

Title: Investigation and tool development for storing NASA ECS data using HDF5 Archival Information Package(AIP)

Investigator(s): MuQun Yang (PI)

Institution: The HDF Group

While not necessarily Climate Data Records (CDRs) themselves, data from the primary instruments of NASA's Earth Observing System (EOS) will be an important input to many CDRs developed by NOAA over the next few decades. EOS missions, precursors to the National Polar-orbiting Operational Environmental Satellite System (NPOESS) and its precursor mission, the NPOESS Preparatory Project (NPP), provide a long time series of validated, well-calibrated data. Yet, CDRs utilizing these data cannot be created unless these data remain archived, available, and usable for the long-term. NASA is currently responsible for the generation, archival, and distribution of the EOS data products. However, a NOAA-NASA Memorandum of Understanding (MOU) from 1989 ultimately assigns responsibility for the long-term archive of many of these products to NOAA. Successfully transitioning from NASA to NOAA will be a major transformative migration event in the life of these data products. The primary emphasis of this proposal is on the tools and techniques needed to ensure that these data survive the transition. As such, the proposal is directly responsive to the third area of the announcement of opportunity, "Generation of CDR context capable of surviving transformative migration." This project has been endorsed by the National Geophysical Data Center (NGDC)