Overview of STAR Enterprise Algorithm Development

Walter Wolf

NOAA/NESDIS/STAR

- Overview
- Background
- Project Plans
- Reviews
- Goal
- Summary

- S-NPP and JPSS L2 products are being migrated to NDE

- Migration to NDE is part of a move towards implementing enterprise L2 algorithms for S-NPP and J1

- Implementation of the L2 algorithms will now follow the SPSRB process

- There are three categories that the S-NPP and J1 L2 algorithms fall into:
  - Original NDE L2 algorithms
    - Initially no L1RD requirements
    - Already running within NDE
  - L1RD L2 algorithms, enterprise algorithms, that have been or are being implemented within NDE, already have a SPSRB project plan
    - NUCAPS, ASCPO, Ocean Color, JPSS RR products
  - L1RD L2 algorithms that will to be implemented within NDE within the next year
    - OMPS L2 products, Land L2 products

- Each algorithm being transitioned into NDE will need to have a SPSRB project plan developed and approved

- Original L2 NDE products and L2 enterprise algorithms already have SPSRB project plans developed

- Ozone and Land products are in the process of developing their S-NPP project plans

- Ozone and Land products are developing project plans where the plan will be to implement the algorithms into NDE

- Schedules are being developed where the goal is to have the algorithms implemented within NDE by the spring of 2017

- Initial implementation into NDE will be what makes sense:
  - Enterprise VIIRS algorithms into JPSS RR project
  - Gridded land products into GVF software package
  - Ozone algorithms using existing software
  - Surface Reflectance as a stand along algorithm

- Trying to be smart how we implement SPSRB reviews within the projects
  - No PDRs (unless we need to do an algorithm bake off)
  - CDRs only required if it is a new algorithm or a new system implementation (surface reflectance)
    - If the algorithm going into NDE is the same algorithm running within IDPS, then the algorithm has already been reviewed at the yearly algorithm maturity reviews
  - TRRs will be algorithm dependent and whether or not the algorithm has been implemented within an existing system
  - ARRs are required for all products

SPSRB J-1 Project Plans

- All L2 algorithms will need to be part of a SPSRB J-1 project plan that will be presented at the annual June review

- All Original NDE L2 products are currently part of a SPSRB J-1 project plan submitted last year with funding beginning this year
  - OMPS, Surface Reflectance, Surface Albedo, and NDVI products will be added to this plan for the June review

- J-1 JPSS RR project plan was developed last year but not submitted
  - It will be submitted this year
  - LST will be added to it

- Run all L2 products operationally in NDE on S-NPP data by Spring of 2017

- Migration to enterprise algorithms for all products in the future

- All JPSS L2 algorithms are being transitioned into NDE

- Initial transition of the L2 products into NDE will be implemented into systems that makes sense

- Details of different implementation paths will be described in the Software Implementation presentation tomorrow