



Radiological Operations Support Specialist (ROSS) – Planning Process Job Aid



**Homeland
Security**

Science and Technology



Radiological Operations Support Specialist (ROSS) – Incident Command System Planning Process Job Aid

DOCUMENT PURPOSE

This job aid is for use by a Radiological Operations Support Specialist (ROSS) and is intended to guide a ROSS through the Incident Command System (ICS) Planning Process. The ICS Planning Process is a deliberate, step-by-step process utilized to develop and Incident Action plan and is graphically depicted by the “Planning P.” The ROSS is not expected to lead the ICS Planning Process but is expected to contribute radiological technical expertise to the development of the IAP. The guidance in this job aid is intended for operational or field level IAP development at an Incident Command Post (ICP), and is not intended for a ROSS functioning in an Emergency Operations Center (EOC) or Joint Field Office (JFO), where broader, more strategic coordination plans may be developed.

ICS PLANNING PROCESS AND PLANNING P

The Incident Command System (ICS) Planning Process establishes a common method for developing and implementing operational plans to effectively and efficiently manage an emergency response. The ICS Planning Process transcends the different processes agencies use in their day-to-day operations and provides a common process for all responders to use to work toward the successful resolution of an incident.

The Radiological Operations Support Specialist (ROSS) is a state, local, or private subject matter expert (SME) tasked with identifying and providing critical information to responders and decision-makers. The ROSS assists the Incident Commander and key leaders by providing background information necessary for ensuring safe response operations. In particular, the ROSS distributes technical information among key response leadership at all levels while explaining plume modeling predictions and radiological data, including limitations. The ROSS will also effectively inform leaders about the existence of resources from local, state, and federal sources and explain the standard operating procedures of available resources.

The initial response to any emergency is commonly reactive. The ICS Planning Process is designed to move the incident out of the reactive response to a well-planned, proactive response that maximizes responder safety, tailors incident resources to meet response objectives, and allows for constant assessment of progress toward resolving the incident. In a proactive response, resources are employed to meet specific response objectives. This employment enables deliberate use of resources that are appropriate for the task. By establishing objectives, Command can measure the progress achieved toward bringing the incident under control.

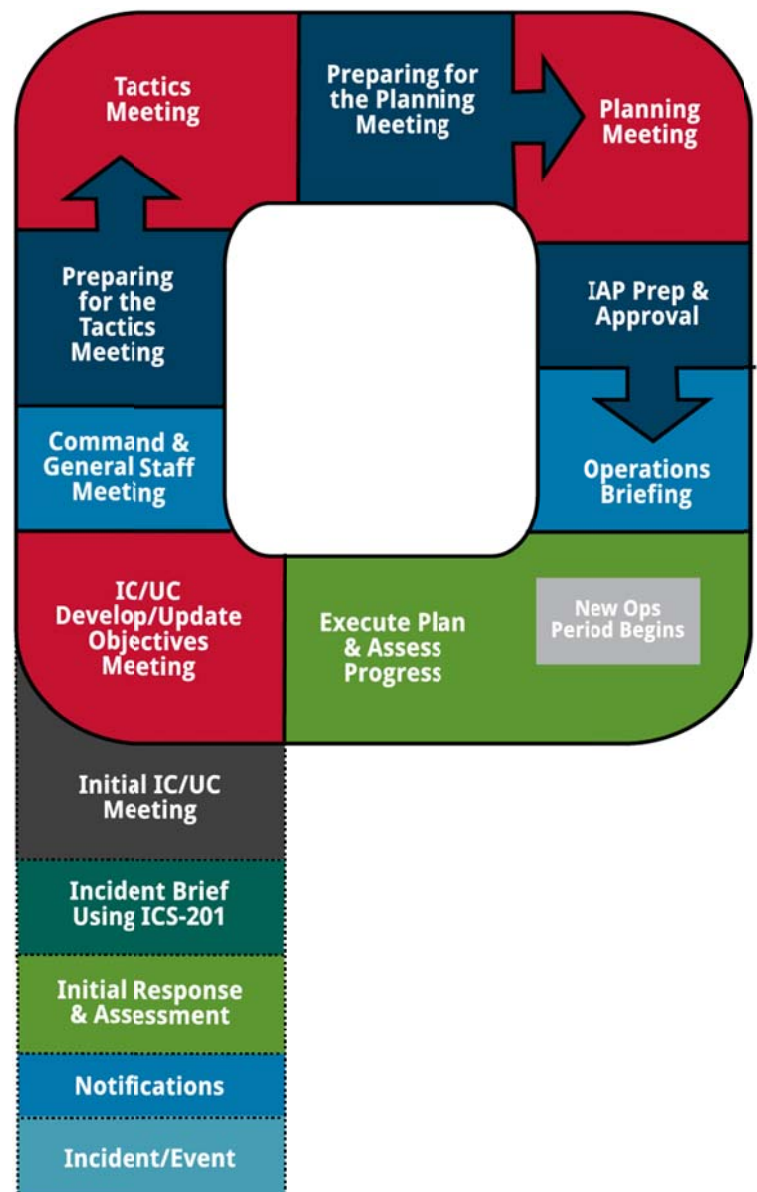
The ICS Planning Process is a process to guide responders through the various steps necessary to build an effective Incident Action Plan (IAP) for the Operational Period. The IAP is a plan containing general objectives reflecting the overall strategy for managing the incident. It provides responders with direction on what to accomplish in a specified Operational Period. The Operational Period is the length of time (e.g., 12 hours, 24 hours, 48 hours) set by Command that an IAP covers. Planning for a subsequent IAP occurs while the current one is being executed.

The IAP has its beginning in the initial response phase of the incident when the Incident Command drafted an Incident Briefing Form (ICS-201). On the Initial Briefing Form, the Incident Command documented initial Priorities and Objectives, current actions, and planned actions. They also drafted an initial response organization and documented current resource and situation status.

The first step in the ICS Planning Process is for Command to establish Command Direction, which includes Priorities and Objectives. Based on Command's Direction, the Operations Section Chief and the Planning Section Chief identify different strategies and tactics necessary to accomplish the Objectives and document them so that all response options are laid out and evaluated. Choosing the best options, the Operations Section Chief defines work assignments, breaks work up into manageable units, and identifies operational resource requirements. These work assignments are the core of the IAP.

Once Command decides to shift from a reactive mode to a proactive mode with a formal planning process, Command must set the start time for the first Operational Period in which the IAP will be implemented. Once the time for the start of the Operational Period is set, the Planning Section Chief will determine the time that the certain steps in the ICS Planning Process need to occur. This is necessary to ensure that all steps are accomplished and that the IAP is ready for the start of the Operational Period. Once the schedule is set, the information is disseminated to the Incident Management Team and the Situation Unit Leader is responsible for posting and publishing the meeting times and deadlines. Depending on the complexity of the incident, the length of time required to complete the ICS Planning Process may vary, but in a complex, all-hazards radiological incident, plan for approximately 12-24 hours to complete the ICS Planning Process and develop the IAP.

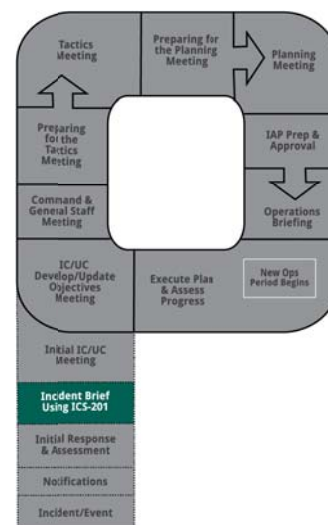
The figure below presents the "Planning P," a depiction of the steps in the ICS Planning Process. A ROSS may not be involved in every step, but should know each step to inject guidance when and where most useful. At every opportunity, but especially during his/her first deployment, the ROSS must carefully prove his or her value to the planning process.



INCIDENT BRIEFING

Purpose

The Incident Briefing step in the ICS Planning Process is focused on briefing incoming responders and transfer-of-command. The tool used to facilitate this briefing is the Incident Briefing form (ICS-201). The ICS-201 functions as the initial Incident Action Plan (IAP) and documents the incident situation, actions taken, and decisions made in the early stages of a response. It also provides the Incident Command with a means to capture decisions.



General ROSS Contributions

- A. Provide initial models, predictions, and default assumptions based on little or no field measurements. These models can be improved with an assessment of the physical extent of different types of damage, if available.
- B. Explain the geographical radiological situational awareness based on predictive and current available information from field measurements, e.g., the NCRP recommendations that follow:
 - a. Dangerous Radiation Zone (> 10 R/hr).
 - b. Hot Zone (> 10 mR/hr).
 - c. Unaffected/safe areas, as can best be defined under the incident limitations.
- C. Update on current and planned radiological response activities (in coordination with the Operations Section Chief and the Planning Section Chief).
- D. Advise on operations planning, including “go” and “no-go” areas.
- E. Advise on radiological health and safety for responders; this advice may have to compensate for scarce resources and austere conditions following a nuclear detonation:
 - a. Estimate of range of potential responder doses based on current and planned operations.
 - b. Responder PPE requirements.
 - c. Dosimetry requirements.
 - d. Turn back doses with respect to operations.
- F. Advise on radiological health and safety concerns for the public:
 - a. Estimate of range of potential doses to the public.
 - b. Assess options for sheltering and evacuation.
 - c. Other public protective actions including water/food interdiction, self-decontamination, protection of animals. etc.
- G. Advise on available Federal and regional radiological response assets and expertise.
- H. In the case of a nuclear detonation, lethal dose rates may exist. Advise responders to stay out of these areas except for saving lives and advise the public to 'get inside and stay inside.'

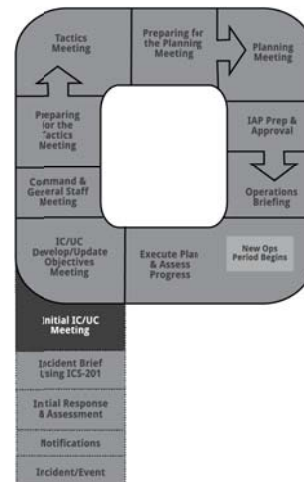
INITIAL UNIFIED COMMAND MEETING

Purpose

The Initial Unified Command Meeting provides Unified Command with an opportunity to discuss and concur on important issues prior to the Unified Command Objectives Meeting. This meeting is for assembling the Unified Command, identifying jurisdictional and individual agency/organization roles, responsibilities, and limitations, making key decisions, and building the response organization. The meeting should be brief and all important decisions and direction documented and communicated.

General ROSS Contributions

- A. Provide models, predictions, and default assumptions; technical inputs should be high-level to support strategic decision-making and the overall common operating picture.
- B. Explain the geographical radiological situational awareness based on predictive and current available information from field measurements:
 - a. Dangerous Radiation Zone (> 10 R/hr).
 - b. Hot Zone (> 10 mR/hr).
 - c. Unaffected/safe areas.
- C. Provide technical assistance with regards to radiological decision-making:
 - a. Public protective action decisions.
 - b. Responder health and safety decisions (PPE, dose limits, dosimetry requirements, turnback limits).
 - c. “Go” and “no-go” areas.
 - d. Location of key facilities including Incident Command Post. (Key facilities may include traffic control points, responder entry control points, community reception centers, bases, staging areas, landing zones, and emergency medical triage, transport, and treatment sites.)
- D. Determine strategy to incorporate radiological response expertise into the organization.
- E. If situation warrants, advise Unified Command that the relevant authority with jurisdiction to make radiological decisions (e.g., a local health officer or health department), including public protective actions, be included in Unified Command; if necessary, advise relevant authority with jurisdiction on issuing public protective actions.



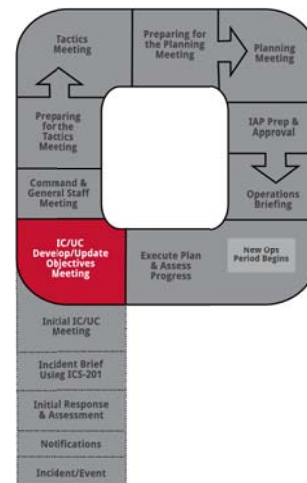
OBJECTIVES MEETING

Purpose

The Objectives Meeting provides Unified Command with an opportunity to discuss, concur on, and establish the overall Command Direction. Unified Command will set incident Objectives and Priorities, identify potential Limitations and Constraints on the response organization, determine the need for specific Incident Operating Procedures and processes, and develop work tasks and staff assignments for the Command & General Staff and key positions.

General ROSS Contributions

- A. Help inform the Command Direction and communicate expectations for the radiological response.
- B. Provide current models, predictions, characterization data, and data products to inform decision making and Command Direction; technical products should be high-level to support strategic decision-making and the overall common operating picture.
- C. Explain the geographical radiological situational awareness based on predictive and current available information from field measurements.
- D. Validate priorities and limitations & constraints; ensure priorities reflect reality of radiological response and technical response constraints are considered.
- E. Ensure objectives are realistic and achievable; ensure objectives are consistent with what needs to be accomplished in the radiological response.
- F. Recommend incident-specific radiological response procedures required for safe and effective radiological incident management and response; examples include:
 - a. Data collection and management processes and protocols.
 - b. PPE requirements.
 - c. Turn back guidance.
 - d. Dosimetry requirements, including alternatives to shortfalls in dosimetry equipment.
 - e. Dose tracking and dose reporting.
 - f. Accountability of all response personnel (for radiological control and dose tracking purposes).
 - g. Decontamination criteria and methods.
 - h. Ensure informed consent.
- G. Ensure Command Direction (priorities, objectives, decisions, etc.) adequately address radiological response considerations to include radiological monitoring operations, data collection and management, public health and safety, and responder health and safety; responder health and safety should address PPE, dose limits, turnback limits, dosimetry, etc.



Note: The ICS Job Aid has an appendix with numerous example objectives that may be valuable for the Objectives Meeting and other meeting in the Planning Process.

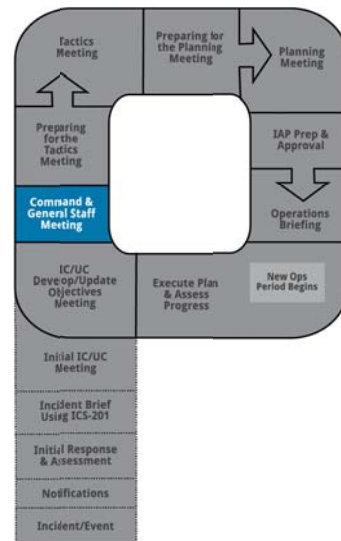
COMMAND & GENERAL STAFF MEETING

Purpose

The Command & General Staff Meeting provides Unified Command with an opportunity to present their Command Direction and Key Decisions to the Command & General Staff members. This meeting should clarify and help ensure understanding among the core Incident Management Team (IMT) members on the decisions, objectives, priorities, procedures and functional assignments (tasks) that the Unified Command has discussed and reached agreement on. Ensuing Command and General Staff Meetings will cover any changes in Command direction, review Open Actions and status of assigned tasks on the Open Action Tracker form (ICS-233).

General ROSS Contributions

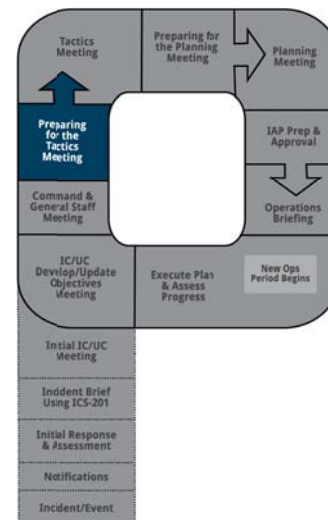
- A. Augment briefing with relevant technical information including maps, models, predictions, data products, and visuals to inform decision making and Command Direction; briefings and technical products should be high-level to support strategic decision-making and the overall common operating picture.
- B. Communicate expectations for the radiological response.
- C. Communicate radiological component in all-hazard operations and radiological impacts to all-hazard operations.
- D. Assist Command with communicating key decisions as they relate to the radiological aspects of the response, including incident-specific radiological response procedures, radiological health and safety considerations, and exclusion zones and “go” and “no-go” areas.
- E. Identify informational needs of Command and work with appropriate federal specialized assets to tailor technical products to match operational needs.
- F. Communicate risk of radiological hazard in context of the overall common operating picture.
- G. Remind the Command and General Staff to share via their respective chains of command that accountability procedures must include accounting for each responder's radiation dose (this can be vital to life safety, let alone a resource limiting factor).



PREPARING FOR THE TACTICS MEETING

Purpose

During this phase of the Operational Planning Cycle, the Operations Section Chief and Planning Section Chief begin the work of preparing for the upcoming Tactics Meeting. They review incident objectives to determine those that are the responsibility of the Operations Section and consider Command priorities. They may draft a Work Analysis Matrix (ICS-234) which helps document strategies and tactics to meet those objectives assigned, and should draft an Operations Section organization chart and an Operational Planning Worksheet (ICS-215) for the next operational period. Also, the Safety Officer (SO) should begin to develop the Hazard/Risk Analysis Worksheet (ICS-215a). The Planning Section Chief should facilitate/support this process to the greatest extent possible to ensure that the material, information, resources, etc. to be presented in the Tactics Meeting is organized and accurate.



General ROSS Contributions

- A. Determine and advise on necessary radiological response strategies, tactics, and resource requirements to meet the incident objectives; time should be used to determine scientific and operational approach to respond to the incident objectives.
- B. Consider what needs to be accomplished and what questions need to be answered, what data or samples need to be collected, and what else needs to be done to support accomplishing the objectives (health & safety, logistics, etc.).
- C. Provide scientific advice and recommendations as needed for operations planning.
- D. Discuss with the Operations Section Chief how radiological response operations will be incorporated into the Operations Section.
- E. Ensure consideration of radiological health and safety aspects of the overall response including estimated doses for responders involved in certain operations and requirements/justifications for responders involved in specific operations to exceed occupational dose limits (> 5 rem).
- F. Request/gather current dosimetry reports and exposure rate measurements from the field.
- G. Communicate expectations for dose management and dose tracking of responders and solicit information on existing resources on equipment gaps to perform dosimetry:
 - a. Can passive dosimetry be issued for each responder?
 - b. Can active integrating dosimeters be issued for each responder including standard electronic dosimeter and personnel radiation detector type instruments?
 - c. Can survey meters and other instruments or group dosimetry fulfill dose management needs where resources are scarce?

(continued on next page)



- H. Request customized data products from appropriate federal specialized assets and special science-based guidance from the Advisory Team on Environment, Food, and Health to support operational planning.
- I. Pay attention to proposed data and information management methods being considered. Advise on the roles of tools like RadResponder, CMweb, HSIN, etc.
- J. Pay attention to sample chain-of-custody decisions.
- K. Incorporate dose records management system into Planning Section, for collection and dissemination of individual dose records, survey maps, worker dose summaries for supervisors, and archives for future uses.
- L. Ensure radiation dose guidance is incorporated into Medical Plans, Safety Plans, and other appropriate ICS messaging.

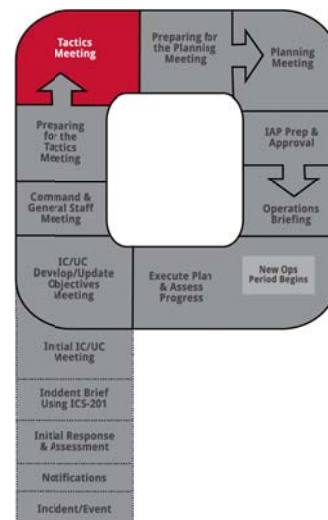
TACTICS MEETING

Purpose

The Tactics Meeting produces operational input needed to support the IAP. The Operations Section Chief may present the Work Analysis Matrix (ICS-234), if completed and will present the draft Operational Planning Worksheet (ICS-215). The proposed Operations Section organization will also be presented by the Operations Section Chief and solidified. The Safety Officer will present the draft Hazard/Risk Analysis Worksheet (ICS-215a). The Resources Unit Leader will confirm operational resource requirements and resource order requirements. Technical Specialists will provide input on technical aspects of the proposed plan that require their unique expertise. The ROSS works with the SO/Radiation Safety Officer (RSO) and does not assume those responsibilities.

General ROSS Contributions

- A. Coordinate with the Operations Section Chief on proposed strategies, tactics, resource requirements, and work assignments for radiological response operations. Use the ROSS Resource Guide to identify Federal agencies that can supply the specific resources needed.
- B. Deconflict radiological response operations with other all-hazard operations.
- C. Consider exclusion zones or “go” and “no go” areas, if established by Command or Safety.
- D. Review radiological health & safety measures for all-hazard operations and discuss overall radiological health & safety.
- E. Discuss mitigation of radiological health and safety hazards such as PPE, justification of exposure by each specific mission, go/no-go areas, estimated doses, turnback limits, dosimetry and dosimetry shortfalls, dose control, and dose reporting.
- F. Recommend dose goals for each operational assignment (per NCRP, use a 50 rad Decision Dose to decide whether or not to remove personnel from an area). Other thresholds may be used for more extreme circumstances such as for lifesaving actions, and following a nuclear detonation.
- G. Ensure processes are in place to account for and track responder doses.
- H. Recommend alternatives for dosimetry shortfalls and optimization of currently available dosimetry equipment.
- I. Provide maps and technical products, as well as briefings, that support detailed operational/tactical planning for the next Operational Period.
- J. Assess the need for additional data products to support operations and the execution of the IAP.



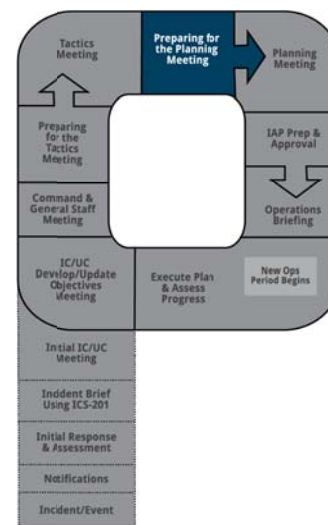
PREPARING FOR THE PLANNING MEETING

Purpose

During this phase of the Operational Planning Cycle, the Operations Section Chief and Planning Section Chief prepare for the upcoming Planning Meeting. The Planning Section Chief, with assistance from elements of the Planning Section, ensures the material, information, resources, etc., used or discussed in the Planning Meeting are prepared and ready for presentation during the meeting.

General ROSS Contributions

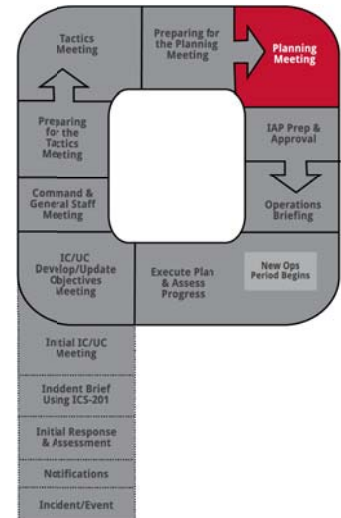
- A. Based on Tactics Meeting revise/adjust radiological aspects of the proposed plan.
- B. Prepare to brief Command and the Command & General Staff on the radiological conditions and impacts on the conduct of the response to the incident.
- C. Choose the appropriate maps and technical products, as well as briefings, for the meeting that are focused on operational/tactical planning for the next Operational Period.
- D. Request additional data products from appropriate federal specialized assets and special science-based guidance from the Advisory Team on Environment, Food, and Health to support operational planning and execution of operations.
- E. Identify and request measurements by field personnel with monitoring equipment to support the response.
- F. Provide status on equipment for radiological health and safety and equipment shortfalls.
- G. Provide status on doses to responders.
- H. Provide status on exposure rate measurements.



PLANNING MEETING

Purpose

This Planning Meeting provides an overview of the tactical plan to achieve Command's current direction, priorities, and objectives. The Operations Section Chief will present the proposed plan to the Command and General Staff for review and comment. The Operations Section Chief will discuss strategies that were considered and chosen to best meet Command's direction for the next operational period. The Operations Section Chief will also briefly discuss how the incident will be managed along with work assignments and resources and support required to implement the proposed plan. The Safety Officer will present the Hazard/Risk Analysis and measures put in place to ensure operations are conducted as safely as possible. This meeting provides the opportunity for Command and General Staff to discuss and resolve any issues and concerns prior to assembling the IAP. After review and updates are made, planning meeting attendees commit to support the plan.



General ROSS Contributions

- A. Interpret map and technical products, as well as briefings, in support of operational/tactical planning for the next Operational Period.
- B. Brief Command and the Command and General Staff on the radiological aspects of the incident based on measurements in the field, modeling, and comparisons of measurement and modeling data.
- C. Assist the Operations Section Chief on presenting strategies for radiological response operations.
- D. Assist the Safety Officer on presenting radiological health & safety considerations; this may include PPE, justification of exposure by each specific operational assignment, estimated doses, dose limits, turnback limits, dosimetry, alternatives for dosimetry shortfalls, dose control, dose tracking, dose reporting, contamination control, and significant radiological health and safety concerns.
- E. Assess the need for additional data products to support operations and the execution of the IAP.

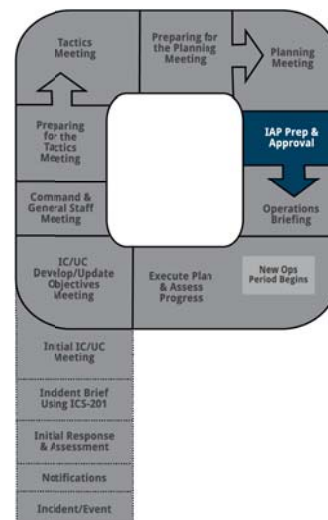
INCIDENT ACTION PLAN PREPARATION & APPROVAL

Purpose

Once the Planning Meeting has ended and the tactical plan of action has received tentative approval, the next step is to prepare the various components of the Incident Action Plan. During this phase of the Operational Planning Cycle, the Planning Section prepares the Incident Action Plan for the next Operational Period. Appropriate IMT members must complete the assigned task/products that are needed to include in the IAP. These products must be completed by a deadline specified by the Planning Section Chief so that the Planning Section can assemble the IAP components. The deadline must be early enough to permit timely Command review, approval, and duplication of sufficient copies for the Operations Briefing and other IMT members.

The Incident Action Plan is comprised of various forms that when put together provide the user with a wealth of information that will enable elements of the Operations Section to carry out their tactical work assignments. A few key components of the Incident Action Plan include:

- Incident Objectives (ICS-202): The Planning Section Chief prepares the ICS-202, but does not establish the objectives, which are established by Command during the Objectives Meeting and presented during the Command & General Staff Meeting.
- Organization Assignment List (ICS-203): The Resources Unit Leader prepares the ICS-203, which lists the names and positions of the management team.
- Assignment List (ICS-204): The ICS-204 contains information on the operations organization and the work to be accomplished. That information comes directly from the Operational Planning Worksheet (ICS-215) developed by the Operations Section Chief. The Resources Unit ensures that the information is accurately transferred to the form. The ICS-204 also shows the operational resources that are assigned to each part of the operation organization. The Resources Unit works closely with the Operations Section Chief to ensure that operational resources are assigned correctly, with the Communications Unit Leader to ensure that the communications information on the ICS-204 is correct, and with the Safety Officer for any information to be added to the form. The number of ICS-204s included in the IAP depends on how the Operations Section Chief organized the section. An ICS-204 is developed for each Division, Group, and Staging Area. ICS-204s are not developed for individual resources. If additional information is needed for the work assignment or for a specific resource, an Assignment List Attachment (ICS-204a) may be used.
- Air Operations Summary (ICS-220): The Air Operations Branch Director and the Operations Section Chief prepare the ICS-220, which contains information on aviation operations including aircraft and crew information, specific operational assignment for aircraft, and procedures for managing airspace and deconflicting air operations
- Communications Plan (ICS-205): The Communications Unit Leader prepares the ICS-205, which lists the communications frequencies, procedures, and protocols for the incident.
- Medical Plan (ICS-206): The Medical Unit Leader prepares the ICS-206, which includes specific medical procedures should a responder suffer a medical emergency.





- If necessary, other documents may be included in the Incident Action Plan such as supplemental operations plans and operational procedures. However, the goal is not to have an Incident Action Plan that is too large; the Incident Action Plan is intended to be an operational document for the Operations Section personnel.

General ROSS Contributions

- A. Provide technical input for Assignments Lists (ICS-204s and ICS-204as) to include resource recommendations, work assignment instructions, and special instructions; *see sample Assignment List (ICS-204) and Assignment List Attachment (ICS-204a) in Appendix A.*
- B. Provide radiological health and safety guidance including PPE, justification of exposure by each specific operational assignment, estimated doses, dose limits, turnback limits, dosimetry, alternatives for dosimetry shortfalls, dose control, dose tracking, dose reporting, contamination control, and significant radiological health and safety concerns.
- C. Provide maps and data products of value to the Operations Section personnel in executing the IAP.
- D. Contribute technical information to all-hazard work assignments, as requested.
- E. Advise on radiological considerations and needs for public health response and first receivers.
- F. Review IAP with State Radiation Director (or other decision maker), resolve any issues and ensure approval by appropriate authority.

See sample Assignment List (ICS-204) in Appendix A.

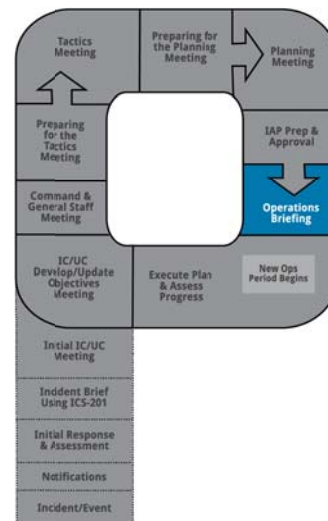
OPERATIONS BRIEFING

Purpose

This 30-minute, or less, briefing presents the IAP to the Operations Section oncoming shift supervisors. After this briefing has occurred and during shift change, off-going supervisors should be interviewed by their relief and by the Operations Section Chief in order to validate IAP effectiveness. The Division/Group Supervisor may make last minute adjustments to tactics over which they have purview. Similarly, a supervisor may reallocate resources within that Division/Group to adapt to changing conditions.

General ROSS Contributions

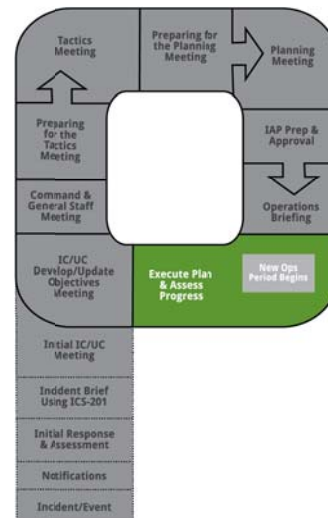
- A. Augment briefing with relevant technical information including maps, models, predictions, data products, and visuals; briefings and technical products should be relevant to Operations Section personnel with direct applicability on operations for the Operational Period.
- B. Communicate radiological impacts to all-hazard operations and mitigation measures.
- C. Assist the Operations Section Chief on presenting work assignments for radiological response operations.
- D. Assist the Safety Officer in presenting radiological health & safety considerations; this may include PPE, dose limits, turnback limits, dosimetry, dose control, dose tracking, and dose reporting as well as significant radiological health and safety concerns.



Execute Plan & Assess Progress

Purpose

Following the Operations Briefing, the Operations Section begins to implement the IAP. The IAP is treated as a living document that is subject to change based on the incident situation. Constant assessment of how well the plan is designed to meet the current situation must be conducted. All Command and General Staff members will review the incident response progress and make recommendations to the Command in preparation for the next Objectives Meeting. The current IAP is the guiding document for the Operations Section until a new IAP is developed and the next Operational Period begins. While the current IAP is being implemented, planning for the next IAP and Operational Period will occur. Planning and response operations must occur simultaneously.



General ROSS Contributions

- A. Stay informed on radiological response operations.
- B. Assess technical field activities for effectiveness and provide feedback to the Operations Section Chief and Planning Section Chief, as appropriate.
- C. Request/gather current information dosimetry reports and exposure rate measurements from the field.
- D. Facilitate the transmission of field measurements and data so they can be used to update modeling predictions and data products with new field measurements and data; disseminate updated maps, models, and data products as necessary.
- E. Prepare and deliver technical briefings tailored for public release and attend media briefings, as required.
- F. Prepare and deliver briefings and interpret technical information, including maps, models, predictions, data products, and visuals, for next planning cycle.
- G. Communicate health risks and assist with operational planning to minimize doses to responder groups and facilitate the continuity of operations within the constraints of the radiological hazards.
- H. Continue work on technical, support, contingency, and long-range plans.
- I. Brief appropriate personnel on radiological response accomplishments.
- J. Work with the Liaison Officer and State Radiological Authority to help facilitate understanding among stakeholders.
- K. Request support from and coordinate with reachback capabilities; anticipate and communicate support required for the next planning cycle.
- L. Stay informed of radiological response resources status and availability (local, state, and federal); for radiological response resources en route, plan for their integration into the response.
- M. Advise Operations Section Chief and Planning Section Chief on additional assets required for next planning cycle.
- N. Assess personnel and equipment needs for the next 24 hours to support radiological operations.



APPENDIX A – SAMPLE ASSIGNMENT LIST (ICS-204) AND ASSIGNMENT LIST ATTACHMENT (ICS-204A)

See next page.



1. Incident Name SONGS Nuclear Accident		2. Operational Period (Date/Time) April 2 From: 0700 To: 1900		Assignment List ICS 204	
3. Branch Radiological Monitoring		4. Division/Group/Staging Ground Field Monitoring Group			
5. Operations Personnel					
	Name	Affiliation	Contact # (s)		
Operations Section Chief:	XXX	CA DOH/DOE	325-876-XXXX / 925-454-XXXX		
Branch Director:	XXX	DOE FRMAC	702-295-XXXX		
Division/Group Supervisor/STAM:	XXX	DOE RAP	325-545-XXXX		
6. Resources Assigned "X" indicates 204a attachment with additional instructions					
Strike Team/Task Force/Resource Identifier	Leader	Contact Info. #	# of Persons	Reporting Info/Notes/Remarks	
Field Monitoring Team 101	XXX	325-433-XXXX	3	Incident Command Post - 0600	<input checked="" type="checkbox"/>
Field Monitoring Team 102	XXX	325-433-XXXX	3	Incident Command Post - 0600	<input checked="" type="checkbox"/>
Field Monitoring Team 103	XXX	325-433-XXXX	3	Incident Command Post - 0600	<input checked="" type="checkbox"/>
Field Monitoring Team 104	XXX	325-433-XXXX	3	Incident Command Post - 0600	<input checked="" type="checkbox"/>
Field Monitoring Team 105	XXX	325-433-XXXX	3	Incident Command Post - 0600	<input checked="" type="checkbox"/>
Field Monitoring Team 106	XXX	325-433-XXXX	3	Incident Command Post - 0600	<input checked="" type="checkbox"/>
7. Work Assignments Conduct radiological field monitoring operations in accordance with the Monitoring and Sampling Plan. Conduct all measurements and collect all data and samples in accordance with FRMAC monitoring and sampling procedures. Follow detailed instructions on ICS-204a and supporting maps. Collect data at or near the locations/routes shown on the maps provided. Submit all samples and data back to FRMAC for further assessment and analysis.					
8. Special Instructions Source check all equipment prior to deploying to field. Wear TLD or OSL dosimeter and electronic dosimeter. Carry a cell phone and two-way radio. Wear gloves and booties when out of the vehicle, frisk hands and feet before reentering the vehicle, frisk equipment and vehicle on return to base and process through the Hotline established in the parking lot south of the Incident Command Post. Set alarms on the electronic dosimeter to 10 mR/hr, 10 R/hr. Turn back at 10 mrem/hr, 20 mrem integrated dose, and immediately report dosimeter alarms to Radiological Monitoring Branch Director and Safety Officer. Avoid private property without permission to enter the area. In the event of a traffic accident or medical emergency, do not delay emergency medical treatment. Emergency medical treatment takes priority over life threatening injuries or illness.					
9. Communications (radio and/or phone contact numbers needed for this assignment)					
Name/Function	Radio: Freq./System/Channel	Phone	Cell/Pager		
Radiological Monitoring / Tactical	153.955/VHF-DOE/1a	925-525-XXXX			
Air Operations	163.395/VHF-CA OES/9t	925-525-XXXX			
Operations Section Management	153.875VHF-CA OES/2a	925-525-XXXX			
Emergency Communications Medical 310-432-XXXX / VHF 159.725 - 3a Evacuation _____ Logistics 310-432-XXXX 159.715/VHF-CA OES/1d					
10. Prepared by (RESL) HALEY	Date/Time Apr 2 / 0300	11. Reviewed by (PSC) SCULLY	Date/Time Apr 2 / 0315	12. Reviewed by (OSC) STAHL	Date/Time Apr 2 / 0315



1. Incident Name SONGS Nuclear Accident		2. Operational Period (Date/Time) April 2 From: 0700 To: 1900		ASSIGNMENT LIST ATTACHMENT	
				ICS-204a	
3. Branch Radiological Monitoring			4. Division/Group/Staging Ground Field Monitoring Group		
5. Strike Team/Task Force/Resource (Identifier) n/a		6. Leader n/a		7. Assignment Location n/a	
8. Work Assignment Special Instructions, Special Equipment/Supplies Needed for Assignment, Special Environmental Considerations, Special Site Specific Safety Considerations					
<p>Teams 101, 102: Collect data at or near the locations shown on the map provided. Obtain alpha and beta readings at 1 inch, dose rate readings at 3 feet, and 10 minute high volume air samples with a charcoal and particulate filter. Conduct a spear survey, assess in the field with a pancake GM and alpha scintillator. If contamination level exceed 10,000 beta/200 alpha dpm/100 cm², don coveralls. If contamination levels reach or exceed 100,000 beta/2000 alpha dpm/100 cm², turn back and immediately report conditions to the Radiological Monitoring Branch Director and Safety Officer. Photograph the environment around each sampling location. Equipment: Alpha scintillator/ratemeter, Pancake GM/ratemeter, Micro-rem meter, high volume air sampler violinist measurements, pancake GM, FRMAC tablet, sample control forms, MPCD, camera, two-way radio, cellular phone.</p> <p>Teams 103, 104: Collect data at or near the locations shown on the map. Obtain a 900 second in-situ spectrum, two soil samples, one core sample and opportunistic one-liter surface water samples. Photograph the environment around each sampling location. Conduct a spear survey, assess in the field with a pancake GM and alpha scintillator. If contamination level exceed 10,000 beta/200 alpha dpm/100 cm², don coveralls. If contamination level reach or exceed 100,000 beta/2000 alpha dpm/100 cm², turn back and immediately report conditions to the Radiological Monitoring Branch Director and Safety Officer. Equipment: HPGe Spectrometer, in-situ tripod, soil and water sampling kits, sample bags and sample control forms, coring tool, micro-rem or micro-R meter, FRMAC tablet, MPCD, camera, two-way radio, cellular phone.</p> <p>Teams 105, 106: Drive route indicated on the map provided. Start data collection approximately 2 miles from beginning of the survey. Equipment: RSI mobile system with one Nal log, micro-R or micro-rem meter, pancake GM, FRMAC tablet, sample control forms, MPCD, camera, two-way radio, cellular phone.</p>					
Approved Site Safety Plan Located at: Incident Command Post, Staging Areas, Check-In Locations, Radiological Control Hotline					
9. Other Attachments (as needed)					
<input checked="" type="checkbox"/> Map/Chart		<input type="checkbox"/> Weather Forecast/Tides/Currents			
<input checked="" type="checkbox"/> FRMAC Monitoring & Sampling Plan		<input type="checkbox"/> FRMAC Monitoring & Sampling Procedures			
<input type="checkbox"/> _____					
10. Prepared by IRWIN (THSP)		11. Reviewed by (PSC) SCULLY		12. Reviewed by (OSC) STAHL	
Date/Time Apr 2 / 0300		Date/Time Apr 2 / 0315		Date/Time Apr 2 / 0315	



APPENDIX B – ICS FORMS LIST

ICS Form #	Form Title	Prepared By
ICS-201	Incident Briefing	Initial Incident Commander
ICS-202	Incident Objectives	Planning Section Chief
ICS-203	Organization Assignment List	Resources Unit Leader
ICS-204	Assignment List	Resources Unit Leader & Operations Section Chief
ICS-204a	Assignment List Attachments	Operations & Planning Sections Staff
ICS-205	Incident Radio Communications Plan	Communications Unit Leader
ICS-205a	Communications List	Communications Unit Leader
ICS-206	Medical Plan	Medical Unit Leader
ICS-207	Incident Organization Chart	Resources Unit Leader
ICS-208	Site Safety Plan	Safety Officer
ICS-209	Incident Status Summary	Situation Unit Leader
ICS-210	Status Change Card	Resources Unit/ Check-in Recorder
ICS-211	Check-In List	Resources Unit/ Check-in Recorder
ICS-213	General Message	Any message Originator
ICS-213 RR	Resource Request Message	Any Resource Requester
ICS-214	Unit Log	All Sections and Units
ICS-215	Operational Planning Worksheet	Operations Section Chief
ICS-215a	Hazard/Risk Analysis Worksheet	Safety Officer
ICS-218	Support Vehicle/Vessel Inventory	Ground/Vessel Support Unit Leaders
ICS-219	Resource Status Card (T-Card)	Resources Unit Leader
ICS-220	Air Operations Summary Worksheet	Operations Section Chief or Air Branch Director
ICS-221	Demobilization Checkout	Demobilization Unit Leader
ICS-230	Daily Meeting Schedule	Situation Unit Leader
ICS-232	Resources at Risk Summary	Environmental Unit Leader
ICS-233	Open Action Tracking	Situation Unit Leader
ICS-234	Work Analysis Matrix	Operations & Planning Section Chiefs
ICS-235	Facility Needs Assessment Worksheet	Facilities Unit Leader



Appendix C – Key Terminology

Area of Responsibility: The domain within a specified set of boundaries (geographic, functional, or a combination thereof) for which an incident response organization has been assigned responsibility.

Assigned Resource: Resources checked-in and assigned work tasks on an incident.

Assisting Agency: An agency directly contributing or providing tactical, personnel, or service resources to another incident, but which is not a member of the Unified Command

Available Resource: Incident-based resources that are immediately available for assignment.

Branch (in the Operations Section): Since the Operations Section builds from the bottom up, the Branch level is established when the number of Divisions/Groups exceeds the span-of-control of the Operations Section Chief (OSC). Branches may have either functional and/or geographic responsibility for major incident operations. Geographic Branches are identified by roman numerals or the name of the geographic area they cover. Functional Branches are identified by the functional responsibility (e.g. Search & Rescue, Radiological Monitoring).

Cold Zone: Also referred to as the support zone, the cold zone is a contamination-free zone established around the warm zone where emergency operations can be directed and supported. The cold zone is normally established in an area where radiation levels are at natural background levels.

Command Direction: A general term for the specific direction and information provided by Command to the Command & General Staff for action. Examples include Command Intent, Decisions, Priorities, Objectives, Limitations & Constraints, Incident Operating Procedures, Staff Assignments, tasks, policies, and other direction as necessary.

Cooperating Agency: An agency supplying assistance other than direct tactical or support functions or resources to the incident control effort (e.g., Red Cross, law enforcement agency, utility company, etc.).

Critical Resources: Response resources that are in high demand and in short supply. Normally, referred to tactical resources but can also be logistical in nature, such as caterers, shower units, lodging, communications systems and buses.

Division: Organization level used to divide an incident into geographical areas of operation. The Division level is established when the number of resources exceeds the span-of-control of the OSC and is organizationally between the Task Force/Team and the Branch. (See also: Group.)

En-Route Resource: Resources that have been dispatched or deployed to an incident but have not yet arrived. En-route resources are typically tracked by their home agency or dispatch but may also be tracked by the incident Resources Unit as an incoming resource.



Group: Incident operational structures based on functional areas. Groups are composed of resources assembled to perform a special function not necessarily within a single geographic division. A Group is located between Branches (when activated) and Resources in the Operations Section. (See also: Division)

Hazard: An unavoidable danger that may often times be foreseeable; something causing unavoidable danger, peril, or difficulty.

Hot Zone: Also referred to as the exclusion zone in some jurisdictions. The hot zone is usually set up in the immediate area surrounding the spilled material or incident scene. Access to the hot zone should be controlled for accountability purposes as well as contamination control purposes.

Incident Action Plan (IAP): A written plan containing general objectives reflecting the overall strategy for managing an incident that includes identification of operational resources and assignments. It may also include attachments that provide direction and important information for management of the incident during an operational period.

Incident Command Post: The field location at which the primary tactical-level, on-scene incident command functions are performed. The ICP may be collocated with the incident base or other incident facilities. The ICP is the physical location from which the Unified Command and the Command & General Staff are based.

Incident Management Team: A team of trained, qualified, and equipped incident management personnel to manage an incident. IMTs generally consist of an Incident Commander, Command & General Staff (with Deputies and Assistants), Unit Leaders, and Operations Section Overhead.

Incident Operating Procedure: Incident specific procedure identified by Command and developed by the Command & General Staff for how the incident management organization will operate based on the unique circumstances and characteristics of the incident. Development of Incident Operating Procedures may be brought about by conflicting agency policy and procedures.

Initial Response: All response actions that occur prior to the implementation of the first Incident Action Plan. Initial response continues until the start of the first Operational Period

Interim Direction: Specific taskings provided by Command to staff during periods of the response when more formalized direction has not yet been developed, the dynamics of the incident have suddenly changed, or at any other time Command deems necessary to fill gaps in their clarity of direction. This most often occurs during Initial Response and under rapidly evolving periods of the response.

Limitations & Constraints: Influences that may hinder responders from carrying out a planned action or something that may adversely affect how or when a task can be performed.

Objectives: Statements of guidance and direction necessary for the selection of appropriate strategies, and the tactical direction of resources. Tactical incident objectives address the tactical response issues while management incident objectives address the incident management issues. Tactical incident objectives are based on realistic expectations of what can be accomplished when all allocated resources have been



effectively deployed. Incident objectives must be achievable and measurable, yet flexible enough to allow for strategic and tactical alternatives.

On-Going Operations: Operations carried out during one operational period under the direction of the IAP while planning is occurring for the next Operational Period and IAP. It is a continuous cycle of activities that result in development, execution, support, and assessment of an Incident Action Plan. It is a cycle that repeats until the incident is resolved.

Operational Period: The period of time scheduled for execution of a given set of operation actions as specified in the IAP. Operational Periods can be various lengths, usually not over 24 hours. The Operational Period coincides with the completion of one planning “P” cycle.

Operational Segment: A geographic area within a Division or Group to which a Strike Team, Task Force, or Single Resource is assigned. Only one Strike Team, Task Force, or Single Resource is assigned to an Operational Segment. An Operational Segment does not have specific overhead supervision; the supervision is provided by the resource leader.

Out-of-Service Resource: Resources assigned to an incident, but they are unable to respond for mechanical, rest, or personnel reasons.

Priorities: Critical factors that influence allocation of resources or actions to achieve incident objectives, such as life safety, national security, environment, economy, infrastructure and transportation systems.

Resource: All personnel, operation teams, and major items of equipment available, or potentially available, for assignment to incident tasks on which status is maintained.

Risk: Exposure to the chance of injury or loss and the degree of probability of such loss.

Single Resource: An individual, piece of equipment and its personnel complement, or a crew or team of individuals with an identified work supervisor that can be used on an incident.

Span-of-Control: A command and control term for how many organizational elements may be directly managed by one person. Typical Span-of-Control may vary from one to seven, and a ratio of five reporting elements is optimum, though it depends on the nature of the tasks being supervised, conditions in which they are being conducted, and experience of the resources and supervisor involved.

Staff Assignments (Taskings): Specific taskings given to members of the Command & General Staff by Command to accomplish necessary functions not typically captured in the Objectives.

Strategy: The general plan or direction selected to accomplish incident objectives.

Strike Team: Combinations of the same resource kind and type with common leader and communications.

Tactics: The specific details necessary to carry out a strategy; includes who, what, when, where, and how.



Task Force: A specific combination of dissimilar resources with common communications and a leader assembled for a specific mission.

Unified Command (often referred to as Command): An application of ICS used when there is more than one agency with incident jurisdiction or when incidents cross political jurisdictions. Agencies work together through the designated Incident Commanders in a unified fashion within a single and integrated organization at one ICP. The Unified Command establishes a common set of Command Direction, for a single Incident Action Plan. This is accomplished without losing or abdicating authority, responsibility, or accountability.

Warm Zone: Also referred to as the contamination reduction zone, the warm zone is usually established around the hot zone to provide a buffer between the hot and cold zones. Decontamination often takes place in the warm zone.