

Efficient Access to Raw Measurements and Processing Coefficients for NPOESS Preparatory Project (NPP) and Joint Polar Satellite Systems (JPSS) Sensor Data

Drew Saunders¹, Jim Biard¹, Art Burden¹,
Jeff Privette², Dan Baldwin³, and Linda Copley¹

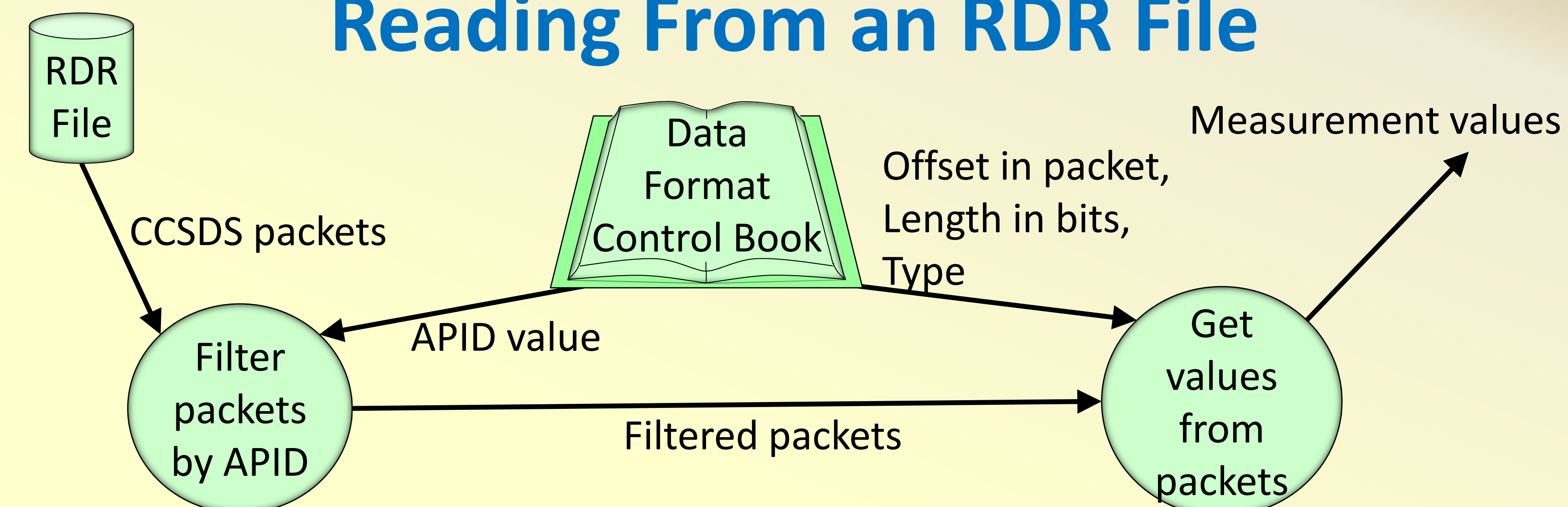
1 - STG, Inc. Asheville, NC, 2 - National Climatic Data Center (NCDC), Asheville, NC,
3 - University of Colorado, Boulder, CO



Problem

- Raw satellite sensor data are difficult to obtain and difficult to use
- Production of Climate Data Records (CDRs) using data from NPP sensors will require repeated reprocessing from raw sensor data

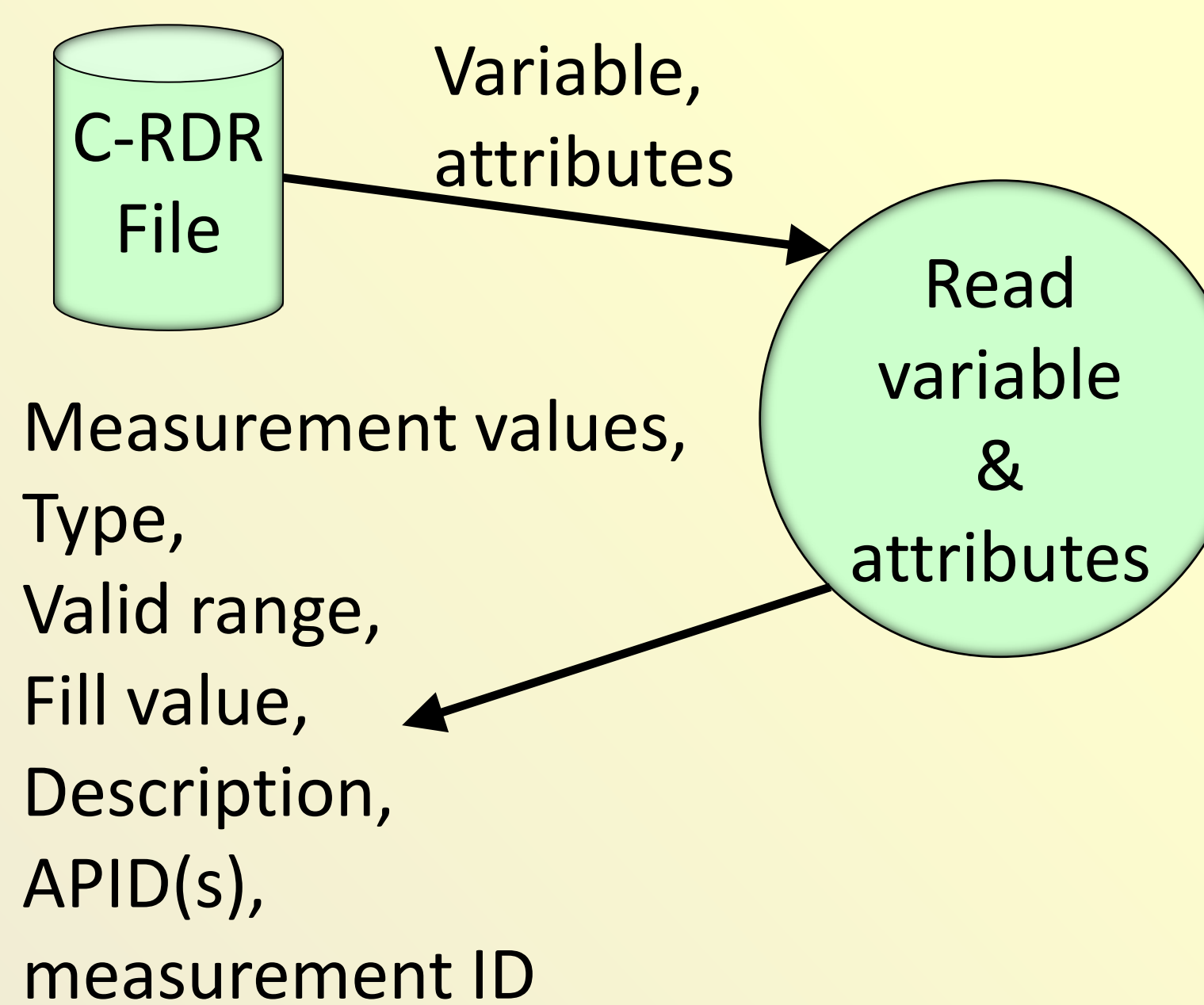
Reading From an RDR File



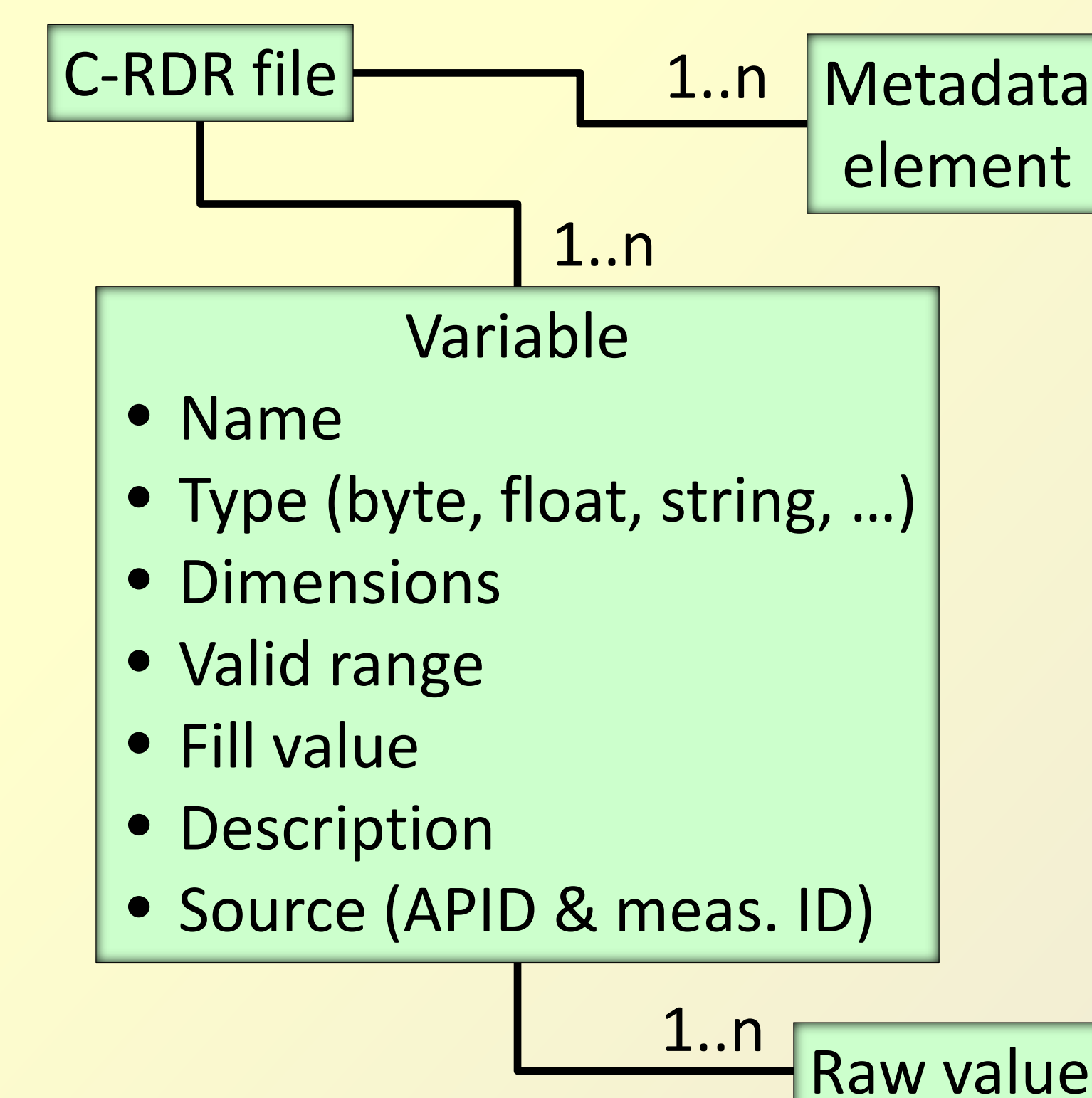
Approach

- Create NPP Climate Raw Data Record (C-RDR) products that contain uncompressed raw data values organized by measurement
- Use the netCDF-4 self-describing binary file format to make the data more accessible
- Include usage and preservation metadata to make the measurements more understandable (conforms to CF Convention and ISO 19115-2)

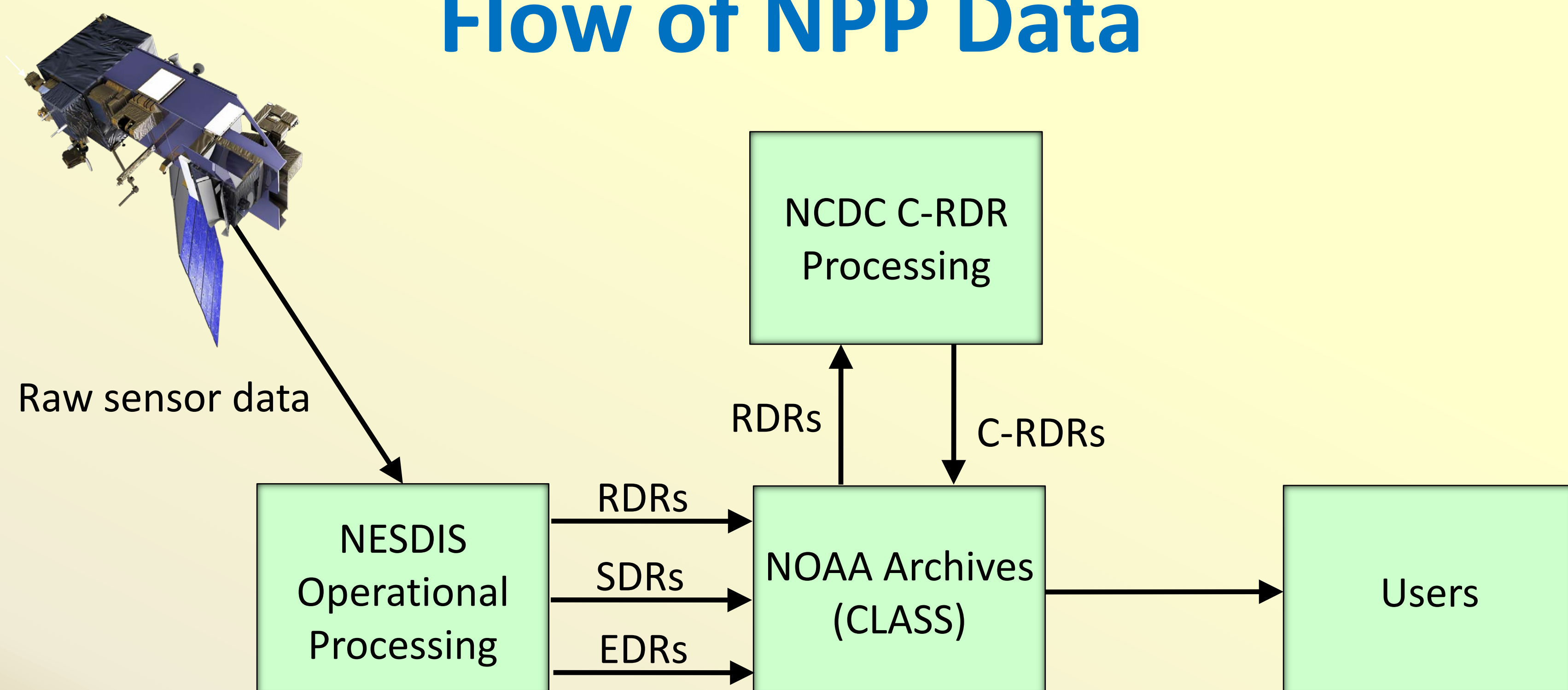
Reading From a C-RDR File



C-RDR Structure



Flow of NPP Data



Result

- C-RDRs will be produced for the ATMS, CrIS, OMPS-NP, and VIIRS instruments on the NPP satellite
- Will be available through the NOAA Archives

Contact:

drew.saunders@noaa.gov – ATMS C-RDR
art.burden@noaa.gov – CrIS C-RDR
linda.copley@noaa.gov – OMPS-NP C-RDR
jim.biard@noaa.gov – VIIRS C-RDR



www.ncdc.noaa.gov

NOAA National Climatic Data Center - Asheville, NC

Protecting the past... Revealing the future