

Data Set Submission to the Global Hydrology Resource Center (GHRC)

The Global Hydrology Resource Center is the NASA archive site for the Hurricane and Severe Storm Sentinel (HS3) project data. In addition to the data, information about metadata and documentation is required in order for us to properly support the data.

Plans are to make data uploaded from each yearly HS3 instrument's data as a product available through the NASA search engines along with any dataset specific software and documentation. The following details the information required to accomplish that via search engines: Hydrologic Data search, Retrieval, and Order system ([HyDRO](#)), EOSDIS [Reverb](#), and the Global Change Master Directory ([GCMD](#)). Data is currently available only to the HS3 Principal Investigators via the FTP site.

We are ready to receive QC data and documentation at any time. Data will not be distributed nor be available in any interface until we obtain the approval of both the Principal Investigator and Project manager, and documentation is complete. Receiving the data in a timely manner helps us protect the integrity of the data and documentation and helps us help you better. Bolded items are GHRC required information. Software and documentation information can be added in-line to this form where convenient.

I. Data Submission

1. Contact [GHRC Data Management Group](mailto:ghrcdaac@itsc.uah.edu) (ghrcdaac@itsc.uah.edu) to coordinate data turnover to GHRC. Specific questions can be addressed to [Marilyn Drewry](#), Data Management Lead.
2. Preferred method of data transfer is FTP to GHRC. The upload is to a private FTP directory using the project-assigned username and password. Instructions are found [here](#). If the data is already staged on your FTP server, contact [GHRC](#) to arrange an FTP pull.
3. File names for both data and browse should be unique. File naming conventions include 4 digit years (yyyymmdd), and an instrument designator. Suggested file naming conventions can be found [here](#).
4. Browse images are also archived. Please include any available browse images in the data transfer. Notify GHRC Data Management group if the images uploaded to the portal during the mission are to be used or if the images will be updated later.
5. Data is accepted in a PI chosen data format. If there are multiple data formats, they can be archived.
6. Data will be archived, but not distributed until the approval of both the Principal Investigator's and the Project Manager's approval.

II. Software Submission

1. List any off-the-shelf software required to use the data (e.g. IDL, Mat Lab,) and provide URLs to the purchasing site.
2. Provide any software, such as read software that should be distributed with the data.

III. Documentation Requirements

The GHRC team will create a Guide document for each dataset in a format consistent across the HS3 project. The following high level information is required to create that document and provide metadata for data discovery. GHRC requests the below information to help define Metadata for the ESDIS search engines and to assist with the Guide documentation. The guide will contain links to the Principal Investigators' documentation; URLs to those documents will be distributed with the data. If documentation has been uploaded with the data, GHRC will complete this form and return it for review to the Principal Investigator. If the instrument has been modified since last mission, please provide us with information that would be beneficial to the data user.

1. **High level Summary of the data.** This short paragraph will be used as an abstract and made available in the various search engines for each dataset
2. **Description of the instrument**
 - a. If the instrument participated in a previous campaign in which data was archived at GHRC, please note that campaign and provide any information on instrumentation changes
 - b. List how it operates, resolution and other factors, or supply a link to the appropriate instrument site.
3. **List any data access and use restrictions.**
4. **Specify File naming convention. 4-digit year and UTC time is required. Also include project, instrument, and any abbreviations. (see #6a)**
5. **Description of file contents**
 - a. **List all parameters collected by this dataset**
 - i. Direct
 - ii. Derived
 - b. **Specify data format**
 - i. Provide a link to existing documentation or attach a document.
 - c. **Processing level of data** (e.g., 1A, 2B...). Definitions can be found [here](#).
6. **Organization of file**
 - a. **Temporal**
 - i. Specify the frequency of the data record in the file.(e.g., a record written every minute)
 - ii. Specify the temporal length of a file (e.g., NEXRAD images are 5 minutes apart). In this case the filename should have the UTC starting date and time in the format yyyyymmdd-hhmmss.
 - iii. When time is included in the filename, it should be represented in UTC time (yyyyymmdd-hhmmss) with a hyphen separating time from the date. If both start and stop times are included, separate the two times with an underscore (yyyyymmdd-hhmmss_yyyyymmdd-hhmmss)
 - iv. For airborne instruments, assumption is one file per flight. If not, please specify. UTC time may be included as necessary.
 - b. **Spatial resolution of data**
 - i. List coordinates of the instrument's location if it is stationary.
 - ii. Specify the useful range of data for the complete dataset; these will be used in the search engines as the bounding box.
7. **List and explain anomalies.**
8. **List names and roles of Investigators, Co-I's, and technical contacts. Include order which they would be listed in a citation.**
9. **List references, URLs to other documents, and refereed papers about this data. These will be used in guide documentation.**
 - a. URLs can be for instrumentation documents, web pages, or referred papers, etc.
 - b. These are included in the guide documentation and help us provide information about the dataset.