

News Support to HAZMAT Response



Joel Curtis

*Warning and Coordination Meteorologist
WFO Juneau*

*2008 Alaska Hazmat Symposium
Anchorage
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Mission

NWS Role

Preparation

WFO / RFC Response

WSO Support



Photographer Tony Alviar, HAZMET Team Member

Relation to Our Mission

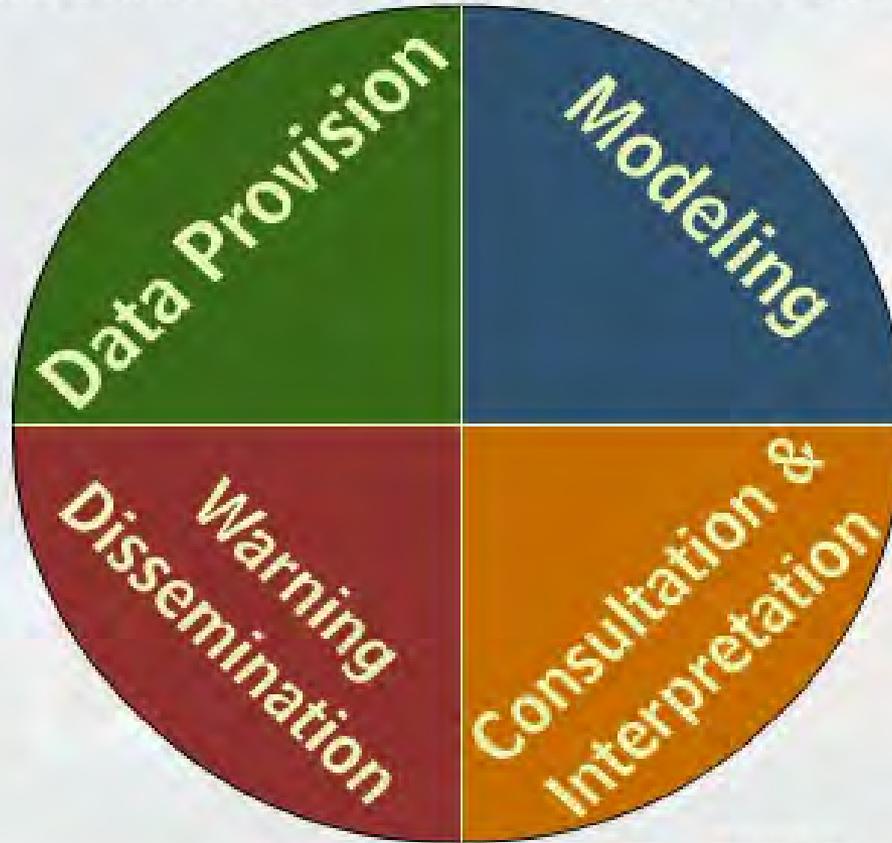
"To enhance and protect public safety, WFOs should work closely with the emergency management community to provide decision makers with the appropriate weather information."

— NWS Directive 10-518



The NWS and HAZMAT Incidents

NWS Contributions to the Emergency Response System



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Stages of HAZMAT Response

Notification

Incident Spin-up, Tasking, Resources

Hazard Mitigation

Containment

Restoration



Four Types of HAZMAT Incidents

Chemical

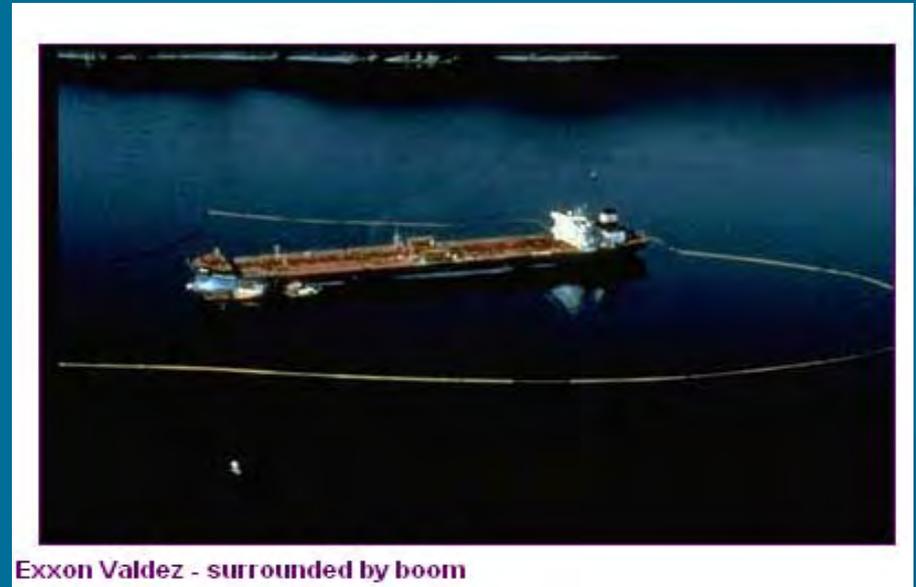
- 1) Gas Release – Dispersion Problem**
- 2) Liquid – Drainage, Containment**
- 3) Solid Spill or Explosion – Containment, Change of State**

Oil Spill

- 1) Containment**
- 2) Restoration**

Radiological

Biological Weapon

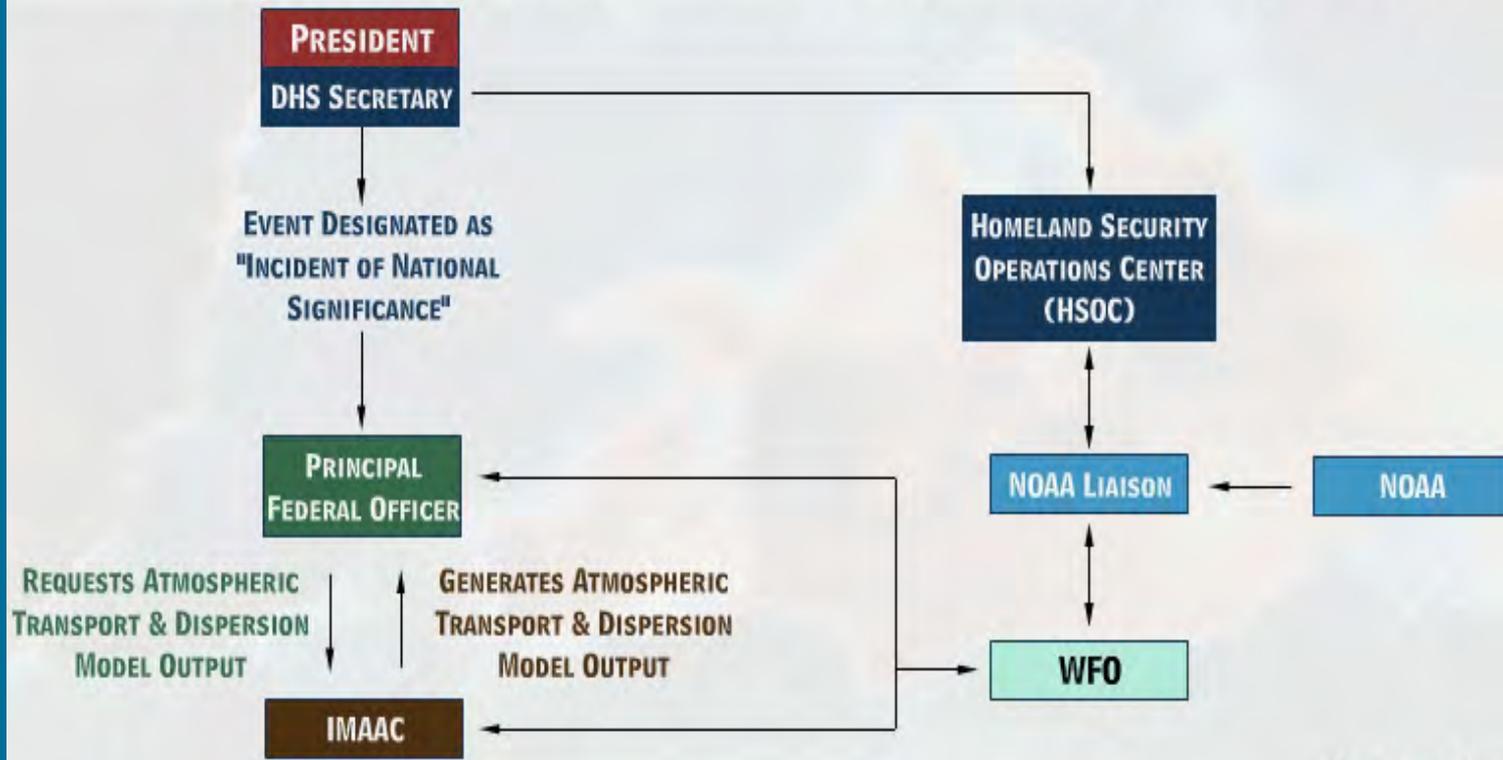


Exxon Valdez - surrounded by boom

The Big One



Flow Diagram Showing Agency Interrelations for handling Incidents of National Significance



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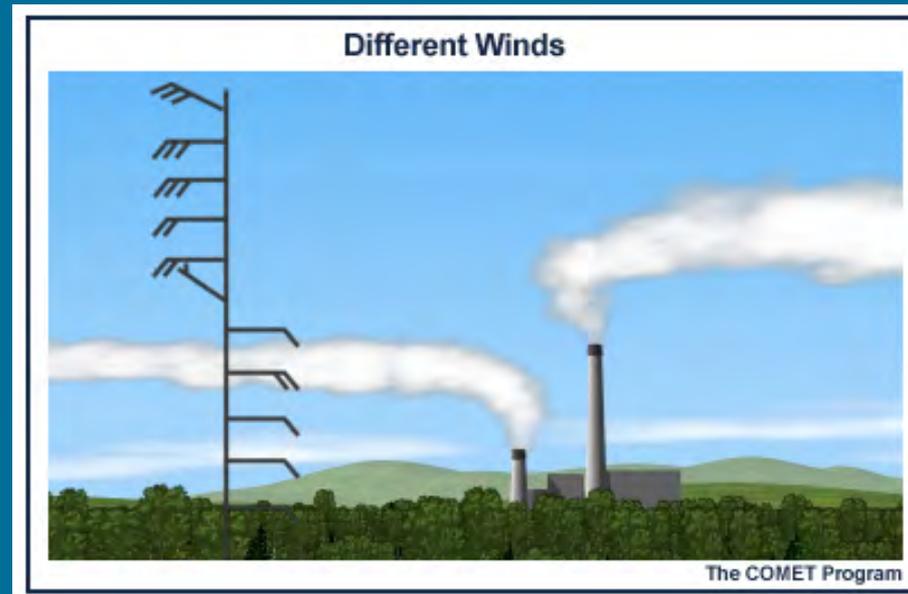
* Interagency Modeling & Atmospheric Assessment Center
IMAAC

Dispersion – Where's the Plume Going?

How well mixed is the plume?

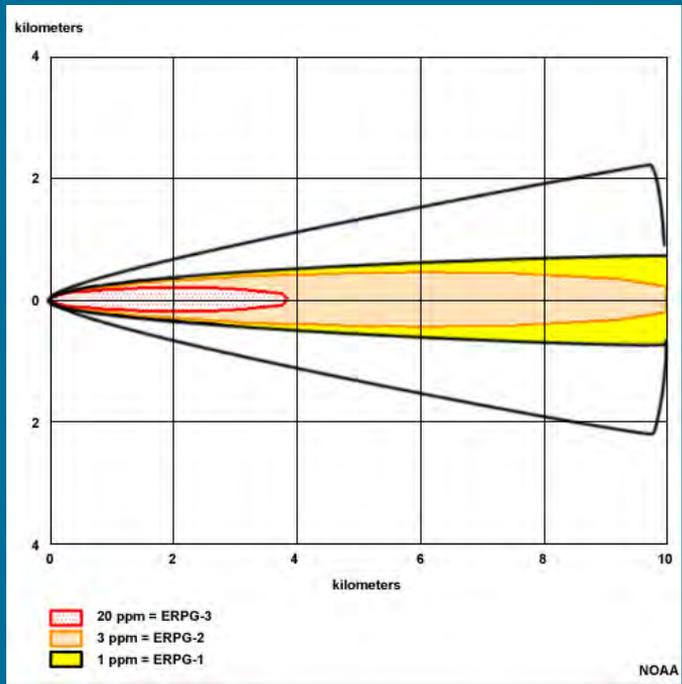
Dilution Process

Determine PUBLIC EXPOSURE !

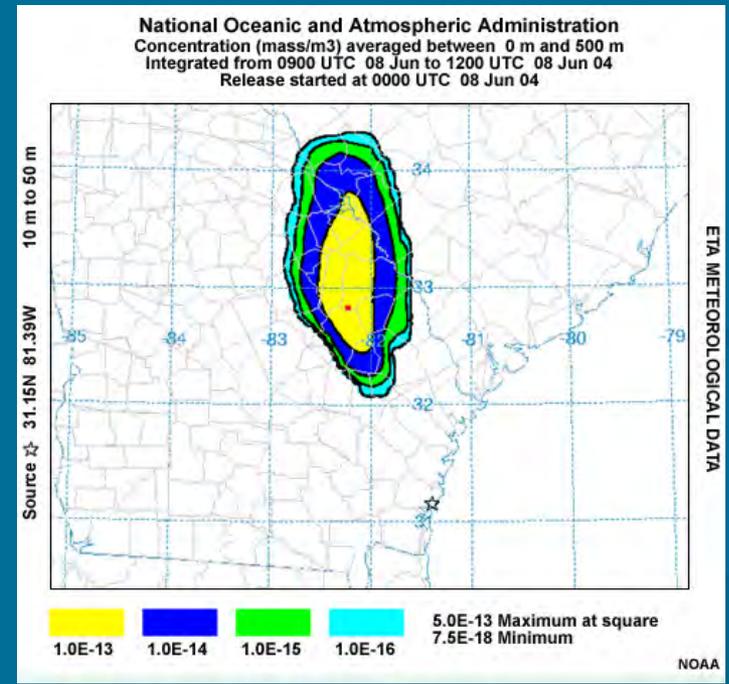


Dispersion Models

CAMEO / ALOHA HYSPLIT

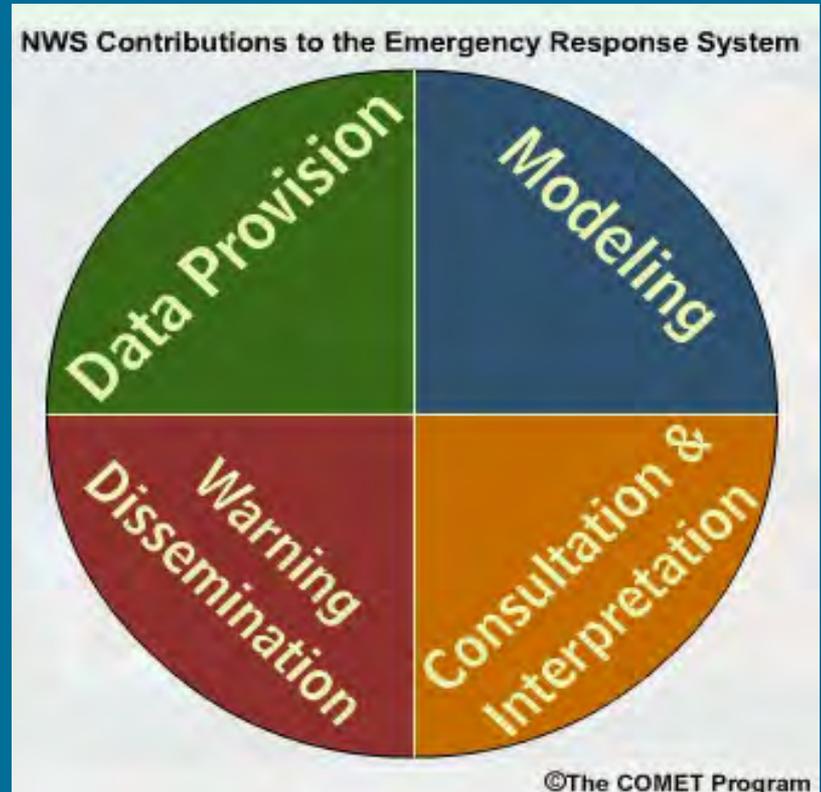


versus



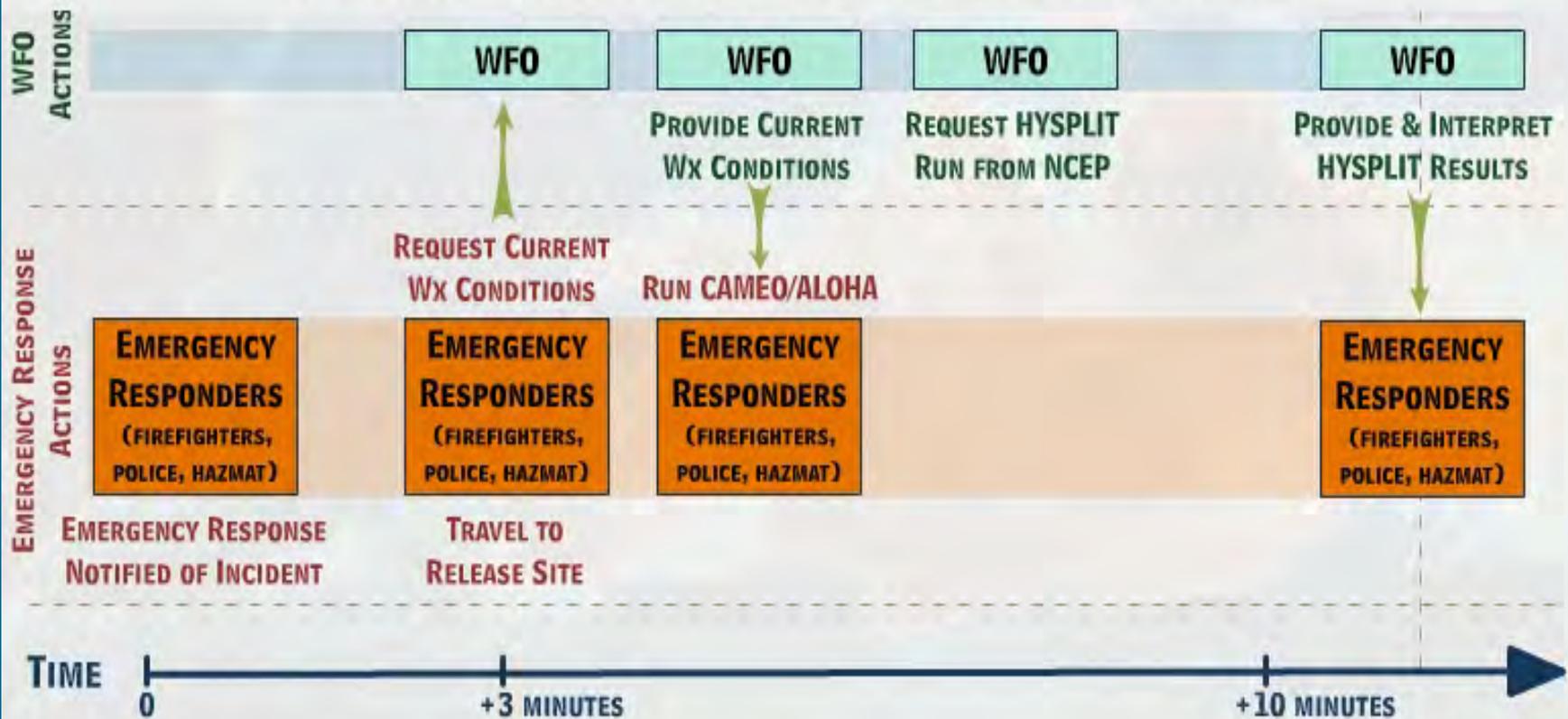
Dispersion Support

***Short Fuse – CAMEO/ALOHA
OBSERVATIONS !
Local Expertise !***



WFO Response

Time-Response Diagram Showing WFO and Emergency Response Actions



First Responders

On Scene Weather

Type Release

First Estimate of Incident Duration

Waterborne Release (watershed)

Flow calculations:

speed

dilution

deposition



TRAINING AWARENESS



The screenshot shows a training module interface with a background image of a large, dark, stormy cloud formation over a landscape. The text on the screen includes:

NWS Support During Hazardous Materials Emergencies
Produced by The COMET® Program

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Outreach – Partners and Community

Identify Hazards

Plan – Station Duty Manual

“Warning” Type Checklist

Spot Forecasts

Establish Communications

Long Term Support

IMET Support

Incident Termination



Seattle's Spot Request Page

Two Spot Choices



[Back to Seattle Fire Weather Page](#)

SEATTLE SPOT FORECASTS

for

Monday

← Sep 24 2007 →

[CALENDAR](#)

[Submit a Fire Spot Request](#)
[Submit a SAR/HAZMAT Spot Request](#)

NWS/NOAA/DOC > 3:18 pm PDT 9/25/07

Pending Question Complete

Name	Ignition/Request Time	Status
No Entries		

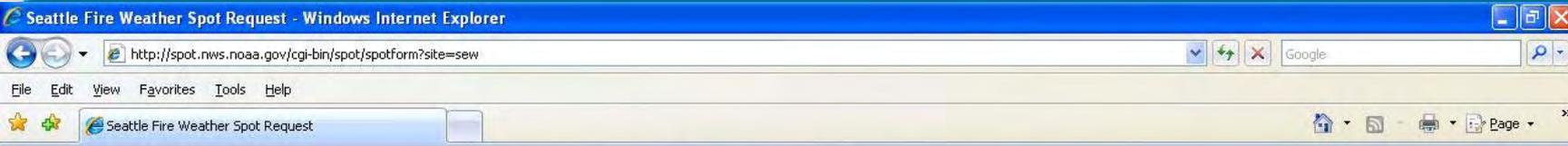
Track forecasts sent from AWIPS

National Oceanic and Atmospheric Administration (NOAA)

[Privacy Policy](#)

National Weather Service
Fire & Public Weather Services Branch
Page Author: NWS Internet Services Team
Page last updated at 5:57 am PST 3/5/07

New Spot Forecast Request Form



(*)Project Name

Wildfire

For NWS Spot forecast section 4.0 in NWS <http://www.nws.noaa.gov>

(*)Lat:

(*)Lon:

7.5' Quad:

Legal (T/R):

*Enter Lat/Lon, Leg

OBSERVATIONS

Place	Elev	Time	Wind	Temp	Wetbulb	RH	Dewpt.	Sky/Weather
<input type="text"/>								
<input type="text"/>								
<input type="text"/>								
<input type="text"/>								

PRIMARY FORECAST ELEMENTS

TDA TNT TMR (Today, Tonight, Tomorrow)

- Clouds / Weather
- Chance of Wetting Rain
- Temperature
- Relative Humidity
- Eye Level Wind
- 20 Foot Wind
- Smoke Dispersion
- Haines Index
- Lightning Activity Level
- Swell Height
- Swell Period
- Wind Wave
- Rainfall Amount

REMARKS

NOTICE: Information provided on this form may be used by the National Weather Service (NWS) for official purposes in any way, including public release and publication in NWS products. False statements on this form may be subject to prosecution under the False Statement Accountability Act of 1996 (18 U.S.C. § 1001) or other statutes.

Seattle Spot Forecast Formatter

Proposed Input Interface

Incident types and Agencies changed

Incident parameters changed

Added elements for Swell Height & Period, Wind Waves and Rainfall Amount

The screenshot shows a dialog box titled "Input Info Values" with the following fields and options:

Type of Incident:	Agency:	Check Items to Include:	What Type of Forecast?
<input checked="" type="checkbox"/> HAZMAT	<input type="checkbox"/> U.S. COAST GUARD	<input type="checkbox"/> Include Day 3-5 Extended?	<input checked="" type="checkbox"/> Narrative Only
<input type="checkbox"/> SAR	<input type="checkbox"/> NOAA HAZMET	<input type="checkbox"/> Include Day 6-7 Extended?	
<input type="checkbox"/> TEST	<input type="checkbox"/> FEDERAL AGENCY	<input type="checkbox"/> Include Day 8-14 Outlook?	
	<input type="checkbox"/> MUNICIPAL AGENCY		
	<input checked="" type="checkbox"/> Unlisted		

Below the radio buttons are several text input fields:

- Name of Agency if not listed....: NSP-NORTH CASCADES
- Name of Incident: MARINE TEST
- Time of Incident: 1143
- Date of Incident: 10/10/07
- Name of Agency Contact.....: CARL CERNIGLIA
- Incident Latitude (Deg).....: 48.3
- Incident Longitude (Deg).....: 123.2
- Incident Size (Acres): 1

At the bottom, there are two columns of elements with checkboxes and "Tab Hrs" dropdowns:

Tonight Elements	Tab Hrs	Tomorrow Elements	Tab Hrs
<input checked="" type="checkbox"/> SKY/WEATHER	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> SKY/WEATHER	<input type="checkbox"/> 1
<input checked="" type="checkbox"/> CWR		<input type="checkbox"/> CWR	
<input checked="" type="checkbox"/> TEMPERATURE	<input type="checkbox"/> 2	<input type="checkbox"/> TEMPERATURE	<input type="checkbox"/> 2
<input type="checkbox"/> HUMIDITY		<input type="checkbox"/> HUMIDITY	
<input checked="" type="checkbox"/> EYE LEVEL WINDS	<input checked="" type="checkbox"/> 3	<input checked="" type="checkbox"/> EYE LEVEL WINDS	<input checked="" type="checkbox"/> 3
<input type="checkbox"/> 20 FOOT WINDS		<input type="checkbox"/> 20 FOOT WINDS	
<input type="checkbox"/> SMOKE DISPERSION	<input type="checkbox"/> 4	<input type="checkbox"/> SMOKE DISPERSION	<input type="checkbox"/> 4
<input type="checkbox"/> HAINES INDEX		<input type="checkbox"/> HAINES INDEX	
<input type="checkbox"/> LIGHTNING ACTIVITY LEVEL	<input type="checkbox"/> None	<input type="checkbox"/> LIGHTNING ACTIVITY LEVEL	<input type="checkbox"/> None
<input checked="" type="checkbox"/> SWELL HEIGHT		<input checked="" type="checkbox"/> SWELL HEIGHT	
<input checked="" type="checkbox"/> SWELL PERIOD		<input checked="" type="checkbox"/> SWELL PERIOD	
<input checked="" type="checkbox"/> WIND WAVE		<input checked="" type="checkbox"/> WIND WAVE	
<input checked="" type="checkbox"/> RAINFALL AMOUNT		<input type="checkbox"/> RAINFALL AMOUNT	

Buttons: Ok, Cancel

Outreach & Community Preparedness

Identify Hazards

Local Expertise

Communications

Facility



"Ah, the Good Ole Days!"

Alaska Region Partners

NOAA'S NATIONAL OCEAN SERVICE



Office of Response and Restoration
a.k.a NOAA HAZMAT



KETCHIKAN GATEWAY BOROUGH
344 FRONT STREET, KETCHIKAN, ALASKA 99901 ♦ (907) 228-6625 PHONE (907) 247-6625 FAX



**CAPITAL CITY
FIRE/RESCUE**
820 GLACIER AVE. JUNEAU, ALASKA 99801
"SERVING ALASKA'S CAPITAL CITY"



**Homeland
Security**

U.S. COAST GUARD



HAZMAT Support

*Dispatch from National Fire Weather
Operations Coordinator*

ICS under Plans

Expect an “In-Briefing”

May need Logistical Support

*Under Scientific Support Coordinator from
NOAA HAZMAT*



NWS Support During Hazardous Materials Emergencies

(Link to Categories of Dispersion Models)

Dispersion Basics

CAMEO / HYSPLIT Dispersion Models

Supporting Military Emergency Response During Hazardous Releases

Awareness of the HAZMAT Hazards

Preparation

Training

Outreach

GOAL – Readiness

