

Research Report
Research Project T1803, Task 37
Service Patrol

**EVALUATION OF THE INSTANT TOW DISPATCH
PILOT PROGRAM IN THE TACOMA AREA**

**A SUPPLEMENT TO
THE EVALUATION OF THE SERVICE PATROL PROGRAM
IN THE PUGET SOUND REGION**

by

Jennifer Nee
Research Engineer

Mark E. Hallenbeck
Director

Washington State Transportation Center (TRAC)
University of Washington, Box 354802
University District Building
1107 NE 45th Street, Suite 535
Seattle, Washington 98105-4631

Washington State Department of Transportation
Technical Monitor
Gerald W. Althausen
Maintenance/IRT Supervisor, Northwest Region

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**EVALUATION OF THE INSTANT TOW DISPATCH PILOT
PROGRAM IN THE TACOMA AREA**

**(A SUPPLEMENT TO THE EVALUATION OF THE SERVICE PATROL
PROGRAM IN THE PUGET SOUND REGION)**

As part of the Service Patrol Pilot Demonstration effort, the Service Patrol Study Steering Committee proposed a separate element, the Instant Tow dispatch program (IT)—also known as an “expedited” rotational call-out tow truck program—to be evaluated for its potential for reducing incident response time¹. The goals of the IT test program were to decrease congestion and reduce potential safety risk on the highway by providing timely removal of blocking collisions or disabled vehicles.

In the original test operations from January through April 2002, the IT dispatch was not successfully implemented as designed because the protocol for the expedited dispatch process was not followed consistently. At the August 5, 2002, IT meeting, the project partners (WSDOT, Washington State Patrol, Washington Tow Truck Association) decided that additional effort should be made to ensure that the protocol for the expedited dispatch process was consistently followed as designed, followed by another round of data collection over a three-month period from September through November 2002. However, while efforts were made to ensure that the protocol for the expedited dispatch process was consistently followed, the use of expedited tows in the Tacoma study area was still limited in the coverage area during the hours of its operation. As a result of the limited number of data collected, no definitive conclusion about the program’s effectiveness can be established. However, the available information seems to indicate that the IT protocol allows tow vehicles to be notified more quickly than the standard rotational tow truck (RT) call-out protocol; hence it would help decrease overall incident time and resulting traveler delay.

¹ The original implementation of the IT element was delayed because of difficulties with WSDOT camera; therefore, it was not part of the original report scope.

This supplement summarizes the institutional and operation issues affecting the IT Dispatch pilot program, the evaluation results based on the operations from September through November 2002, and the evaluation's recommendations.

BACKGROUND

The concept of instant tow operation was identical to the Washington State Patrol (WSP) rotational tow system, except for an expedited dispatch. The operational plan for the IT element (as defined within the WSP document "District I Instant Tow Dispatch Program (A POPS Project)" was for WSP to monitor the traffic, verify conditions using Washington State Department of Transportation (WSDOT) cameras, and dispatch tow trucks accordingly. Incidents would be verified with WSDOT's freeway cameras and other input to quickly determine the necessity for a tow. Once an incident had been verified as blocking one or more lanes of travel, WSP Communications would dispatch registered tow truck operators on WSP rotational call-out lists to incidents at the same time that WSP troopers were dispatched.

This process would differ from the standard rotational tow truck call-out in that tow vehicles would be called before a WSP officer physically reached the scene. Having the WSP dispatcher call for tow assistance on the basis of reported conditions and video verification rather than waiting for a WSP officer to arrive on the scene would decrease the time between an incident's occurrence and tow truck arrival.

The issue of who would pay for a tow that became unnecessary following dispatch, en route, or upon arrival at the scene (i.e., "a dry run") was discussed. The tow industry agreed to absorb the "dry run" costs for the duration of the IT pilot. The pilot included a data collection element to track the number of "dry runs" actually experienced, so that if the number of "dry runs" was significant, some funding could be set aside in some state-funded budget to provide reimbursements for such "dry run" costs.

The hours of the IT dispatch, augmented by the service patrol program during the peak hours of traffic congestion, were from 9:30 AM to 2:30 PM and from 6:30 PM to

5:30 AM on weekdays and 24 hours during weekends and holidays. The coverage area for the program included I-5 between SR 512 and the Port of Tacoma Road, SR 512 between Steele Street and the I-5 Interchange, and SR 16 between the I-5 Interchange and the west end of the Narrows Bridge.

PROGRAM OUTCOME (JANUARY-APRIL 2002)

The IT dispatch was not successfully implemented as designed because the protocol for the expedited dispatch process was not followed consistently. Because the expedited dispatch process was not always followed, the number of incidents that could be evaluated under the IT protocols was very small. As a result, the data upon which to base a quantitative evaluation of the project were insufficient. The implementation difficulties are described more fully below.

Institutional Issue

One prominent institutional issue was that the WSP Communications staff tended to rely on troopers to initiate the tow request rather than taking over that responsibility as intended by the IT concept. The Communications staff are trained to follow specific protocols and are accustomed to the mind set, “Don’t do anything until the trooper tells you to.” Many troopers still preferred to arrive at an incident scene first to confirm whether a tow was needed before a tow truck was dispatched. This preference reinforced the Communications’ staff traditional approach to tow truck call-out. The concept of expedited tow required them to behave contrary to their training and was thus difficult for them to implement.

Operational Issue

A factor that contributed to the reluctance on the part of WSP Communications staff to take the lead in dispatching tows was that the desired video image was not always available, either because of equipment malfunction or because of inadequate roadway camera coverage. The WSDOT freeway surveillance cameras were supposed to be able

to confirm the validity and location of a reported incident and to assist the WSP Communications personnel in making a decision to call for an expedited tow. Despite the cameras' pan, tilt, and zoom capabilities to provide the best possible roadway coverage, some roadway locations can not be seen. In addition, during the test period, video from several WSDOT cameras occasionally became unavailable. Although camera problems were fixed within a short time (from a few hours to a few days, depending on the nature of the problem), when this occurred, WSP dispatch staff had to rely on troopers in the field to confirm the location and status of incidents and the need for a tow vehicle. These instances, while limited, further undermined the adoption of a new procedure for calling tow truck vehicles into action.

MODIFIED OPERATION APPROACH

At the August 5th meeting, the partners felt that additional effort should be made to ensure that the protocol for the expedited dispatch process was consistently followed as designed. Although valuable qualitative lessons were learned during the four-month test period, it would be beneficial to look at program effectiveness from a quantitative standpoint (e.g., reduction in response time, frequency of dry runs, etc.) when the program was implemented as intended. Therefore, another round of data collection was to occur over a three-month period from September through November 2002

To ensure an increase in the appropriate use of expedited tows, additional in-house training was provided by WSP Communications to educate and train its staff on the expedited protocol. The other change to the operations was that the Communications staff were no longer required to dispatch an instant tow only if it was verified by the cameras. Rather, an instant tow was to be dispatched if the Communications staff deemed it necessary. The towers were still required and agreed to record appropriate time stamps. These training activities and changes occurred during the month of August 2002. A copy of the revised IT operational plan is included in Appendix A.

PROGRAM OUTCOME (SEPTEMBER-NOVEMBER 2002)

The test operations from September through November 2002 did not show significant improvement in active use of the expedited tows. Within the study focus areas and hours, 217 blocking incidents (e.g., collision, disabled, and abandoned) were recorded in the WSP’s CAD logs over the three-month study period, and the IT protocol was used about 8 percent of the time (see Table 1). Of the 18 incidents with IT dispatch, three were labeled as dry runs (meaning that a tow vehicle was requested but not actually required), and only seven were recorded by towers’ call-out form. About 44 percent of all blocking incidents identified during the study period involved a request for tow services by WSP. The majority of tow requests were still made using the standard RT protocol; IT was dispatched about 20 percent of the time when a tow was needed.

Table 1. Frequency of IT Dispatching for Blocking Incidents

	<i>Total</i>	I-5	SR 16	SR 512
Blocking Incidents	<i>217</i>	135	55	27
Tow Assigned	<i>95 (44%)</i>	60 (44%)	22 (40%)	13 (48%)
IT Protocol Used	<i>18 (8%)</i>	11 (8%)	7 (13%)	0 (0%)

Despite the low rate of usage, the available information seems to indicate that the IT protocol would decrease the time between assigning a state trooper for incident investigation and requesting a tow service; hence it would help decrease overall incident time and resulting traveler delay². Given the standard RT protocol, the soonest that a tow truck can be notified is after a state patrol officer arrives at the scene (see Figure 1). WSP dispatch data showed that, on average, a rotational tow was requested about 18 minutes after a state patrol officer was assigned to an incident. (Time was needed to wait for the officer to arrive at the scene, decide on a course of action, and notify the WSP Communications Center that a tow truck was needed.) Since the IT protocol differed from the standard RT call-out in that tow vehicles were called *before* a WSP officer

² This assumes that the IT protocol has no impact on a tow truck’s arrival time and clearance time.

physically reached the scene, this decreased the time between when an officer was assigned and when tow truck notification occurred. It typically took about 3 minutes to dispatch a tow after a WSP investigating officer was assigned.

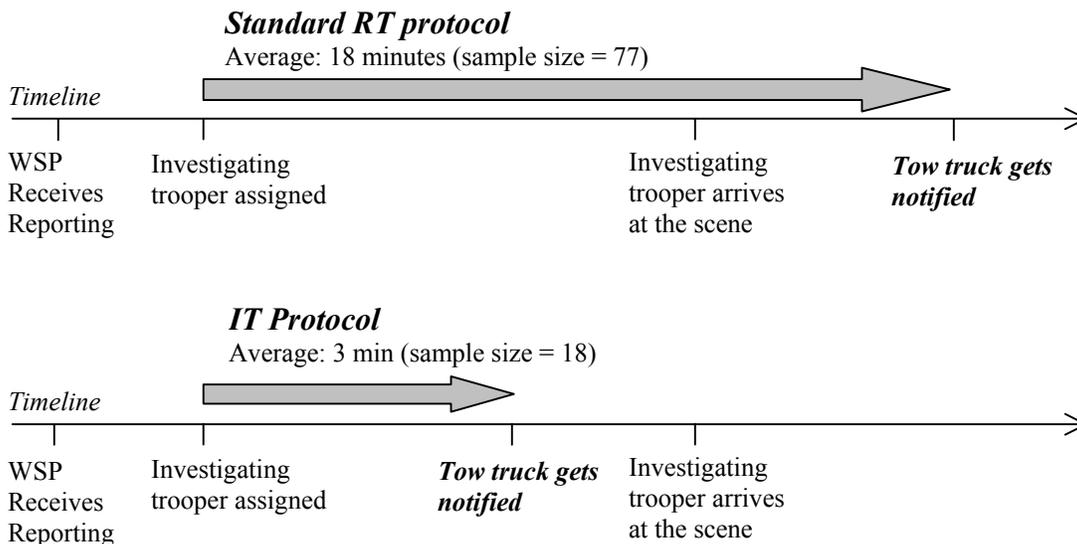


Figure 1. RT vs. IT protocol

CONCLUSIONS AND RECOMMENDATIONS

While the expedited dispatch protocol was modified and additional training was provided in an attempt to increase the use of expedited tows based on valuable qualitative lessons learned during the original four-month test period, the use of IT protocols was still limited in the subsequent three-month test period. Because of a limited number of data, it is not possible to conclusively evaluate the program effectiveness from a quantitative standpoint (e.g., reduction in response time, frequency of dry runs, traveler savings, etc.). However, the available data did indicate positive effects when IT protocol was used. Results suggest that the IT protocol allows tow vehicles to be notified more quickly than the standard RT protocol, 3 minutes vs. 18 minutes. (Also note that the cost of the faster service was marginal.)

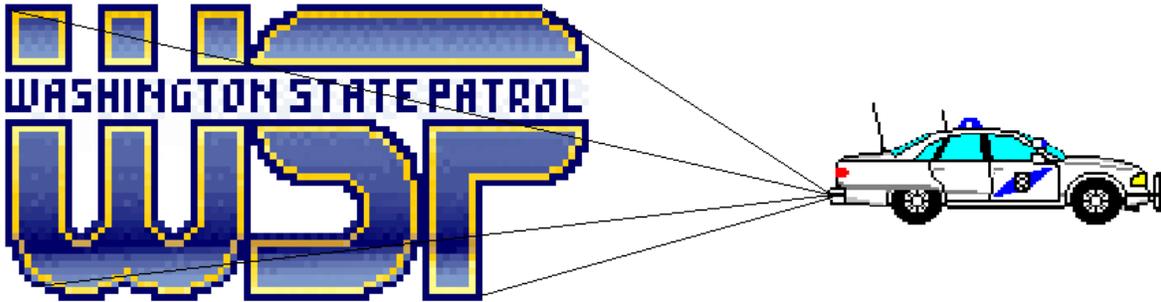
The evaluation team recommends discontinuing further evaluation work on this effort. If WSP and WSDOT decide to continue this effort, WSP should continue to track

how often expedited tows are called. If expedited tows require expending taxpayer funds and the frequency of IT dispatch exceeds a certain amount (e.g., 20 IT dispatches per month), then the cost of the service may warrant a more careful analysis of the benefits.

APPENDIX A
INSTANT TOW DISPATCH PROGRAM
OPERATIONAL PLAN

WASHINGTON STATE PATROL

District 1
INSTANT TOW PROGRAM
(A JOPS Project)



Participating Partners:

Washington State Patrol
Washington State Department of Transportation
Washington Tow Truck Association

Revised August 2002

**Washington State Patrol
Instant Tow Dispatch
2502 112th Street East
Tacoma Washington 98445**

Summary/Overview

The Washington State Patrol, Washington State Department of Transportation and local tow companies are implementing a test program called “Instant Tow Dispatch”. The purpose of this program is to better serve the motoring public by the timely removal of blocking or disabled vehicles on Interstate 5, State Route 16 and State Route 512 in specified high traffic areas.

The program will be tested for three months and then evaluated by the Washington State Transportation Center (TRAC) University of Washington in collaboration with the WSP and WSDOT to determine its effectiveness. This three month test is a continuation of a pilot which ran from January 2002 through April 2002. The WSP, WSDOT and the tow industry met in August 2002 to review and refine the pilot. The three month test, scheduled for September 1 through November 30, incorporates minor dispatch protocol changes from the original operations plan. Coupled with more education within the partners’ implementation staffs, these changes will lead to consistent data from which an objective evaluation can be performed.

Collisions/disabled vehicles that are blocking one or more lanes of travel will have one tow truck dispatched immediately to the scene. WSP Communications will dispatch a tow truck from the current rotational list that is in effect. The collision/disabled vehicle dispatch information to the appropriate zone responsible for that area will not change.

By dispatching one tow truck, it is anticipated the trooper and the tow truck should arrive at approximately the same time. This would save valuable time and reduce prolonged traffic backups due to the obstructions.

Tow truck drivers that arrive at collision scenes prior to troopers will not relocate the vehicles. Tow truck drivers may position their vehicles to protect the scene until the trooper arrives and provides further guidance. Disabled vehicles should be removed from the freeway and WSP Communications advised of the location.

Focus Area

The focus area for the “Instant Dispatch Tow” will be as follows:

Interstate 5 – Northbound and Southbound between mileposts 127 (SR 512) and 136 (Port of Tacoma Road).

State Route 512 – Eastbound and Westbound between Steele Street and Interstate 5.

State Route 16 – Eastbound and Westbound between Interstate 5 and the Narrows Bridge.

Operational Hours

The proposed hours of Instant Tow Dispatch are as follows:

Monday – Friday 9:30 a.m. to 2:30 p.m. and 6:30 p.m. to 5:30 a.m.

Saturday/Sunday and Holidays – 24 Hours

- **Service Patrol hours are 5:30 a.m. to 9:30 a.m. and 2:30 p.m. to 6:30 p.m.**
- **Service Patrol will be utilized during its normal patrol hours unless they are unavailable.**

WSP Responsibilities

Communications: Monitor the traffic in focus area utilizing citizen reports and WSDOT cameras. Upon notification of an incident blocking a lane of travel, activate one instant tow in conjunction with appropriate zone notification for collisions or blocking disabled vehicles.

Tow trucks not utilized will be returned to the top of the rotational list.

Maintain statistical information from the tow companies indicating the number of “dead runs” and actual tows off the roadway.

Compile monthly statistics to be used for future evaluations.

Troopers: Provide timely and accurate information indicating arrival time at the scene, when roadway was reopened and if the instant tow was used or not needed.

If the tow truck is not utilized, advise WSP Tacoma Communications to return the tow truck back to the top of the rotational list.

WSDOT Responsibilities

Create and maintain an accountability form to be used by the tow truck drivers to record vehicle/driver information, location information, times, dates etc.

Maintain the existing cameras and advise WSP Tacoma Communications when or if cameras become inoperative.

Tow Companies’/Drivers’ Responsibilities

Provide one tow truck for instant dispatch upon request from WSP Tacoma Communications. Additionally, advise **WSP** if a tow truck is not immediately available so that the request can be made of the next tow company in rotation.

During the test period, all partners understand and agree that all costs incurred by the tow industry for the “dry runs” will be absorbed by the individual tow companies participating in the test.

Maintain a log of actual tows used and “dry runs”.

Fax completed report forms to WSP Tacoma Communications daily @ (253) 536-4360.

Drivers’ Responsibilities

Collision Scenes – Upon arrival at a collision scene, DO NOT MOVE THE VEHICLES prior to arrival of the troopers. Driver may position the tow truck in the roadway to protect the scene. If injuries are obvious, contact dispatch to relay the information to WSP Tacoma Communications.

Disabled Vehicles – Tow vehicles off the roadway to the next exit ramp or appropriate safe location.

Complete the accountability form that is provided from WSDOT.

**TOW COMPANIES PARTICIPATING
IN THE INSTANT TOW DISPATCH PROGRAM**

TOW COMPANY

REPRESENTATIVE

Gene's Towing – North and South

Michael Meyers

Town and Country Towing

Price & Sheryl Miller

Automotive Transport and Towing

Carl Barry

Bayview Towing and Collision

Susan Walthall

A-1 Towing

Michael Byrd

Parkland Towing

Cindy Gordon

Lucky Towing

Beverly West

Fife Towing

Philip Waldner

Fife Recovery

Dave Bowe

Bill's Towing

Tom Lomis

Emerald Towing/Transport

Teresa Rollins

Liberty Towing

Bill Sullivan

Western Towing

Forrest Thompson

Lakewood Towing

David Goerger

Tacoma Towing

Brian Paige

ABT Towing

Travis Mackmer

PROGRAM CONTACTS

Washington State Patrol

CO IV Bob Cutcher
Lt. Steve Kalmbach
2502 112th Street East
Tacoma WA 98455
(253) 536-4351 or 4302

Washington State Department of Transportation

Mr. Jim Mitchell
2502 112th Street East – Room 161
Tacoma WA 98446 (253) 536-6020

Washington Tow Truck Association

Mr. Stuart A. Halsan
Attorney At Law
PO Box 1049
Centralia WA 98531
(360) 561-1835

Independent Towers' of Washington

Mr. Jerry Goddard
2724 Pacific Ave. SE
Suite B
Olympia WA 98501

(360) 943-8240 – Call Jerry

