

Draft DISCOVER-AQ Data Plan

Gao Chen and Jennifer Olson
NASA Langley Research Center

Data Policy

- **Responsibilities of participants:**
 - Submit data according to agreed upon schedule
 - ***All final aircraft data, especially 1 s measurements, should be synchronized to DLH H₂O time line.***
 - Provide adequate metadata in data files as required by ICARTT format (optional for LIDAR data).
 - Consult with PIs and offer co-authorship when using their measurement data and/or modeling products
 - PIs should be available to answer questions about their data after submission (contact info provided in file headers)
- **All data will become public 4 months after the completion of the experiment**
- **Data updates will be posted prominently, user notification approaches will be explored.**
- **Data to be archived:**
 - Aircraft measurements
 - Model products
 - Ground based measurements
- **Transfer data to LaRC ASDC and ADAM within ~12 months.**

Data Submission Deadlines

- **Data exchange during the field study**
 - Aircraft navigation and ancillary measurement data (REVEAL) within 24 hours of each flight.
 - All other Data should be posted within 24hrs of measurement (if possible).
 - All posted field data deleted when final data become available
- **Post-mission data exchange and deadlines**
 - Final REVEAL data 1 month after the deployment.
 - Final data [**December 1, 2010**] for public access

Data Format

- DISCOVER-AQ will use the **ICARTT** format for in-situ measurements.

ICARTT format documentation available at:

<http://www-air.larc.nasa.gov/missions/etc/IcarttDataFormat.htm>

- Created to accommodate the data exchange needs for International Consortium for Atmospheric Research on Transport and Transformation.
 - ICARTT format has been reviewed by NASA SPG and is pending for HQ approval to be adopted as one of the standard formats for NASA airborne campaigns.
- All collaboration partners, especially ground-based partners, are strongly encouraged to adopt ICARTT format as the standard for data archival to enhance the capability to exchange data among the group.

Data Repositories

DISCOVER-AQ data archive will be open 1 month before the first deployment.

After the archive opens, you need to:

- **Register your PI dataID (this determines your filenaming structure and directory name and location on the NASA archive)**
- **Download FScan (this executable allows you to check your data files for compliance on your own computer. The file will be automatically scanned remotely when uploaded to the archive.)**
- **Secured FTP is now a requirement for NASA sponsored ftp sites.**

Data Merge

Combining all measurements from one platform or ground site on a common time base to facilitate analysis of the correlation between measurements.

- Merge file will be generated for NASA P-3B data files as well as for ground measurement sites if needed.
- Merges will be generated for both Field and final data.
- Merge time base will be 1 sec., 10 sec., and others upon request (e.g., aerosol chemical composition measurement time scale).

Points of contact for DISCOVER-AQ Data Format and Submission Procedures:

Gao Chen (gao.chen@nasa.gov)

Jennifer Olson (jennifer.r.olson@nasa.gov)

Ali Aknan (ali.a.aknan@nasa.gov)

Clyde Brown (clyde.c.brown@nasa.gov)

Potential Intercomparison Opportunities

- Will accommodate data exchange needs for intercomparison exercises.
- Will conduct initial analysis of the intercomparison data
- Will communicate results with science team and partners in a timely fashion
- Will host a panel review of the intercomparison results.