

HOTM

Office of Transportation Management



FHWA Arterial Management Program

Baltimore-Washington Regional
Traffic Signal Forum

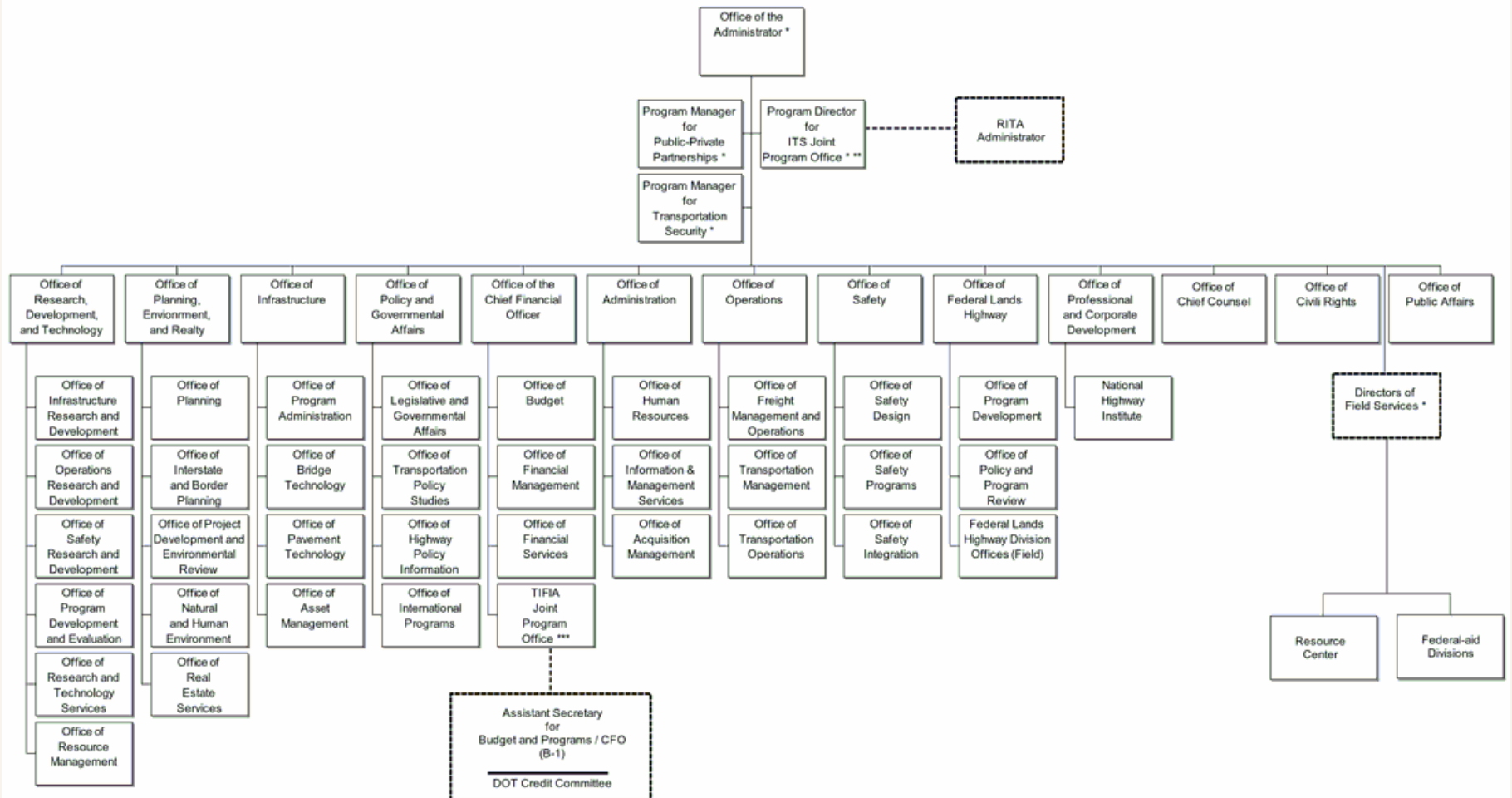
March 14, 2007

Eddie Curtis P.E.
FHWA Resource Center

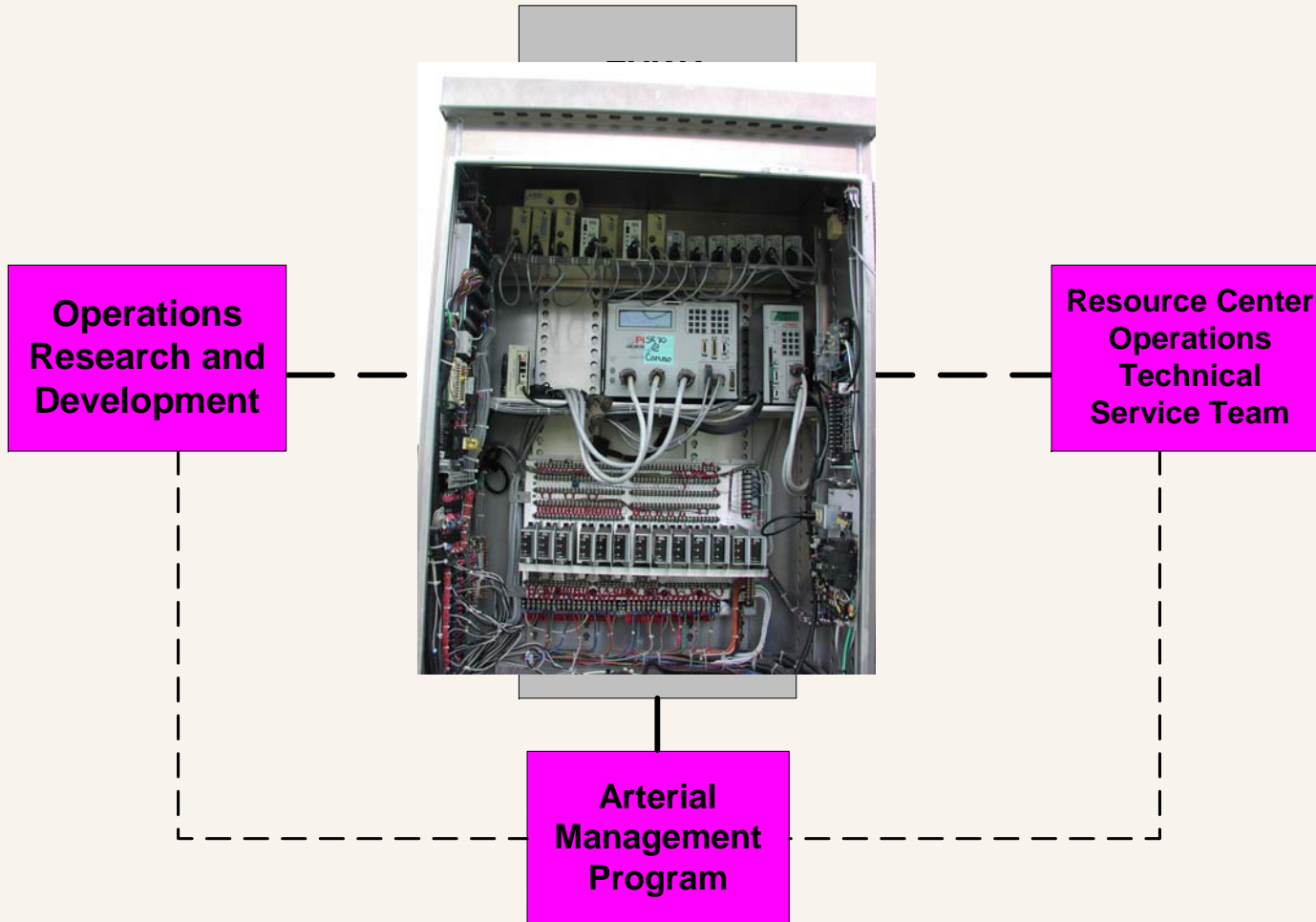
FHWA

- Division Offices
- Headquarters
- National Highway System
- Federal Aid Program
- Oversight and Stewardship
- Code of Federal Regulations
- Funding
- ISTEA, SAFETEA-LU

FHWA Organization



Arterial Management Program



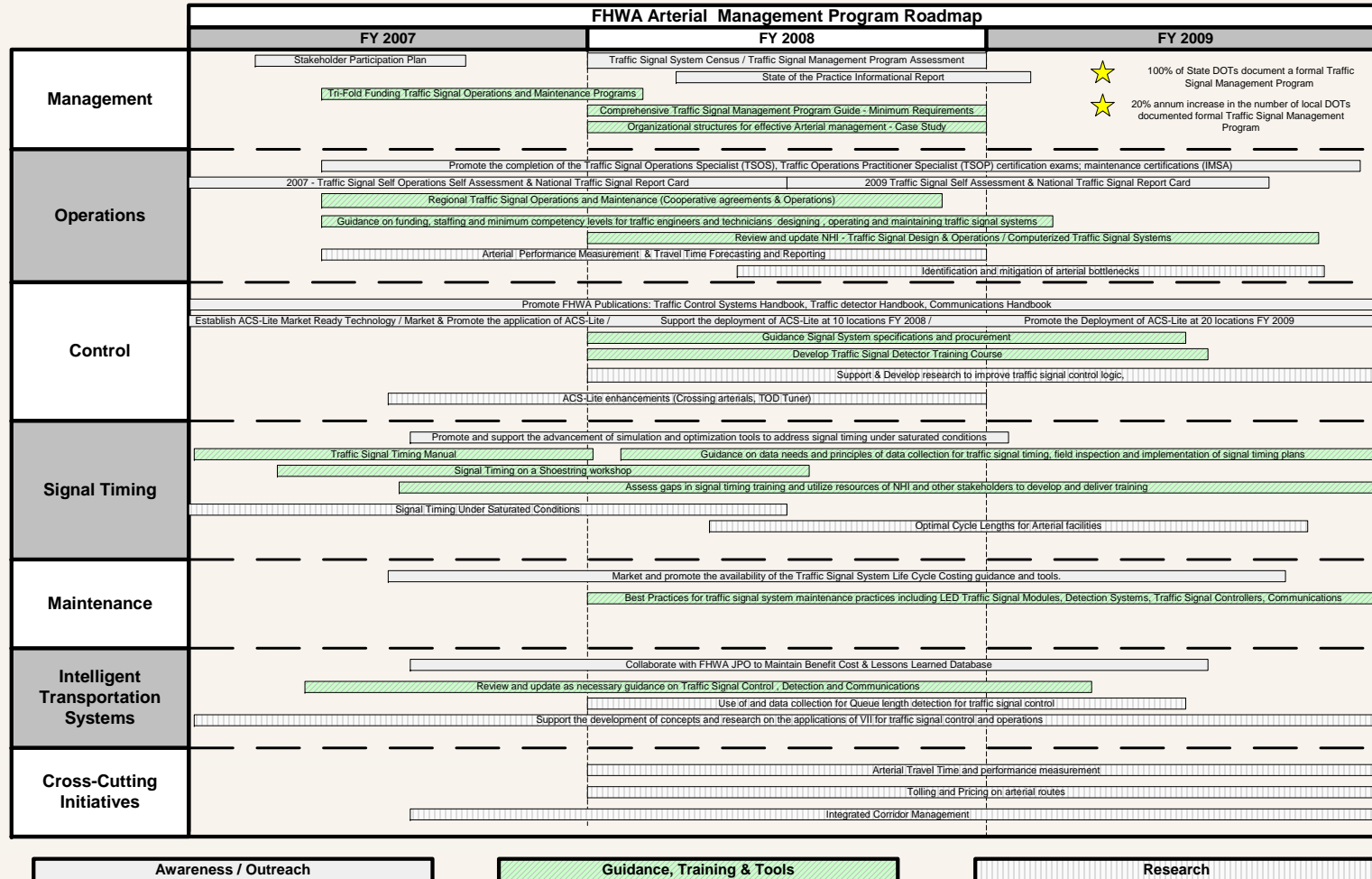
The Mission

Provide national leadership to advance the state of the practice of arterial management by delivering needed guidance, pursuing innovative research and providing outreach to stakeholders.

Stakeholders

- **High Level**
 - Institutions that operate and maintain arterial management systems
 - State
 - Local
 - Contractors & Consultants
- **Practitioners**
 - Executives
 - Managers
 - Engineers
 - Technicians

Arterial Management Roadmap



Program Elements

- Management
- Operations
- Signal Timing
- Maintenance
- Intelligent Transportation Systems
- Access Management

Focus Areas

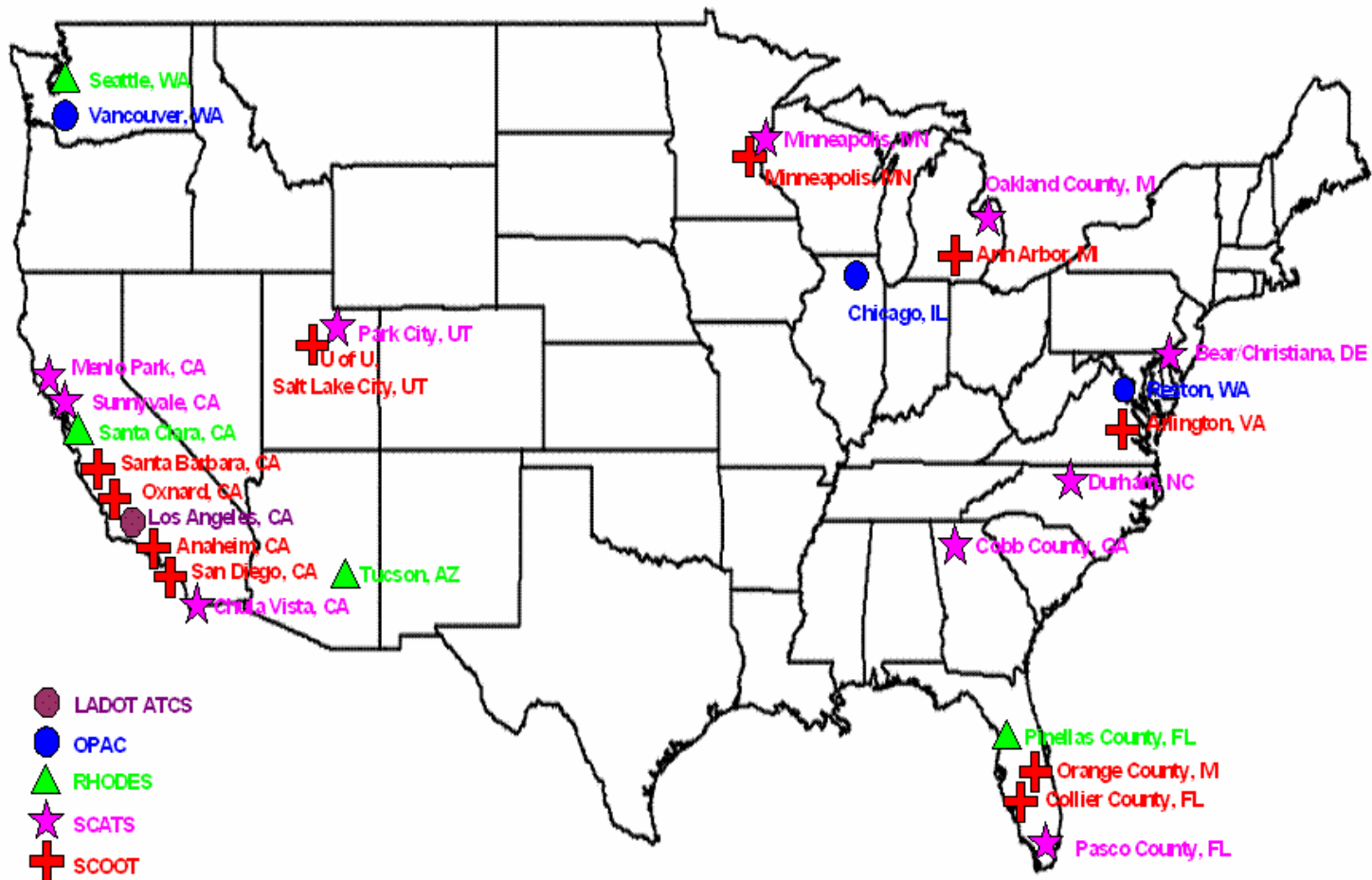
- Research
- Guidance
- Outreach

Program Accomplishments

Research

- **Adaptive Traffic Control Software – Lite (ACS-Lite)**
 - Reduce or eliminate the need for traffic signal retiming
 - Low Cost
 - Existing traffic signal controllers
 - Econolite, Eagle, McCain, Peek/Quixote
 - Low bandwidth communication
 - No calibration
 - Reduces delay, stop, travel time and fuel consumption

Adaptive Signal Control



Current & Upcoming Research

- Signal Timing Under Saturated Conditions
- Enhancements to ACS-Lite
- Arterial Travel Time and Performance Measurement
- Traffic Signal Control Logic Enhancements

Program Accomplishments

Guidance

- The Signal Timing Process
- Signal Timing on a Shoestring
- Traffic Control Systems Handbook
- Traffic Detector Handbook

Current & Upcoming Guidance

- Traffic Signal Timing Manual
- Signal Timing in Oversaturated Conditions Toolbox
- Developing a Comprehensive Traffic Signal Management Program
- Regional Traffic Signal Operations & Maintenance Program
- Optimal cycle lengths for arterial facilities
- Best practices traffic signal system maintenance

Program Accomplishments

Outreach

- 2005 Traffic Signal Operations Self Assessment
- 2005 National Traffic Signal Report Card
- It's About Time – Video
- Tri-Folds, Brochures, Newsletters

Current & Upcoming Outreach

- 2007 Traffic Signal Self Assessment
- 2007 Traffic Signal Report Card
- Traffic Signal Audit Guide
- ACS-Lite
- Funding Traffic Signal Operations and Maintenance
- State of the Practice informational Report
- Promote operations and maintenance certifications
TSOS/TOPS, IMSA

Training & Workshops

NHI Courses

- Traffic Signal Design and Operation
- Computerized Traffic Signal Systems

Workshops made to order

- Evaluating adaptive traffic signal control needs
- Reducing the cost of traffic signal retiming

FHWA Resource Center, Operations TST

- Training
- Technology Deployment
- Technical Assistance

Training

- NHI Courses
- Tailored workshops, briefings, seminars based on the requirements of the customer

Technology Deployment

- ACS-Lite
- Saturated Conditions
- 511
- CORSIM
- VISSIM
- Highway Capacity Software, HCS
- VISSIM
- IDAS
- DYNASMART-P
- Quickzone
- MUTCD

Technical Assistance

Traffic Signal Operations Peer Review

- Puget Sound Regional Traffic Signal Operations Peer Reviews
- Boise Idaho
- Wisconsin DOT
- Minnesota DOT
- Portland Regional Traffic Signal Operations Peer Review
- Nebraska Traffic Signal Operations Peer Review
- Puerto Rico

Technical Assistance

- Systems Engineering
- ITS Architecture
- National Transportation Communication Internet Protocol
- Advanced Traffic Controller Standard
- Traffic Analysis Tools
- Traffic detection technology
- Communications

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COSTS

FREE!



Arterial Management Website

http://www.ops.fhwa.dot.gov/arterial_mgmt/index.htm

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