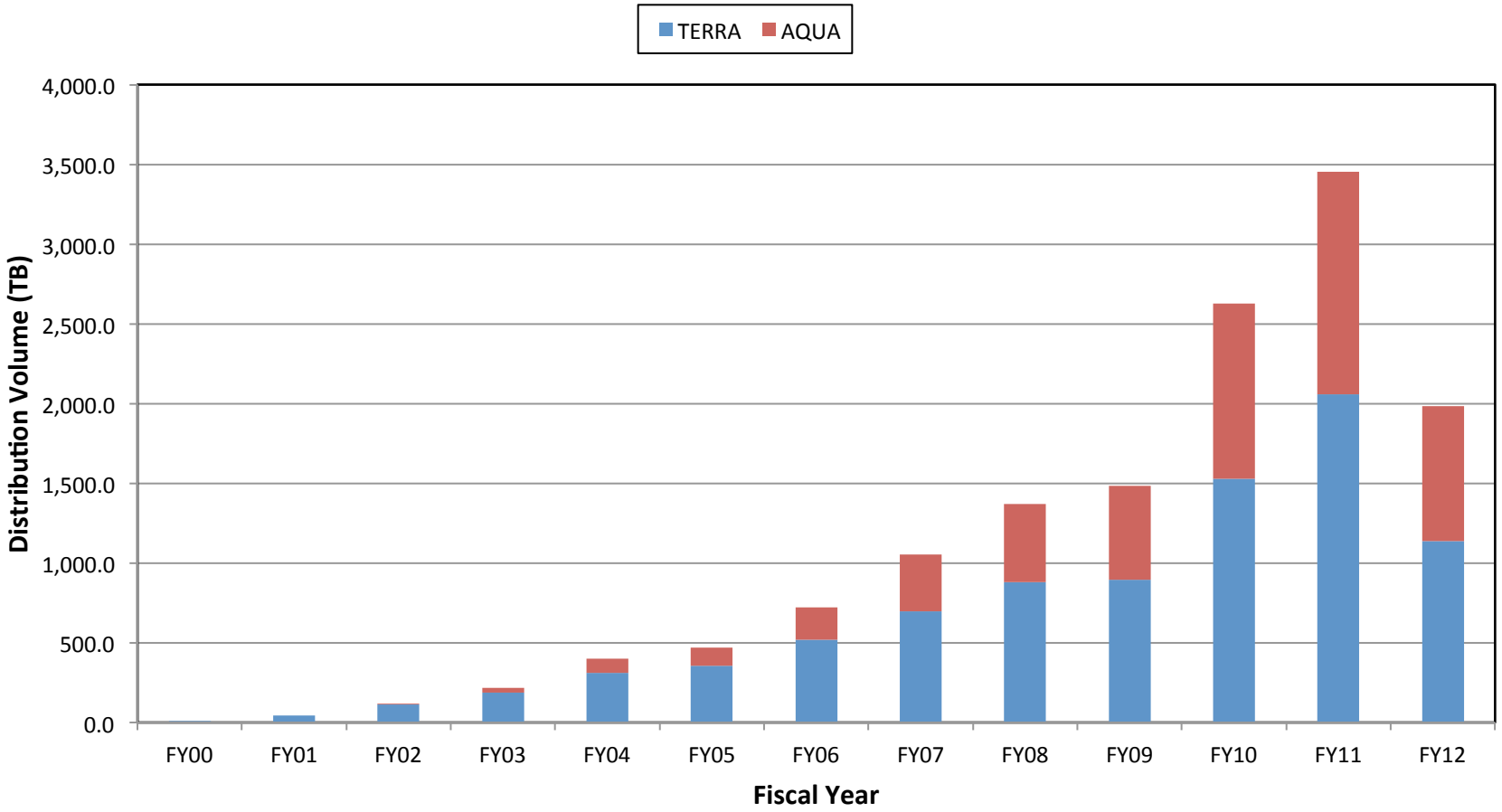
Reprocessing and Product Distribution: Collection 6 and future plans

Edward Masuoka

Code 619

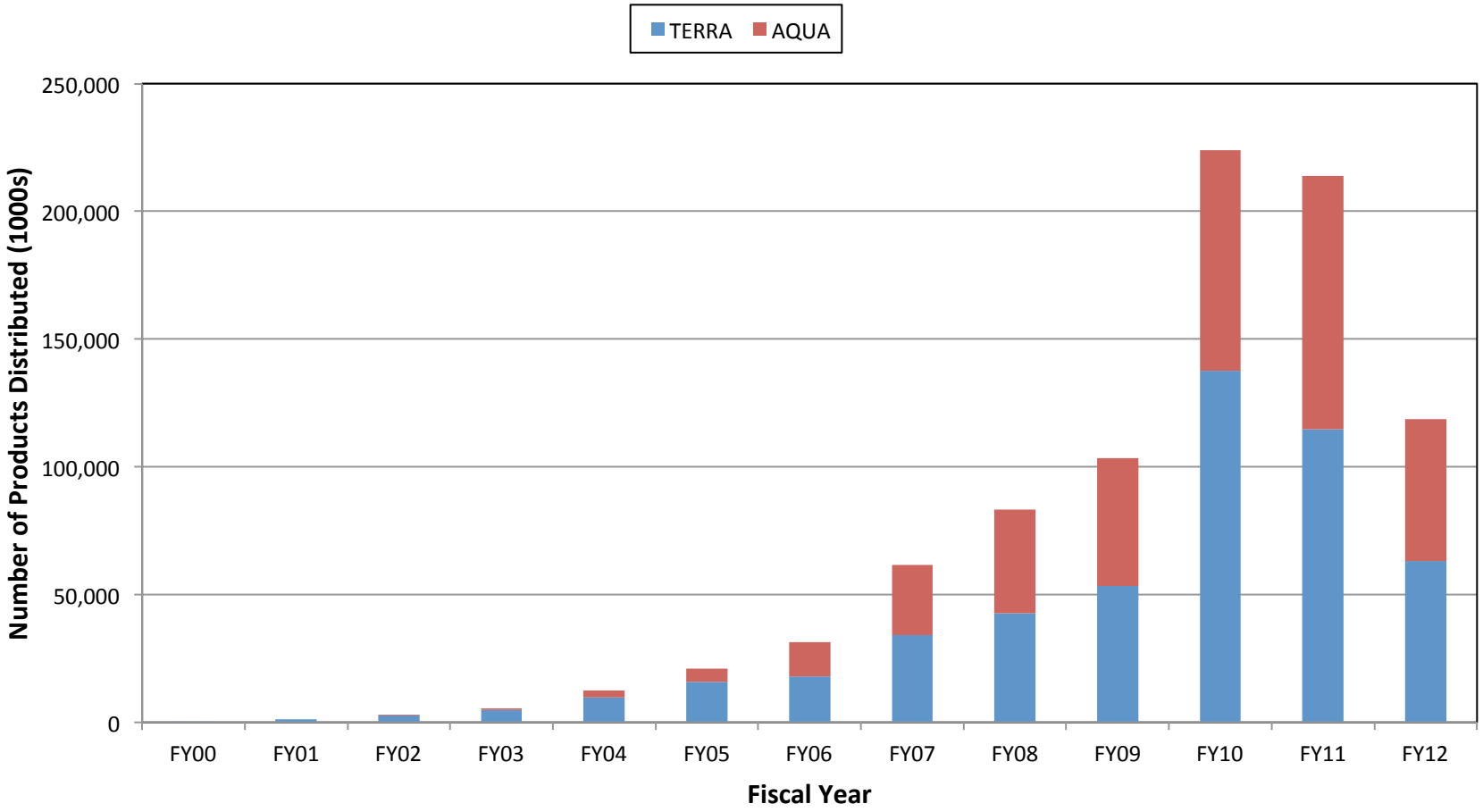
Edward.J.Masuoka@nasa.gov

Total Volume of MODIS Terra/Aqua Products Distributed by Fiscal Year



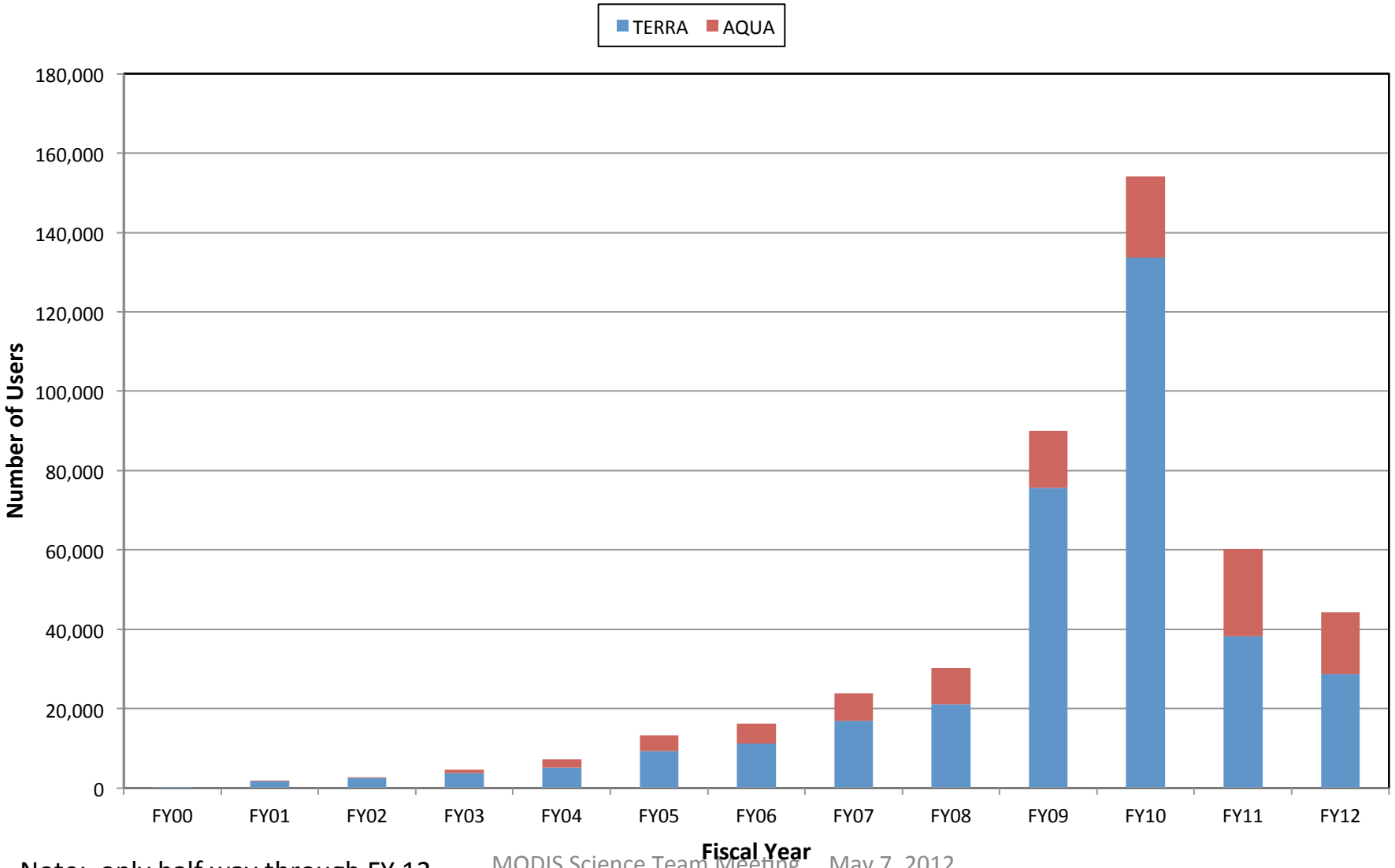
Note: 1) only half way through FY 12 (expect >4PB in 2012)
2) numbers exclude distribution via disk drives

Number of Terra/Aqua Products files



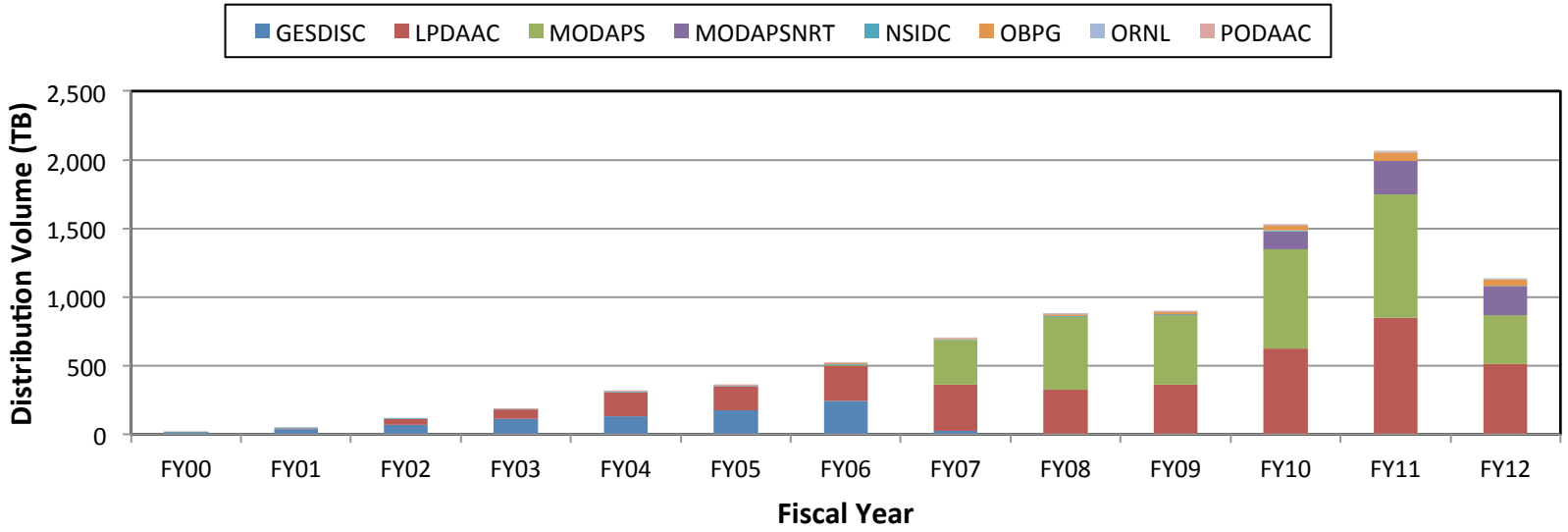
Expect >250M product files distributed in 2012

Number of distinct MODIS users

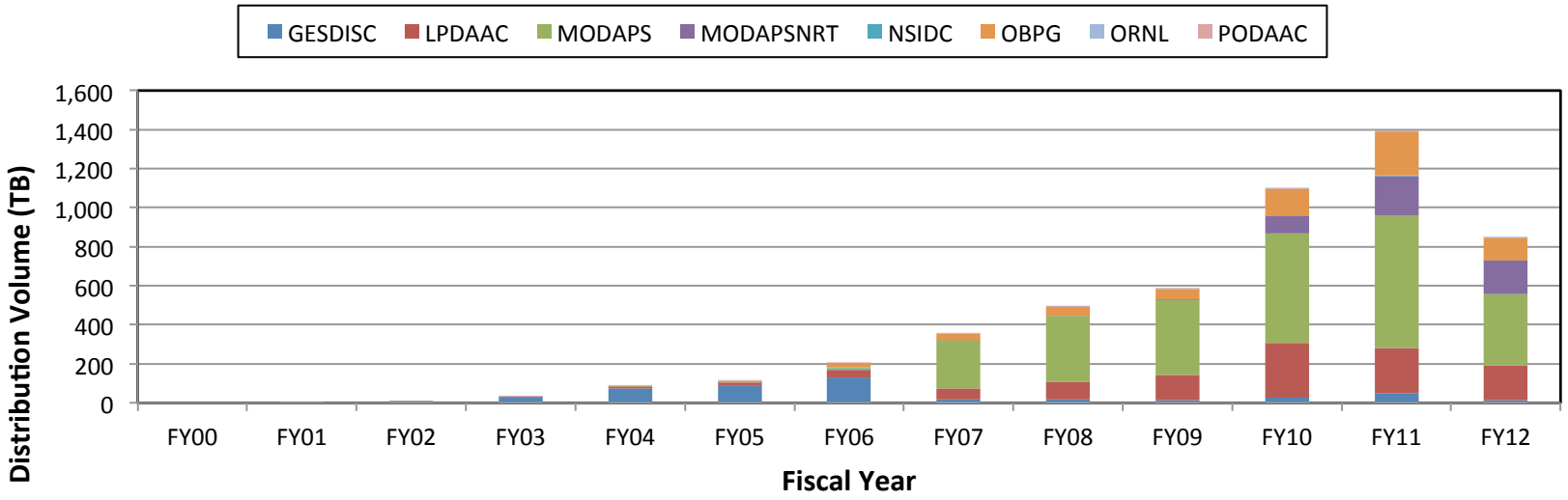


Note: only half way through FY 12

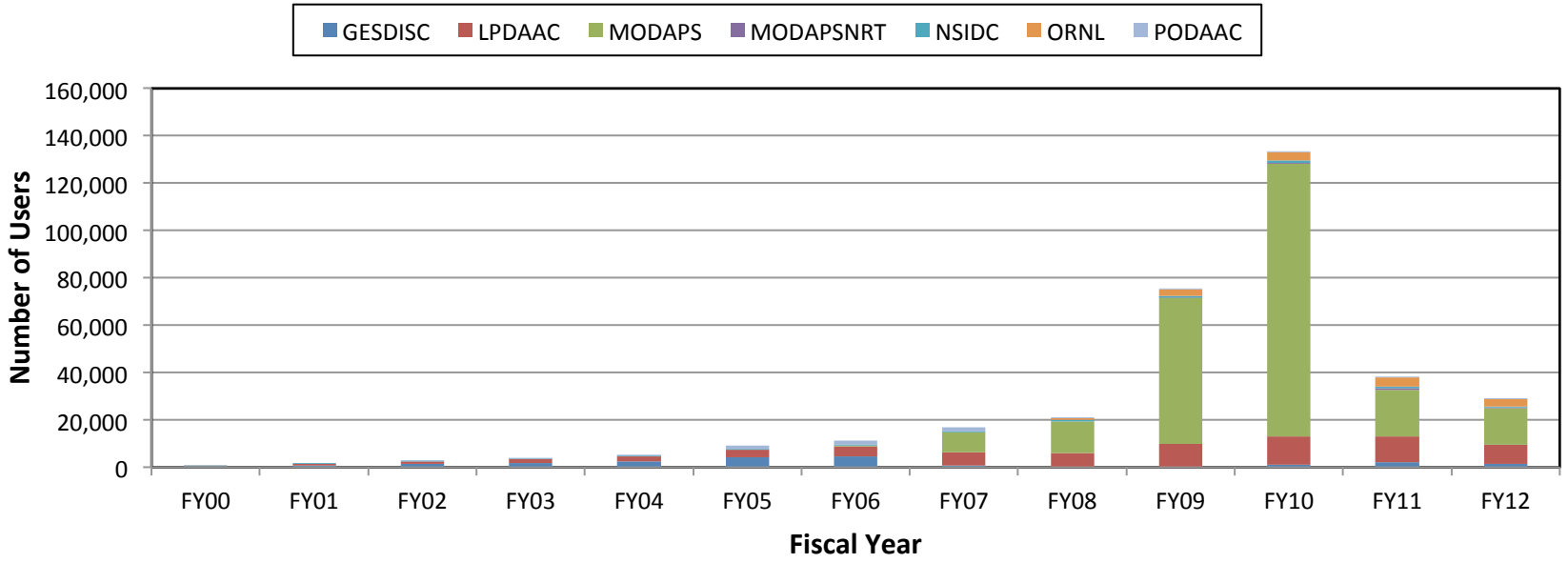
Distribution Volume of Terra MODIS Products



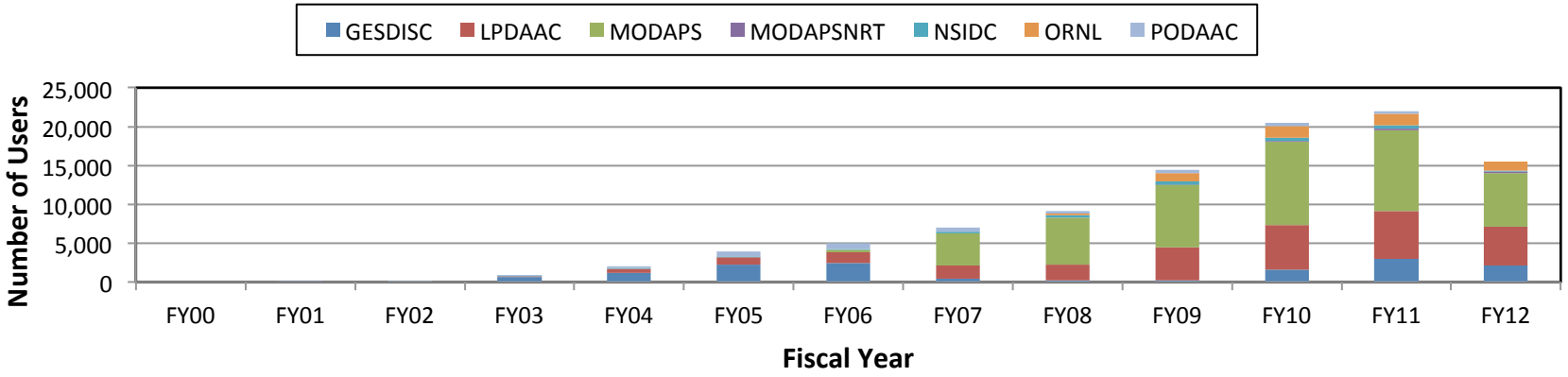
Distribution Volume of Aqua MODIS Products



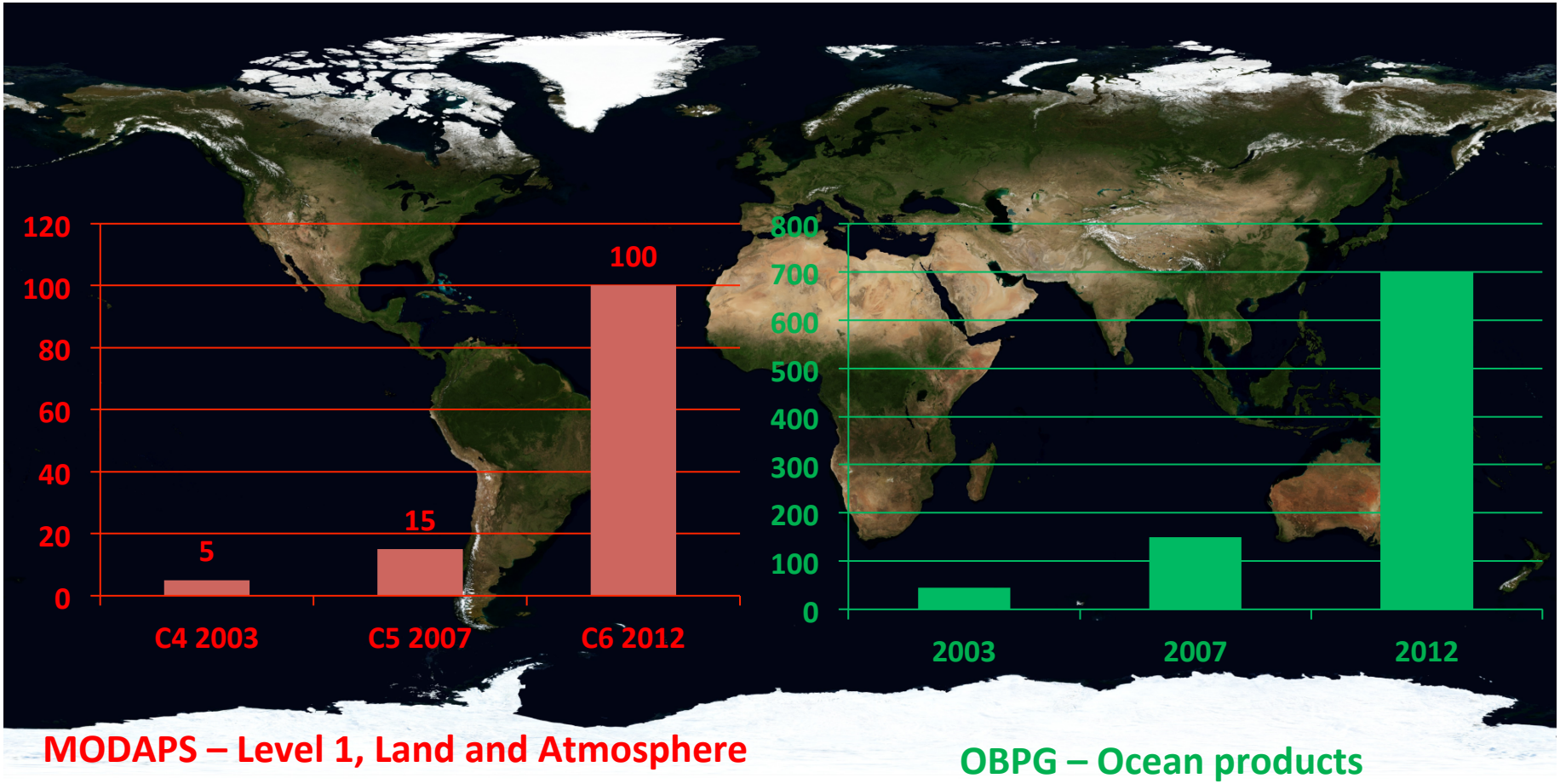
Number of Terra MODIS Users



Number of Aqua MODIS Users



MODIS Reprocessing



MODAPS – Level 1, Land and Atmosphere

20x forward processing
50x reprocessing string
80x test strings
100x reprocessing string waiting on disk

OBPG – Ocean products

Complete reprocessing of all Ocean missions to produce uniform suite of products underway at 700x

Test Systems – Atmosphere/Land

- Integration and Test system at Wisconsin identically configured to our software transfer group's I&T system
- Science test string for Atmospheres (mtvs6) used to test individual changes to PGEs, 40x processing rate, tests involve processing multiple months
- Science test string for Land (mtvs5), 40x processing rate, tests involve processing multiple years up to the entire data record

C-6 Lessons Learned

- Separate strings for each discipline are essential to avoid delays in testing which impact development and integration of PGEs.
- Atmosphere's science tests involving single changes to a PGE have proven an effective approach to algorithm development.
- Developing individual test plans for science testing and communicating them to operations is an area that still needs improvement.

Future Vision

- Collection 7 defined with Science Team
- Long-term data records AVHRR-MODIS-VIIRS
- Standards for metadata to support provenance
- Documentation improved for long-term archive
- Continued expansion of product formats
- More cross DAAC orders filled
- Common web services across DAACs
- Virtualization to support 32bit PGEs and older OS