Systems Operations and ITS Section

455 Airport Rd SE, Bldg K, Salem, OR 97301

The System Operations and ITS Section of the Maintenance and Operations Branch provides statewide leadership and coordination for delivery of ODOT's Operations Program. We have broad responsibilities including; setting program goals and measuring their progress, supporting integration of operations concepts into planning documents, providing ITS engineering support for project delivery teams, developing and maintaining operations related software systems, maintaining road side equipment, implementing asset management strategies, and evaluating new technology. Operation of the transportation system requires multi-jurisdictional collaboration, requiring us to work closely with other state and local agencies and some private organizations to achieve our Operations Program goals.

The functions specifically performed by our team include:

2018 Key Projects:

Mt Hood: US26 & OR35 ITS Project

I-205: Johnson Creek-Glenn Jackson Bridge Phase 2 Section

Cabbage Hill: I-84: NE OR Snow Zone Safety Improvements Project

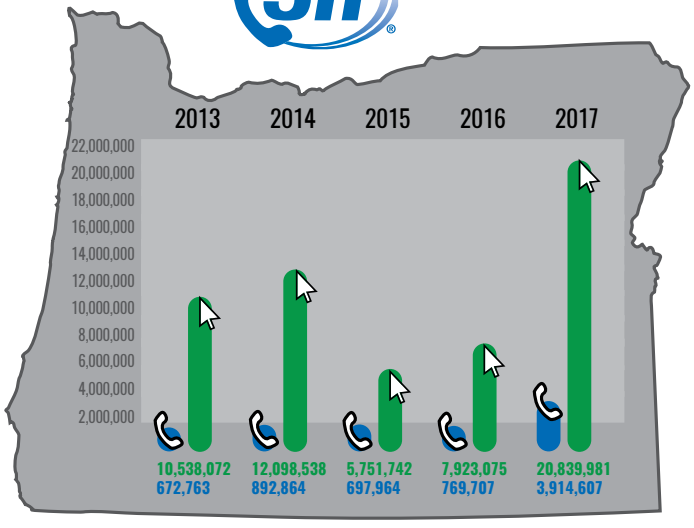
ITS Engineering

The ITS engineering team provides specialized design services related to ITS and ITS related traffic structures. It is a centralized design function supporting the region tech centers in delivering projects with an ITS element.

- Provides scoping support and design for the ITS portion of region projects
- ITS, Electrical, and Network/Communications Design
- Traffic Structure Design
- Perform systems engineering work to comply with federal requirements
- Develop and maintain statewide standards and statewide price agreement contracts for ITS equipment
- Evaluate projects
- Assess new technology for adoption in Oregon

Traveler Information

Operate, maintain, and enhance ODOT's various outlets for information about the current status of the transportation system.



Total TripCheck & 511 Sessions/Visits Per Year

- Manages TripCheck, 511 and cable TV outlets
- Responds to inquiries from citizens via the TripCheck email box or AskODOT
- Operates a real time data portal that shares agency data with third parties that integrate ODOT data into smart phone apps, web sites, in vehicle systems and other applications that extend the reach of the agency traveler information
- Provides tools for local agencies to share information about local roads through TripCheck and the data portal
- Develop and implement agency processes for gathering traveler information and audit data quality for compliance with Federal requirements

Traffic Incident Management

Provide statewide leadership for implementing safe, quick clearance Traffic Incident Management strategies in Oregon.

- Provides statewide leadership for traffic incident management standards, training and procedures
- Is the agency liaison to other statewide TIM partners including Oregon State Police, Oregon Fire Marshall, Oregon Tow Truck Association, and Oregon Sheriff's Association, and others
- Develop and implement internal TIM training programs
- Coordinate and deliver the national TIM training curriculum for all first responders in Oregon
- Share best practices and communicate TIM strategies to Oregon first responders through an electronic newsletter, regular posts to a TIM Facebook page, providing support for Region TIM Team meetings, and the annual Oregon TIM Conference

255 SESSIONS DELIVERED IN 2017

Oregon TIM Responder Training Program

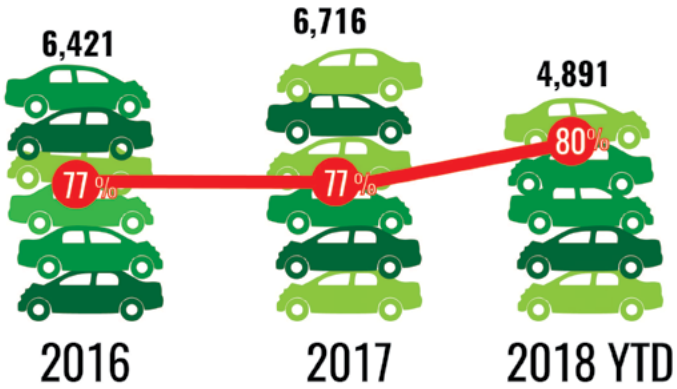
5,740 Total Trained

FIRE/RESCUE	2,453
TRANSPORTATION & PUBLIC WORKS	1,579
LAW ENFORCEMENT	944
TOWING/RECOVERY	449
OTHER	238
ONLINE	86
EMS	77

*As of August 31, 2018

State Highway Total Lane Blocking Crashes

% Cleared in Under 90 Minutes



System Operations Performance Measures

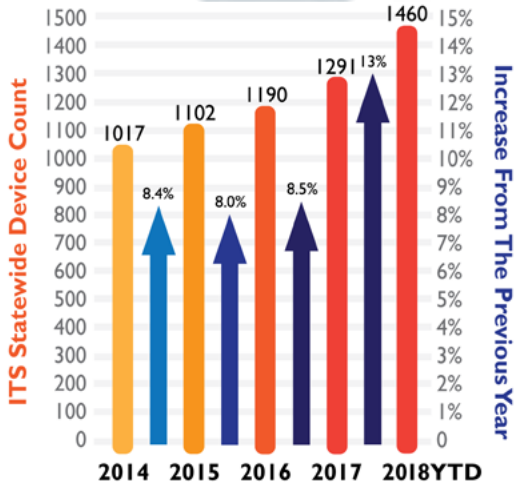
Improving the Operations Program through better use of data to make informed decisions.

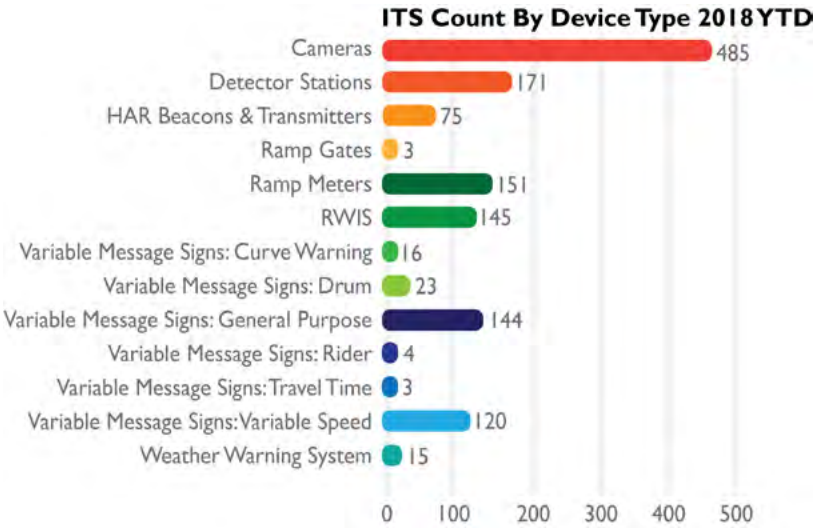
- Develop and maintain reports and dashboards covering six program areas: Traffic Incident Management, Traveler Information, Transportation Operations Center Management, Operations Asset Management, Mobility and Work Management
- Evaluate the effectiveness of operational improvements
- Generate information to help managers make decisions that improve the efficiency of the transportation system through optimizing effectiveness of operations and management strategies, manage transportation assets to extend their life, reduce maintenance costs, and effectively manage program resources

ITS Field Maintenance

Keeping ODOT's ITS assets in good working condition.

- Maintains over 1,400 ITS devices thought the state
- Perform scheduled preventative maintenance to keep equipment in good operating condition
- Perform commissioning of new equipment installed through construction projects
- Manage ITS inventory system and ITS/electrical maintenance management system

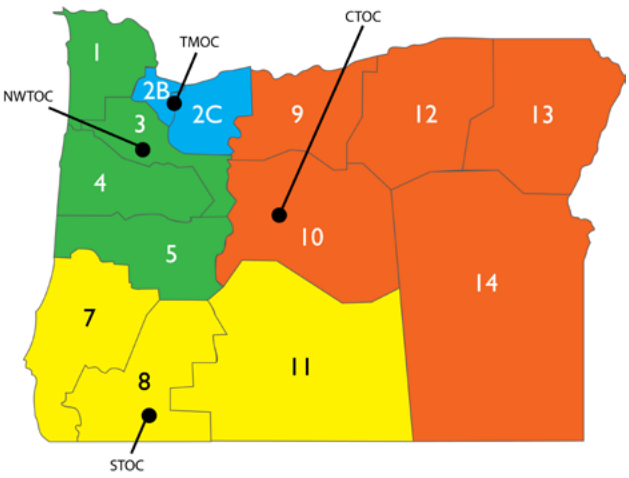




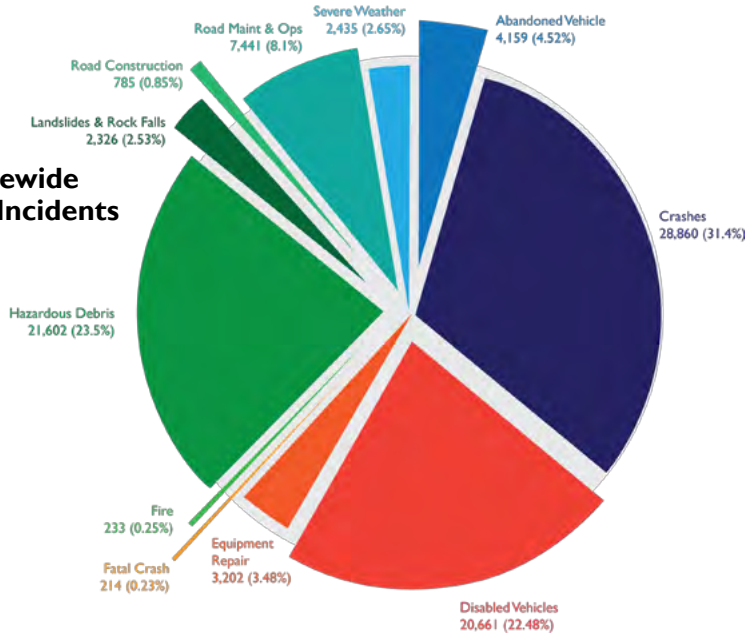
TOC Operations

Coordinate and ensure effective delivery of TOC services.

- Coordinate the operation of ODOT's four Transportation Operations Centers (TOC) located in Portland, Salem, Bend and Central Point
- Develop and implement standard operating guidelines for TOC services
- Provide training for TOC software
- Gather and prioritize TOC software bugs and enhancement requests
- Gather requirements and perform user acceptance testing for software systems
- Organize and perform tests and drills
- Coordinate and collaborate with OSP and 911 center dispatch services



2017 Statewide Highway Incidents Total



Traffic Systems Services

Provide statewide support for signal maintenance and construction.

- Test new signal cabinets to meet State guidelines and project requirements for both ODOT and local agencies
- Perform commissioning of new or reconstructed traffic signals
- Perform annual inspections on signals and signal cabinets to ensure they are functioning properly
- Perform annual signal asset condition rating
- Provide level 1 and level 2 signal maintenance training
- Manages a storeroom inventory for signal replacement parts
- Test and evaluate new signal technology

36 traffic signal turn ons completed

814 annual traffic signal inspections

142 external traffic signal inspections

Key Issues

System Operations & ITS Key Issues

- Traffic Systems Services Unit reorganization
  - ITS Tech recruiting challenges (and electricians)
  - Apprenticeship program development
  - TST Class specification update
- New Operations Program Plan (August 2018)
  - Plan implementation
- ITS Feature Growth (~8%/year) & ITS Maintenance staffing
- Connected Vehicle Pilot projects & Preparing for Automated Vehicles
  - Mission Street CV Signal project
  - Real-Time Data portal modernization
  - AV Task Force Road and Infrastructure Design Subcommittee
  - SAE Infrastructure Needs Related to Automated Driving Working Group
- TOC Operations
  - TOC Software (TOCS) – Electrical/ITS Maintenance Management System (Micromain Integration – October 2018
  - Response Plan Software – March 2019
- Traffic Incident Management
  - 3 new dedicated Incident Responders (District 7,8, and 10) through HB 2017.
  - National TIM Training Program
- Assist Management for Operations Program

Oregon Department of Transportation

Maintenance Operations Branch
Systems Ops & ITS // TSSU

Luci Moore
State Maintenance & Operations Engineer
PEM H X7012 SR38X
Crew 7820 Pos # 3401011

Galen McGill
ITS Manager
PEM F X7010 SR35X
Crew 7605 Pos # 2301078

Jason Shaddix
TSSU Manager
PEM E X7006 SR31
Crew 7640 Pos # 3491008

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Traveler Info. & Performance Measures Coordinator
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Blaine Van Dyke
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Crew 7605 Pos # 0015813

Weston Shippy
Operations Support Specialist
AS1 C0107 SR17
Crew 7605 Pos # 0000320

Management Supervisory
Mgt Non-Supervisory
Non-Management Staff
Rotation
Soft Report

(DF) = Doublefill
(LW) = Lead Worker
(WOC) = Work out of Class
(S) = Seasonal
(PT) = Part Time

Last Updated: 9/20/18

Oregon Department of Transportation

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Laura Wilson
Traffic Systems Tech 3
TST3 C4311 SR27
Crew 7641 Pos # 3491028

Clyde Case
Traffic System Tech 2
TST2 C4310 SR25
Crew 7641 Pos # 3491009

Terry Belcher
Traffic System Tech 2
TST2 C4310 SR25
Crew 7641 Pos # 3491006

John Carpenter
Traffic System Tech 2
TST2 C4310 SR25
Crew 7641 Pos # 3491002

Kenneth Groves
Chamber Technician 3
TST3 C4311 SR27
Crew 7641 Pos # 3491003

Michael Ly
Chamber Technician 2
TST2 C4310 SR25
Crew 7641 Pos # 3491007

Vacant (LW)
R1 ITS Support Coordinator
ISS6 C1486 SR29
Crew 7641 Pos # 2111090

Jason Stadelman (WOC)
R1 ITS Support Tech 3
TST3 C4311 SR27
Crew 7641 Pos # 1631042

John Prada
R1 ITS Support Tech 3
TST3 C4311 SR27
Crew 7641 Pos # 9901107

Ann Mintz
R1 ITS Support Tech 2
TST2 C4310 SR25
Crew 7641 Pos # 3491034

Vacant
R1 ITS Support Technician
TST2 C4310 SR25
Crew 7641 Pos # 3521283

Tony Owens
R2 ITS Support Coordinator
ISS6 C1486 SR29
Crew 7641 Pos # 3461008

James Toops (WOC)
R2 ITS Support Tech 3
TST3 C4311 SR27
Crew 7641 Pos # 3491031

Joel Brock
R3 ITS Support Coordinator
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Crew 7641 Pos # 2111089

James Wittenberg
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Crew 7641 Pos # 1315001

Ryan Groshong (LW)
R4 ITS Support Coordinator
ISS6 C1486 SR29
Crew 7641 Pos # 013037

Benjamin Williston
R4 ITS Support Tech 3
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Crew 7641 Pos # 1631043

Howard Richardson
R5 ITS Support Coordinator
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Crew 7641 Pos # 1651025

Jeffrey Cooper
R5 ITS Support Tech 3
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Sue Trummel
Office Coordinator
OC C0801 SR15
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Matthew Knight
R2 Apprentice Rotation
ISS6 C1486 SR29
Crew 7641 Pos # 0371022

Management Supervisory
Mgt Non-Supervisory
Non-Management Staff
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Transportation Application Development

ITS Central Systems Maintenance

Keeping ODOT's operations software systems functioning effectively 24x7, 365 days per year.

- Monitor and maintain the approximately 44 software systems that monitor road conditions, process data and actively operate the transportation system
- Perform system health monitoring
- Respond to and repair any system failures
- Perform small feature enhancements to existing systems
- Provide asset lifecycle management for ITS servers and network equipment

ITS software projects:

Response Plan System

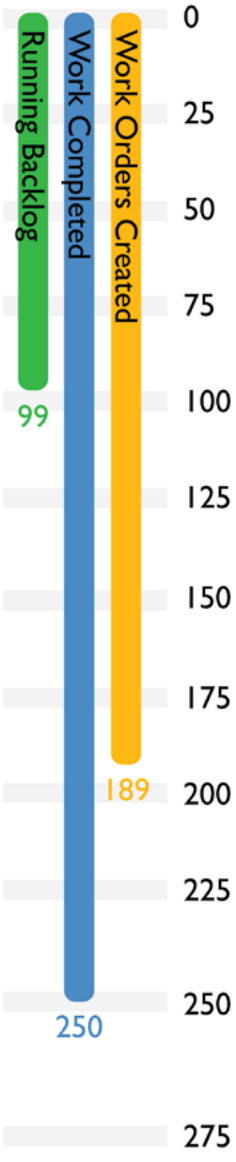
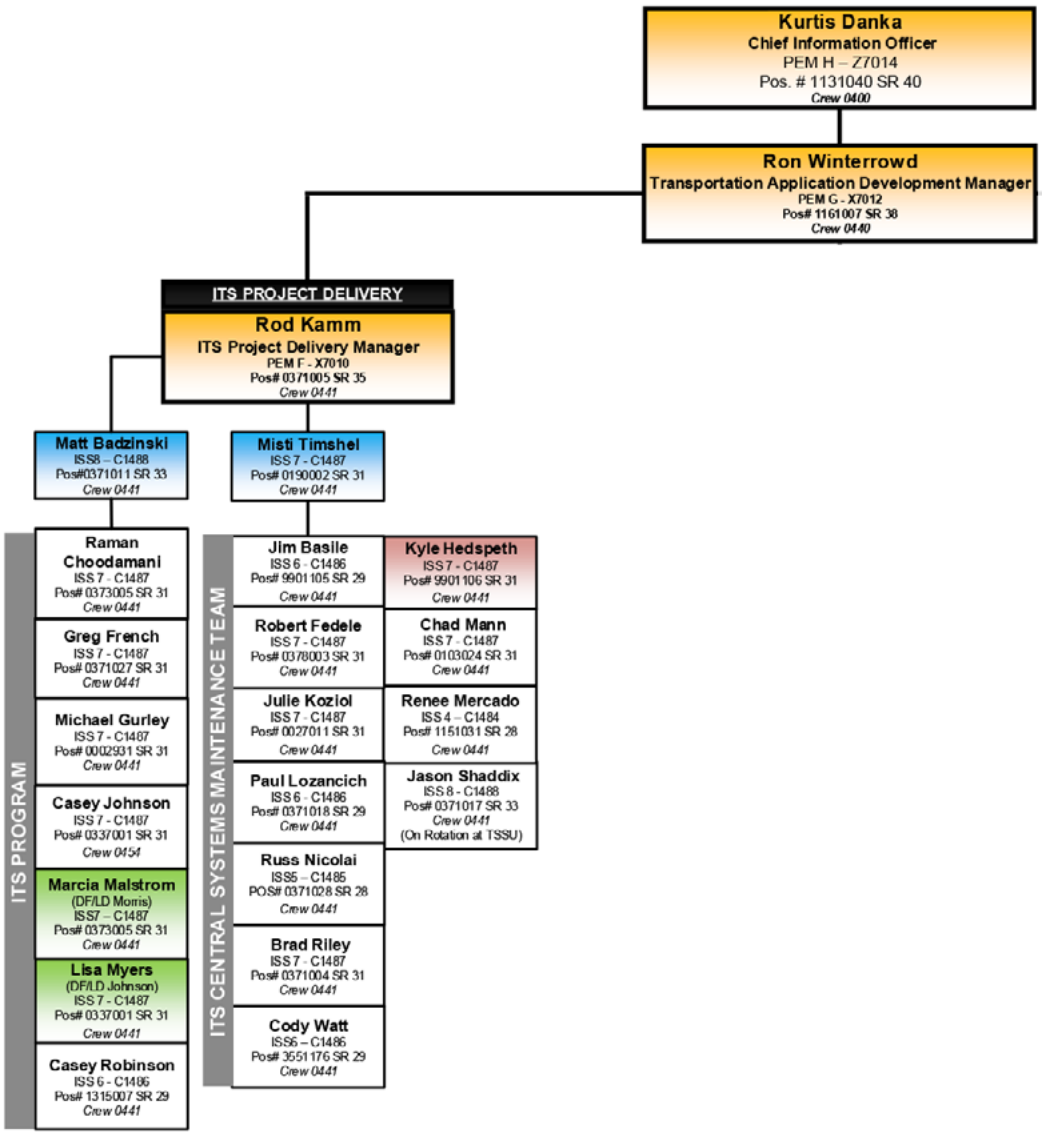
TripCheck API

TOCS/MicroMain Integration

TLE Modernization/ Implementation

ITS Software Development

Provide software development services for larger software development of enhancement projects.

- Provide project management and systems engineering services for ITS software projects
- Comply with Office of the State CIO requirements for software projects
- Develop and manage contracts with software vendors

Request for Work 2018YTD