Incident Command System

Liaison Officer

- LOFR -

Job Aid

July 2014

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Table of Contents

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Overview

User

The user of this job aid will be anyone assigned as Liaison Officer (LOFR) within the National Incident Management System (NIMS) Incident Command System (ICS).

The job of liaison during an emergency response is a critical one. It can have a large impact on the efficiency of resource use during the response operations, and on the perception of stakeholders regarding the success or appropriateness of the response activities. Both of these factors are critical to overall response success.

Personnel assigned to this position should have a good liaison/governmental affairs background and experience working with people in other organizations. Since this is a key position in the response organization, assignment should be based on experience level versus rank.

When to Use

This Job Aid can be used anytime as a supplement to the Incident Management Handbook (IMH). Generally, the IMH covers “what” to do but not “how” to perform a particular function. A LOFR can use this job aid for any incident or planned event. It is suited for incidents where the ICS is being used, but many of the principles and actions listed there-in can be used for other activities where the ICS is not used.

Scope

This Job Aid focuses on the role of the Liaison Officer in executing duties under the Incident Command System to ensure the effective coordination with participating organizations and stakeholders involved in the response. This Job Aid is designed to be used in concert with the U.S. Coast Guard's Incident Management Handbook (IMH). This Job Aid assumes that the Liaison Officer has a thorough knowledge of the Incident Command System and the user has fundamental skills in liaison and governmental affairs. This Job Aid does not cover other important traits of an effective Liaison Officer, such as:

- Good leadership, management and interpersonal skills;
- Experience in resolving contentious issues or conflicts;
- Solid grasp of liaison and governmental affairs knowledge as well as organization goals, objectives and missions;
- Adaptable and Flexible to needs of incident
- Proactive and Assertive
- Facilitation and presentation skills
- Excellent situational Awareness to be able to quickly develop perspective on the scope, scale and long-term consequences of the response;

- In-depth knowledge of the types of liaison challenges expected for incidents likely to be encountered.
- Ability to facilitate organizational success in terms of developing processes that bring together participating organizations and stakeholders to meet shared goals and objectives as the response effort evolves;

A good ICS Liaison Officer has these qualities and many more, in addition to having a thorough understanding of ICS.

Note: The term “stakeholder” as used in this job aid is inclusive of all outside entities with whom the Liaison Officer may interact, such as assisting and cooperating agencies, coordination facilities, elected officials, public, special interest groups, land owners and affected parties. This is not meant to alter any NIMS ICS doctrine.

Major Tasks

The responsibilities of the LOFR and the PIO often become intertwined because each position deals with entities outside of the response organization, i.e., public entities. In order to eliminate confusion and overlap, the LOFR and PIO should discuss and decide on the delineation of certain responsibilities. An example of such delineation would be the following:

- LOFR is responsible to deal with any public entity, namely assisting and cooperating agencies, stakeholder groups, and government officials who have a vested interest and will be expected to provide input into the response process and will expect situation reports from the Incident/Unified Command.

- LOFR is responsible for protocol functions, i.e., the logistics of honors, etc. for visiting dignitaries. The LOFR will coordinate escorts for visiting dignitaries to represent the IC/UC.

- PIO is responsible to deal with the media and general public where the objective is mainly to provide information to them.

The primary responsibilities of the Liaison Officer are to effectively coordinate with participating organizations (assisting and cooperating agencies) and stakeholders in support of the incident. This includes, but is not limited to:

- Serve as primary incident point of contact for Agency Representatives.
- Maintain a list of assisting and cooperating agencies and Agency Representatives including name and contact information. Monitor check-in sheets daily to ensure that all Agency Representatives are identified.
- Establish and coordinate with interagency contacts.
- Keep assisting and cooperating agencies and other stakeholders supporting the incident aware of incident status.
- Monitor incident operations to identify current or potential inter-organizational problems.
- Coordinate response resource needs for incident activities with the OSC.
- Effectively channel assisting agency resources and cooperating agency support into the operational planning process in order to have positive effects on the response effort.
- Serve as key contributor to the positive public perception of the response effort.
- Serve as primary point of contact for all stakeholders who are not represented

on the incident management team (IMT) and ensure their concerns, input, objectives, and issues are effectively addressed by the response effort.

- Manage the Liaison Staff Organization, including the assignment of Assistants and forming teams where necessary.
- Effectively use Assistant Liaison Officers (ALOFR) to manage work activities in the Incident Command Post (ICP) and assign ALOFRs to other locations where direct linkage to the ICP is necessary, such as Emergency Operations Centers (EOCs), Command Centers and or the Joint Field Office (JFO).
- Develop and maintain a Stakeholder Coordination or Outreach Plan or process.
- Participate in the Command and General Staff and Planning meetings providing limitations and capability of assisting agency resources.
- Brief Command on liaison issues and concerns.
- Review the Incident Action Plan (IAP) to ensure liaison oriented objectives, messages, issues and information are included as appropriate.
- Review support and/or contingency plans for integration of stakeholder input and involvement.

- Develop, review and approve liaison related documents.
- Ensure all Liaison activities are documented on ICS-214, Unit Log.
- Complete all required forms and documentation prior to demobilization.

Reference Below is a list of references that may be required while using this job aid:

- Incident Management Handbook (IMH) COMDTPUB P3120.17 is the key reference for executing Incident Command System processes. The IMH is available on the Coast Guard ICS web pages at **http://homeport.uscg.mil/ics/**.
- USCG Liaison Officer (LOFR) Performance Qualification Standard (PQS)

Materials Ensure you have appropriate Liaison materials during an incident. See Appendix C for a list of items to bring.

ICS Forms

Most of the forms necessary to complete this job can be found on the Texas A&M Forest Service ICS web pages at http://tfsfrp.tamu.edu/toolbox/classic.html

Generally, the LOFR will either work with or have responsibility for information on the following forms:

- Incident Briefing (ICS 201)
- Incident Objectives (ICS 202)
- Organization Assignment List (ICS 203)
- Assignment List (ICS 204)
- Communications List (ICS 205a)
- Incident Organization Chart (ICS 207)
- Incident Summary Status (ICS 209 CG)
- Check-In List (ICS 211)
- General Message (ICS 213)
- Unit Log (ICS 214)
- Demobilization Check-Out (ICS 221)
- Daily Meeting Schedule

1.0 Checklists

Pre-Assignment Actions

[ ]	Ensure personal readiness for assignment (See detail on page 18)
[ ]	Ensure LOFR certification is current (See detail on page 18)
[ ]	Assemble LOFR Deployment Kit (See detail on page 18 and Appendix C)

Pre-Deployment Actions

[ ]	Receive assignment (See detail on page 19)
[ ]	Verify reporting location, date and time (See detail on page 19)
[ ]	Finalize personal readiness for assignment (See detail on page 19)
[ ]	Receive resource order and order number (See detail on page 19)
[ ]	Make travel arrangements (See detail on page 20)
[ ]	Verify/Update personal deployment kit (See detail on page 20 and Appendix B)
[ ]	Verify/Update LOFR deployment kit (See detail on page 21 and Appendix C)

Check-In to Incident - Initial Actions

[ ]	Check-in (see detail on page 23)
[ ]	Resource orders - Finance (see detail on page 24)
[ ]	Lodging assignment - Logistics (see detail on page 24)
[ ]	Meal schedule - Logistics (see detail on page 25)
[ ]	Review & sign Site Safety & Health Plan (see detail on page 25)

Situation Assessment

[ ]	What kind of incident? (see detail on page 27)
[ ]	Who are key players? (see detail on page 28)
[ ]	When incident occurred? (see detail on page 28)
[ ]	Where is incident location/AOR? (see detail on page 28)
[ ]	Incident organization? (see detail on page 28)
[ ]	Resources on-scene? (see detail on page 28)
[ ]	Initial Safety Assessment? (see detail on page 29)
[ ]	Next meeting or briefing? (see detail on page 29)

Initial Brief

[ ]	Your role (see detail on page 30)
[ ]	Size and complexity of incident (see detail on page 30)
[ ]	Initial Safety Assessment (see detail on page 30)
[ ]	IC/UC expectations (see detail on page 30)
[ ]	Limitations and constraints (see detail on page 31)

Activate Liaison Organization

[ ]	Establish work location (see detail on page 33)
[ ]	Organize and brief subordinates (see detail on page 35)
[ ]	Acquire work materials (see detail on page 35)
[ ]	Order Staff (see detail on page 35)
[ ]	Liaison Staff Organization (see detail on page 38 and page 72)

Command and General Staff Meeting

[ ]	Incident Situation (see detail on page 43)
[ ]	IC/UC opening remarks (see detail on page 43)
[ ]	Receive IC/UC direction Decisions – (see detail on page 44) Priorities – (see detail on page 44) Limitations & Constraints – (detail on page 44) Objectives – (see detail on page 44) Procedures – (see detail on page 44)
[ ]	Provide Liaison Status Brief (see detail on page 45)
[ ]	Provide feedback to IC/UC on focus/direction (see detail on page 45)
[ ]	Discuss interagency issues (see detail on page 46)
[ ]	Discuss Liaison Issues/Needs (see detail on page 46)

Preparing for the Planning Meeting

[ ]	Conduct Staff meeting (see detail on page 56)
[ ]	Obtain briefings from Assistant LOFRs. (see detail on page 49)
[ ]	Meet with other IMT personnel RE Liaison issues (see detail on page 49)
[ ]	Prepare Liaison Status Briefing (see detail on page on page 45)

Planning Meeting

[ ]	Validate Operational Plan for next operational period (see detail on page 51)
[ ]	Provide Liaison Status Brief (see detail on page 51)
[ ]	Provide support for the proposed Incident Action Plan (see detail on page 51)

Post-Planning Meeting Actions

[ ]	IAP information to PSC:
[ ]	ICS-203 Organization – review (see detail on page 52)
[ ]	ICS-205a Communications List – Review (see detail on pages 52)
[ ]	Review Additional Plans for Liaison concerns
[ ]	Critical Information reporting (see detail on page 31)
[ ]	Obtain briefings from Assistant LOFRs. (see detail on page)

Operations Briefing

D	LOFR provides Liaison Status Briefing (see detail on page 53)

Execute Plan and Assess Progress

[ ]	Obtain briefings from Assistant LOFRs. (see detail on page 54)
[ ]	Assess Liaison related activities (see detail on page 54)

Personnel Evaluation Criteria

[ ]	Crew morale? High Med Low
[ ]	Are assignments completed on time?
[ ]	Are injuries exceeding normal operating environment?
[ ]	Is team effectively interacting?
[ ]	Number of unresolved issues passed to Command?
[ ]	Any aggression or frustration by team members?
[ ]	Possible solutions to problems/issues?

Demobilization

[ ]	Provide input to Demob Plan (see detail on page 64)
[ ]	Brief Replacement, as necessary (see detail on page 64)
[ ]	Replenish supplies (see detail on page 70)
[ ]	Provide documentation to Documentation Unit D ICS-214(s) D Stakeholder Coordination Plan D Decision Memos and/or other documentation
[ ]	Turn in equipment, as appropriate
[ ]	Complete ICS-221

2.1 General Tasks

2.2 Pre-Assignment Actions

1. Ensure personal readiness for assignment:
If you deploy without being personally ready, it will affect your ability to respond and cause a burden on the incident management team.
Personal readiness includes:

- Medical/dental readiness
  - Ensure you have no outstanding issues that would prevent you from being deployed. (e.g. have a plan to ensure you have enough medications for the entire period of the deployment)
- Uniforms – You have enough uniforms and/or appropriate clothing for an expected deployment.
- Financial Readiness – You need to be financially ready to deploy. This means ensuring your financial situation is in order. Ensuring bills will be paid while deployed.

- Family Readiness
  - Ensure you have a Dependent Care/Pet Care plan for when deployed. Please check www.militaryonesource.com for assistance.

2. Ensure LOFR certification is current in IQS.
   - ICS training (e.g. ICS-300, ICS-346).
   - Incident specific training (e.g. area familiarization, etc.)

3. Assemble LOFR Deployment Kit
   - Ensure all items found in Appendix are ready to go BEFORE you get the call to deploy.
   - Ensure supplies are restocked from last deployment.

2.3 Pre-Deployment Actions

1. Receive assignment
   - You may receive your assignment via message, phone call, supervisor, or on orders.

2. Verify reporting location, date and time
   - You should verify reporting location, date and time, order number, as well as Incident Command Post (ICP) contact numbers for assistance with check-in.

3. Finalize personal readiness for assignment
   - Review the pre-assignment checklist to ensure readiness for assignment which includes personal, dependent, and financial readiness.
   - Notify your chain of command of any outstanding readiness issues. This may mean delaying deployment to resolve the issue.

4. Receive Resource Order and order number
   - A written resource order will be issued by the Texas Interagency Coordination Center (TICC) competent authority is required for reimbursement of travel expenses. You may begin traveling under oral orders, but make sure the Team leader has the resource order.

- The Incident order number and order number are different. The resource order number will be used at check-in to verify the position that you will be filling.
  - Order Number is generally in the following format:
    - Example: O-374 (O is for Overhead, and the 3 digit number is assigned by Logistics)

5. Make travel arrangements

- The team leader or IC will decide on best travel method for the team members.
- Make travel arrangements using approved State of Texas travel guidelines using state per diem rates. Use GSA per diem rates for Texas.
  http://www.gsa.gov/portal/category/100120

6. Verify/update personal mobilization kit (see detail Appendix B).

A personal mobilization kit contains your personal items needed for the deployment and includes items like:

- Medications
- Uniforms and/or appropriate clothing
- Special PPE or special weather clothing required

- Verify if any special PPE will be provided by the incident.

7. Verify/update LOFR Deployment kit (see detail in Appendix C)
   - Ensure manuals, forms and guides are current versions (electronic and paper).
   - Ensure supplies are restocked from last deployment.

2.4 Check-In to the Incident - Initial Actions

The following tasks should be accomplished as soon as possible after arriving on-scene.

If you are in the first group of personnel assigned and <u>there is no check-in function set up</u>, contact the RESOURCE UNIT LEADER (RESL) or PLANNING SECTION CHIEF (PSC) and discuss the need for a check-in process.

1. Check-in: Upon arrival at the incident, check-in at the Incident Command Post, Base, or Staging Area on the ICS-211.
   a. Ensure you have your Order Number available. This enables the Check-in Recorder (SCKN) to validate your assignment to the incident quickly. The Order Number is generally in the following format:
      i. Example: O-374 (O is for Overhead, and the 3 digit number is assigned by Logistics).
   b. Additional information. The incident will want a phone number where you can be reached, your home base, how you got to the incident, as well as any additional qualifications you may have.

c. Receive assignment if available. Although you probably know why you are at the incident, Check-in may have a different assignment (e.g. DIV A Supervisor, Salvage Group Supervisor, Supply Unit Leader, etc).

d. Incident credentials: On some incidents, credentials (badges) are created for all assigned personnel. If the incident is issuing credentials, you should receive them when you check-in.

2. Finance Check-in:
   a. Leave copy of resource orders or other travel documents with FSC or Admin Officer. Determine how often to turn time into FSC and start OF- 288 Emergency Firefighter Time Report.

3. Logistics Check-in:
   a. Lodging assignment: The incident is responsible for ensuring you have adequate lodging unless you are locally based. If the incident is small, Logistics may ask you to make your own arrangements, or they may have already contracted with a local hotel for incident personnel. Even if you have made your own arrangements, Logistics should still be tracking where personnel are housed.

b. Meal schedule: The size, complexity and location of an incident will impact the availability of meals.

i. On most AHIMT responses, meals are the responsibility of the individual since they are on per diem, BAS or Separate Rations.

ii. If meals are provided the incident FDUL generally tracks who got a meal and the individual is required to make the appropriate modification to their travel claim. The government is prohibited from providing a meal at no cost while paying the responder per diem for food.

4. Safety - Review and sign the Site Safety & Health Plan (if completed at that point): As a member of the command cadre, it is critical that you understand all of the incident hazards and mitigation strategies. Although you may only be impacted by a few of these hazards, knowledge can be the difference between zero accidents and preventable injuries.

a. Each incident should have a Site Safety & Health Plan where the Safety Officer (SOFR) has elaborated on these hazards.

b. These hazards should be factored into the development of the Medical Plan, Transportation and Traffic Plans, and design of incident facilities.

c. Review and sign the Site Safety & Health Plan indicating your awareness and understanding.

2.5 Situation Assessment

The purpose of this task is to acquire additional background on the incident prior to starting your assignment. As a member of the IMT leadership, you will share in the success or failure of commands objectives. Part of “starting right” is for each LOFR to take responsibility for getting a handle on the situation so they have a better understanding of the big picture. Regardless of when you arrive at an incident, there is usually very little time for someone else to brief you. The following tasks should be accomplished AFTER checking-in to the incident.

1. Review the current ICS 201 and/or IAP for an overview of current operations. You need to find out the Who, What, When, and Where related to the incident:
2. **What** is the incident (SAR, oil/hazmat, LE, natural disaster, etc.)? This will give you an idea of the Critical Information Reporting (CIR) requirements and the Liaison issues you will be dealing with.
3. **Who** are key players (Federal, State, local, industry)? This may give you some insight into the stakeholders, why Command is setting particular objectives and what Liaison issues or concerns they may have.

4. **When** did the incident take place? An incident changes character over time including; survival rates, weathering of oil, potential contaminants, vessel stability, etc. As the LOFR you need to know if the incident is expanding, steady state, or contracting.
5. **Where** did the incident take place? Do you know the Area of Responsibility (AOR)? If so, you have an advantage in knowing relationships, geography, local plans, etc. If not, you must spend some time getting to know the area. Also, what is the difference between the unit/agency AOR and the incident AOR? Generally, there should be a difference.
6. **What** is the **incident organization**? You must know who is in your direct chain of command as well as other key players such as the Incident Commander(s), Operations Section Chief (OSC), Planning Section Chief (PSC), Finance Section Chief (FSC), and Logistics Section Chief (LSC).
7. What **resources** are on-scene and/or enroute? This is not about memorizing resources. However, the LOFR should have a ballpark idea of what is currently being utilized to support the operations on-scene and the broad categories of resources that will be required. This is especially important for coordinating with

stakeholders in the development of Critical Information Requirement (CIRs) requirements. For example:

a. Resources
   i. Vehicles (sedan, buses, trucks, fire, etc)
   ii. Vessels (law enforcement, deck cargo barges, oil recovery, etc)
   iii. Helicopters (overflight, passenger carrying, heavy lift, etc)
   iv. Expertise (environmental, salvage, law enforcement, fire, etc)
b. Support
   i. Personal Protective Equipment
   ii. Radios, Cell phones, Porta-Johns, etc
   iii. Admin equipment (copy machines, printers, fax machines, etc)
   iv. Fuel, food, lodging, transportation, etc
   v. Facilities (base, camps, staging areas, etc)
c. Sources of information
d. Contingency Plans (ACP, AMSP, etc)
e. Local Emergency Management
f. Local Police, Fire
g. Contractors

8. **When** is the next scheduled meeting? (check on the Situation Status boards)?

3.0 Meetings and Briefings

3.1 Initial Brief

The initial briefing is the opportunity for the LOFR to receive additional details about their incident assignment. Depending on the phase and/or size of the incident, you may or may not get a chance to spend this time with the Incident Commander and/or Deputy IC before you start working. If you are NOT able to attend this brief, your next and most important opportunity is the Command and General Staff meeting.

1. Your role
   a. How big a role are you playing? Does the incident involve multiple jurisdictions or several agencies? How many agencies and stakeholders are expected to be involved?
   b. Do you have the experience for the role you are playing?
2. Size and complexity of incident:
   a. Is the incident expanding or contracting?
   b. Will the IC(s) give you the authority to order the resources you need to effectively manage liaison issues for the incident?
3. Expectations of the IC: IC's come with many different levels of expertise and experience. In

a multi-hazard, multi-jurisdictional incident it is possible and even probable that the IC(s) does not have expertise in providing proactive outreach services to assisting and cooperating agencies and other stakeholders.

a. Do you have expertise in coordination and communications efforts with a myriad of assisting and cooperating agencies, stakeholders, and other interested parties for this type of incident?
b. Does command want a briefing from you on the process and procedures you typically use?
c. How often does command want to be updated? What are their trigger points?

4. Limitations and Constraints (e.g. are you the right LOFR for the job?). While this may seem intuitive, you should always ask yourself this question. Even if you lack experience or expertise, can you bring on a Deputy and/or Unit leaders with the appropriate background?
   a. Special concerns (e.g. reporting criteria)
   b. Resource request process (see Appendix on page 75).
   c. Resource ordering process
   d. Critical information reporting expectations.

e. Do the LOFR and/or Assistant LOFRs have the authority to directly address and resolve issues with assisting and cooperating agencies and stakeholders?

3.2 Activate Liaison Organization

If you are reporting early in the incident you probably don't have a work location set up yet. Ideally, check-in and situation assessment shouldn't take you more than about 30 minutes. Add 30 minutes for a brief from your IC and you are now one hour into the incident. It's time to get to work!

1. Establish work location – Where Liaison sets up shop during an incident can have a profound impact on their overall effectiveness. The LOFR's work area in the Incident Command Post (ICP) should provide for the management of the liaison support to the response effort. The space must be designed to be conductive for meeting with representatives, developing meeting and briefing materials and have ample space for staff. The work area needs to be functional and free of interruptions and distractions that can detract from the LOFR's ability to lead the liaison organization.
   a. Room(s) Set up: The room(s) should include wall space for hanging charts, maps, photos, and poster-sized paper for Liaison personnel to develop and review their written products. An easel should be available with markers. Each poster has

significant importance and is used for communicating information to the liaison personnel managing the outreach and information exchange processes. To the extent possible, the Situation Unit Leader must maintain or at least have copies of these wall displays in the planning Section:

i. ICS-202 Objectives
ii. Maps/Charts
iii. LOFR Contact List
iv. Chronology of Events Log or ICS-214 Log
v. Liaison Organization Chart

b. Do's

i. Setup close to Public Information Officer. You have a very close relationship with the PIO.
ii. Think about how big your organization (the Liaison organization) may get and plan accordingly. Moving once is disruptive but typical during the early stages of the incident. Moving once the

organization settles in can be very problematic.

iii. Factor in flow of information to your design.

iv. Ensure your space is a safe place to work.

c. Don'ts

i. Setup shop away from the ICP.

ii. Forget to evaluate your facilities for safety concerns.

2. Organize and brief subordinates: If you have anyone working for you at this point, don't leave them hanging. Get together and assign position responsibilities if possible (see Staff Meeting on page 56). If your staff doesn't have the ICS skills then tell them what you need done in the few hours while you are waiting for qualified staff.
3. Acquire work materials and equipment: Ideally, you should have a starting point with supplies that are already in your go-kit. While there are many boxes available, a Pelican Case (model 1650) will get you started with the items identified in the Appendix C.
4. Order Staff. With the exception of simple Type 3 incidents, you should get an initial order in ASAP for the appropriate staffs you feel are

needed to support overall incident coordination including possible shift work. You may very well need additional personnel but these are key to getting your world in order. Remember that it is a lot easier to demobilize personnel than to overwork your existing personnel to support your requirements.

a. How many **Assistant Liaison Officers** are required? There are many different factors that determine the number of assistants a Liaison Officer may need. These include the size and complexity of the incident. The key factor is the ability of the Liaison organization to complete all of their functions.
   The functions of the Liaison Officer may include all of the major tasks noted on page 4. It is ***absolutely crucial*** for the Liaison Officer to remain ***focused*** on the overall Liaison requirements of the incident. It is not possible for a Liaison Officer to do this in a large incident and complete all the functions listed above. For large complex incidents you may want to consider assigning additional personnel for specific tasks such as:

   i. **Meeting and Briefing Manager** to supervise the preparation and facilitation of any meetings and briefings conducted by the liaison organization.

ii. **Governmental Affairs Assistant** (Technical Specialist) to liaise with elected officials.

iii. **Documentation and Control Technical Specialist(s)** to prepare and manage all liaison related documents and electronic media.

iv. **Administrative Assistants** (Technical Specialists) to assist with meeting and briefing preparations, escorting VIPs, and other tasks necessary to support the liaison team.

v. **Technical Specialist(s)** to provide specific expertise to the liaison organization in order to enhance the services and support provided by the LOFR to the IMT and its customers.

vi. How many Assistant Liaison Officers are needed in the field? For field operations more than one Assistant Liaison Officer may be needed. The primary responsibility of Assistant Liaison Officers in the field is to channel information back and forth between their assigned location and the ICP. Assistant Liaison Officers should be targeted for locations actively involved in or supporting the response effort. Some examples of these locations include: Emergency Operations Centers (EOC), Joint Field Offices (JFO), agency or corporate Command or Operations Centers, and major stakeholder venues.

b. What if several agencies are on scene and each wants to have their own Liaison Officer? There can only be one Liaison Officer for an incident. Other organizations can provide Assistant Liaison Officers that can fulfill the roles discussed in the previous section. If an organization's designated Liaison Officer is unable to work outside the organization, the incident Liaison Officer can assign this person the role of Assistant Liaison Officer for that organization and the operations they are performing

5. Possible Liaison Staff Organization. There are many variations as to how to organize Liaison functions in response. See Appendix D for an example organization. This is not the only option – ICS is flexible and you can structure your organization as your needs dictate.

3.3 Initial Response and Assessment

The initial actions of the LOFR are key to the support, assistance, and perceptions of the public and stakeholders. Trust, communication, and a thorough understanding of issues will be vital to successful execution of the LOFR responsibilities.

1. Conduct an assessment of involved, affected, and peripheral entities.
   a. Confirm status of assisting agency resources.
   b. Review local contingency plans for potential agencies, companies or other entities that you need to establish contact with.
   c. Discuss planned actions with the Operations Section Chief (OSC) to determine resource needs, issues, and support requirements that assisting and cooperating agencies might be able to address.
   d. Consult with Command to obtain information on any entities they see as being necessary for you to contact or communicate with.
   e. Develop Liaison Contact Profile Sheets for each entity you are in contact with.
   f. Determine what entities might be impacted by the effects of the incident and/or response activities based on the incident Area of responsibility (AOR).

2. Develop work space and personnel requirements.
   a. Establish LOFR and staff work area in the ICP.
   b. Establish LOFR phone number for the incident.
   c. Analyze personnel needs and order as appropriate. Consider work shift and replacement requirements.
   d. Deploy personnel to locations outside the ICP as needed to ensure effective communication and situational awareness.
   e. Determine liaison staff space requirements.
3. Develop a Stakeholder Coordination Plan.
   a. Introduction.
   b. Incident Overview
   c. Command Statement
      i. Incident Priorities
      ii. Liaison and Stakeholder Objectives
      iii. Stakeholder Expectations
      iv. Limitations and Constraints
   d. Liaison Personnel and Contact Information
   e. Command and General Staff Personnel and Contact Information
   f. Responsibilities

g. Meetings and Briefing Schedule

h. Agency Coordination and Contact Information

    i. Cooperating and Assisting Agencies

    ii. Stakeholders

    iii. Involved Parties

i. Issue Communication and Resolution Process Plan

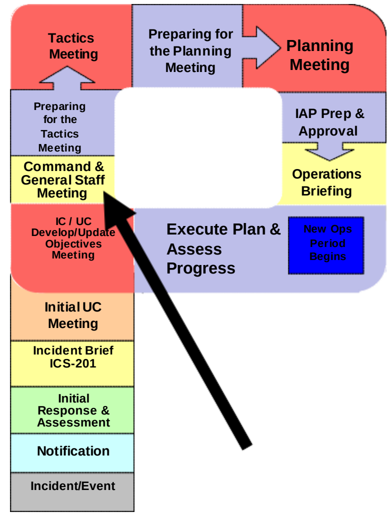
j. Documentation Requirements

k. Attachments

    i. Incident Chart/Map

    ii. Incident Meeting Schedule

3.4 Command and General Staff Meeting



The Command and General Staff meeting is the opportunity for all staff members to see command's assessment of the incident, how everyone will work together to achieve command's objectives, and specific priorities and assignments for each opportunity to have face time with the Incident Commander(s) and to clarify expectations (i.e. what they want and what you can provide).

1. Incident Situation: Generally the LOFR should just listen to this briefing with the following in mind.
   a. Does Operations have what they need for this Operational Period?
   b. Are there any factors that may cause you to change the Liaison game plan (i.e. a newly identified assisting agency or stakeholder)?
2. IC opening remarks: This is usually inspirational but the remarks can be indicative of how the UC is working and short-term versus long-term expectations.
3. Incident Decisions, Priorities, Limitations and Constraints, Objectives, and Procedures:

These key documents are usually presented by specific members of Command. You should keep the following in mind during this presentation.

a. Decisions – Has Command made any decisions that will impact your world of work?
b. Priorities – Usually this is more geared towards Operational activities but may impact assisting and cooperating agencies and stakeholders.
c. Limitations and Constraints – Examples of these that impact Liaison might include;
    i. Funding for assisting and cooperating agencies,
    ii. Union work rules.
d. Objectives –When objectives are discussed, ensure there is one that addresses Liaison related activities including Critical Information Requirements and Governmental Affairs. Liaison related objectives must be written to steer the response toward liaison priorities without describing the specific resources and actions to be taken. The liaison related objectives must also be within the capabilities of the Liaison Officer and staff or more liaison resources must be ordered.

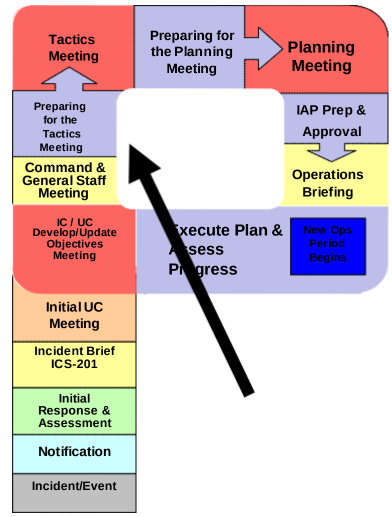
e. Liaison Status Brief - Provide a Liaison Status Briefing when called upon. The Command and General Staff meeting is designed to be brief. The Liaison Officer should keep his status report as short as possible. The audience is the Unified Command, who is occupied with all aspects of the incidents and is really only interested in the "big picture." Therefore, the Liaison Officer's briefing should be an overview of the status of Liaison coordination for the entire incident.
   i. Cooperating and assisting agencies, stakeholders, and other entities involved.
   ii. Outreach efforts
   iii. VIP Status.
   iv. Organization and ALOFR locations
   v. Cooperating/assisting agency or stakeholder issues.
   vi. Status of Command tasking.
f. Procedures – Command will generally desire procedures specific to the incident (e.g. Stakeholder Coordination Plan). If command does not articulate these requirements, ask Command or tell Command if you think they are necessary.

4. Feedback - When Command has finished briefing this material, the Planning Section Chief will open up the meeting to questions. If

you think a procedure should be in place for this particular incident, this is the time to suggest it. Planning will probably add your item to the Open Action Tracker (ICS-233) form. If you have questions regarding clarification of responsibilities for the next operational period, ASK! Also, get into the habit of asking Command if there is anything Liaison can do to optimize their activities.

5. Interagency issues – It is most likely that you will be coordinating with other agencies (e.g. each entity may have their own Liaison Officer or Agency representative, etc.). Discuss with Command the issues for which they want visibility and those for which you have authority to proceed.
6. Incident processes – If Command has not made any decisions about incident processes, suggest those that you think are appropriate to the type and magnitude of the incident.
7. Liaison Staff needs – Do you have authority to staff and manage your section? You don't want to go to Command every time you need a resource and Command is usually not interested in every single person or resource that you need. However, they may place some broad constraints on you given the size of the incident.

3.5 Preparing for the Tactics Meeting



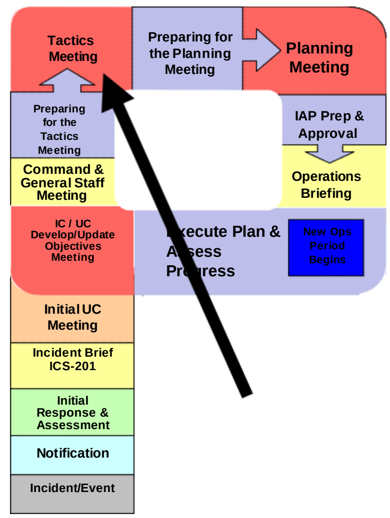
This period of time after the Command and General Staff meeting should be used by the LOFR to communicate with the Liaison staff, other agencies, and stakeholders.

1. Conduct Staff meeting with Liaison staff. Ensure you have connected the dots between Command's intent and what Liaison must do to meet that intent. While this may seem extraneous (don't my people know what to do?) they are far more likely to meet your expectations in an emergent environment if you get into the habit of holding this meeting daily.
2. Obtain briefings from Assistant Liaison Officers in the field. This will ensure you have the latest information going into the Tactics Meeting.
3. Evaluate Liaison organization in the field and make adjustments as necessary to reduce risk.
4. Contact assisting and cooperating agencies to discuss objectives for the upcoming operational period. Discuss their ability to support the objectives and solicit any

concerns, considerations or limitation they might have.

5. Meet with the OSC to share information provided by the ALOFRs and assisting and cooperating agencies.

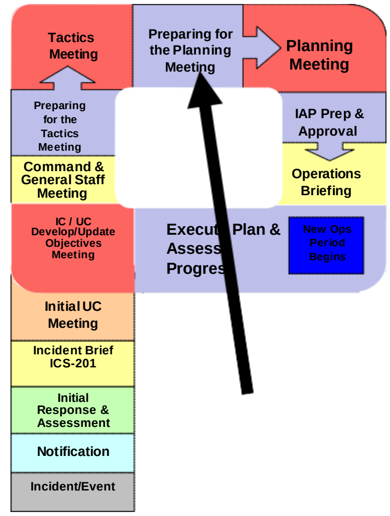
3.6 Tactics Meeting



This 30-minute or less briefing is the opportunity for the OSC to present the proposed tactical Plan. The Liaison Officer is not normally present at this meeting, unless significant stakeholder or agency issues affecting the tactical plan are to be discussed.

input include union considerations, restriction on use of certain types of personnel or equipment or differences in mandatory work/rest ratios.

3.7 Preparing for the Planning Meeting



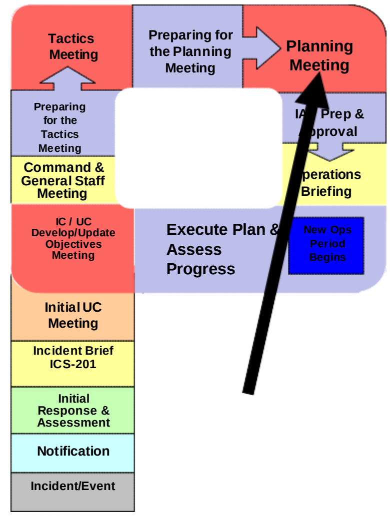
This period of time is for the Incident Management Team to prepare for the Planning Meeting, where the Planning Section Chief will seek verbal approval to complete the Incident Action Plan. Any significant differences between the Liaison Officer and Command and General Staff should be resolved prior to the Planning Meeting. Issues that cannot be resolved before, during, or after the Tactics meeting should be presented to the Unified Command/Incident Commander for resolution, before the Planning Meeting. Liaison Officers should always approach the Unified Command/Incident Commander with a recommendation when presenting issues and problems.

1. Obtain briefings from Assistant Liaison Officers in the field. This will ensure the Liaison Officer has the latest Liaison situational picture going into the Planning meeting.
2. Gather situational information from the SITL and any other entities necessary to refine the

LOFRs understanding of the current situational picture.

3. Prepare Liaison Status Briefing (See Command and General Staff Meeting section). Include summaries of agency, stakeholder, affected parties involvement, numbers of personnel and resources, and any other key information for presentation at the planning Meeting. Consult with Operations and Planning for agreement with content of brief.
4. Provide updates for the Situation Status Summary (ICS-209).
5. Prepare to provide information on any liaison issues.

3.8 Planning Meeting



This 30-minute or less meeting presents the Incident Action Plan to Command for tentative approval.

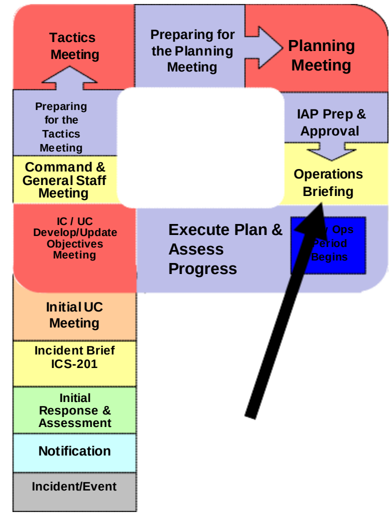
1. PSC opens meeting, covers ground rules and reviews agenda (example agenda in IMH Chapter 3), and then covers objectives.
2. Provide a Liaison Status Briefing when called upon.
   a. Report on status of significant liaison activities.
   b. Report on agency/stakeholder involvement statistics.
   c. Report on the status of any VIP activities.
   d. Report the status of any tasking assigned by the IC/UC.
   e. Notify the IC/UC of any actions needed to help accomplish Liaison Officer functions. If necessary, request some time after this meeting to discuss actions required in greater detail.
3. Validate your support for the proposed Incident Action Plan as presented by the OSC.

3.9 Post-Planning Meeting Actions

At the conclusion of the Planning Meeting the OSC, PSC, LSC and SOFR have a lot of work to accomplish to ensure a quality IAP is delivered in time for the next operational period. The Liaison Officer’s primary responsibility during this time is to review the draft plan to ensure that any necessary agency or stakeholder considerations are effectively incorporated into the plan. Specifically, the LOFR must:

1. Ensure specific agency requirements such as union requirements, overtime procedures and equipment operating instructions are incorporated into the plan.
2. Ensure affected party precautions (as agreed upon by the OSC) are clearly delineated.
3. Ensure cooperating agency information is clearly communicated to field personnel (i.e. land owner access requirements/procedures).
4. Review any support or contingency plans for incorporation of agency or stakeholder information and requirements.
5. Provide feedback to appropriate IMT members about the proposed plan and how it will be perceived by agencies and stakeholders.
6. Review ICS 203, Organization to ensure Liaison staff organization is reflected.

3.10 Operations Briefing

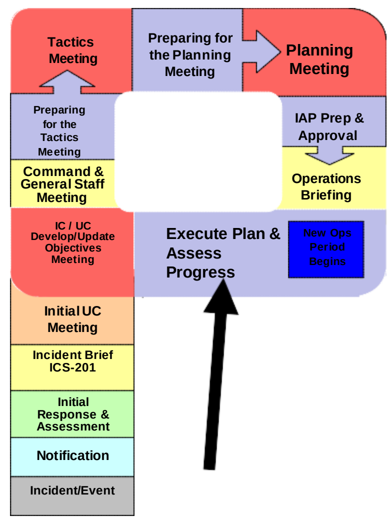


This 30-minute or less briefing presents the Incident Action Plan to the Operations Section Division and Group Supervisors.

1. Have Assistant Liaison Officers in the field provide an update prior to the Operations Briefing.
2. PSC opens briefing, covers ground rules and reviews agenda (example agenda in IMH Chapter 3), reviews IC/UC objectives and changes to IAP, i.e., pen and ink changes.
3. IC/UC provides opening remarks.
4. SITL conducts Situation Briefing.
5. OSC discusses current response actions and accomplishments.
6. LOFR Provides a Liaison Status Briefing when called upon.
   a. General Briefing Topics
      i. Specific agency requirements such as union requirements, overtime procedures, and equipment operating restrictions.
      ii. Affected party precautions such as work areas with special populations or community ordinances.

iii. Cooperating agency information (such as land owner access requirements/procedures) or other information specific to a particular work assignment are clearly communicated to field personnel.

3.11 Execute Plan and Assess Progress



During this phase, the Liaison Officer is monitoring operations closely to ensure the Safety Plan and Messages are being carried out.

1. Liaison Officer continues to receive periodic updates from Assistant Liaison Officers in the field.
2. The best way the Liaison Officer can assess progress is to get out into the field. Consider an over flight, boat ride or vehicle recon of the incident to assess progress.
3. Evaluate Liaison organization for effectiveness. See Appendix
4. Meet with or contact agency representatives, stakeholders, community leaders, and affected parties to gather feedback, access

their perceptions of the response and cultivate any issues.

5. Review outstanding actions from ICS-233.
6. Prepare recommendation and briefing for the Command prior to the Objectives Meeting.
7. Obtain Assistant Liaison Officer briefings from the field prior to the UC Objectives meeting.
8. Assist FSC with any claims submitted by agencies or stakeholders such as equipment/property damage, accidents, injuries, or loss.
9. Coordinate demobilization with OSC and agency/stakeholder resource providers to ensure demobilization occurs in a planned fashion. Keep resource providers informed of demobilization information such as timeliness, process details, and follow-up. Work closely with the Demobilization Unit Leader to incorporate agency/stakeholder input to the Demobilization Plan.

4.1 Other Meetings and Events

4.2 The Staff Meeting

This purpose of this meeting is to keep your subordinates informed about Command's direction and how the role they play ties in to achieving that direction. This is just good leadership so it is imperative that you conduct this meeting – at least once a day!

1. If at all possible set a standard time and place for this meeting. A good time to hold this meeting is following the Command and General Staff meeting when you have just received your direction.
2. Ensure all personnel are present or accounted for. For the duration of the incident, these personnel work for you. Take care of them and they will take care of you.
3. Situation update – This helps your staff know how the work they are doing is supporting the response.
4. Current activities – Identify the work expected of your staff during this operational period to get ready for the next one.
5. Compliment – Praise their actions to date. Try to find something that each of your key staff or

other members of your team have done that is noteworthy.

6. Remind your staff to fill out the Unit Log (ICS-214) daily.

4.3 Debrief

Upon completion of the shift or operational period, the LOFR should collect information from subordinates on lessons learned and be prepared to present this during the Command and General Staff meeting.

1. Debrief all subordinates on progress.
    a. Note percent of work completed.
    b. Note resource utilization and effectiveness (e.g. are these assets the right tools for the job and were there enough, too many or too few?).
2. Note any safety concerns (slips, trips falls, etc.).
3. Ensure all pilferable resources are either transferred to oncoming shift, or secured.
4. Collect all forms of documentation (e.g. ICS-213RRs, ICS-214, logs, etc).
5. Ensure ICS 214, Unit Log, is complete (all key events), accurate and signed (See example on page 77). Provide original ICS 214 to Documentation Unit. Keep a copy for yourself.
6. Ensure logistical issues discussed prior to releasing subordinates (refuel, replenish, secure gear, food and lodging, etc).

4.4 Other Meetings

Depending on the incident, there are many meetings and briefings that can and do take place. Some are ad hoc and some are scheduled. Those listed below are just some that a LOFR may be involved in.

- Agency Representative Meeting – This meeting is held to update Agency Representatives and ensure that they can support the IAP. It is conducted by the LO, and attended by Agency Representatives. It is most appropriately held after the Planning Meeting in order to announce plans for the next operational period. It allows for changes should the plan not meet the expectations of the Agency Representatives.
- Demobilization – Depending on the volume of resources scheduled for demobilization, the Demobilization Unit Leader may schedule a briefing to go over important points.
- Town Hall meeting – This meeting enables Command to address specific issues in a community.

5.0 Other Incident Command Post Activities

5.1 Lead Personnel

Below is a general task checklist that should be completed as soon as possible after arriving at an incident. A Personnel Evaluation Criteria checklist is included on page 16.

1. On-scene leadership is primarily a function of will and skill. You may have subordinates who routinely report to you in your regular job. More likely, however, is that you will have a mix of subordinates (federal, state, local, contractor, volunteer, etc). You may only see them as a group once, or you may be together for an extended period.
2. You are faced with deciding, amongst many other things, whether they have the skill to do the job as well as the will. For instance, volunteers are often short on skill but long on will. Sometimes you have personnel who have the skill but not the will to do the job.
3. Dealing with problems: Generally, you don't have a lot of time to get people to work together nicely. If they do, great. If they don't, you need to figure out how to get through the shift (operational period) if you can or replace the trouble spot if you can't. You need to deal

with problem personnel at the lowest level. Document performance issues so they can be dealt with post-incident as necessary and so they don’t impact the next incident.

4. Communicate expectations: What are the key accomplishments that you expect to meet during the current operational period and/or future operational periods? Make sure you communicate them clearly. In an emergent environment keeping your expectations clear and simple is the path to success. If you have recurring expectations, write them down and post them (e.g. During the daily Family Meeting, all Liaison Unit Leaders will provide a written summary of support provided and issues of concern in the past 24 hours and resources / issues expected in the next 24 to 48 hours).
5. When are you no longer responsible for the subordinates assigned to you? Generally when you have ensured that they have food, berthing and transportation until they report to work again.
6. Foster Teamwork: There are many issues you will face in directing your section. Many are related to how well you can work as a team.

5.2 Safety

Below is a general task checklist regarding risk management. As a member of the leadership cadre of the Incident Management Team (IMT) you are responsible for the safety of your personnel while they are assigned to you. You accomplish this by:

1. Providing your subordinates with Personal Protective Equipment (PPE) appropriate to the task(s).
2. Organizing your subordinates, equipment and tactics to minimize risk. As the Subject Matter Expert (SME), it is up to you to decide how to manage your assigned resources to safely and effectively accomplish the task.
3. Adapting to changing conditions including: Weather, Fatigue and Unexpected hazards.
4. Stopping unsafe actions.
5. Reporting mishaps if they occur (see example on page 79, ICS-237-CG, MISHAP Reporting Record).
6. Providing feedback – Make sure that everyone has an opportunity to learn about MISHAPS or near-MISHAPS. It is good leadership and may avert accidents later.

5.3 Documentation

Below is a general task checklist of activities that should be documented for each work assignment on the ICS 214 (See Appendix H– Example ICS 214, Unit Log on page 77).

1. List all personnel in attendance
2. Document key activities including:
    a. Attendance at key meetings.
    b. Resource breakdowns that impact command objectives.
    c. Personnel injuries.
    d. Completion or percent completion of work assignment.
    e. Secure from ICP.
3. Copy for yourself – While this is not mandatory, it is highly recommended. You should get in the habit of keeping copies of all ICS-214(s) you generate for every incident you are on. DON'T count on the incident keeping track of your specific work product. If it is important to you, keep a copy for yourself.
4. Turn the original of the ICS-214 into the Documentation Unit daily.

5.4 Demobilization

Below are responsibilities applicable to the LOFR's input to the Demobilization Plan.

1. What are the key processes and/or documentation that must be completed before assisting cooperating agency responders or resources are allowed to leave the incident? Suggest mitigation/control measures:
   a. Rest before travel guidelines
   b. Equipment/Vehicle inspection procedures
   c. Responder medical screening programs
2. Participate in IMT demobilization meeting.
3. Brief replacement as necessary.
   a. Liaison Staff resources (personnel, equipment)
   b. Assisting and cooperating agencies and stakeholder contacts.
   c. Current assignments of note
   d. Key relationships with other IMT members
4. Replenish supplies.
5. Forward documentation to Documentation Unit.
6. Complete ICS 221, Demobilization Check-out sheet.

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Appendix A – Functional Interactions

Inputs/ Outputs	Below is an information exchange matrix/functional interactions to assist the Liaison Officer with obtaining information from other ICS positions and providing information to ICS positions.

MEET With	WHEN	LOFR OBTAINS	LOFR PROVIDES
IC/UC	Upon arrival Various Times	Liaison Objectives and UC specific tasking Direction on liaison related expectations.	Commitment to accomplish objectives. Commitment to accomplish objectives and tasks. Periodic updates.
Initial LOFR or other Liaison Staff	Upon arrival	Briefing on major issues, responsibilities, involved agencies/companies, stakeholder issues, affected parties, VIP's, outstanding tasks, and current staffing.	New information /direction as appropriate.
OSC	Upon arrival, Prior to the Tactics Meeting When reviewing the draft IAP Various times.	Resource needs. Resource effectiveness feedback. Operational activities. AOR and access issues.	Commitment to keep agencies, stakeholders, and involved parties informed of operational activities. Assistance in identifying and obtaining agency resources and support.

PSC	Upon arrival, Prior to the Tactics Meeting When reviewing the draft IAP Various times.	Technical Specialist support. Opportunity to review draft ICS-203s, ICS-204s, and support plans.	Agency, stakeholder, and involved party input to IAP and other plans. Meeting schedule input. VIP and other status information.
LSC	Upon arrival, Various times.	Information on resource request process. Needed Assistant Liaison Officers, Technical Specialists, other staff, work spaces, and work equipment.	Information and contact for agency sources of supply. Supporting agency information.
FSC	Upon arrival, As needed.	Commitment to purchase recommended liaison equipment.	Agency and stakeholder information and requirements related to funds, claims, and other financial issues.
SOFR	As needed.	Information on accidents or injuries involving assisting or cooperating agencies. Updates on involvement of safety or regulatory agencies.	Communication with agency rep's on safety issues. Updates on safety issues or concerns raised by liaison contacts.
PIO	As needed.	Review of media inquiries or releases that include agency, stakeholder, or other related issues. Assistance and coordination for VIP visits.	Statistics and other liaison information to aid in the development of media releases. Assistance and coordination for VIP visits. Coordination on developing an overall

			outreach strategy.
INTO	As needed.	Intelligence information that pertains to liaison activities.	Reports of suspicious activities or persons from assistant Liaison Officers in the field.
STAM	As needed.	Updates on agency resources in staging areas.	Access to agency rep's as needed.
DIVS TFL STL	During Ops Briefing and as needed.	Feedback on agency resource effectiveness. Information on safety issues specific to the Division/Group, Task Force or Strike Team.	Contact and communication with agency rep's. Assistance in resolving agency equipment and support issues.
SITL	As needed.	Weather updates, trajectory information, Periodic situational picture. Posters and displays for briefings and meetings.	Input to the ICS-209 or other situation updates. Listing of involved entities. Assistance with validation/verification of situational information.
RESL	As needed.	Status of Assistant Liaison Officers and other resources ordered. Locations of agency resources.	Status and number of Liaison Officer staff. Contact and information between RESL and agency rep's.
DOCL	As needed.	Copies of Safety Plans, Copies of Support Plans, IAPs, and other ancillary plans.	Originals of photographs, 214's, contact sheets, presentations, posters, and all other liaison related documentation.
DMOB	As needed.	Demobilization Plan. Status of demobilized agency resources or those awaiting demob.	Agency requirements and issues for demob plan development. Review of demob plan.

			Coordination with resource providers as plan is implemented.
COML	As needed.	Information on communications problems between agency resources.	Assistance in resolving communications compatibility issues.
COMP	As needed.	Status of agency responder claims. Notification of any affected or involved party claims. Assurance that proper compensation procedures are in place.	Assistance in communicating with agency or other claimants.
THSP (Safety related)	As needed.	Specialized support and assistance.	Clear direction and expectations. Feedback on quality and effectiveness of THSP products.

Appendix B Personal Mobilization Kit

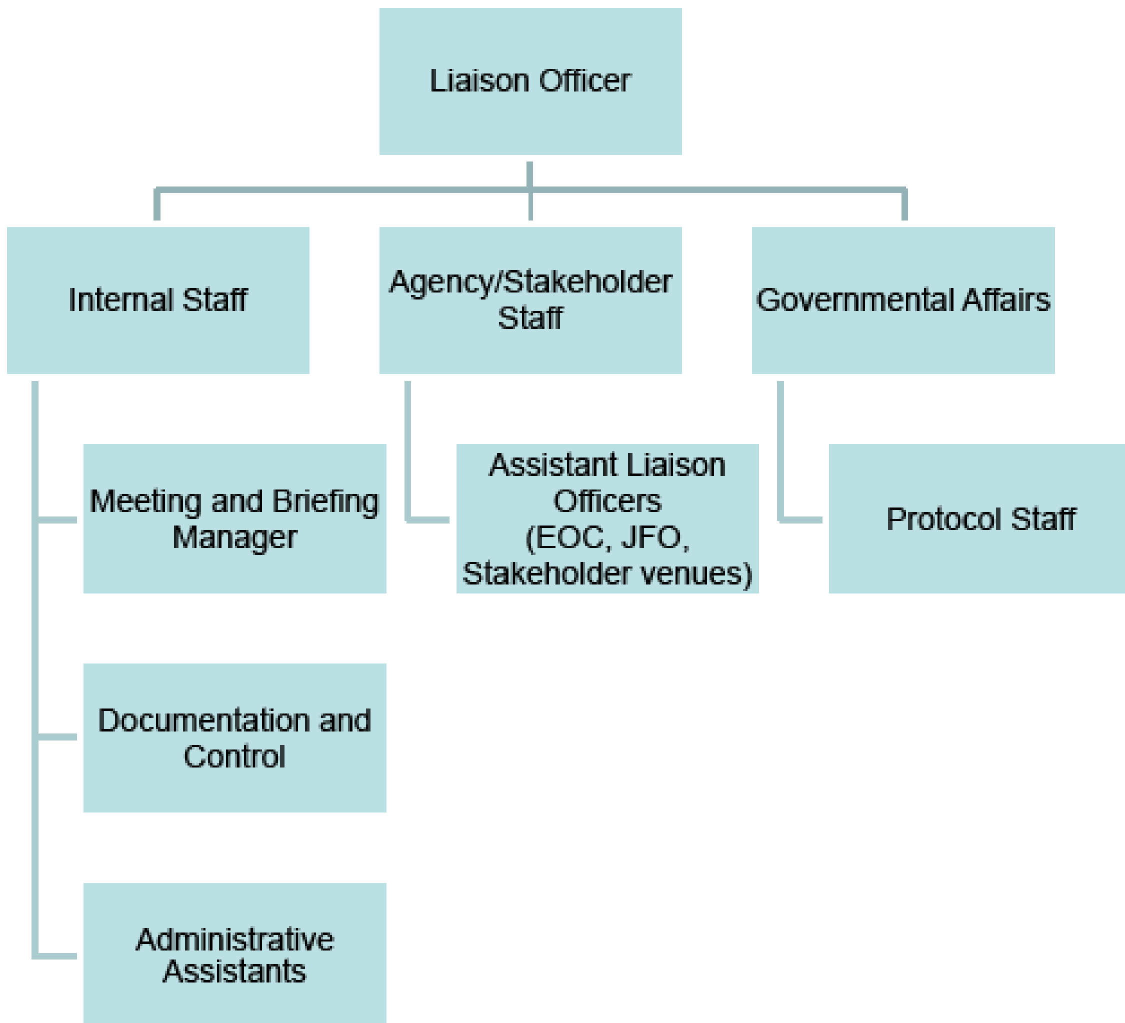
	Uniforms appropriate for the response including appropriate footwear
	Update your family emergency plan (see www.ready.gov for details)
	Emergency contact information
	Dependent care plan (i.e. wills, powers of attorney, etc.)
	Sufficient medications and/or medical supplies for 60 days
	Pet care plan if applicable
	Power supply and/or chargers for personal communication equipment (i.e. computers, cell phones, etc.)

Appendix C – LOFR Go-kit Supply List

Item Name	#	Unit	Description
ICS Forms Catalog	1	Ea	
ICS Forms	5	Ea	ICS-213, 214, 214A
Other Forms	1	Ea	LOFR Contact List, LOFR Contact Profile Sheets
Sunscreen	1	Ea	
Sunglasses	1	Ea	
Warm/cold/rain gear, if needed	1	Ea	
Notebook – recommend “Write-in-the-Rain”	1	EA	
Incident Management Handbook	1	Ea	
Liaison Job Aid	1	EA	
Cellular phone and pager	1	Ea	
Laptop computer with internet/CD capabilities	1	EA	
Post-it Notes	1	Pk	3 x 3
Post-it Notes	1	Pk	3 x 5
Binder clips	1	Pk	Assorted Sizes
Blue and Red Pens	1	Bx	
Highlighters	3	EA	
Post-it Tabs	1	Pk	
Writable Tabs	1	Pk	
“Sign Here” Arrows	1	Pk	

Appendix D – Example Liaison Staff Organization

This is an example Liaison Staff organization which could be larger or smaller depending on incident needs



Appendix E - Example ICS-202, Incident Objectives

1. Incident Name MIRLO INCIDENT	2. Operational Period (Date/Time) From: MM/DD/YYYY 0900 To: MM/DD/YYYY 0900	INCIDENT OBJECTIVES ICS 202-CG

3. Objective(s)

1. Protect the health and safety of the public and responders.
2. Protect sensitive areas to minimize impact to the environment, cultural, subsistence, and economic resources and property.
3. Assess condition of vessel and prepare alternative courses of action for review. Handle response in order: ordnance removal, hazmat removal, and oil removal.
4. Evaluate the feasibility of source control and on-water recovery operations, develop plans, and implement if needed.
5. Provide wildlife recovery and rehabilitation as needed.
6. Mobilize resources needed for the response.
7. Develop an incident command organization suited to expected needs and contingencies.
8. Provide thorough liaison with local agencies as needed.
9. Provide proper documentation of the response.

4. Operational Period Command Emphasis (Safety Message, Priorities, Key Decisions/Directions)

1. Safety of personnel is top priority for each stage of this response.

Approved Site Safety Plan Located at: ICP Sector Hiatusport

5. Prepared by: (Planning Section Chief) F. Shelley	Date/Time MM/DD/YYYY 0700

INCIDENT OBJECTIVES ICS 202-CG (Rev 4/04)

Appendix F - Example ICS 214, Unit Log

1. Incident Name	2. Operational Period (Date/Time)	UNIT LOG ICS 214-CG
HIATUSPORT INCIDENT	From: 0600 XX-XXX-09 To: 0600 XX-XXX-09	

3. Unit Name/Designators	4. Unit Leader (Name and ICS Position)
LOGISTICS SECTION	FRANK BUY (LSC)

5. Personnel Assigned

NAME	ICS POSITION	HOME BASE
JEFF SMITH	SPUL	STATEN ISLAND, NY
RANDY BITNER	COML	WILLIAMSBURG, VA
KATIE WAGNER	VSUL	SAN FRANCISCO, CA
GEORGE TAKAGI	GSUL	CHICAGO, IL
MELISSA REED	FACL	LA/LB, CA

6. Activity Log (Continue on Reverse)

TIME	MAJOR EVENTS
0600	ATTENDED OPERATIONS BRIEFING - NO ISSUES OF NOTE
0730-0745	CONDUCTED BUSINESS MANAGEMENT MTG W/FSC. BURN RATE + CEILINGS
	BELOW 70%. REQUEST + ORDER PROCESSES FINALIZED + POSTED.
0800	ATTENDED CMD + GEN'L STAFF MTG
0900	CONDUCTED LOGS FAMILY MTG. PASSED UC KEY ISSUES INCLUDING
	UC REQUEST TO WORK W/ PSC STAFF TO FORECAST RESOURCE
	RQMNTS OUT 72 HOURS + ORDER WHERE POSSIBLE.
1130	DURING ROUTINE SAFETY INSPECTION, SOFR IDENTIFIED POTENTIAL
	WATER CONTAMINATION. OTHER WATER SOURCES CHECKED AND FSC
	CONSULTED RE PURCHASING WATER UNTIL PROBLEM RESOLVED.
1400	ATTENDED TACTICS MTG - ID'D POTENTIAL PROBLEM NEXT OP
	PERIOD DUE TO NON-AVAILABILITY OF LOW-COST CRANE BARGES.
1454	BRIEFED COMMAND W/ OSC, PSC + FSC AND GOT APPROVAL
	TO HIRE HIGH COST CRANE BARGE FOR 72 HRS MAX.
1700	ATTENDED PLANNING MTG - NO RESOURCE ISSUES ATT. SUPPORTED PLAN.

7. Prepared by:	Date/Time
F. Buy	2130 XX-XXX-09

ICS 214 Instructions

UNIT LOG (ICS FORM 214-CG)

Purpose. The Unit Log records details of unit activity, including strike team activity or individual activity. These logs provide the basic reference from which to extract information for inclusion in any after-action report.

Preparation. A Unit Log is initiated and maintained by Command Staff members, Division/Group Supervisors, Air Operations Groups, Strike Team/Task Force Leaders, and Unit Leaders. Completed logs are submitted to supervisors who forward them to the Documentation Unit.

Distribution. The Documentation Unit maintains a file of all Unit Logs. All completed original forms MUST be given to the Documentation Unit.

Item #	Item Title	Instructions
1.	Incident Name	Enter the name assigned to the incident.
2.	Operational Period	Enter the time interval for which the form applies. Record the start and end date and time.
3.	Unit Name/Designators	Enter the title of the organizational unit or resource designator (e.g., Facilities Unit, Safety Officer, Strike Team).
4.	Unit Leader	Enter the name and ICS Position of the individual in charge of the Unit.
5.	Personnel Assigned	List the name, position, and home base of each member assigned to the unit during the operational period.
6.	Activity Log	Enter the time and briefly describe each significant occurrence or event (e.g., task assignments, task completions, injuries, difficulties encountered, etc.)
7.	Prepared By	Enter name and title of the person completing the log. Provide log to immediate supervisor, at the end of each operational period.
	Date/Time	Enter date (month, day, year) and time prepared (24-hour clock).

Appendix G – LOFR Contact Profile Sheet

Organization or entity: ______________________________

Primary contact person: ______________________________

Phone: ________________________________

Email: _________________________________

Other: _________________________________

Secondary contact person: ___________________________

Phone: ________________________________

Email: _________________________________

Other: _________________________________

Nature of involvement with the incident: ______________

____

____

Ability to influence or assist the response effort: _______

____

____

____

LOFR Contact Profile Sheet page 2

Issues and concerns: ______________________________

____

____

____

Briefings required: Yes/No Frequency: __________

Briefing Method: ______________________________

Materials: ____________________________________

Specific Content: ______________________________

____

____

Other considerations: ___________________________

____

____

____

____

Appendix H – Liaison Officer Stakeholder Meeting Preparation Checklist

Prior to the Meeting

D	Solidify "why" you are having the meeting.
D	Identify and characterize the audience.
D	Determine and outline the key messages to be communicated.
D	Select a capable facility to hold the meeting. Consider the following: o Parking o Security o Impact on surrounding properties/streets/businesses o Size o Furnishings o Cost o Layout and type of forum to be held o Ease of use or convenience o Neutrality o Recurring availability for follow-on meetings
D	Determine meeting support needs such as electronics, posters, displays, hand-outs, security, transportation to/from ICP, documentation, and refreshments. Communicate requests to appropriate IMT staff (LSC, PSC, and FSC).
D	Brief participants on their roles and responsibilities.

D	Review materials in advance of the meeting and ensure that there is enough time to correct errors.
D	Review facility, materials, support systems, and support personnel prior to the meeting.

During the meeting:

D	Conduct a “check-in or sign-in” process for attendees, validate contact information.
D	Establish, display and communicate ground rules.
D	Follow a posted agenda.
D	Coordinate with PSC to have the meeting facilitated and documented.
D	Capture open items.

After the meeting:

D	Assign follow-up tasks to staff and other IMT members as appropriate.
D	Assign responsibility for open actions captured during the meeting.
D	Provide briefing on results of the meeting as appropriate (Command, agency representatives).
D	Forward items to DOCL and other staff as needed.
D	Provide feedback to staff and other support providers.

Appendix I – Example Stakeholder Coordination Plan

Stakeholder Coordination Plan
Yaz Northern Incident

Part I
Introduction

The purpose of the stakeholder coordination plan for the Yaz Northern Incident is to identify stakeholders involved in the incident and identify the issues, concerns and activities of the stakeholders as they relate to the incident. The Incident Management Team (IMT) through the liaison officer and other identified IMT positions will make every effort to coordinate with and share information with the effected stakeholders, which includes all assisting and cooperating agencies and other involved entities as identified in this plan.

Incident Overview

At 0730 this morning the south bound Yaz Northern derailed after crossing from the Yaz Railroad Bridge to the south shore of the Sangria River. The derailment resulted in six cars leaving the tracks. Two of the cars are 90-ton pressurized liquid chlorine cars that went down a 25-foot embankment and crashed through the Stauffer Chemical Facility security fence. One of the chlorine cars is leaking. The other four cars were carrying number 4 petroleum oil. Exact casualty figures are not known, but Stauffer facility was in the middle of a shift change when the incident occurred. Six Stauffer employees are injured and are being treated and another 11 Stauffer employees are unaccounted for. One of the petroleum cars is on fire and started a grass fire that continues to burn.

Command Statement

This incident will be managed under a Unified Command Organization that will include Incident Commander from the Vessel Owner, State of Delaware, and the U.S. Coast Guard. It is Command's intent to reach out to all involved or effected agencies and entities within Hiatusport and the surrounding area. In order to accomplish this task, Command has established a Liaison Officer position within the Command Staff. Command had identified the following objectives for this incident:

Incident Objectives

1. Provide for the safety and security of responders as well as maximize the
2. protection of public health and welfare
3. Provide for total accountability of all personnel at the Stauffer Chemical facility
4. Triage, treat, and transport any injured personnel to appropriate medical
5. facilities
6. Create safety and security zones to restrict access and maintain scene control
7. Determine oil/hazmat fate and effects
8. Identify sensitive areas, develop and implement strategies for protection
9. Implement measures to protect, capture, and rehabilitate effected wildlife
10. Prevent further release of oil and recover spilled product

Example Stakeholder Coordination Plan page 2

11. Secure sources of hazmat release and conduct air monitoring as needed
12. Control spread of fires and conduct mop up operations
13. Establish and maintain a victim family support network
14. Initiate an aggressive media strategy to keep the public informed

Liaison and Stakeholder Objectives

1. Establish an aggressive outreach and coordination process to include and advise all involved or effected agencies and parties within the port and surrounding areas.
2. Establish a meeting/activity schedule for those involved or effected agencies and entities as appropriate to share information and address their issues and concerns.
3. Establish an organization that will be able to coordinate and share information with various parties and provide Assistant Liaison Officers at key agency facilities, such as the Emergency Operations Center.
4. Provide space at the Incident Command Post for the various Agency representatives as needed to facilitate their coordination responsibilities with their incident assets.

Stake Holder Expectations

It is the expectation of the Unified Command that all stakeholder issues and concerns will be promptly brought to the attention of the Liaison Officer in order that they can be dealt with and resolved at the incident level. If an issue cannot be adequately resolved to the satisfaction of the stakeholder than the Unified Command will take the appropriate steps to resolve the situation.

Limitations and Constraints

The Liaison Officer will continually advise the Unified Command of any limitations or constraints that are identified by the stakeholders in regards to capabilities, policies, and procedures. The Liaison Officer in conjunction with the stakeholder and IMT members will work to resolve the issue.

Liaison Personnel and Contact Information

Position	Name	Phone Number	Location
Liaison Officer	S. Klein	555-1211	ICP
Asst. Liaison Officer	K. Ward	555-1213	EOC

Responsibilities

The role of the Liaison Officer and their staff is to represent the Unified Command at various meetings and venues as is deemed necessary. The Liaison Officer and their staff will coordinate and share information with all involved and effected agencies and parties as identified in this plan. The Liaison Officer will with all Agency Representatives

Example Stakeholder Coordination Plan page 3

assigned to the incident to ensure that agency policies and procedures are addressed. The Liaison Officer will continue to keep the Unified Command informed of all issues and concerns as they relate to the involvement of the stakeholders on a regular basis and inform the Unified Command immediately of any issue that may affect the management of the incident.

Part II
<u>Meetings and Briefing Schedule</u>

Daily Meeting Schedule (see attached ICS-230)

Stakeholder Meeting Schedule – Monday, Wednesday, Friday at 0900

Stakeholder Briefings – daily at 0800

Part III
<u>Coordination Listing and Contact Information</u>

Coordinating and Assisting Agency Listing
US Coast Guard (USCG)
Delaware Natural Resources (DNR)
Delaware Marine Fisheries (DMF)
Delaware Game and Inland Fish (DGIF)
Delaware State Police
National Weather Service (NWS)
Federal Bureau of Investigation (FBI)
Hiatusport City Police (HCP)
Hiatusport County Sheriff (HCSD)
Hiatusport Fire Department (HFD)
Hiatusport EMS
Hiatusport City/County Emergency Operations Center (EOC)
Clean Rivers, Inc.
Coral Marine Salvage, Inc.
Jones Environmental

Stakeholder Listing
US Navy (NOB and NWS)
Maritime Administration (MARAD)
Hiatusport City Port Authority Terminal
Hiatusport City Passenger Terminal
Delaware Pilots Association

Involved Party Listing
US Army Corps of Engineers (USACOE)
Environmental Protection Agency (EPA Region 3)
Customs and Border Protection (CBP)

Example Stakeholder Coordination Plan page 4

Immigration and Customs Enforcement (ICE)
National Transportation Safety Board (NTSB)
Transportation Safety Administration (TSA)
US Attorney's Office

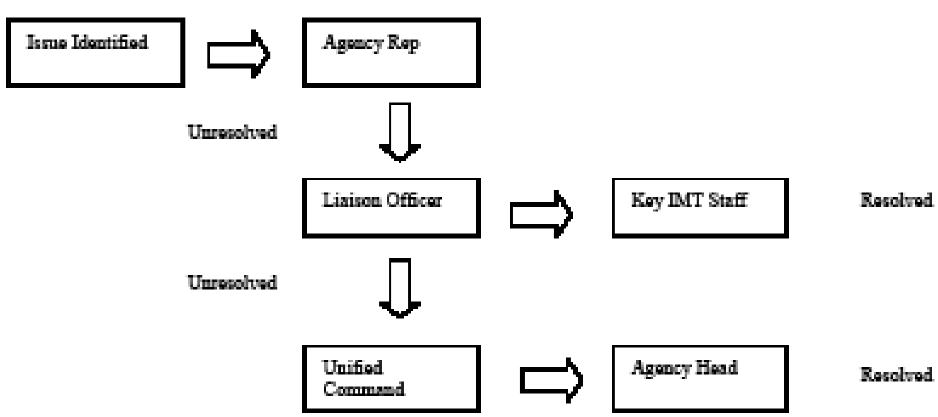
Incident Management Team Listing (Command and General Staff)

Position	Name	Phone Number
Unified Command, HFD	B. Nelson	555-455-5610
Unified Command, USCG	R. LaFerriere	555-455-5611
Unified Command, YRR	T. Wright	555-455-5612
Unified Command, DNR	K. Stewart	555-455-5613
Unified Command, HPD	T. Lane	555-455-5614
Safety Officer	N. DeJesse	555-455-5615
Public Information Officer	K. Smith	555-455-5616
Liaison Officer	S. Klein	555-455-5617
Operations Section Chief	P. Montoro	555-455-5618
Planning Section Chief	J. Gafkjen	555-455-5619
Logistics Section Chief	B. Davis	555-455-5620
Finance Section Chief	B. Applebee	555-455-5621

Part IV

<u>Issue Identification and Resolution Information</u>

Issue Communication and Resolution Process Outline



Documentation Requirements

Liaison Officer

- Stakeholder Profiles and Directory
- Chronology of Events

Example Stakeholder Coordination Plan page 5

- Incident Briefing
- Stakeholder Meeting and Activity Schedule
- Unit Log (ICS-214)

Agency Representatives
- Check-in (ICS-211)
- Incident Briefing
- Liaison Officer Contact Profile Sheet
- General Message (ICS-213)
- Unit Log (ICS-214)
- Agency specific forms (Time Cards, Accident Forms, etc.)

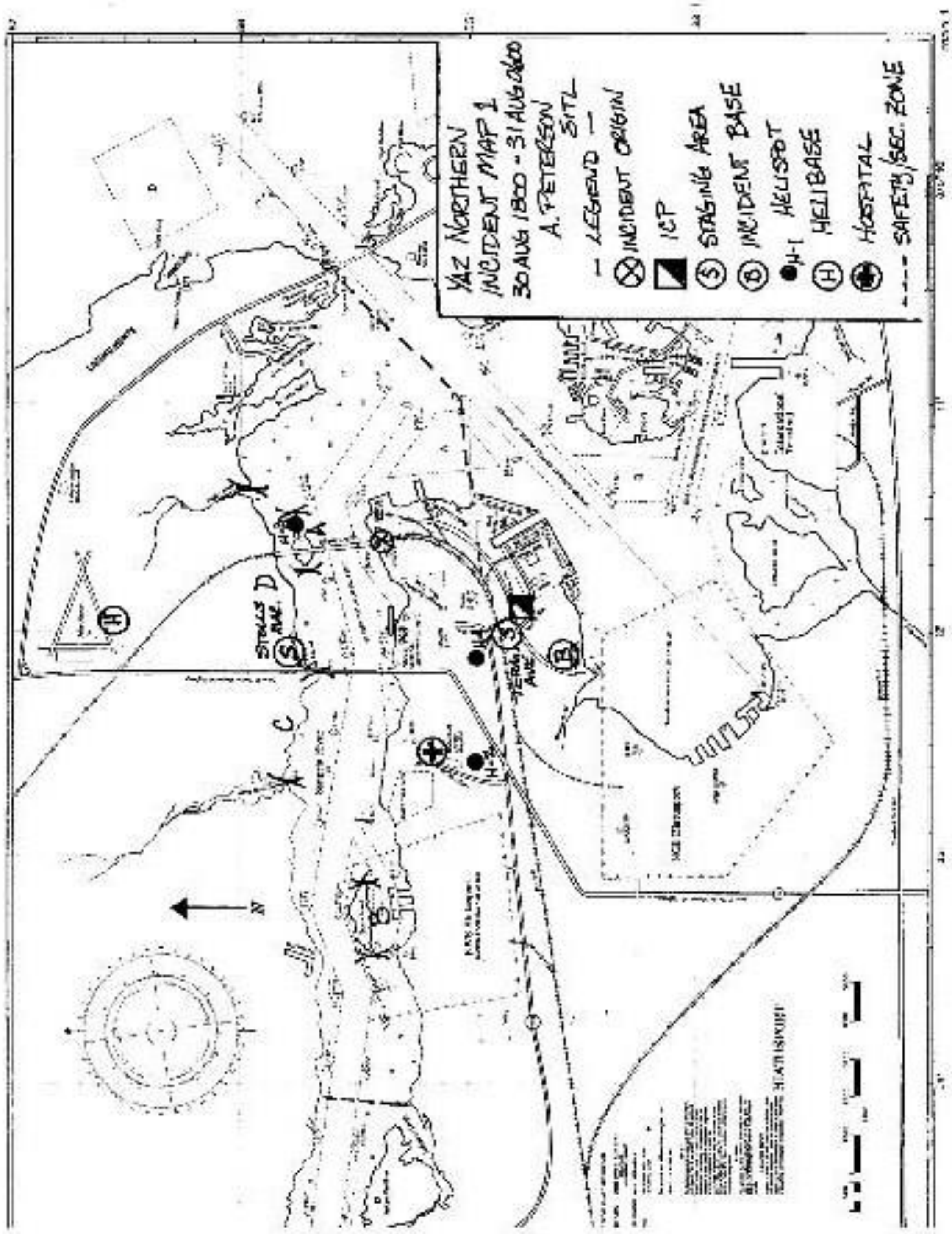
Agencies, Stakeholders and Involved Agencies/Parties (Off Incident)
- Liaison Officer Contact Profile Sheet
- Requests for Documents (IAP, ICS-209, etc.)
- Requests for other plans (Demobilization, Contingency, etc.)

Attachments

A. Incident Map/Chart

B. Daily Meeting Schedule (ICS-230)

Example Stakeholder Coordination Plan page 6



Attachment A

Example Stakeholder Coordination Plan page 7

1. Incident Name Yaz Northern	2. Operational Period (Date/Time) From: 30 Aug 0600 To: 30 Aug 1800	DAILY MEETING SCHEDULE ICS 230-CG

3. Meeting Schedule (Commonly-held meetings are included)

Date/ Time	Meeting Name	Purpose	Attendees	Location
30 Aug 0830	Unified Command Objectives Meeting	Review/ identify objectives for the next operational period.	Unified Command members	UC Meeting Room
30 Aug 0930	Command and General Staff meeting	UC Presents direction to Command and General Staff	UC, Command Staff, General Staff, DOCL, SITL	ICP Meeting Room
30 Aug 1130	Tactics Meeting	Develop primary and alternate strategies/ to meet Incident Objectives for the next Operational Period.	PSC, OPS, LSC, RESL, SITL, SOFR, DOCL, COML, THSP	ICP Meeting Room
30 Aug 1330	Planning Meeting	Review status and finalize strategies/tactics and assignments to meet Incident Objectives for the next Operational Period and get tacit approval of IAP.	UC, Command Staff, General Staff, SITL, DOCL, THSP	ICP Meeting Room
30 Aug 1700	Operations Briefing	Present IAP and assignments to the Supervisors / Leaders for the next Operational Period.	IC/UC, Command Staff, General Staff, Branch Directors, Div./Grp Sups., Task Force/ Strike Team Leaders and Unit Leaders	ICP Meeting Room

Attachment B

Appendix J – Liaison Officer VIP Checklist

Note: This checklist assumes that primary responsibility for the VIP visit is assigned to the Liaison Officer. In some cases, the responsibility may be assigned to other members of the IMT staff such as the Public Affairs Officer or Deputy Incident Commander depending on the circumstances surrounding the response.

Prior to the visit:

- □ Determine the reason for the VIP's visit.
- □ Identify and reach out to a point of contact (POC) for the VIP.
- □ Determine the expectations that the VIP has for the visit.
- □ Determine if a photographer is desired or needed. Provide the POC with any advance materials such as ICS-201s, IAPs, press releases, ICS-209s,
- □ intelligence summaries or other information as appropriate.
- □ In coordination with other IMT members and the POC, develop a plan that includes:

- □ Purpose for the visit
- □ Pertinent information about the VIP
- □ Protocol expectations
- □ Security expectations or requirements
- □ Special needs such as handicaps, food requirements, or medical needs

- An overall schedule (allow time for things to take longer than expected)
- Specific agendas for meeting and briefings
- Supporting information for each segment of the schedule such as maps, personnel lists, or equipment requirements
- A listing of responsibilities and tasks assigned to the IMT staff, such as photos, transportation, briefings, security, and safety equipment
- Communication methods and requirements
- Transportation routes and means
- Contingency resources and personnel requirements
- Required approvals and signatures

Note: This plan should be used by the IMT and visit coordination staff to manage the visit. A copy should be provided to the POC as soon as it is approved.

□ Obtain command approval for the plan.

□ Brief participants prior to execution of the plan.

□ Prepare specific briefing materials in time for review by the IMT staff.

□ Assist the photographer in determining appropriate pictures

During the visit:

- ☐ Stick to the schedule.
- ☐ Keep Command and others informed of progress.
- ☐ Keep track of any open actions, tasking, or issues that come up.
- ☐ Ensure that all required safety equipment is available and used.
- ☐ Communicate ahead to the next stop or activity on the schedule.

Post visit:

- ☐ Debrief personnel involved in managing and executing the visit. Gather feedback, issues, concerns, and successes.
- ☐ Provide a briefing to Command and others as required on the visit, including any open actions, tasking, or issues.
- ☐ Document required follow up and assign responsibility.
- ☐ Contact the POC to obtain feedback on the visit and to follow up on any actions.
- ☐ Provide original documents and electronic items to the DOCL for filing.
- ☐ Provide feedback to personnel involved in managing and executing the visit.
- ☐ Amend the plan template as appropriate for the next VIP visit.

Appendix K – Conducting an Open House

One of the basic requirements of the Liaison Officer is to communicate with stakeholders and the public. An alternative or supplement to conducting public meetings is to use and open house methodology.

Advantages to an open house include:

- Provides personal two-way information exchange
- Provides interested parties with needed information
- Provides for community participation

Open houses may be used immediately prior to and after scheduled public meetings to ensure that all participants receive the more individualized information they need that would be more difficult to provide during a larger meeting.

An open house may be used as a substitute for public meetings. This may be particularly helpful by allowing greater flexibility for attendees to come and go at their leisure. It also provides a much more personalized atmosphere where individual issues and concerns can be presented and captured by Liaison staff.

Open houses should be scheduled for timeframes convenient to the majority of an affected community. Hours of operation should be advertised. Normally, 4-6 hours is sufficient for daily operations.

It is recommended that exhibits be limited to 4 to 6 separate stations or booths. These booths should be staffed by personnel able to explain or collect information as appropriate. The booths might include:

- Situational overview
- Specific or targeted information relevant to the potential attendees
- Story boards or videos
- Projections or modeling information
- How can you help?
- Precautionary information
- Suggestion box or booth

It is important to remember that this information be timely, accurate and helpful to the attendees. The Public Information Officer should be able to provide assistance in the set up and operations of an open house.

Appendix L – Considerations for Conducting a "Best Response"

The term "Best Response" means that a response organization will effectively, efficiently, and safely respond to all incidents, minimizing the consequences in order to save lives, protect public and responder health, safeguard the security of the homeland and protect infrastructure, environment and economy.

"Best Response" considerations represent a set of general goals for Unified Command to achieve if they are conducting a comprehensive and effective response.

"Best response" equals a successful response based on achievement of certain key success factors (i.e. the things that a response must accomplish to be considered successful). The below tables lists the various "Best response" goals that Incident Commanders/Unified Command should focus on to ensure that the response operation has the best chance of success.

Health and Human Safety

- No public injuries, illness or deaths
- No responder injuries, illness or deaths
- Aggressive responder stress management
- Highly effective family outreach program

Environment

- Sensitive areas protected
- Resource damage minimized

Property

- Infrastructure damage minimized

Economy

- Economic impact minimized

Security/Law Enforcement

Highly coordinated law enforcement and emergency management operation

Public Communication

- Conduct Risk Communications
- Accurate and timely information
- Positive media coverage of response
- Positive public perception

Stakeholders Support

- Minimize stakeholder impact
- Stakeholders well informed
- Positive meetings with stakeholders
- Prompt handling of damage claims

Organization

- Implementation of an effective and efficient Incident Command System organization
- Mobilize and effectively use response resources.

When conducting an incident response, Incident Commanders/Unified Commander and their Command and General Staff should always consider the “Best Response” concepts while managing operational and support/coordination functions.

Appendix M – Liaison Effectiveness Checklist

This checklist is helpful in determining liaison organizations effectiveness:

- □ Incoming liaison personnel are receiving a comprehensive briefing before assuming their duties
- □ Liaison work activities are proceeding well and tasks are being completed
- □ Liaison staff is adequate to meet the demands of the response effort
- □ Good progress is being made towards meeting liaison oriented objectives
- □ Chain of Command is well established
- □ Good communications exists between ALOFRs and ICP
- □ Communication is flowing smoothly back and forth between LOFR staff and agencies, stakeholders, affected and involved parties
- □ Liaison personnel feel comfortable raising issues or concerns to the LOFR
- □ Expectations are clearly understood
- □ Liaison work areas are adequate
- □ Have Equipment is right capability for need
- □ Appropriate Technical Specialists are available
- □ Perception of the response is positive at other incident related locations: EOCs, Area Command, JFO, etc.)

- □ Effective coordination exists between liaison and other IMT Staff
- □ Contingencies or what-if possibilities are being planned for to include effective outreach to stakeholders
- □ Reaction is positive to liaison related documents, posters, and presentations
- □ Assisting and cooperating agency support and resources are being effectively and efficiently utilized
- □ Agency representatives are involved and freely communicate with Liaison
- □ Stakeholder, agency and VIP briefings and tours are smooth and successful
- □ There is a clear means for outside entities wishing to contact the liaison and how to do it.
- □ Liaison staff are fully employed and have a positive attitude
- □ Demobilization is being coordinated with agencies and stakeholders
- □ Stakeholder coordination Plan is effective and being followed

Appendix N – Conversions and Equivalents

CONVERSIONS AND EQUIVALENTS

AREA- (s=statute, n=nautical)		
Multiply	by	to derive
meters^2	10.76	feet^2
feet^2	0.0929	meters^2
kilometers^2	0.386	s. miles^2
s. miles^2	2.59	kilometers^2
s. miles^2	0.7548	n. miles^2
n. miles^2	1.325	s. miles^2
kilometers^2	0.2916	n. miles^2
n. miles^2	3.430	kilometers^2

TEMPERATURE-	
Calculate	To derive
5/9(°F-32°)	°C
9/5°C+32°	°F

VOLUME		
multiply	by	to derive
barrels	42	gallons
barrels	5.615	feet^3
barrels	158.9	liters
barrels	0.1589	meters^3
feet^5	7.481	gallons
gallons	3.785	liters

WEIGHT-		
multiply	by	to derive
kilograms	2.205	pounds
metric tons	0.984	long tons
metric tons	1,000	kilograms
metric tons	2,205	pounds
long tons	1,016	kilograms
long tons	2240	pounds
short tons	907.2	kilograms
short tons	2,000	pounds

DENSITY ESTIMATIONS-			
	Barrels/Long Ton		Notes:
	Range	Average	• 1 Long Ton equals 2,200 lbs. • As a general approximation, use 7 bbl. (300 U.S. gallons) per metric ton of oil. • 6.4 barrels/long ton is neutrally buoyant in fresh water. Open ocean neutral buoyancy values are generally in the 6.21-6.25 barrels/long ton range.
Crude Oils	6.7-8.1	7.4	
Aviation Gasolines	8.3-9.2	8.8	
Motor Gasolines	8.2-9.1	8.7	
Kerosenes	7.7-8.3	8.0	
Gas Oils	7.2-7.9	7.6	
Diesel Oils	7.0-7.9	7.5	
Lubricating Oils	6.8-7.6	7.2	
Fuel Oils	6.6-7.0	6.8	
Asphaltic Bitumens	5.9-6.5	6.2	

Specific Gravity of 1 or an API of 10 equals the density of fresh water. Specific Gravity < 1 or an API > 10 indicates product is lighter than fresh water. API Gravity =(141.5/Specific Gravity) -131.5

Weight of Fresh Water: pounds/gallon	8.3	Note: Exact weight depends on temperature and salinity.
Weight of Sea Water: pounds/gallon	8.5	

OIL THICKNESS ESTIMATIONS-				
Standard Term	Approx. Film Thickness		Approx. Quantity of Oil in Film	
	Inches	Mm		
Barely Visible	0.0000015	0.00004	25 gals/mile^2	44 liters/km^2
Silvery	0.000003	0.00008	50 gals/mile	88 liters/km^2
Slight Color	0.000006	0.00015	100 gals/mile ^{2}	176 liters/km^2
Bright Color	0.000012	0.0003	200 gals/mile^2	351 liters/km^2
Dull	0.00004	0.001	666 gals/mile^2	1,168 liters/km^2
Dark	0.00008	0.002	1,332 gals/mile^2	2,237 liters/km^2

Thickness of light oils: 0.0010 inches to 0.00010 inches.
Thickness of heavy oils: 0.10 inches to 0.010 inches.

COMMONLY-USED EQUATIONS-	
Circle: Area = 3.14 X radius^2 Circumference = 3.14 x diameter	Cylinder/Pipe/Tank Volume = 3.14 x radius^2 x length
	Rectangle/Square Area = length x width
Sphere/Tank Area = 4 x 3.14 x radius^2 Volume = 1.33 x 3.14 x radius^3	Cube/Block/Tank Volume = length x width x height

Appendix O – Liaison "P"

The Liaison "P"