# AMSR-E Team Leader
# Science Computing Facility
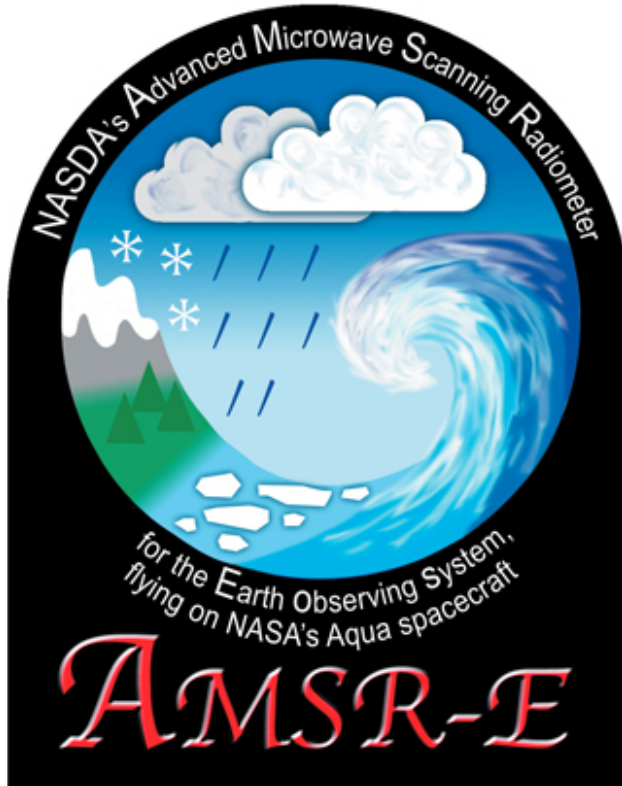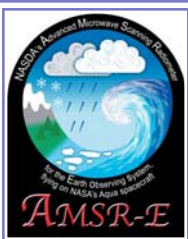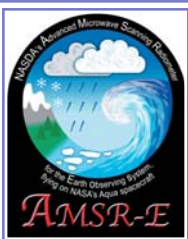
- Science software
- New TLSCF integration & test hardware and compilers
- User requirements :UAMS
- HDF and HDF-EOS versions
- Porting to LINUX
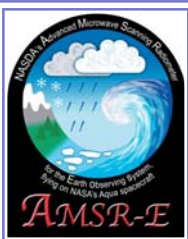- QA and browse offered on the AMSR-E web site

- ## Product Maturity Indicator updated
  - Valid values are "P", "B", "T" and "V" - for preliminary (near real time), beta, transitional, and validated, respectively
  - Preliminary products
    - non-standard near real time preliminary data products available at NSIDC through their Web based non-ECS system
    - only available until the corresponding standard products are ingested at NSIDC
  - All beta products are in the process of being replaced by either transitional or validated products (prior to scheduled reprocessing)
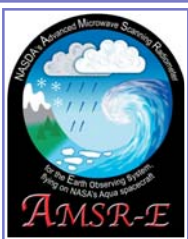  - Whether a product is transitional or validated is decided by the algorithm developer

| Data Product | Current Version | Delivered to TLSCF | Pending from scientist prior to reprocessing |
|---|---|---|---|
| Level 2A TB's | V08 | | |
| Level 2 Ocean | B04 | | V05 |
| Level 2 Land | B05 | T06 | |
| Level 2 Rain | B08 | V09 (no change) | |
| Level 3 Sea Ice | B06 | T07 | |
| Level 3 Ocean | B02 | | V03 |
| Level 3 Land | B03 | T04 | |
| Level 3 Snow | B07 | | ?08 |
| Level 3 Rain | B05 | | ?06 |

- New ESDT's will be established for each transitional and validated product (L2A version 2 ESDT operational)

- Once transitional products become validated, ESDT's for those products will again version up

  - Will products be reprocessed from beginning of mission when they change from transitional to validated?

- A new ESDT requires changes in TLSCF software

  - TLSCF modifies QA and metadata routines
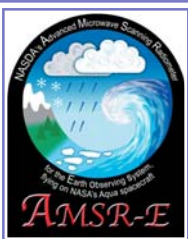  - No impact on the algorithm developers

- All transitional and validated algorithms will be reprocessed form beginning of data set

- All transitional and validated algorithms will be ported to Linux

- Integration and test procedures will be the same for the Linux environment as for UNIX

- Expected dates for transitional algorithms to become validated?

- Algorithm updates accepted once a year
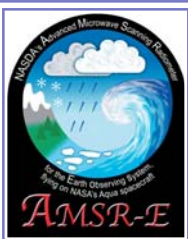
- ## ADEOS II processing
  - When will the L2A be available?
  - TLSCF Tasks
    - ESDTs
    - DAPS
    - Metadata and QA routine updates
    - Algorithm integration
  - Which algorithms will be modified?
  - Schedule
    - 3 months after L2A is made available to the science team, algorithms are due to TLSCF
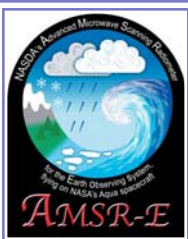    - 2 months after that, DAP's are due to the SIPS

- Sunny!

- Dell Precision 690 3.2 GHz dual processor

- 8 GB memory

- 3 300 GB hard drives

- Replaces MISTY once porting is completed

- Red Hat Linux installed

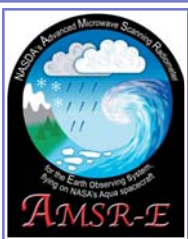- C complier: GNU C

- Fortran compiler: Lahey
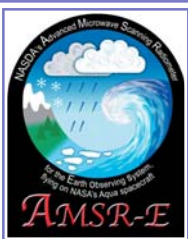
- Delay in ordering Linux machine due to financial issues at UAH

- Machine finally ordered July 6 and delivered August 25

- Currently being set up by system administrators
  - Repartitioning
  - User accounts
  - HDF
  - HDF-EOS
  - Lahey
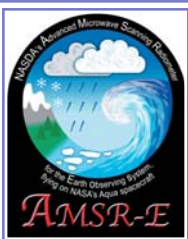  - Other tools

- All users required to fill out UAMS request form and form 4482
- Web site: https://arsweb.msfc.nasa.gov/uammainmenu.asp
  - Cookies must be enabled
  - Must turn off the pop-up ad blocker
- Justification:
  - Put in support role for AMSR-E project
  - For foreign nationals, include visa and/or green card information
- Account set-up
  - 2-3 weeks for US citizens
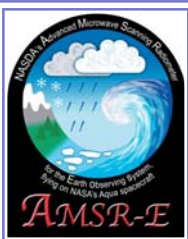  - Longer for non-US citizens, varies

- Current Unix versions:
  - HDF: 4.2r1
  - HDF-EOS: 2.13v1
- Linux versions:
  - HDF: 4.2r1
  - HDF-EOS 2.14
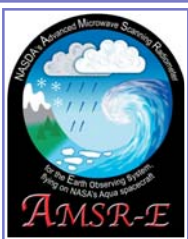- Note: JAXA reprocessing on Linux uses HDF 4.2r1

- Preliminary testing on a "loaner" using L2B rain software
- System administrator concerns
  - HDF and HDF-EOS do not compile cleanly in 64-bit
  - Same is true for other legacy software
- Lahey LF95 Linux Pro v6.2 (32-bit) &/or LF64 Linux Fortran v8.0 (64-bit)
  - Currently, code is 32-bit
  - Benefits of 64-bit?
  - Initial testing (SIPS and TLSCF) show no improvement in processing speed
  - Benchmark testing with both
  - Lahey compiler not as forgiving as SGI

- L2A QA and metadata ported
- L2B rain is validated and will be ported first
- Other L2B products will be ported next: surface soil moisture (land) and ocean suite
- L3 products will be ported last, most likely in this order:
  - Land: daily
  - Ocean: daily, weekly, monthly (one PGE)
  - Sea Ice: 6, 12.5, & 25 km daily (one PGE)
  - Snow: daily, pentad, monthly (one PGE)
  - Rain: monthly

- Viewable on the AMSR-E Web page for all transitional and validated products by October 1, 2006
  - For forward processing
  - As data are reprocessed
- Generated during product generation at the SIPS and transferred to the AMSR-E web server
- Quality Assessment Summaries are text files
  - Specifications may be modified at the request of a science team member
  - Software written and maintained at the TLSCF
- Browses are PNG's