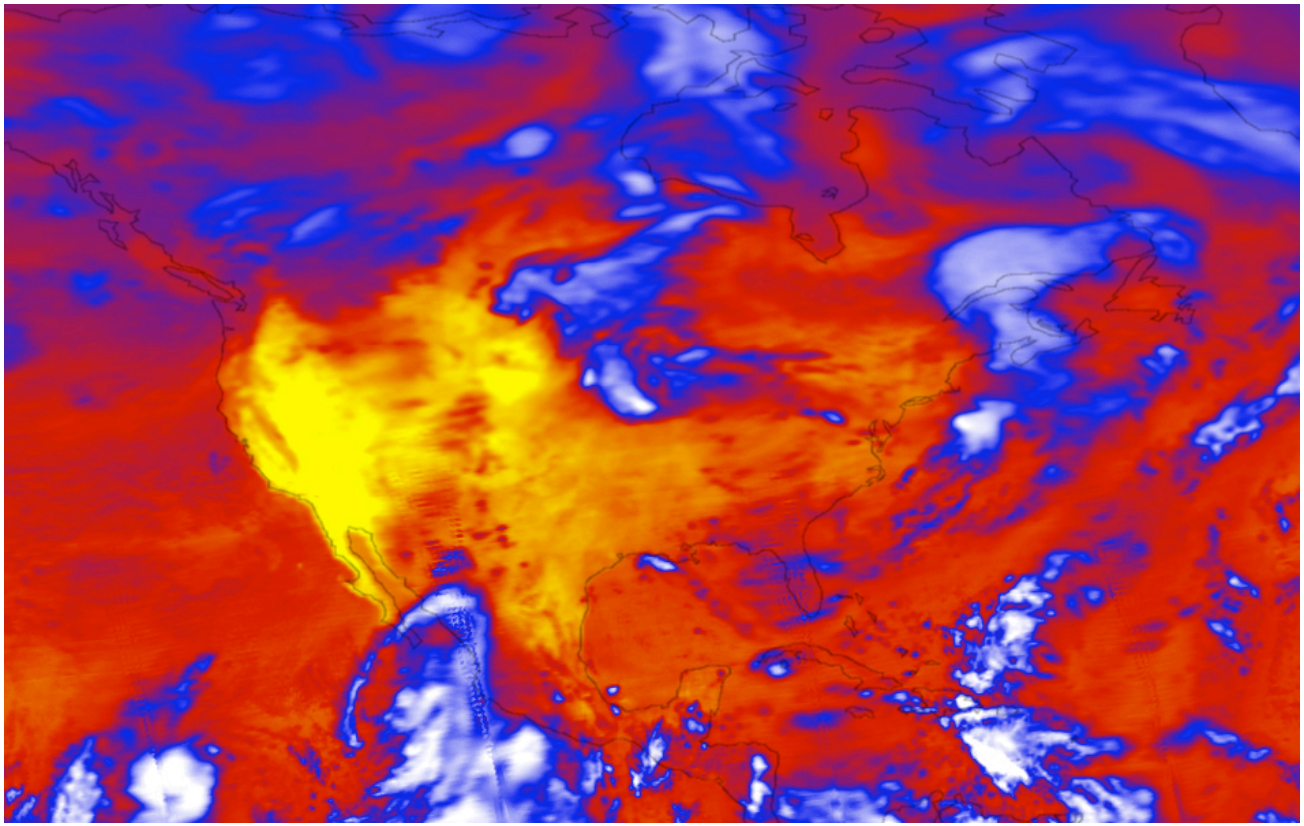
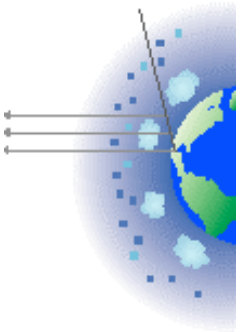
Atmospheric Science Data Center

Processing, Archiving, and Distributing Earth Science Data



Jim Closs

CERES Science Team Meeting
November 14-16, 2007



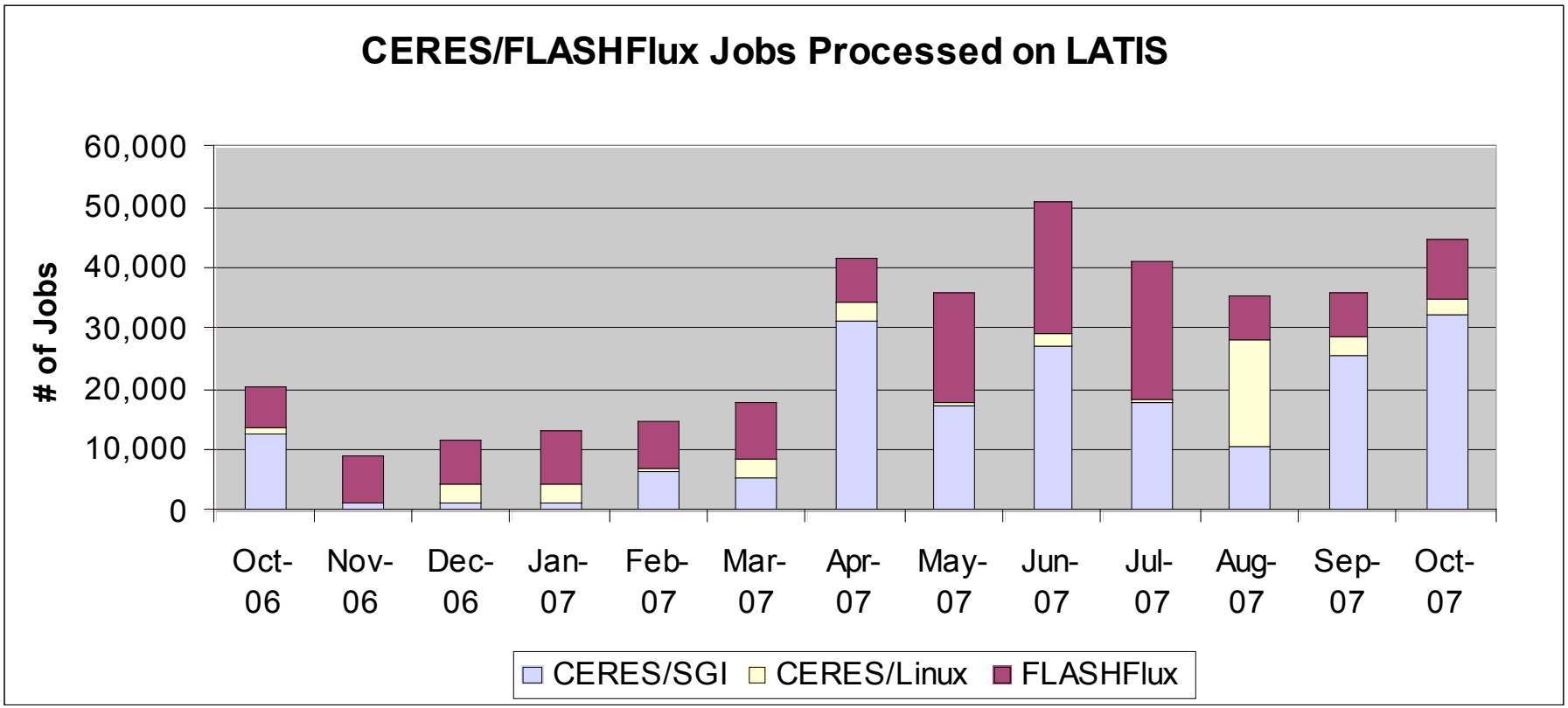
ASDC CERES Support Overview

- **ASDC produces CERES data using SCF code. (Instrument, Level 2 and Level 3 data)**

- **ASDC responsible for data ingest, archive and distribution of CERES data.**
  - Currently 55.3 Terabytes of CERES data in archive
  - Four options for searching/ordering data, subsetting available
  - New ingest/distribution system (ANGe) being deployed
  - CERES automated processing in development

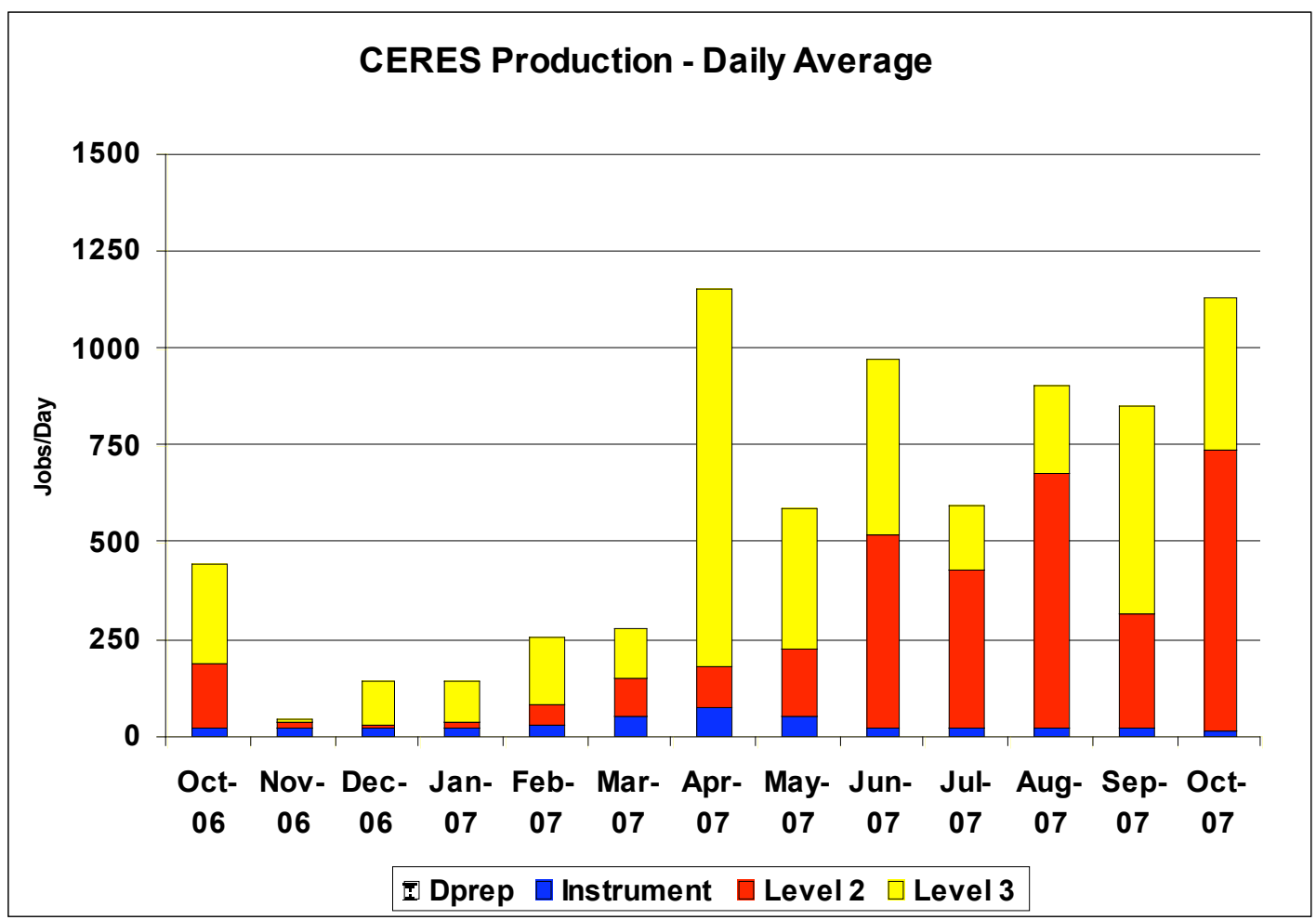
- **ASDC provides CERES user and data services**
  - Dedicated CERES/FLASHFlux/SRB support staff member
  - Currently matching metadata (readme files) and data products
  - Peer and public communication of CERES products and tools
  - CERES data and user metrics compiled

CERES/FLASHFlux Data Production



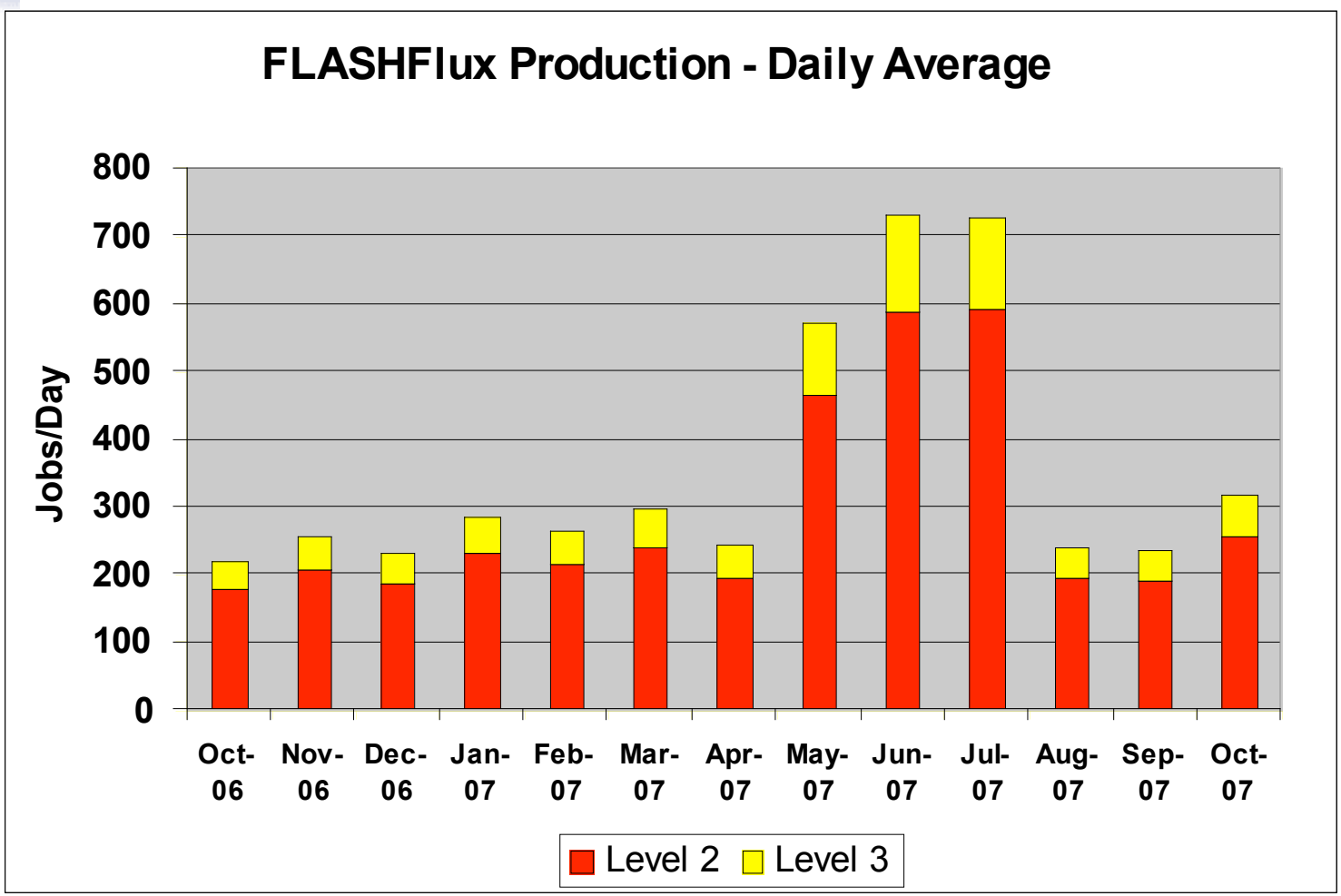
11/14/07

CERES Data Production

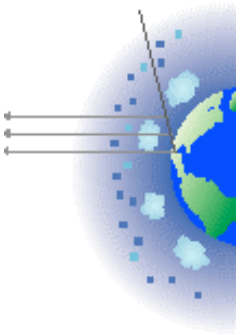


11/14/07

FLASHFlux Data Production



11/14/07

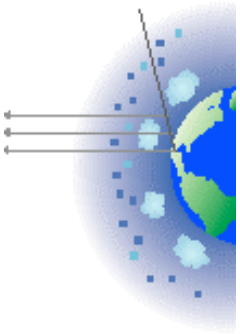


New CERES/FLASHFlux Products – FY06

CERES/FLASHFlux new data products made public, 10/1/2006 - 09/30/2007

CER_AVG_Terra-FM1-MODIS_Beta3
CER_AVG_Terra-FM2-MODIS_Beta3
CER_CRS_Aqua-FM3-MODIS_Edition2A
CER_CRS_Aqua-FM4-MODIS_Edition2A
CER_FSW_Aqua-FM3-MODIS_Edition2A
CER_FSW_Aqua-FM4-MODIS_Edition2A
CER_SFC_Aqua-FM3-MODIS_Edition2A
CER_SFC_Aqua-FM3-MODIS_Edition2B
CER_SFC_Aqua-FM4-MODIS_Edition2A
CER_SFC_Aqua-FM4-MODIS_Edition2B
CER_SSF_Aqua-FM3-MODIS_Edition2B
CER_SSF_Aqua-FM4-MODIS_Edition2B
CER_SYN_Terra-FM1-MODIS_Beta3
CER_SYN_Terra-FM2-MODIS_Beta3
CER_ZAVG_Terra-FM1-MODIS_Beta3
CER_ZAVG_Terra-FM2-MODIS_Beta3
FLASH_SSF_Aqua-FM3-MODIS_Version2A
FLASH_SSF_Aqua-FM3-MODIS_Version2B
FLASH_SSF_Terra-FM1-MODIS_Version2A
FLASH_SSF_Terra-FM1-MODIS_Version2B
FLASH_TISA_Terra+Aqua_Beta4
FLASH_TISA_Terra+Aqua_Beta5

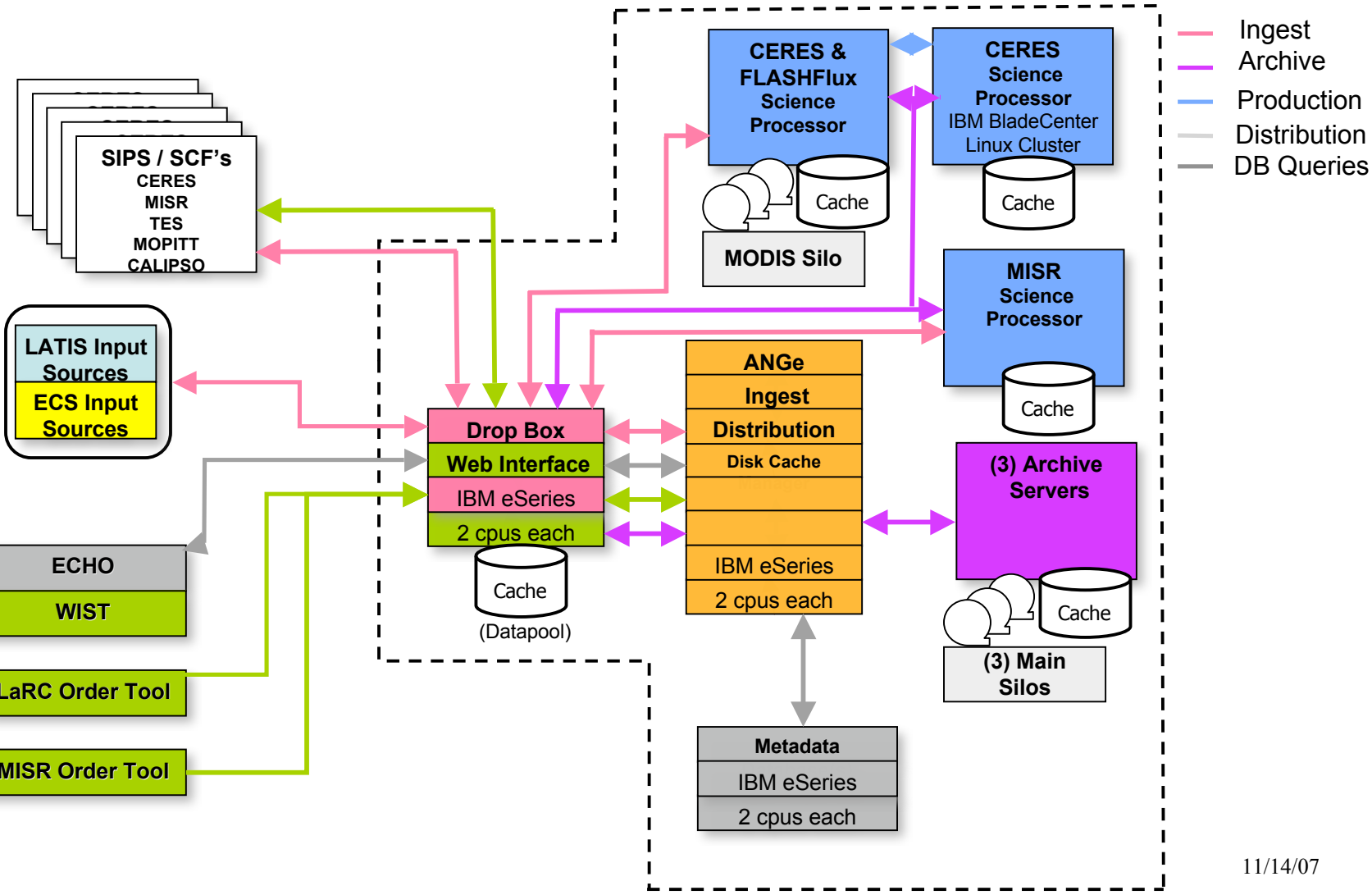
11/14/07



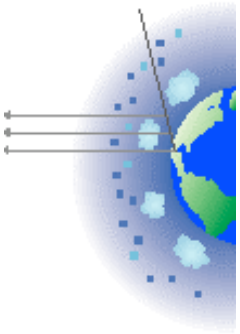
Archive – Next Generation (ANGe)

- **Modernized ingest, archive, and distribution tools**
  - Initial release supporting CALIPSO Nov. 1, 2007
  - Next release supporting CERES, schedule TDB
  - Coordinated evolution with CERES SCF
  - Processing automation to reduce production costs
- **Replacing two existing ASDC systems**
  - EOS Core System (ECS)
  - Langley TRMM and Terra Information System (LATIS)
- **Distributed, multi-tier architecture**
  - Grid computing environment enables simultaneous data access
  - Web service archive access allows more refined data search
  - Open source metadata database for external system integration

ANGe Conceptual Architecture



11/14/07

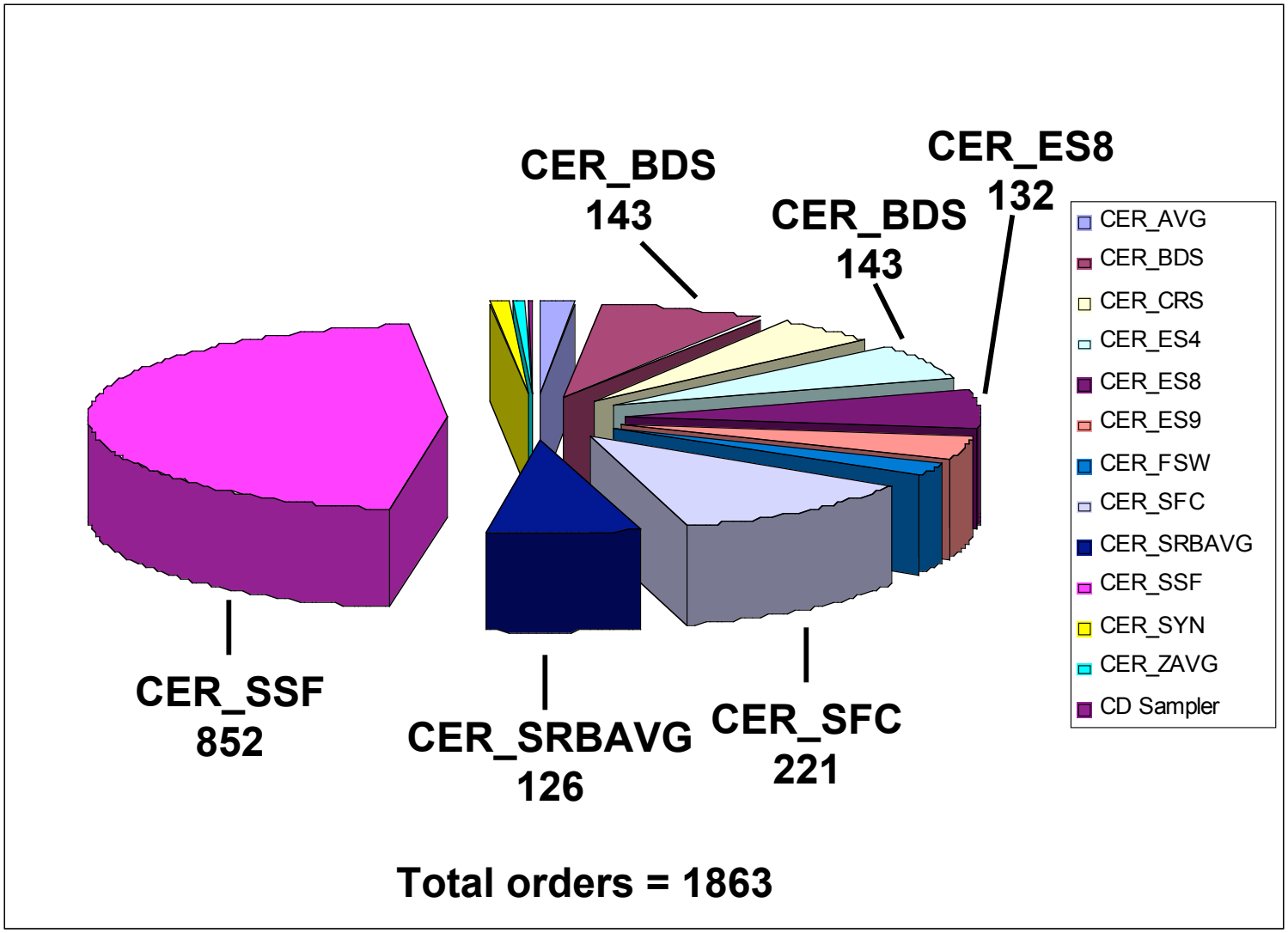


CERES Processing Automation

- **Current Status:**
  - Devising schedule based on ANGe development and functionality
  - Integration complete for all SARB and MOA PGE's
  - Developed interface for requesting input data from LATIS.
    (Facilitates testing prior to all requested data being available in ANGe)
  - File format developed for DMT submission of production requests.

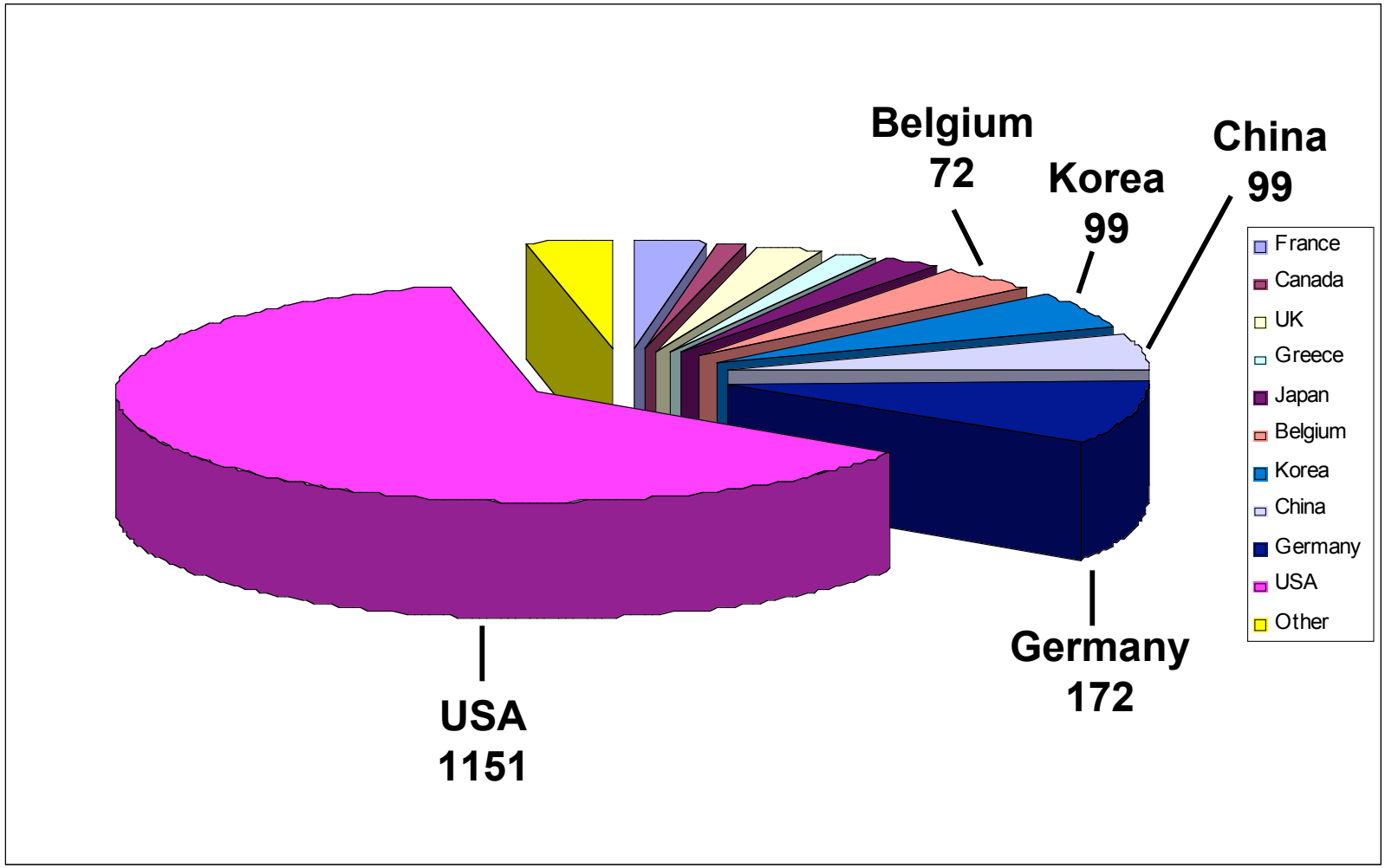
- **Implementation:**
  - Merge with ANGe ingest system to support CERES
    (Output products will be archived via the ANGe ingest mechanism)
  - Three or four phased releases supporting groups of PGEs
  - Automation completion no earlier than March, 08

CERES Data Orders by Product



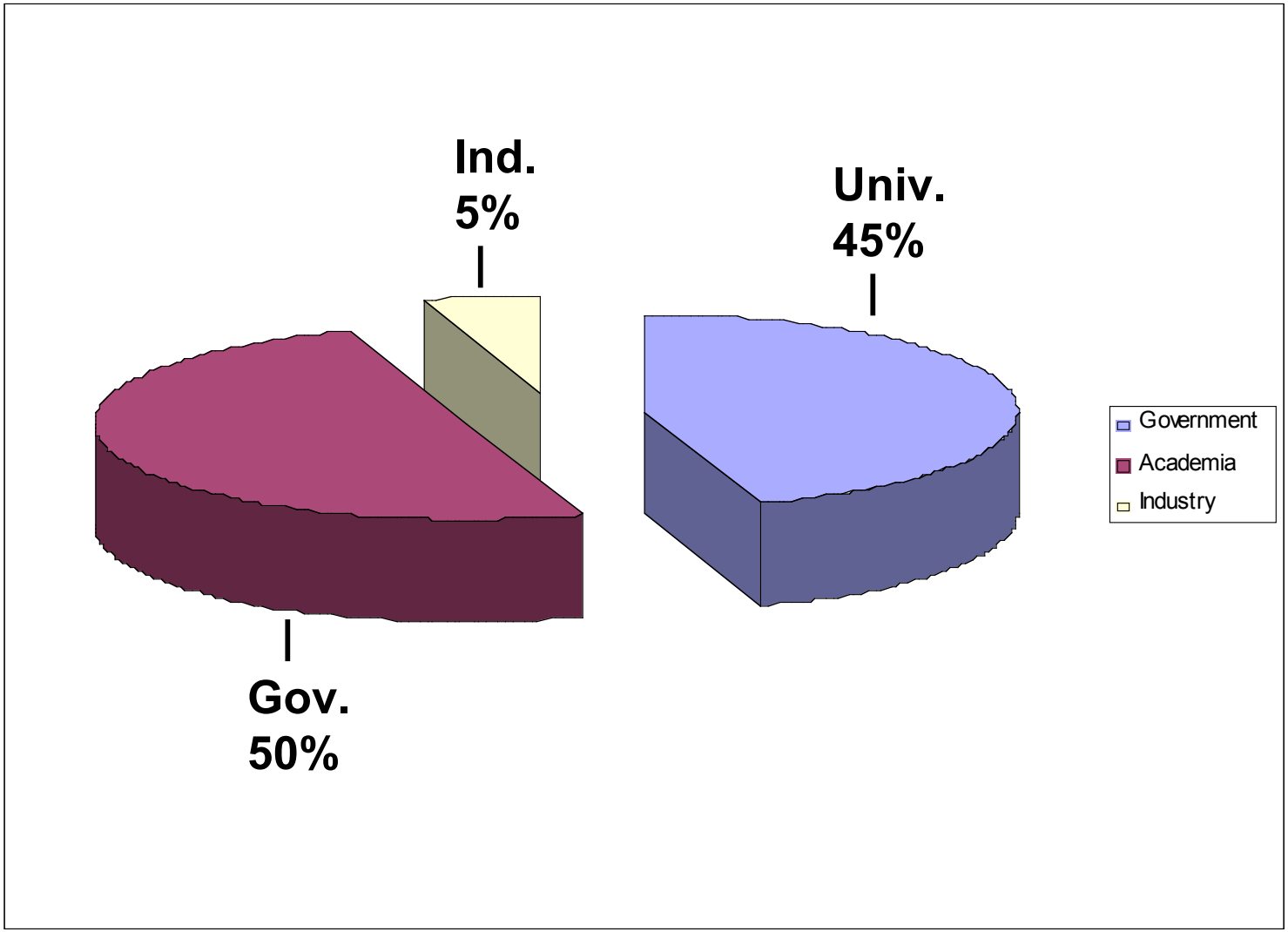
11/14/07

CERES Data Orders by Country



11/14/07

CERES Data Orders by Affiliation



11/14/07

Atmospheric Science Data Center

Processing, archiving, and distributing Earth Science data

http://eosweb.larc.nasa.gov

larc@eos.nasa.gov

Jim Closs

CERES Science Team Meeting
November 14-16, 2007
Victoria, Canada