



National Aeronautics and
Space Administration

Jet Propulsion Laboratory
California Institute of Technology
Pasadena, California

Version 4.0 Product Description and V5 Schedule

here we go again!

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Agenda

- **Special Note on Data Availability**
- **Version 4 Release Status**
 - GSFC DAAC Activities
 - NOAA Activities
 - JPL Activities
 - Direct Broadcast
- **Version 5 Development**



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Special Note on Data Availability

- **NOTICE: AQUA'S PRIMARY AND SECONDARY RECEIVING STATIONS ARE DOWN !!!**
 - 4/11/2005 – SGS (Svalbard Ground Station) was declared **RED** due to a failure of the Antenna Drive Gear.
SGS will be down for 3 to 6 months.
 - 4/21/2005 –AGS (Alaska Ground Station) also found metal shavings in the drive gear lubricate (similar to what was found at SGS) and declared themselves **RED**.
AGS will be down for an extended period.
 - Aqua is using backup-backup receiving stations:
 - Gilmore Creek, Alaska
 - Wallops Island, Virginia (tape-only connection to EDOS)
 - *Latency and data loss issues have already occurred!*



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Version 4 Release Status GSFC DAAC Activities

- **GSFC NOW PROCESSING WITH VERSION 4 !!!**
 - **Two Collections will be built:**
 - **Collection 3 – w/o HSB for all dates beginning 31 August 2002 – Level 1B, Level 2, Level 3**
 - **Collection 4 – w/ HSB 31 August through 5 February 2003 – Level 1B HSB, Level 2 w/ HSB, Level 3 w/HSB**
 - **Older Archives**
 - **Collection 2 – Version 3**
 - Will be retained until V5 processing commences
 - Collection 2 processing stopped on 19 April 2005
 - **Collection 1 – Version 2.7**
 - Has been deleted from the archives



- **Match-Up Processing**
 - DAAC now producing “Fixed-Site” Match-Ups
 - Delivered to JPL to support validation
 - **NO PUBLIC RELEASE** – Released to JPL only!
- **Clear Match-Up**
 - Status
 - Currently in final test and evaluation at JPL
 - PGE has NOT been delivered to the GSFC DAAC
 - Catch-Up? (We will work with the DAAC to determine best approach)
 - Access
 - Current plans are to deliver clear Match-Up products to JPL
 - NO PUBLIC RELEASE PLANNED
 - AIRS Project must approve dissemination to other requestors



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Version 4 Release Status NOAA Activities

- **Version 4 delivered to NOAA in February**
 - NOAA currently performing Integration and Test
 - Expected to transition from Version 3 to Version 4 after Science Team meeting
 - Data Release
 - NOAA will continue providing Level 1B products
 - AIRS Project will coordinate release of Level 2 as well as Level 2 cloud-cleared radiance products as experimental products



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Version 4 Release Status JPL Activities

- **BASELINE PROCESSING**

- JPL has ceased performing routine “Baseline Processing” from Level 0 through Level 1B
- JPL will ingest and archive all V4 Level 1B, Level 2, and Level 3 products generated at the GSFC DAAC (latency remains the same – approximately 36 hours)
- JPL will continue to perform “Dynamic” Match-Up processing
- Local AIRS Archive
 - All V4 products will be archived in our local archive
 - At least 1 YR will also be used to populate new relational database



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Version 4 Release Status JPL Activities

- **FOCUS DAYS**

- Focus Day coverage expanded 100% - 24-day duty cycle
- JPL will order and archive Level 0 data for all Focus Days
- JPL will continue to process Focus Days using our most-recent “major” build
- JPL will process the complete set of Focus Days in support of validation campaigns

- **SPECIAL PRODUCTS**

- JPL will continue to perform “special” processing requests
- All special processing requests are coordinated through Ed Olsen



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Version 4 Release Status Direct Broadcast

- **Version 4 is being prepared for release to the Direct Broadcast community**
 - Version 4 Direct Broadcast will include capability to process data through Level 2
 - No Level 3 capability is planned
 - Version 4 Direct Broadcast uses predicted attitude and ephemeris
 - Version 4 Direct Broadcast will use climatology when/if GFS data is not available



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Version 5 Software Development

- **We are trying a NEW APPROACH to software development**
- **Work activity areas have been identified based on functional areas of interest**
- **Teams have been formed to address each of these areas**
 - Involved Science Team members inside and outside JPL
 - JPL provides oversight and coordination
- **Teams test out concepts / prototypes**
- **JPL will integrate proven concepts into V5**



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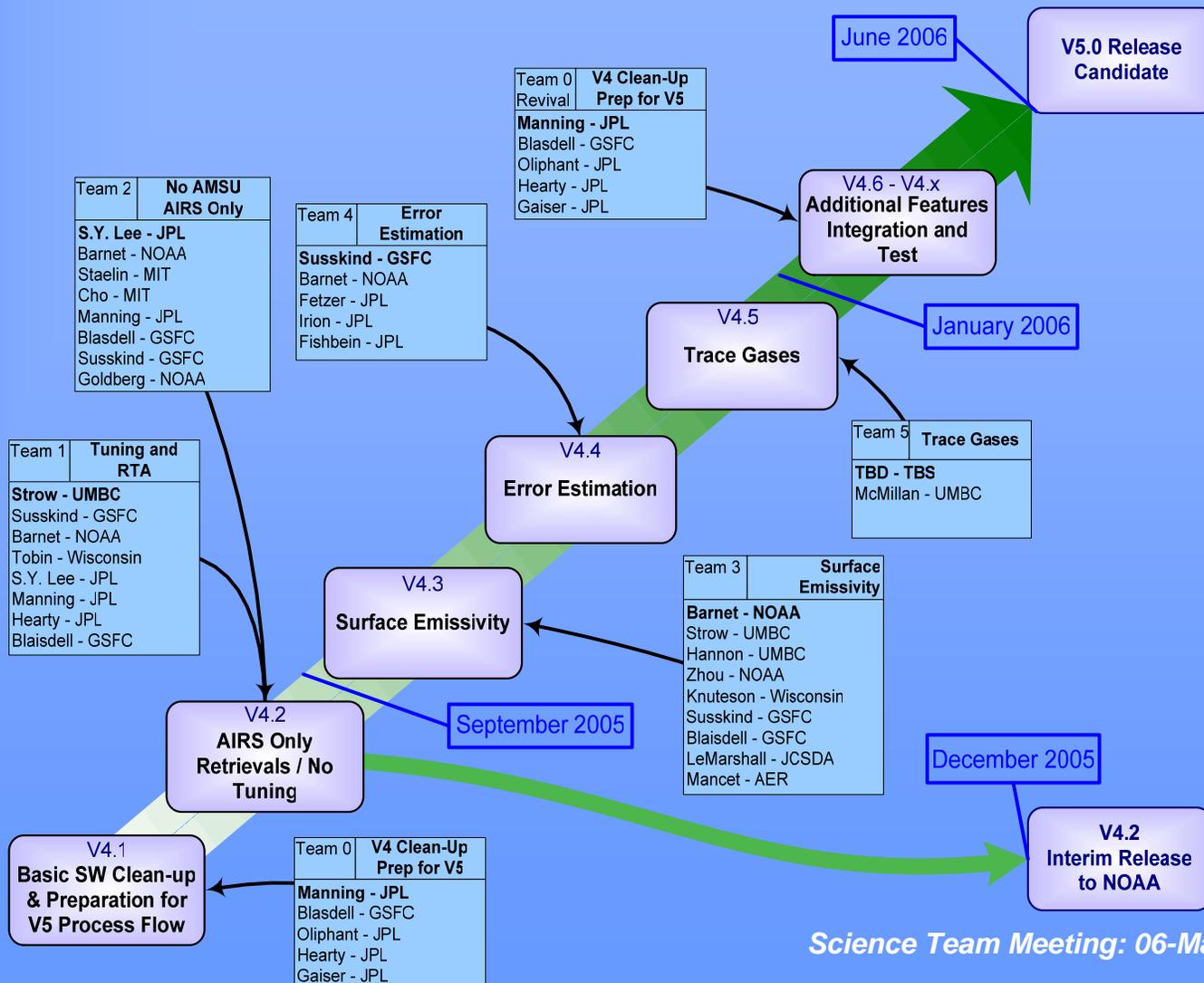


Version 5 Development

- **5 Teams Formulated:**
 - Team 1 – Tuning and RTA (Strow)
 - Team 2 – AIRS Only / No Microwave Retrievals (S.Y. Lee)
 - Team 3 – Surface Emissivity (Barnet)
 - Team 4 – Error Estimation (Susskind)
 - Team 5 – Trace Gases (TBD)
- **A sixth team has been added to provide a supporting role:**
 - Team 0 – V4 clean-up / Prep for V5 (Manning)
- **Team Status:**
 - Most team have chairpersons
 - Some teams have membership (*Joel is on every team!*)
 - Some teams have begun working on their topics



Build and Integration Plan for the Version 5 Concept Teams





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Roles and Responsibilities for the Teams

- **Each team is chartered to:**
 - Study and understand problems related to their topical areas
 - Prototype software improvements to confirm their assumptions
 - Demonstrate improvements to Science Team
 - Document their work
 - Deliver code to JPL software engineers for installation into baseline code *in accordance with CCB direction*
- **Teams must keep in mind that we have:**
 - Mutual dependencies!
 - the end game! – we have to deliver V5
 - ... a fully team-integrated V5
 - ... a fully functional V5



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Version 5 Development

- **All teams must continue to make rapid progress!**
- **Finish their formation stage**
- **Create a plan**
- **Develop a schedule**
 - All teams must develop a schedule
 - The AIRS Project will build an integrated schedule
- **Get started**



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Version 5 Schedule

- **There is NO schedule! yet**
- **Planned V5 DAAC Delivery Date: June 2006**
- **Teams should keep focused on tasks and on making progress**
 - Biweekly team meetings (net meeting, meeting place ...)
 - AIRS Project hosted net meetings every 6-8 weeks
 - Team results will be presented at next Science Team MTG
 - **All external work must be completed by December 31, 2005**
- **Development Process**
 - Prototype locally
 - Deliver completed code/algorithms to JPL via CCB