

Version 2 SSI&T

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Software Must Handle



- Time transitions
- Terminator crossings
- Crossing the Poles
- Day, night modes
- Fill data
- Detectors identified as noisy by Level 1B



File Specifications



- Delivery isn't done until file spec is baselined
- File spec is needed to generate ESDTs
- File spec is needed by developers downstream
- Should be generated by the developer not SDST



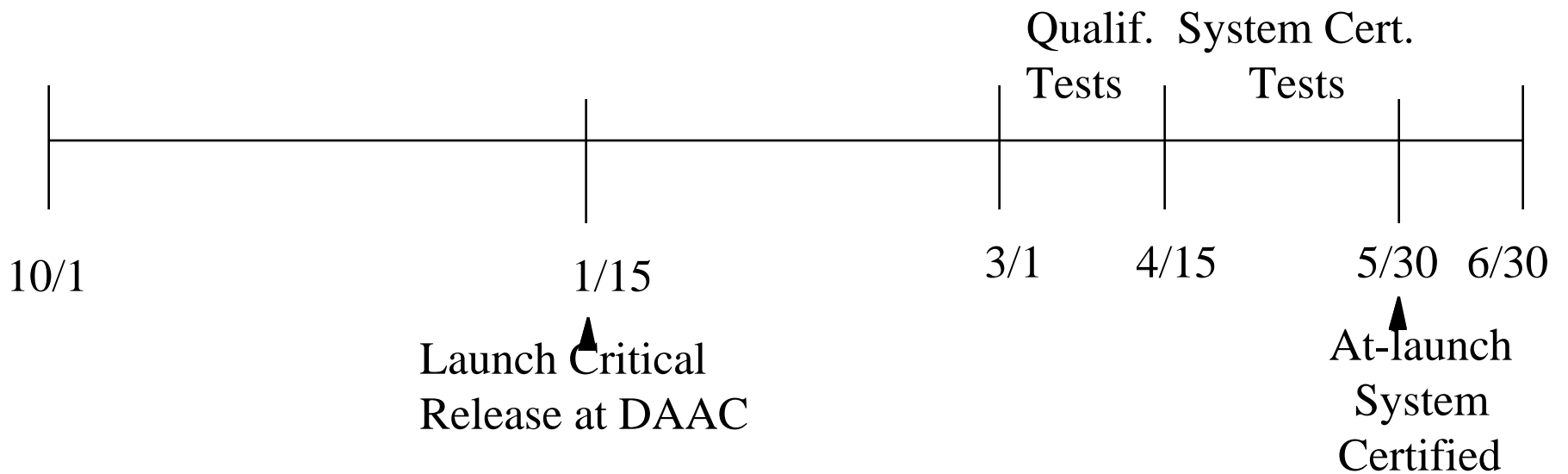
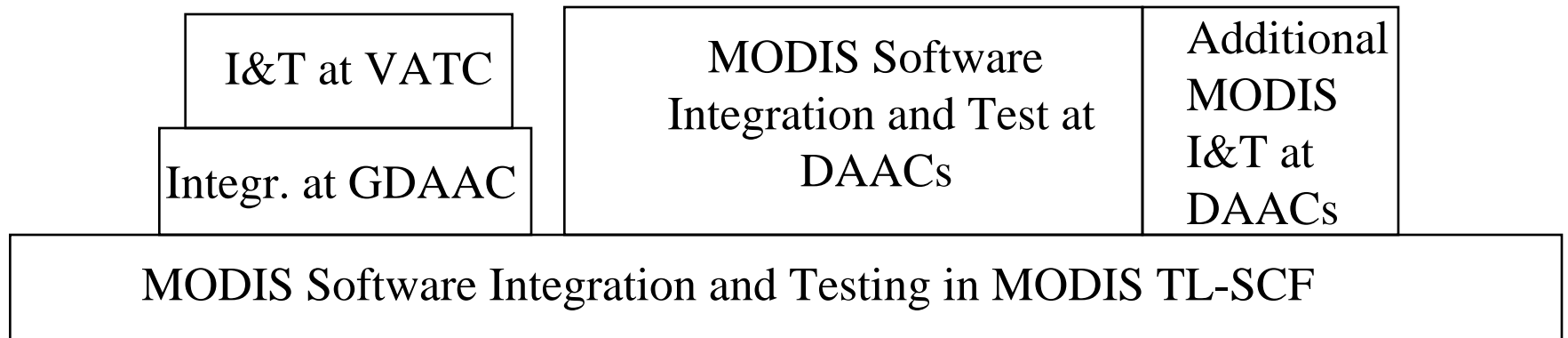
Version 1 Fixes



- V2 code should incorporate V1 fixes
 - SDST will check V2 code to insure problems found in a developers V1 code are not appear in their V2
- Standards
 - Prologues
 - Use of prohibited functions
- Errors fixed or identified in Version 1 testing
 - HDF file size limits
 - Day and night more or terminator problems



MODIS SSI&T Timeline



PGE LIST FOR CERTIFICATION OF THE EGS GROUND SYSTEM

PGE	Product #	Product Name	begin SSTG	begin Test	DAAC Delivery	Comment
PGE01	MOD01	Level 1A	12/8	12/22	1/23	
PGE02	MOD02	Level 1B	9/30	10/27	11/21	
PGE01	MOD03	Geolocation	10/21	11/12	1/23	
PGE03	MOD35, MOD07	Cloud mask, Profiles	10/21	11/15	1/21	Comes in late due to PGE55 dependency, 12/12 otherwise
PGE04	MOD04, MOD05	Atmosphere L2	10/21	11/17	2/13	Tied to PGE55 through PGE03, otherwise 1/27
PGE05	MOD04LA	L3 Interim Aerosol	11/28	12/19	1/23	
PGE07	MOD10	Snow	10/8	10/29	11/18	
PGE09	MOD18...	Ocean Color	10/3	10/28	12/30	
PGE10	MOD28	Sea Surface Temperature	10/3	10/28	11/26	
PGE11	MOD09	L2 Surface Reflectance	10/3	10/14	11/10	
PGE12	MODPRMGPNTR	Pointer Code	6/24	10/28	11/26	

PGE LIST FOR CERTIFICATION OF THE EGS GROUND SYSTEM

PGE	Product #	Product Name	SSTG	Test	DAAC Delivery	Comment
PGE13	MODPRMGR	L2G Refl/Fire	10/24	11/17	12/16	
PGE21	MOD_PR09A	L3 Surface Reflectance	10/31	11/24	12/23	
PGE25	MOD_PR13A2	VI - 16 day, 1km	10/31/97	11/24	1/16	
PGE29	MOD_PR14A	L3 Fire 8 day	10/30/97	11/21	1/16	
PGE20	mod_mtbin	L3 oceans Interim Daily	11/3	11/25	12/29	
PGE49	MOD_mtbin	L3 Ocean Iterim weekly	11/3	11/25	12/29	
PGE50	MOD_mtbin	L3Ocean Reference 3 Week	11/3	11/25	12/29	
PGE53	MOD_mcloud	L3 Ocean Daily	11/3	11/25	12/29	



Internal V2 Delivery Drivers



- INPUT DATA NEEDS
 - Simulated Data (e.g. L1A, L1B, cloud mask)
 - Ancillary Data
- PRODUCT DEPENDENCIES
 - Downstream Processes dependent on upstream products
 - Inter-Disciplinary Dependencies (where simulated data does not exist - e.g. MOD05 output)
- Resources
 - Personnel
 - Equipment



External V2 Delivery Drivers



- Metadata Stability
 - SDST has been working with ECS to verify MODIS metadata conforms to B.0 data model
 - Working with ECS to get ESDTs “final”
- B.0 not at DAACs until mid January 1998
 - So cannot conduct DAAC testing and confirmation of metadata compatibility with B.0 until that time frame
- ESDT Registration
 - Need file specs to complete the registration
 - Need PSAs to complete the registration
 - ESDT registration results in MCF generation to be used in code testing



V2 Delivery Initial Sequence



- Modules needing just Simulated Data / Ancillary Data
 - MOD10 (PGE07)
 - MOD29 (PGE08)
 - MODPNTR (PGE12)
 - MODMGGA (PGE12)
- Modules Needing Other Disciplinary Products
 - MOD09 (PGE11) (*Needs Atmosphere PGE04 -MOD05 -Precipital Water& PGE05 - MOD04LA - Aerosol Prod Daily*)
- First Mods to be run after above Mods are tested:
 - MOD09G/MOD14G (PGE13)
 - MOD10G (PGE 14)
 - MOD29G (PGE15)
 - MOD11A (PGE16)



V2 File Specs Received



- ATMOSPHERE:
 - All file specs are in and baselined except
 - MOD04LA, MOD_PR06, MOD_PR08
- OCEANS:
 - File specs being generated from code
- LAND
 - A few have been baselined
 - Most waiting for final code so spec can be baselined
- Level 1
 - All file specs baslined (*L1B being re-worked)



V2 File Specs Baselined



- L1B (MOD02) - problems found between sim & actual output - file specs being re-worked
- L1A (MOD01)
- Geolocation (MOD03)
- CloudMask (MOD35)
- Surface Reflectance (MOD09)
- Sea Aerosol (MOD04)
- Precipitable water (MOD05)
- Profiles (MOD07)



V2 Code Received



• Official V2.0 Delivery to	CM	SSTG
— MOD_PRMGPNTR	June	10/6**
— MOD_PR10	8/28	9/15 (11days)
— MOD_PR09 (**3rd deliv)	9/17	9/23 (3 days)
— MOD_PR44A (*8/22)	9/19	9/23 (2 days)
— MOD_PR02	9/30	10/3 (3 days)
— MOD_PR29	10/8	10/9 (1 day)
— MOD_PR11A	10/15	10/16 (1 day)

* MOD_PR44A - re-delivered to CM

**MOD_PR09 - status changed from “data only” to “ Official” - so needed re-delivery

**MOD_PRMGPNTR - Status changed from “data only” to “official” with NO re-delivery from STM - now awaiting code fixes from STM



V2 Code Acceptance Status



- SSTG Code Acceptance (after received by SSTG)=
Compile Code, Standards Checks, Memory Leak Checks, PCF Checks, MCF Checks, Prologue Checks, File Spec Conformance, Correct Problems Found, Code Walkthrough

ESTIMATED 16.5 Days (~ 3 weeks)

ACTUALS:

24 days (~ 5 weeks)

6 days (~1 week)

18 days (~ 3.5 weeks)

10 days (~ 2 weeks)

20 days (~ 4 weeks)

15 days (~ 3 weeks)

4 days (<1 week)

Where?

Completed

up to walkthrough

almost to walkthrough

awaiting STM fix

awaiting STM fix

awaiting STM fix

checking/correcting

Comment

2 weeks over!

GREAT!

Close

Marginal

Bad!

Bad!

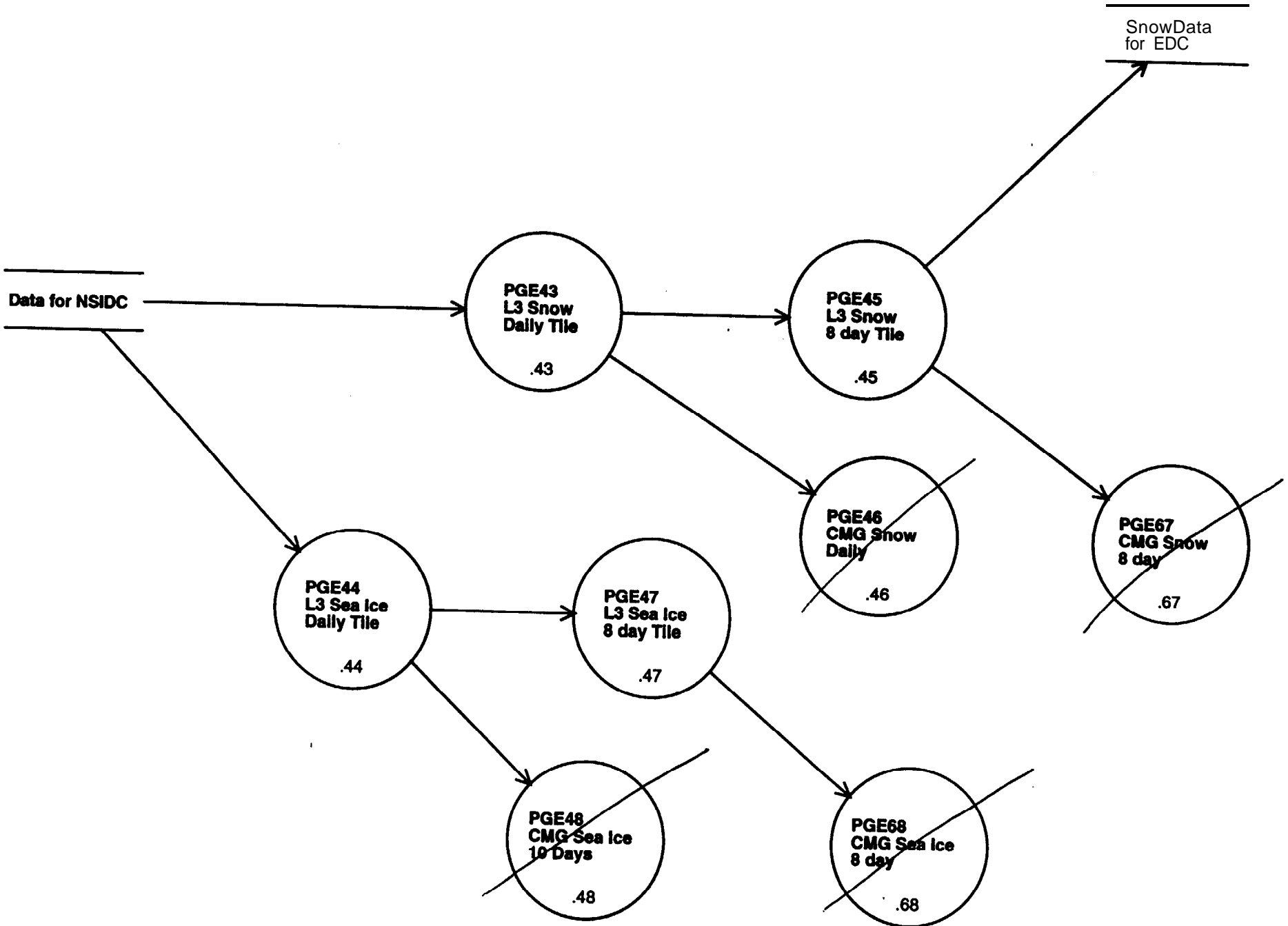
Looks good



Specific Mod Status



- MOD_PR10 - 24 work days ~ 5 weeks (Complete)
- MOD_PR09 - 18 work days ~ 3.5 weeks (correcting for walkthrough)
- MOD_PR44A - 20 work days ~ 4 weeks (awaiting fix from STM)
- MOD_PRMGPNTR - 10 work days ~ 2 weeks (awaiting fix from STM)
- MOD_PR02 - 15 work days ~ 3 weeks (working out discrepancies between actual output and simulated data)
- MOD_PR29 - 6 work days ~ 1 week (ready for walkthrough)
- MOD_PR11A - 4 days < 1 week (iterating w/STM for fixes)



MODIS PGE Delivery Priorities

1 Priority 1 - Level 1 products (3 PGEs)

- Level 1 products and Cloud Mask

1 Priority 1 - PGEs for EGS Certification (15 more)

- Test EGS features needed to make MODIS products

1 Priority 1 - At-launch PGEs (19 more)

- Additional PGE's for a total of 37 at-launch

1 Priority 2 - Post-launch PGEs (29 PGEs)

- PGEs which need features not in 1/98 ECS Release

- PGEs which make monthly, quarterly, yearly and
Climate Modeling Grid products

MODIS PGEs by DAAC

GSFC DAAC

- 24 at-launch PGEs
- November through March available for SSI&T

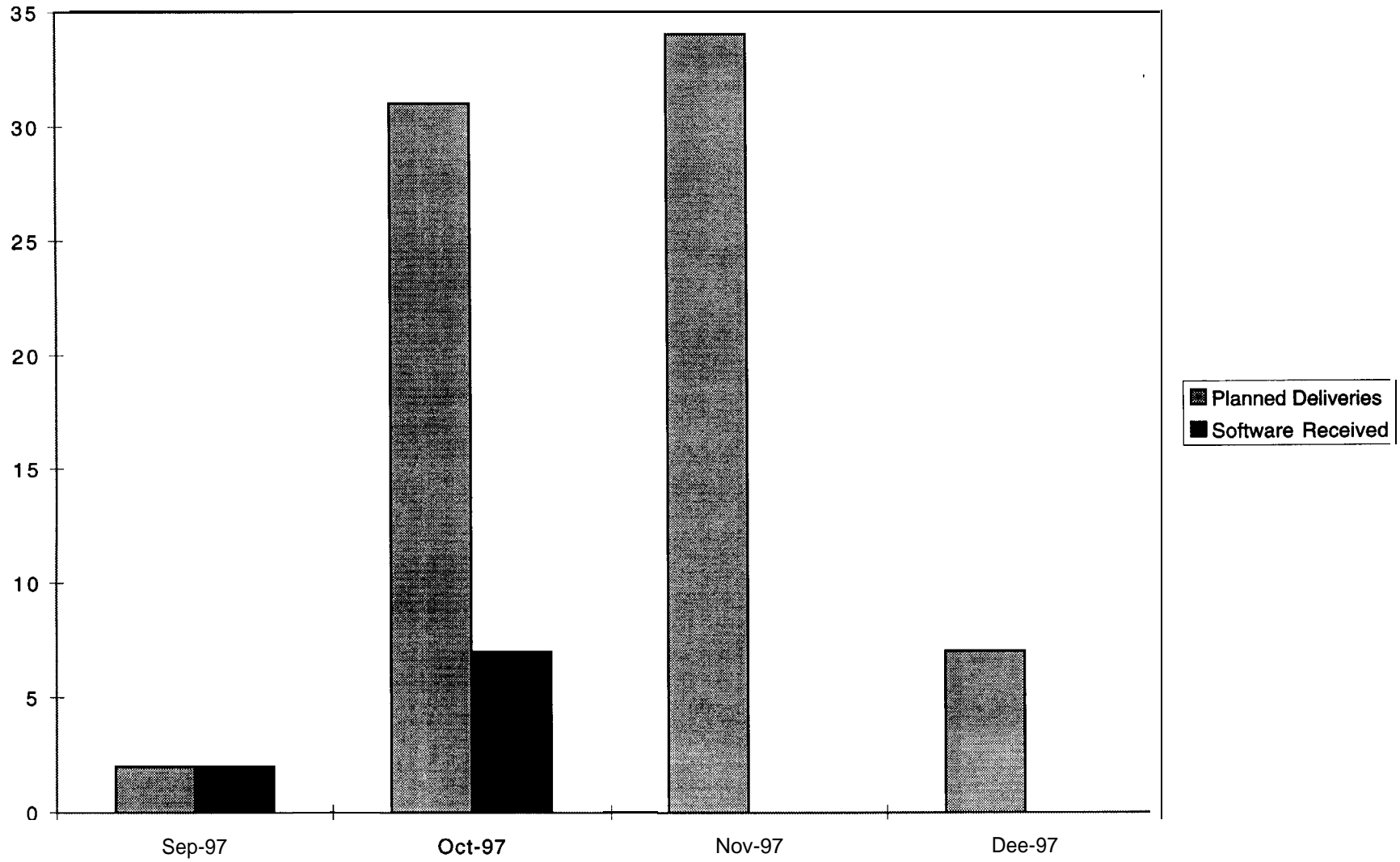
EDC DAAC

- 9 at-launch PGEs
- January through March available for SSI&T

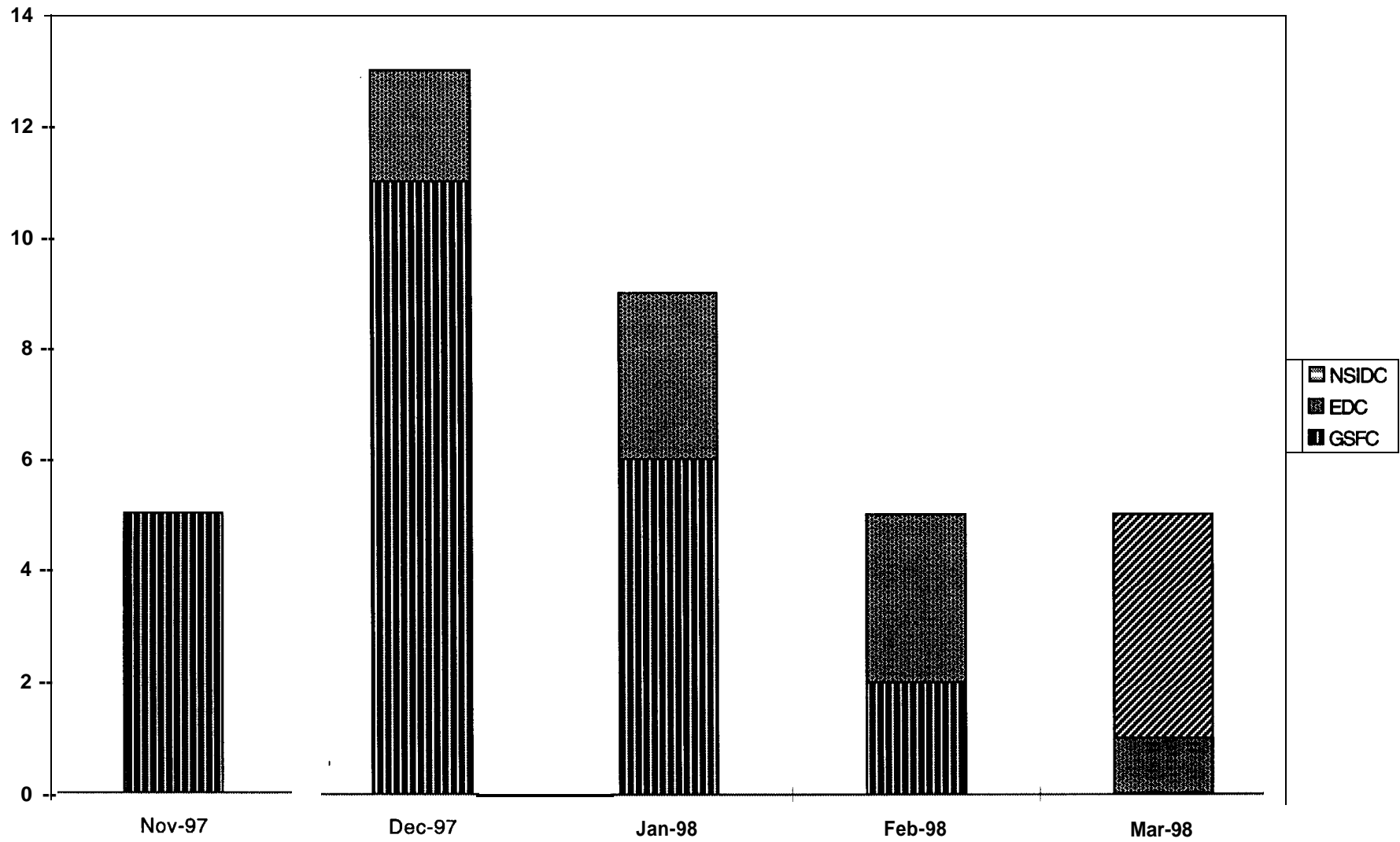
NSIDC DAAC

- 4 at-launch PGEs
- February through April available for SSI&T

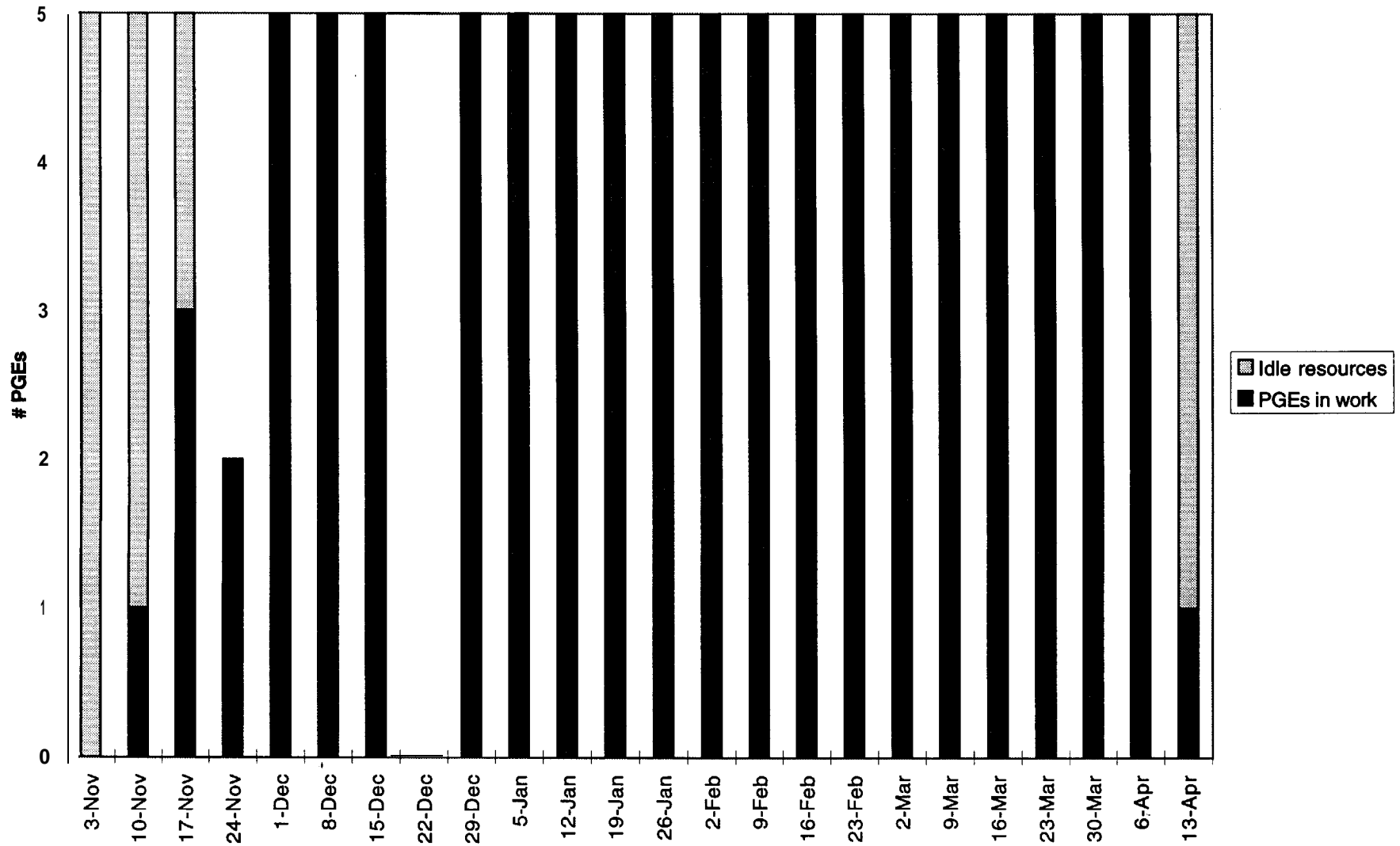
Version 2 Software Deliveries

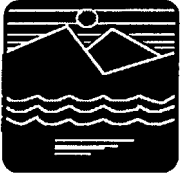


PGEs completing test at TL-SCF



PGEs in Integration at GSFC DAAC





Discuss& Points



- Schedule is extremely tight for 37 at-launch PGEs
 - Are we on track?
 - How is the software quality?
 - Are folks committed to quick response on fixes?
 - If so how will that be accomplished? More staff, refocusing to make MODIS software job 1?
- Can we get 24 PGEs through GSFC DAAC testing?
 - If not, what are some alternatives?
- Can we arrive at MODIS priorities for PGEs?
 - Would priorities help?
- How important is getting your PGE in at-launch?
 - Let me know and I'll prioritize it accordingly