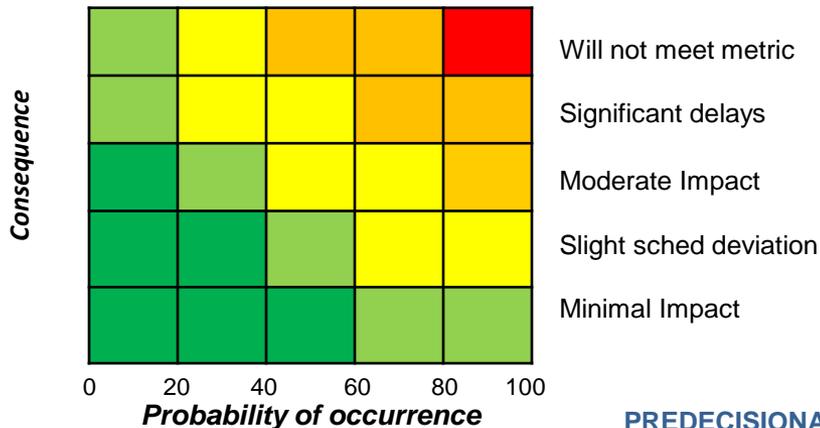
Weekly Report

NNR – NOAA NEXRAD Reanalysis

- Bias assessment for 10 yrs of data at hourly scale
- Bias assessment for 10 yrs of data at daily scale
- 5-minute data is being processed
- Hourly IDW procedure is being implemented
- Assessment of bias at hourly scale is underway for full years (2008-2011)
- Hourly scale IDW is being tested and set up for processing for pilot domains
- Re-do daily gauge-radar processing to consider obs time for COOP data - Only minor improvement for daily
- Hourly data for HADS locs has been processed for 4 full years



Risk Matrix



Risk and Mitigation

No Risk at this time

12/11/2014



PREDECISIONAL DRAFT INFORMATION



= Potential management action required



= Management attention required



CDR Program Office

ISCCP Processing @ NCDC

Project Manager:
A. Young/K. Knapp
Updated: Jan. 8

Weekly Status Update

- Alisa is back so progress should accelerate.
- Updated project timeline.
- Preparing for QC of input satellite data for 2000s
- Awaiting final ancillary data delivery
- Inter-comparing test month run at NCDC and CCNY
- Continuing to pre-process data.
- Ordering replacement data from EUMETSAT
- Sent beta data to users for feedback.
- Preparing ancillary calibration data for processing.
- Working on ISCCP Website for NCDC
- Preparing data for Beta users (preliminary output)
- Prepared space and scripts for ISCCP processing on CICS server.
- Received pre-processing software to QC input files (GEO/B1 & LEO/AVHRR)

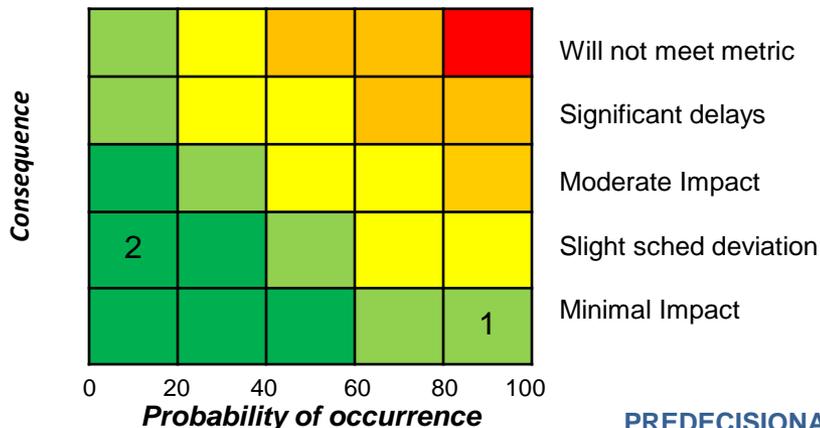
Objectives

Produce ISCCP cloud products at NCDC following IOC R20 procedures. Plan for routine updates to follow.

Schedule

- | | | |
|-------------------------|---------------|------|
| • Start Date | 1983 | |
| • Input Data QC | Jan-Feb. 2015 | |
| • Data Processing | Feb-Mar 2015 | |
| • QC & Analysis | Mar-Apr 2015 | |
| • Ext. PoR | Apr-May 2015 | |
| • Archive | June | 2015 |
| • Routine updates start | Oct. 2015 | |

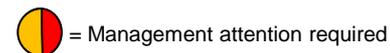
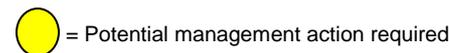
Risk Matrix



Risk and Mitigation

1. Delivery of software late and other delays.
[Revised schedule](#)
2. CICS server space
[Meeting with O. Brown to discuss.](#)

8/7/2014



PREDECISIONAL DRAFT INFORMATION



CDR Program Office

UW HIRS Processing @ NCDC

Project Manager:
A. Young
Updated: Jan 8

Weekly Status Update

- Alisa is back so progress should accelerate. Still waiting for 10 yr dataset delivery.
- Final code delivered from UW.
- S. Stevens has begun preparing scripts for integrated reprocessing.
- Found space to temporarily store 10 TB of 10 yrs of product.
- Waiting for final code delivery from Wisconsin.
- Preparing plan for processing on CICS server.
- Working on finding space for the 10TB of input data (pixel level cloud data).

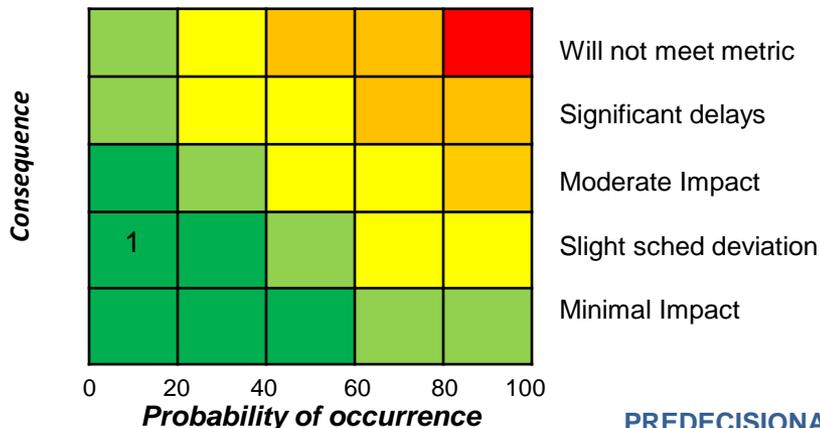
Objectives

Produce global total precipitable water and cloud top pressure estimates from HIRS data using the UW algorithm (P. Menzel).

Schedule

- Start Date December 2014
- End Date March 2014

Risk Matrix



Risk and Mitigation

1. Disk space may not be available.
Impact: Could delay processing.

8/7/2014



PREDECISIONAL DRAFT INFORMATION



= Potential management action required



= Management attention required



CDR Program Office

Albedo of the Americas

Project Manager:
J. Matthews
Updated: Jan 8

Weekly Status Update

- Meeting planned to discuss RSAD space needs for CICS
- Continued validation via collaboration with SAMSI (at NCSU).
- Loaned 42 TB of disk space allocation to ISCCP Project

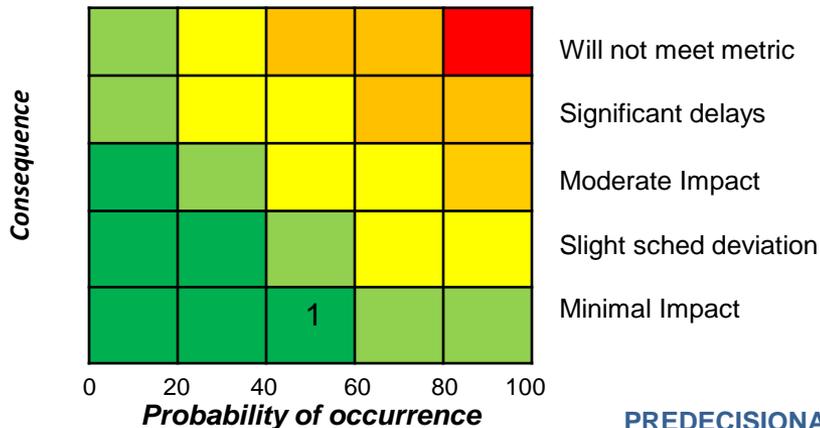
Objectives

Produce a daily land surface albedo product over North and South America from GOES-GVAR observations for 1995-2014.

Schedule (to be updated soon)

- Start Date January 2015
- End Date June 2016

Risk Matrix



Risk and Mitigation

1. Loaned disk space is not available
Meeting with O. Brown to discuss disk space usage.

8/7/2014

PREDECISIONAL DRAFT INFORMATION



= On-track = Potential management action required = Management attention required



CDR Program Office

01B-06 Outgoing Longwave Radiation – Monthly Outsourced Software Rejuvenation Project

Deliverables Report – January 8, 2015

7. Rejuvenated source code of one software component for initial assessment

- Received 10/24/2014. CDRP has not performed any s/w engineering assessment.

6. Data Flow Diagram

- Received 10/24/2014 as Slide 6 of Deliverable 5.

5. Code Design Diagrams

- Received 10/24/2014. Not in CDRP Library.

4. Implementation Plan

- Received 11/6/2014. No CDRP approval record, not in Library.

3. Code Static Analysis Report on Updated Baseline Code

- Received 8/29/2014 as zip file of Understand results. CDRP has not performed any s/w engineering assessment.

2. VDD Draft

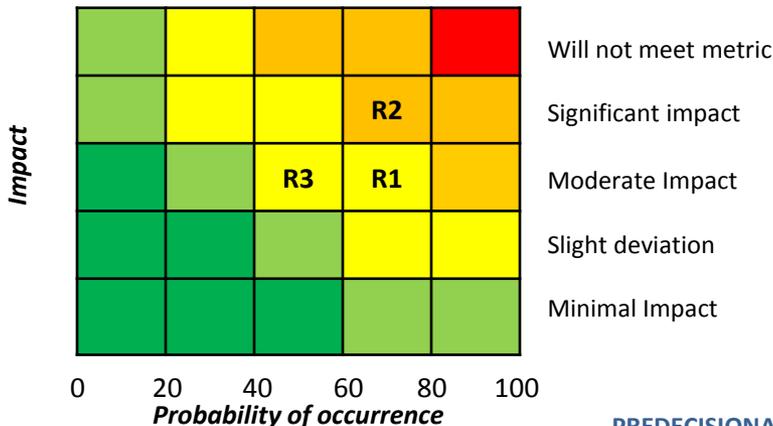
- Received 7/29/2014. BN sent review comments to PI.

1. Report on Updated Baseline Source Code

- Received 8/1/2014. In Library as CDRP-RPT-0545. A better VDD!

01B-06DLR Monthly s/w Rejuvenation		2014						2015		
Deliverable		Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1	Report on Updated Baseline	█	█							
2	VDD Draft		█							
3	Code Static Analysis Report		█							
4	Implementation Plan			█	█	█				
5	Code Design Diagrams			█	█	█				
6	Data Flow Diagram			█	█	█				
7	Rejuvenated Code Sample				█	█				
8	Package of all Rejuvenated Code						█	█		
9	Test Data Package							█	█	
10	OAD Draft								█	
11	SAT plan & procedure									█
12	Rejuvenated Code Static Analysis Report									█
13	Finalized Rejuvenated Software Package									
14	Finalized Test Data Package									
15	Finalized Engineering Documentation									
16	Finalized C-ATBD and Maturity Matrix									
17	Report PI Support for NCDC test runs									
18	Report PI Support for NCDC operational runs									
19	Final Report									

Risk Matrix



Top Risks and Mitigation

- R1. Potential for rework as a result of not assigning software engineering resources to review PI deliverables in a timely fashion. [Cost & schedule impacts]
- R2. Potential for rework as a result of pending FOC requirement D-0008 regarding number of dataset epochs per file. [Cost, schedule, & scope impacts]
- R3. Unclear project manager authority. [No project charter].