

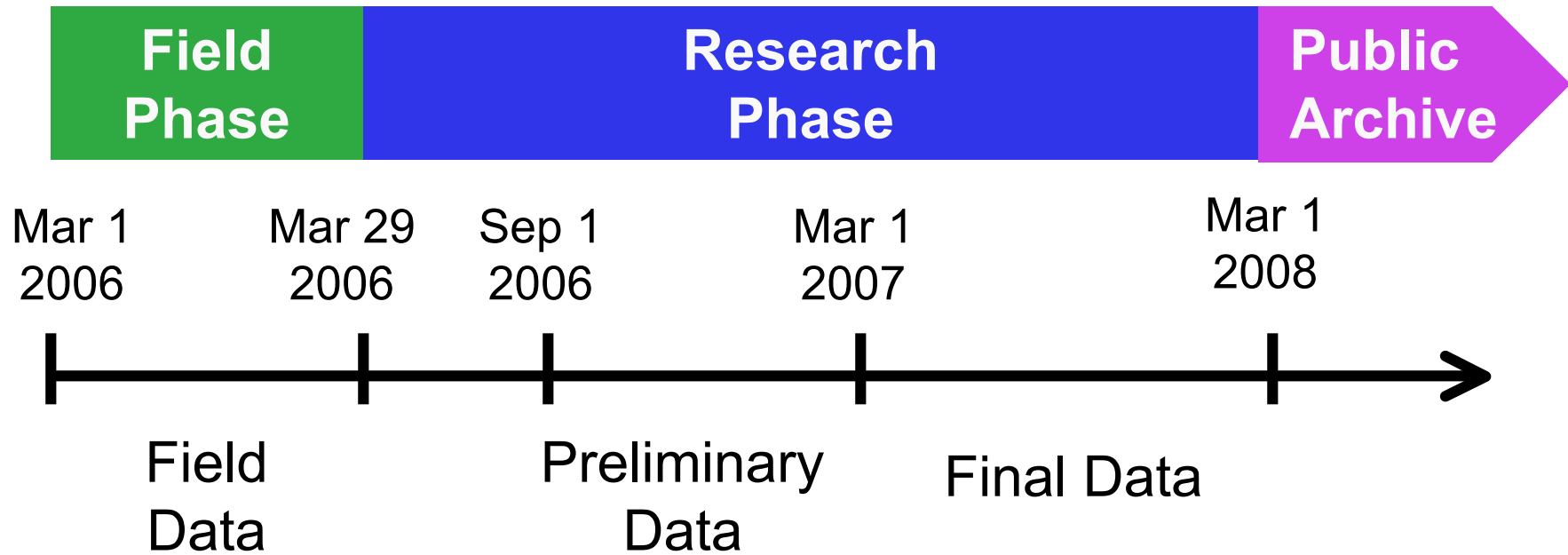
Data Working Group Report

To increase the value of MILAGRO data to the community, and to facilitate analysis, all data should be submitted to repositories in common formats

It is desirable to have a single data policy agreed upon by all MILAGRO groups

A MILAGRO Data Policy and Management Plan document will be produced to be reviewed by all investigators

Data Timeline



Dates are tentative and to be agreed upon by all groups

Data Submission Deadlines

- Data exchange during the field study
 - Data posted within 24hrs of measurement (if possible)
 - All posted field data deleted at end of campaign
 - Measurement intercomparison data sets will be given only to judges
- Post-mission data exchange and deadlines (still under discussion)
 - Preliminary data submitted by [Sep 1, 2006]
 - Final data archived by [Mar 1, 2007]
 - Archive opened to public [Mar 1, 2008]

Data Policy

- Responsibilities of participants
 - Submit data according to agreed upon schedule
 - Provide adequate metadata in data files
 - Consult with PIs when using their data
 - Invite PIs of any data used to be co-author during research phase
 - PIs should be available to answer questions about their data after submission (contact info provided in file headers)
- During Research Phase, all MILAGRO participants will have access to all data (one password for all repositories)
- All data will become public after [Mar 2008]
 - NASA, NSF, etc. make data public 1-2 yrs after experiment
- Data to be archived:
 - All measurements (that PI considers relevant)
 - Models
 - Satellite
 - Meteorological forecasts

Data Managers

- Need an overall MILAGRO Data Manager
- Need Data Managers for each platform or site to:
 - Be in charge of field data submission
 - Be in charge of getting all data to Research and Final Repositories
 - To create merges
- Data Managers:
 - DC8, J31, IONS: Jim Crawford
 - C130: Louisa Emmons
 - G1: John Hubbe
 - Langley King Air:
 - U. Wyo. King Air:
 - Ultralight:
 - T0: Luisa Molina
 - T1: Alex Guenther, Louisa Emmons (NSF); Telma Casto (Mex.) Jeff Gafney (DOE)
 - T2: Will Shaw
 - Balloon:

Data Formats

Ideal: one format for all of MILAGRO

Reality:

- DC8 & C130 plan to use **ICARTT** for consistency with INTEX-A and existing software
- MCMA, DOE/ASP (e.g., G1) plan to use **NARSTO DES** for consistency with previous experiments
- NetCDF or other community standards - when necessary (e.g., LIDAR, AMS, SODAR, radar profilers)

Each site or aircraft should pick NARSTO DES **or** ICARTT

NARSTO DES and ICARTT are simple ascii files with specified header formats

Data Format Conversion

- A converter could be written for
NARSTO DES *to* ICARTT
and
ICARTT *to* NARSTO DES
- Need person and funding to do this
- Outstanding issues:
 - Standard variable names - will address problem of names with special characters
 - Units - Standard names
 - Units need to be specified in ICARTT (add to line with variable name, separated by space)

Data Repositories

- EOL/NCAR Field Repository
 - For **Field** Data
 - Deleted at end of field experiment
- NCAR Community Data Portal
 - Suitable for **Preliminary** and **Final** Data
 - May be best choice for Research Phase data besides DC8 and C130 - need to check on details
- NASA (www-air.larc.nasa.gov)
 - Automatic upload and format-checking software ready for ICARTT format
 - Will accept **Field**, **Preliminary**, and **Final** Data for DC8, C130, others?
- NARSTO
 - Accepts **Final** Data for archiving
 - NARSTO or ICARTT format

Data Catalog

- The Data Catalog (NCAR/EOL webpage) will list all measurements made and have links directly to the data for all phases (Field, Research, Archive)
- “Readme” files should be provided for the data catalog, detailing the measurement and analysis techniques

Merges

Combining all measurements from one platform or site on a common time base makes the files much easier to analyze

- NASA is set up to merge ICARTT-format files and will merge DC8, C130 (+others?) data
- Data Managers for each site/platform will be responsible for creating merges ?
- Merges are valuable to have at all stages (preliminary, as data is revised, final)

Plotting in the Field

- NCAR/ACD plotting tool for quick-looks of data being developed
- Investigators need to provide data to Field Data Repository
- Need to transfer data to Boulder

Funding Requests

1. Someone to convert between NARSTO DES and ICARTT
2. Someone(s) to create merges for non-DC8, C130 data (maybe same person as 1)

Action Items

- Draft Data Policy Document and circulate to all investigators for review
- Identify Data Managers for each site and aircraft
- Have a telecon of Data WG members and Data Managers in the next couple of weeks to review progress