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EVALUATION AND APPLICATION OF WASHINGTON STATE'S INCIDENT RESPONSE GUIDE

WA-RD 366.1

Final Technical Report
December 1994



**Washington State
Department of Transportation**

Washington State Transportation Commission
Planning and Programming Service Center
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16. ABSTRACT <p>The purpose of the project was to (1) re-evaluate the effectiveness, appropriateness, and format of the <i>Incident Response Guide</i> currently used in the Northwest Region, and (2) provide the Northwest, Olympic, Southwest, and Eastern Regions with electronic versions of an <i>Incident Response Guide</i> for them to complete with their own information and keep updated.</p> <p>In-depth interviews were conducted with the Northwest Region's Incident Response Team (IRT) personnel, who are currently utilizing the <i>Incident Response Guide</i>.</p> <p>An evaluation of the Northwest Region's <i>Incident Response Guide</i> indicated the following. (1) The effectiveness of the original <i>Incident Response Guide, Field Reference</i>, was minimal for field response personnel at the scene of an incident; training and experience proved more useful than documentation. (2) The original <i>Incident Response Guide, Office Reference</i>, proved more effective and appropriate as a reference for administrative and new IRT personnel. (3) The format and organization of the original <i>Incident Response Guide</i> were inappropriate for use by administrators and new personnel. (4) As the IRT program has evolved, a number of procedures, resources, and contacts have changed; the electronic format of the updated <i>Incident Response Guide</i> will help facilitate these updates.</p> <p>The modification of the Northwest Region's <i>Incident Response Guide</i> for use in other WSDOT regions proved to be a simple step in ensuring consistency in incident response programs statewide for the following reasons. (1) Much of the required background information and recommended IRT procedures are the same statewide. (2) The impetus for developing a formal outline of incident response procedures, equipment, and resources is minimized when all the requirements are specified in a fill-in-the-blank format.</p>		13. TYPE OF REPORT AND PERIOD COVERED Final technical report
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Research Project T9903, Task 20
Incident Response Guide—Evaluation and Application

**EVALUATION AND APPLICATION OF
WASHINGTON STATE'S INCIDENT RESPONSE GUIDE**

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CHAPTER 1 **INTRODUCTION**

Throughout the country, the benefits resulting from formal incident response procedures are becoming readily apparent. However, as more and more urban areas develop formal response procedures, it is important to maintain some consistency in response rather than have unique procedures for each urban area. Consistency in response procedures saves time and decreases the need to develop formal response procedures. Consistent procedures also prevent confusion when agencies are required to respond across jurisdictional boundaries.

BACKGROUND

A number of urban areas in Washington have already implemented incident management programs, with an Incident Response Team (IRT) as one of the components. The Washington State Department of Transportation, Northwest Region, was the first to initiate an Incident Response Team program to serve the greater Seattle area. The WSDOT's Olympic Region recently implemented an IRT program to serve the Tacoma area and expanded the program to serve the Olympia area. Both the WSDOT's Southwest Region in Vancouver and Eastern Region in Spokane have also implemented IRT programs. See Figure 1.

Two previous studies, conducted by the Washington State Transportation Center, have influenced many of the incident management efforts in Washington State. These studies are (1) *A Framework for Developing Incident Management Systems*, and (2) the *Incident Response Guide, Field and Office References*.

The first of these studies, *A Framework for Developing Incident Management Systems*, resulted in a comprehensive set of guidelines, applicable to any urban area, that serve to systematically identify incident management needs and to help implement the necessary programs, one of which is an Incident Response Team program. The

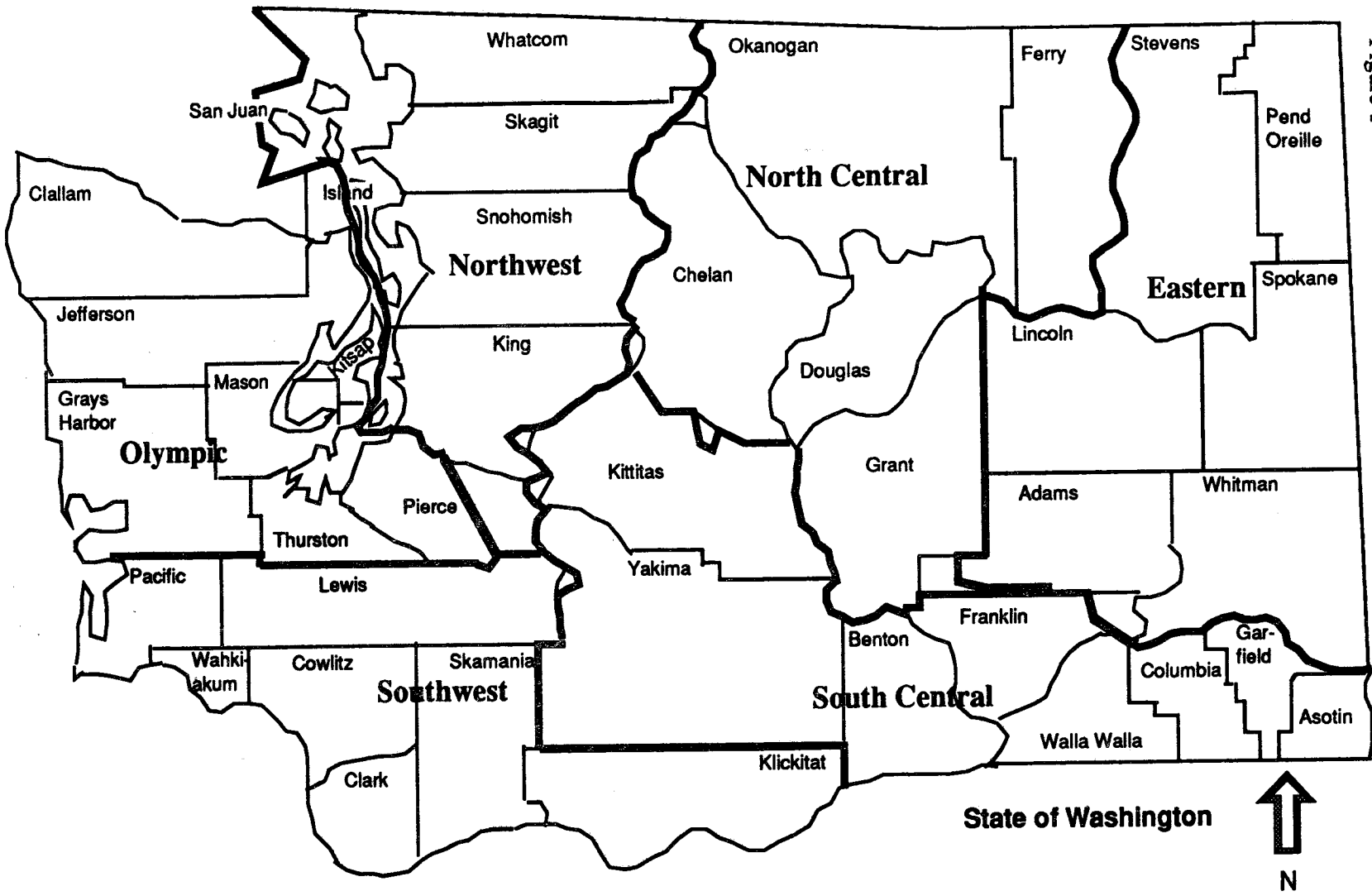


Figure 1

State of Washington



application of these guidelines to the Olympic Region's incident management program development is documented in *A Demonstration of The Incident Management System Framework*.

The second study, *Incident Response Guide, Field and Office References*, resulted in a written compilation of the procedures, processes, and responsibilities of those involved in the day-to-day operations of incident management in WSDOT's Northwest Region. Two documents contained region-specific information regarding personnel contacts, telephone numbers, and resource locations. While the guides were specific to the Northwest Region, similar documents would benefit the Olympic, Southwest, and Eastern Regions of WSDOT to ensure that incident management benefits are maximized.

To provide the other WSDOT regions with such a document, direct substitution of each region's resource information into the formats of the Northwest Region's *Incident Response Guide, Field and Office References* would be simple enough. However, the Northwest Region's IRT program has evolved since its inception. Therefore, the effectiveness, appropriateness, and format of the existing *Incident Response Guide, Field and Office References*, and the material they contain need to be re-evaluated before they are expanded for use in other areas of the state.

REPORT PURPOSE AND CONTENTS

The objectives of this project are to (1) re-evaluate the effectiveness, appropriateness, and format of the *Incident Response Guide, Field and Office References*, currently used in the Northwest Region, and (2) provide the Northwest, Olympic, Southwest, and Eastern Regions with electronic versions of an *Incident Response Guide, Field and Office Reference*, for them to complete with their own information and keep updated.

In general, the provision of an *Incident Response Guide, Field and Office Reference*, will

- ensure that each region has a comprehensive summary of incident management resource information
- provide quick identification of the procedures and equipment needed to control traffic and provide clearance at an incident scene
- help reduce incident duration and resulting congestion.

Specifically, this project will

- lend consistency to incident response procedures throughout the state of Washington
- ease training requirements for new WSDOT incident response personnel
- provide resource information and emergency contacts in a format that is easily updatable
- standardize data collection among the responding agencies to facilitate the implementation of the incident management database WSDOT has recently developed (currently, WSDOT collects no dispatch information and, consequently, has no way of measuring improvement).

Following this introductory information, Chapter 2 summarizes changes that were made to the Northwest Region's *Incident Response Guide, Field and Office References* on the basis of input from IRT personnel. The reasoning behind each of the changes is provided. Chapter 3 summarizes changes that were made to the Northwest Region's *Incident Response Guide, Field and Office References*, for applicability to other regions within the state. The conclusions resulting from this evaluation and recommendations for potential applications are summarized in Chapter 4.

CHAPTER 2 EVALUATION OF EXISTING INCIDENT RESPONSE GUIDE

This chapter summarizes the research approach taken during this evaluation and the resulting changes to the Northwest Region's *Incident Response Guide, Field and Office References*. Modifications made to this document for applicability in other regions of the state are described in a later section of this report.

RESEARCH APPROACH

In-depth interviews were conducted with the Northwest Region's Incident Response Team (IRT) personnel, who are currently utilizing the *Incident Response Guide, Field and Office References*. A summary of the information solicited from the IRT personnel is provided in Table 1. Through these interviews, the research team identified modifications needed for the *Incident Response Guide, Field and Office References*. These modifications consisted mainly of (1) additional information needed, (2) extraneous information to be omitted, and (3) improvements in the usability of the format of the *Incident Response Guide, Field and Office References*. These modifications are detailed below.

CHANGES TO THE INCIDENT RESPONSE GUIDE

Below is a description of the changes made to the *Incident Response Guide, Field and Office References*, in response to input from the IRT personnel in the Northwest Region. This description does not address each of the IRT interview questions singularly. Instead, the text describes overall changes in audience, document organization, content (i.e., additions and modifications), and physical design.

Audience

Because of information learned through this series of questions, the conversion of the *Incident Response Guide, Field and Office References*, to an electronic format focused on the *Office Reference* rather than the *Field Reference*. The *Office* and *Field*

Table 1. *Incident Response Guide* Evaluation Questions

GENERAL	What has the overall use of the <i>Office Reference</i> been?
	In what instances is it most often used (training)?
	What has the overall use of the <i>Field Reference</i> been?
	In what instances is it most often used (training, unusual circumstances, for contact list)?
DOCUMENT ORGANIZATION	Does the progression of information make sense?
	Is the information that is used most frequently easy to find?
PROCEDURES	Is the introductory information in this section helpful? Is it something that can be covered in training?
	Is the acronym list helpful? Is it used in the field? Are there additional acronyms that should be included?
	Is it helpful to have the procedures broken into daytime and nighttime? Is this consistent with staffing? Is there a night staff and a day staff? Should there be two separate documents for each?
	Are the telephone numbers out of date?
	Are the lines of communication followed when there's an incident? Should names be included as well as position?
	Is the procedures summary required? Would the procedures summary be more easy to follow if it were in the form of a checklist?
	Do daytime and nighttime procedures differ so much to warrant separate sections on the document?
	Is a description of how to fill out the unplanned roadway closure report necessary or is the form self-explanatory?
GENERAL INFORMATION	Are the definitions commonly used and understood by everyone? Are there additional definitions that should be added?
	Does the taper formula need to be included? Is the pre-calculated table sufficient?
	Is the maintenance area map helpful? Would it be more helpful to locate the sheds on the maintenance area map instead of providing a list?

Table 1. *Incident Response Guide* Evaluation Questions (continued)

GENERAL INFORMATION (Continued)	Is the information regarding shed location and equipment available helpful?
	Is the map providing the state patrol zones helpful?
	Are the requirements for the incident response vehicle up to date? Has new equipment been added or old equipment been deleted?
	What is the progress on the material storage sites? Are these sites being used? Would it be helpful to have a map showing the locations of the sites? Would it be helpful to have a computer program automatically tell you which site is closest based on your location? Have the contents at the material storage sites changed at all?
	Are procedures required to describe the restocking process (how the field crew requests a restock of something)?
CONTACT LIST	Have you found that either the names or addresses in the contact list are outdated?
	Are there other agencies <i>and</i> department <i>and</i> personnel who should be added to the contact list?
REFERENCE MATERIALS	Should any of the information that is provided in the reference section of the office document be included in the <i>Field Reference</i> ?
	Have there been any problems with the procedures outlines in the reference section (i.e. the procedures for pushing vehicles off the road or using flashing lights)?
PHYSICAL DESIGN	Is the size of the document convenient for use? Storage?
	has the materials used in the document held up well (paper, tabs)?
	Are the tabs helpful?
	Are the labels on the tabs descriptive enough?
	Are the pages of the document easy to turn or do they stick?
	Are the labels within the sections easy to follow?
Is the print in the document big enough for easy reading?	

References serve very different purposes. The *Office Reference* aids managers of the program, who do not respond to incidents but who must be adequately aware of program operations to make important and informed decisions regarding changes. It is a notebook size document printed on standard paper. On the other hand, the *Field Reference* was intended to serve incident respondents, who must act quickly after an incident and who are responsible for ensuring that operations proceed smoothly at the incident scene. It is smaller in size for convenient storage in the IRT vehicle, and it is printed on heavier, water resistant paper for longer wear.

With the evolution of the IRT program, the document's readership changed from field response personnel to new Incident Response Team members, administrative personnel responsible for the IRT program, and emergency personnel from agencies other than WSDOT. The research team was informed that once IRT personnel had successfully completed the required training to participate in the field, they seldom relied on the documentation. Because of that, and because the *Office* and *Field* References are identical with the exception of a "Reference Section" included in the *Office Reference* but omitted in the *Field Reference*, the research team decided to ignore the *Field Reference*. Further use of the title *Incident Response Guide* in this report refers only to the *Office Reference*.

The *Incident Response Guide* was modified to more directly address the following incident management needs:

- (1) to inform new Incident Response Team (IRT) members of their role in incident management, the response resources available to them, and the specific response and communication procedures they must follow as part of the IRT
- (2) to allow WSDOT managers to more immediately answer questions from both within and outside their agency regarding the Incident Response Team program and to justify any actions performed by the IRT as part of its duties
- (3) to familiarize agencies outside WSDOT with the purpose and duties of the IRT.

Although the *Incident Response Guide* can be readily utilized by a number of groups (i.e., new IRT members, WSDOT managers, outside agency personnel), the people who are anticipated to utilize the guide most comprehensively, from beginning to end, are new IRT members. Therefore, the majority of the text is dedicated to providing new IRT members with a clear understanding of their duties.

Organization of the *Incident Response Guide*

To address the needs of the new audience, the *Incident Response Guide* was reorganized. Originally, the document began with chapters on the most frequently needed and highly detailed information and ended with more general, background information. This organization encouraged easy and quick access to information. To encourage a more complete understanding of the IRT program and its operation, information in the updated *Incident Response Guide* progresses from the more general to the detailed. The change in document organization is shown in Table 2.

Original *Incident Response Guide*

Previously, the *Incident Response Guide* was divided into four sections:

- 1 Procedures
- 2 General Information
- 3 Contact List
- 4 Reference Materials

Section 1, "Procedures," described both summarily and in detail the procedures to follow when responding to an incident during either daytime or nighttime. Contact numbers were provided directly with the procedures in this section to speed the response process.

Section 2, "General Information," provided further procedural information regarding efforts not directly related to the incident response or clearance process, but relating more to site management aspects of the process. Information regarding proper traffic control procedures and available equipment was included.

Table 2. *Incident Response Guide, Office Reference Organization*

PREVIOUS GUIDE ORGANIZATION

1. PROCEDURES

- Introduction
- List of Acronyms
- Daytime Lines of Communication Chart
- Daytime Incident Response Procedures Summary
- Daytime Incident Response Procedures
- Nighttime Lines of Communication Chart
- Nighttime Incident Response Procedures Summary
- Nighttime Incident Response Procedures
- Unplanned Roadway Closure Report and Explanation Sheet

2. GENERAL INFORMATION

- Incident Scene Status
- Traffic Control
- Length & Device Spacing for Lane Closure & Channelization Tapers
- Response Equipment Availability
- WSDOT District Maintenance Area Map
- WSDOT Maintenance Sheds and Equipment
- State Patrol Zone Map
- Incident Response Vehicles
- Material Storage Sites
- Equipment from the Maintenance Area Offices

3. CONTACT LIST

- Introduction
- Maintenance Division
- WSDOT District One
- Creating a Staging Area
- WSDOT Headquarters
- Establishing Traffic Control
- Washington State Patrol, King County
- Washington State Patrol, North District
- Departments of Emergency Management
- Hazardous Materials Reference Numbers
- Recovery Companies

4. REFERENCE MATERIALS

- Parking Incident Response Vehicles at the Scene
- Establishing a Command Post
- Creating a Staging Area
- Removing Stalled or Disabled Vehicles from the Roadway
- Hazardous Materials Reference Numbers
- Hazardous Material Incidents
- Fatalities or Felony Incidents
- Using the VMS and HAR Systems
- VMS and HAR Site Maps
- On Scene Command and Communication Radio Network
- Interacting with the Media
- Incident Response Debriefing

UPDATED GUIDE ORGANIZATION

1. USING THIS GUIDE

- Organization of This Guide
- Updating This Guide

2. INCIDENT MANAGEMENT PROGRAM BACKGROU

- Introduction to Incident Management
- Participant Criteria
- Incident Response Vehicle
- Data Availability
- Reference Information

3. PROCEDURAL RESPONSE INFORMATION

- Step-By-Step Incident Response Procedures
- Using Emergency Lights
- Parking IRT Vehicles at the Scene
- Establishing a Command Post
- Removing Stalled/Disabled Vehicles
- Report Preparation
- Hazardous Materials Incidents
- Fatalities or Felony Incidents
- Using the VMS and HAR Systems
- Using OSCCR
- Interacting With the Media
- Incident Response Debriefing

4. CONTACT LIST

- Washington State Department of Transportation
- Washington State Patrol
- Departments of Emergency Management

Section 3, "Contact List," included all emergency personnel involved in incident response, including contacts from agencies outside WSDOT. The list consisted of representatives from the Washington State Department of Transportation, Washington State Patrol, Departments of Emergency Management, Environmental Protection Agencies, and Departments of Ecology.

Section 4, "Reference Section," provided general procedural information such as parking IRT vehicles, interacting with the media, and dealing with hazardous materials incidents. The procedures described in this section were omitted from the original *Incident Response Guide, Field Reference*, because they were either (1) not the main responsibility of the IRT members, or (2) learned in basic training.

New Incident Response Guide

Nearly all of the information contained in the original *Incident Response Guide* is included in the updated document but with a slightly different organization. The updated *Incident Response Guide* is also divided into four sections:

- 1 Using this Guide
- 2 Incident Management Program Background
- 3 Procedural Response Information
- 4 Contact List

Section 1, "Using This Guide," describes how readers can best utilize the updated *Incident Response Guide* to meet their information needs. In addition, instruction is provided for updating existing information.

Section 2, "Incident Management Program Background," provides both general and specific information about program requirements and resources. This information includes IRT participant criteria, a description of the IRT vehicle, and a summary of the equipment available for use by the IRT. Reference information such as commonly used terms, acronyms, or abbreviations is provided at the end of this section. Also provided is a description of the incident-related data that are maintained and available for IRT program evaluation.

Section 3, "Procedural Response Information," describes step-by-step response procedures for IRT personnel to follow. After the step-by-step response procedures are detailed, response instructions for special situations such as hazardous materials incidents or incidents involving fatalities are provided.

Section 4, "Contact List," provides a list of potential incident response contacts. This list includes everyone who is involved in incident response, including contacts from agencies outside WSDOT. Representatives from the Washington State Department of Transportation, Washington State Patrol, Departments of Emergency Management, Environmental Protection Agencies, and Departments of Ecology are listed.

Information Added to the *Incident Response Guide*

Brevity was an important consideration in the development of the original *Incident Response Guide, Field and Office References*. Descriptive text and background information were minimized to facilitate quick and simple access to the information contained in the document. Given the changes in both audience and intent, additional descriptive and background information is included in the updated *Incident Response Guide* to provide a more comprehensive view of IRT program operation. Table 3 summarizes the additional information included in the updated *Incident Response Guide*.

Table 3. Information Added to the *Incident Response Guide*

INCIDENT MANAGEMENT PROGRAM BACKGROUND	PROCEDURAL RESPONSE INFORMATION
Participant Criteria Work Status Response Requirements	Report Preparation Repair Cost Estimate
Incident Response Vehicle Vehicle Description Guidelines for Vehicle Use	
Data Availability Incident Response Database	
Reference Information Phonetic Alphabet	

Because new IRT personnel and incident respondents from non-highway oriented agencies may not be as aware of the urgency to clear an incident, additional indicators of incident delay and associated costs are included in the introductory material. In addition to local and national incident delay statistics, an example illustrates how such high economic costs are estimated, given the various components of traffic delay.

The "Incident Management Program Background" section contains more background information such as a description of IRT program participation criteria (work status and response requirements), a detailed description of the incident response vehicles and their use, and the availability of incident-related data. Instructional information has also been added to describe data entry procedures for the Incident Response Database currently in operation.

Information that was lacking in the original *Incident Response Guide, Field and Office References*, included a description of the repair cost estimate form and reference information such as the phonetic alphabet. Both items are included in the updated document.

Modifications to Existing Material

A description of the modifications made to the content of the *Incident Response Guide* is provided below by original section. Modifications included reorganizing the existing information, updating information that had changed, omitting extraneous information, and changing terminology.

1. Procedures

Table 4 summarizes the changes made to the "Procedures" section of the original *Incident Response Guide*.

In the original *Incident Response Guide*, incident response procedures were described in summary and in a more detailed form for both daytime and nighttime conditions. Repetitious information appeared among both the daytime and nighttime procedures and also among the detailed and summarized procedures. This meant that if a

Table 4. Summary of Changes: "Procedures" Section

PROCEDURES	
Introduction	incorporated into "INCIDENT MANAGEMENT PROGRAM BACKGROUND, Introduction to Incident Management"
List of Acronyms	moved to "INCIDENT MANAGEMENT PROGRAM BACKGROUND, Reference Information"
Daytime Lines of Communication Chart	omitted
Daytime Incident Response Procedures Summary	incorporated into "PROCEDURAL RESPONSE INFORMATION, Step-By-Step Incident Response Procedures"
Daytime Incident Response Procedures	incorporated into "PROCEDURAL RESPONSE INFORMATION, Step-By-Step Incident Response Procedures"
Nighttime Lines of Communication Chart	omitted
Nighttime Incident Response Procedures Summary	incorporated into "PROCEDURAL RESPONSE INFORMATION, Step-By-Step Incident Response Procedures"
Nighttime Incident Response Procedures	incorporated into "PROCEDURAL RESPONSE INFORMATION, Step-By-Step Incident Response Procedures"
Unplanned Roadway Closure Report and Explanation Sheet	moved to "PROCEDURAL RESPONSE INFORMATION, Report Preparation"
Seattle Radio Room Unplanned Roadway Closure Report and Explanation Sheet	modified and moved to "PROCEDURAL RESPONSE INFORMATION, Report Preparation"

change was made in one location in the guide and not the other, anyone using the guide risked following outdated procedures or guidelines. To facilitate simple and accurate updating of the *Incident Response Guide*, repetitive information was minimized whenever possible.

First, because of their similarity, the original daytime and nighttime incident response procedures were combined into a single set of step-by-step procedures. Any deviation from the general procedures is noted on the basis of incident circumstances (i.e., daytime, nighttime, major, minor). This organization better pinpoints where differences in procedures exist and also helps to ensure accuracy in updating the guide by reducing repetitious information.

Next, the procedures summary was omitted. However, the updated "Step-by-Step Procedures" section is formatted to maintain the easy look-up feature that existed with the original "Procedures Summary."

Specific contact numbers, originally contained in the "Procedures" section, were omitted for two reasons: (1) once out in the field, the IRT personnel do not refer to the list of procedures, and hence, do not see the contact numbers, and (2) to minimize repetitive information for simplified document updating (i.e., contact numbers now appear only in the "Contact List").

Using similar reasoning, the "Daytime and Nighttime Lines Of Communication" charts were omitted. The progression of contact is outlined in the list of procedures, and the contact numbers are duplicated in the "Contact List." The information contained on these charts is repetitive. In addition, being graphical, these charts would be difficult to update.

Any introductory information contained in the original "Procedures" section and the "List of Acronyms" were moved to the "Incident Management Program Background" section in the updated *Incident Response Guide*. The content of this section is described more fully in a later section of this report.

In the updated *Incident Response Guide*, a "Report Preparation" section was created. Instruction for completing the "Unplanned Roadway Closure Report" and "Seattle Radio Room Roadway Closure Report" were combined under this new section. The term "Highway Radio" replaced "Seattle Radio" to provide a clearer idea of the role this entity plays in incident response and to encourage applicability of the *Incident Response Guide* to other regions in the state. Additional information added to the "Report Preparation" section includes instruction for completing a "Cost Repair Estimate" and data entry procedures for the newly developed Incident Response Database.

2. General Information

Three types of information were provided in the "General Information" section of the original *Incident Response Guide*. These included

- a description of the equipment and training requirement of IRT participants
- procedural information for establishing traffic control
- maps depicting WSDOT maintenance and WSP zones.

The first type of information, equipment and training requirements was incorporated into the updated *Incident Response Guide's* "Incident Management Program Background" section. This section describes, in general, the requirements and skills required to participate as an IRT member and the resources available for use. Much of this information was updated.

All procedural information contained in the original document, such as the establishment of traffic control, was combined in the updated *Incident Response Guide's* "Procedural Response Information" section. This comprises two parts: (1) a description of detailed, progressive response procedures that describe *when* to act and (2) more general descriptions of non-progressive, often unrelated incident response procedures that describe *how* to act. Procedures for establishing traffic control are contained in the latter half of the "Procedural Response Information" section.

The third type of information, the zonal maps, was omitted from the updated *Incident Response Guide* because graphical information cannot be easily transferred or updated either as hard copy or in common computer applications (e.g., Word). However, the updated *Incident Response Guide* contains a note to insert these maps in the appropriate place so that a complete hard copy document will be available.

A summary of changes made to the "General Information" section are contained in Table 5.

3. Contact List

The "Contact List" section in the original *Incident Response Guide* was reorganized slightly to provide a more consistent organizational hierarchy (see Table 6). For example, the main heading, "WSDOT" was added; all WSDOT divisions and contacts are now contained under this heading (subheadings exist for clarity). Previously, WSDOT Maintenance Division personnel were listed as a separate entity; maintenance personnel typically have the highest frequency of incident-related calls and must be easily contacted. Because the intent of the *Incident Response Guide* changed somewhat and urgency is no longer prevalent, the Maintenance Division is incorporated with other WSDOT Divisions in the updated *Incident Response Guide*. However, the same order is maintained, starting with WSDOT Maintenance Division personnel and ending with WSDOT Headquarters personnel.

The towing companies were omitted from the updated *Incident Response Guide's* "Contact List" section. IRT personnel indicated that this information is unnecessary; the WSP or the motorist, if using a cellular phone, will call a wrecker from the rotational assignment list.

The "Contact List" needs to be updated regularly, as office locations change, telephone numbers change, and individuals assume new roles within the office. Numerous elements in the original "Contact List" section were updated from information provided by the Northwest Region's IRT personnel and the WSDOT telephone directory.

Table 5. Summary of Changes: "General Information" Section

GENERAL INFORMATION	
Incident Scene Status	incorporated into "INCIDENT MANAGEMENT PROGRAM BACKGROUND, Reference Information"
Traffic Control	moved to "PROCEDURAL RESPONSE INFORMATION, Establishing Traffic Control"
Length and Device Spacing for Lane Closure and Channelization Tapers	moved to "PROCEDURAL RESPONSE INFORMATION, Establishing Traffic Control"
WSDOT District Maintenance Area Map	omitted, with reference for insertion
WSDOT Maintenance Sheds and Equipment	moved to "INCIDENT MANAGEMENT PROGRAM BACKGROUND, Response Equipment Availability"
State Patrol Zone Map	omitted, with reference for insertion
Suggested Basic Training	moved to "INCIDENT MANAGEMENT PROGRAM BACKGROUND, Participant Criteria"
Incident Response Vehicle	moved to "INCIDENT MANAGEMENT PROGRAM BACKGROUND, Incident Response Vehicle"
Material Storage Sites	modified and moved to "INCIDENT MANAGEMENT PROGRAM BACKGROUND, Response Equipment Availability"
Equipment from the Maintenance Area Offices	modified and moved to "INCIDENT MANAGEMENT PROGRAM BACKGROUND, Response Equipment Availability"

Table 6. Summary of Changes: "Contact List" Section

CONTACT LIST	
Introduction	incorporated into "CONTACT LIST",
Maintenance Division	modified and moved to "CONTACT LIST, Washington State Department of Transportation"
Washington State Department of Transportation, District One	modified and moved to "CONTACT LIST, Washington State Department of Transportation"
Washington State Department of Transportation, Headquarters	modified and moved to "CONTACT LIST, Washington State Department of Transportation"
Washington State Patrol, King County	modified and moved to "CONTACT LIST, Washington State Patrol"
Washington State Patrol, North District	modified and moved to "CONTACT LIST, Washington State Patrol"
Departments of Emergency Management	modified and moved to "CONTACT LIST, Departments of Emergency Management"
Hazardous Materials Reference Numbers	modified and moved to "CONTACT LIST, Hazardous Materials Reference Numbers"
Recovery Companies	omitted

4. Reference Materials

Much of the "Reference Materials" section in the original *Incident Response Guide* was dedicated to describing accepted incident response practices for a variety of actions or situations. This information was combined with the step-by-step procedural information in the "Procedural Response Information" section of the updated *Incident Response Guide* (see Table 7). As mentioned previously, the "Procedural Response Information" section contains two types of information: (1) step-by-step procedures describing *when* to act and (2) general procedures describing *how* to act. All of the information contained in the original "Reference Materials" section was incorporated, unchanged, into the latter half of the "Procedural Response Information" section.

As with the WSDOT Maintenance and WSP zonal maps, the maps depicting the location of the HAR and VMS locations were omitted because they could not be easily transferred or updated within this document. However, the text contains a note for insertion of these items when a hard copy of the document is printed.

Physical Design

Because one of the main objectives of this project was to provide an *Incident Response Guide* in a format that would facilitate information updating and transfer of this document to other regions within the state, modifications to the original *Incident Response Guide* focused on providing an electronic format as an end product. Because each of the WSDOT regions use Microsoft Word, in either IBM or Macintosh format, the *Incident Response Guide* was updated in this application program. Additional benefits stemming from the use of this computer application for the updated *Incident Response Guide* include easy transferability between IBM and Macintosh formats and the maintenance of basic formatting (i.e., bold, underlining) when transferred. Printing of the updated *Incident Response Guide* is intended to be a simple task and to not require special printing capabilities or equipment.

Table 7. Summary of Changes: "Reference Materials" Section

REFERENCE MATERIALS	
Parking Incident Response Vehicles at the Scene	moved to "PROCEDURAL RESPONSE INFORMATION, Parking IRT Vehicles at the Scene"
Establishing a Command Post	moved to "PROCEDURAL RESPONSE INFORMATION, Establishing a Command Post"
Creating a Staging Area	moved to "PROCEDURAL RESPONSE INFORMATION, Creating a Staging Area"
Removing Stalled or Disabled vehicles from the Roadway	moved to "PROCEDURAL RESPONSE INFORMATION, Removing Stalled/Disabled Vehicles"
Hazardous Material Incidents	moved to "PROCEDURAL RESPONSE INFORMATION, Hazardous Material Incidents"
Fatalities or Felony Incidents	moved to "PROCEDURAL RESPONSE INFORMATION, Fatalities or Felony Incidents"
Using the VMS and HAR Systems	moved to "PROCEDURAL RESPONSE INFORMATION, Using the VMS and HAR Systems"
VMS and HAR Site Maps	omitted, with reference for insertion
OSCCR - On Scene Command and Communication Radio Network	moved to "PROCEDURAL RESPONSE INFORMATION, Using OSCCR"
Interacting with the Media	moved to "PROCEDURAL RESPONSE INFORMATION, Interacting with the Media"
Incident Response Debriefing	moved to "PROCEDURAL RESPONSE INFORMATION, Incident Response Debriefing"

To ensure effective transferability between Macintosh and IBM, the original *Incident Response Guide* was reformatted to be more simple. All graphics, including pictures, maps, charts, and tables, were omitted. Only basic formatting options were used, such as bold, underline, italics and indenting. Consistent heading and text styles were maintained throughout the document for ease in updating.

Dates are listed at the start of major sections. These dates must be updated each time the information in that section is updated. A hard copy of the affected section or the entire document should be printed when an important update is made. Inconsistency between the electronic version of the *Incident Response Guide* and any hard copies may lead to confusion and erroneous actions.

Information in the updated *Incident Response Guide* has been maintained topically, but rather than separate the information physically with tabs, a detailed, comprehensive table of contents is provided. The automatic table of contents feature may be utilized to ensure accurate pagination. The table of contents benefits WSDOT managers who need to respond to questions about the IRT program or to justify a particular action taken by the IRT. It also benefits outside agency personnel who are interested in a particular aspect of the IRT program.

CHAPTER 3 MODIFICATION FOR APPLICABILITY IN OTHER REGIONS

As was stated at the beginning of this report, consistency in incident response is important to quicken response and prevent confusion among respondents. Because the IRT program in the Northwest Region is the most evolved, many of the other WSDOT regions rely on guidance from Northwest Region IRT personnel to aid in the development of their own IRT programs. Therefore, many of the procedures followed by the Northwest Region's IRT personnel can be found in other regions in the state. Similar procedural duties require similar supporting background information. The similarity between the Northwest Region's IRT program and the more recently developed IRT programs in the Olympic, Southwest, and Eastern regions facilitates the application of the *Incident Response Guide* statewide.

Modifications to the Northwest Region's *Incident Response Guide* were minor in light of its application to other regions in Washington State. The research team was able to make some of the required modifications; other modifications were left for completion by regional IRT personnel. Below is a summary and discussion of the modifications that were made to the Northwest Region's *Incident Response Guide* for statewide application.

Modifications to the *Incident Response Guide* to make it applicable to other regions were minor. Some of the terminology was changed to reflect the different organizational structures among regions. For example, in the Northwest Region, incident calls are routed through the "Highway Radio Operator." However, in the other regions, many of the incident calls are routed through the "Maintenance Area Dispatcher." This terminology was changed to reflect region-specific procedures. Also, reference to the "IRT Supervisor" or "IRT Assistant Supervisor" were omitted from the statewide *Incident Response Guide*; these positions do not exist outside of the Northwest Region. A Maintenance Area Supervisor or Superintendent is responsible for the IRT program in other regions in the state.

Because the responsibility for completing the *Incident Response Guide* is left with IRT personnel in the Olympic, Southwest, and Eastern Regions, instructions for completing the guide are provided at the beginning of the document. These actions will consist of inserting region-specific information into the guide where appropriate. Three types of region-specific information are lacking: (1) a description of the region-specific IRT program organization (a description of the Northwest Region's IRT program organization is provided to indicate the types of information to include), (2) the region's maintenance shed and area office locations and the equipment available, and (3) the region-specific incident response list of contacts (numbers for the Headquarters WSDOT personnel are included in the *Incident Response Guide*, but all other WSDOT, WSP, and other emergency numbers need to be provided by regional IRT personnel).

CHAPTER 4 CONCLUSIONS AND RECOMMENDATIONS

An evaluation of the Northwest Region's *Incident Response Guide, Field and Office Reference*, indicated the following:

- The effectiveness of the original *Incident Response Guide, Field Reference*, was minimal for field response personnel at the scene of an incident; training and experience proved more useful than documentation.
- The original *Incident Response Guide, Office Reference*, proved more effective and appropriate as a reference for administrative and new IRT personnel.
- The format and organization of the original *Incident Response Guide, Field and Office References* are inappropriate for use by administrators and new personnel.
- As the IRT program has evolved, a number of procedures, resources, and contacts have changed; the electronic format of the updated *Incident Response Guide*, will help facilitate these updates.

The modification of the Northwest Region's *Incident Response Guide* for use in other WSDOT regions proved to be a simple step in ensuring consistency in incident response programs statewide for the following reasons:

- Much of the required background information and recommended IRT procedures are the same statewide.
- The impetus for developing a formal outline of incident response procedures, equipment, and resources is minimized when all the requirements are specified in a fill-in-the-blank format.

Two recommendations stem from the evaluation of the Northwest Region's *Incident Response Guide, Field and Office Reference*, and the development of a statewide *Incident Response Guide*. First, the utility of the *Incident Response Guide* depends on its accuracy. The document should be updated on a regular basis. Updating of the *Incident Response Guide* should be an assigned duty for someone involved in the IRT program. This individual could be either at the administrative or field level. A method should be developed for disseminating updates that affect IRT program operation statewide.

Second, the applicability of the *Incident Response Guide* to areas outside of Washington State should be considered. The document could act as a set of guidelines for urban areas initiating IRT programs and could facilitate the documentation of state-specific information for already established IRT programs by providing a fill-in-the-blank framework.

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