SITUATION UNIT LEADER TRAINING

April 7-9, 2020

Dallas, TX

SITL

Situation Unit Leader

Unit 1 – Course Introduction and Objectives

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1

SITL

Please….

In consideration of your fellow students and the instructors, please silence all cell phones…

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2

SITL

Logistics

- Student Registration Card
- Student Evaluation Form
- Facility Information
- Course Objectives / Agenda
- Student Handouts

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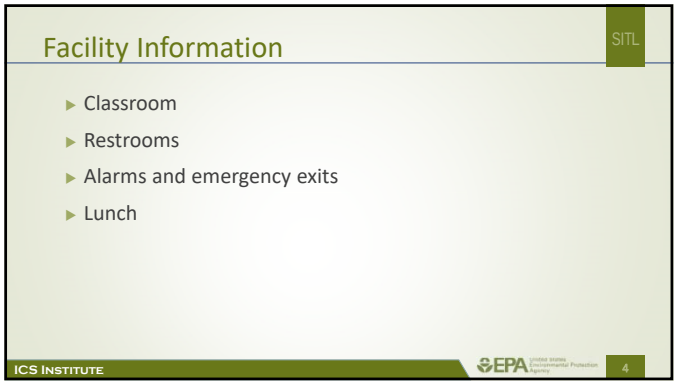
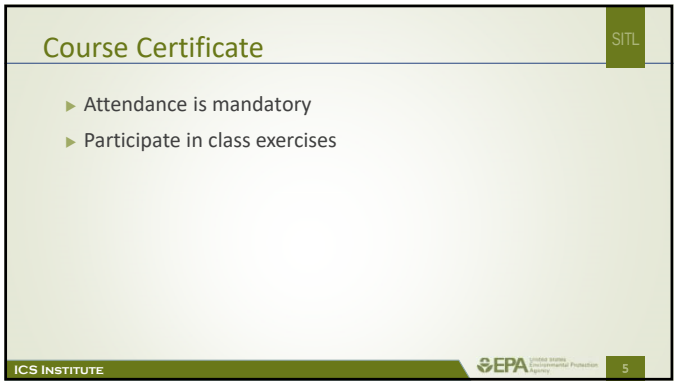
3


Facility Information
SITL
Classroom
Restrooms
Alarms and emergency exits
Lunch
ICS Institute
EPA
4

4


Course Certificate
SITL
Attendance is mandatory
Participate in class exercises
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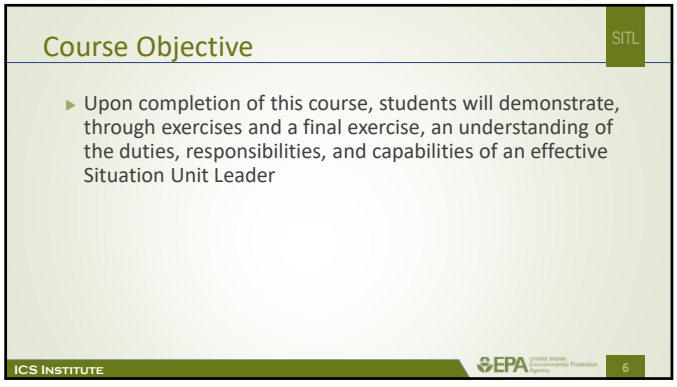
Course Objective
SITL
Upon completion of this course, students will demonstrate, through exercises and a final exercise, an understanding of the duties, responsibilities, and capabilities of an effective Situation Unit Leader
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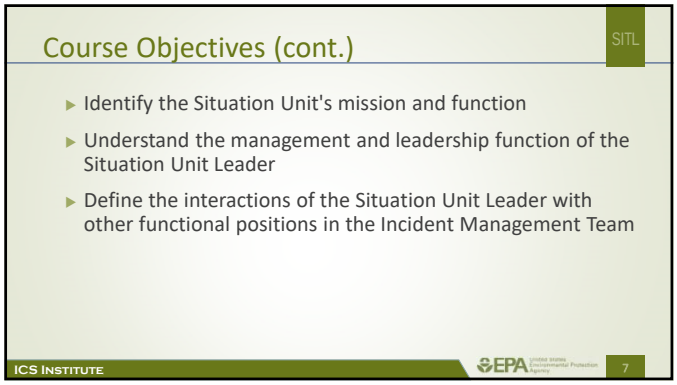
Course Objectives (cont.)
SITL
Identify the Situation Unit's mission and function
Understand the management and leadership function of the Situation Unit Leader
Define the interactions of the Situation Unit Leader with other functional positions in the Incident Management Team
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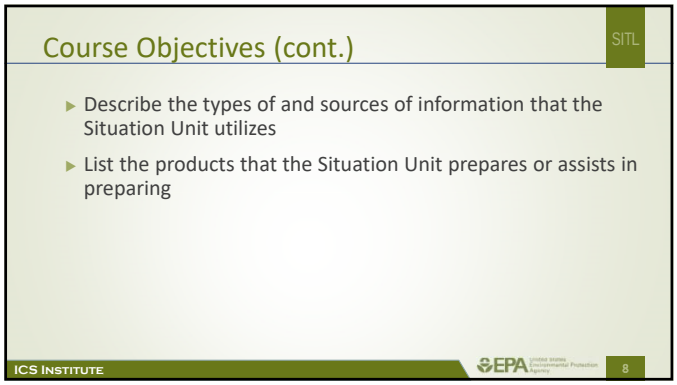
Course Objectives (cont.)
SITL
Describe the types of and sources of information that the Situation Unit utilizes
List the products that the Situation Unit prepares or assists in preparing
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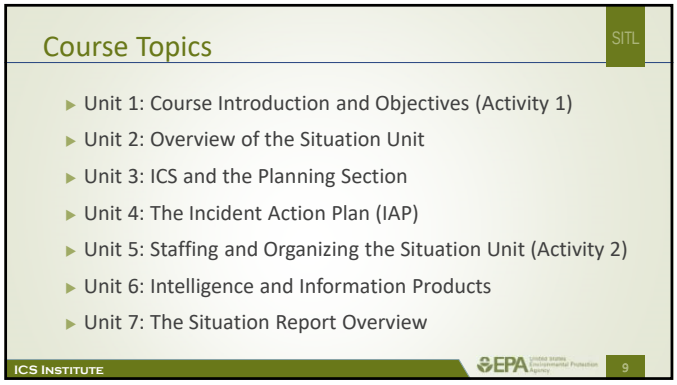
Course Topics
SITL
Unit 1: Course Introduction and Objectives (Activity 1)
Unit 2: Overview of the Situation Unit
Unit 3: ICS and the Planning Section
Unit 4: The Incident Action Plan (IAP)
Unit 5: Staffing and Organizing the Situation Unit (Activity 2)
Unit 6: Intelligence and Information Products
Unit 7: The Situation Report Overview
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Course Topics

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- Unit 8: Writing the Situation Report (Exercise 1)
- Planning Section Family Meeting
- Unit 9: Data Management Tools
- Unit 10: Geospatial Overview (Activity 3)
- Unit 11: Case Study
- Unit 12: Meetings and Agendas (Exercise 2)
- Unit 13: Situation Unit Close-out
- Unit 14: Final SITL Course Exercise

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Introductions

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- Name
- Organization
- Job Description
- IMT Experience
- IMT Position-Specific Training

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Situation Unit Leader

Mission and Function

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Introduction to the Situation Unit

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- Situation Unit is Responsible For
  - Determining information needs
  - Gathering information
  - Processing information
  - Displaying information
  - Turning information into Intelligence

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Job References

SITL

- U.S. EPA Incident Management Handbook

  "Responsible for collecting, processing, organizing, displaying, and disseminating all incident information." (Status and situation.) IMH, p. 9-5.

- Situation Unit Leader Job Aid

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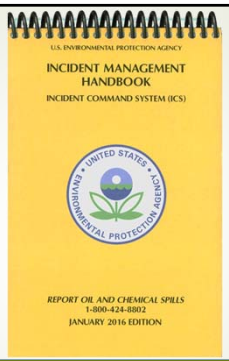
IMH

SITL



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Job Aid

Environmental Protection Agency
Incident Command System

Situation Unit Leader Job Aid

SITL

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Situation Unit Mission

SITL

To support the IMT planning process by:

1. Providing incident personnel with timely and accurate incident status information via accurate displays and reports.
2. Creating situation reports to send up the EPA management chain.

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Effective Plans Require Intelligence

SITL

- Based on
  - Quality information
  - Timely information
  - Constantly updated information
  - Accurate and usable displays of information
  - Information that has been verified and analyzed

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Functions of the Situation Unit

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- To perform the functions of a SITL they must understand the situation.

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Understand the Situation

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- What has happened?
- What progress has been made?
- What are the perimeters?
- What work is ongoing currently?
- What is our endpoint?

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Functions of the Situation Unit

SITL

- Collecting and organizing status information relevant to the incident
- Analyzing and evaluating incident information
- Preparing and displaying incident information
- Submitting reports and providing documentation
- *Providing data and mapping services (Data Support)*
- *Providing predictive services (EU)*
- *Providing risk assessments (EU)*

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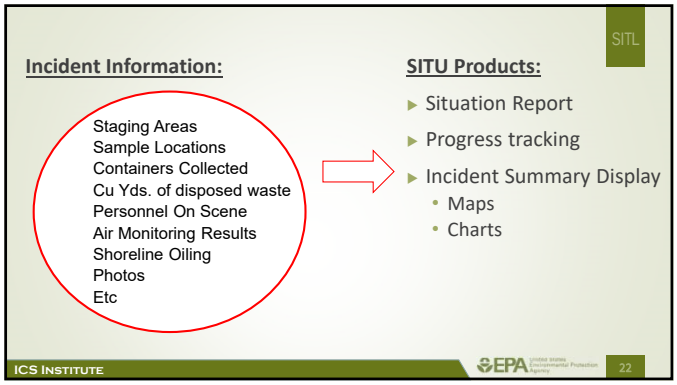
SITL
Incident Information:
Staging Areas
Sample Locations
Containers Collected
Cu Yds. of disposed waste
Personnel On Scene
Air Monitoring Results
Shoreline Oiling
Photos
Etc
SITU Products:
Situation Report
Progress tracking
Incident Summary Display
Maps
Charts
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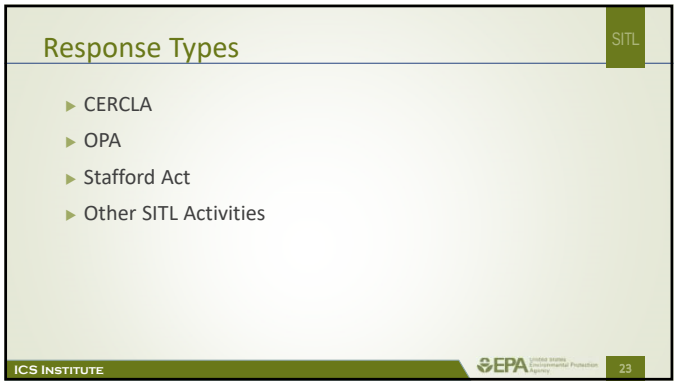
Response Types
SITL
CERCLA
OPA
Stafford Act
Other SITL Activities
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EPA
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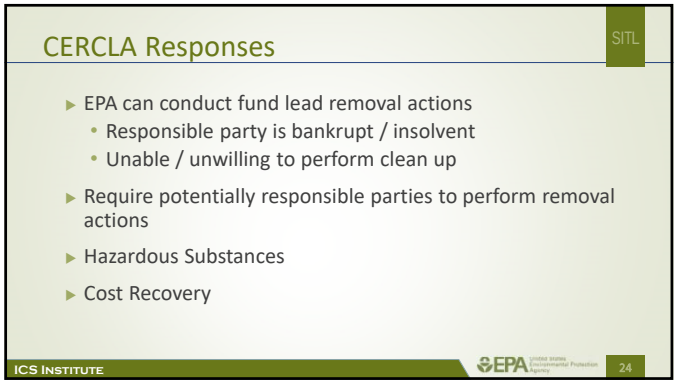
CERCLA Responses
SITL
EPA can conduct fund lead removal actions
Responsible party is bankrupt / insolvent
Unable / unwilling to perform clean up
Require potentially responsible parties to perform removal actions
Hazardous Substances
Cost Recovery
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CERCLA Responses

SITL

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CERCLA Responses

SITL

- Gold King Mine (CO) 2015
- Intercontinental Terminals Corp (TX) 2019
- Ogden Swift (UT) 2019
- TPC (TX) 2019

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Oil Pollution Act of 1990

SITL

- Conduct fund lead response
  - Oil Spill Liability Trust Fund
- Require responsible party to perform response action
- Cost Recovery

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OPA Responses

SITL

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OPA Responses

SITL

- Cosco Busan 2007
- Gulf Oil Spill (Deepwater Horizon) 2010
- Enbridge Oil Spill (R5) 2010
- Yellowstone River (R8) 2011
- Refugio State Beach (CA) 2015

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Stafford Act

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- Disaster Declaration
  - FEMA issues Mission Assignment based upon local / state request
  - ESF-10 (Oil and Hazardous Material Response) EPA Lead

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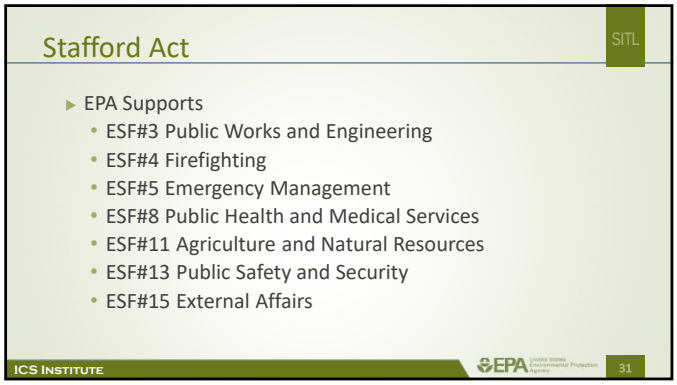
Stafford Act
SITL
EPA Supports
ESF#3 Public Works and Engineering
ESF#4 Firefighting
ESF#5 Emergency Management
ESF#8 Public Health and Medical Services
ESF#11 Agriculture and Natural Resources
ESF#13 Public Safety and Security
ESF#15 External Affairs
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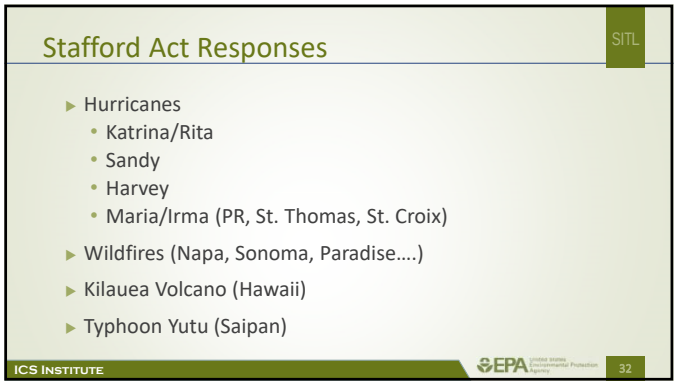
Stafford Act Responses
SITL
Hurricanes
Katrina/Rita
Sandy
Harvey
Maria/Irma (PR, St. Thomas, St. Croix)
Wildfires (Napa, Sonoma, Paradise….)
Kilauea Volcano (Hawaii)
Typhoon Yutu (Saipan)
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EPA
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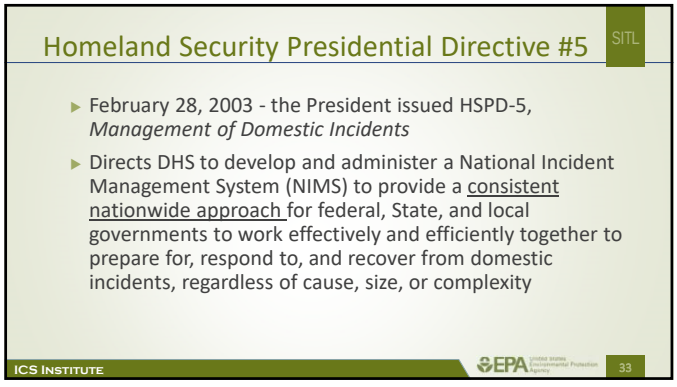
Homeland Security Presidential Directive #5
SITL
February 28, 2003 - the President issued HSPD-5, Management of Domestic Incidents
Directs DHS to develop and administer a National Incident Management System (NIMS) to provide a consistent nationwide approach for federal, State, and local governments to work effectively and efficiently together to prepare for, respond to, and recover from domestic incidents, regardless of cause, size, or complexity
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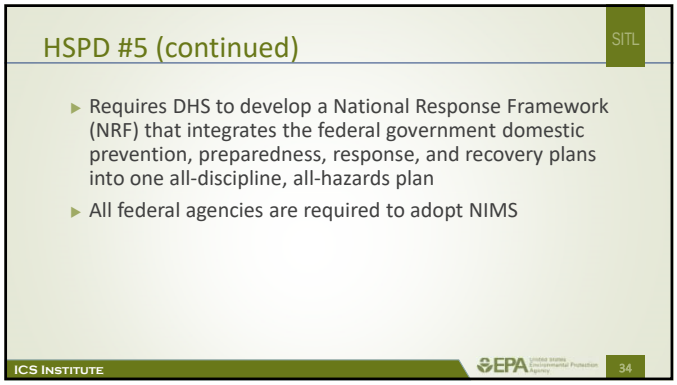
HSPD #5 (continued)
SITL
Requires DHS to develop a National Response Framework (NRF) that integrates the federal government domestic prevention, preparedness, response, and recovery plans into one all-discipline, all-hazards plan
All federal agencies are required to adopt NIMS
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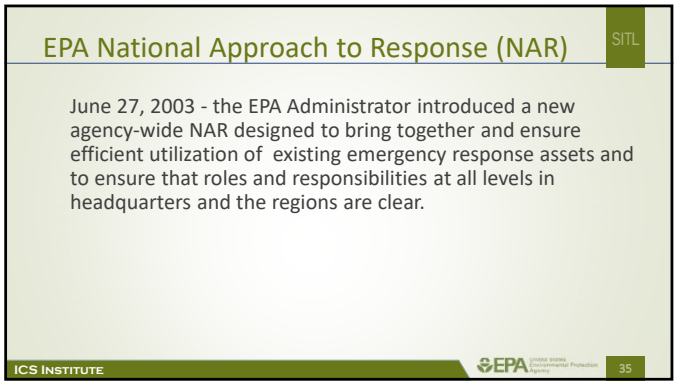
EPA National Approach to Response (NAR)
SITL
June 27, 2003 - the EPA Administrator introduced a new agency-wide NAR designed to bring together and ensure efficient utilization of existing emergency response assets and to ensure that roles and responsibilities at all levels in headquarters and the regions are clear.
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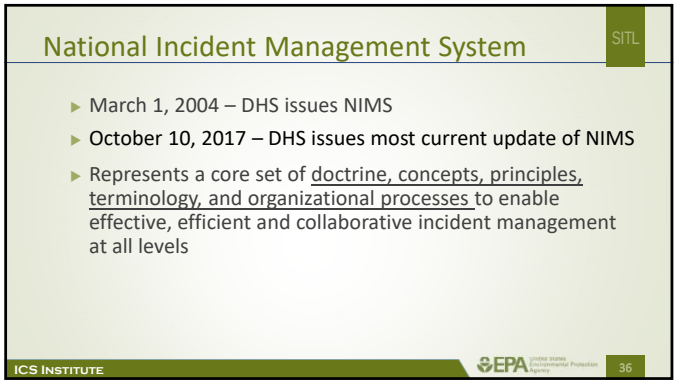
National Incident Management System
SITL
March 1, 2004 – DHS issues NIMS
October 10, 2017 – DHS issues most current update of NIMS
Represents a core set of doctrine, concepts, principles, terminology, and organizational processes to enable effective, efficient and collaborative incident management at all levels
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National Response Framework (NRF)

SITL

- Federal Response Plan
- National Response Plan
- Issued Dec. 04
- Notice of Change May 06
- NRF – Issued Jan. 08 – Guide to how the Nation conducts all hazards response. Built upon scalable, flexible, and adaptable coordinating structures to align key roles and responsibilities across the Nation, linking all levels of government, NGOs, and the private sector.

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EPA National Implementation

SITL

- NIMS Integration Team (NIT)
  - NIMS ICS Implementation Plan
  - Orders 2070, 2071 and 2073
  - IMT Implementation Plan Guidance
  - Incident Management Handbook (IMH)
  - Position-specific Job Aids
  - Training/Qualification/Certification Order (Order #2073)
  - ICS 300/400 and KLP courses
  - Training and certification data entry into *Field Readiness*

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EPA National Implementation

SITL

- Response Support Corps (RSC)
  - National Guidance
  - National Database

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NIMS Incident Command System (ICS) Implementation Plan

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- Signed 9/7/07
- Outlines steps being taken by EPA to fully incorporate NIMS/ ICS into its national response procedures, plans, and policies as required by HSPD #5.
- National NIMS Coordinator – Steve Ridenour; NIT Coordinators in every Region and for ERT, RERT, and CMAT Special Teams.
- NIT – Responsible for developing EPA's NIMS/ICS policy, guidance documents and training program for NIMS implementation.

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National IMT Orders & Guidance

SITL

- EPA Orders # 2071 and 2070 – 10/16
- IMT Implementation Plan Guidance, 10/18
- 11 KLPs, minimum of 3 deep
- Mobilize within 12 to 24 hours
- Default planned deployment – 2 weeks
- Procedures for notification, mobilization/demobilization

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Training, Qualification & Certification Order

SITL

"These standards are established by EPA to ensure that RS7 personnel who may be assigned to Key Leadership Positions (KLPs) within, or provide support to, an agency-managed or multi-agency incident command system structure are appropriately trained, qualified and certified to perform the duties of those positions."

- Order #2073, August 2019

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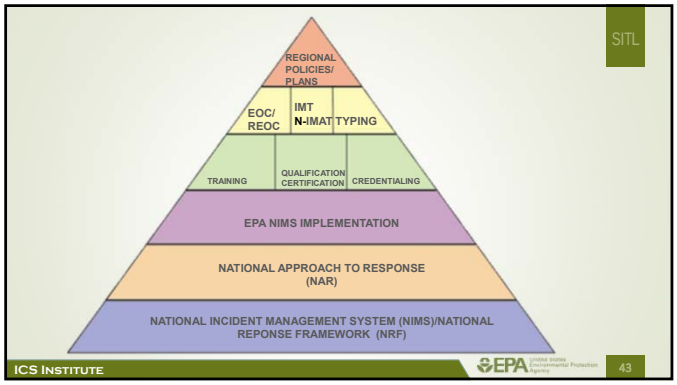
Slide 42

RS7 We only have standards set and purview over for the 11 KLPs, so this lanuage was added to the most recent updated
Ridenour, Steve, 9/24/2019


SITL
REGIONAL POLICIES/ PLANS
EOC/ REOC
IMT N-IMAT TYPING
TRAINING
QUALIFICATION CERTIFICATION
CREDENTIALING
EPA NIMS IMPLEMENTATION
NATIONAL APPROACH TO RESPONSE (NAR)
NATIONAL INCIDENT MANAGEMENT SYSTEM (NIMS)/NATIONAL REPONSE FRAMEWORK (NRF)
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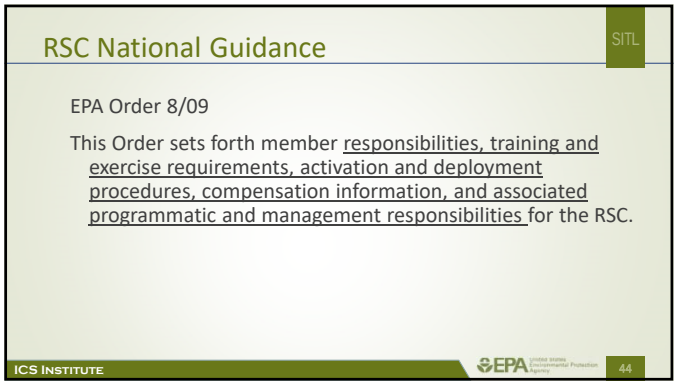
RSC National Guidance
SITL
EPA Order 8/09
This Order sets forth member responsibilities, training and exercise requirements, activation and deployment procedures, compensation information, and associated programmatic and management responsibilities for the RSC.
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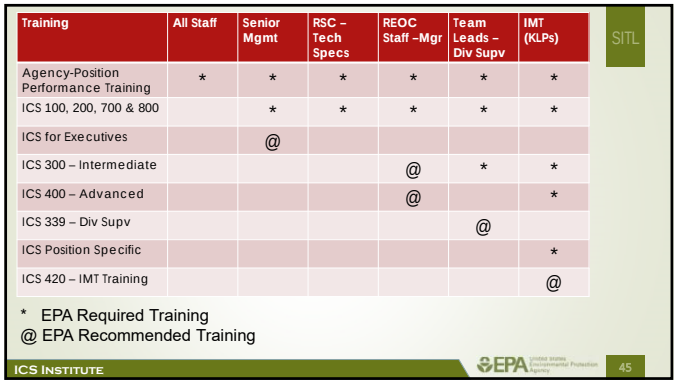
SITL
Training
All Staff
Senior Mgmt
RSC – Tech Specs
REOC Staff –Mgr
Team Leads – Div Supv
IMT (KLPs)
Agency-Position Performance Training
ICS 100, 200, 700 & 800
ICS for Executives
ICS 300 – Intermediate
ICS 400 – Advanced
ICS 339 – Div Supv
ICS Position Specific
ICS 420 – IMT Training
* EPA Required Training
@ EPA Recommended Training
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EPA
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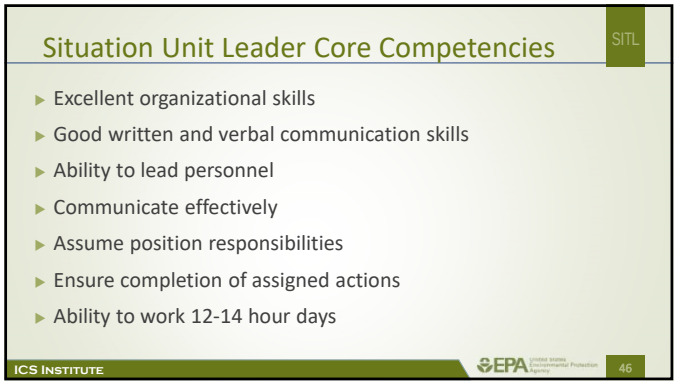
Situation Unit Leader Core Competencies
SITL
Excellent organizational skills
Good written and verbal communication skills
Ability to lead personnel
Communicate effectively
Assume position responsibilities
Ensure completion of assigned actions
Ability to work 12-14 hour days
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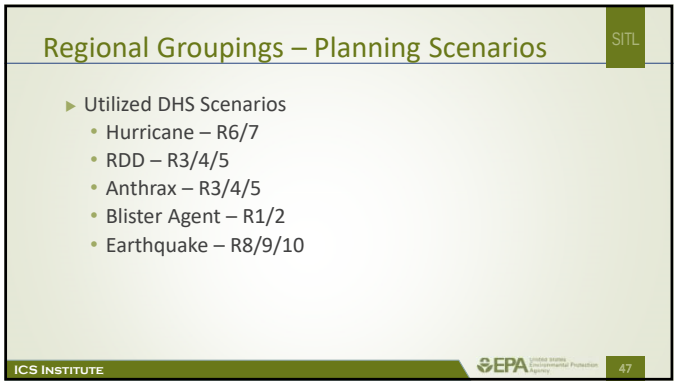
Regional Groupings – Planning Scenarios
SITL
Utilized DHS Scenarios
Hurricane – R6/7
RDD – R3/4/5
Anthrax – R3/4/5
Blister Agent – R1/2
Earthquake – R8/9/10
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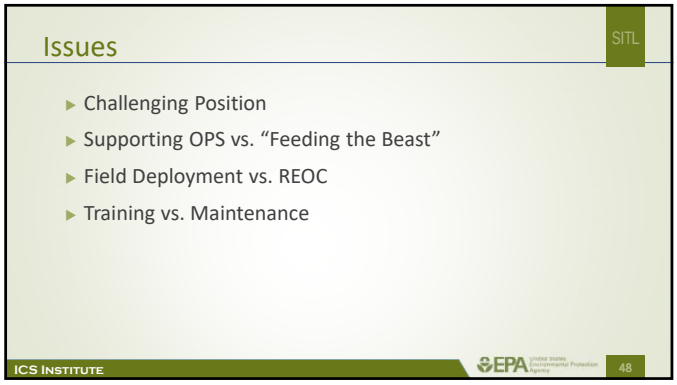
Issues
SITL
Challenging Position
Supporting OPS vs. “Feeding the Beast”
Field Deployment vs. REOC
Training vs. Maintenance
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SITL
Situation Unit Leader
Activity 1
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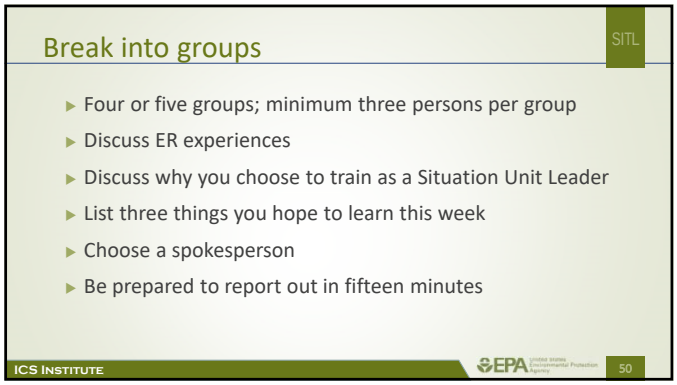
Break into groups
SITL
Four or five groups; minimum three persons per group
Discuss ER experiences
Discuss why you choose to train as a Situation Unit Leader
List three things you hope to learn this week
Choose a spokesperson
Be prepared to report out in fifteen minutes
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SITL

Situation Unit Leader

Unit 2 – Overview of the Situation Unit

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1

SITL

Unit Terminal Objective

Describe the function of the Situation Unit and the roles and responsibilities of the Situation Unit Leader

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2

SITL

Unit Enabling Objectives

- Describe the main responsibilities of the Situation Unit Leader
- List the functions of the Situation Unit
- Identify members of the IMT that the Situation Unit Leader interacts with most frequently
- List the required reports and types of reports or plans the Situation Unit Leader may produce or assist with

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Situation Unit Leader

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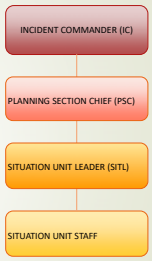
- Responsible for collection and organization of incident status and situation information
- Responsible for evaluation, analysis, and display of information



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Situation Unit Functions

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- Identifying informational needs
- Gathering information
- Turning information into intelligence
- Preparing and displaying incident information

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Situation Unit Functions

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- Other functions include
  - Submitting reports and documentation
  - Assisting the Resources Unit with the assembly of the Incident Action Plan (IAP)
  - Providing mapping, predictive and risk assessment services as needed

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Situation Unit Functions

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To perform the functions of a Situation Unit Leader, we must understand the situation!

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Situation Unit Functions

SITL

- There must be an understanding of:
  - What has happened?
  - What progress has been made?
  - What are the perimeters?
  - What is the incident growth potential?
  - What are the threats?
  - What are the opportunities?

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Situation Unit Functions

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- Required Reports
  - Incident Status Summary
    - ✓ Situation Report
  - Weather forecast

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Responsibilities of the SITL

SITL

Stay prepared for mobilization

- Monitor threat level and events
- Stay prepared for dispatch
- Participate in exercises
- Keep up to date with developments
- Review after-action reports
- Start analyzing their needs and gather information upon dispatch
- *Practice modeling & mapping skills*

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Responsibilities of the SITL

SITL

Obtain briefing from the Planning Section Chief

- Identify reporting requirements and schedules
- Discuss timelines and priorities
- Obtain copies of ICS Forms 201, SITREP and the IAP

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Responsibilities of the SITL

SITL

Organize, staff, and supervise unit

- Brief subordinate staff on current incident status
- Assign tasks
- Notify staff of timelines, priorities, and format requirements
- Monitor unit progress
- Assume responsibilities for positions that are not fully staffed within the Situation Unit

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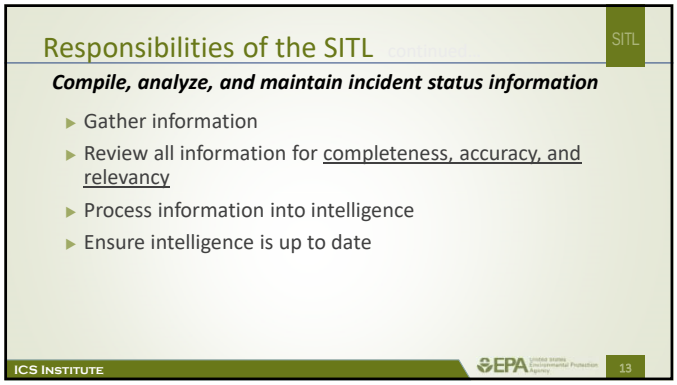
Responsibilities of the SITL
SITL
Compile, analyze, and maintain incident status information
Gather information
Review all information for completeness, accuracy, and relevancy
Process information into intelligence
Ensure intelligence is up to date
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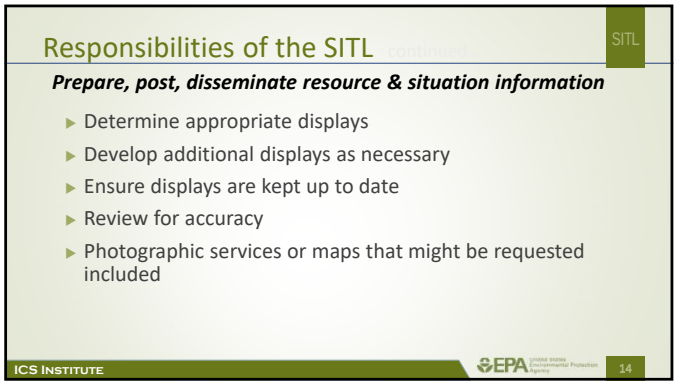
Responsibilities of the SITL
SITL
Prepare, post, disseminate resource & situation information
Determine appropriate displays
Develop additional displays as necessary
Ensure displays are kept up to date
Review for accuracy
Photographic services or maps that might be requested included
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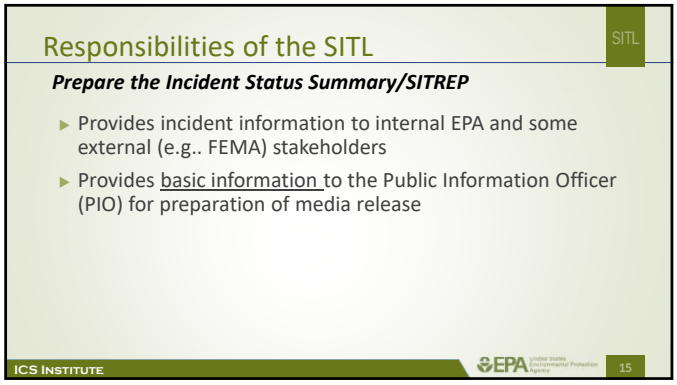
Responsibilities of the SITL
SITL
Prepare the Incident Status Summary/SITREP
Provides incident information to internal EPA and some external (e.g.. FEMA) stakeholders
Provides basic information to the Public Information Officer (PIO) for preparation of media release
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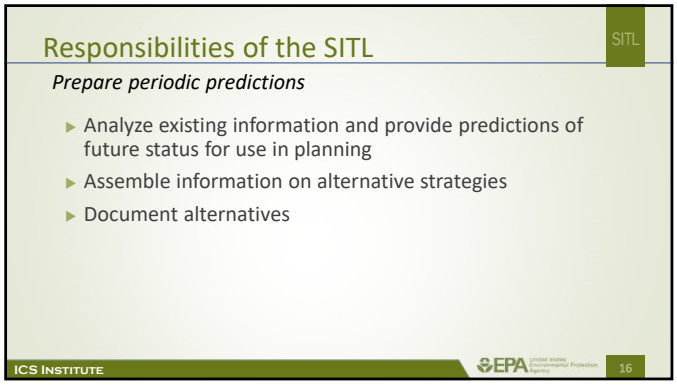
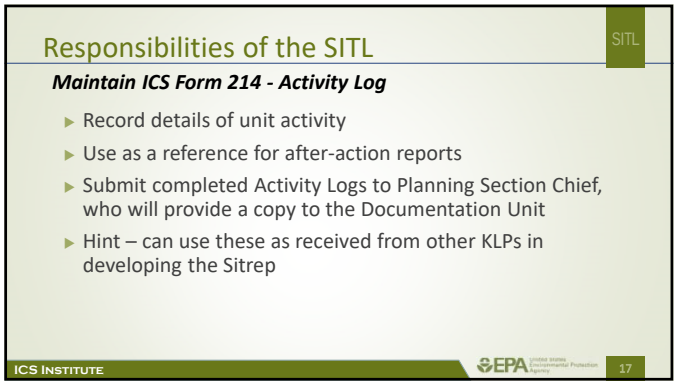

Responsibilities of the SITL
SITL
Prepare periodic predictions
Analyze existing information and provide predictions of future status for use in planning
Assemble information on alternative strategies
Document alternatives
ICS Institute
EPA
16

16


Responsibilities of the SITL
SITL
Maintain ICS Form 214 - Activity Log
Record details of unit activity
Use as a reference for after-action reports
Submit completed Activity Logs to Planning Section Chief, who will provide a copy to the Documentation Unit
Hint – can use these as received from other KLPs in developing the Sitrep
ICS Institute
EPA
17

17


SITL
Situation Unit Interaction with IMT
ICS Institute
EPA
18

18

Incident Commander

SITL

- Maintain maps in Incident Commander work area
- SITREP review time and signature

ICS Institute EPA 19

19

Operations Section Chief

SITL

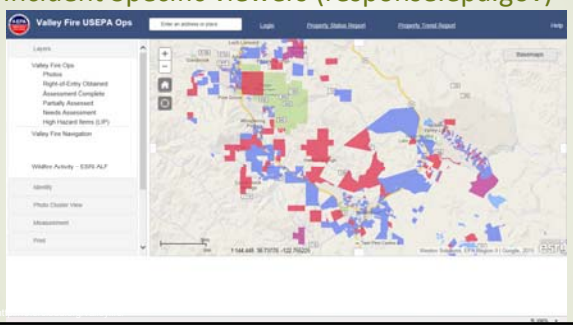
Provide:

- Incident status
- Operational incident maps
- Projections, risks, threats & hazards
- Sensitive areas, risks & losses

ICS Institute EPA 20

20

Incident Specific viewers (response.epa.gov)



21

21

Air Operations Branch Director

SITL

Rarely Used by EPA but SITL would coordinate:

- Location air facilities for placement on IAP map
- Air hazard maps
- Flight scheduling for recon or data gathering

ICS Institute EPA 22

22

Public Information Officer

SITL

- Provide intelligence and maps for press releases
- Provide SITREP
- Clarify responsibilities for information board maintenance

ICS Institute EPA 23

23

Safety Officer

SITL

- Provide information on Incident Status
- Provide updates on threats and risks
- Obtain injury info for SITREP

ICS Institute EPA 24

24

Logistics/Ground Support Unit

SITL

- Obtain information about drop points, road capabilities, and travel routes
- Update information on Transportation Map (e.g., drop points, traffic plan)

ICS Institute EPA 25

25

Logistics/Facilities Unit

SITL

- Obtain information on location of incident facilities
- Assist with preparation of Facilities Map

ICS Institute EPA 26

26

Resources Unit

SITL

- Obtain resource info for SITREP
- May assist in locating and verifying assigned resource

ICS Institute EPA 27

27

Finance/Cost Unit

SITL

- Obtain cost information for SITREP

ICS Institute EPA 28

28

Finance/Compensation & Claims Unit

SITL

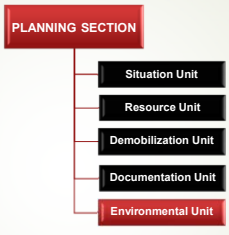
- Obtain and provide information on damages and losses
- Assist with documentation and imaging of possible claims and losses

ICS Institute EPA 29

29

Environmental Unit

SITL



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30

Environmental Unit

SITL

ICS Institute EPA 31

31

Environmental Unit

SITL

Facilitates interagency environmental data management, monitoring, sampling, analysis and assessment.

ICS Institute EPA 32

32

Environmental Unit

SITL

- Responsible for
  - ID and characterization of hazardous substances
  - Assessment of extent of a release
  - Evaluation of human and ecological risks
  - Scientific support for specific response technologies
  - Recommending clean-up levels

ICS Institute EPA 33

33

Environmental Unit

SITL

- Responsible for
  - Modeling and data interpretation
  - Method development
  - Confirmation that clean-up goals have been achieved
  - Profiling of hazardous wastes for disposal purposes

ICS Institute EPA 34

34

Situation Unit and Environmental Unit

SITL

- Environmental data will come into Environmental Unit which will manage and interpret
- Situation Unit should work closely to maintain situational awareness with respect to environmental data

ICS Institute EPA 35

35

Resource Advisors & Agency Reps

SITL

- Obtain information
  - Sensitive resources and issues
  - Values at risk
  - Potential map sources
  - Local personnel
- Maintain open communication

ICS Institute EPA 36

36

SITL

Situation Interactions Outside the IMT

ICS INSTITUTE EPA 37

37

SITL

Regional Emergency Operations Center (REOC)

- The REOC can assist the IMT field component by
  - Providing information and intel to the IMT/ICP and
  - "Feeding the Beast" – responding to information requests from EPA upper management and political stakeholders
- Provide info to EPA HQ EOC also

ICS INSTITUTE EPA 38

38

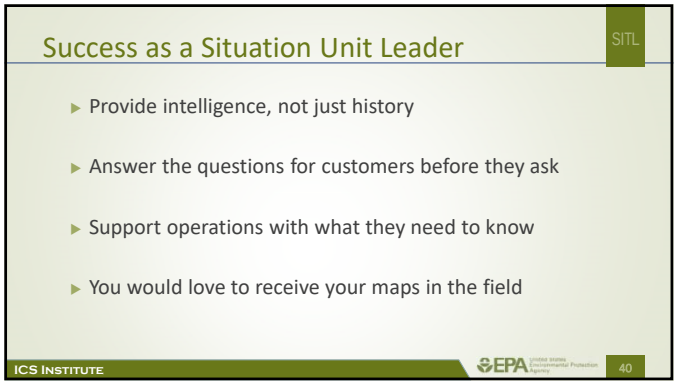
SITL

ESF-10 Desk at FEMA Joint Field Operations Center (JFO)

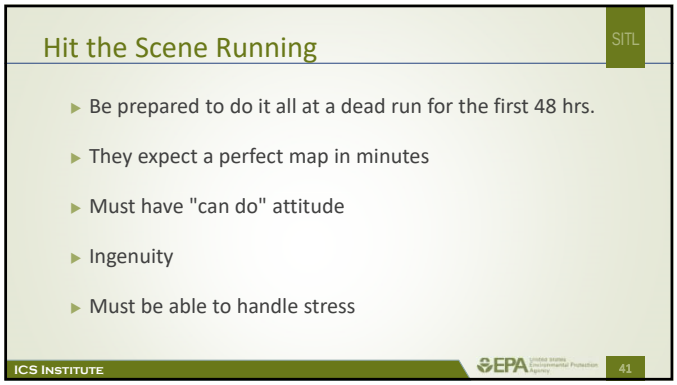
- SITREP
- Operational Metrics

ICS INSTITUTE EPA 39

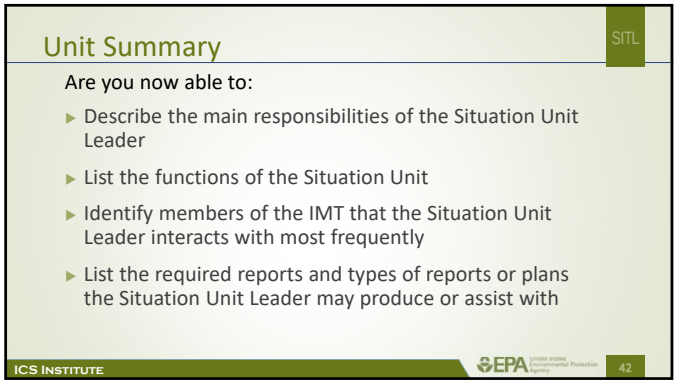
39


Success as a Situation Unit Leader
SITL
Provide intelligence, not just history
Answer the questions for customers before they ask
Support operations with what they need to know
You would love to receive your maps in the field
ICS Institute
EPA
40

40


Hit the Scene Running
SITL
Be prepared to do it all at a dead run for the first 48 hrs.
They expect a perfect map in minutes
Must have "can do" attitude
Ingenuity
Must be able to handle stress
ICS Institute
EPA
41

41


Unit Summary
SITL
Are you now able to:
Describe the main responsibilities of the Situation Unit Leader
List the functions of the Situation Unit
Identify members of the IMT that the Situation Unit Leader interacts with most frequently
List the required reports and types of reports or plans the Situation Unit Leader may produce or assist with
ICS Institute
EPA
42

42

SITL

Situation Unit Leader

Unit 3 – Incident Command System and the Planning Section

ICS Institute EPA 1

1

SITL

Unit Terminal Objective

Describe the organization and functions of the Planning Section

ICS Institute EPA 2

2

SITL

Unit Enabling Objectives

- Define the purpose of the Planning Section
- Describe the Planning Section positions and their functions
- Describe the planning process and the Planning 'P'
- Describe the Situation Unit Leader's inputs in the planning process

ICS Institute EPA 3

3

Major Incident Management Activities

SITL

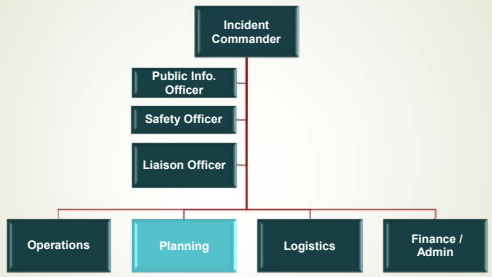
1. Command
2. Operations
3. Planning
4. Logistics
5. Finance/Administration

ICS Institute EPA 4

4

The ICS Organization

SITL



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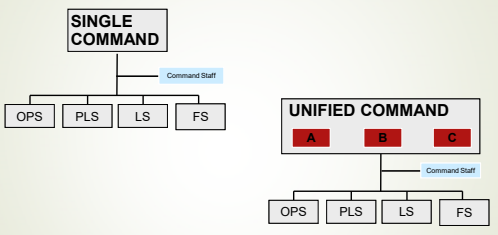
5

INCIDENT COMMAND SYSTEM

SITL



ICS Institute EPA 6

6

Incident Commander (IC)

SITL

- Responsible is the overall management of the incident.
  - Selected by qualifications and experience.
- Directly manage all aspects of a small incident.
- Assigns staff to various ICS positions for large incidents

ICS Institute EPA 7

7

Deputy Incident Commander (DIC)

SITL

- An IC may have one or more Deputies.
- Deputies must have the same qualifications as the person for whom they work as they must be ready to take over that position at any time.
- Deputies may also be used at section and branch levels of the ICS organization.

ICS Institute EPA 8

8

Planning Section Responsibilities

SITL

- Supports the Incident Commander
- Incident Objectives
  - How does IC know his objectives are accurate?
- Overall incident management planning and intelligence
  - What kinds of intelligence does the IC need?

ICS Institute EPA 9

9

Planning Section Responsibilities (cont.)

SITL

- Supports Operations
  - Incident Action Plan (IAP)
  - Incident Projections
- Supports the Incident Management Team (IMT)
  - Keeps the team on schedule
    - ✓Facilitates Planning meetings and Briefings
  - Provides maps & displays for meetings
  - Tracks resources

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10

Planning Section Responsibilities (cont.)

SITL

- Collects, evaluates & disseminates information on:
  - Incident Status
    - ✓SITREP
  - Predicted probable course of events
  - Alternative strategies and control operations
  - Resource status

ICS Institute EPA 11

11

Planning Section

SITL

ICS Institute EPA 12

12

ICS Planning Process Steps include:

SITL

- Understanding the situation
- Establish incident objectives and strategy
- Develop tactical direction and assignments
- Prepare the Incident Action Plan
- Implement the IAP
- Evaluate the IAP

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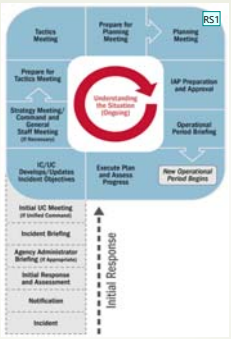
13

The Planning Process

SITL



ICS Institute EPA 14

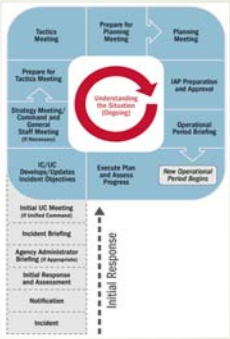
14

The Planning Process

SITL

Initial Response/One time only events

1. Incident/Event occurs
2. Notifications are made/received
3. Travel to Response or Initial Response and Assessment
4. Agency Administrator Briefing, Delegation (if needed)
5. Initial Incident Briefing (ICS 201)
6. Initial IC/UC Meeting



ICS Institute EPA 15

15

Slide 14

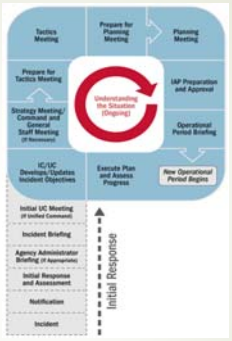
RS1 FEMA updated the Planning P with the NIMS Refresh in Oct 2017, so I'm copying that new one into your slide deck
Ridenour, Steve, 9/24/2019

The Planning Process

Planning Cycle

(given size-up or progress assessment...)

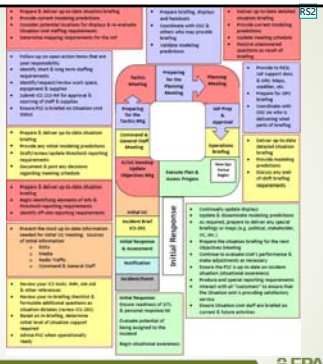
7. IC/UC Develop/Update Objectives
8. Command & General Staff Meeting
9. Prep for Tactics Meeting
10. Tactics Meeting
11. Prep for Planning Meeting



SITL

16

Situation Unit Planning "P"



SITL

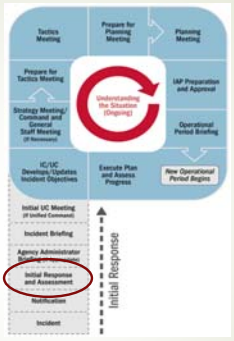
17

Initial Response and Assessment

Ensure readiness of SITL & personal response kit

Evaluate potential of being assigned to the incident

Begin situational awareness



SITL

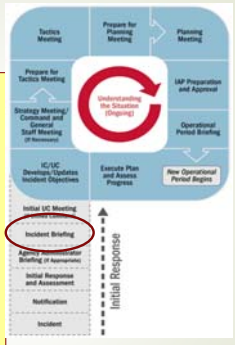
18

Slide 17

RS2 I'm not able to update this Planning P because of the additional SITL content embedded in it
Ridenour, Steve, 9/24/2019

Incident Brief ICS-201

- Review your ICS tools: IMH, Job Aid & other references
- Review your in-briefing checklist & formulate additional questions as situation dictates (review ICS-201)
- Based on in-briefing, determine initial level of situation support required
- Advise PSC when operationally ready



SITL

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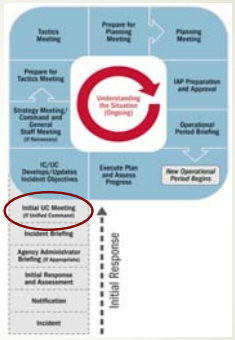
19

Initial UC Meeting

Present the most up-to-date information needed for initial UC meeting. Sources of initial information:

- EOCs
- Media
- Radio Traffic
- Command & General Staff



SITL

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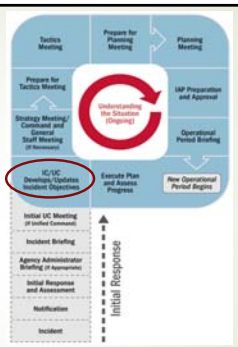
20

IC/UC Objectives Meeting

Prepare & deliver up-to-date situation briefing
Begin identifying elements of info & threshold reporting requirements
Identify off-site reporting requirements



SITL

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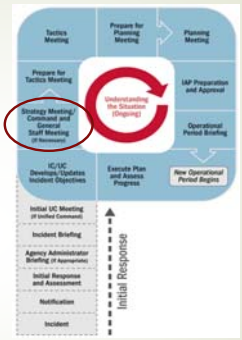
21

Command & General Staff Meeting

SITL

- Prepare & deliver up-to-date situation briefing
- Provide any initial modeling predictions
- Draft/review/update threshold reporting requirements
- Document & post any decisions regarding meeting schedule



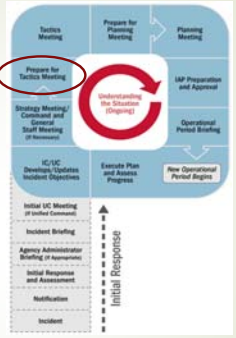
ICS Institute EPA 22

22

Preparing for the Tactics Meeting

SITL

- Follow-up on open action items that are your responsibility
- Identify short & long term staffing requirements
- Identify/request/review work space, equipment & supplies
- Submit ICS 213-RR for approval & sourcing of staff & supplies
- Ensure PSC is briefed on Situation Unit status



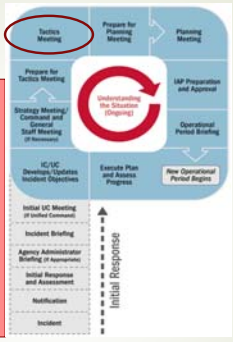
ICS Institute EPA 23

23

Tactics Meeting

SITL

- Prepare & deliver up-to-date situation briefing
- Provide current modeling predictions
- Consider potential locations for displays & re-evaluate Situation Unit staffing requirements
- Determine mapping requirements for the IAP



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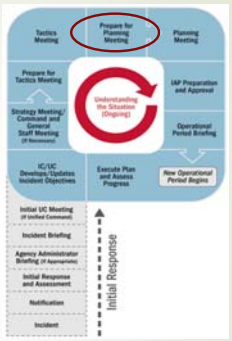
24

Preparing for the Planning Meeting

- Prepare briefing, displays and handouts
- Coordinate with OSC & others who may provide briefing
- Validate modeling predictions



SITL

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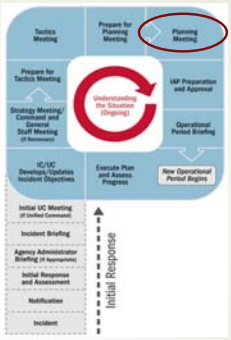
25

Planning Meeting

- Deliver up-to-date detailed situation briefing
- Provide current modeling predictions
- Update meeting schedule
- Resolve unanswered questions as result of briefing



SITL

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26

Planning Meeting Displays

SITL

ICS Institute EPA 27

27

Planning Meeting Maps & Displays

SITL

- Incident Briefing Map
  - Mapping may be on:
    - ✓Paper
    - ✓Viewer

- Sit Unit **must** show a plot of the incident perimeter, operational boundaries & facilities.

ICS Institute EPA 28

28

Planning Meeting Maps & Displays

SITL

- Maps & displays often speed and / or improve comprehension of intelligence reports.
  - Incident progression & damage
  - Plume models
  - Evacuation
  - Weather
  - Imaging

- Most of these developed by Data Support unit
- Some of these may be developed by the Environmental Unit

ICS Institute EPA 29

29

Planning Meeting Requirements

SITL

- Reports
  - Incident activity, location & progression
  - Spot weather (Wx) forecast
  - Incident projection & risks
  - Threats to the environment & endangered species
  - Losses
  - Potential drop points, helispots, staging areas, shelters, mobile lab locations, decon

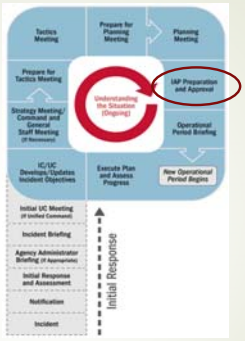
ICS Institute EPA 30

30

IAP Preparation and Approval

SITL

- Provide to RESL IAP support docs & info: Maps, weather, etc.
- Prepare for OPS briefing
- Coordinate with OSC on who is delivering what parts of briefing



31

Incident Action Plan

SITL

Action Plan inputs are based on the tactical plan determined at the planning meeting.

Coordinate with Plans Section Chief and Operation Section Chief at planning meeting.

Not all Situation Unit products go into the IAP

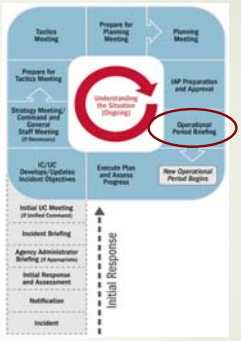
- Incident Action Plan contains information required for shift resources to accomplish their assignment.

32

Operational Period Briefing

SITL

- Deliver up-to-date detailed situation briefing
- Provide modeling predictions
- Discuss any end-of-shift briefing requirements



33

Situation Unit Leader & the Ops Briefing

SITL

- Briefing Map
- Incident status update
- Shift weather briefing
- Shift projection briefing

ICS Institute EPA 34

34

Operations Briefing Map

SITL

- Map for shift change briefing
- Often a large not-to-scale sketch
- Visibility most important
- Shows talking points
- This map must be on time, can always make a sketch map
- Large incidents may require multi-tile GIS map

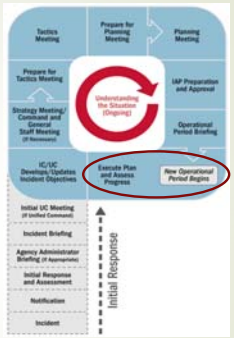
ICS Institute EPA 35

35

Execute Plan & Assess Progress

SITL

- Continually update displays
- Update & disseminate modeling predictions
- As required, prepare to deliver any special briefings or maps (e.g. political, stakeholder, JIC, etc.)
- Prepare the situation briefing for the next Objectives Meeting



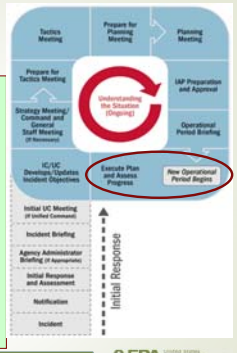
ICS Institute EPA 36

36

Execute Plan & Assess Progress (cont.)

SITL

- Continue to evaluate Unit's performance & make adjustments as necessary
- Ensure the PSC is up-to-date on incident situation (situational awareness)
- Produce and special reporting requirements
- Interact with all "customers" to ensure that the Situation unit is providing satisfactory service
- Ensure Situation Unit staff are briefed on current & future activities



ICS Institute EPA 37

37

Unit Summary

SITL

Are you now able to:

- Define the purpose of the Planning Section
- Describe the Planning Section positions and their functions
- Describe the planning process and the Planning 'P'
- Describe the Situation Unit Leader's inputs in the planning process

ICS Institute EPA 38

38

SITL

Situation Unit Leader

Unit 4 – The Incident Action Plan

ICS Institute EPA 1

1

Unit Terminal Objective

SITL

Describe the Situation Unit Leader's role in development of an Incident Action Plan

ICS Institute EPA 2

2

Unit Enabling Objectives

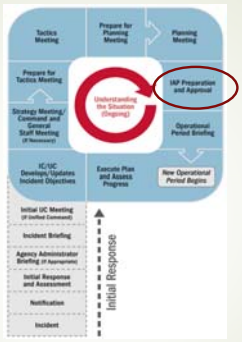
SITL

- List the 5 elements of a written IAP
- Review the SITL role in IAP preparation

ICS Institute EPA 3

3

The Planning Process



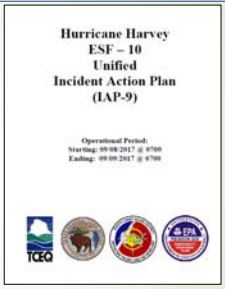
SITL

ICS Institute EPA 4

4

Major Elements In A Written Action Plan

- Objectives
- Organization
- Assignments
- Support plans
- Any other relevant info


Hurricane Harvey
ESF – 10
Unified
Incident Action Plan
(IAP-9)

Operational Period:
Starting: 09/08/2017 @ 0700
Ending: 09/09/2017 @ 0700

SITL

ICS Institute EPA 5

5

Situation Unit Leader & the IAP

- Situation Unit Leader Incident Action Plan inputs are based on Tactical Plan determined at the planning meeting
- Coordinate with Plans Chief and Operations Section Chief at Planning Meeting
- Not all Situation Unit products go into the Incident Action Plan
  - Incident Action Plan contains information required for shift resources to accomplish their assignment

SITL

ICS Institute EPA 6

6

Incident Action Plan Maps

SITL

- Required IAP maps
  - Tactical Map
  - Traffic Plan
  - Facilities
- Optional Maps
  - Contingency
  - Forecast
  - Sampling / monitoring
  - Tidal / Current Charts

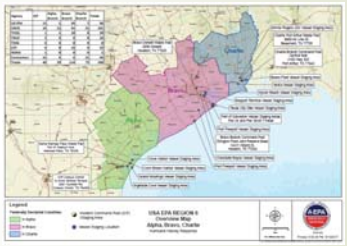
ICS Institute EPA 7

7

Incident Action Plan Reports

SITL

- Weather forecast (required)
- Projection forecast
- Plume models
- Other



ICS Institute EPA 8

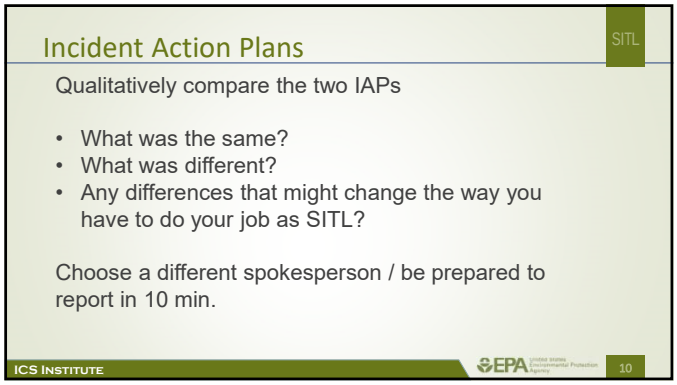
8

Example IAPs

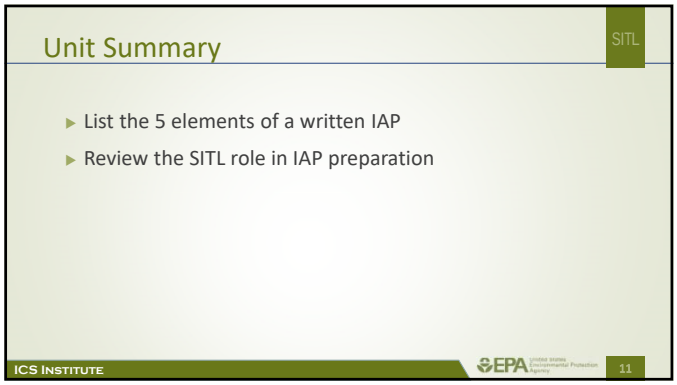
SITL

ICS Institute EPA 9

9


Incident Action Plans
SITL
Qualitatively compare the two IAPs
• What was the same?
• What was different?
• Any differences that might change the way you have to do your job as SITL?
Choose a different spokesperson / be prepared to report in 10 min.
ICS Institute
EPA
10

10


Unit Summary
SITL
List the 5 elements of a written IAP
Review the SITL role in IAP preparation
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EPA
11

11

SITL

Situation Unit Leader

Unit 5 – Staffing the Situation Unit

ICS Institute EPA 1

1

SITL

Unit Terminal Objective

Explain how to effectively establish and manage the Situation Unit

ICS Institute EPA 2

2

SITL

Objectives

- List items to include in the Situation Unit Leader's kit
- Describe the considerations for staffing and organizing the Unit.
- Identify positions the Situation Unit Leader can utilize to produce incident intelligence and displays

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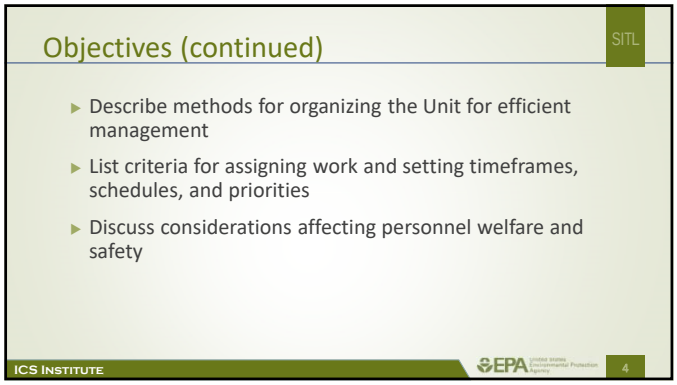
3


Objectives (continued)
SITL
Describe methods for organizing the Unit for efficient management
List criteria for assigning work and setting timeframes, schedules, and priorities
Discuss considerations affecting personnel welfare and safety
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EPA
4

4


Stay Prepared
SITL
Monitor threat level and events
Monitor developing incidents
Practice modeling and mapping skills
Encourage and participate in exercises
Conduct in-house ICS review and training
Keep up to date with developments
Review After-Action Reports
Review Response Plan
ICS Institute
EPA
5

5


SITL
Initial Mobilization
ICS Institute
EPA
6

6

Fundamental Question -

SITL

What is assigned location?

- Incident Command Post
- Regional EOC
- Other
  - FEMA Joint Field Office (JFO)

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7

Gather Information

SITL

At time of dispatch, begin to gather information from:

- Emergency Operations Center (EOC)
- Media
- Local contacts
- Home region of incident

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8

Arrival

SITL

- Check-in
- Meet with Planning Section Chief
- Survey current situation status
- Survey anticipated intelligence and display needs

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9

Situation Unit Leader Kit

SITL

- Pens & pencils
- Permanent markers
- Glue & tape
- Laptop computer
- Portable printer
- Digital camera
- Templates

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10

Materials to Obtain Upon Arrival

SITL

- Maps of the incident
- Easel pad paper
- Work space
- Display devices

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11

Initial Planning Section Chief Briefing

SITL

- Incident size and scope
- Assigned resources
- Incident potential
- Logistical considerations
- Timelines and priorities

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Initial Planning Section Chief Briefing

SITL

- Staffing of Situation Unit
- Incident facilities
- Expectations
- Obtain copies of ICS Form 201s, IAPs, and SITREPS

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Unit Setup

SITL

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Unit Setup

SITL

- A large, open room or large tent is best
- Trailers are narrow, but may be sufficient for small incidents

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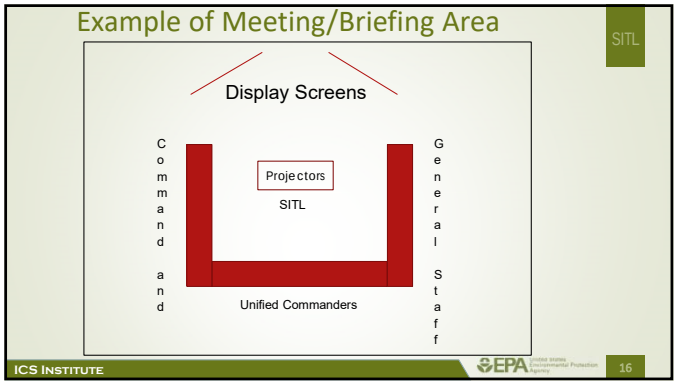
15


Example of Meeting/Briefing Area
SITL
Display Screens
Command and
General Staff
Projectors
SITL
Unified Commanders
ICS Institute
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SITL
Unit Staffing
ICS Institute
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17

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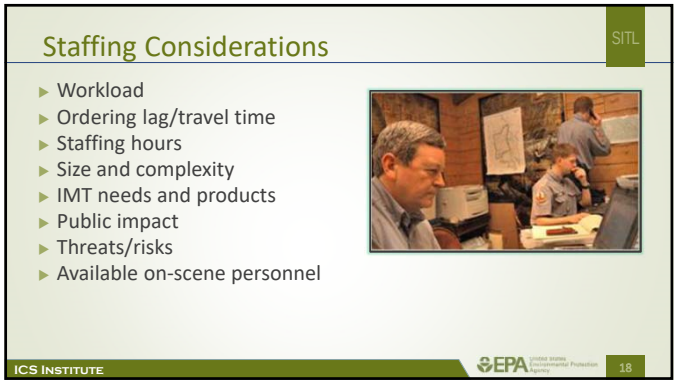
Staffing Considerations
SITL
Workload
Ordering lag/travel time
Staffing hours
Size and complexity
IMT needs and products
Public impact
Threats/risks
Available on-scene personnel
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EPA
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Keep Assets Within Span of Control Guidelines

SITL

- Span of control guidelines
  - Number of persons supervised - Range of 3 – 7 recommended

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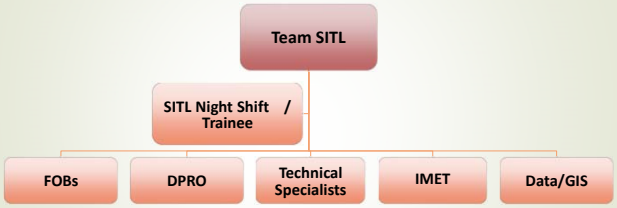
Sample Organization Chart #1

SITL



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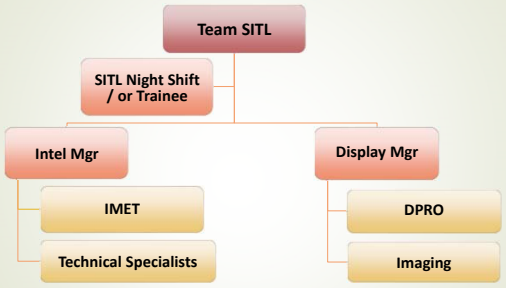
Sample Organization Chart #2

SITL



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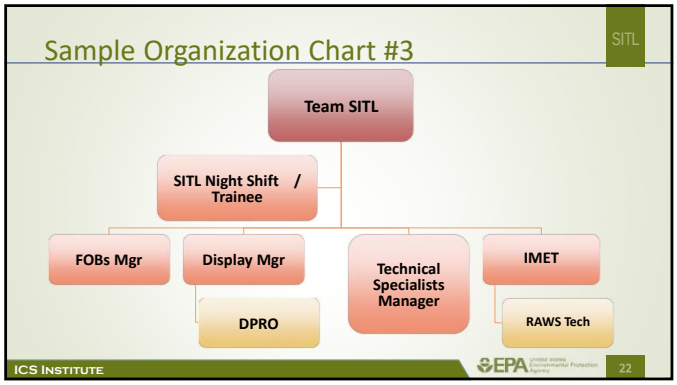
Sample Organization Chart #3
SITL
Team SITL
SITL Night Shift / Trainee
FOBs Mgr
Display Mgr
DPRO
Technical Specialists Manager
IMET
RAWS Tech
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EPA
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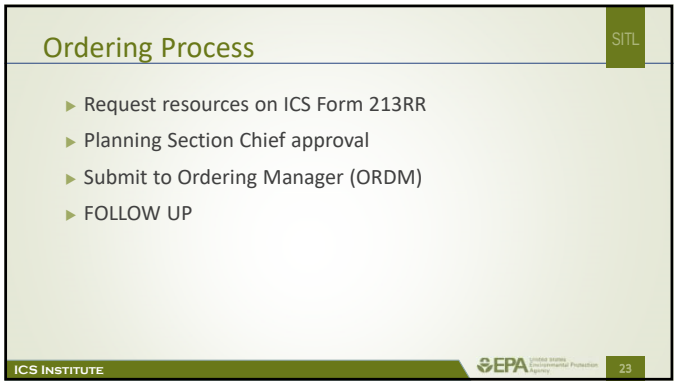
22


Ordering Process
SITL
Request resources on ICS Form 213RR
Planning Section Chief approval
Submit to Ordering Manager (ORDM)
FOLLOW UP
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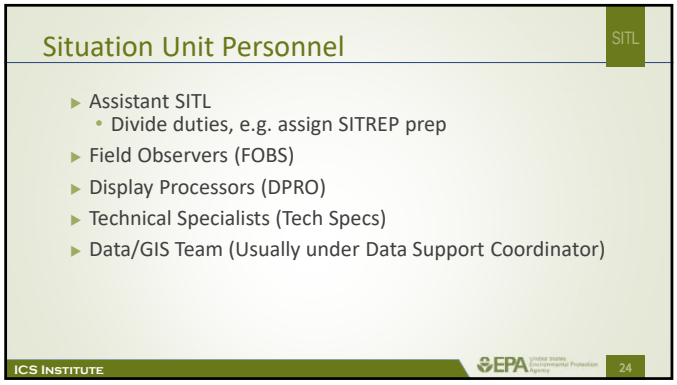
23


Situation Unit Personnel
SITL
Assistant SITL
Divide duties, e.g. assign SITREP prep
Field Observers (FOBS)
Display Processors (DPRO)
Technical Specialists (Tech Specs)
Data/GIS Team (Usually under Data Support Coordinator)
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24


SITL
Field Observers
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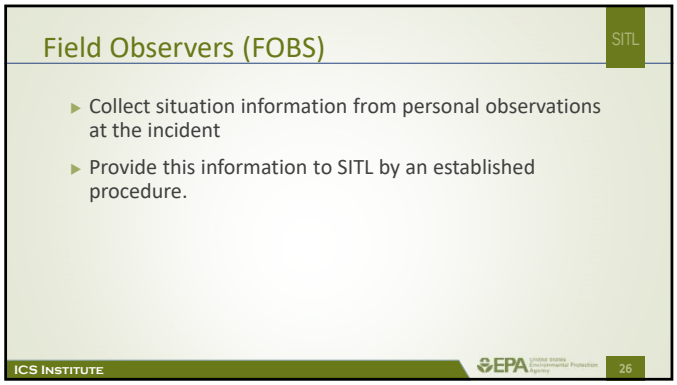
Field Observers (FOBS)
SITL
Collect situation information from personal observations at the incident
Provide this information to SITL by an established procedure.
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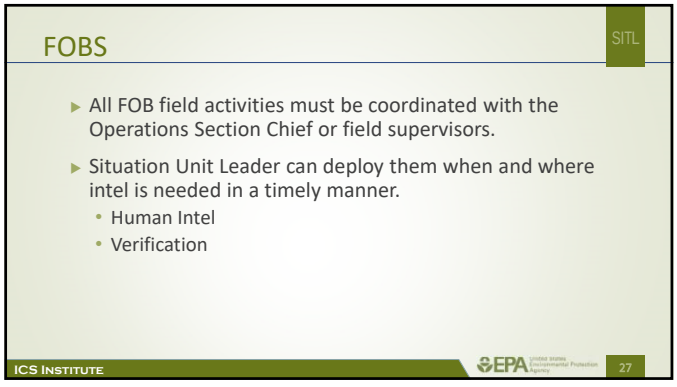
26


FOBS
SITL
All FOB field activities must be coordinated with the Operations Section Chief or field supervisors.
Situation Unit Leader can deploy them when and where intel is needed in a timely manner.
Human Intel
Verification
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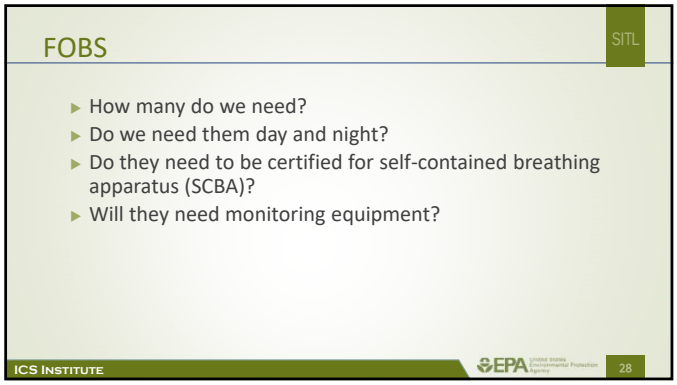
27


FOBS
SITL
How many do we need?
Do we need them day and night?
Do they need to be certified for self-contained breathing apparatus (SCBA)?
Will they need monitoring equipment?
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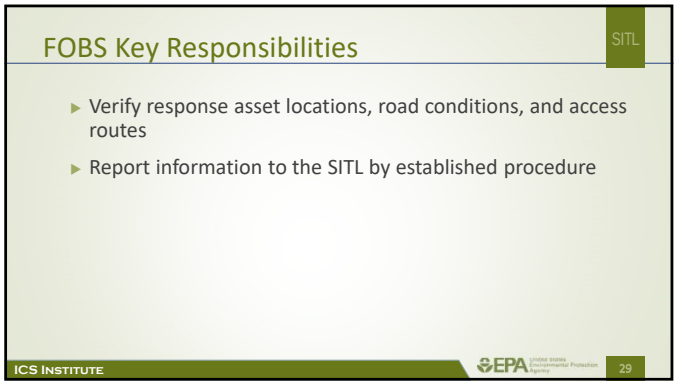
FOBS Key Responsibilities
SITL
Verify response asset locations, road conditions, and access routes
Report information to the SITL by established procedure
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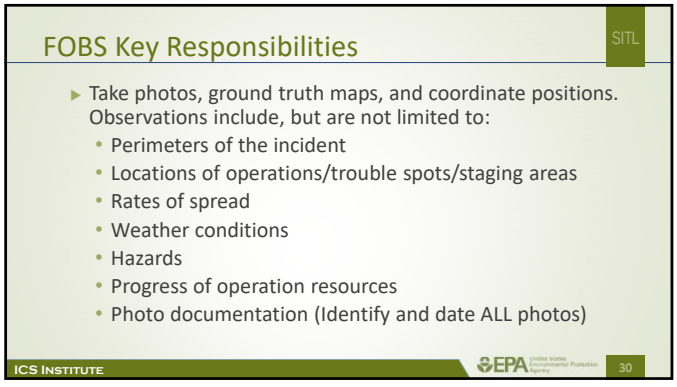
FOBS Key Responsibilities
SITL
Take photos, ground truth maps, and coordinate positions. Observations include, but are not limited to:
Perimeters of the incident
Locations of operations/trouble spots/staging areas
Rates of spread
Weather conditions
Hazards
Progress of operation resources
Photo documentation (Identify and date ALL photos)
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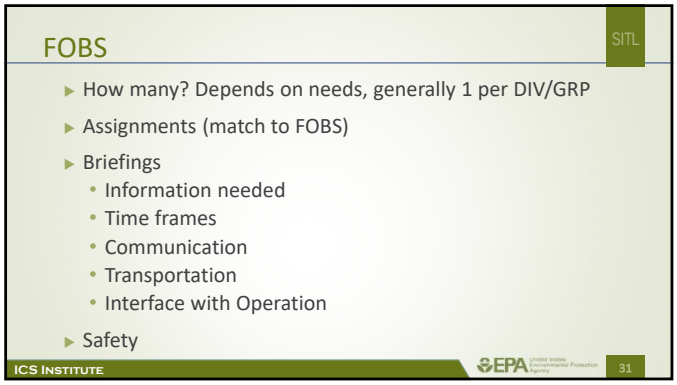
FOBS
SITL
How many? Depends on needs, generally 1 per DIV/GRP
Assignments (match to FOBS)
Briefings
Information needed
Time frames
Communication
Transportation
Interface with Operation
Safety
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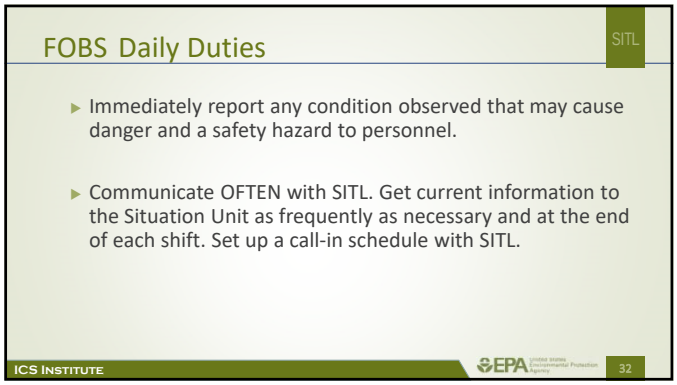
EPA
31

31


FOBS Daily Duties
SITL
Immediately report any condition observed that may cause danger and a safety hazard to personnel.
Communicate OFTEN with SITL. Get current information to the Situation Unit as frequently as necessary and at the end of each shift. Set up a call-in schedule with SITL.
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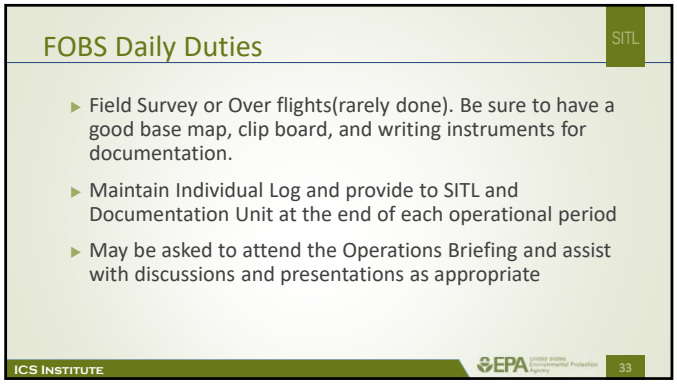
FOBS Daily Duties
SITL
Field Survey or Over flights(rarely done). Be sure to have a good base map, clip board, and writing instruments for documentation.
Maintain Individual Log and provide to SITL and Documentation Unit at the end of each operational period
May be asked to attend the Operations Briefing and assist with discussions and presentations as appropriate
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FOBS Products

SITL

- ***Individual Log*** – Summarize daily activities. Report observations fully and make any additional attachments for more complex reports. Provide to the SITL and Documentation Unit at the end of the operational period.
- ***Base Maps*** – While on an over flight or field survey, hand-draw observations on a blank base map. Submit to GIS Specialist for the creation of an electronic map. Provide input and make clarifications to GIS Specialist as they produce the electronic map.
- ***Photos*** – Document observations with photos. Identify and date all photos.

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FOBS Materials

SITL

- Log book
- Digital camera or video camera
- Basic PPE level D or upgraded PPE as required by the Health and Safety Plan
- Radio
- Cell phone
- Sat Phone

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SITL

Display Processor

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Display Processor (DPRO)

SITL

- Responsible for the display of incident status information, including the creation, maintenance, and update of the Incident Situation Display.
- The DPRO reports to the Situation Unit Leader

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DPRO

SITL

- ICS training up to the 200 level and experience with software such as:
  - Presentation (PowerPoint)
  - Photo editing
  - Spreadsheets (Excel)
  - Graphics software
  - Web Publishing and editing
- The DPRO may be asked to attend the Operations Briefing and assist with discussions and presentations as appropriate.

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DPRO - Primary Responsibilities

SITL

- Create, maintain, and update the Incident Situation Display (e.g., electronic and wall displays)
- Obtain and display incident status information from:
  - Field Observers (FOBS)
  - Personnel in the Situation, Resources, and Environmental Units
  - Personnel from other sections
  - Resource status reports, forms, and maps
  - Aerial and ortho photographs

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DPRO - Primary Responsibilities

SITL

- Work with other units in the Incident Management Team (IMT) to ensure they have up-to-date information, maps, and displays (especially safety, information officer, liaison, and operations)
- Provide appropriate information and required maps for the Incident Action Plan (IAP)
- Assist the SITL in analyzing and evaluating field reports

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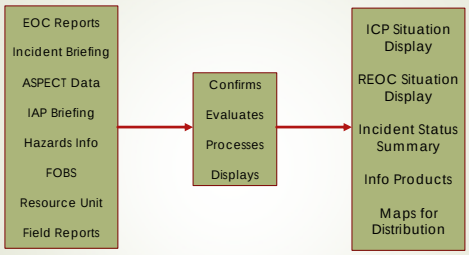
DPRO Processing

SITL



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Technical Specialists

SITL

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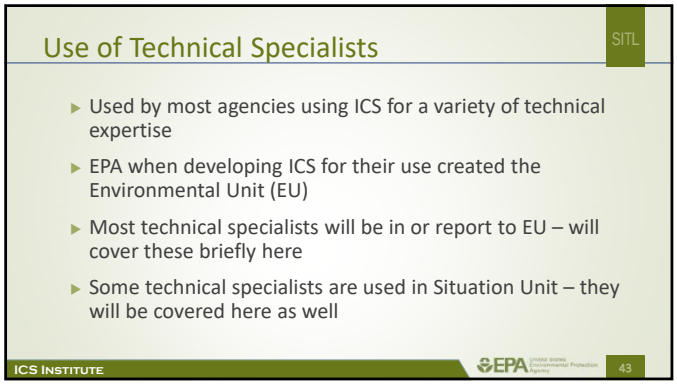
Use of Technical Specialists
SITL
Used by most agencies using ICS for a variety of technical expertise
EPA when developing ICS for their use created the Environmental Unit (EU)
Most technical specialists will be in or report to EU – will cover these briefly here
Some technical specialists are used in Situation Unit – they will be covered here as well
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Common Uses of Technical Specialists
SITL
Performing identification and hazard assessment
Performing analysis of risk and threats
Performing modeling and projections
Performing analysis of mitigation and decontamination techniques
Interpreting outputs
Specialized services
ICS Institute
EPA
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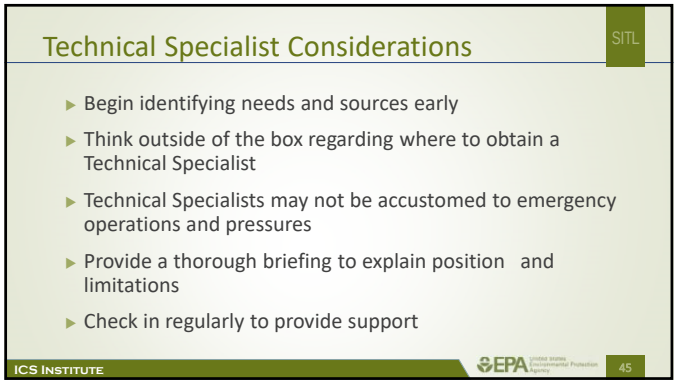
44


Technical Specialist Considerations
SITL
Begin identifying needs and sources early
Think outside of the box regarding where to obtain a Technical Specialist
Technical Specialists may not be accustomed to emergency operations and pressures
Provide a thorough briefing to explain position and limitations
Check in regularly to provide support
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EPA
45

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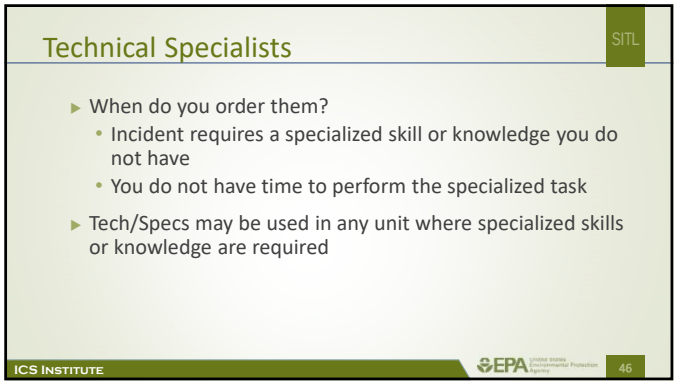
Technical Specialists
SITL
When do you order them?
Incident requires a specialized skill or knowledge you do not have
You do not have time to perform the specialized task
Tech/Specs may be used in any unit where specialized skills or knowledge are required
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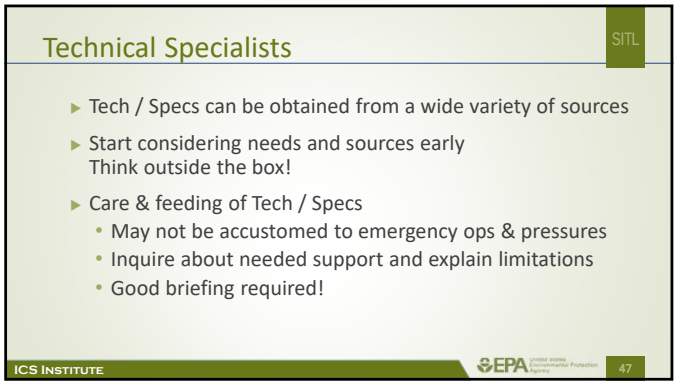
Technical Specialists
SITL
Tech / Specs can be obtained from a wide variety of sources
Start considering needs and sources early
Think outside the box!
Care & feeding of Tech / Specs
May not be accustomed to emergency ops & pressures
Inquire about needed support and explain limitations
Good briefing required!
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Technical Specialists – Who are they?
SITL
Weather
Hazardous Materials Specialists
Chemical/Biological/Radiological/Nuclear (CBRN) Specialists
Flood
Earthquake
ICS Institute
EPA
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Weather Technical Specialists

SITL

- National Weather Service
- Local Meteorologists
- Contractors

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Hazmat

SITL

- Local Government
  - Hazmat Techs
  - Environmental Health
  - Emergency Services
  - Public Works
- State Agencies
  - EPA/Dept. of Ecology etc.
  - Health/Water
  - State Fire Marshal

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Hazmat

SITL

- Federal Agencies
  - USEPA
  - USCG
  - DOD
  - DOE
  - CDC
- Company Representatives
- Industrial Organizations

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CBRN / WMD

SITL

- Hazmat resources and possibly:
  - FBI
  - DOD
  - US Military
  - CDC

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Floods

SITL

- Flood Control District
- Levee District
- Public Works
- Hydrologists
- Local Planning Dept.
- Hazmat Tech / Specs

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Earthquake

SITL

- Geologist
- Structural Engineer
- Building Dept.
- Public Works
- Fire Protection Engineer

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Technical Specialist Precautions

SITL

- Health & Safety
- Coordination with
  - Operations
  - Logistics
- PPE
- Specialized Training and experience
- Communications

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Technical Specialist Support

SITL

- DPRO
  - Displays
  - Data Management
  - Reports
- Data/GIS
  - Sample Data Support
  - Mapping Service
- FOBS
  - Field information

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Organization of Technical Specialists

SITL

- Provide IMT with accurate incident status, intelligence reports, and displays that are needed for the IMT to meet incident objectives
- Consider using a Technical Specialist Manager to reduce span of control and organize Technical Specialists around function
- Do not duplicate other functions
- Keep unit as small as possible

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Technical Specialists Units
SITL
EPA has created the Environmental Unit to handle issues related to:
Sampling
Modeling
Risk Analysis (From environmental sources)
Characterization of wastes/site
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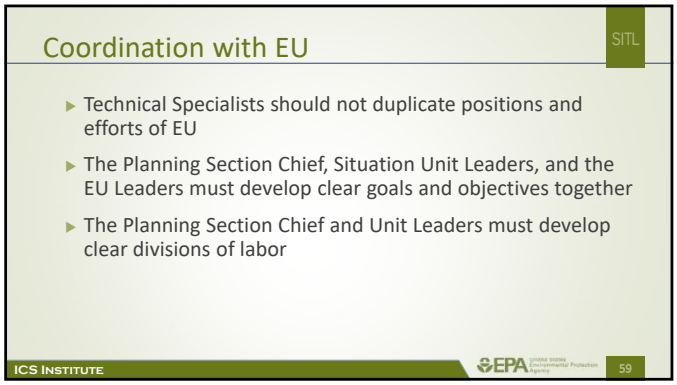
Coordination with EU
SITL
Technical Specialists should not duplicate positions and efforts of EU
The Planning Section Chief, Situation Unit Leaders, and the EU Leaders must develop clear goals and objectives together
The Planning Section Chief and Unit Leaders must develop clear divisions of labor
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EPA
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SITL
Data/GIS Support
ICS Institute
EPA
60

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Data/GIS

SITL

- Historically at large incidents EPA Data/GIS support has been significant with reliance upon paper products
- Presently less the case with advent & use of electronic data capabilities
  - Collector Type Apps
  - Geoviewers / Flexviewers

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Data/GIS in the ICS

SITL

- Data Lead
  - Deputy IC
  - Support Coordinator to UC
  - Operations
  - Planning
- Data/GIS Team
  - Planning
  - Operations

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Goals of the Data/GIS Team

SITL

- The Primary goal of Data/GIS team is to meet all the demands for work products in a cost and time efficient manner
  - Production priorities are negotiated for the entire incident
  - Accurate estimates are provided for product completion
  - Resources are in place to perform assigned responsibilities

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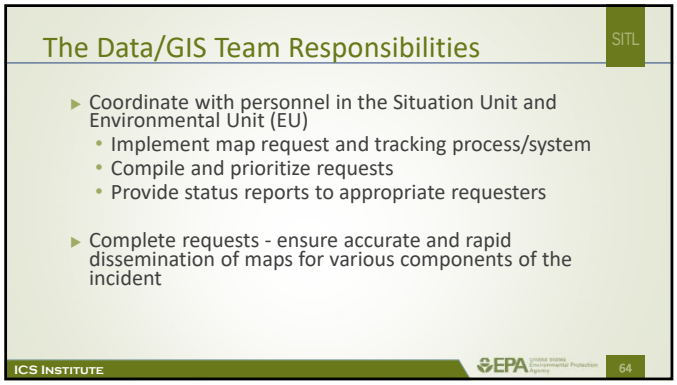
The Data/GIS Team Responsibilities
SITL
Coordinate with personnel in the Situation Unit and Environmental Unit (EU)
Implement map request and tracking process/system
Compile and prioritize requests
Provide status reports to appropriate requesters
Complete requests - ensure accurate and rapid dissemination of maps for various components of the incident
ICS Institute
EPA
64

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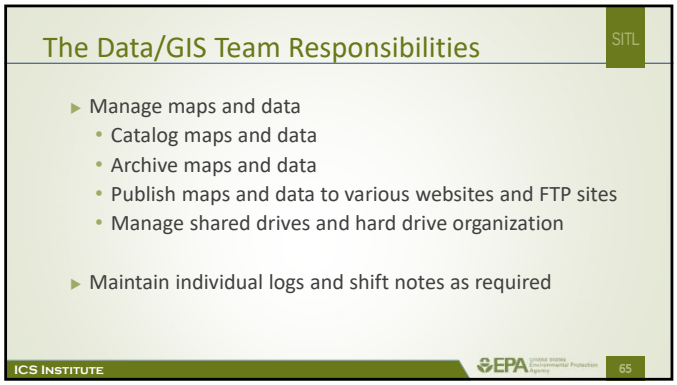
The Data/GIS Team Responsibilities
SITL
Manage maps and data
Catalog maps and data
Archive maps and data
Publish maps and data to various websites and FTP sites
Manage shared drives and hard drive organization
Maintain individual logs and shift notes as required
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65

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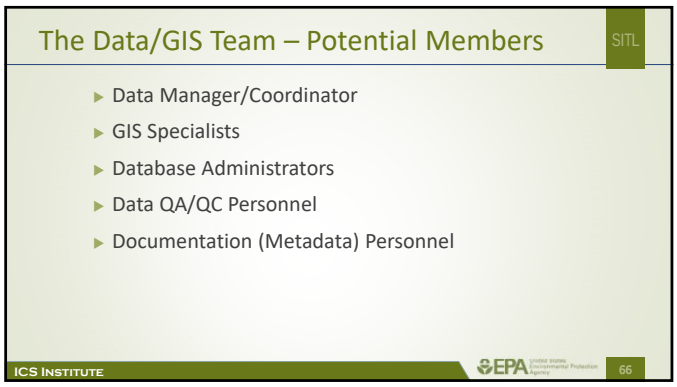
The Data/GIS Team – Potential Members
SITL
Data Manager/Coordinator
GIS Specialists
Database Administrators
Data QA/QC Personnel
Documentation (Metadata) Personnel
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SITL

Unit Management

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SITL

Management of the Situation Unit

- Assign work
- Set timeframes
- Schedule personnel
- Prioritize work

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SITL

Criteria for Successful Management

- Define goals and objectives to personnel
  - Get input
  - Post
- Assign personnel based on qualifications, skills, and aptitude
  - Interview before assigning
- Schedule staff around workload
  - Post schedule
  - Get input from personnel

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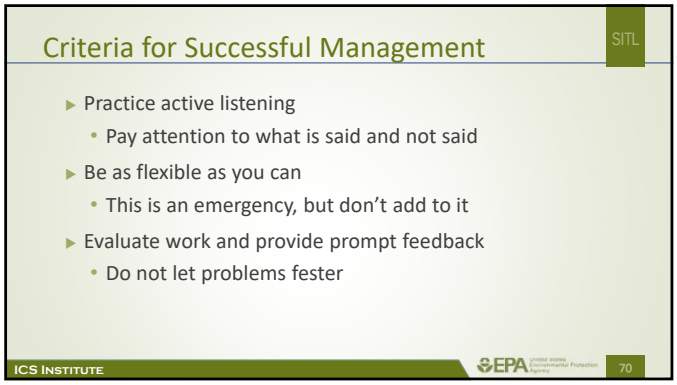
Criteria for Successful Management
SITL
Practice active listening
Pay attention to what is said and not said
Be as flexible as you can
This is an emergency, but don't add to it
Evaluate work and provide prompt feedback
Do not let problems fester
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EPA
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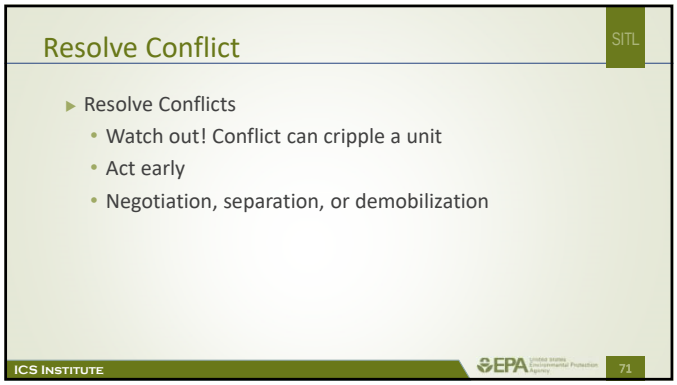
Resolve Conflict
SITL
Resolve Conflicts
Watch out! Conflict can cripple a unit
Act early
Negotiation, separation, or demobilization
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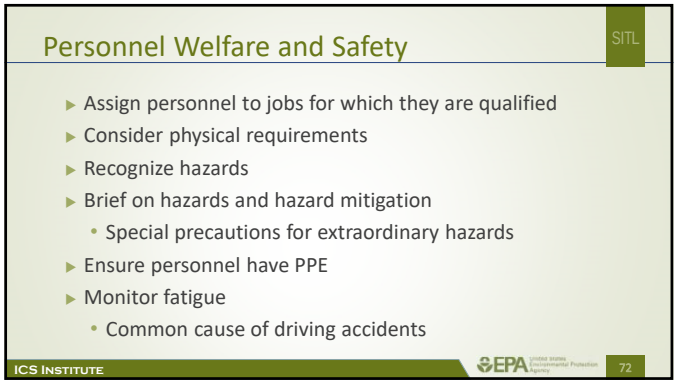
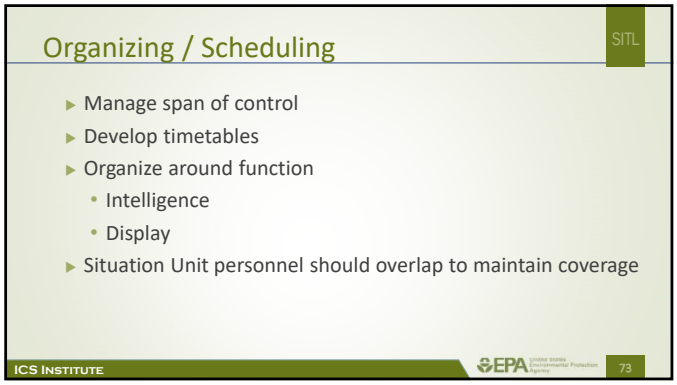
71

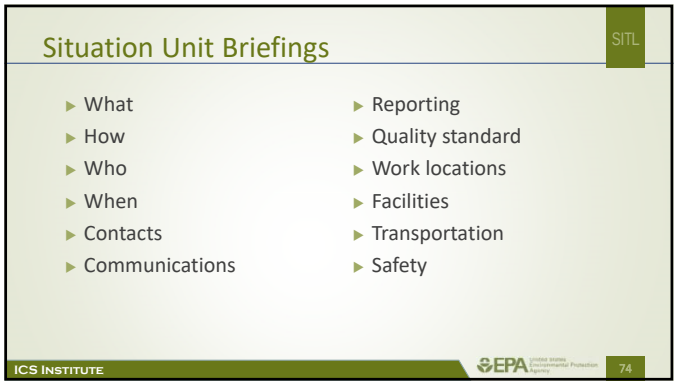
71


Personnel Welfare and Safety
SITL
Assign personnel to jobs for which they are qualified
Consider physical requirements
Recognize hazards
Brief on hazards and hazard mitigation
Special precautions for extraordinary hazards
Ensure personnel have PPE
Monitor fatigue
Common cause of driving accidents
ICS Institute
EPA
72

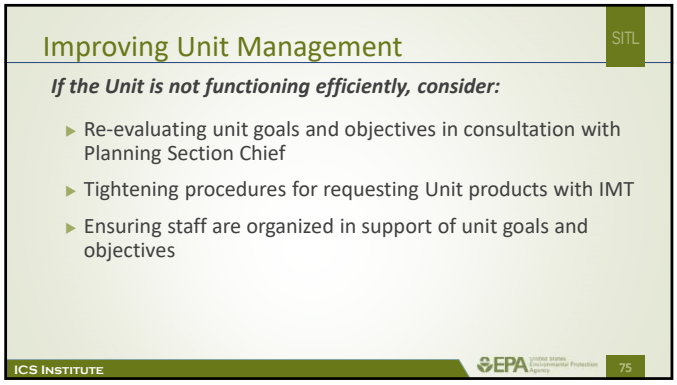
72


Organizing / Scheduling
SITL
Manage span of control
Develop timetables
Organize around function
Intelligence
Display
Situation Unit personnel should overlap to maintain coverage
ICS Institute
EPA
73

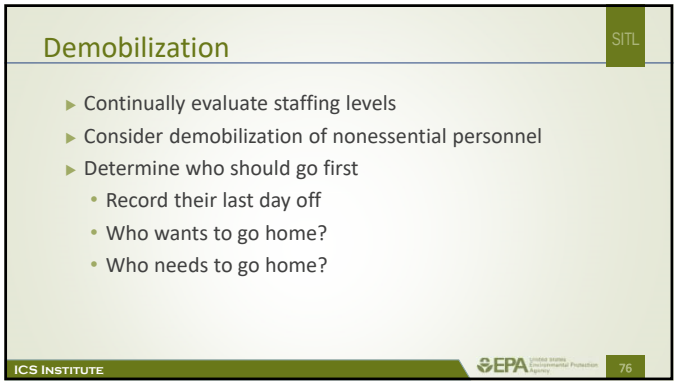
73


Situation Unit Briefings
SITL
What
How
Who
When
Contacts
Communications
Reporting
Quality standard
Work locations
Facilities
Transportation
Safety
ICS Institute
EPA
74

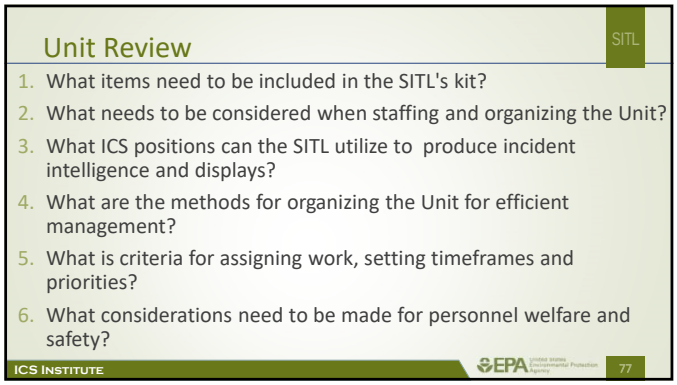
74


Improving Unit Management
SITL
If the Unit is not functioning efficiently, consider:
Re-evaluating unit goals and objectives in consultation with Planning Section Chief
Tightening procedures for requesting Unit products with IMT
Ensuring staff are organized in support of unit goals and objectives
ICS Institute
EPA
75

75


Demobilization
SITL
Continually evaluate staffing levels
Consider demobilization of nonessential personnel
Determine who should go first
Record their last day off
Who wants to go home?
Who needs to go home?
ICS Institute
EPA
76

76


Unit Review
SITL
1. What items need to be included in the SITL's kit?
2. What needs to be considered when staffing and organizing the Unit?
3. What ICS positions can the SITL utilize to produce incident intelligence and displays?
4. What are the methods for organizing the Unit for efficient management?
5. What is criteria for assigning work, setting timeframes and priorities?
6. What considerations need to be made for personnel welfare and safety?
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SITL
Situation Unit Leader
Activity 2
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EPA
78

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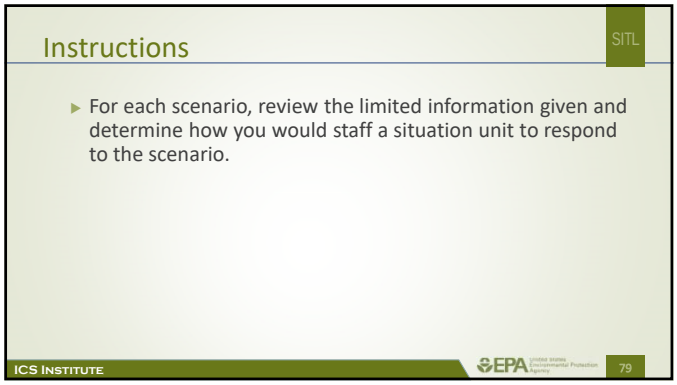
Instructions
SITL
For each scenario, review the limited information given and determine how you would staff a situation unit to respond to the scenario.
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EPA
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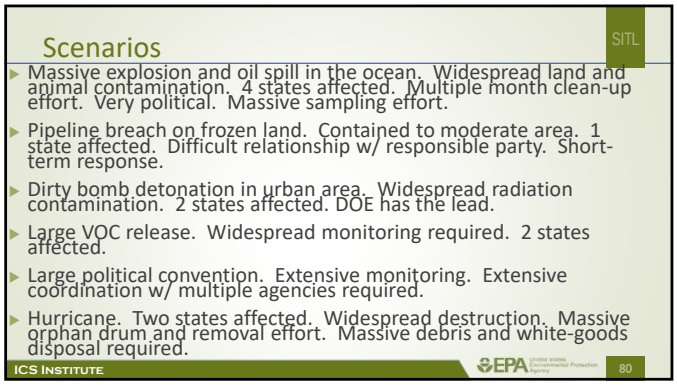
79


Scenarios
SITL
Massive explosion and oil spill in the ocean. Widespread land and animal contamination. 4 states affected. Multiple month clean-up effort. Very political. Massive sampling effort.
Pipeline breach on frozen land. Contained to moderate area. 1 state affected. Difficult relationship w/ responsible party. Short-term response.
Dirty bomb detonation in urban area. Widespread radiation contamination. 2 states affected. DOE has the lead.
Large VOC release. Widespread monitoring required. 2 states affected.
Large political convention. Extensive monitoring. Extensive coordination w/ multiple agencies required.
Hurricane. Two states affected. Widespread destruction. Massive orphan drum and removal effort. Massive debris and white-goods disposal required.
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EPA
80

80

SITL

Situation Unit Leader

Unit 6 – Intelligence and Information Products

1

SITL

Unit Terminal Objective

Identify how to obtain, analyze, and disseminate necessary incident intelligence

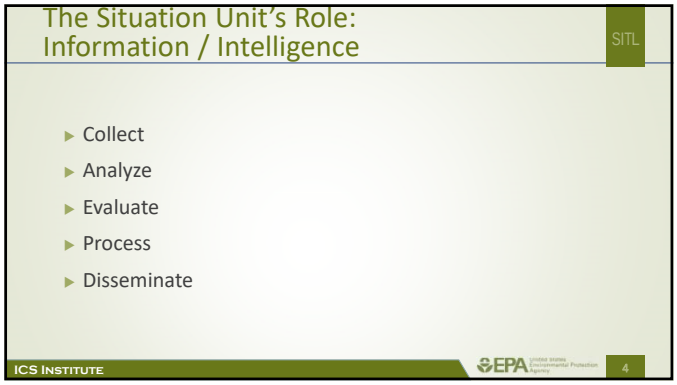
2

SITL

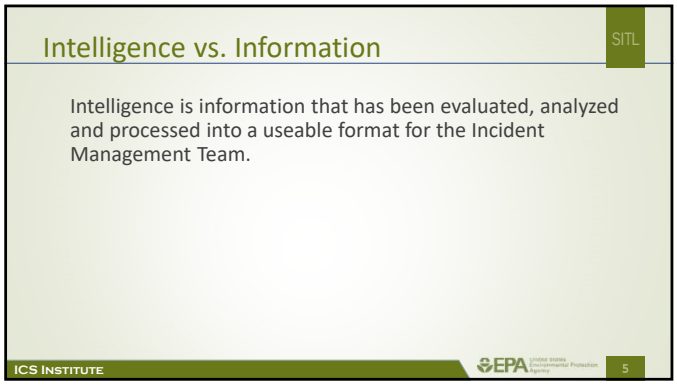
Unit Enabling Objectives

- Describe the difference between information and intelligence
- Identify information the Situation Unit Leader may be responsible for obtaining
- Identify sources of information
- Identify the ICS positions that provide information and intelligence to the Situation Unit

3


The Situation Unit's Role:
Information / Intelligence
SITL
Collect
Analyze
Evaluate
Process
Disseminate
ICS Institute
EPA
4

4


Intelligence vs. Information
SITL
Intelligence is information that has been evaluated, analyzed and processed into a useable format for the Incident Management Team.
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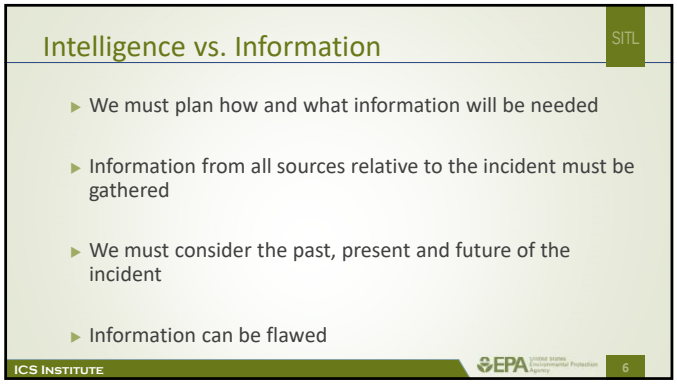
5

5


Intelligence vs. Information
SITL
We must plan how and what information will be needed
Information from all sources relative to the incident must be gathered
We must consider the past, present and future of the incident
Information can be flawed
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EPA
6

6

What type of information might each customer request? Why?

SITL

- IC
- OPS
- PIO
- SO
- Logistics
- RESL
- Finance
- EOC (State, FEMA, Regional and HQ)
- Resources Advisor and Agency Representatives

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7

Types of Information

SITL

- Incident status
- Operational progress
- Threats / Risks
- Hazards
- Transportation
- Rehab / Decon / Disposal
- Communication

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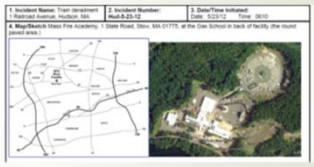
8

Sources of Information

SITL

- Any completed ICS 201, 214, SITREP, and IAP
  - Incident history can give an insight into the future
  - Incident progression mapping
  - Past documents / records
- Personnel on scene
  - Try to ID first responders
- Responsible Party
  - Product info
  - Facility info



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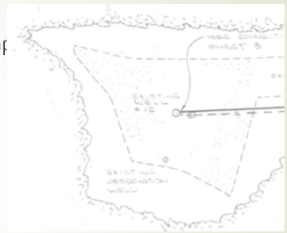
9

Sources of Information – Local Jurisdiction

SITL

- Maps, blueprints, charts
- Preplans, permits, inspections, map
- "Right to know" docs
- Databases
- Past incidents
- Resources



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10

Sources of Information – EPA/State

SITL

- Local EPA and State offices
- Past incidents
- Inspections/Site visits
- Tech/Specs

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11

Sources of Information - IMT

SITL

- Incident Commander
  - Objectives
  - Contacts
  - Concerns
- Operations personnel
  - Situation Status
  - Progress
  - Risks / Threats
  - Needs

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Sources of Information - IMT

SITL

- Planning Section Chief
  - Reporting limits
  - Reporting timeframes
- Resources Unit Leader
  - Resources on incident (209)
  - Available resources for Situation Unit Leader
  - Incident Action Plan

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13

Sources of Information

SITL

- Monitoring and sampling
  - Operations
  - ASPECT/ Mobile laboratories
  - Automated data collection systems
    - ✓VIPER
    - ✓TAGA
  - Scribe

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Sources of Information - IMT

SITL

- Environmental Unit Leader
  - Monitoring and sampling data
  - Scientific evaluation
  - Projection models
  - Monitoring and sampling logs
  - Data interpretation
  - QA/QC of data
  - Risk assessments

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Sources of Information

SITL

- Logistics
  - Transportation
  - Facility locations and availability
- Finance
  - Cost information
  - Mission Assignment information and burn rate

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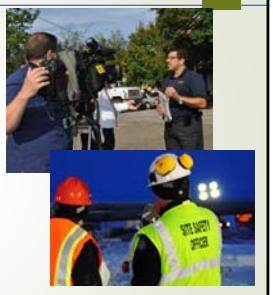
Sources of Information

SITL

- Public Information Officer
  - Public, media and political concerns
- Safety Officer
  - Hazards & injuries
  - Observations



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Sources of Information - FOBS

SITL

- Used by the Situation Leader to obtain information for the Situation Leader that can not be obtained satisfactorily from other sources.
  - Deployed when and where intel is needed in a timely manner.
  - Human Intel
  - Verification

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Human Intelligence

SITL

- Pluses
  - Versatile, real time communication
  - Can make immediate interpretation
  - Can make immediate adjustments
  - Perceptive / sensory

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Human Intelligence

SITL

- Minuses
  - Safety
  - Perceptive, prejudices, feelings, and emotions
  - Variable skill level
  - Attitudes
  - Sensory capabilities
  - Communication abilities vary

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Encourage Debriefing

SITL

- Remind personnel of need to debrief at Tactical Briefing & Planning Meeting
- Place Display at convenient location
- Ensure availability of personnel at Unit
- Let Situation Unit know debriefing priority
- Remind Incident Management Team at Meeting
- Tactfully question

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Debriefing

SITL

- Debriefing of incident personnel is EXTREMELY important.
  - Can be the best source of accurate and timely input
  - Information for maps and displays
  - Feedback on quality of products
  - Heads-up on product needs

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Debriefing

SITL

- Debriefing methods
  - Have an obvious debriefing station with maps and displays
  - Contact field personnel
  - Seek out personnel at base

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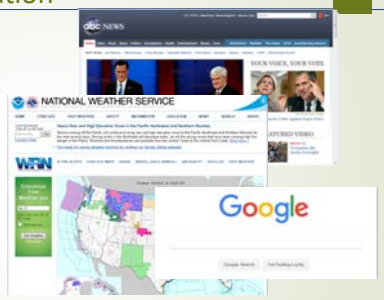
Sources of Information

SITL

- News media
- Internet
  - News
  - Models
  - Weather Forecast
  - Maps / Charts
  - Images



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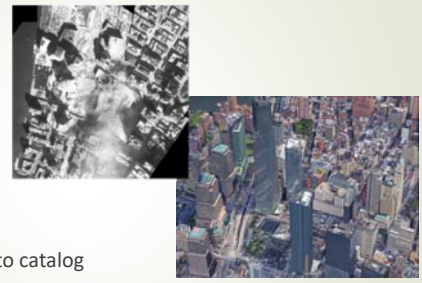
24

Sources of Information

SITL

- Imaging
  - Aerial photos
  - Street view
  - Video
  - IR
  - Satellite
  - Assign a DPRO to catalog



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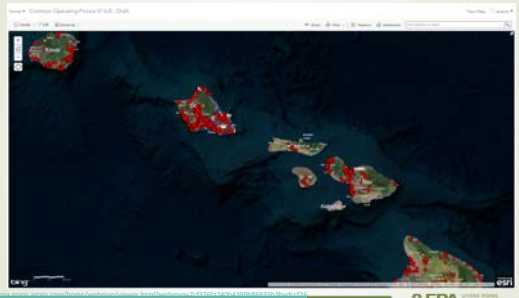
25

Region 9 Common Operating Picture – EPA Geoviewer

SITL



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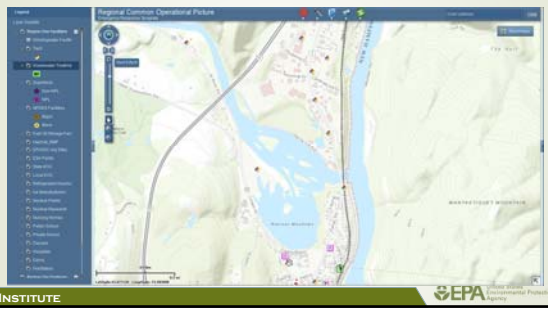
Region 1 Common Operating Picture – ER Web Mapping

SITL



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27

Evaluation of Information

SITL

- Cross Reference
- Cross Examine (tactfully)
  - Look for decisive descriptions and drawing
- Go out and look at it
  - Personally observe

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Evaluation of Information

SITL

- Understand the limitations of models and forecasts
- Second Opinions are not just for Doctors
- You are Responsible!

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Weather

SITL

- All incidents require weather forecast for safe operations and accurate projections!
- Always include a weather forecast in all planning meetings, briefings and Incident Action Plans

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Obtaining Weather Forecast

SITL

- On-Scene Incident Forecast - BEST!
  - EPA resources
  - NWS offices have personnel and equipment for on-scene assignment
  - Specific Incident forecasts.
  - Order and set up on-site RAWS

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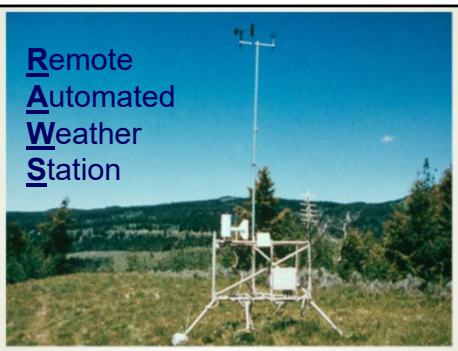
SITL

Remote
Automated
Weather
Station



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Obtaining Weather Forecast

SITL

- Spot Forecast - 2nd best
  - NWS forecasters provide site-specific incident forecast from local NWS office.
  - Must provide forecaster with observations
    - ✓wind
    - ✓temperature
    - ✓relative humidity
    - ✓cloud cover
    - ✓sheltering

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Obtaining Weather Forecast

SITL

- General Weather
  - Internet
    - ✓NWS
    - ✓DTRA-MDS
  - NWS 24hr radio
    - ✓162.550 / 162.40 / 162.45
  - TV
  - AM/FM radio

NATIONAL WEATHER SERVICE
WEATHER UNDERGROUND
WeatherBug
AccuWeather
The Weather Channel

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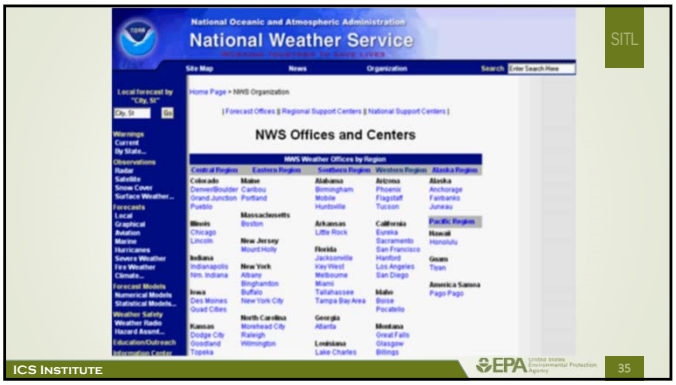
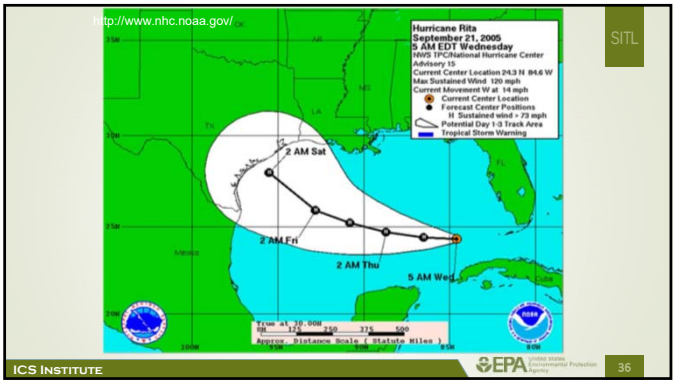
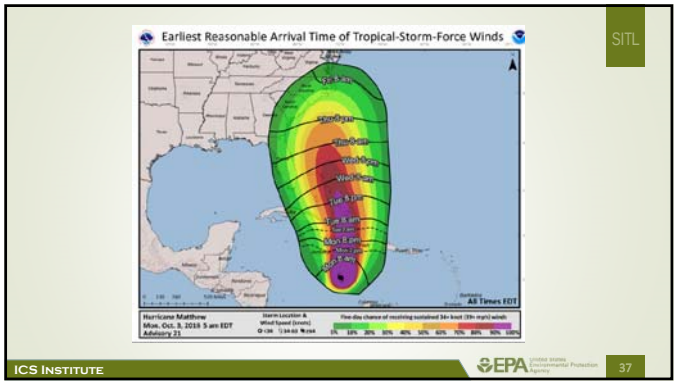


35



36


Earliest Reasonable Arrival Time of Tropical-Storm-Force Winds
SITL
ICS INSTITUTE
EPA
37

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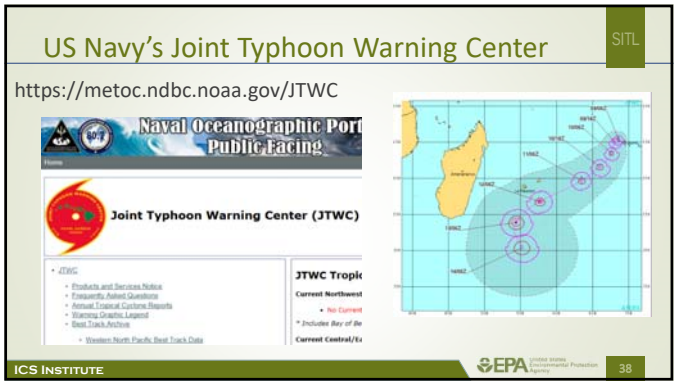
US Navy's Joint Typhoon Warning Center
SITL
https://metoc.ndbc.noaa.gov/JTWC
Naval Oceanographic Port
Public Facing
Joint Typhoon Warning Center (JTWC)
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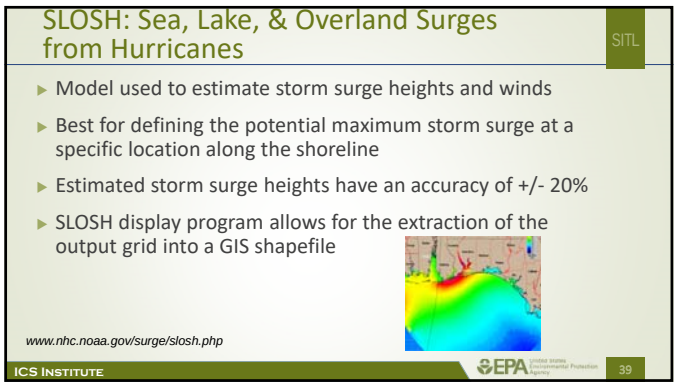
SLOSH: Sea, Lake, & Overland Surges from Hurricanes
SITL
Model used to estimate storm surge heights and winds
Best for defining the potential maximum storm surge at a specific location along the shoreline
Estimated storm surge heights have an accuracy of +/- 20%
SLOSH display program allows for the extraction of the output grid into a GIS shapefile
www.nhc.noaa.gov/surge/slosh.php
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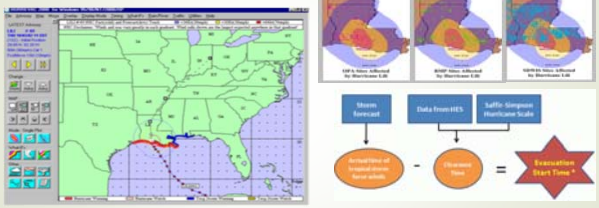
Stand-alone Software

SITL

- HURREVAC Storm Tracking and Analysis Software by Sea Island Software



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Aerial Mapping

SITL

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Aerial Mapping

SITL

Pro's

- *Fast*
- Good visibility
- Good communication with troops
- GPS from helicopters
- Often only way to view incident as a whole
- Stand-off monitoring
- Imaging platform

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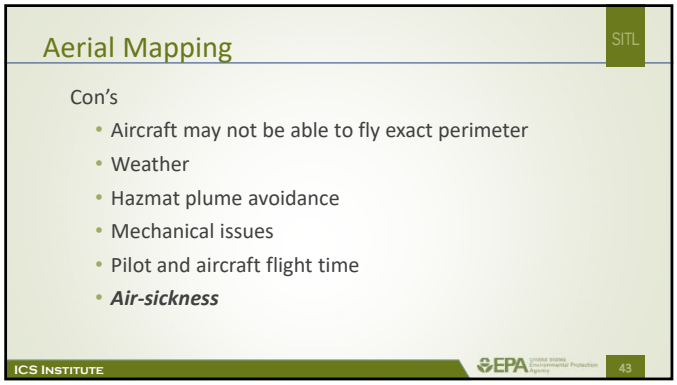
Aerial Mapping
SITL
Con's
• Aircraft may not be able to fly exact perimeter
• Weather
• Hazmat plume avoidance
• Mechanical issues
• Pilot and aircraft flight time
• Air-sickness
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43

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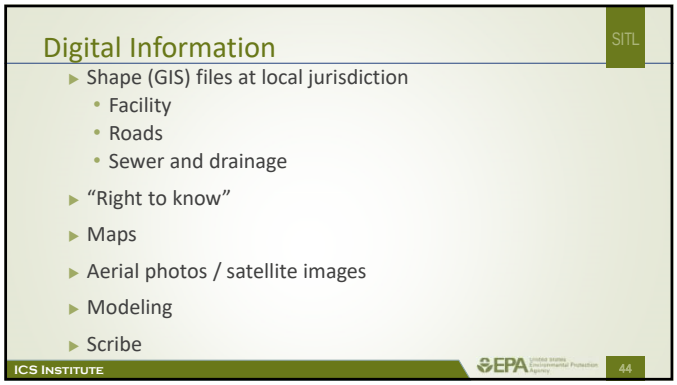
Digital Information
SITL
▸ Shape (GIS) files at local jurisdiction
• Facility
• Roads
• Sewer and drainage
▸ "Right to know"
▸ Maps
▸ Aerial photos / satellite images
▸ Modeling
▸ Scribe
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44

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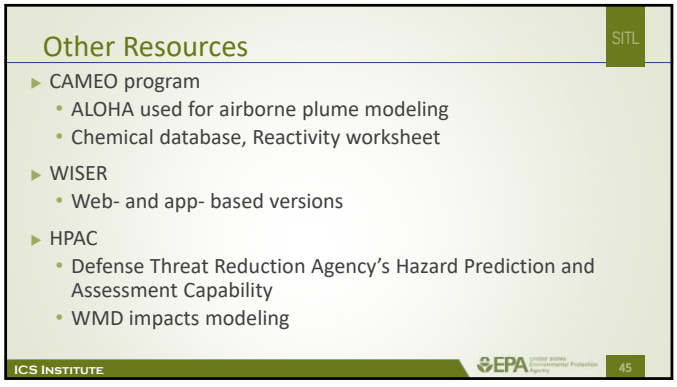
Other Resources
SITL
▸ CAMEO program
• ALOHA used for airborne plume modeling
• Chemical database, Reactivity worksheet
▸ WISER
• Web- and app- based versions
▸ HPAC
• Defense Threat Reduction Agency's Hazard Prediction and Assessment Capability
• WMD impacts modeling
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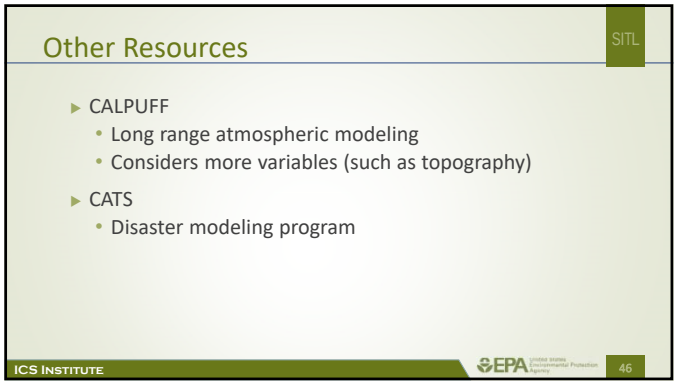
45

45


Other Resources
SITL
CALPUFF
Long range atmospheric modeling
Considers more variables (such as topography)
CATS
Disaster modeling program
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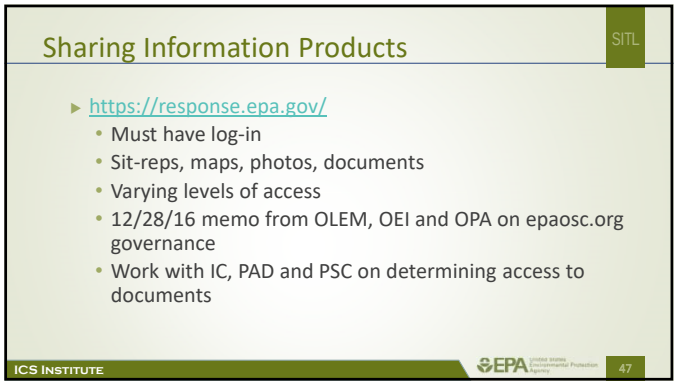
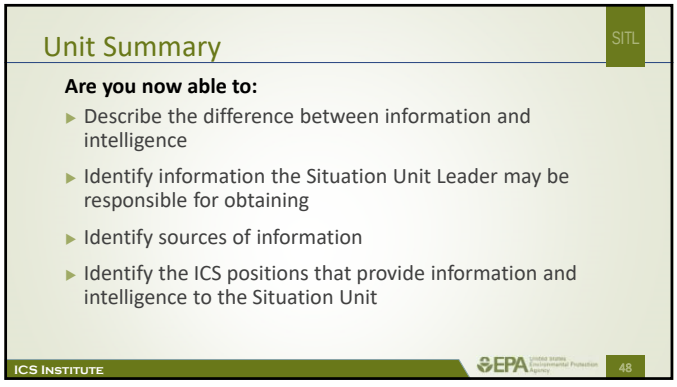
46

46


Sharing Information Products
SITL
https://response.epa.gov/
Must have log-in
Sit-reps, maps, photos, documents
Varying levels of access
12/28/16 memo from OLEM, OEI and OPA on epaosc.org governance
Work with IC, PAD and PSC on determining access to documents
ICS Institute
EPA
47

47


Unit Summary
SITL
Are you now able to:
Describe the difference between information and intelligence
Identify information the Situation Unit Leader may be responsible for obtaining
Identify sources of information
Identify the ICS positions that provide information and intelligence to the Situation Unit
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SITL

Situation Unit Leader

Unit 7 – Situation Report Overview

ICS Institute EPA 1

1

SITL

Unit Terminal Objective

Demonstrate the ability to select an Incident Status Summary that is appropriate to support the incident and determine sources of information for the Summary

ICS Institute EPA 2

2

SITL

Unit Enabling Objectives

- List 4 ICS positions the Situation Unit Leader should consult with to preparing the SITREP
- List persons / organizations who should receive the approved SITREP
- Compare the SITREP to a ICS 209 and POLREP

ICS Institute EPA 3

3

SITREP

SITL

- Purpose of SITREP is to convey incident status and projection information to agency administrators.
- It is used by agency administrators to plan for future impacts and to allocate resources.
- The SITREP is also used by the Incident Management Team and involved personnel as an incident briefing.
- Used by PIO as guide for information releases.
- Prepared at conclusion of each Operational Period

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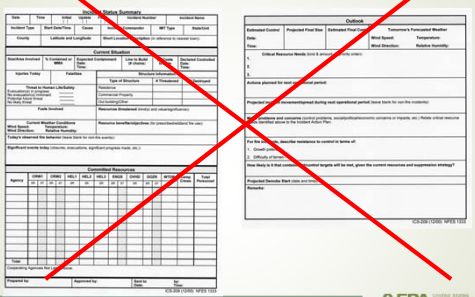
4

ICS 209 Form – Not Used by EPA

SITL



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5

SITREP / POLREP

SITL

- EPA required document reporting incident status
- Confer with Planning Section Chief and Incident Commander on timeline and distribution
- May not be required daily – *but will be at end of operational period*.

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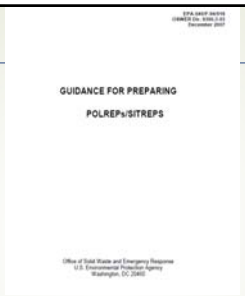
6

SITL


GUIDANCE FOR PREPARING

POLREPs/SITREPS

OSWER Dir.9360.3-03 December 2007

https://response.epa.gov/_help/PolrepSitrepGuidance.pdf

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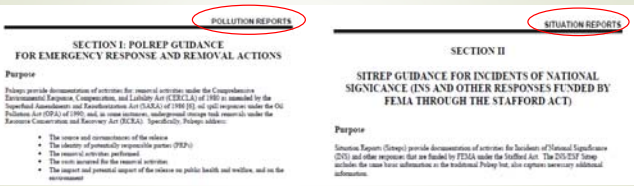
7

Specific Guidance for POLREPs & SITREPs

SITL


POLLUTION REPORTS

SECTION I: POLREP GUIDANCE FOR EMERGENCY RESPONSE AND REMOVAL ACTIONS

Purpose

SITUATION REPORTS

SECTION II

SITREP GUIDANCE FOR INCIDENTS OF NATIONAL SIGNICANCE (INS AND OTHER RESPONSES FUNDED BY FEMA THROUGH THE STAFFORD ACT)

Purpose

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8

POLREPs

SITL

- Required by statute
- Filed by the OSC when working under CERCLA or OPA authorities.

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9

POLREPs address:

SITL

- The source and circumstances of the release
- The identity of potentially responsible parties (PRPs)
- The removal activities performed
- The costs incurred for the removal activities
- The impact and potential impact of the release on public health and welfare, and on the environment

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POLREP Outline

SITL

APPENDIX A: POLREP OUTLINE

Letterhead
Title
Routing Information
Date/Time

1. Introduction
1.1 Background
1.1.1 Incident Category
1.1.2 Site Description
1.1.2.1 Location
1.1.2.2 Description of Threat
1.1.3 Preliminary Removal Assessment/Removal Site Inspection

2. Current Activities
2.1 Operations (Section)
2.1.1 Narrative
2.1.2 Response Actions to Date
2.1.3 Enforcement Activities, Identity of Potentially Responsible
2.1.4 Progress Metrics
2.2 Planning (Section)
2.2.1 Anticipated Activities
2.2.1.1 Planned Response Activities
2.2.1.2 Next Steps
2.2.2 Issues
2.3 Logistics (Section) (as appropriate or necessary)
2.4 Finance (Section)
2.4.1 Narrative
2.4.2 Metrics
2.5 Safety Officer (as appropriate or necessary)
2.6 Liaison Officer (as appropriate or necessary)
2.7 Information Officer (as appropriate or necessary)
2.7.1 Public Information Officer
2.7.2 Community Involvement Coordinator

3. Participating Entities
3.1 Unified Command
3.2 Cooperating and Assisting Agencies

4. Personnel On Site

5. Definition of Terms

6. Additional sources of information
6.1 Internet location of additional information/reports
6.2 Reporting Schedule

7. Situational Reference Materials

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POLREP Example

SITL

- https://response.epa.gov/

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SITREP Outline

SITL

APPENDIX C: SITREP OUTLIN

Letterhead
Title
Routing Information
Date/Time

1. Introduction
1.1 Background
Executive Summary
1.1.1 Site History (as appropriate or necessary)
1.2 Incident Objectives and Command Emphasis
1.3 Critical Resource Needs
1.4 Strategic Considerations

2. Current Activities
2.1 Operations (Section)
2.1.1 Narrative
2.1.2 Progress Metrics
2.2 Planning (Section)
2.2.1 Anticipated Activities
2.2.2 Issues
2.2.3 Environmental Unit
2.2.4 Situation Unit
2.2.5 Resource Unit
2.3 Logistics (Section) (as appropriate or needed)
2.4 Finance (Section)
2.4.1 Narrative
2.4.2 Metrics
2.5 Safety Officer (as appropriate or needed)
2.6 Liaison Officer (as appropriate or needed)
2.7 Information Officer
2.7.1 Public Information Officer
2.7.2 Community Involvement Coordinator

3. Participating Entities
3.1 Unified Command
3.2 Cooperating and Assisting Agencies

4. Personnel On Site

5. Definition of Terms

6. Additional sources of information
6.1 Internet location of additional information/reports
6.2 Reporting Schedule

7. Situational Reference Materials

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SITREPs

SITL

- Used for Incidents of National Significance under the NRF and for other Stafford Act FEMA-funded actions.
- Field report which is prepared every operational period by the SITL for the purposes of incident status, status of operations and operational planning.
- Also very valuable information resource to EPA Regional and Headquarters management. The Sitrep is a primary source of information for management briefings, public information and other external information demands.
- Filed by PSC

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SITREP Example

SITL

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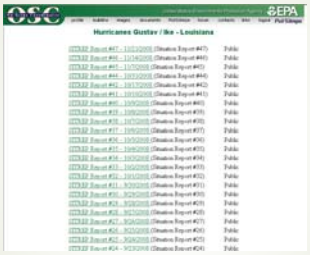
SITREP Example (continued)

SITL



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16

SITREP/POLREP Preparation

SITL

Incident Commander

- Guidelines
- Timeline
- Distribution

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17

SITREP/POLREP Preparation (cont.)

SITL

Planning Section Chief

- Guidelines
- Future plans

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SITREP/POLREP Preparation (cont.)

SITL

Operations Section Chief

- Status
- Progress
- Accomplishments
- Problems
- Priority resources
- Evacuations
- Future plans

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SITREP/POLREP Preparation (cont.)

SITL

Resources Unit Leader

- Resources on scene
- Priority resource needs

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20

SITREP/POLREP Preparation (cont.)

SITL

- Cost Unit Leader
  - Total and projected costs
- Safety, Claims, Medical Unit
  - Injuries

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SITREP/POLREP Preparation (cont.)

SITL

Field Observer

- Status
- Progress
- Accomplishments
- Problems
- Losses
- Current weather forecast

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SITREP/POLREP Preparation (cont.)

SITL

- IMET
  - Predicted weather forecast
- Tech / specs
  - Projected incident behavior
- Liaison
  - Assisting organizations

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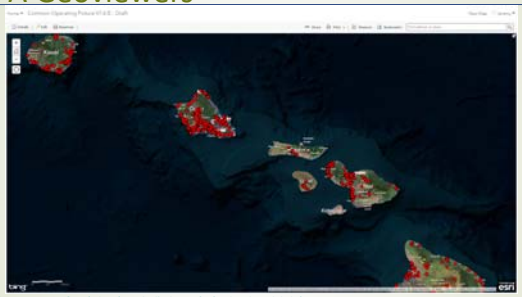
23

Common Operating Picture – EPA Geoviewers

SITL



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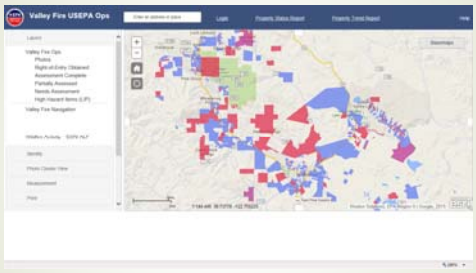
24

Incident Specific Flexviewers (response.epa.gov)

SITL

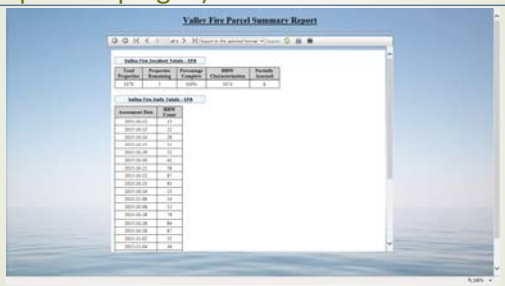


ICS INSTITUTE https://response.epa.gov/valleyfire/ EPA 25

25

Incident Specific Flexviewers (response.epa.gov)

SITL



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SITREP/POLREP Distribution – by PSC per IMH

SITL

- Incident Commander(s)
- IMT KLPs
- REOC
- HQ EOC
- Other EPA management
- FEMA RRCC / JFO
- Documentation - Original signed copy

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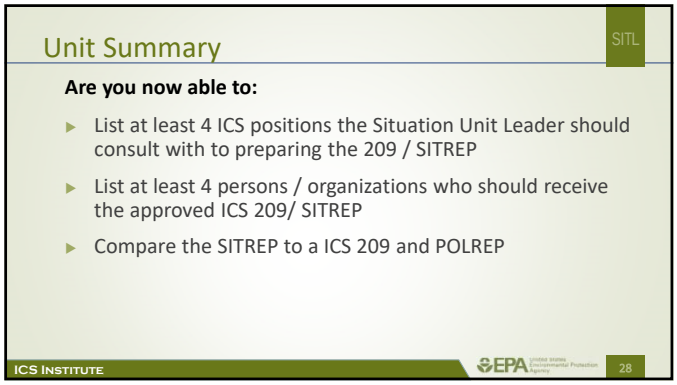
Unit Summary
SITL
Are you now able to:
List at least 4 ICS positions the Situation Unit Leader should consult with to preparing the 209 / SITREP
List at least 4 persons / organizations who should receive the approved ICS 209/ SITREP
Compare the SITREP to a ICS 209 and POLREP
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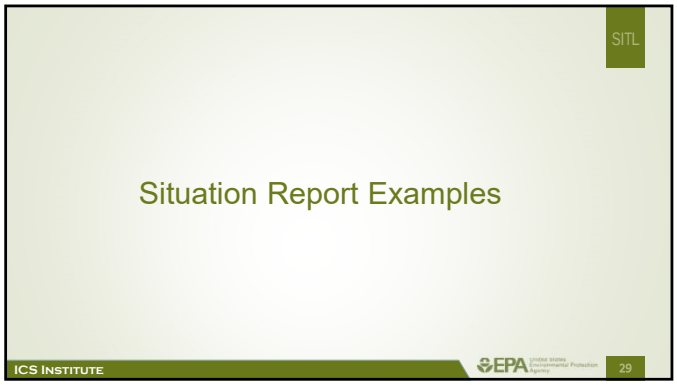
SITL
Situation Report Examples
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29

SITL

Situation Unit Leader

Unit 8 – Writing the Situation Report

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1

SITL

Unit Terminal Objective

Demonstrate the ability to prepare an Incident Status Summary that is appropriate to support the incident

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2

SITL

Unit Enabling Objectives

- Determine Situation Report format based on audience
- Create Situation Report from multiple sources of information
- Streamline Situation Report to deliver facts in tabular format when available and verbiage as necessary

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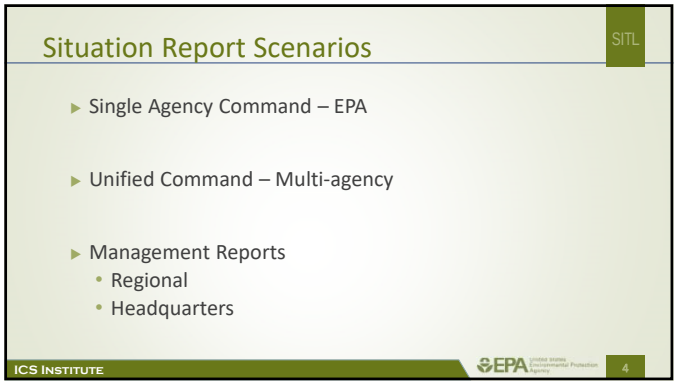
3


Situation Report Scenarios
SITL
Single Agency Command – EPA
Unified Command – Multi-agency
Management Reports
Regional
Headquarters
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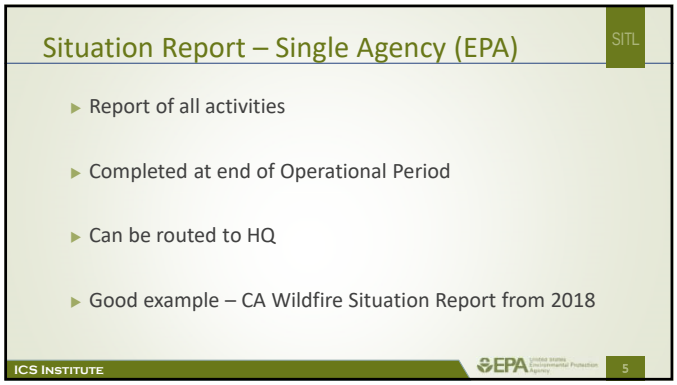
EPA
4

4


Situation Report – Single Agency (EPA)
SITL
Report of all activities
Completed at end of Operational Period
Can be routed to HQ
Good example – CA Wildfire Situation Report from 2018
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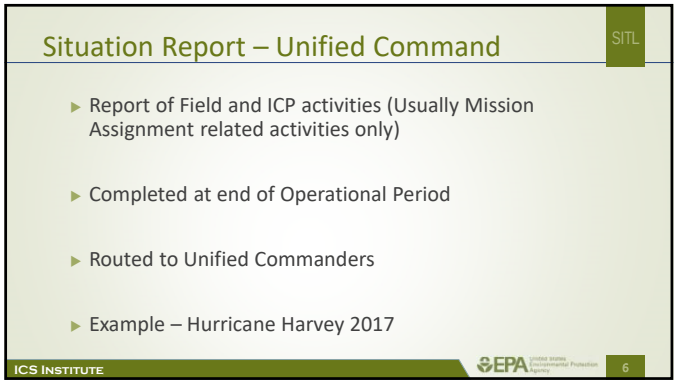
EPA
5

5


Situation Report – Unified Command
SITL
Report of Field and ICP activities (Usually Mission Assignment related activities only)
Completed at end of Operational Period
Routed to Unified Commanders
Example – Hurricane Harvey 2017
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EPA
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6

Management Update

SITL

- Report of significant activities and issues
- Due at scheduled time (usually) daily
- Audience can be Regional or National Management Chain
- Template – Management Update from HQ

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Product	Description	Audience	Frequency First 72 Hours	Frequency 2 Weeks Out	Frequency After 2 Weeks	Triggers/Delivery	EOC/REOC Activation Status
POLREP or Situation Report	Regional Product covering field activity	Emergency Response (ER) Programs	Issued on operational period cycle	Issued on operational period cycle	Issued on operational period cycle	Regional Product WebEOC or Response.epa.gov	Level 1-3 Steady State to Full Activation
HQ and Regional Spot Reports	Overview of incident and EPA activity following established template	National Programs and Senior Leadership (SL)	Up to Two Per Day	As needed for ER activity within the Incident	As needed for ER activity within the Incident	Issued by HQ or Regional EOC via established SOPs	Level 1-3 Steady State to Full Activation
Incident Viewer or Story Map	Web-based visualization of ER activity Note: This is a developing area of expertise	ER Programs, SL or the Public	Established as soon as need arises and capability allows	Continually Updated	Continually Updated	Developed and maintained by Impacted Region or HQ	Level 1-3 Steady State to Full Activation
Online Info Repository (response.epa.gov or epa.gov)	Collection of key incident documents, reports and updates.	Public/ Response Stakeholders	Established per regional timeframe guidelines	Continually Updated	Continually Updated	Public web presence done in coordination with Regional PAD, may be same site or use multiple sites depending on audience	Level 1-3 Steady State to Full Activation
Management Report Need determined by region and PCC (issuance linked to Senior Leader direction and PCC meetings)	Executive-level reporting on incident highlighting essential elements of information and acting issues, needs, and adherence to management objectives	PCC Designated SL, ER Program Managers	Issue initial management report within first 72 hours	Issue as directed by SL and prior to scheduled PCC meetings, should be no more than once daily	Issue as directed by SL and prior to scheduled PCC meetings	Issued by HQ EOC or Region. Regional component from situps. Inter-Agency component from FEMA, issues, needs identified by EOC/REOC	Level 1 or 2 Full Activation or Partial Activation of the EOC/REOC
Supplemental Management Bullet: (issuance linked to management report cycle)	No more than 1-page of bullets highlighting actable developments, issues, needs, and EPA activity	PCC Designated SL, ER Program Managers	Issued in between Management Reports	Issued in between Management Reports and no more than once daily	Issued as needed.	Issued by HQ EOC or Impacted Region	Level 1 or 2 Full Activation or Partial Activation of the EOC/REOC

SITL

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8

Writing a Situation Report – The "W's"

SITL

- Who
- What
- Where
- When
- Why
- How

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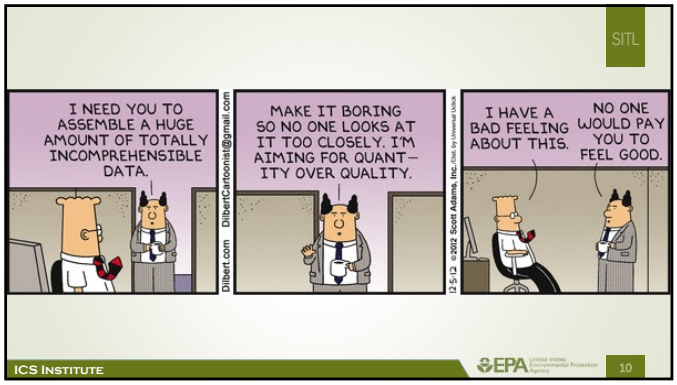
9


SITL
I NEED YOU TO ASSEMBLE A HUGE AMOUNT OF TOTALLY INCOMPREHENSIBLE DATA.
MAKE IT BORING SO NO ONE LOOKS AT IT TOO CLOSELY. I'M AIMING FOR QUANT-ITY OVER QUALITY.
I HAVE A BAD FEELING ABOUT THIS.
NO ONE WOULD PAY YOU TO FEEL GOOD.
Dilbert.com DilbertCartoonist@gmail.com
©2012 Scott Adams, Inc.
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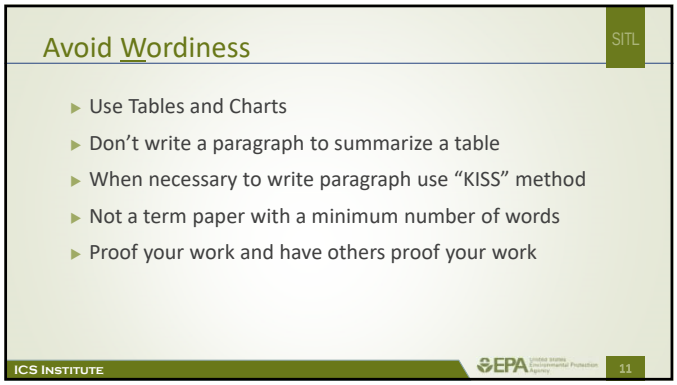
10

10


Avoid Wordiness
SITL
Use Tables and Charts
Don't write a paragraph to summarize a table
When necessary to write paragraph use "KISS" method
Not a term paper with a minimum number of words
Proof your work and have others proof your work
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11


The Situation Report - Contents
SITL
Background – Why are we here
Objectives – Current Operating Period
Operations
Safety
Reports from KLP's
Funding
Resources
Map/Photos
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EPA
12

12

What numbers do I use

SITL

- End of Reporting Period Numbers
- Special Circumstances
  - Number reported from multiple sources
  - Work with Data Team to determine time and format of data to report
- Get the data from the Data Support coordinator – not field teams
- Resource Reporting – Operations/RESL

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13

What Not to Do

SITL

Alpha Branch sent out 7 teams today, 4 were Oil Discharge Assessment Teams and 3 were Hazard Evaluation Teams. The 4 Oil teams were in the Alpha Branch and opened 6 targets, reviewed progress at 3 open targets and spoke with someone at Shell about their oil spill. The Hazard Evaluation Teams opened 14 targets including one which was a chlorine tank that was picked up by the ER team. 9 teams are scheduled to go out tomorrow to new areas as determined by the Branch Director.

Alpha Teams	# of Teams	Targets Opened
Oil Discharge Assessment	4	8
Orphan Container Teams	4	13

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Better Way of Reporting – Page 1

SITL

Branch	Target Type	Targets Opened		Targets Closed	
		Today	Cumulative	Today	Cumulative
Alpha	Facility/Vessel/Spill	8	32	0	4
	Orphan Containers	14	68	1	2
Bravo	Facility/Vessel/Spill	4	15	1	1
	Orphan Containers	11	52	0	0
Charlie	Orphan Containers	3	3	0	0

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Better Way of Reporting – Page 2

SITL

Branch	Teams	# of Teams
Alpha	ODA	4
	HE	3
Bravo	ODA	3
	HE	4
Charlie	HE	5

16

Better Way of Reporting – Page 3

SITL

A Hazard Evaluation Team in Alpha Branch was notified of an orphan Chlorine Cylinder by a local resident. An ER team was dispatched to recover the cylinder. The cylinder was determined to have come from the local water treatment plant and was returned there.

Shell told the Alpha Oil Discharge team that was monitoring the major spill in Bayou Matthew, that their contractor expected final recovery of the estimated 10,000 crude spill to be completed within 4 days.

Bravo Branch investigated the NRC report of a release of hazardous substances at the Fisher Oil Plant and met with personnel onsite who are in the process of obtaining vac-tanks to clean up a spill still within containment at one of their storage tanks.

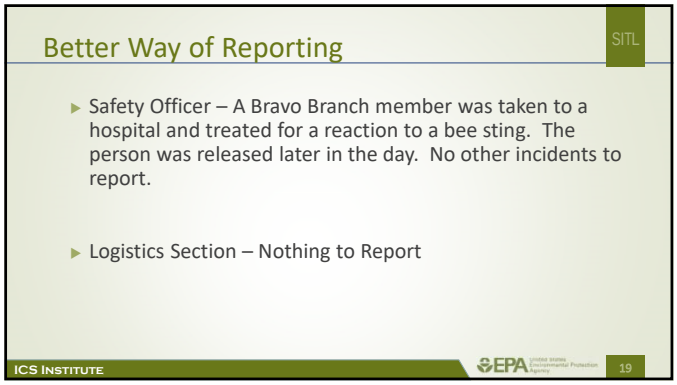
17

What Not to Do

SITL

- Safety Officer – The Safety Officer and Assistant Safety Officers participated in the normal daily briefings and reminded personnel of the necessity of hydration. The SO and ASOs then held their Safety Meeting to discuss any issues regarding safety concerns. No major concerns were noted. The ASO in Alpha reported that a team had a flat tire and will remind teams to watch the road for debris in the future. One Bravo Branch member was taken to a hospital and treated for a reaction to a bee sting. The person was released later in the day. No incidents were reported in Charlie.
- Logistics Section – The logistics section purchased office supplies for EPA personnel and paper for the copier. The Section Chief participated in the daily call with the Logistics Section in the REOC and the field Logistics members. No new major issues were discussed. Logistics will stand down for the weekend.

18


Better Way of Reporting
SITL
Safety Officer – A Bravo Branch member was taken to a hospital and treated for a reaction to a bee sting. The person was released later in the day. No other incidents to report.
Logistics Section – Nothing to Report
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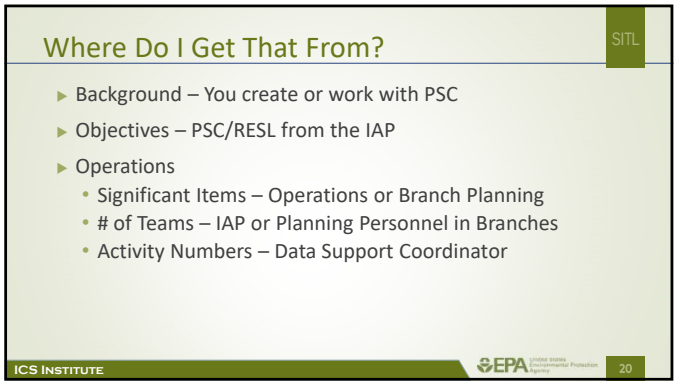
Where Do I Get That From?
SITL
Background – You create or work with PSC
Objectives – PSC/RESL from the IAP
Operations
Significant Items – Operations or Branch Planning
# of Teams – IAP or Planning Personnel in Branches
Activity Numbers – Data Support Coordinator
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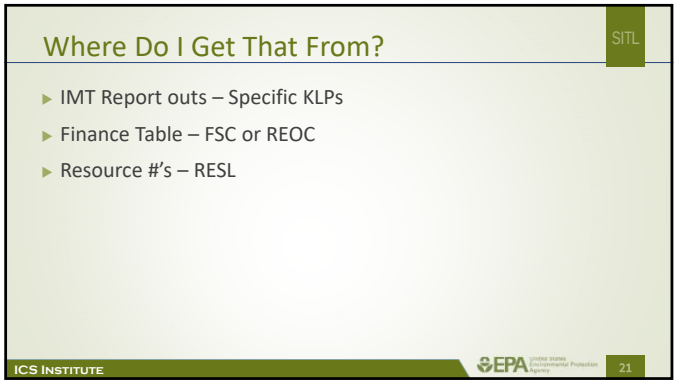
20

20


Where Do I Get That From?
SITL
IMT Report outs – Specific KLPs
Finance Table – FSC or REOC
Resource #'s – RESL
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21

21

Issues/Complaints/Concerns

SITL

- That is not the format I have used before
- That timeframe does not match up with our HQ reporting schedule
- My numbers are different
- That is not the input I gave you
- I can't get anyone to give me their input
- If the PSC does not like my writing – he can do it himself
- Who does this thing all go to?

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Process

SITL

- Start with previous Sit Rep
- Gather information – start asking hour before deadline
- Highlight changes
- Plug in information as you receive it
- Review Dates & Numbers (do they add up, was an adjustment made)
- Review by PSC and others selected to Review
- Distribution

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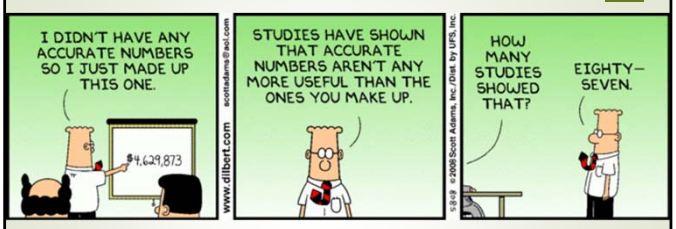
SITL



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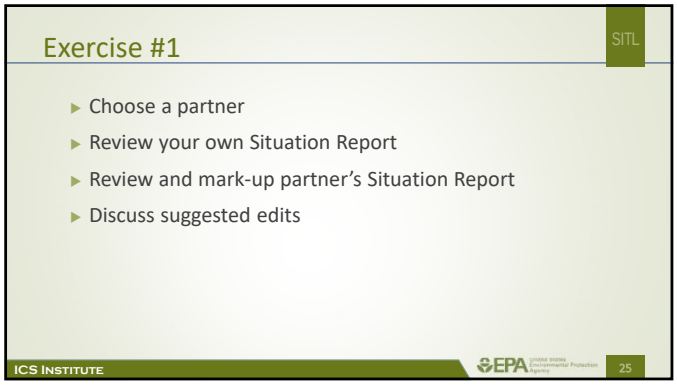
24


Exercise #1
SITL
Choose a partner
Review your own Situation Report
Review and mark-up partner's Situation Report
Discuss suggested edits
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25

Situation Unit Leader

Unit 9 - Approach to Emergency Response Data Management

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1

Why are you here?

- Understand what's required for a response to have successful data management
- How can you adjust your work to help everyone succeed when it comes to data
- The response will end, but the data always lives on

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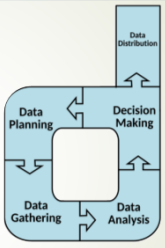
2

Managing Emergency Response Data

- Objective is to facilitate the problem solving process using information
- Data tools and processes are designed to move that information



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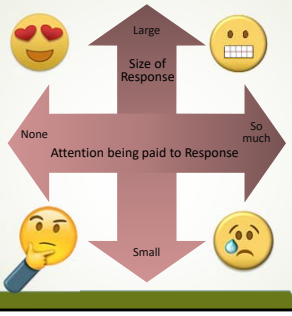
3

Emergency Response Matrix

SITL



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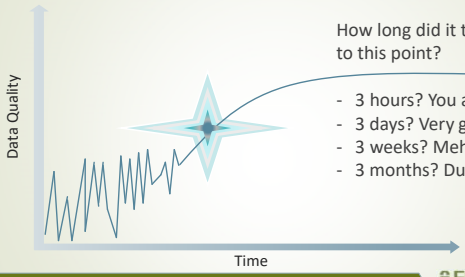
4

How do you know if data management on your response is going well?

SITL



How long did it take you to get to this point?

- 3 hours? You are an all star!
- 3 days? Very good
- 3 weeks? Meh
- 3 months? Dude, come on…

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5

Main Data Management Issues

SITL

- Consistency
  - Analyte names (TCE vs. Trichloroethene vs...)
  - Units (ppm vs mg/kg, ug/m^3 vs µg/m^3)
  - Reporting numbers (# of staff shown on sitrep vs. IAP)
- Deviations from the plan
  - Operations occurring without knowledge of SITL or EU
  - Analysis of data in conflict with reason it was collected
- Starting from scratch
- Only contractors deal with data

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6

Key Questions

SITL

- What data exists?
- Why are you collecting it?
- Who is responsible for it?
- Where is it and where is it going?
- How does it look?

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7

EMIT's Approach to ERs

SITL

- Prepare
  - Data deliverables required under support contracts
  - Train, train, train
- Assess
  - What problems is the ER trying to solve?
  - What questions are the IC/UC trying to answer?
  - What information do they need in order to solve it

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8

EMIT's Approach to ERs

SITL

- Plan
  - Document what you need to do
  - Document the steps you need to take
- Execute
  - Get the proper resources, organization and workflow together to put your plan into action
- Re-Assess
  - It's an Emergency! Prepare to rapidly adjust everything you had planned to do

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9

Plans, Plans, Plans

SITL

- Work plans
- Sampling and Analysis Plans
- Incident Action Plan
- Health & Safety Plan
- Quality Assurance Plans

Which of these plans tells us how to collect, process, store and analyze our data?

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10

Data Management Plan!!!

SITL

- Approach to data management
  - Types of data you are dealing with
  - Tools being used to collect, manage and display it
- Requirements
  - Specifics on what needs to be documented and how it's described
- How you are going to use your data
  - Standardized reports
  - GIS viewers
  - Models

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11

Regional Data Management Plan

SITL

- Every Region has an Emergency Response Regional Data Management Plan
- Lays out general approach for data management in the Region
- You shouldn't be starting from scratch, instead its adjusting the normal process based on the requirements of the incident

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Regional Data Management Plan

SITL

Can you find your region's DMP?

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Site Specific Data Management Plan

SITL

- Shorter (hopefully) Document
- References the Regional Plan
- Identifies deviations, additions or modifications
- Specific names and organizations responsible for managing the data
- Site specific procedures/checklists/SOPs

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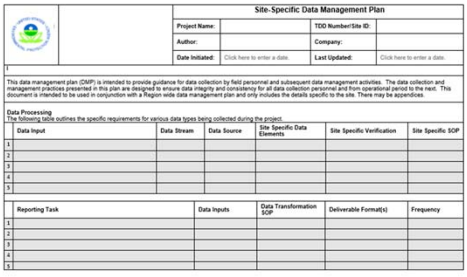
SITL



Site-Specific Data Management Plan

Project Name:		TDD Number/Site ID:	
Author:		Company:	
Date Initiated:	Click here to enter a date.	Last Updated:	Click here to enter a date.

This data management plan (DMP) is intended to provide guidance for data collection by field personnel and subsequent data management activities. The data collection and management practices presented in this plan are designed to ensure data integrity and consistency for all data collection personnel and from operational period to the next. This document is intended to be used in conjunction with a Region wide data management plan and only includes the details specific to the site. There may be appendices.

Data Processing
The following table outlines the specific requirements for various data types being collected during the project.

	Data Input	Data Stream	Data Source	Site Specific Data Elements	Site Specific Verification	Site Specific SOP
1						
2						
3						
4						
5						

	Reporting Task	Data Inputs	Data Transformation SOP	Deliverable Format(s)	Frequency
1					
2					
3					
4					
5					

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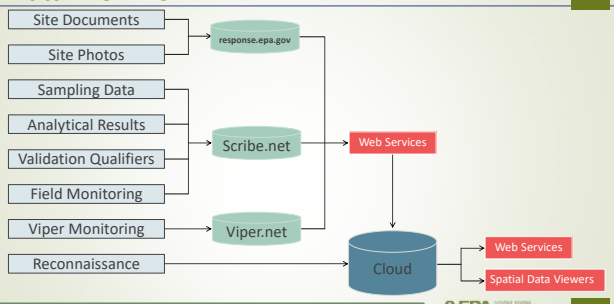
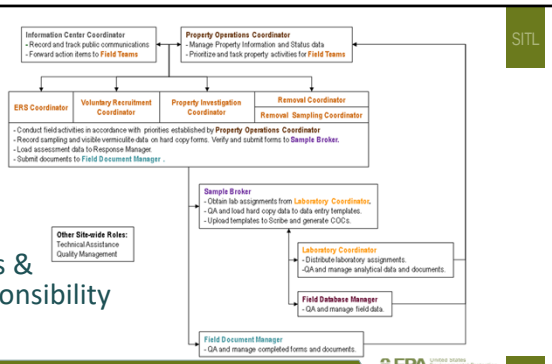
Data Workflow



16

Roles & Responsibility



17

Data Elements & Valid Values

- Core of your site specific plan
- What data you need & what it needs to look like
- Enforce consistency
- Develop feedback loops from your data users to your data managers
- Implement methods to enforce the data requirements established by the site
- Define what values mean!

18

Standard Procedures

SITL

- Consistency requires discipline & documentation
- Any processes or task that can be documented related to how data is collected, stored, or analyzed should be
- Checklists are a huge help

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Decision Making

SITL

- Work with the data management personnel to determine the best workflows to move and package the data for evaluation and decision making
- Determine if that process needs to happen with each reporting data set or can be established ahead of time (turn any result for this analyte > 10 to red on the map)
- Capture the evaluation of the data and ensure its available for internal and public communication

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Data Reporting

SITL

- How are you going to use the data?
- Data streams can be reported many different ways depending on the audience
  - Orphan container recovery
    - ✓SITREP is going to identify the total number of containers collected
    - ✓OPS just needs a report on where their teams went the previous day to plan the next day's collection activities
- Feedback loop needs to exist to inform the project on what data needs to be collected

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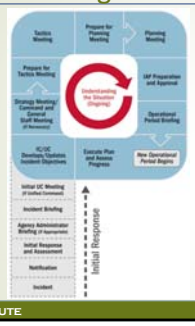
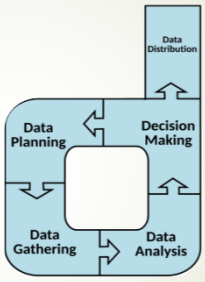
Data Management within ICS

SITL





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Command – IC

SITL

- Determine incident objectives and coordinate with the Regional Incident Coordinator (RIC) to implement management objectives
- Maintain clear and effective information sharing with the RIC
- Approve the release of information to the news media and public in coordination with the Public Information Officer (PIO), Headquarters PIO (if established) and the Office of Public Affairs (OPA)

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Command – PIO

SITL

- Release information about the incident to the news media and the public upon approval by the IC and in coordination with the HQs OPA
- Working with data management specialists and GIS analyst to determine best way to post and display data on public website

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Operations is key to data management

SITL

- Operations collects the samples
- Operations operates the monitoring instruments
- Operations digs up the dirt
- Operations collects the oil
- Operations plays a significant role in data management for a response
- Operations is in the best position to verify the data collected was accurate

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Single Resource Leader for Field Data Mgmt

SITL

- Capture, record and/or otherwise collect field data and information
- Process, verify and report field data and information to the Situation Unit
- *Could have multiple depending on geographic distribution and size of response*

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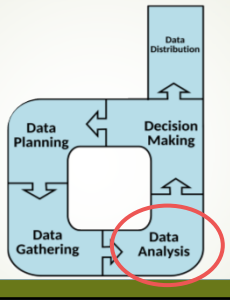
Sit Unit and EU are the primary data analysts

SITL



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Data Management Specialist

SITL

- Administer the incident database(s)
- Provide appropriate information for situational and environmental reporting
- Ideally embedded within Operations
  - Control point for data and for physical samples
  - COC generation

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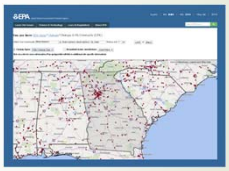
GIS Specialist

SITL

- Gather and compile updated information and provide map products
- GIS Web viewers & spatial analysis
- *May be an off site resource*



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Sampling & Monitoring Plan Coordinator

SITL

- Develops and maintains a Quality Assurance Project Plan (QAPP)
- Documents the data quality objectives (DQOs)

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Sampling & Monitoring Plan Coordinator

SITL

- DQOs drive:
  - Data Elements
  - Valid Values
  - Risk analysis
  - Spatial data analysis approach
  - Incident decision making
- Coordination between QAPP & DMP is critical

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QA Coordinator

SITL

- Perform quality assurance activities and advise response personnel on quality assurance issues and limitations on the use of data
- Facilitate delivery of Validated Electronic Data Deliverables for Analytical Data
- ★NOTE: The responsibilities of the Quality Assurance Coordinator may be performed by HQs during nationally-significant incidents

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Analytical Coordinator

SITL

- Schedule all environmental sample analyses, utilizing EPA and other Federal, academic, and private laboratories as necessary
- Ensure laboratories have capabilities to meet data delivery requirements (Lab EDDs) consistent with the SSDMP
- Track expected receipt of analytical results from laboratories
- Provide Sampling and Monitoring Plans as requested, and review and approve of the procedures developed by the Operations Section

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Data Assessment & Interpretation Coordinator

SITL

- Interpret environmental data and identify data gaps
- Prepare data for internal use and public consumption
- Working with Data Management and GIS Specialist to identify data reporting needs, automation opportunities
- ★NOTE: The responsibilities of the Data Assessment and Interpretation Coordinator may be performed by HQs during nationally-significant incidents

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SITREP

SITL

- Data driven document
- Manage and aggregate updates from every part of the organization
- Develop a process to receive metrics covering different areas of the response:
  - Cost
  - Personnel on-site
  - Ops activity summaries
    - ✓Containers recovered
    - ✓Samples collected

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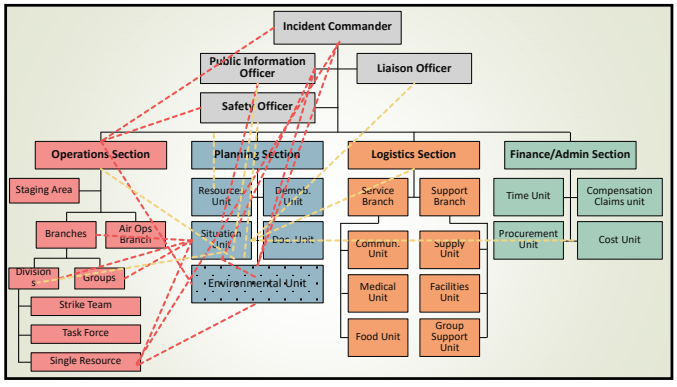

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Data Support Coordinator

SITL

- Evaluate Incident Objectives and develops an incident-specific Data Management Plan
- Establish an appropriate data management organizational structure to achieve incident objectives and assist unit leaders with the tasking of personnel to ensure the effective implementation of the incident-specific Data Management Plan

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Data Support Coordinator

SITL

- Ensure that data management activities support data and information transparency across various organizational levels: IMT, EPA Management, Stakeholders, Public, etc.
- Ensure that data summaries and reports support the internal and external release of data and information
- Serve as the primary point of contact for all data management issues and needs for the response

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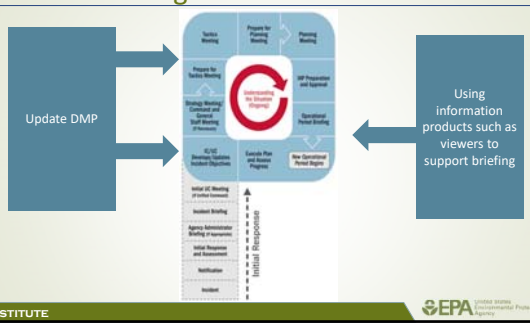
Data & Planning Process

SITL



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Feedback

SITL

- As the primary data consumers on the response your feedback is critical
- Identification of data consistency issues
- Additional data requirements you need to pass onto the data collection process to assist with your analysis
- Changes and additions to strategic plans like the QAPP that will have an impact on data collection

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EPA Field Data Management Tools

SITL

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Objectives

SITL

- Translate all field work into electronic data
- Match the data we are collecting to our Data Quality Objectives
- Be able to describe your process and your requirements so that other stakeholders can use your data and hopefully share data with you
- Prepared to the move the data as fast as possible
  - Collection to display
  - From EPA to response partners

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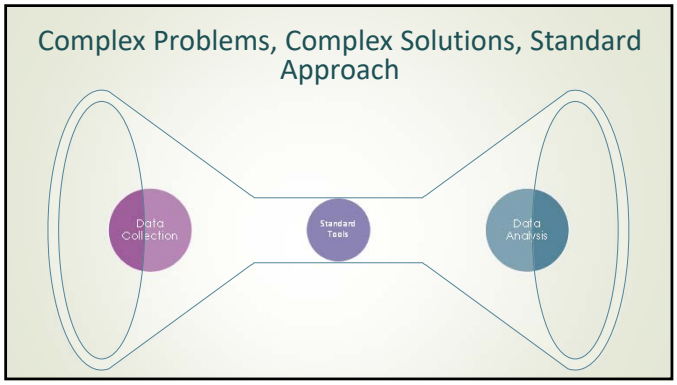
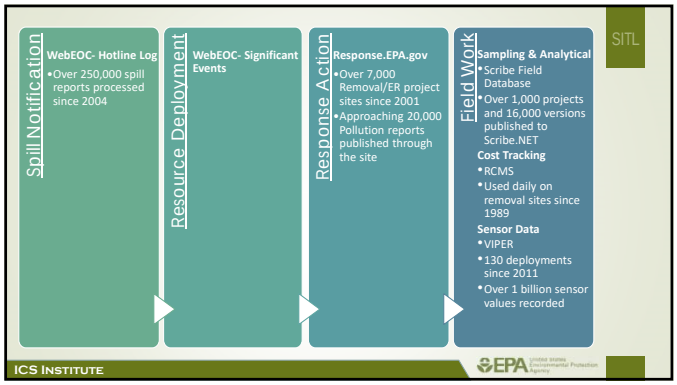

Complex Problems, Complex Solutions, Standard Approach
Data Collection
Standard Tools
Data Analysis

43


Spill Notification
WebEOC- Hotline Log
•Over 250,000 spill reports processed since 2004
Resource Deployment
WebEOC- Significant Events
Response Action
Response.EPA.gov
•Over 7,000 Removal/ER project sites since 2001
•Approaching 20,000 Pollution reports published through the site
Field Work
Sampling & Analytical
•Scribe Field Database
•Over 1,000 projects and 16,000 versions published to Scribe.NET
Cost Tracking
•RCMS
•Used daily on removal sites since 1989
Sensor Data
•VIPER
•130 deployments since 2011
•Over 1 billion sensor values recorded
SITL
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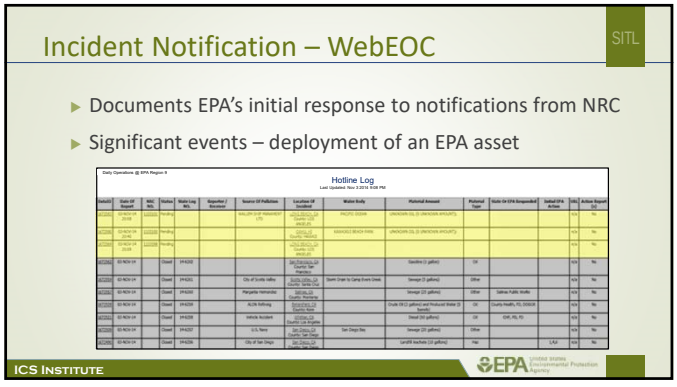
Incident Notification – WebEOC
SITL
Documents EPA's initial response to notifications from NRC
Significant events – deployment of an EPA asset
Hotline Log
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Site Information – Response.EPA.Gov

SITL

- Content management system controlled by OSCs for Removals and ERs
- Hosts SITREPs, Images, Documents
- Access to the site is and content is controlled by the OSCs
- Evolved from a field tool into the data source for the Removal Program on progress metrics

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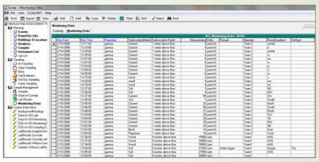
Sampling and Analytical Data – Scribe

SITL

- Field data management workhorse
- Sample documentation
  - Labels
  - Chain of Custodies
- Local database allows complete customization and control by the field project managers
- Program wide implementation



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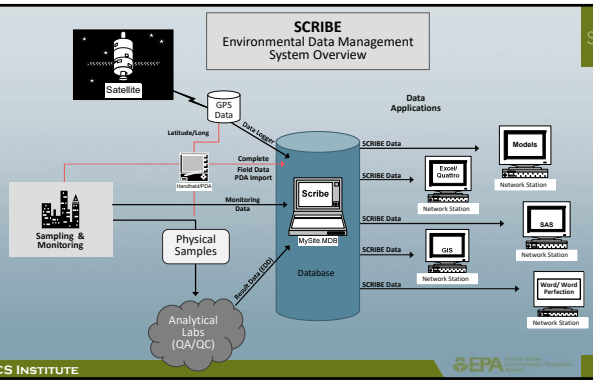
SCRIBE Environmental Data Management System Overview

SITL



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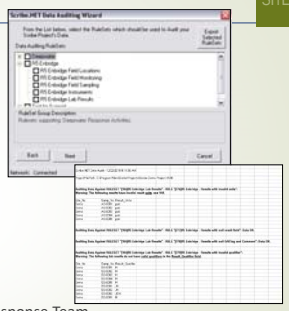
Data Auditor

SITL

- Create custom auditing rules for one or more sites
- Allows you to check your project against defined valid values



Environmental Response Team

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Visualization

SITL

- Turn the results of your query into a quick map with one-click
- Exports a KML file which you can view in Google Earth and ARC GIS
- Set symbology & height based on the values of a field

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Scribe.NET

SITL

- Allows us to move Scribe data while maintaining benefits of local ownership of the site project
- Scales – ownership is compartmentalized
- Delivers data to the enterprise
- Allows for intricate data management workflow without complicating the field project owners job
  - Manage the data in front of you

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Multiple Project Scribe Subscription

SITL

- User enters subscription ID/Password into Scribe
- Must be manually refreshed
- Downloads all the versions for each of the projects and processes them one at a time to "build" the combined projects
- Scribe interface filters based on Site Number
- Conflicts can be created if multiple projects have the same primary key values for records
- Download time dependent on the number of versions and data sets

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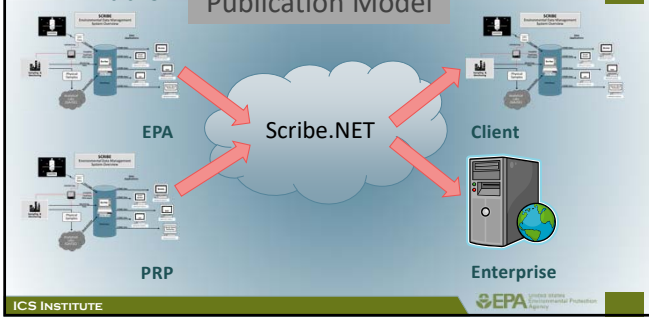
Multiple-Project Publication Model

SITL



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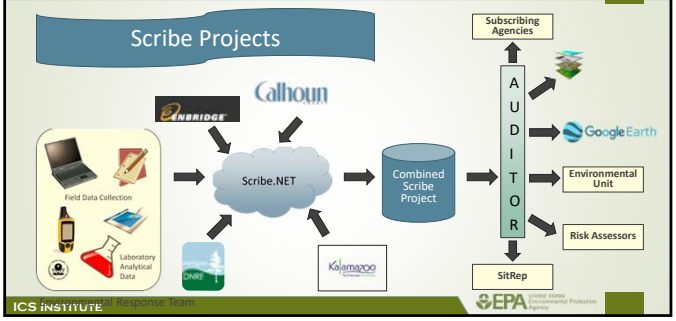
WorkFlow

SITL



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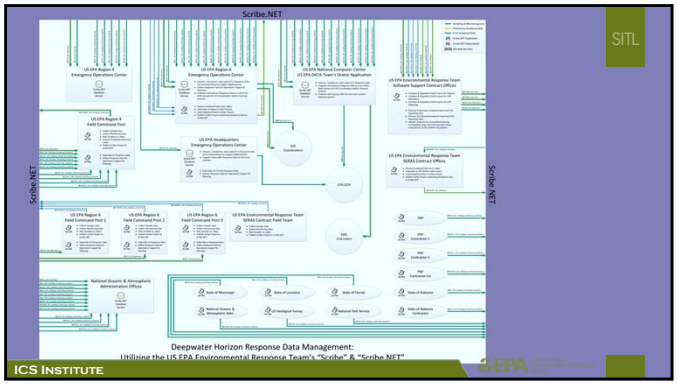

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Sensor Data Issues for Superfund

SITL

- Volume of data
- Real-time doesn't always mean "real-time"
  - Data from PRP-operated sensors is delivered to EPA using the same report-based approach delays delivery
- Raw data doesn't correspond to our evaluation criteria
  - Instantaneous readings versus action levels based on periods of time (AEGL, PELs, etc.)

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Sensor Data Issues for Superfund

SITL

- Time required to acquire, store, transform and re-format for dissemination
  - Increases contractor cost
  - Delay in sharing information with the public can pose challenges to most effective communication

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VIPER

SITL

- System was built to handle the unique volume and real time utilization requirements inherent to sensors
- Based on federal data standards
- Adding new types of sensors requires no core system modifications
- Secure live view of the data via the web
- System monitors the data and determines exceedances, sending out notifications in real-time

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Interaction With Viper

SITL

- Scoping
  - Input on instrument selection related to detection levels
  - TWAs, Alarms, Correction Factors should come from the QAPP
- Analysis
  - Using Deployment Manager to evaluate alarms in real-time.
  - Working with OPS to determine courses of action related to each alarm

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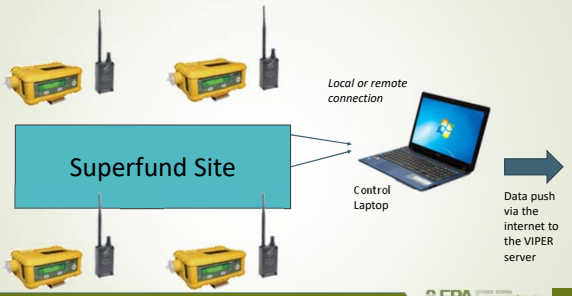
Workflow

SITL



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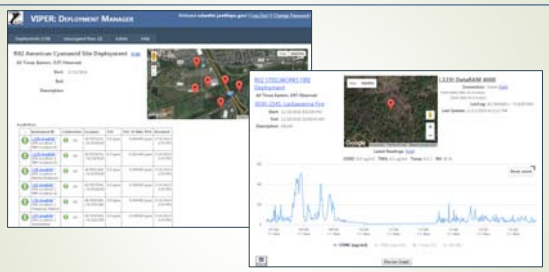
Web view

SITL



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Unified Command – Unified Sensor Data

SITL

- There is the potential for non-EPA sensor data to be brought into Viper
- Allows a single look at all deployed sensors for the response
- USCG Strike Teams, Civil Support Teams, PRP contractors using ProRAE Guardian are easy to bring into Viper
- Groups using custom sensor data acquisition systems can also deliver data to Viper using the generic CAP XML option
- Kilauea Volcano response at one point had 7 different agencies/organizations submitting sensor data to Viper

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Recon Data

SITL

Simple Complex

Geo-tagged Photo

Photos, multiple questions about target, requiring multiple return trips to update status

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Keeping Recon Approach Flexible

SITL

- If using forms, have a system that allows rapid generation and distribution
- Be able to work local or connected depending on resources that are available
- Be willing to scale down if the approach calls for it
- Current popular mobile forms
  - Survery123
  - ESRI Collector

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Bringing It All Together

SITL

- Each system is capable of delivering data both to an end user and other applications
- These live data feeds enable the EPA Region to easily bring that data into a GIS environment in real-time

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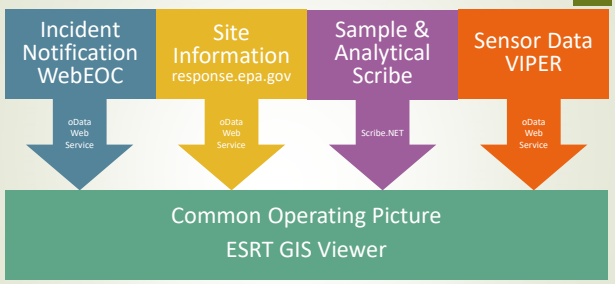
SITL



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Common Operating Picture

SITL

- Information flow is too dynamic to only rely on printed maps
- Need an interactive map that is capable of incorporating multiple data streams with live updates
- Needs to be hosted somewhere where all response partners can view the information
- Process needs to exist to rapidly develop and deploy COPs for incidents
- Each Region is provided hosting space on Amazon as part of the ER Cloud to support their COPs

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Data Management Support Resources

SITL

- ERT Software Support
  - 1-800-999-6990
  - ertsupport@epa.gov

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SITL

Situation Unit Leader

Unit 10 - Geospatial Introduction and the Common Operating Picture

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1

Unit Objectives

SITL

- Understand the challenges and benefits of using GIS during an Emergency Response
- Recognize the importance of spatial precision and the hardware/software
- Understanding the Common Operating Picture (COP)
- Discuss the various geospatial products that support an ER
- Understand the geospatial technologies used by the IMT

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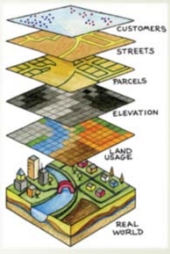
Geographic Information System (GIS)

SITL

GIS is a technological field that incorporates geographical features with tabular data in order to map, analyze, and assess real-world problems. The key word to this technology is Geography – this means that some portion of the data is spatial.



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GIS Visualized

SITL

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4

Objectives for GIS in Emergency Response

SITL

- Provide mapping, database, reporting, and geospatial analysis capabilities
- Provide map output in a variety of formats
- Generate spatial data layers from numerous data feeds
- Make geospatial data available across the entire operating environment
- Provide documented products and data suitable for archiving
- Quickly mobilize to become operational in a wide range of scenarios

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Challenges for GIS in Emergency Response

SITL

- Accessing large datasets
- Providing data access and exchange capabilities in the field
- Providing enough processing and disk space in the field to support GIS
- Assembling monitoring information databases quickly
- Providing field data collection hardware for growing ER
- Providing large-format paper output to field operations
- Staffing a GIS unit for immediate to long-term deployment

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SITL

Software and Techy Stuff

The tools used to create and deploy GIS

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SITL

GIS Software Suite

- **ArcGIS Desktop** is the GIS software predominately used by EPA
  - Primary components:
    - ✓ ArcCatalog
    - ✓ ArcMap
    - ✓ ArcToolbox
    - ✓ ArcGIS Server

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SITL

GIS Software Suite (continued)

- Microsoft SQL Server
- Hosting environment (where applicable)
  - ER Cloud
    - ✓ Virtualized environment with multiple servers configured to work together

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Spatial Metadata

SITL

- Descriptive information about data
  - Who, what, why, when, where, and how of the data
  - Must conform to federal guidelines (e.g. FGDC compliant)
- All data layers should have accompanying metadata

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Spatial Metadata (continued)

SITL

- Important for cataloging and documenting the data
  - Needed to search for, and determine use of data
  - Can be used to fulfill documentation requirements
- EPA Metadata Editor (EME) – primary tool for creating EPA collected and managed data

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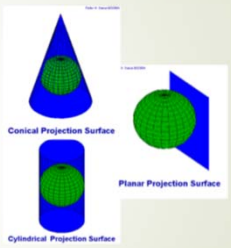
Projections and Coordinate Systems

SITL

- A **projection** is a method by which the curved surface of the earth is portrayed on a flat surface. This generally requires a systematic mathematical transformation of the earth's graticule of lines of longitude and latitude onto a plane.



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Precision

SITL

- Lat / Long coordinates are the preferred method of recording location information
- Latitude and longitude coordinates can be displayed in many different formats, the most common are
  - Degrees Minutes Seconds
    - ✓example: 33° 58’ 03” N, 98° 03’ 52” W
  - Decimal Minutes
    - ✓example: 33° 58.05’ N, 98° 03.87’ W
  - Decimal Degrees (Preferred Method)
    - ✓example: 33.975361, -98.064712

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Lat / Long Quiz

SITL

- Latitude 29.957976 – Longitude -89.969891
- Q1: Where in the U.S. is this sample located?
- Q2: How are the coordinates being displayed?
- Q3: Do they need to record that many digits for their coordinates?

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SITL

Common Operating Picture

Developing and maintaining the COP in Emergency Response

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The Common Operational Picture

SITL

- **CENTRALIZES** all the **COMPLEXITY** of an Emergency Response
- Allows for a **SIMPLE IMPLEMENTATION** process
- Agency wide **STANDARDIZATION**
- **SCALEABLE**

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The Common Operational Picture

SITL

- **A CONSISTENT POWERFUL** tool to be put in the hands of our responders across regions and HQ for increased **SITUATIONAL AWARENESS**
- A **CONSISTENT COMMUNICATION** information tool for all levels of involved agencies – from field data users to Regional users to HQ Decision Makers

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Common Operating Picture

SITL

- Information flow is too dynamic to only rely on printed maps
- Need an interactive map that is capable of incorporating multiple data streams with live updates
- Needs to be hosted somewhere were all response partners can view the information
- Process needs to exist to rapidly develop and deploy COPs for incidents
- Each Region is provided hosting space on Amazon as part of the ER Cloud to support their COPs

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Role of the COP

SITL

- Provide clear and concise response intelligence
- Mash up various data types into a common platform
- Provide real / near-time situational awareness
- Provide both a geospatial and tabular view of ER information
- Provide interaction with data (including viewing, editing, reporting, etc.)

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Audience

SITL

- Operations
- Incident Management Team (IMT)
- EPA Senior Management
- State and local responding parties
- Public

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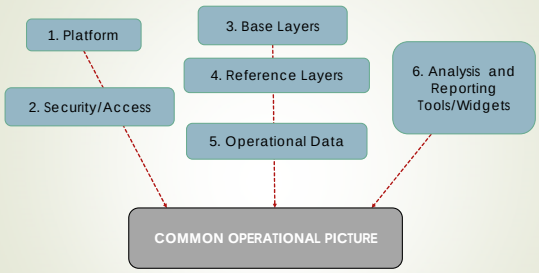
Components

SITL



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Data Components – Base Layers

SITL

- **Data Files**
  - Imagery, Topo Maps, CAD Drawings
- **The Internet of things – Base Layer Web Services**
  - Imagery, TOPO, Streets, Grey Maps
  - Desktop, Web Viewers, Mobile Apps
  - Cached and Readily Available
  - Download for Tiled disconnected use

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Data Components – Reference Data

SITL

- Homeland Security Data Layers
- Regional Reference Layers
- EPA Grid
- EPA Facilities
- Census Data
- Shared Services from Other Agencies
  - NOAA, FEMA, USGS, States, Counties

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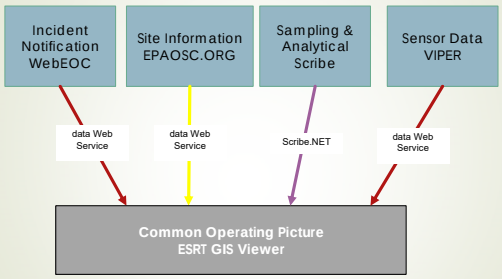
Data Components – Data Sources

SITL



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Data Components – Operational Data

SITL

- Static and Dynamic Data
- Assessment Data and Reports
- Air Monitoring Data and Reports
- Sample Data and Reports
- Post Incident Imagery
- Media – Photos/Videos

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Data Components – Sharing Data

SITL

- **Sharing these with other Agencies**
  - …in a RESTful Way
    - ✓ArcGIS Services
  - Web Reporting Services
    - ✓SQL and Telerick Reporting

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GIS Data Collection

SITL

- Local GIS data management
- Mobile apps such as..
  - Collector for ArcGIS
  - Survey123 for ArcGIS
  - Workforce for ArcGIS
  - iFormBuilder
  - Filemaker
- Old fashioned pen and paper

Options always changing, focus on the process not the tool

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Interactive GIS Products

SITL

- Tailor how you are delivering the spatial data to the way your audience needs to consume it
  - Web-based mapping apps
    - ✓Interactive maps with loads of functionality
    - ✓Dashboards with heavy reporting components
    - ✓Story Maps with narrative
  - Mobile GIS

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Interactive GIS Products (continued)

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- Understand and make known the expectations of your mapping products
  - Content and frequency of updates
  - Type of data and distribution limitations (e.g. security or accessibility)

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Geospatial Products

Mapping products that support the COP / IMT

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Types of Mapping Products

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- Standard hardcopy maps
  - Tried and True method that will never go away (but we can hope…)
- Mobile mapping products
  - Map products used by field personnel on mobile devices (e.g. iOS and Android devices)
- Web-based mapping products
  - Dynamic map product conveying a large amount of information

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Physical Maps & Map Books

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- Rare bird, soon to be extinct
- Situations may arise when you need to produce them
- Ensure you have the resources (plotters, paper, etc.)

STATIC!!!

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Maps – What to Look For

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- Does it meet map standards set for the ER?
- Is it easily understandable?
- Does it meet the intended purpose (will the requestor be able to use it)?
- Is it needed?
- Can it be used without additional information?
- Is the information contained within current?

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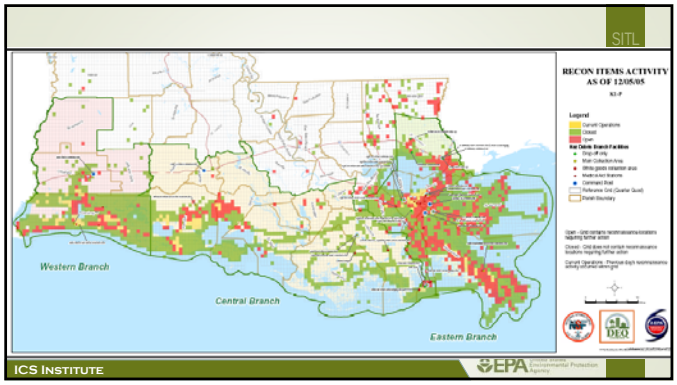

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Mobile Mapping / Data Collection

SITL

- Mobile mapping products
  - Collector for ArcGIS
  - Survey123 for ArcGIS
  - Workforce for ArcGIS
- Versatile and functional
  - Delivers real-time situational awareness to and from the field
  - Provides data collection capability
- Web maps viewed on an mobile device

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Collector for ArcGIS

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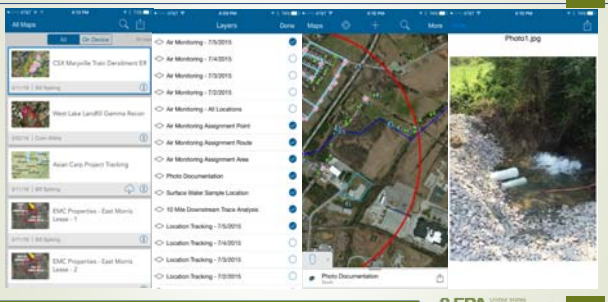

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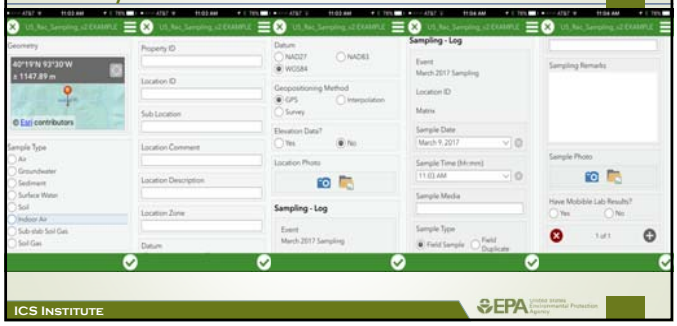
Survey123 for ArcGIS

SITL



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Web-Based / GIS Viewers

SITL

- EPA GIS community has an approach for how data should be made available and consumed using current technologies
- Don't spend your resources trail blazing, spend it optimizing and enhancing
  - Staff GIS section/unit with knowledgeable GIS'ers
  - Understand response needs and apply the appropriate tools

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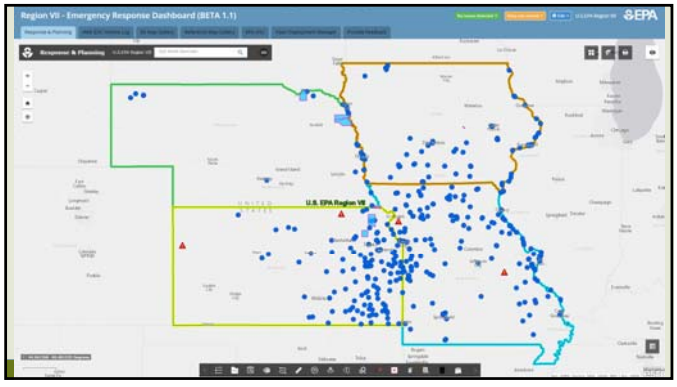

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Usability Tools and Widgets

SITL

- Print
- Location Search
- Save/Share Current Map
- Sensitive Species Search
- Layer Swipe
- Trace Downstream
- Heat Map
- Weather
- Identify
- Measurement
- Google Street View
- Go to Coordinate
- Bookmark
- Data Queries Search

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Reporting / Analysis Tools and Widgets

SITL

- **SCRIBE Reporting Tools**
  - Web Reports - Pop-Up - Hyperlinks
  - Widgets - SCRIBE Analytical Tool and SADIE
- **Viper Reporting Tools**
  - Web Reports - Pop-Up Hyperlinks
- **Operational Data Reporting Tools**
  - Widgets
  - Web Reports

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Security & Hosting

SITL

- GeoPlatform
  - EPA Network login
  - Public Viewers
- ER Cloud
  - Response.epa.gov embedding

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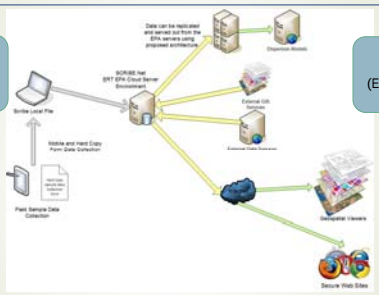
Architecture to Support the COP

SITL

ER Cloud Architecture



ArcGIS Online (EPA Geoplatform)

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ER Cloud

SITL

- Regional resource currently funded by OEM
- Regional IT Forum rep is best initial point of contact
- Cloud server space – currently Amazon
  - GIS server
  - Database server
  - Operational data goes here!!

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GeoPlatform

SITL

- EPA tools for making and sharing maps
- epa.maps.arcgis.com
- Requires account login – EPA LAN accounts used
- Need to request access for non-EPA users
- Security plan does not currently cover non-public (operational) data
- Can still use tools for operational viewers, just need to store data in ER cloud

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Resources Required

SITL

- **Architecture**
  - Data Flow Process
  - Required Databases
    - ✓SQL and Spatially Enabled Tables
    - ✓GIS Feature Databases/Shapefiles
- **Personnel**
- **AGOL Account/Approvals**
  - Credits
- **Technical Exports**
- **Maintenance Plans**

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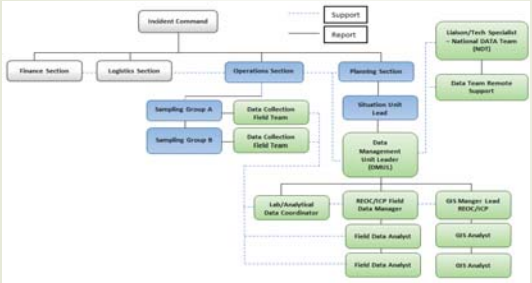
Resources to Support the COP

SITL



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Documentation…part of the DMP

SITL

- **Architecture**
  - Where does each piece live
  - Data Flow Process
  - Software/Hardware
- **Data**
  - Sources
  - Warehouses
  - Update Processes
- **Access**
  - Security/ Who has Access

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Decisions, Decisions, Decisions….

SITL

- **Purpose**
- **Audience**
- **Security**
  - Public vs Shared
  - User group Management
- **Operational Requirements**
  - DQO Data Requirements
- **Reporting Requirements**
  - Operational Periods

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Story Map

SITL

- GIS Viewer as the backbone
- Functionality to enable a curated navigation of that data
- Enhanced ability to add context, narrative
- Controlled view of what layers, extent are visible at any given point
- Allow for automation of content updates
- Clear delineations of who is responsible for which sections of content
- Really, really, good looking presentation

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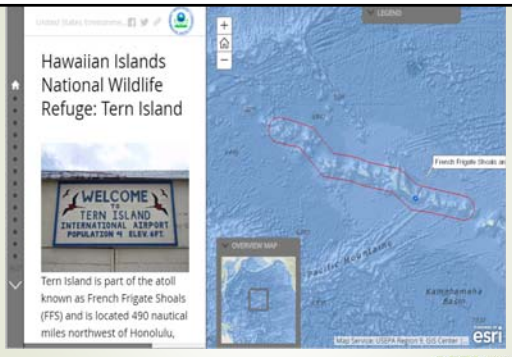

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Hawaiian Islands National Wildlife Refuge: Tern Island
Physical Environment
SITL
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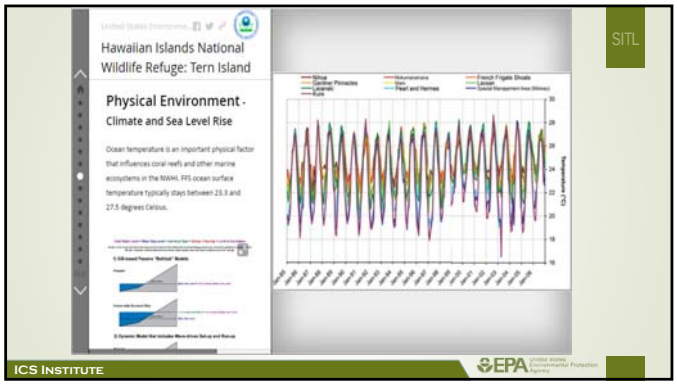
Hawaiian Islands National Wildlife Refuge: Tern Island
Physical Environment -
Climate and Sea Level Rise
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Hawaiian Islands National Wildlife Refuge: Tern Island
Biological Environment
- Birds
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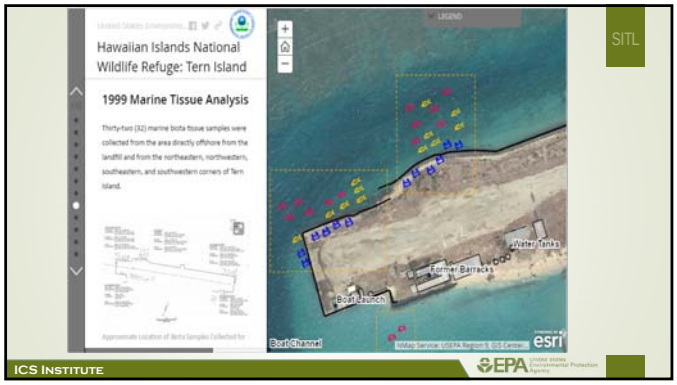

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Activity #3

SITL

- Explore the tools we talked about in Data and Geospatial sessions
  - Apps
  - SCRIBE
  - Response.epa.gov
  - GeoPlatform
  - Viewers
  - Story Map

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Case Study: Valley Fire Response

1

Incident Description

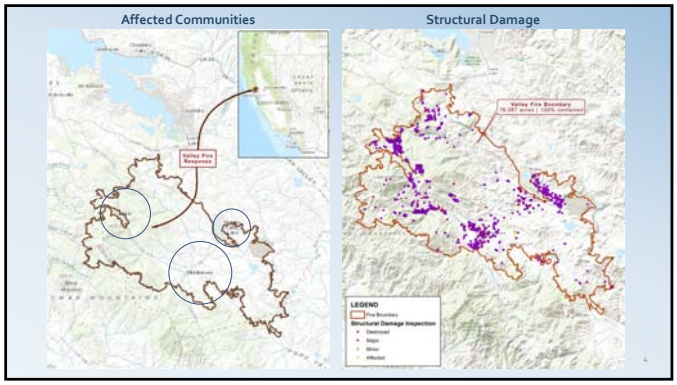
- The Valley Fire started at 13:24 on September 12, 2015, and primarily impacted the communities of **Middletown**, **Hidden Valley Lake**, and **Cobb** in Lake County, California. In addition, portions of northern Napa and eastern Sonoma Counties were impacted by the fire.
- The fire affected a total of *76,067 acres*, destroying *1,958 structures* including:
  - 1,280 residences
  - 27 multi-family structures
  - 66 commercial structures
  - 585 minor structures (e.g., out buildings or sheds)

2

Affected Communities

- **Middletown** (*148 square miles*)
  - Includes Middletown, Anderson Springs, Harbin Springs, Guenoc Valley, and Coyote Valley
  - Residential, Commercial, and Agricultural Land Use
- **Hidden Valley Lake** (*10 square miles*)
  - Residential Land Use
- **Cobb** (*73.5 square miles*)
  - Includes Cobb, Loch Lomond and Whispering Pines
  - Residential, Commercial, and Agricultural Land Use

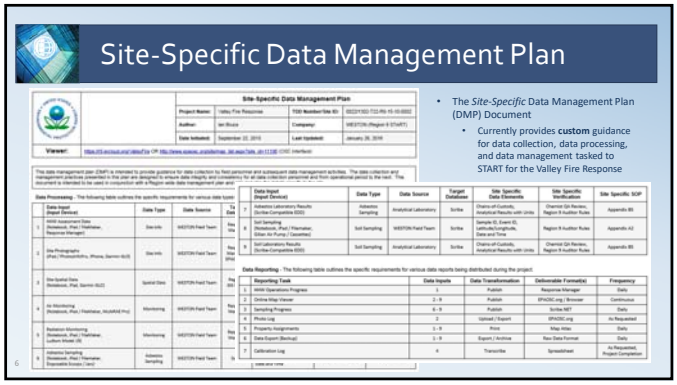
3


Affected Communities
Structural Damage
Valley Fire Response
Valley Fire Boundary
LEGEND
Fire Boundary
Structural Damage Inspection
Destroyed
Major
Minor
Affected
4

4


Structural and Property Damage
5

5


Site-Specific Data Management Plan
Site-Specific Data Management Plan
Viewer:
• The Site-Specific Data Management Plan (DMP) Document
• Currently provides custom guidance for data collection, data processing, and data management tasked to START for the Valley Fire Response
6

6

Household Hazardous Waste

Hazardous?

- Flammable / Combustible
- Explosive / Reactive
- Corrosive
- Toxic

Typically..

- Propane Cylinders
- Automotive Products
- Home Improvement Products
- Pesticides / Herbicides
- Cleaning Products
- Paint-Related Materials

7

7

High-Hazard Items

High-Hazard?

- Require experienced, trained personnel for identification and handling
- Require specialized equipment for removal and transport

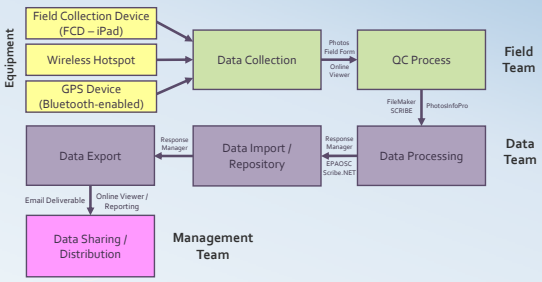
Typically..

- Fuel-Containing ASTs
- Intact Thick-Walled Cylinders
- Bulging Drums
- Ammunition
- Dangerous Trees

8

8

Data Management Workflow



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Data Collection

Household Hazardous Waste (HHW) Assessment Form

- **Custom FileMaker Application**
  - APN-based (unique)
  - Structural Damage Status
  - HHW Items
  - High-Hazard (HH) Items
    - Dangerous Trees
    - Fuel Tanks
    - Compressed Gas Cylinders
    - Ammunition
  - Access Information

10

Data Collection

Online Viewer

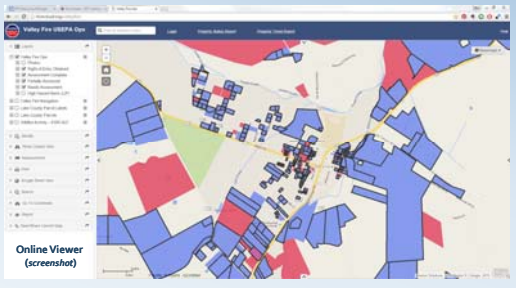
- **Field Navigation**
  - Rights-of-Entry (ROEs)
  - APN and Street Names
  - Satellite Imagery
- **Field Data Capture**
  - Real-time HHW Assessment Status
    - Complete
    - Partial
    - Incomplete
  - Geotagged Photos

11

Online Viewer - Overview

Field Edits
- Login / Credentials

Geospatial Layers
- Fire Boundary
- Assessment Status
- Rights-of-Entry (ROEs)
- Structural Damage Assessment (Cal Fire)
- Parcels (w/ APNs)
- Map Atlas Index
- Damage Inspection Zones (Cal Fire)
- Roads (labeled)
- City / County Boundary
- Communities
- Creeks / Lakes
- Public Parks
- Schools (w/ 100-ft buffer)
- Critical Facilities



12

Online Viewer - Photos

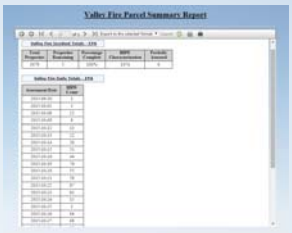
Field Photos Collection
- Captured with Field Collection Devices (iPad)
- Processed using **PhotosInfoPro** App
- Managed via *EPAOSC.org*

Field Photos Display
- Pop-up Window
  - Date Captured
  - Description (APN)
  - Latitude / Longitude

13

13

Data Reporting



14

14

Challenges

There were *four primary challenges* encountered..
- Navigation
- Coordination
- Systems
- Efficiency

15

15

Navigational Challenges

- **Identifying Property Addresses**
  - High-intensity, fast-moving fire destroyed road signs, landmarks, mailboxes, curb markings, and structures themselves
- **Cellular Coverage**
  - Cellular coverage and internet access deteriorated in remote areas
  - Online Viewer relied upon stable internet connectivity
- **Rights-of-Entry (ROE)**
  - ROE forms grant access to properties
  - Transcription, transposition, and duplication errors
  - No data validation or input masks were imposed
  - Property owners rescinded ROEs

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Approach to Navigational Challenges

- **iPad / Viewer with GPS and Wireless Hotspot**
  - Indicator revealed position / location
  - Base layers with labeled parcels and street names
  - Colored assessment status designations for targeted properties
- **Map Atlas**
  - Navigation backup
- **Field Markings (Spray Paint)**
  - Navigation guidance
  - Designate properties as surveyed
  - Identify hazardous items
- **Mobile Phone**

17

17

Coordination Challenges

- **Deployment Areas**
  - Initial deployment based upon density of incomplete targeted parcels
  - Deployment became dependent upon the progress of other agencies
- **Assessment Procedures (Scenarios)**
  - Criteria for determination of HHW and HH items was frequently revised
- **Overlapping Efforts**
  - Multiple field teams and agencies deployed to different communities
  - Encountered properties that had already been remediated
- **Revisiting Properties**
  - Survey and Assessment Teams worked in parallel, though independently
  - Property categorized as *Partial* until both had been completed
- **Agencies / Remediation Activities**
  - Completion of work frequently relied on the activities of another contractor / agency

18

18

Approach to Coordination Challenges

- **Neighborhood Grouping**
  - Deployment based upon neighborhoods / communities
- **Morning / Evening Field Meetings**
- **Daily Meeting (between other ICPs)**
- **Viewer Tracking**
  - Online Viewer allowed Incident personnel to share their progress internally and externally with other agencies
  - Credentials were provided to field and data management personnel, limiting the ability to edit underlying spatial data to those with appropriate authorization
- **Email Communications**
  - Steady information flow was established among Incident personnel, REOC and stakeholders.
    - Email summarizing HHW survey and assessment progress (tabular format)
    - Email with information about HH items and HH trees (tabular format)

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Systems Challenges

- **Property Tracking Method**
  - Used *multiple*, coordinated systems
    - Response Manager
    - Online Viewer
    - Map Atlas
    - Logbooks / Tabular Formats
- **Custom FileMaker Application**
  - Multiple revisions in response to evolving Data Quality Objectives (DQOs)
  - Each revision required quality control, testing, and re-installation on each FCD
- **Photos**
  - Quantity of photographs exceeded the EPAOSC capacity
  - FileMaker was revised to incorporate photo capture creating confusion

20

20

Approach to Systems Challenges

- **Refine Procedure with Experienced Personnel**
  - The command and general staff took an active role in the early data management and development stages of the Valley Fire Response
- **Finalizing DQOs**
  - DQOs changed considerably during the project life cycle
  - Once these DQOs were clearly outlined and documented, software and database development stabilized
- **Protocol Finalized / Field Meetings**
  - Protocols for field operations were finalized and transmitted to field teams during the operations briefing
  - Criteria for decision making were clearly defined for different scenarios encountered by field personnel

21

21

Efficiency Challenges

- **Data Processing**
  - Multi-step process requiring equipment and software expertise
  - Credentials and training required
  - Occurred daily *following* field activities
- **Database Queries**
  - Established database queries required updating and revision (DQOs)
  - Query Tool within Response Manager software required working knowledge of SQL queries
- **Reporting Deliverable**
  - Manual process delivered via Email
  - Required final QC
  - Required formatting

22

22

Approach to Efficiency Challenges

- **Data Manager Gatekeeper**
  - DMU governed the flow of data from field to management personnel
  - Primary contact for all inquiries about data collection and processing
- **Assigned QC and Reporting Role**
- **Coordination with Developers**
  - Brief daily conference calls were conducted to communicate progress and to notify developers of existing bugs and changing requirements

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SITL

Situation Unit Leader

Unit 12 – Meetings and Agendas

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SITL

Objectives

- Discuss the meetings in the Planning "P"
- Determine what input a SITL has in these meetings
- Familiarize self with Meeting Agendas

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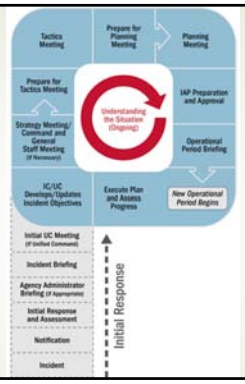

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The Planning "P"

SITL

- Sets the Agenda for the Operational Period
- Goal to Develop Incident Action Plan
- Based on Operations not on Planning

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Meetings During Planning Cycle

SITL

- Objectives Meeting
- Command and General Staff
- Tactics
- Planning
- Operations Briefing

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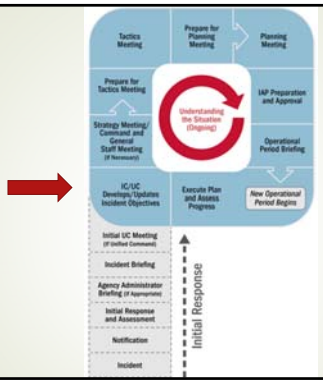

6

IC/UC Objectives Meeting

SITL

- Purpose - Identify/Review/Prioritize Incident Objectives
- Facilitator – Planning Section Chief
- Attendees – Incident Commander/Unified Command, PSC, Note Taker
- Agenda

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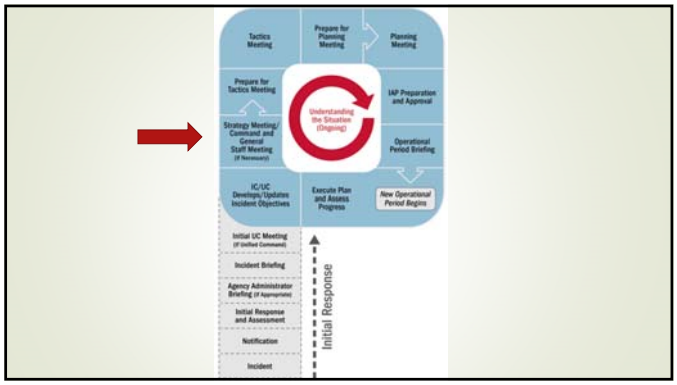

8

Command and General Staff Meeting

SITL

- Purpose - Command Direction/Action Items/Assignment of Tasks
- Facilitator – Planning Section Chief
- Attendees – IC/UC, Command anD General Staff, SITL
- Agenda

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Command & General Staff Meeting Agenda

SITL

Ground Rules (Cell/1 speaker/30 min)	PSC
207 (Roll Call)	PSC
Opening Comments	IC
Objectives/Key Decisions	IC/PSC
Situation Update	SITL
Action Items	PSC/Staff
Information Issues	IO
Liaison Issues	LNO
Safety Issues	SO
Finance Issues	FSC
Logistics Issues	LSC
Planning Section Issues	PSC
Operations Section Issues	OPS
IC/Closing Comments	IC
Meeting Schedule	PSC

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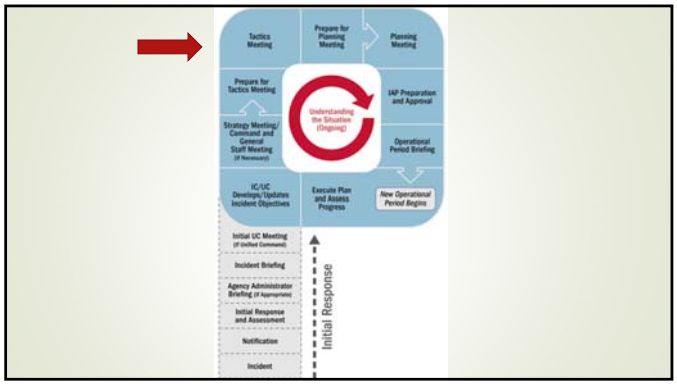

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Tactics Meeting

SITL

- Purpose – Create blueprint for Tactical Deployment in Next Operational Period
- Facilitator – Planning Section Chief (or Operations Section Chief)
- Attendees – OPS, PSC, SO, LSC, RESL, SITL
- Agenda

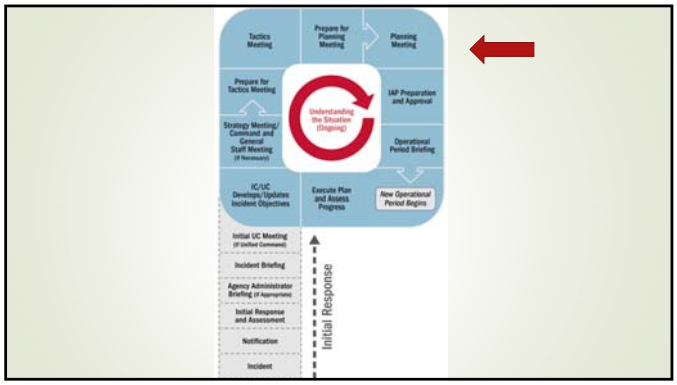
12

Tactics Meeting Agenda

SITL

Intro/OPs Period/cell phones	PSC
Org Chart	PSC
Incident Objectives	PSC
Situation/ Update	SITL
Weather for next Ops Period	SITL
OPs Plan (215)	OPS
Update Ops 207	OPS
Practice Briefing for Planning Mtg	SITL/OPS

13



14

Planning Meeting

SITL

- Purpose – Defines Incident Objectives, strategies and Tactics; Identifies Resource Needs for the Next Operational Period
- Facilitator – Planning Section Chief
- Attendees – UC/IC, Command and General Staff, RESL, SITL
- Agenda

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Planning Meeting Agenda

SITL

Intro/OPs Period/Ground Rules/cell phones	PSC
Opening Comments	IC
Org Chart	PSC
Incident Objectives	SITL
Situation/Update	SITL
Weather	SITL
OPs Plan	OPS
Safety	SO
Team Consensus (FSC/LSC/SO/LNO/IO/UC)	Staff
Schedule Highlights	PSC
Closing Remarks	UC

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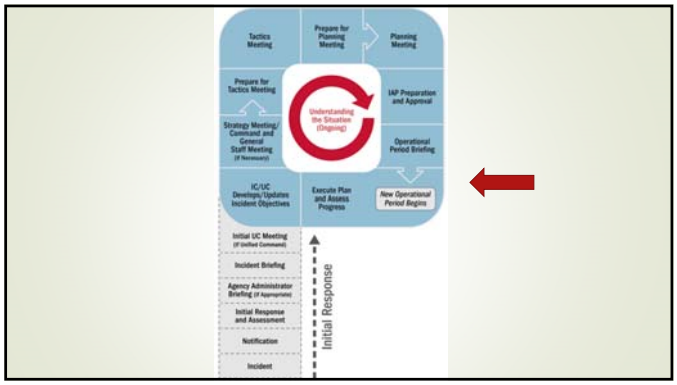


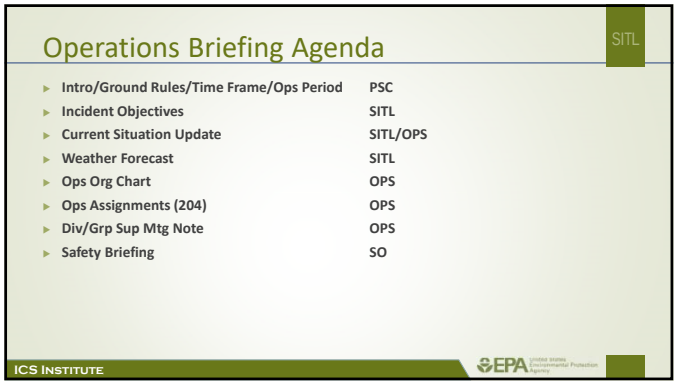
17

Operations Briefing

SITL

- Purpose – Presents IAP to Operations
- Facilitator – Usually Branch Director
- Attendees – OPS, Safety, SITL
- Agenda

18


Operations Briefing Agenda
SITL
Intro/Ground Rules/Time Frame/Ops Period PSC
Incident Objectives SITL
Current Situation Update SITL/OPS
Weather Forecast SITL
Ops Org Chart OPS
Ops Assignments (204) OPS
Div/Grp Sup Mtg Note OPS
Safety Briefing SO
ICS INSTITUTE
EPA

19

Command & General Staff Meeting

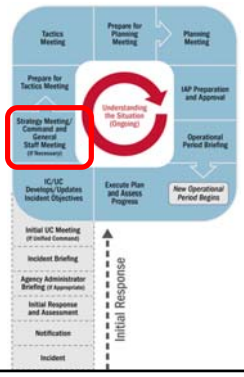
Purpose: Initial IMT meeting.

Attends: C&G Staff

Review Key Decisions by UC

Review Objectives

Review Action Item List



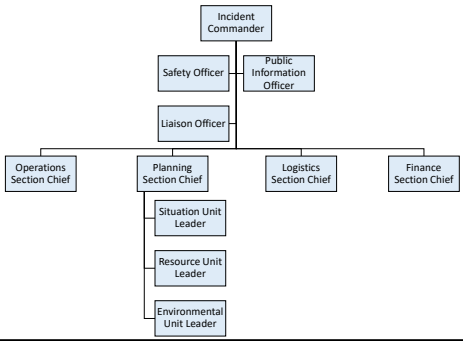
1

Command & General Staff Meeting Agenda

• Ground Rules (Cell/1 speaker/30 min)	PSC
• 207 (Roll Call)	PSC
• Opening Comments	IC
• Objectives/Key Decisions	IC/PSC
• Situation Update	SITL
• Action Items	PSC/Staff
• Information Issues	IO
• Liaison Issues	LNO
• Safety Issues	SO
• Finance Issues	FSC
• Logistics Issues	LSC
• Planning Section Issues	PSC
• Operations Section Issues	OPS
• IC/Closing Comments	IC
• Meeting Schedule	PSC

2

Incident Command Organizational Chart



3

Command & General Staff Meeting Agenda

• Ground Rules (Cell/1 speaker/30 min)	PSC
• 207 (Roll Call)	PSC
• Opening Comments	IC
• Objectives/Key Decisions	IC/PSC
• Situation Update	SITL
• Action Items	PSC/Staff
• Information Issues	IO
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• Finance Issues	FSC
• Logistics Issues	LSC
• Planning Section Issues	PSC
• Operations Section Issues	OPS
• IC/Closing Comments	IC
• Meeting Schedule	PSC

4

Key Decisions & Objectives

- Ensure safety of all response personnel as well as the affected community
- Identify and stabilize all orphan containers
- Make all necessary notifications
- Contain oil spill and initiate recovery
- Establish information flow internally, as well as to the public

5

Command & General Staff Meeting Agenda

• Ground Rules (Cell/1 speaker/30 min)	PSC
• 207 (Roll Call)	PSC
• Opening Comments	IC
• Objectives/Key Decisions	IC/PSC
• Situation Update	SITL/OPS
◦ Situation Update/Weather (SITL)	
◦ Update on Current Operations (OPS)	
• Action Items	PSC/Staff
• Information Issues	IO
• Liaison Issues	LNO
• Safety Issues	SO
• Finance Issues	FSC
• Logistics Issues	LSC
• Planning Section Issues	PSC
• Operations Section Issues	OPS
• IC/Closing Comments	IC
• Meeting Schedule	PSC

6

7:00 am	Mostly Cloudy	47 °F	47 °F	21%	0 in	69%	46 °F	96%	2 mph WSW	30.10 in
8:00 am	Mostly Cloudy	47 °F	47 °F	22%	0 in	65%	46 °F	96%	2 mph W	30.11 in
9:00 am	Mostly Cloudy	48 °F	48 °F	18%	0 in	69%	47 °F	94%	1 mph SW	30.11 in
10:00 am	Mostly Cloudy	50 °F	50 °F	18%	0 in	67%	47 °F	88%	2 mph WSW	30.09 in
11:00 am	Partly Cloudy	54 °F	54 °F	18%	0 in	56%	47 °F	77%	2 mph WSW	30.08 in
12:00 pm	Partly Cloudy	56 °F	56 °F	22%	0 in	55%	46 °F	68%	3 mph WNW	30.06 in
1:00 pm	Mostly Cloudy	59 °F	58 °F	15%	0 in	66%	45 °F	61%	6 mph W	30.03 in
2:00 pm	Mostly Cloudy	61 °F	60 °F	15%	0 in	69%	44 °F	54%	7 mph WNW	30.02 in
3:00 pm	Mostly Cloudy	62 °F	61 °F	15%	0 in	74%	44 °F	51%	8 mph WNW	30.00 in
4:00 pm	Mostly Cloudy	63 °F	63 °F	15%	0 in	74%	42 °F	46%	9 mph WNW	29.98 in
5:00 pm	Mostly Cloudy	64 °F	63 °F	3%	0 in	68%	43 °F	46%	10 mph WNW	29.97 in
6:00 pm	Mostly Cloudy	63 °F	63 °F	0%	0 in	72%	43 °F	47%	9 mph WNW	29.97 in
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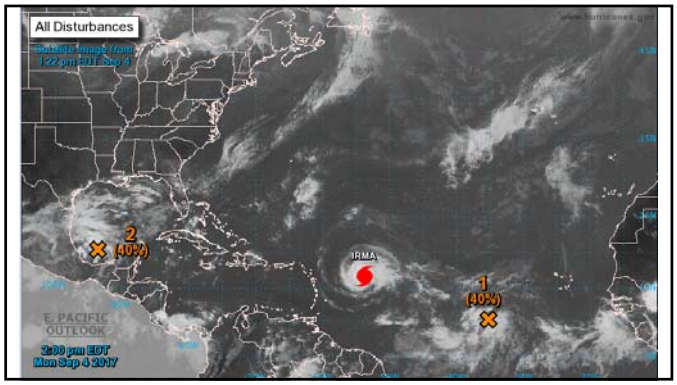
7



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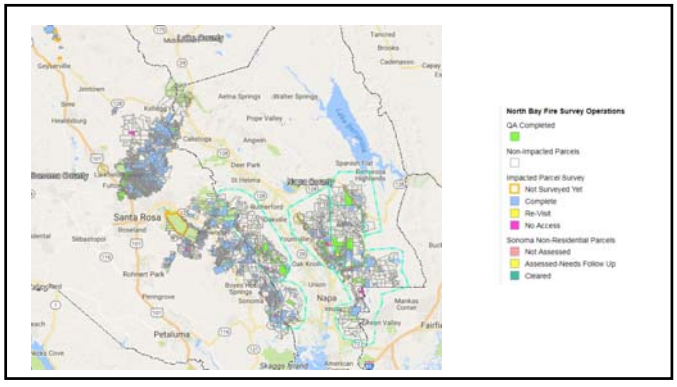

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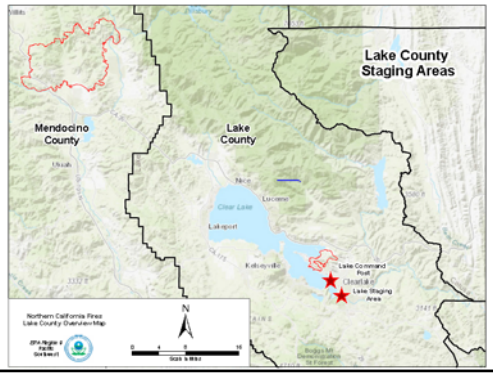


10

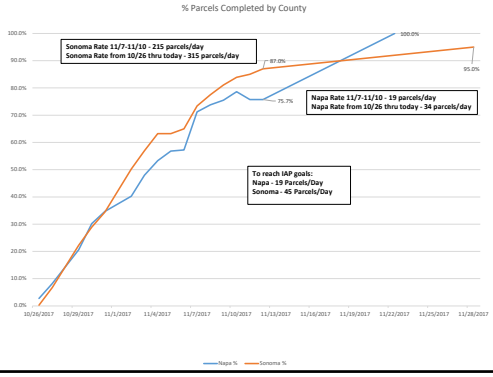
Table 1: Daily Summary of Vessels

	Target Opened	ESF-10 Target Removed from Water and Placed On Barge	ESF-10 Target in Transit	Closed ESF-10 Removal	Closed Non-ESF-10 Removal
Alpha	0	4	17	0	1
Bravo	0	0	0	0	0
Charlie	0	0	0	0	0
Totals	0	4	17	0	1

Table 1: Cumulative Summary of Vessels

	Total Targets	Open	Closed ESF-10 Removal	Closed Non-ESF-10 Removal
Alpha	507	42	73	392
Bravo	104	1	38	65
Charlie	68	0	14	54
Totals	679	43	125	511

11



12

13

Command & General Staff Meeting Agenda

• Ground Rules (Cell/1 speaker/30 min)	PSC
• 207 (Roll Call)	PSC
• Opening Comments	IC
• Objectives/Key Decisions	IC/PSC
• Situation Update	SITL
• Action Items	PSC/Staff
• Information Issues	IO
• Liaison Issues	LNO
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• Logistics Issues	LSC
• Planning Section Issues	PSC
• Operations Section Issues	OPS
• IC/Closing Comments	IC
• Meeting Schedule	PSC

14

Action Item List

No.	Topic	Status	Responsible Party	Date Assigned	Date Due	Date Completed
1						
2						
3						
4						
5						
6						
7						
	LONGER TERM ITEMS					
8						
9						
10						
11						
12						

Active Items | Completed Items

15

Command & General Staff Meeting Agenda

• Ground Rules (Cell/1 speaker/30 min)	PSC
• 207 (Roll Call)	PSC
• Opening Comments	IC
• Objectives/Key Decisions	IC/PSC
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• Operations Section Issues	OPS
• IC/Closing Comments	IC
• Meeting Schedule	PSC

16

Command & General Staff Meeting Agenda

• Ground Rules (Cell/1 speaker/30 min)	PSC
• 207 (Roll Call)	PSC
• Opening Comments	IC
• Objectives/Key Decisions	IC/PSC
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• Information Issues	IO
• Liaison Issues	LNO
• Safety Issues	SO
• Finance Issues	FSC
• Logistics Issues	LSC
• Planning Section Issues	PSC
• Operations Section Issues	OPS
• IC/Closing Comments	IC
• Meeting Schedule	PSC

17

Command & General Staff Meeting Agenda

• Ground Rules (Cell/1 speaker/30 min)	PSC
• 207 (Roll Call)	PSC
• Opening Comments	IC
• Objectives/Key Decisions	IC/PSC
• Situation Update	SITL
• Action Items	PSC/Staff
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• Safety Issues	SO
• Finance Issues	FSC
• Logistics Issues	LSC
• Planning Section Issues	PSC
• Operations Section Issues	OPS
• IC/Closing Comments	IC
• Meeting Schedule	PSC

18

Command & General Staff Meeting Agenda

• Ground Rules (Cell/1 speaker/30 min)	PSC
• 207 (Roll Call)	PSC
• Opening Comments	IC
• Objectives/Key Decisions	IC/PSC
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• Information Issues	IO
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• Safety Issues	SO
• Finance Issues	FSC
• Logistics Issues	LSC
• Planning Section Issues	PSC
• Operations Section Issues	OPS
• IC/Closing Comments	IC
• Meeting Schedule	PSC

19

Command & General Staff Meeting Agenda

• Ground Rules (Cell/1 speaker/30 min)	PSC
• 207 (Roll Call)	PSC
• Opening Comments	IC
• Objectives/Key Decisions	IC/PSC
• Situation Update	SITL
• Action Items	PSC/Staff
• Information Issues	IO
• Liaison Issues	LNO
• Safety Issues	SO
• Finance Issues	FSC
• Logistics Issues	LSC
• Planning Section Issues	PSC
• Operations Section Issues	OPS
• IC/Closing Comments	IC
• Meeting Schedule	PSC

20

Command & General Staff Meeting Agenda

• Ground Rules (Cell/1 speaker/30 min)	PSC
• 207 (Roll Call)	PSC
• Opening Comments	IC
• Objectives/Key Decisions	IC/PSC
• Situation Update	SITL
• Action Items	PSC/Staff
• Information Issues	IO
• Liaison Issues	LNO
• Safety Issues	SO
• Finance Issues	FSC
• Logistics Issues	LSC
• Planning Section Issues (SITL/RESL/ENVL)	PSC
• Operations Section Issues	OPS
• IC/Closing Comments	IC
• Meeting Schedule	PSC

21

IAP Components

Provide IAP Components to RESL by 1700

• Incident Objectives (ICS 202 Form)	RESL/PSC
• Org Chart (ICS 207)	RESL
• Assignment List (ICS 204)	OPS/RESL
• Communications Plan (ICS 205)	Logistics
• Contact List (ICS 205a)	RESL
• Medical Plan (ICS 206)	Safety
• Weather	SITL
• Incident Map with Resource Table	SITL/RESL
• Safety Message	Safety

Situation Report

Provide Sit Rep Components to SITL by 1700

22

Command & General Staff Meeting Agenda

• **Ground Rules (Cell/1 speaker/30 min)**	**PSC**
• **207 (Roll Call)**	**PSC**
• **Opening Comments**	**IC**
• **Objectives/Key Decisions**	**IC/PSC**
• **Situation Update**	**SITL**
• **Action Items**	**PSC/Staff**
• **Information Issues**	**IO**
• **Liaison Issues**	**LNO**
• **Safety Issues**	**SO**
• **Finance Issues**	**FSC**
• **Logistics Issues**	**LSC**
• **Planning Section Issues**	**PSC**
• **Operations Section Issues**	**OPS**
• **IC/Closing Comments**	**IC**
• **Meeting Schedule**	**PSC**

23

Command & General Staff Meeting Agenda

• **Ground Rules (Cell/1 speaker/30 min)**	**PSC**
• **207 (Roll Call)**	**PSC**
• **Opening Comments**	**IC**
• **Objectives/Key Decisions**	**IC/PSC**
• **Situation Update**	**SITL**
• **Action Items**	**PSC/Staff**
• **Information Issues**	**IO**
• **Liaison Issues**	**LNO**
• **Safety Issues**	**SO**
• **Finance Issues**	**FSC**
• **Logistics Issues**	**LSC**
• **Planning Section Issues**	**PSC**
• **Operations Section Issues**	**OPS**
• **IC-UC/Closing Comments**	**IC**
• **Meeting Schedule**	**PSC**

24

Command & General Staff Meeting Agenda

• Ground Rules (Cell/1 speaker/30 min)	PSC
• 207 (Roll Call)	PSC
• Opening Comments	IC
• Objectives/Key Decisions	IC/PSC
• Situation Update	SITL
• Action Items	PSC/Staff
• Information Issues	IO
• Liaison Issues	LNO
• Safety Issues	SO
• Finance Issues	FSC
• Logistics Issues	LSC
• Planning Section Issues	PSC
• Operations Section Issues	OPS
• IC/Closing Comments	IC
• Meeting Schedule	PSC

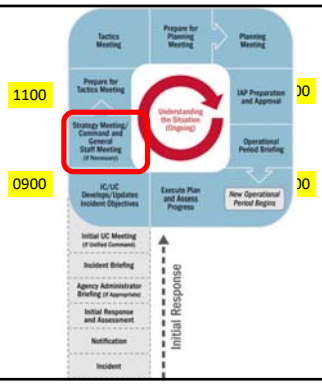
25

Planning Cycle Meeting Schedule

Next Meeting = Tactics Mtg @ 1100

Who attends Tactics Mtg:

PSC/SITL/ENVL
OPS
SO
LSC
FSC



26

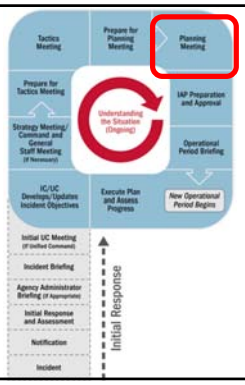
Planning Meeting

Purpose: Present plan for UC approval

Attends: C&G Staff

30 min meeting with review Of Ops 215

KLPs indicate support of plan



1

Planning Meeting Agenda

24-Hour Operational Period: Dec __ (___) – Dec __ (___)

• Intro/OPs Period/Ground Rules/cell phones	PSC
• Opening Comments	IC
• Org Chart	PSC
• Incident Objectives	SITL
• Situation/Update	SITL
• Weather	SITL
• OPs Plan (215)	OPS
• Safety	SO
• Team Consensus (FSC/LSC/SO/LNO/IO/UC)	Staff
• Schedule Highlights	PSC
• Closing Remarks	UC

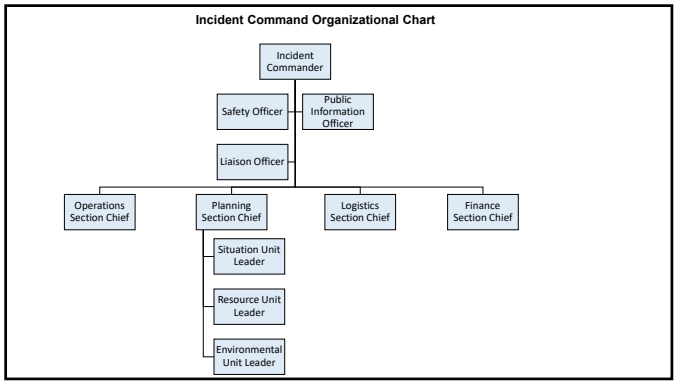
2

Planning Meeting Agenda

24-Hour Operational Period: Dec __ (___) – Dec __ (___)

• Intro/OPs Period/cell phones	PSC
• Org Chart	PSC
• Incident Objectives	SITL
• Situation/Update	SITL
• Weather	SITL
• OPs Plan (215)	OPS
• Safety	SO
• Team Consensus (FSC/LSC/SO/LNO/IO/UC)	Staff
• Schedule Highlights	PSC
• Closing Remarks	UC

3



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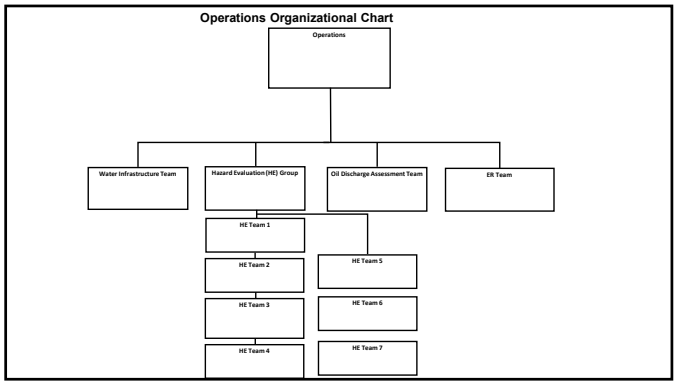

5

Planning Meeting Agenda

24-Hour Operational Period: Dec __ (___) – Dec __ (___)

• Intro/OPs Period/cell phones	PSC
• Org Chart	PSC
• Incident Objectives	SITL
• Situation/Update	SITL
• Weather	SITL
• OPs Plan (215)	OPS
• Safety	SO
• Team Consensus (FSC/LSC/SO/LNO/IO/UC)	Staff
• Schedule Highlights	PSC
• Closing Remarks	UC

6

Incident Objectives

- Ensure safety of all response personnel as well as the affected community
- Identify and stabilize all orphan containers
- Make all necessary notifications
- Contain oil spill and initiate recovery
- Establish information flow internally, as well as to the public

7

Planning Meeting Agenda

24-Hour Operational Period: Dec __ (___) – Dec __ (___)

• Intro/OPs Period/cell phones	PSC
• Org Chart	PSC
• Incident Objectives	SITL
• Situation/Update	SITL
◦ Situation Update (SITL)	
◦ Update on Current Operations (OPS)	
• Weather	SITL
• OPs Plan (215)	OPS
• Safety	SO
• Team Consensus (FSC/LSC/SO/LNO/IO/UC)	Staff
• Schedule Highlights	PSC
• Closing Remarks	UC

8

Situational Brief

- Updated numbers
- Where teams are working
- New or major spills/clean-up
- Keep it brief

9

Planning Meeting Agenda

24-Hour Operational Period: Dec __ (___) – Dec __ (___)

• Intro/OPs Period/cell phones	PSC
• Org Chart	PSC
• Incident Objectives	SITL
• Situation/Update	SITL
• Weather for next Ops Period	SITL
• OPs Plan (215)	OPS
• Safety	SO
• Team Consensus (FSC/LSC/SO/LNO/IO/UC)	Staff
• Schedule Highlights	PSC
• Closing Remarks	UC

10

Next Operational Period Weather

7:00 am	Mostly Cloudy	47 °F	47 °F	21%	0 in	69%	46 °F	96%	2 mph WSW	30.10 in
8:00 am	Mostly Cloudy	47 °F	47 °F	22%	0 in	65%	46 °F	96%	2 mph W	30.11 in
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5:00 pm	Mostly Cloudy	64 °F	63 °F	3%	0 in	68%	43 °F	46%	10 mph WNW	29.97 in
6:00 pm	Mostly Cloudy	63 °F	63 °F	0%	0 in	72%	43 °F	47%	9 mph WNW	29.97 in
7:00 pm	Mostly Cloudy	62 °F	61 °F	0%	0 in	66%	42 °F	49%	8 mph NW	29.97 in

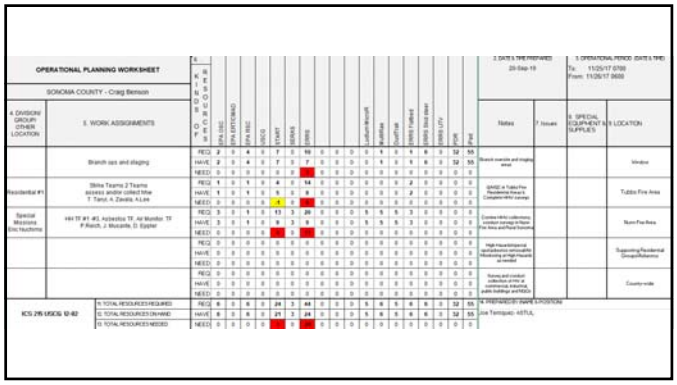
11

Planning Meeting Agenda

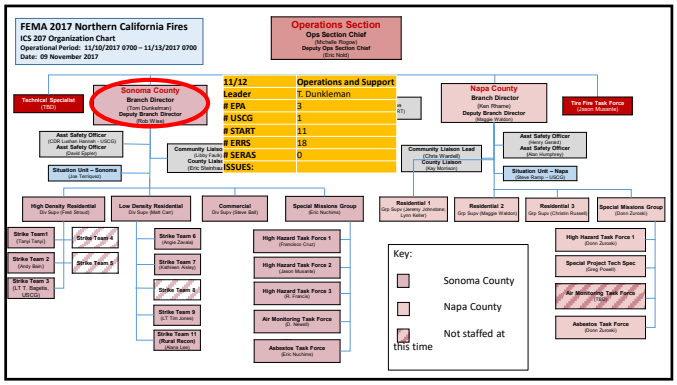
24-Hour Operational Period: Dec __ (___) – Dec __ (___)

• Intro/OPs Period/cell phones	PSC
• Org Chart	PSC
• Incident Objectives	SITL
• Situation/Update	SITL
• Weather	SITL
• OPs Plan (215)	OPS
• Safety	SO
• Team Consensus (FSC/LSC/SO/LNO/IO/UC)	Staff
• Schedule Highlights	PSC
• Closing Remarks	UC

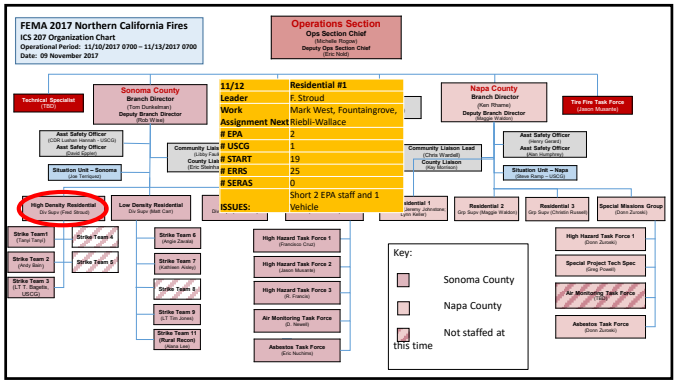
12


OPERATIONAL PLANNING WORKSHEET
SONOMA COUNTY - Craig Benson

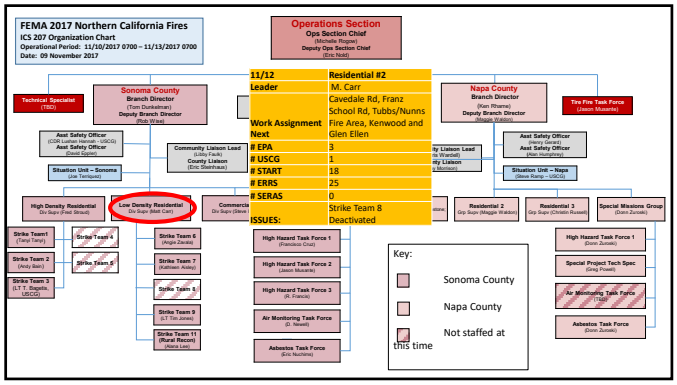
13


FEMA 2017 Northern California Fires
ICS 207 Organization Chart
Operational Period: 11/10/2017 0700 – 11/13/2017 0700
Date: 09 November 2017
Operations Section
Ops Section Chief
Deputy Ops Section Chief
11/12 Operations and Support
Leader T. Dunkleman
EPA 3
USCG 1
START 11
ERRS 18
SERAS 0
ISSUES:
Sonoma County
Branch Director
Deputy Branch Director
Napa County
Branch Director
Deputy Branch Director
Key:
Sonoma County
Napa County
Not staffed at this time

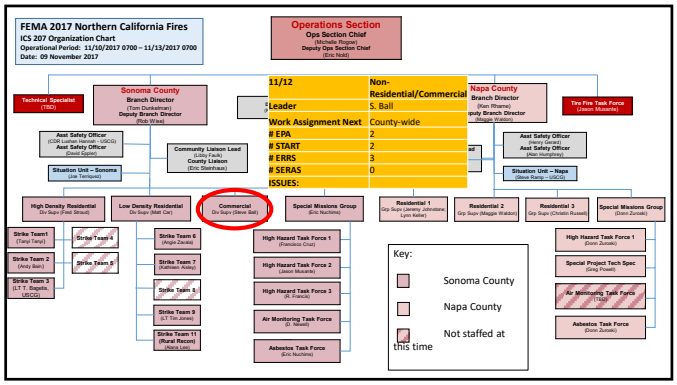
14


FEMA 2017 Northern California Fires
ICS 207 Organization Chart
Operational Period: 11/10/2017 0700 – 11/13/2017 0700
Date: 09 November 2017
Operations Section
Ops Section Chief
Deputy Ops Section Chief
11/12 Residential #1
Leader F. Stroud
Work Assignment Next Mark West, Fountaingrove, Riebli-Wallace
EPA 2
USCG 1
START 19
ERRS 25
SERAS 0
ISSUES: Short 2 EPA staff and 1 Vehicle
Sonoma County
Branch Director
Deputy Branch Director
Napa County
Branch Director
Deputy Branch Director
Key:
Sonoma County
Napa County
Not staffed at this time

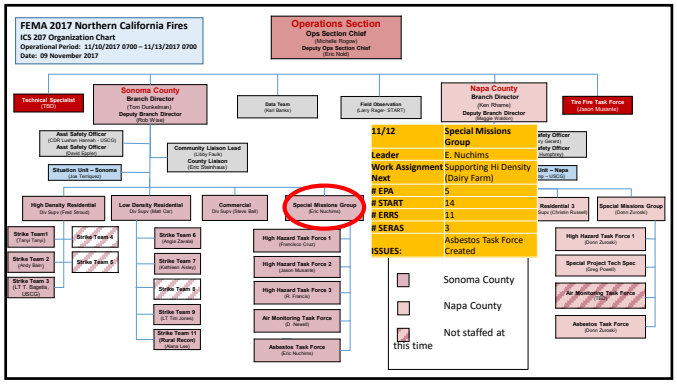
15


FEMA 2017 Northern California Fires
ICS 207 Organization Chart
Operational Period: 11/10/2017 0700 – 11/13/2017 0700
Date: 09 November 2017
Operations Section
Ops Section Chief
Deputy Ops Section Chief
Sonoma County
Branch Director
Deputy Branch Director
Napa County
Branch Director
Deputy Branch Director
11/12
Residential #2
Leader
M. Carr
Work Assignment Next
Cavedale Rd, Franz School Rd, Tubbs/Nunns Fire Area, Kenwood and Glen Ellen
EPA
3
USCG
1
START
18
ERRS
25
SERAS
0
ISSUES:
Strike Team 8 Deactivated
Key:
Sonoma County
Napa County
Not staffed at this time

16


FEMA 2017 Northern California Fires
ICS 207 Organization Chart
Operational Period: 11/10/2017 0700 – 11/13/2017 0700
Date: 09 November 2017
Operations Section
Ops Section Chief
Deputy Ops Section Chief
Sonoma County
Branch Director
Deputy Branch Director
Napa County
Branch Director
Deputy Branch Director
11/12
Non-Residential/Commercial
Leader
S. Ball
Work Assignment Next
County-wide
EPA
2
START
2
ERRS
3
SERAS
0
ISSUES:
Key:
Sonoma County
Napa County
Not staffed at this time

17


FEMA 2017 Northern California Fires
ICS 207 Organization Chart
Operational Period: 11/10/2017 0700 – 11/13/2017 0700
Date: 09 November 2017
Operations Section
Ops Section Chief
Deputy Ops Section Chief
Sonoma County
Branch Director
Deputy Branch Director
Napa County
Branch Director
Deputy Branch Director
11/12
Special Missions Group
Leader
E. Nuchims
Work Assignment Next
Supporting Hi Density (Dairy Farm)
EPA
5
START
14
ERRS
11
SERAS
3
ISSUES:
Asbestos Task Force Created
Key:
Sonoma County
Napa County
Not staffed at this time

18

Planning Meeting Agenda

24-Hour Operational Period: Dec __ (___) – Dec __ (___)

• Intro/OPs Period/cell phones	PSC
• Org Chart	PSC
• Incident Objectives	SITL
• Situation/Update	SITL
• Weather	SITL
• OPs Plan (215)	OPS
• Safety Issues/Update	SO
• Team Consensus (FSC/LSC/SO/LNO/IO/UC)	Staff
• Schedule Highlights	PSC
• Closing Remarks	UC

19

Planning Meeting Agenda

24-Hour Operational Period: Dec __ (___) – Dec __ (___)

• Intro/OPs Period/cell phones	PSC
• Org Chart	PSC
• Incident Objectives	SITL
• Situation/Update	SITL
• Weather	SITL
• OPs Plan (215)	OPS
• Safety	SO
• Team Consensus (FSC/LSC/SO/LNO/PIO/UC)	Staff
◦ KLP Comments/Issues	
◦ KLP Support Plan	
• Schedule Highlights	PSC
• Closing Remarks	UC

20

Planning Meeting Agenda

24-Hour Operational Period: Dec __ (___) – Dec __ (___)

• Intro/OPs Period/cell phones	PSC
• Org Chart	PSC
• Incident Objectives	SITL
• Situation/Update	SITL
• Weather	SITL
• OPs Plan (215)	OPS
• Safety	SO
• Team Consensus (FSC/LSC/SO/LNO/IO/UC)	Staff
• Schedule Highlights	PSC
◦ Ops Briefing @	
◦ Next C&G Staff Meeting @	
• Closing Remarks	UC

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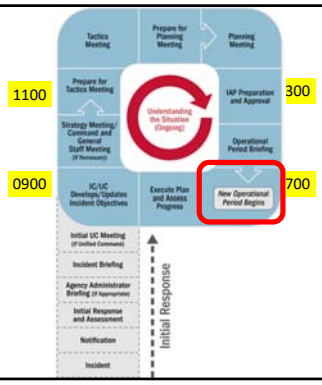
Planning Cycle Meeting Schedule

Next Meeting = Ops Briefing @ _____

Next C&G Staff Meeting @ _____



22

IAP Components

Provide IAP Components to RESL by 1700

• Incident Objectives (ICS 202 Form)	RESL/PSC
• Org Chart (ICS 207)	RESL
• Assignment List (ICS 204)	OPS/RESL
• Communications Plan (ICS 205)	Logistics
• Contact List (ICS 205a)	RESL
• Medical Plan (ICS 206)	Safety
• Weather	SITL
• Incident Map with Resource Table	SITL/RESL
• Safety Message	Safety

Situation Report

Provide Sit Rep Components to SITL by 1700

23

Planning Meeting Agenda

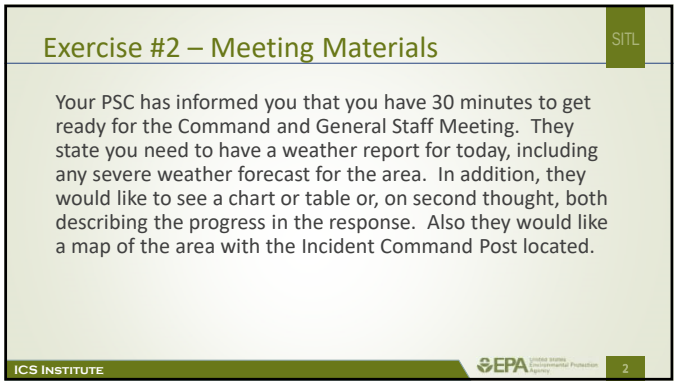
24-Hour Operational Period: Dec __ (___) – Dec __ (___)

• **Intro/OPs Period/cell phones**	**PSC**
• **Org Chart**	**PSC**
• **Incident Objectives**	**SITL**
• **Situation/Update**	**SITL**
• **Weather**	**SITL**
• **OPs Plan (215)**	**OPS**
• **Safety**	**SO**
• **Team Consensus (FSC/LSC/SO/LNO/IO/UC)**	**Staff**
• **Schedule Highlights**	**PSC**
• **Closing Remarks**	**UC**

24


SITL
Situation Unit Leader
Exercise #2
ICS Institute
EPA
1

1


Exercise #2 – Meeting Materials
SITL
Your PSC has informed you that you have 30 minutes to get ready for the Command and General Staff Meeting. They state you need to have a weather report for today, including any severe weather forecast for the area. In addition, they would like to see a chart or table or, on second thought, both describing the progress in the response. Also they would like a map of the area with the Incident Command Post located.
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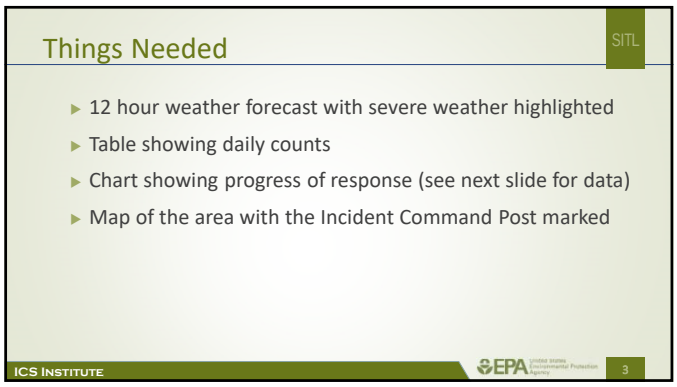
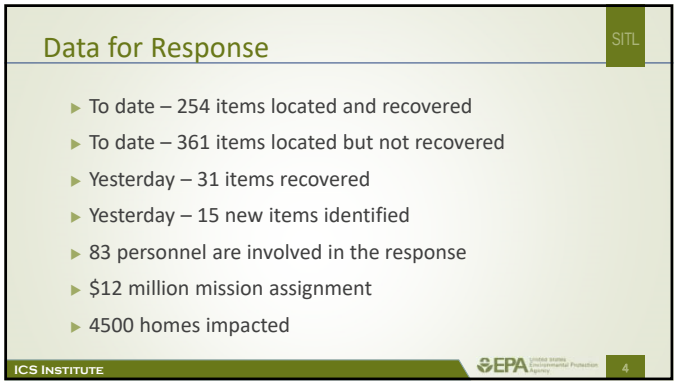
2

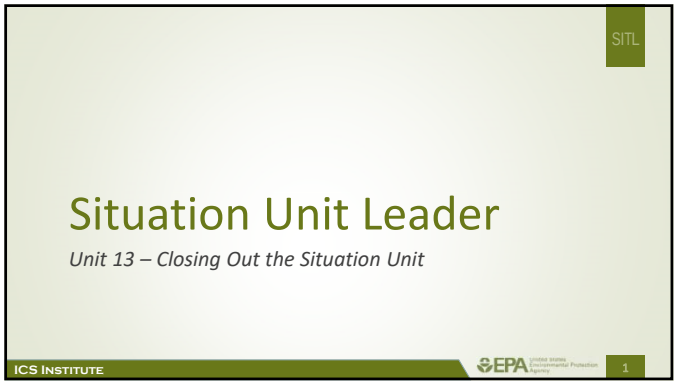
2


Things Needed
SITL
12 hour weather forecast with severe weather highlighted
Table showing daily counts
Chart showing progress of response (see next slide for data)
Map of the area with the Incident Command Post marked
ICS Institute
EPA
3

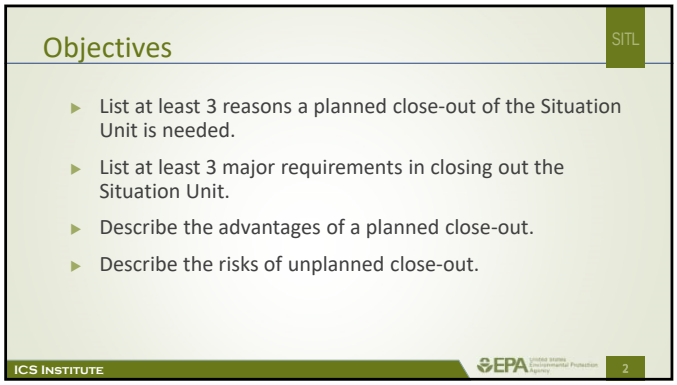
3


Data for Response
SITL
To date – 254 items located and recovered
To date – 361 items located but not recovered
Yesterday – 31 items recovered
Yesterday – 15 new items identified
83 personnel are involved in the response
$12 million mission assignment
4500 homes impacted
ICS INSTITUTE
EPA
4

4


SITL
Situation Unit Leader
Unit 13 – Closing Out the Situation Unit
ICS Institute
EPA
1

1


Objectives
SITL
List at least 3 reasons a planned close-out of the Situation Unit is needed.
List at least 3 major requirements in closing out the Situation Unit.
Describe the advantages of a planned close-out.
Describe the risks of unplanned close-out.
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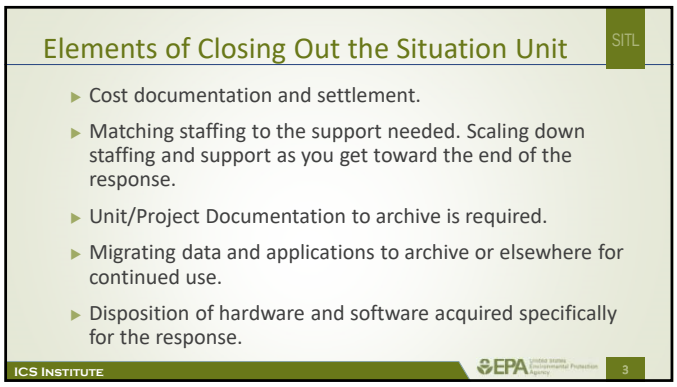
EPA
2

2


Elements of Closing Out the Situation Unit
SITL
Cost documentation and settlement.
Matching staffing to the support needed. Scaling down staffing and support as you get toward the end of the response.
Unit/Project Documentation to archive is required.
Migrating data and applications to archive or elsewhere for continued use.
Disposition of hardware and software acquired specifically for the response.
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3

3

When Do You Start Planning Close-out?

SITL

- As soon as is possible. Ideally you are evaluating staffing needs continuously throughout the incident, close-out is just the last phase of matching staffing to workload. As the response winds down, fewer staff providing support in the Situation Unit will be needed.
- Developing a Concept of Operations (ConOps) document for the Unit may be helpful.
- Communication with Ops, Planning and Incident Command is required to understand incident time-lines and support needs at all times.

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4

Each Incident is Different…

SITL

- Regional and smaller responses are typically easier to close down. They tend to have a shorter time frame, fewer staff within an IMT, fewer agencies involved in Unified Command. They frequently don't have the same funding accountability issues as large responses.
- Staging events (national events like the Superbowl, DNC or RNC) have a set schedule, the workload is highest before the event, and staffing/workload are more predictable. Close out should be planned from the beginning.

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5

Each Incident is Different…

SITL

- Very large national responses such as Katrina or Deepwater Horizon are the most difficult to plan an orderly close out. They tend to be much longer in duration, large in geographic scope, have multiple agencies and jurisdictions involved, and have many rotations of personnel in all IMT/staff positions. They rarely have a response timeline established until months into the response, and mission assignments can be added or changed.

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6

Reasons for Planning Close-out

SITL

- Financial – In larger responses FEMA or another agency/entity is paying for the response. Every large response will be audited. A constant part of your job is wise expenditure of funds.
- Documentation Requirement - To ensure all unit/event documentation (email, map products, procurements, contracting) are submitted to designated archive.

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7

Reasons for Planning Close-out

SITL

- Determine equipment/software disposition acquired for the response.
- To communicate intent and timeline to everyone in the IMT and all others affected.
- Failing to plan will ensure your deployment workload follows you back to your day job…

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8

Close Out Requirements

SITL

- Ensure all Unit documentation is provide to designated archive. This is required for every event. Host region or HQ will determine archive procedure.
- Ensure all data and applications are migrated to appropriate archive and to the host region or other agencies who may have a need for ongoing use.

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9

Close Out Requirements

SITL

- Ensure the disposition of hardware and software acquired during the response.
- Ensure right-sized staffing through-out the response as it winds down.
- Ensure hand-off of response support to host region or locals.

ICS Institute EPA 10

10

Advantages of Planning Close Out

SITL

- Orderly transition and scaling down of staff/resources to match IMT/response needs.
- Orderly hand off to host region or other agency for ongoing work.
- Ensuring documentation requirements and equipment disposition determinations are met.
- Minimizing the amount of event workload that follows you back to your day job.

ICS Institute EPA 11

11

SITL

QUESTIONS?

ICS Institute EPA 12

12

SITL

Situation Unit Leader

Unit 14 - Final Exercise

ICS Institute EPA 1

1

SITL

Exercise Objectives

- Practical Exercise
  - Participants should apply knowledge gained during training to perform SITL-related tasks.
    - ✓ Work with various ICS positions (played by instructors)
    - ✓ Field and prioritize various requests
    - ✓ Create Situation Report
    - ✓ Develop Slides for Command and General Staff Meeting

ICS Institute EPA 2

2

SITL

The Situation

- Hurricane Steve, a Category 4 storm, hit the Texas Coast at Galveston Island, TX. We are in week two of the response in Unified Command with the US Coast Guard and the State of Texas agencies, Texas Commission on Environmental Quality (TCEQ) and Texas General Land Office (TGLO).
- You are in the Incident Command Post in Huntsville, TX with Branch Camps in Galveston, Pasadena and Port Arthur. You are the Situation Unit Leader within a fully staffed IMT.

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3

Exercise Scenario

SITL

EPA has been asked by the State of TX (and tasked by FEMA) to assist by collecting and disposing of orphan hazardous containers and deal with hazardous waste and oil spills from facilities and vessels.

An ICP and branch camps have been established and operations have recently commenced.

EPA has also deployed staff to FEMA to coordinate ESF #10 activities.

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4

Exercise Scenario (cont.)

SITL

- Date: 09/18/2019
- Reporting Period: 0700 on 09/17/2019- 0700 on 09/18/2019
- Next Report Due: Today
- On-site situational reporting has been managed by USCG Pacific Strike Team member
- Due to a sudden illness, you, an EPA SITL have been deployed to take over this function
- Anticipated length of response: 2 – 3 months

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5

Task 1 – Develop Staffing Plan

SITL

- The Sit Unit currently consists of one SITL and one START, with reachback GIS support from the REOC.
- Public concerns about possible releases from facilities have caused the IC to task OPS to provide mobile and fixed real time monitoring by 09/20/2019.
- The PSC wants you to develop a staffing plan to support increased mapping demand from the ICP. Notify him when you're ready

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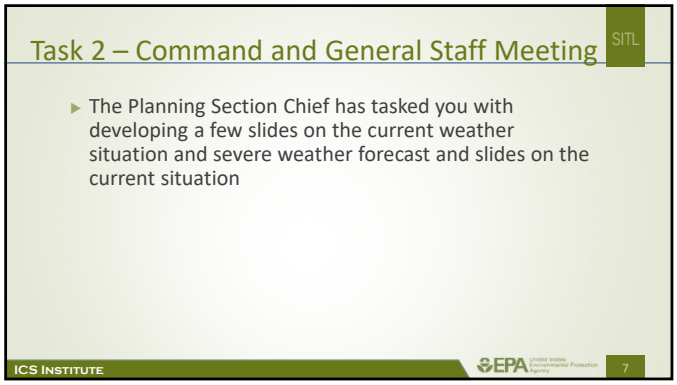
6


Task 2 – Command and General Staff Meeting
SITL
The Planning Section Chief has tasked you with developing a few slides on the current weather situation and severe weather forecast and slides on the current situation
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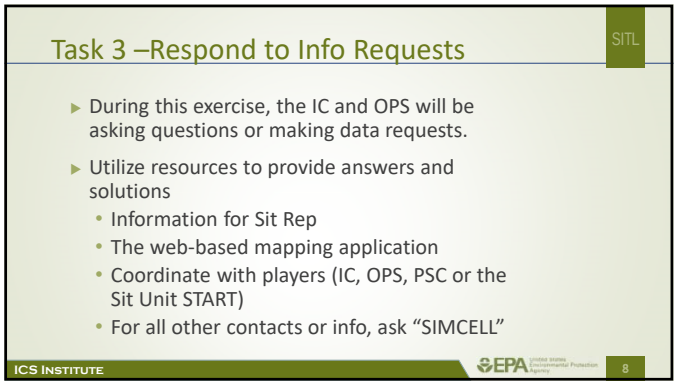
EPA
7

7


Task 3 –Respond to Info Requests
SITL
During this exercise, the IC and OPS will be asking questions or making data requests.
Utilize resources to provide answers and solutions
Information for Sit Rep
The web-based mapping application
Coordinate with players (IC, OPS, PSC or the Sit Unit START)
For all other contacts or info, ask "SIMCELL"
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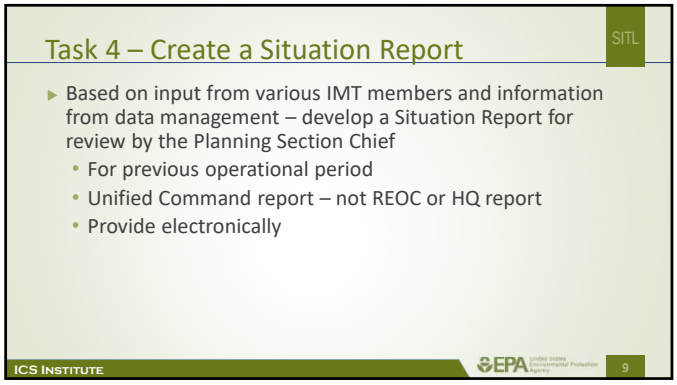
EPA
8

8


Task 4 – Create a Situation Report
SITL
Based on input from various IMT members and information from data management – develop a Situation Report for review by the Planning Section Chief
For previous operational period
Unified Command report – not REOC or HQ report
Provide electronically
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EPA
9

9

Things to Remember

SITL

- No fault exercise
- Low stress – enjoy and ask a lot of questions
- Refer to your presentations and IMH for guidance
- This is an exercise, there are artificialities and assumptions built in (roll with it)
- We will play for about 3.5 hours (or less), followed by a short debrief/hot wash.

ICS Institute EPA 10

10

Begin Exercise

SITL

- Roles
  - PSC
  - Operations
  - IC
  - IMT

ICS Institute EPA 11

11