

Field Operations Support

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**NCAR Earth Observing Laboratory
Field Project Services**



*DYNAMO Workshop
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Who We Are



Remote Sensing



In-situ Sensing Facility



Research Aviation



Design & Fabrication Services



Technology Development



Computing, Data & Software



Field Project Services

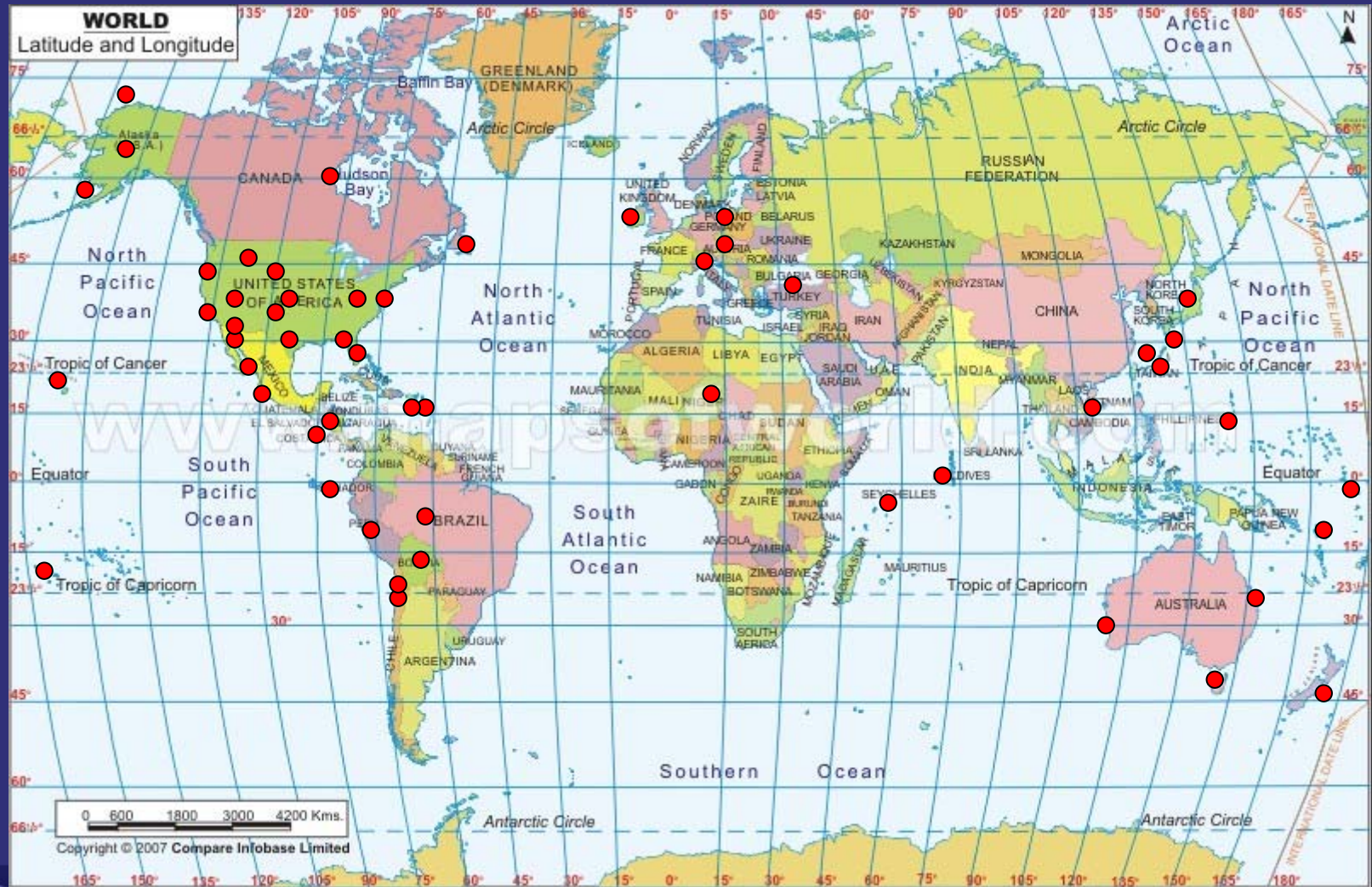


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World Wide Experience



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PLANNING



COORDINATION

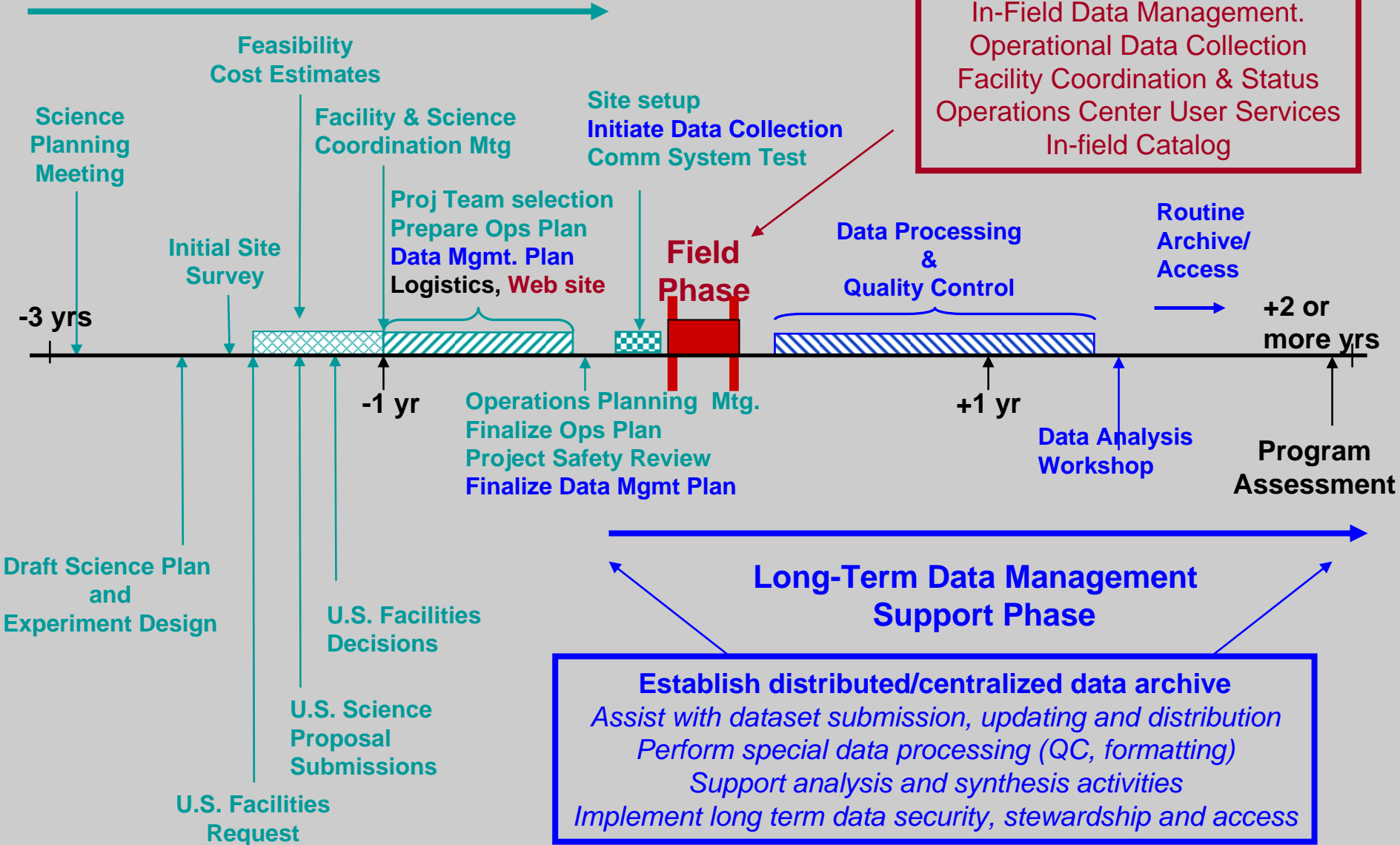


INNOVATION



Generic Large Field Project Timeline

Project Planning Phase



Field Campaign Planning and Operations Support

- **Liaison with investigators & facilities**
(international, multi-national, multi-agency)
- **Site Selection, Space, Facilities, Coordination with Local Host**
- **Operations Management**
(Operations Centers, ATC Coordination, Facility Coordination)
- **Communications Plan** *(network administration, connectivity, chat rooms)*
- **Forecast Coordination** *(data access, displays)*
- **Field Catalog**
- **Data Management—In-field Access, Data Integrity**
(Metadata, Completeness, Long term Archive, Compatibility)
- **Prepare Operations and Data Management Plans**
- **Customs, Immigration, Security, Clearances, Permits**



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Logistics and Coordination

- International Relations, clearances, permits
- Operations Centers
- Staffing and Personnel
(operations, administrative, network coordinators)
- Lodging—Hotels, apartments, housing
- Shipping and Customs (expendables, hazmat, etc)
- Facilities Ground Support—
aircraft, ships, ground-based observing systems
- Contracts, Finance



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Research Aviation Facility

Provides unique airborne platforms and airborne measurement capabilities that address scientific needs of the atmospheric research community

Develops new instrumentation to address gaps in current airborne measurement capabilities

Serves as a community resource for airborne measurements and operations



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Remote Sensing Facility



NCAR S-Pol Radar

10 cm Doppler, polarimetric radar
Highly portable, six 20 ft. seaintainers
Diesel generator powered
Easy set up
Peak power 1 Mw
1 degree beamwidth antenna
Suite of Doppler and polarimetric variables
Doppler measurements, polarimetric-based
rainfall maps, hydrometeor identification
Internet ready
Requested via NCAR/NSF and deployments
funded by Deployment Pool.
Well suited to international deployments.



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In-Situ Sensing Facility

Maintains and deploys a flexible, multi-faceted network of integrated, configurable in-situ and radio and optical profiling remote sensors that is robust, dependable well-calibrated operate with minimal oversight

- GPS Dropsonde
- Integrated Sounding System (ISS/Mobile MISS) (MAPR)
- GPS Advance Upper-Air Sounding system (GAUS/Mobile MGAUS)
- Integrated Surface Flux System (ISFS)
- Driftsonde



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Questions?

<http://www.eol.ucar.edu/>

meitin @ **ucar.edu**



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Remote Sensing Facility

Maintains and deploys a suite of world-class remote sensing instruments (radars and lidars) in support of the atmospheric science community

Develops innovative and state of the art “next-generation” remote sensors

Performs fundamental atmospheric research utilizing RSF and other instrumentation



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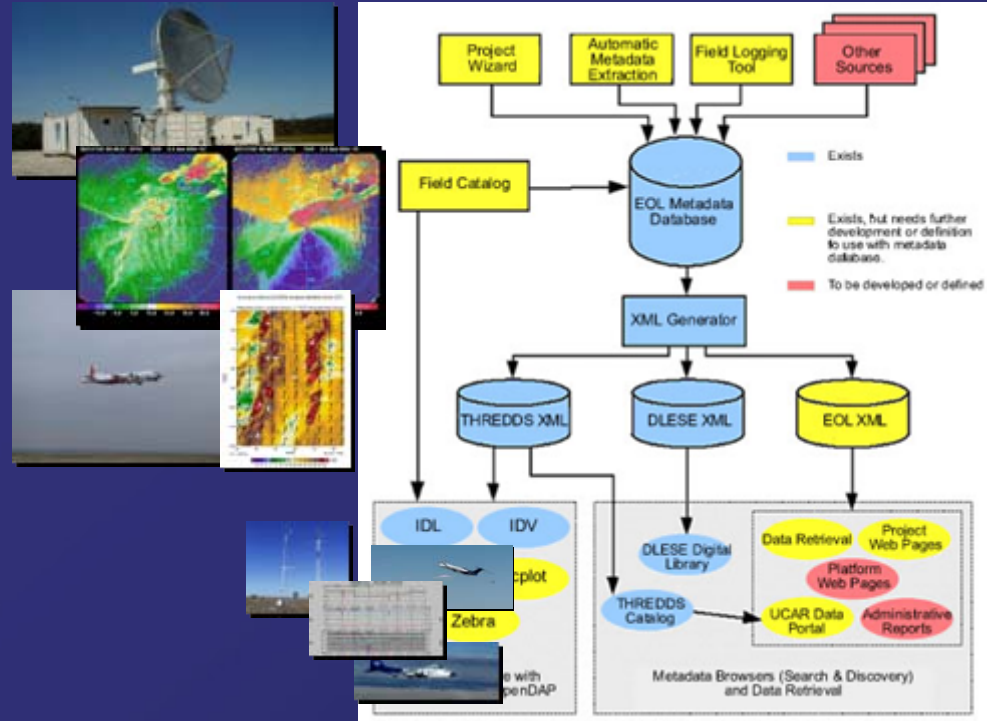
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Computing, Data and Software

Creates integrated software and data system services that are at the heart of state of the art observing systems

Enhances field operations through innovative application and implementation of communications technologies that foster scientific interaction and enable expanded field program audiences

Provides data management services for field campaigns and subsequent research efforts, including stewardship and curatorship



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Field Campaign Considerations

- Coordination Phase
- Long-term Monitoring
- Data Management Coordination
- Operations - (ATC, Observing Facilities, Forecast Teams)
- Communications Tests
- Field Campaign



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