

**FY 2000
ITS Service Plan
Oregon Division**



April 17, 2000

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ITS Service Plan Development

The activities described in this ITS Service Plan are consistent with the strategic goals of increasing safety and improving mobility that have been identified in the U.S. Department of Transportation and the Federal Highway Administration (FHWA) Strategic Plans.

The FHWA Oregon Division Office in cooperation with the following agencies developed this Service Plan: Oregon DOT, City of Portland, the Tri-County Metropolitan Transit Authority (Tri-Met), and the TransPort Stakeholders. Feedback and support was also requested from the FTA Region 10 Office in Seattle.

The High Priority Regional Goals identified in this Service Plan are derived from ODOT's ITS Strategic Plan. The ODOT ITS Strategic Plan provides a framework for implementing ITS in the metropolitan areas and throughout the state. The Service Plan Goals are designed to align the available federal resources to the State and Local agency goals and to prioritize Oregon Division actions in order to support our partners in successfully meeting their goals. The Service Plan Actions are designed to advance the completion of the Regional ITS goals in a time frame that is reasonable, achievable, and acceptable to ODOT, the local officials, and the Division Office. These actions may include project administration, monitoring, technology transfer, information/publication dissemination, presentations, research, standards coordination, engaging Peer to Peer, arranging for scanning tours or conducting training workshops.

This ITS Service Plan addresses the general ITS needs of the State of Oregon, including the Metropolitan areas of Salem, Bend, Medford, and Eugene; and the separate and specific needs of the Portland Metropolitan area.

The ultimate goals of this ITS Service Plan are to improve safety and reduce delays on our Nation's highways through the improved operations and management of the transportation system in the state of Oregon and to mainstream ITS into the current transportation planning process.

Based on the feedback received by our partners, this Service Plan addresses the needs of not only the state agencies, but the needs of the local agencies as well. As the ITS Program in Oregon continues to mature, this ITS Service Plan will be revised to provide the most up-to-date resources to continue meeting the needs of all stakeholders.

FY2000 SERVICE PLAN FOR:

X Metropolitan Area: **Portland**

" State-Wide/Multi-State Area:

Executive Summary

Service Plan Goal	Ranking	Requested FY2000 Funding
<i>Complete and integrate regional plans in the Portland Metropolitan Area to develop a Regional Architecture.</i>	1	\$20,000
<i>Raise the awareness of and the need for Standards in ITS deployments.</i>	2	\$2,000
Total FY2000 Targeted Funds Request		\$22,000

Date

April 17, 2000

Developed By:

/s/ Nathaniel T Price

FHWA

/s/ Mitzi McMahan

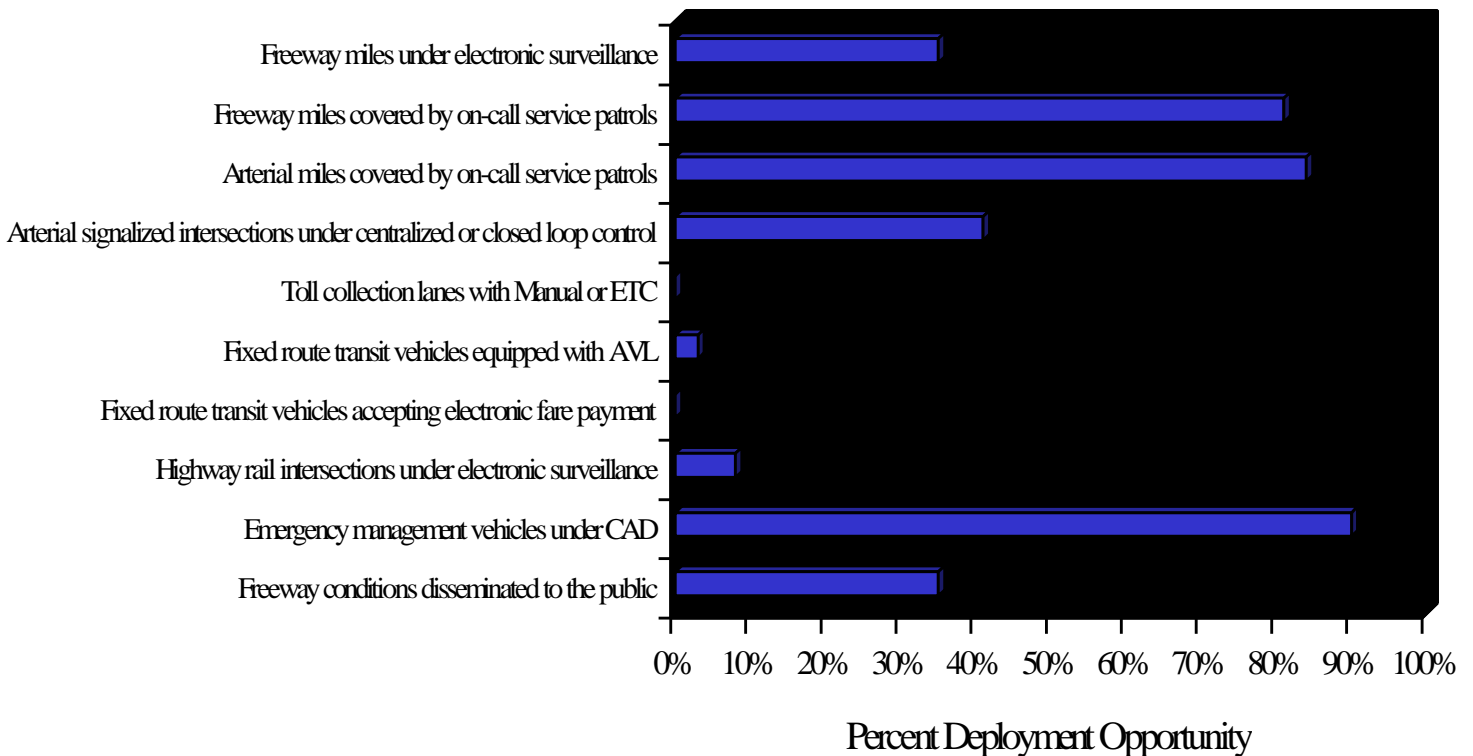
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Portland Metropolitan Area ITS Assessment

The Portland Metropolitan region has demonstrated an aggressive program of successful Intelligent Transportation System (ITS) projects including the implementation of operational systems and regional cooperation that guides integrated and coordinated planning, policy and project decision strategy toward a goal of a fast, safe, efficient, accessible, convenient and sustainable transportation system. This focus continues into the 21st century as efforts are rededicated toward enhancements to an already extensive ITS, and the creation of new capabilities that leverage current investments in freeway, arterial, and transit management and operational infrastructure.

As depicted in the 1999 Deployment Tracking Survey for Portland, there are several areas of activity involving ITS. A significant number of operational ITS subsystems and user services have been deployed in the Portland region including transportation management centers at ODOT Region 1, the Cities of Portland and Gresham, and for Tri-Met regional bus and light rail service. The local solution to coordinate ITS action was to form a regional stakeholder committee, which has been meeting on a regular basis since early 1996. The committee, known as the TransPort 2000 Partnership, is actively and equally involved in continuing ITS strategy and project planning.

1999 Portland/Vancouver Deployment Tracking Survey Summary Indicators



When it comes to a discussion of baseline infrastructure and operational capabilities to support the next steps in regional urban ITS, the three largest owner-operators are ODOT, Portland, and Tri-Met.

ODOT Freeway Management: The ODOT Region 1 Traffic Management Operations Center (TMOC) is the regional freeway management facility. The TMOC reuses and tailors the Georgia DOT (GDOT) Advanced Traffic Management System (ATMS) subsystem to manage and control the regional freeway ramp metering, mainline detectors, surveillance CCTV and dynamic message signs. The facility is the keystone and focal point in the regional plan for transportation systems integration and information sharing capabilities. The ODOT fiber backbone freeway right-of-way is a key shared communications resource for all regional ITS integration.

City of Portland Arterial Management: The Portland Traffic Operations Center (TOC) is the regional arterial management facility. By Inter-Governmental Agreement (IGA) the City of Gresham and Multnomah County share this regional and corridor management capability through existing publicly-owned and shared communications infrastructure as they consider their unique ITS needs and requirements. Portland has operational signal control systems that provide signal preemption for emergency response and is currently deploying, in coordination with Tri-Met, transit signal priority capabilities on major transit service corridors. Portland and Tri-Met have a long and successful history of cooperation on corridor planning and signal timing for optimizing transit bus and light rail service to the region. As with ODOT, the City of Portland has an extensive fiber, and a regional wide-area wireless data radio system that are two additional shared communications resources essential to regional ITS integration.

Tri-Met Transit Management: The Tri-Met bus fleet (fixed and Para-transit) and light rail provides transit service to the three counties and most major urban centers, including service to/from neighboring Vancouver, WA. The Tri-Met bus fleet is equipped with GPS-based Automatic Vehicle Location (AVL) and wide-area wireless voice and data capabilities. Neighboring C-TRAN (Vancouver, WA) currently operates three of their vehicles with Tri-Met on-board systems as an experiment prior to their decision on (potentially) a seamless regional AVL system for both transit properties. The on-board systems provide signal priority capability, and real-time vehicle/route schedule tracking and vehicle location information of significant benefit for transit information to riders and for use as regional traffic probe data. Tri-Met light rail provides extended east-west corridor service and will soon include service to Portland International Airport (PDX). This rail corridor right-of-way includes a fiber optic system, which as above, is a final key shared resource for use in regional ITS integration.

These significant operational urban ITS systems, along with other concurrent and planned activities have recently been characterized in terms of the National ITS Architecture. The TransPort 2000 Partnership is working on refining and completing the effort of developing a Regional Architecture for the Portland Metropolitan Area that would combine the plans from all stakeholders and form a regional framework from which to plan future integrated and interoperable ITS activities.

Portland Service Plan Goals

	High-Priority Regional Goals	FHWA/FTA Service Plan Goals (Opportunities to Enhance or Assist In Achieving the Regional Goals)	Ranking of Service Plan Goals (1 - High)
Integration Institutional Arrangements	<i>Develop coordinated and integrated regional plans for ITS deployment.</i>	<i>Complete and integrate local plans in the Portland Metropolitan Area to develop a Regional Architecture.</i>	1
Integration	<i>Develop and deploy integrated and interoperable ITS in Oregon.</i>	<i>Raise the awareness of and the need for Standards in ITS deployments.</i>	2

Portland Service Plan Actions

Service Plan Goal 1 *Complete and integrate local plans in the Portland Metropolitan Area to develop a Regional Architecture.*

Set of Service Plan Actions (Bundles)	Service Plan Funds	Partner Funds/Resources	Time Frame For Implementation
FY99 and Earlier Activities:			
Development of Local Plans (including ODOT, City of Portland, and Tri-Met).		\$30,000 TransPort Stakeholders	FY 1999 and Prior
Host NHI 13613: Using the National ITS Architecture for Deployment (Tuition).		\$1616.00 (FY99 Non-Targeted)	July 1999
FY00 Activities:			
Coordinate monthly TransPort Stakeholder meetings to identify ITS inventory and future needs in the region.		TransPort Stakeholders	Ongoing
Host Tier II Workshop to integrate multiple local plans into a single regional architecture.	\$20,000	ODOT	August 2000
Develop Regional Architecture and engage Peer-to-Peer for review and feedback.		Peer-to-Peer	June 2000
Develop Final Regional Architecture.		TransPort Stakeholders	September 2000
FY01 Activities:			
Implement Regional Architecture.		TransPort Stakeholders	September 2001
FY2000 TOTALS	\$20,000		
FY2001 TOTALS	--0--		

Portland Service Plan Actions

Service Plan Goal 2 *Raise the awareness of and the need for Standards in ITS deployments.*

Set of Service Plan Actions (Bundles)	Service Plan Funds	Partner Funds/Resources	Time Frame For Implementation
FY99 and Earlier Activities:			
FY00 Activities:			
Two ODOT ITS Specialists attend two ITS America Courses on Interoperability, Telecommunications, and Systems Integration.		\$4,360 FY99 and FY00 Non-Targeted	March 2000
Commitment to use ITS Standards in FY 00 ITS Integration Program Projects.		~\$2.7 million ITS Integration Program	September 2000
Host ITS Course, "NTCIP and ITS Standards - What Do They Mean for You?"	\$2,000	ITE	July 2000
Engage Peer-to-Peer on various ITS Standards related questions.		Peer-to-Peer	September 2000
FY01 Activities:			
Incorporate ITS Standards into future ITS projects.		ODOT	Ongoing
	FY2000 TOTALS	\$2,000	~\$2.7 million
	FY2001 TOTALS	--0--	

FY2000 SERVICE PLAN FOR:

" Metropolitan Area: _____

X State-Wide/Multi-State Area: **Oregon**

Executive Summary

Service Plan Goal	Ranking	Requested FY2000 Funding
<i>Increase awareness of a ITS and the National ITS Architecture, fostering activities that begin the process for Regional Architecture development.</i>	1	\$5,000
<i>Develop a Statewide Transit Trip Planning System to allow easier transit travel across jurisdictional boundaries.</i>	2	\$5,000
<i>Increase support in assessing ATIS business models for use in the Portland Metro Area and Statewide.</i>	3	\$10,000
Total FY2000 Targeted Funds Request		\$20,000

Date

April 17, 2000

Developed By:

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Oregon State ITS Assessment

In addition to the deployed operational ITS in ODOT Region 1, the Portland metropolitan area, Oregon has an extensive deployed infrastructure of roadside systems, data collection and information dissemination capabilities in rural and urban areas of Regions 2-5. The State is concurrently developing a statewide and regional architecture and continues with an aggressive urban-rural and rural ITS program to integrate weather and traffic sensors, dynamic message signs and highway advisory radio to the benefit of travelers. The State is also embarked on a bi-state cooperative regional effort with California—this California-Oregon Advanced Transportation System (COATS) project will further define, design and deploy bi-state solutions to integrate ITS systems and information to benefit the I-5 corridor, rural traffic management and incident response, and significant enhancements to all of southern Oregon and northern California tourism and traveler information services.

The following is a list of several operational and planned rural and statewide ITS activities that are currently underway.

- **California-Oregon Advanced Transportation System (COATS):** The goal of the COATS project is to improve safety and efficiency for rural travelers. ODOT and CalTrans are partnering to investigate the feasibility of ITS throughout a bi-state study area.
- **Frontier:** The Frontier project is researching the benefits of travel-time estimation in Oregon. Using advanced technology; ODOT will have the capability of reporting the current average speeds along congested corridors.
- **Highway Cameras, VMS and Road Weather Information Systems (RWIS):** ODOT has deployed a number of CCTV cameras, VMS and RWIS stations on mountain passes and critical locations to allow operators and travelers access to current road and weather conditions and to provide warnings to drivers when necessary.
- **Statewide Virtual Transit Mall:** ODOT's Public Transportation section is working on developing a statewide transit trip planning system that would allow travelers access to one location to plan their transit trip, whether it was a local trip on one carrier or a regional trip that might use multiple agencies.
- **Highway Travel Condition Reporting System (HTCRS) and TripCheck:** HTCRS is a computer application project that provides "real time" road condition information to the traveling public. The information is delivered to ODOT's traveler information Web site, TripCheck.com.
- **Regional and Statewide Architecture Development:** In an effort to ensure that various ITS systems work in concert with one another and that they sufficiently support the goals for which they are designed, ODOT has begun development of regional architectures in the smaller urban areas outside of the Portland region. These regional architectures will be combined to form a statewide architecture, known as the "Oregon Architecture."

Statewide Service Plan Goals

	High-Priority Statewide Goals	FHWA/FTA Service Plan Goals (Opportunities to Enhance or Assist In Achieving the Regional Goals)	Ranking of Service Plan Goals (1 - High)
Integration & Institutional Arrangements	<i>Increase awareness of ITS and begin development of a Statewide Architecture (Including metro areas of Bend, Eugene, Medford, and Salem).</i>	<i>Increase awareness of ITS and the National ITS Architecture, fostering activities that begin the process for Regional Architecture development.</i>	1
Infrastructure Deployment & Integration	<i>Develop a comprehensive Statewide Transit Trip Planning System.</i>	<i>Develop a Statewide Transit Trip Planning System to allow easier transit travel across jurisdictional boundaries.</i>	2
Infrastructure Deployment	<i>Develop a statewide ATIS business model.</i>	<i>Increase support in assessing ATIS business models for Statewide Traveler Information.</i>	3

Statewide Service Plan Actions

Service Plan Goal 1: *Increase awareness of ITS and the National ITS Architecture, fostering activities that begin the process for Regional Architecture development.*

Set of Service Plan Actions (Bundles)	Service Plan Funds	Partner Funds/Resources	Time Frame For Implementation
FY99 and Earlier Activities:			
Host ITS Awareness Course in Salem.		FHWA	FY 1997
FY00 Activities:			
Two ODOT ITS Specialists attend TMC Workshop in Phoenix, AZ.		\$1,500 FY00 Non-targeted	April 2000
ITS Oregon President Attend ITS America Annual Conference.		\$1,850 FY00 Non-targeted	April/May 2000
Conduct ITS Architecture Workshops and surveys around the state to begin development of regional architectures.		\$100,000 – ODOT Pooled Funds - COATS	April 2000
Develop Statewide "Oregon Architecture". This will combine the regional architectures for Portland, Bend, Salem, Eugene, Medford, and LaGrande with statewide components to form the overall statewide architecture.		ODOT/COATS STIP and SPR Funds	June 2000
Traffic Management scanning trip for ITS/Traffic staff outside of the Portland Metropolitan area to AZTech Showcase, or similar structured activity.	\$5,000		July 2000
Support for ITS Oregon Chapter of ITS America.		ODOT/FHWA	Ongoing
FY01 Activities:			
Implement Regional and Statewide Architectures.		ODOT	Ongoing
FY2000 TOTALS	\$5,000	\$103,350	
FY2001 TOTALS	--0--		

Statewide Service Plan Actions

Service Plan Goal 2: *Develop a Statewide Transit Trip Planning System to allow easier transit travel across jurisdictional boundaries.*

Set of Service Plan Actions (Bundles)	Service Plan Funds	Partner Funds/Resources	Time Frame For Implementation
FY99 and Earlier Activities:			
Send ODOT ITS Coordinator to FTA Workshop, "Benefits of ITS in Transit."		\$527 FY99 Non-targeted	November 1999
FY00 Activities:			
Scanning trip to Southern California to view their multi-jurisdictional transit trip planning system.	\$5,000		May 2000
Engage Peer-to-Peer with questions pertaining to rural transit and advanced technologies available.		Peer-to-Peer	June 2000
Engage Peer-to-Peer with questions pertaining to Multi-jurisdictional transit trip planning systems.		Peer-to-Peer	June 2000
Develop Scoping Report for Statewide Transit Trip Planning System.		\$70,000 - ODOT	September 2000
FY01 Activities:			
Develop and Implement a Statewide Transit Trip Planning System.		\$6 million – FHWA / ODOT / Transit Agencies	Ongoing
FY2000 TOTALS	\$5,000	\$70,000	
FY2001 TOTALS	--0--	\$6 million	

Statewide Service Plan Actions

Service Plan Goal 3: *Increase support in assessing ATIS business models for Statewide Traveler Information.*

Set of Service Plan Actions (Bundles)	Service Plan Funds	Partner Funds/Resources	Time Frame For Implementation
FY99 and Earlier Activities:			
Host NHI Course (#13603) "ITS Public/Private Partnerships".		ODOT	July 1998
Develop HTCERS and TripCheck Traveler Information Web Site.		\$350,000 - ODOT	September 1999
FY00 Activities:			
Scanning trip to ATIS sites with different ATIS business models. Preference of sites with a statewide model.	\$10,000		July 2000
Engage Peer-to-Peer with questions pertaining to ATIS business models.		Peer-to-Peer	August 2000
Begin development of a Statewide ATIS business model.		ODOT	September 2000
FY01 Activities:			
Implement Statewide ATIS Business model.		ODOT	Ongoing
FY2000 TOTALS	\$10,000		
FY2001 TOTALS	--0--		