Incident Response: Quarterly Update

Overall Trend

During the third quarter of 2006, the WSDOT Incident Response (IR) Program responded to 16,167 incidents, an 11% increase from the previous quarter (14,505 responses). The increase in the number of responses and incidents is due to summertime peak travel activities. It is similar to the summer peak in 2005 (15,881 in quarter 3 of 2005). The third quarter of 2006 was a 1.8% increase over the same quarter in 2005.

Number of Responses and Overall Average Clearance Time

January 2002 - September 2006 Number in Thousands



Note: Program-wide data is available since January 2002. Prior to Q3 of 2003, number of responses by IRT are shown. From Q3-2003, responses by Registered Tow Truck Operators and WSP Cadets have been reported in the total.

Despite the increase in the number of responses, the average clearance time for all incidents remained at 17 minutes, the same level as the second quarter of 2006.

Fatality and Injury Collisions

The number of responses to fatality collisions decreased to 46 responses in the third quarter of 2006, versus 58 responses in the third quarter 2005. The number of responses to injury collisions also had a noticeable increase compared to the number in the third quarter 2005 (404 responses to injury collisions in quarter 3 of 2005 versus 474 in quarter 3 of 2006). The number of non-injury collisions remained unchanged.

Increase in Incidents Involving Fire

Brush and car fires normally increase during summer months. During the third quarter of 2006, there were 135 fire-related incident responses compared to last year's summer peak level of 98 responses. The number of responses to fires was the second highest since beginning of the program in 2002. The largest number of fire responses had occurred in the third quarter of 2003, with 152 responses.

Incidents Lasting Less Than 15 Minutes (9,617)

Other 4%

Debris 13%

Other 4%

Debris 6%

Debris 3%

Other 10%

Non-Injury Collisions 3%

Abandoned Vehicles 26%

Disabled Vehicles 54%

Abandoned Vehicles 5%

Non-Injury Collisions 17%

Injury Collisions 7%

Disabled Vehicles 61%

Disabled Vehicles 13%

Fatality Collisions 18%

Injury Collisions 31%

Non-Injury Collisions 23%

Injury Collisions were less than 1% (not shown). There were 19 Fires and 1 Hazardous Materials incidents in addition to or as a result of above incidents.

Incidents Lasting 15 to 90 Minutes (5,370)

There were 77 Fires and 17 Hazardous Materials incidents in addition to or as a result of above incidents.

Incidents Lasting 90 Minutes and Longer (240)

There were 20 Fires and 4 Hazardous Materials incidents in addition to or as a result of above incidents.

IR Responses to Fatality Collisions

January 2002 - September 2006



Incident Response Types

Total Incident Responses = 16,167 1,810 Collisions (11%) 13,417 Non-Collisions (83%) 940 Unable-to-Locate (6%)

Primary Reason	July	August	September
Fatality Collisions	17	16	13
Injury Collisions	139	167	168
Non-injury Collisions	338	464	488
Disabled Vehicles	2,578	3,028	2,861
Debris	473	559	555
Other	210	201	184
Supplemental Reason ¹	July	August	September
Fire	51	47	37
Hazardous Materials	10	6	7
Other Contacts	210	204	191

Source: WSDOT Incident Response Tracking System

¹Supplemental Reasons are in addition to or as a result of Primary Incident Types

Incident Response: Quarterly Update

Service Actions Taken for Non-Collisions¹

	July	August	September	
Traffic Control	506	664	637	
Provided Fuel	361	386	384	
Changed Flat Tire	345	373	352	
Minor Repair	207	272	234	
Pushed Vehicle	208	247	245	
Towed Vehicle	59	56	51	
Cleared Debris	475	546	527	
Other Actions	1,444	1,781	1,604	
Source: WSDOT Incident Response Tracking System				

¹Most common services actions only exclude various miscellaneous actions taken. Multiple action may be taken for each response.

Major Blocking Incidents Have Serious Effects on Congestion and Highway Safety

When travel lanes are blocked, an incident becomes extremely hazardous to traffic and congestion begins to build immediately. Blocking incidents tend to be more serious, and take longer to clear. Incident management (early detection, swift response, and removal of blockage from travel lanes) is critical both for highway safety and traffic operations to prevent congestion. The pie charts on the bottom right show that blocking incidents were over-represented (67%) in major incidents (lasting 90 minutes or longer). Only 22% of incidents cleared within 90 minutes were blocking travel lanes during the last 12-month period (October 2005 – September 2006). The majority of major incidents (81%) involved collisions. Nineteen percent were non-collisions, such as disabled vehicles, debris, spills of hazardous materials, and fire.

Average Clearance Time

WSDOT monitors total clearance time of each incident responded to by the IR Program. The total clearance time for an incident is measured from the start time through removal of blockage to the shoulder, cleaning or clearing of debris, until the last response unit drives away from the scene. Among all major incidents that had lasted 90 minutes and longer, average clearance time for major blocking incidents was longer than that of non-blocking major incidents (186 minutes for blocking versus 170 minutes for non-blocking). Longer clearance times prolong the period of time when motorists are exposed to hazardous roadway conditions and cause increased congestion on the roadway.

Cabinet Performance Measures and Goal

Due to the serious impact of blocking incidents on congestion and highway safety, major blocking incidents and the duration of lane blockages will be monitored for operational performance measures on the heaviest congested areas. These areas include Central Puget Sound and the I-5 corridor from Oregon to the Canadian Border. The cabinet strategic plan goal is to reduce the average duration of blocking incidents lasting 90 minutes and longer by 5% for these selected key highway segments.

The performance outcome will be reported directly to the Governor and her Cabinet.

Selected key highway segments include:

- I-90 to North Bend
- I-405
- SR 18 to I-90
- SR 16 to vicinity of Purdy
- SR 520
- SR 512
- I-205
- I-5 (Vancouver to Canadian Border)

Selection of Data Source for Cabinet Strategic Action Plan

Most of the key routes selected for Cabinet Goal performance monitoring are already covered by the WSDOT IR Program for roving patrol; however, the IR Program's focus is generally daytime during peak commute hours. Outside regular roving patrol hours, IR units must be called out to respond to major incidents. Therefore, the Cabinet Strategic Action Plan will use both the Washington State Patrol's (WSP) Computer

Responses to Incidents by WSDOT-Incident Response Program

Total Clearance Time Under or Over 90 Minutes* Blocking or Non-Blocking Travel Lanes 12-Month Period: October 2005 - September 2006

12-monin Feriou: October 2005 - September 200



Source: WSDOT-Incident Tracking System (Traffic Operations).

Total Clearance Time is the length of incidents from the start time until incident was cleared both from travel lanes and shoulder when the last response unit drives away from the scene; thus, the Total Clearance Time includes Duration of Incidents Blocking Lanes AND the time spent on shoulders for final removal/cleanup operations. Location of blockage for Blocking Incidents had to be travel lanes on mainline; therefore, blockage on ramp area was not considered as Blocking Incidents.

Incident Response: Quarterly Update

Aided Dispatch (CAD) System and the WSDOT Incident Response Tracking System (WITS) in order to capture all incidents, regardless of whether or not WSDOT's IR program responded to them. The map to the right shows the Cabinet Goal's critical monitoring routes in relation to the current IR core coverage zones.

For the baseline trend data (2005-2006), a portion of the data (January – September, 2006) are taken from both the WSP-CAD System and the WSDOT-WITS System. Prior to January 2006, WSDOT-WITS is the source of baseline data.

Cabinet Performance Measures for Incident Management

On Selected Key Highway Segments* January 2005 - September 2006 (Baseline Trend) Number of Blocking Incidents



* Selected Key Highway Segments--I-5 (Oregon to Canadian Border), I-90 to North Bend, I-405, SR 18 to I-90, SR 16 to Purdy, SR 167, SR 520, SR 512, and I-205.
** Baseline Data Source: 2005--WSDOT Incident Response Tracking System; 2006--WSP-Computer Aided Dispatch System.

