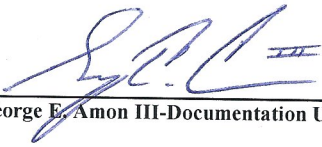


ARGO

Data Management and Sharing Plan

Document Approval and Acceptance



(Mr. George E. Amon III-Documentation Unit Leader)

15 NOV 15

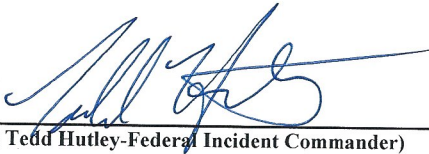
(Date)



(LT Rachel Wellman- Planning Section Chief)

15 NOV 15

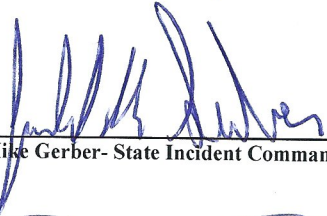
(Date)



(CDR Tedd Hutley-Federal Incident Commander)

15 NOV 15

(Date)



(Mike Gerber- State Incident Commander)

11-17-2015

(Date)



(Jim Elliott- T&T Project Manager)

15 NOV 15

(Date)

Common Operating Platform Data Management and Sharing Plan Tank Barge Argo 2015

Purpose:

Information and data generated as a result of the response, mitigation efforts, or other similar activities (the "Response") related to the Tank Barge Argo (the "Incident"), are used in support of the Unified Command's Critical Information Requirements (CIRs). This Data Management and Sharing Plan (the "Plan") is meant to ensure continuity of information across the various CIRs and facilitate sharing amongst the response personnel during the incident. Furthermore, this plan will set the foundation for access to information and archive of data.

Implementation of this plan will:

- Reduce compartmentalized isolation of information within ICS units and sections
- Ensure all parties understand responsibilities, methods, and resources available
- Maintain information continuity over time regardless of personnel changes
- Provide the basis for periodic review, evaluation, and updating of procedures
- Ensure the proper archival of data for post-incident retrieval and analysis

What is covered under this Plan:

This plan includes all incident related documents, Geographic Information Systems (GIS) data, photography, video, remote sensing, response sampling, response databases, and corresponding metadata as described in accompanying appendices.


The incident related information and data that may be **excluded** under the scope of this plan are:

1. Proprietary, confidential, privileged or non-incident related information or data.
2. Licensed, sensitive, or cultural resources as determined by data provider.
3. Information developed for the sole purpose of the Natural Resource Damage Assessment (NRDA).

The overarching objective of this plan is to facilitate availability of information to all parties involved in the response. The Documentation Unit and Situation Unit were integral to the development of this plan and the establishment of daily documentation and sharing procedures.

Unified Command Signatures:

United States Coast Guard IC



15 NOV 15

Date

NOAA Representative



11-17-2015

Date

EPA Representative



11-17-2015

Date

This Plan does not supersede the Incident Command Post (ICP) Documentation Plan. This plan describes, in technical detail, information sharing between the United States Coast Guard, the Responsible Party (RP), and other organizations in the Unified Command.

I. DATA MANAGEMENT AND SHARING PROCESS:

This describes the different types of incident data and provides details about file types, descriptions, temporal coverage, processing responsibilities, point of contacts, storage locations, access restrictions, and sharing schedules. As stated previously, data covered by this Plan include all GIS data, photography, video, response sampling, remote sensing, and response databases not excluded by agreed exclusions.

For any data to be released to the public the data must be approved and released by the Unified Command.

Refer to Appendix I tables for detailed descriptions of data and sharing.

II. DATA PRESERVATION & PROTECTION:

Short-Term Storage (incident start to end of response):

Proper storage during the response will facilitate data usage to support operations and planning. An official repository will be designated for the incident.

Long-Term Storage (end of response to indefinite):

All data referenced in this plan would fall under the Document Management Plan for the incident. Data is subject to the Documentation Unit processes for retention and storage.

Archive Management:

The Federal On-Scene Coordinator (FOSC) has established a plan in accordance with the documentation of pollution response activities as mandated by the National Contingency Plan (NCP), in accordance with 40 CFR §§ 300.160 and 300.315.

The Incident Archive will consist of all documents generated as the result of the incident. Documents broadly include any form of recorded information created for use. This includes:

- Any information written on paper, paper documents, electronic documents, and email.
- Any photography, GIS data, sampling data, remote sensing, video, databases, spreadsheets, etc.

The United States Coast Guard is the Federal financial lead; therefore, the United States Coast Guard is solely responsible for managing and maintaining the Federal Incident Archive until such time should FOSC authority be transferred. The USCG will maintain the archive until the point of transfer. Copies of the archive will be provided to the State, RP and other members of the Unified Command.

Additional theme areas described in Appendix

III. COMMON OPERATING PICTURE

IV. DATA INFRASTRUCTURE AND HARDWARE

V. METADATA AND FILE NAMING

VI. REFERENCES

Please refer to the tables in the corresponding Appendix document for detailed descriptions of data providers, data types, archiving, and sharing.

APPENDIX I: Data, Sharing and Archive Process

*This appendix describes the different types of incident and related data being created and covered under the Plan to meet Critical Information Requirements (CIRs) of the Unified Command (UC). It provides specific details about file types, processing responsibilities, delivery schedule and use restrictions. It also describes who is managing the data, how and when the data will be shared and disseminated to other response staff, if there are any sharing or use restrictions, and how sharing would be managed for the public if appropriate.**

This outline describes the functional sections of this appendix. Each Section provides a description and table to capture the pertinent information being created and the operational cycle that each dataset will support for addressing UC CIRs.

Section I – DATA MANAGEMENT AND SHARING PROCESS

- GIS Data
- Photography & Video
- Remote Sensing
- Response Sampling
- Response Databases

Section II – DATA PRESERVATION AND PROTECTION

- Short-Term Storage
- Long-Term Storage
- Transfer to Long-Term Storage

Section III – COMMON OPERATING PICTURE

Section IV – DATA INFRASTRUCTURE AND HARDWARE

Section V – METADATA AND FILE NAMING

Section VI – REFERENCES

* For any data to be released to the public, it must be approved and released by Unified Command.

SECTION I - DATA MANAGEMENT AND SHARING PROCESS:

GIS Data:

Data are either gathered from existing work to act as base data for the incident, or created by Data Management/GIS Technical Specialists in the GIS Unit, Environmental Unit, or Situation Unit within the Planning Section. Technical specialists for GIS and Data Management will have the primary responsibility to manage the lifecycle of this data, including processing raw data into maps or products for a COP. The tables below should include all incident related data but this many not be exhaustive. Data may continue to be added to this list throughout the response. The intent is track all relevant data being developed for the response, identify who is managing them and how to access the data.

Static GIS files (e.g. shapefiles, layer packages, and geodatabases) should be uniquely named and include a time/date stamp of the date of creation for version history and to prevent overwriting previous files. Data feeds (e.g. web service and ArcRest) can be used to share data, however due to potential technical issues with respect to data feed stability, changing layer IDs, legend formatting, and external access, a copy of these data shall be transferred in the form of a layer package or geodatabase to the agreed upon response data repository (e.g. secure FTP server, local server, etc.).

Dataset	Data Type & Format	Description	Temporal Coverage	Delivery Schedule	Use Restrictions	Method of Field Collection	Field Collector & P.O.C.	Data Processor & P.O.C	Short-Term Repository
Trajectories	Shapefiles	Fate and effect modeling of oil for operational planning	Daily	Daily	response	Models	NOAA	NOAA	ERMA, Responselink, SFTP
NOAA Overflights	Shapefiles	Overflight observations and trackline from the NOAA observer flights	Daily	Daily	response	Field Observations	NOAA	NOAA	ERMA, Responselink, SFTP
Shoreline Cleanup Assessment Techniques (SCAT)	Shapefiles	Shoreline Cleanup Assessment oiling observations	Daily	Daily	response	Field Observations	Planning Section	NOAA	ERMA, SCAT database, SFTP

COP Data Management and Sharing Plan: Tank Barge Argo 2015

Culturally Sensitive Areas	Shapefile	Areas determined to have archeological or cultural significance	Static	As Needed	response	N/A	Planning Section	Various Agencies	ERMA, SFTP,
Wildlife Observations	Shapefiles, spreadsheets	Wildlife observations as reported by Operations	Adhoc	Daily	response	Field Observations	Ops Section	NOAA	ERMA, SFTP
Vessel Locations	REST feed	Operational vessel locations based off of AIS feeds.	Continuous	Daily	response	AIS	Planning Section	NOAA	ERMA, SFTP
Area of Operations	Shapefile	Area where operations are being done.	Static	Daily	response	REST feed	Planning	ERMA	ERMA, SFTP
Overflight Observations	Shapefile	Results of overflight observations	Daily	Daily	response	REST feed	Planning	NOAA	ERMA, SFTP
GRP Status	Shapefile	Status of GRP implementation	Continuous	Daily	response	REST feed	Planning	NOAA	ERMA, SFTP
Boom Status	Shapefile	Status of Boom deployment	Continuous	Daily	response	REST feed	Planning	NOAA	ERMA, SFTP
Base data	Shapefile	Background information	Static	Daily	response	REST feed	Planning	NOAA	ERMA, SFTP
Decon Locations	Shapefile	Locations of Decontamination stations	Daily	Daily	response	REST feed	Planning	NOAA	ERMA, SFTP
Flotilla Locations	Shapefile	Locations Flotilla stations	Daily	Daily	response	REST feed	Planning	NOAA	ERMA, SFTP

All GIS data should be copied to this repository in the appropriate operational period required for these data to support response needs and to ensure accessibility and record integrity for the response. This will allow the response to have a static copy of data accessible by all as well as to act as a backup in case of system or server failure.

Photography & Video:

Once photography comes to the ICP it should be managed in the designated data repository. The GIS Unit will process and upload photography and associated GPS files to this location.

Field teams must ensure they are following appropriate protocols for field photo and video collection by coordinating with the photo and video data managers (Technical Specialists) before going into the field. These data are more valuable to the response when collected with corresponding location information from a GPS. The processing software used varies, but the purpose is to catalogue and organize response photos and video that are specific to a geographical location. Below is a documentation of where data exists within the response infrastructure and who is managing it.

Dataset	Data Type & Format	Description	Temporal Coverage	Delivery Schedule	Use Restrictions	Method of Field Collection	Field Collector & P.O.C.	Data Processor & P.O.C	Short-Term Repository
Response Photos	Photos & GIS	Photos of Response	Daily	Daily	Response	Camera & GPS	USCG	NOAA	SFTP, ERMA, Access Photologger Database

Remote Sensing:

Remote sensing products will largely come from external organizations and not normally from direct efforts within the response organization. Examples are commercial satellite companies, federal remote sensing offices, and private remote sensing companies. The raw data will more than likely be managed and stored with the owner's infrastructure. The response organization would receive the final analysis products to utilize in response. Below is a documentation of what remote sensing efforts are being used, what products are being requested, and primary contact information.

Dataset	Data Type & Format	Description	Temporal Coverage	Delivery Schedule	Use Restrictions	Method of Field Collection	Field Collector & P.O.C.	Data Processor & P.O.C	Short-Term Repository
Hyperspectral Imaging	GIS	Hyperspectral information on oiling	Adhoc	Adhoc	Response	NOAA aircraft	NOAA	NOAA	SFTP, ERMA

Response Sampling:

During a response multiple sampling efforts may be developed and implemented for a variety response endpoints. This table is meant to document what efforts are being pursued, what products are being developed, product schedule, use considerations and primary contact information.

Dataset	Data Type & Format	Description	Temporal Coverage	Delivery Schedule	Use Restrictions	Method of Field Collection	Field Collector & P.O.C.	Data Processor & P.O.C	Short-Term Repository
Analytical Chemistry Data	GIS, Excel, Database formats	Analytical chemistry data collected for air, sediment, tissue, and water.	Daily	Daily	Response & NRDA	Field data collection and laboratory analysis	EPA	EPA/NOAA	SFTP, ERMA, DIVER, SCRIBE

Response Databases:

During a response multiple databases may be used for various types of data. This table is meant to document what efforts are being used, what products are being developed, product schedule, use considerations and primary contact information.

Database	Data Type & Format	Description	Temporal Coverage	Delivery Schedule	Use Restrictions	Method of Field Collection	Field Collector & P.O.C.	Data Processor & P.O.C	Short-Term Repository
DIVER (NOAA)	Tables	Chemistry data	Daily	Daily	Response	Various	USCG	NOAA	ERMA, SFTP, DIVER, SCRIBE
SCRIBE (EPA)	Tables	Chemistry data	Daily	Daily	Response	Various	USCG	NOAA	ERMA, SFTP, DIVER, SCRIBE
ERMA (NOAA)	Shapefiles	Chemistry data	Daily	Daily	Response	Various	USCG	NOAA	ERMA, SFTP, DIVER, SCRIBE

SECTION II - DATA PRESERVATION & PROTECTION:

Short-Term Storage (incident start to end of response):

There are three constructs for short-term storage during an incident:

1. Data backup – In order to protect data from accidental modifications, deletions, or disaster events, each data manager is required to ensure a backup method for their daily work, such as an external hard drive or external server.
2. Primary GIS or database storage - Data managers may have systems in place to store the working copy of their daily data collections and products, such as ArcGIS Server, SCRIBE sampling database, or SCAT database. The final daily product from these working directories would be shared in the repository described next.
3. Shared Response Data Repository - A designated response data repository will act as a working environment for all data managers so data can be shared without needing to grant access to firewalled proprietary systems. This is critical to sharing data across different private, state, and federal agencies. This repository will eventually be transferred to the final archive.

Long-Term Storage (end of response to indefinite):

The incident archive will be managed and maintained by the United States Coast Guard Incident Historian according to agency policy; a copy of the incident archive can be made in its entirety upon request. Additionally, other agencies may set up their own data archive to ensure it meets their agency requirements.

Archive Owner	Storage Location	P.O.C.
USCG	USCG Archive Facility	George Amon CG Sector Lake Michigan 2420 S. Lincoln Memorial Dr. Rm. 211 Milwaukee, WI 53207 262-995-8188
NOAA NODC	NOAA NODC - Stennis	To Be Determined

Transfer to Long-Term Storage:

Data type	Transfer method
GIS Data	FTP sites and/or physical hard drive transfer.
Photography and Video	FTP sites and/or physical hard drive transfer.

Remote Sensing	FTP sites and/or physical hard drive transfer.
Response Sampling	FTP sites and/or physical hard drive transfer.
Response Databases	FTP sites and/or physical hard drive transfer.

SECTION III - COMMON OPERATING PICTURE:

This section serves to catalogue and describe the Common Operating Pictures (COP) involved during an incident.

A designated COP does not preclude the use of other viewers for individual responder or organizational use, provided that everyone has access to consistent, up-to-date data. A daily exchange cycle should be described for data delivery requirements. The following points should be discussed:

- Data must be interoperable with appropriate systems
- Situation Unit oversight/QA of data to ensure continuity and access during the response
- Timelines of data delivery, communication for sharing data in other data viewers
- Basic metadata on file creation (who, what, where, when)

COP	Description	Response Function	Method of data access	POC
ERMA	NOAA's COP	Primary COP	Internet via user accounts	Nicolas Eckhardt
EPA Flex viewer	EPA's COP	Providing data	Internet access	Brian Cooper

SECTION IV - DATA INFRASTRUCTURE AND HARDWARE:

This section outlines the designated, centralized, data storage applications used during the response.

The response data repository is a working environment where daily operational period data are to be shared between GIS analysts and other designated responders. A data repository is critical to sharing GIS data across different private, state, and federal agencies.

Response Repository: [organization] has provided an On-scene Response Server or accessible, offsite storage location to act as a repository for all data governed by this plan. It is being managed by the [organization] and access will be provided to the Unified Command (including the RP) and to NOAA.

COP Data Management and Sharing Plan: Tank Barge Argo 2015

Data Storage Application	Description	Location	Method of data access	POC for access
Secure FTP	NOAA Secure FTP	Sftp.orr.noaa.gov	Internet	George Graettinger, Gary Peterson

SECTION V - Metadata and File naming:

Minimum Metadata requirements⁵:

- Source of the information
- Date of capture
- Contact
- Description of the information
- Any processing done to change the source information
- Any known limitations or issues with the information
- Geographic area of coverage
- Quality of data

Filename convention:

- Shapefile names must include the type, date of publication (if applicable), and time of observation (if applicable). Note there is a 50 character limit for shapefile names.
- *Example: WildlifeObservations_2012_0504_1300hrs.shp*

Filing Standards/best practices:

- All folder names in Spatial_Data should use underscores not spaces, dashes, or any other character to split naming description.
- GPS data (.GDB, .GPX or Shapefile) should be included with the photos under the Name level in the Photos file structure.
- Personal folders are for “working” versions of data or GIS project templates, but should be transferred over to the main filing structure when finished.
- Filenames must include the type, date of publication (if applicable), and time of observation (if applicable).
- *Example: WildlifeObservations_2012_0504_1300hrs.pdf*

Filing Structure Template examples:

- Spatial_Data
 - Type (Ex. Wildlife_Observations)
 - Date (YYYY_MMDD)
- Maps
 - Type (Ex. Overflight Observations)
 - Date (YYYY_MMDD)
- Documents
 - Type (Ex. Resources_at_Risk)
 - Date (YYYY_MMDD)
- Photos
 - Type (Ex. SCAT)
 - Date (YYYY_MMDD)
 - Team
 - Name
- Personal_Folders
 - Name
- Tools_Software

SECTION VI – REFERENCES:

- 1) USCG Incident Management Handbook. 2014
- 2) USCG Records Management. CG-611 Management Programs and Policy Division.
 - a) The primary purpose of the Coast Guard's records management program is to promote the maintenance and security of records, to ensure we have accurate and timely information to accomplish our missions, allow accessibility to information to staff and the public as appropriate, and preserve official records in accordance with applicable statutory and regulatory requirements.

The term "record" is not limited to paper documents, but includes all media, e.g., audiovisual, cartographic, electronic, etc. Records can be either temporary or permanent; temporary records are destroyed after a specified/approved period of time while permanent records are preserved by the National Archives for the life of the republic. Typically, for any government agency, less than five percent (5%) of the records are scheduled as permanent; the Coast Guard has almost 25% scheduled as permanent records.

All Coast Guard personnel have basic Records Management responsibilities. Originators and recipients of both paper and electronic records (including e-mail) must label and archive information per approved dispositions schedules outlined in:

Information and Life Cycle Management Manual, COMDTINST M5212.12A., and NARA Approved Changes to COMDTINST M5212.12A (updated June 7, 2013)

- 3) NOAA Environmental Data Management Committee (EDMC) Data Management Planning Procedural Directive, Version 2.0.1, February 11, 2015.
- 4) National Oil and Hazardous Substances Pollution Contingency Plan (NCP)
- 5) IPIECA-IOGP. Work Package 5: Common Operating Picture, IPIECA – IOGP Oil Spill Joint Industry Project. 2015.