# Common Operating Platform
# Information Management and Data Sharing Plan
# Texas City Y Spill

***Purpose***:
Information and data generated as a result of an incident, or germane to the mitigation of an oil spill, must be reasonably and equitably shared amongst the parties involved in a response. This plan's scope includes all content management (documents, digital photographs, and scanned Incident Command forms and plans), environmental data management, and Geographic Information Systems (GIS) data associated with the Texas City Y Spill.

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

1. Proprietary, confidential, or restricted information or data.
2. Licensed, sensitive, or cultural resources as determined by data provider.

This agreement is intended to facilitate the sharing of information among the response parties prior to the end of the response and does not affect the final response documentation package assembled by the Incident Command's Documentation Unit. This agreement does not cover information developed for the sole purpose of the Natural Resource Damage Assessment (NRDA).

***Mechanisms for Documentation and Sharing***:
The overarching objective of this agreement is to facilitate transparency from all parties involved in a response. The parties included may be: federal entities, responsible parties, states, tribal bodies, and contractors. Information and data will reasonably be made available to any of the included parties in this agreement both during and post incident for the purpose of data management and archiving. The Appendix of this document will describe the mutually agreed upon mechanisms for the documentation and sharing of the above mentioned categories of information and data.

***Signatures***:

United States Coast Guard — 21 Apr 2014 — Date

General Land Office — 4-18-14 — Date

Kirby Inland Marine Corp. — 4-18-14 — Date

National Oceanographic and Atmospheric Administration (NOAA) — 4/18/14 — Date — NOAA SSC

## SUMMARY OF INCIDENT DATA SHARING AND MANAGEMENT PLAN

The below sections are an executive summary of the technical guidelines contained in the Appendix attached to the end of this plan.

***Data Categories Included in this Plan***:

- *Operational GIS data*: defined as any GIS data directly related to assessment and cleanup operations that are managed on the TRG ArcSDE server. This includes division boundaries, boom deployment, taskforce locations, cleanup operations, etc.
- *Operational and Environmental data*: defined as 1) all geophysical, spatial, and analytical information collected from soil, water, and the air that is tabularized in a structured format for storage in a database or geodatabase used by GIS, 2) wildlife observations processed as GIS files, and 3) shared operational GIS data. This data includes boom deployment locations, cleanup activities, task forces and operational boundaries (i.e. all operational data managed on the TRG ArcSDE server), environmental assessment and planning for operations, trajectories, Shoreline Cleanup and Assessment Techniques (SCAT), wildlife observations, overflight assessment, sampling data, etc.
- *Photography*: defined as any response photos or video. This includes, overflight observations, SCAT, wildlife observations, rapid assessment, sampling, operations.
- *Additional Content*: defined as all electronic files generated during the response field data collection effort. This includes photography, GPS track files, electronic signed and scanned copies of field observation forms, field notes, response plans, correspondence and memoranda.

***Sharing and Dissemination***

Unified Command agrees on these terms:

1. Operational GIS data will be available through server feeds from The Resource Group (TRG).
2. Operational and Environmentally focused data, created by TRG, will be shared as static GIS files with uniquely named files including a time/date stamp of the data creation over the NOAA SFTP. All operational and environmental GIS data will be available on the NOAA SFTP. This will allow the response to have a static copy of operational and environmental data accessible by all and able to recreate previous days' information.
3. Photography and other content will be available to all response parties (including USCG, NOAA, TGLO, Kirby and their contractors).
4. A restricted SharePoint project portal has been set up for the response project which can be accessed by all parties to review and download content. This project portal will contain links to the TRG web viewer, NOAA's ERMA, NOAA SFTP, and other web accessible sites utilized during the response. This provides a central place for information management for the response. NOAA SFTP data will be transferred to the SharePoint project portal for permanent archiving. Access to the SharePoint project portal will be limited to the response parties.

***Common Operational Picture***

1. The Operational COP (TRG Viewer) will be managed by TRG.
2. The Federal COP (ERMA) will be managed by NOAA.
3. The SharePoint project portal will be managed by Kirby.

Continuity of data between the systems is achieved through consistent communication and cooperation among the Technical Specialists. While there are two COP displays there is one data repository of shared information centralized by the SharePoint project portal.

***Storage and Archival Sharing***

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

- *Operational GIS data*: TRG will manage the operational GIS data in their ArcSDE hosted environment.
- *Operational and Environmental data*: The NOAA SFTP will house all GIS data. Access to shapefiles and geodatabases is open to all response parties.
- *SCAT data*: SCAT processors will manage the SCAT database and associated forms. Processed data will be uploaded to the NOAA SFTP.
- *Sampling data*: Sampling results will be managed and stored in EPA's SCRIBE database by CTEH. Daily snapshots of the sampling location data managed by CTEH will be made available on the NOAA SFTP. A final SCRIBE database of will be delivered to the NOAA SFTP once sampling has been completed.
- *Photography*: The NOAA SFTP will house all available response photography.
- *Additional Content*: The Documentation Unit will house all electronic files generated during the response field data collection effort on hard drives. Access to hard drives is open to all response parties and may by uploaded to the SharePoint project portal. Access to the SharePoint project portal will be limited to the response parties.

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

- Operational and Environmental data and Additional Content will be transferred to Documentation Unit hard drives at the Incident Command Posts (ICP) and to the SharePoint project portal.
- SCAT Data and associated forms will be transferred to Documentation Unit hard drives and the SharePoint project portal.
- Sampling data will continue to reside in EPA's SCRIBE for long term archive.
- All response photography will be transferred to Documentation Unit hard drives at each ICP and the SharePoint project portal.

## APPENDIX: TECHNICAL GUIDELINES

**Purpose:**
The purpose of this Appendix is to provide the framework for cooperation and data sharing among the federal, state, and industry GIS players during the Incident response.

The following sections outline in detail the data and processes that information is shared and disseminated between organizations and command posts.

**MANAGEMENT AND PROCESSING:**

**Operational GIS data:**

| Data Stream | Data Type | Description | Collector | Processor | Field Repository |
|---|---|---|---|---|---|
| Area of Operations | ArcREST feed | Response boundaries, staging areas, ICP locations | Ops | TRG | TRG SDE database, SharePoint, NOAA SFTP |
| Response Operations | ArcREST feed | Boom deployment, taskforce locations, cleanup operations | Ops | TRG | TRG SDE database, SharePoint, NOAA SFTP |
| Overflight Assessment | Shapefiles, ArcREST feed | Assessment of oiled areas and extent of impact | On Water Response Contractors, TRG, USCG | TRG | (Tracklines) TRG SDE database, NOAA SFTP; (Observations) TRG SDE database, SharePoint |

TRG is designated as the manager of all Operations Section GIS data excluding wildlife operations. They are closely embedded with the Operations Section and work directly with field teams or are themselves collecting information in the field. The TRG team processes and manages their data on the ArcSDE also feeding their COP. GIS data will be made available to all response parties by making shape files and geodatabases available through the NOAA SFTP site. These will include daily versions of the operational data with unique file names of their time/date data creation so that users will be able to recreate previous days' information.

**Environmental data:**

| Data Stream | Data Type | Description | Collector | Processor | FieldRepository |
|---|---|---|---|---|---|
| SCAT Observations | Database, shapefiles | Shoreline Cleanup Assessment Techniques teams are collecting shoreline observations in hardcopy form to be entered into a database | SCAT teams | NOAA | NOAA SCAT Database, NOAA SFTP , SharePoint |
| Overflight Assessment | Shapefiles | Oil observations made by trained NOAA observers | NOAA | NOAA | NOAA SFTP, SharePoint |
| Wildlife Observations | Shapefiles | Entrapped, oiled, or | USFWS, | USFWS, | NOAA SFTP, |

| | | | | | |
|---|---|---|---|---|---|
| | | deceased wildlife observed by Wildlife Ops, USFWS, NOAA, or the public, Best Management Practice (BMP) observations | NOAA | NOAA | SharePoint |
| Response Sampling Data | Database, ArcREST feed | Water, Air and Sediment sampling | CTEH | CTEH | EPA SCRIBE, SharePoint |
| NOAA Trajectories | Shapefiles | Oil trajectories using overflight observations as well as forecasted currents and weather | NOAA | NOAA | NOAA SFTP, SharePoint |

NOAA is managing a large portion of the environmental data and GIS data. Much of this management and processing is located in the Planning Section. SCAT is being collected on hardcopy forms and entered into the SCAT database by NOAA. Wildlife observations are collected by the Wildlife branch in Operations and passed onto USFWS or NOAA Fisheries to identify and catalogue through a SharePoint portal. As well, NOAA observers are involved in collecting observations. Sampling data are collected and processed by CTEH and stored within the EPA's SCRIBE database. All environmental data are stored on the NOAA SFTP, including daily snapshots of sampling locations managed by CTEH. A final SCRIBE database will be delivered to the SFTP once sampling efforts have been completed.

**Photography:**

| Data Stream | Data Type | Description | Collector | Processor | FieldRepository |
|---|---|---|---|---|---|
| SCAT Photos | JPG (geotag) | Photos of observations and oiling. Could also include oiled or deceased wildlife. | SCAT teams | NOAA | NOAA SFTP, SharePoint |
| Overflight Photos | JPG (geotag) | Oil on water and items of interest photos taken by observers. | USCG, TRG, MSRC, NOAA, TGLO | NOAA, TRG | NOAA SFTP, TRG, SharePoint |
| Operations Photos | JPG (geotag) | Photos of ongoing protection and cleanup operations. | USCG, TGLO, Kirby | TRG, NOAA | TRG, NOAA SFTP, SharePoint |
| Wildlife Photos | JPG (geotag) | Photos of stranded, oiled, or deceased wildlife. | SCAT, NOAA, USFWS, TGLO | USFWS, NOAA | USFWS, NOAA SFTP, SharePoint |
| Rapid Assessment Team (RAT) Photos | JPG (geotag) | Photos of assessed areas and cleanup endpoints | USCG | NOAA, TRG | NOAA SFTP, TRG, SharePoint |

Photos are received from the field and processed to add geo-locations. This processing is mainly done by TRG, NOAA, and TGLO. The software used varies, but the purpose is to catalogue and organize response photos.

**SHARING AND DISSEMINATION:**

**Operational Data**:

TRG is managing and processing Operational GIS data. They are sharing the display of information through automated ArcGIS Server REST services between the command posts and to NOAA's ERMA. Their viewer is displayed in the Situation Unit and to the Unified Command as well as any other locations in command posts. Any data that is created through Operations or TRG will be shared on the NOAA SFTP repository with uniquely named files including the time/date stamp of data creation for dissemination to Response parties and permanently archived on the SharePoint project portal.

*Operational GIS data REST Services*:

TRG is publishing their data on ArcGIS Server REST services in order to easily share information between command posts and to NOAA. If there are changes in the published services TRG Technical Specialists will inform NOAA Technical Specialists by email in order to keep continuity of information across the TRG Viewer and NOAA's ERMA.

*Operations and Environmentally focused operational data*:

All data will be shared in static form (shapefiles, layer packages, or geodatabases) on the NOAA SFTP. Those data include:

a. Safety Zones
b. Oil Observations
c. Overflight Tracks and Photos
d. Shoreline Impact.

***Daily Sharing Schedule***:

NOAA and Technical Specialists working for Kirby will meet daily at 1300 or as needed to discuss any changes in the published services as well as any new environmental data for sharing.

**Environmental Data**:

NOAA, USFWS, TGLO and others are managing environmental data. The repository for the sharing and dissemination of environmental data is the NOAA SFTP. Some Response parties will utilize a centralized, Wweb accessible SharePoint portal for managing their environmental data collected which will feed the NOAA SFTP.

*NOAA Trajectories and Overflight Assessments*:

Both GIS files and PDF versions of the forecasts and maps of overflights will be shared through the NOAA Scientific Support Coordinator (SSC) and NOAA Technical Specialists. The NOAA SFTP will act as the data repository for this information.

*SCAT Observations*:

Information from the command post comes to the SCAT processors after teams arrive back at the end of their field day. The data are downloaded and organized that evening. The next day, the data

are processed and both hardcopy maps and GIS data are produced. The maps go to the respective Situation Units in both command posts as well as Unified Command. The GIS data are sent to TRG as well as placed on the NOAA SFTP so that they can be uploaded to ERMA. The data are made available to the response by late afternoon the day after SCAT teams assess shoreline. SCAT data uploaded to the SharePoint are instantly made accessible to those with access to the SharePoint site.

*Wildlife Observations*:

For bird observations: phone calls of oiled or deceased wildlife are made to the Operations Section's Community Emergency Response Team (CERT), who report the observations to the Wildlife Operations Unit dispatcher. Field teams fill out either a Live or Dead form that comes to the Wildlife Unit for data entry, archiving onto the SFTP, and loading into ERMA. Original Wildlife observation forms are scanned and uploaded to a SharePoint portal where they are made accessible to the Unit performing data entry and archiving onto the SFTP, and loading into ERMA.

For marine mammal and turtle observations: phone calls of oiled or deceased wildlife are made to the CERT or to the NOAA Fisheries' Stranding Network, then forms are filled out in the Wildlife Unit. Reports are also produced by NOAA Fisheries. Available data are provided to ERMA. This process is still evolving. Original Wildlife observation forms are scanned and uploaded to a SharePoint portal where they are made accessible to the Unit performing data entry and archiving onto the SFTP, and loading into ERMA.

*Response Sampling*:

CTEH is collecting and processing sediment, water, and air monitoring samples as a part of the response. The data are managed in the EPA's SCRIBE database. Samples are sent to an approved laboratory, which provides an Electronic Data Deliverable (EDD) of results to CTEH. Once results are reviewed and validated in SCRIBE by sampling managers, ArcREST feeds are produced by EPA for the TRG viewer and ERMA. For more information on sampling data management see the Environmental Unit's *Sampling and Analysis Plan's Data Management Plan*.

***Daily Sharing Schedule***:

- *SCAT*: maps and data disseminated the afternoon after the day SCAT teams assess shoreline
- *NOAA Trajectories*: twice daily forecasts are posted at 0700 and 1600. These forecasts ended 3/28/14.
- *NOAA Overflights*: observations and photos posted twice daily after morning and afternoon overflights.
- *Wildlife Observations*: Bird observations are received by the end of each evening for the previous day's observations. Marine mammal and turtle observations arrive as they are made available.
- *Response Sampling*: CTEH's publish schedule to SCRIBE.net will be noon (for operational sample data) and 6PM (for analytical data). After these are published, data will be refreshed in the ArcREST services and automatically reflected in ERMA

**Photography**:

Photography is being shared and disseminated mainly by TRG, NOAA, and TGLO. After photography is processed, depending who the source was and who was processing, the photography is

made available to others in the response. A SharePoint portal has also been established to facilitate the daily organization of photographs, metadata, and to disseminate information to response parties.

*SCAT Photography*:

Photography taken by SCAT teams are processed and placed on the NOAA SFTP. NOAA uses an Access database called Photologger to catalogue and organize response photography. From there ERMA managers and TRG have access to the geo-tagged photography.

*Overflight Photography*:

Photography from overflights is processed and placed on the NOAA SFTP where it is available to the response. Operations section overflights are managed by TRG and environmental overflights as well as oil forecasting flights are managed by NOAA. All overflight photography is shared.

*Operations and RAT Photography:*

Photography taken by the Operations section is received by both TRG and NOAA. After being processed it is placed on the NOAA SFTP.

*Wildlife Photography:*

Wildlife teams provide photography and GPS to NOAA for processing and uploading to ERMA. The process of obtaining photography from all wildlife teams is still evolving.

***Daily Sharing Schedule***:

- *SCAT Photography*: data arrives after teams come back from the field and upload them to the NOAA SFTP. Most photography is received by 2000 the day of assessment.
- *Overflight Photography*: the delivery times vary based on who is observing. Photography is received by processing teams no later than 2000 the day of the flight.
- *Operations/RAT Photography:* Photography is made available when crews are able to deliver their photos. Times vary.
- *Wildlife Photography:* Photography is mostly received by processing personnel by late afternoon. Times vary.

**COMMON OPERATIONAL PICTURE**

Based on decisions by Unified Command, both the TRG viewer and NOAA's ERMA will be used during the response. The TRG Viewer is focused on operational data and assisting the Operations Section with continuity of information and planning. NOAA's ERMA, while strongly focused on environmental data, also displays TRG's feeds for continuity of information. It acts as the federal COP and accounts are available to any state, federal, or industry staff involved in the response, whether internal or external to the command posts. This allows for situational awareness to any response staff not on-scene and assists in reporting to agency leadership.

Continuity of operational data between the systems is achieved through consistent communication and cooperation, utilizing both feeds and static data. While there are two COP displays there is one shared data repository through the SharePoint portal.

**STORAGE AND ARCHIVAL SHARING**:

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

Storage during the response will facilitate data usage to support operations and planning. The systems and processes for storing data are designed to quickly share and disseminate. These systems are not designed for long term storage. At the end of the response phase, data will need to transition to a more stable solution. Access to the following short-term stored data is open to all response parties:

- *Operational GIS data*: TRG will manage in their ArcSDE the operational GIS data.
- *Operational and Environmental data*: The NOAA SFTP will house all GIS data and daily instances of environmental analytical sampling locations.
- *Additional Content*: electronic files generated during the response field data collection effort and maintained on Documentation Unit hard drives.
- *SCAT data*: SCAT processors will manage the SCAT database and associated forms.
- *Sampling data*: CTEH uses the EPA SCRIBE database to store and manage all response sampling data.
- *Photography and other electronic content*: The NOAA SFTP will house all available response photography.

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

Long term storage is needed to provide archive and continuity of information. The Documentation Unit at each ICP will manage separately the long-term storage of environmental GIS data and photography. After consulting with the Documentation Unit, due to security issues and technology limitations, all environmental GIS data and photography will be placed on hard-drives. The GIS personnel with TRG and NOAA will work with the Documentation Unit to transfer photography and environmental GIS data to hard drives at the appropriate times. Copies of hard drives will be provided to the response parties and available for access upon request to the USCG.

The sampling data will continue to be managed through EPA's SCRIBE and will act as the response sampling archive.

**Transfer Schedule**:

- *Operational and Environmental GIS data:* when GIS Technical Specialists demobilize they will download any GIS data to Documentation Unit hard drives at the Incident Command Posts. A folder structure will be developed to facilitate organization within the hard drives.
- *Additional Content*: electronic files generated during the response field data collection effort and maintained on Documentation Unit hard drives will be provided to the response parties upon request.
- *SCAT data*: At the end of the response NOAA will provide a final copy of the SCAT database and associated forms.
- *Photography:* Once a week, NOAA will download new photos on the NOAA SFTP to Documentation Unit hard drives.
- *SharePoint:* The project SharePoint portal can also be archived periodically upon request to provide a backup of all files to response parties.

# RE: Texas City Y Spill Data Sharing Decision Memo

**Donohue, Keith M CDR** <Keith.M.Donohue@uscg.mil> Mon, Apr 21, 2014 at 12:26 PM
To: "Campbell, Lisa CDR" <Lisa.Campbell@uscg.mil>
Cc: "paige.doelling@noaa.gov" <paige.doelling@noaa.gov>

Thanks Lisa!

-----Original Message-----
From: Campbell, Lisa CDR
Sent: Monday, April 21, 2014 10:16 AM
To: Donohue, Keith M CDR
Subject: FW: Texas City Y Spill Data Sharing Decision Memo

Keith,
You are good to sign...
Regards,
Lisa

-----Original Message-----
From: Penoyer, Brian K CAPT
Sent: Monday, April 21, 2014 12:15 PM
To: Campbell, Lisa CDR
Cc: Alonso, Ricardo CDR
Subject: RE: Texas City Y Spill Data Sharing Decision Memo

Perfectly fine to sign below my level... thanks for asking.

Respectfully,

Captain Brian Penoyer
Sector Houston-Galveston

-----Original Message-----
From: Campbell, Lisa CDR
Sent: Monday, April 21, 2014 10:48 AM
To: Penoyer, Brian K CAPT
Cc: Alonso, Ricardo CDR
Subject: FW: Texas City Y Spill Data Sharing Decision Memo

Captain,
The COP information management data sharing plan decision memo (attached) is ready for USCG signature.

This plan was drafted by Jill Bodnar and JB Huyett of NOAA. It has been followed since we opened the Matagorda ICP, but was tied up at Kirby legal for a while. Even though it is late in this response to sign a spatial data sharing plan, this is a ground-breaking plan in that it captures successful data sharing methods and agreements and will make an excellent template for future response data sharing agreements.

Is this something that you want to sign as the former Area Commander or do you want CDR Donohue to sign?

Respectfully,
CDR Lisa Campbell
FOSC, Galveston
Texas City Y Spill Response
(c) 713-248-7580
(c) 281-987-4883
lisa-campbell@clear.net

----Original Message----
From: Donohue, Keith M CDR
Sent: Friday, April 18, 2014 4:17 PM
To: Campbell, Lisa CDR
Subject: Texas City Y Spill Data Sharing Decision Memo

Lisa,

As mentioned, here is the COP info Management Data Sharing Plan decision memo. Let me know if you think it's best for the former Area Commander to sign or if it's OK for me to do so.

Thanks,
V/R

CDR Keith Donohue
Commanding Officer
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