

C6 Science Testing and Reprocessing Schedule

Updated 12/06/2010

 on schedule/completed

 Tentative

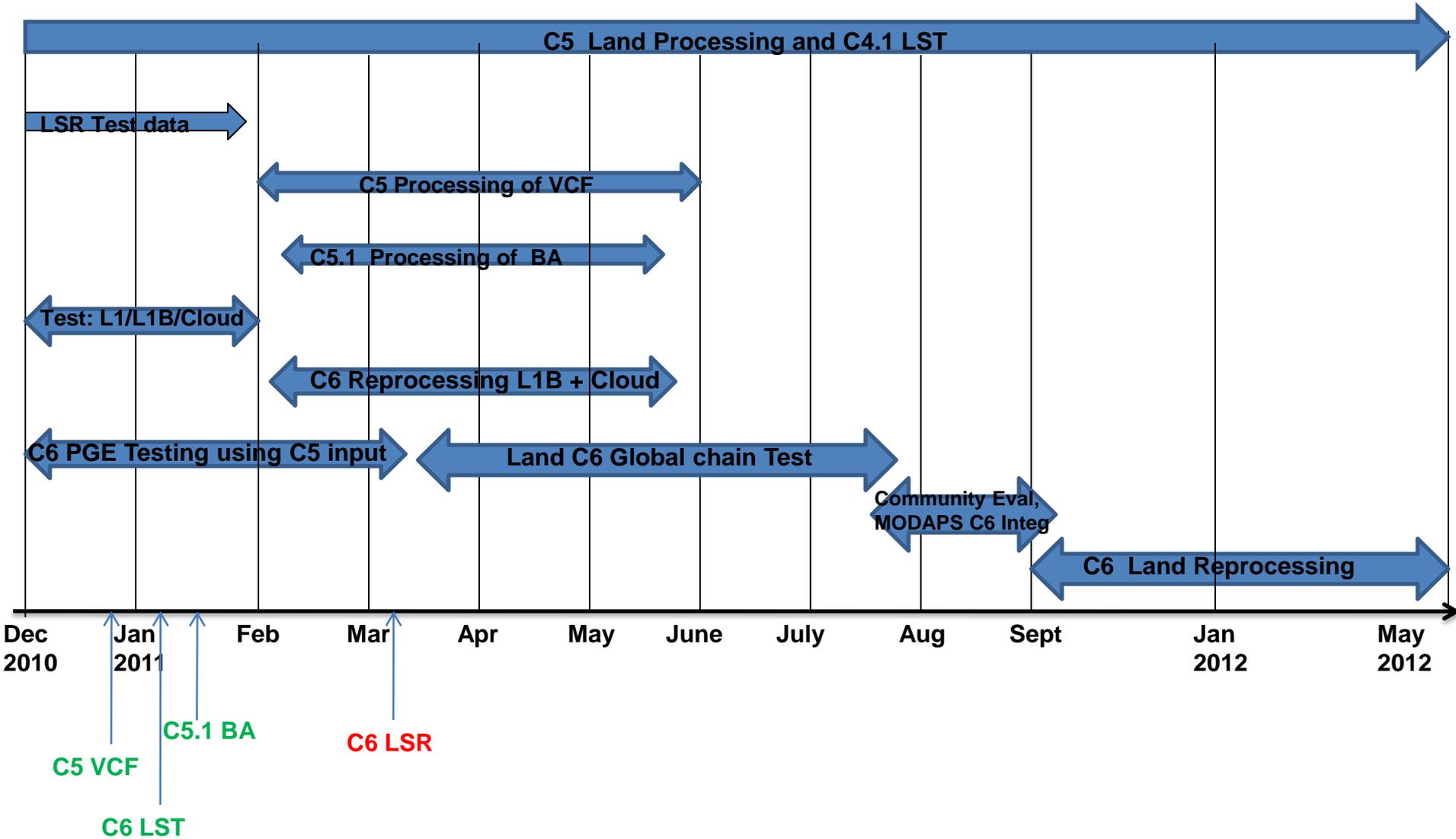
Assumptions (Processing and Archiving)

- C5 (and C4.1 LST) processing will continue through the completion of C6 reprocessing.
- C5.1 BA reprocessing is expected to be done between March 2011 - May 2011
 - *SCF will evaluate the need for the C5.1 and if reprocessing is required will make plan to deliver the PGE in Jan 2011*
- C5 VCF processing is expected to be done between Feb 2011 – May 2011.
(delivery of PGE is expected in January 2011)
- MODAPS should be able to process at an average rate of 30x for land reprocessing and about 70x for the L1B reprocessing.
 - *C6 L1B if started in Jan/Feb 2011, can be finished by April/May 2011.*
 - *C6 Land reprocessing if started in Fall 2011, can be finished by summer 2012*
- MODAPS will have dedicated resources available for science testing while the C5 forward processing and C6 reprocessing of L1B and Cloud Mask progresses.
- It is anticipated that the LP and NSIDC DAACs will be able to ingest the land products at these production rates and also retain C5 products for sufficiently long time after the C6 reprocessing has been completed. Longer term archive of C5 is under consideration.

Status of Critical Inputs for C6 Testing/Reprocessing

- Land Cover input (MCDLCHKM and MCDLC1KM) is ready
 - 2001 data (covers 2001 - 2003) is ready for use in science testing
 - 2001, 2004 data ready for use in reprocessing, 2007 data needs to be updated.
 - Final version will be distributed from the DAAC
- C6 L1 PGE is ready (*Jan 2011*)
 - Incorporates 500M DEM and new C6 Land Water mask
 - Testing of initial version in progress
 - *Partial contamination of 1km pixel by water to be flagged as water – implementation in progress*
- C6 L1B LUT and PGE are ready (*Jan 2011*)
 - Currently under testing, and waiting for approval.
 - *New LUT update expected in Dec/Jan which may result in some minor difference in L1B (< 0.5%)*
- C6 Cloud Mask (MOD35) and Atmospheric Profile (MOD07) (*Jan 2011*)
 - *Initial version under testing and evaluation. A patch expected in Dec 2010.*
 - *Should be ready by end of Jan 2011 if no major revision required.*
- First version of C6 LSR (PGE11) (*work in progress – March 2011*)
 - *Required test data is currently being generated. Expect to finish by Jan/Feb 2011.*
 - *Proposed plan for chain testing of C6 Land PGEs and the C6 Land reprocessing is based on the assumption that C6 PGE11 will be available in March 2011.*

C6 Testing and Reprocessing TimeLine



Four C6 Science Test Phases

1. **C6 L1 (DEM, LW Mask), L1B, Cloud Mask/Atmospheric Profile** *(to be completed by Jan 2011)*
 - Evaluate the effect of C6 changes in L1B, input Land Cover, MOD35 (CM) and MOD07 (Profile) on the C5 Land Products
2. **PGE Specific Tests for C6 update** *(to be completed in Mar 2011)*
 - C6 development and testing of initial version of C6 LSR
 - Independent testing and evaluation of C6 changes to LSR downstreams using C5 input – VI, LAI/FPAR, BRDF/Albedo
 - C6 development and testing of LST, Fire, Snow and Sea/Ice using C5 or C6 inputs.
3. **Global Chain Tests** *(Mar/April 2011 – July/Aug 2011)*
 - 1st 16-day global chain test (1 month)
 - 2nd 16-day global chain test (1 month)
 - 3-month n-tiles time series test (2 month)
 - Final 16-day global test/time series test (1 month)
4. **Community Evaluation** *(Aug/Sept 2011)*
 - Final test results will be released for community evaluation

1. C6 L1, L1B, Cloud Mask Science Tests

Test ID	Description	Test PGE/Version	Archive Set
Baseline	Baseline data	C5 L1 + C5 L1B & LUT + C5 Cloud Mask + C5 Land (completed)	230
C6 L1B Test	Evaluate change in C5 land products due to C6 L1B + C6 LUT (needs AS 230)	C5 L1 + C6 L1B & LUT + C5 Cloud Mask + C5 Land (completed)	204
C6 Cloud Mask Test	Compare C5 and C6 Cloud Mask and effect on downstream land products (needs AS 230)	C5 L1 + C5 L1B & LUT + C6 Cloud Mask + C5 Land (in progress – 12/31/2010)	ASX
C6 L1 Test	Evaluate the C6 L1 – change in LW Mask and geolocation (needs AS 230 or 204)	C6 L1 + C6 L1B & LUT + C5 Cloud Mask + C5 Land (in progress – 12/31/2010)	ASY
Chain test for C6 L1B reprocessing	Evaluation of the collective change (needs AS 230, 204, ASX and ASY recommended)	C6 L1 + C6 L1B & LUT + C6 Cloud Mask + C5 Land (1/31/2011)	ASZ

Note: Upon conclusion of the C6 L1B/Cloud Mask Science Testing and Evaluation, we may delete ASX and ASY, but should keep AS 230 (C5 Baseline) and ASZ (C6 Baseline) through the science testing of land PGEs. We may also want to keep AS 204 for little longer. STs may find this AS useful for initial development of their L2 PGEs.

2. C6 PGE Specific Tests

- **Fix L2G-lite (*Jan 2011*)**
 - LSR Code updated and tested. Ready for C6
 - Development of L2G-lite snow in progress. Could be ready by Dec 2010.
 - Development L2G/L2G-lite ocean bands will start in Jan 2011.
- **LSR - PGE11/75 Test (*initial version expected in March 2011*)**
 - Test in progress to generated the baseline data from the entire mission. Should complete in Jan 2011.
 - Major changes expected in this PGE affecting most of land downstream algorithms
 - Initial version expected with most of C6 changes in March 2011.
- **LST – PGE16 Test (*Jan 2011*)**
 - Three C6 deliveries expected at interval of one month each.
 - C6 MOD35, MOD07, and new Land Cover are available for use in testing
 - Dr. Wan is working with UW on cloud mask fixes and also has indicated intention to deliver the PGEs in late 2010.

2. C6 PGE Specific Tests

- **LAI/FPAR – PGE33 Test** *(Jan 2011)*
 - LDOPE updated the PGE to use L2G-lite and generate 500m Lai/Fpar.
 - **PGE is ready for delivery and testing.**
 - Tuning may be required for the 500m biome/land cover
- **VI – PGE35/25** *(Mar 2011)*
 - Generate 250m, 500m and 1km product from 8-day LSR product
 - Development and evaluation in progress at LDOPE with guidance from the PI
 - **Design, Implementation and evaluation in progress. PGE25/35 expected in Feb/Mar 2011**
- **BRDF/Albedo** *(Jan 2011)*
 - Update to use L2G-lite as input is complete.
 - Production rule change for production at 4-day temporal frequency and proposed QA refinement could be completed by Jan 2011.
- **Fire, Snow, Sea-Ice, BA, VCF, and GPP/NPP** *(Mar 2011)*
 - No major changes expected.
 - Delivery of the PGEs expected to be on time.

3. Global Chain Tests

- **Production of test data is expected to complete in 7 days (64 days at 10x rate). There will be nearly 3 week for evaluation, code update and delivery.**
- **1st 16-day Global Test in March 2011**
 - The test will use C6 L1B, Cloud Mask and Atmospheric Profile
 - All available land PGEs will be run with the first C6 version of PGE11
- **2nd 16-day Global Test in April 2010**
 - Second C6 updates to Land PGEs
- **N-tiles 3-month time series Test in May 2010**
 - Science Teams, LDOPE and Validation Team will identify the tiles and test period.
- **Final Global Test in July 2010**
 - All PGEs will be included in this test
 - Data from this test will be released for community evaluation in Aug 2011

4. Community Evaluation

- Generate 3-months of land data using the final version of the C6 PGEs (July/Aug 2011)
- Release data products to public from LAADS and DAAC for community evaluation.
- Community Experts (at least one for each product) will be identified before release.
 - *Science Teams identify the community experts.*
 - *Prepare and release the protocol for evaluation.*
- Experts will have nearly a month time to evaluate and provide feedback (Aug/Sept 2011)

C6 Science Test and PGE delivery in 2011

