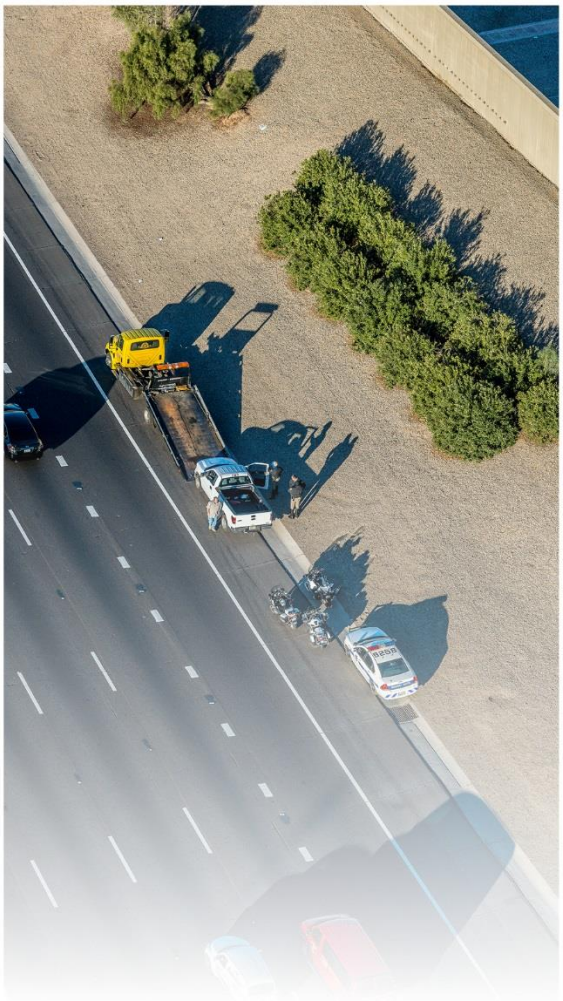
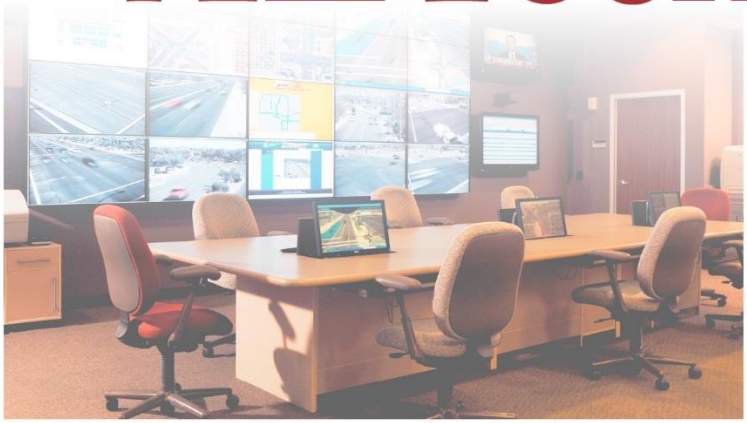
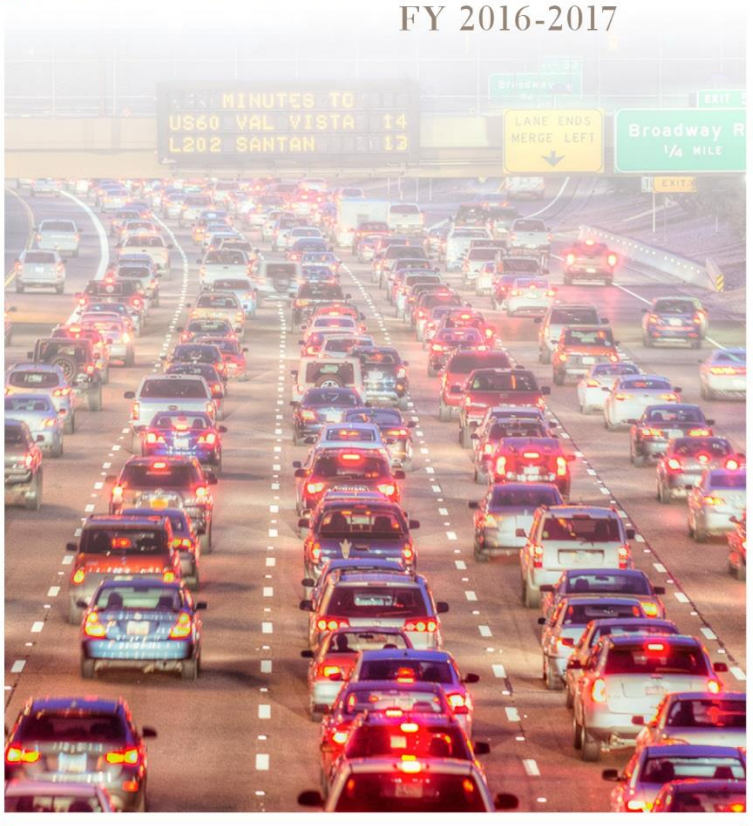
FY 2016-2017



AZTech ACTION PLAN

FY 2016-2017





AZTech
Moving Forward Together

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The following Core Team championed the Action Plan effort:

Nicolaas Swart, MCDOT

Faisal Saleem, MCDOT

Bruce Littleton, City of Phoenix

Reza Karimvand, ADOT

Barbara Hauser, MCDOT

Steve McKenzie, City of Peoria

Dana Owsiany, City of Surprise

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Captain Peter Borquez, AZ DPS

James Minton, ADOT

Toni Whitfield, FHWA

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AZTech Executive Committee
Co-Chair: Jennifer Toth, MCDOT
Co-Chair: Dallas Hammit, ADOT

AZTech Strategic Steering Committee
Chair: Bruce Littleton, City of Phoenix
Co-Chair: Dana Owsiany, City of Surprise

AZTech Operations Committee
Chair: Steve McKenzie, City of Peoria

AZTech TIM Coalition
Chair: Sgt. John Paul Cartier, AZ DPS

AZTech TMC Operators Working Group
Co-Chair: Barbara Hauser, MCDOT
Co-Chair: James Minton, ADOT

AZTech ATIS Working Group
Chair: Faisal Saleem, MCDOT

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Arizona Department of Transportation

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City of Glendale

City of Goodyear

City of Mesa

City of Peoria

City of Phoenix

City of Scottsdale

City of Surprise

City of Tempe

Town of Buckeye

Town of Fountain Hills

Town of Gilbert

Town of Paradise Valley

Town of Queen Creek

Federal Highway Administration

Maricopa Association of Governments

Maricopa County Department of Emergency Management

Maricopa County Department of Transportation

Maricopa County Sheriff's Office

Phoenix Sky Harbor International Airport

Valley Metro

Phoenix Fire Department

Arizona Broadcasters Association

Kimley-Horn and Associates, Inc.

OZ Engineering

Total Traffic & Weather Network

List of Acronyms

ADOT – Arizona Department of Transportation

AEC – AZTech Executive Committee

AOC – AZTech Operations Committee

ARIS – AZTech Regional Information System

ASSC – AZTech Strategic Steering Committee

ATIS – Advanced Traveler Information Systems

ATM – Active Traffic Management

CIP – Capital Improvement Program

CMM – Capability Maturity Model

CV/AV – Connected/Autonomous Vehicles

DEM – Department of Emergency Management

DEMA – Department of Emergency and Military Affairs

DMS – Dynamic Message Sign

DPS – Department of Public Safety

DSS – Decision Support System

ERMA – Event Registration and Management Application (online portal)

FHWA – Federal Highway Administration

FTP – File Transfer Protocol

FY – Fiscal Year

ICM – Integrated Corridor Management

IGA – Intergovernmental Agreement

ITS – Intelligent Transportation Systems

MAG – Maricopa Association of Governments

MCDOT – Maricopa County Department of Transportation

MDI – Model Deployment Initiative

NOCoE – National Operations Center of Excellence

PI Book – AZTech Traffic Management and Operations Performance Indicators Book

PIO – Public Information Officer

PSAP – Public Safety Answering Point

RADS – Regional Archive Data System

RADS – Regional Archived Data System

SPM – Signal Performance Measures

SWZ – Smart Work Zone

TIM – Traffic Incident Management

TIP – Transportation Improvement Program

TMC – Traffic Management Center

TSM&O – Transportation Systems Management and Operations

UDOT – Utah Department of Transportation

Introduction to the AZTech Action Plan

The AZTech Action Plan is a five-year operations planning document with a near-term focus to help AZTech advance the priority implementation strategies that were identified in the 2015 AZTech Operations Implementation Plan. The Action Plan is owned and driven by the AZTech members, and reflects the current and future priorities of each of the AZTech Committees and Working Groups. Projects and initiatives that are included in this Action Plan are not being assigned or dictated, but instead were those that were selected by an AZTech Committee or Working Group as a priority warranting action. This Action Plan covers the Fiscal Year (FY) 16-17 time period (through June 30, 2017), and will be updated to reflect new activities and initiatives to start in July 2017.

The purpose of the Action Plan is to translate the strategies in the Implementation Plan into tangible projects and activities to advance operations priorities identified in the Implementation Plan. Each project and activity is broken down into specific actions required or suggested inputs for the project and champions from the Committees and Working Groups. The individual project sheets for the FY2016-2017 Plan are at the end of the document.

Overview of AZTech

AZTech began as a Federal Highway Administration (FHWA) Intelligent Transportation Systems (ITS) Model Deployment Initiative (MDI) for the Phoenix metropolitan area in 1996. As part of the MDI, AZTech's mission was to provide a champion for the integration of intelligent transportation and communication systems technologies focused on implementing and improving strategies that reduce travel time, reduce travel cost, and improve the safety of the traveling public. Since completion of the MDI, AZTech has evolved into an ongoing regional operations initiative that continues to pursue opportunities to increase inter-agency collaboration between state, Maricopa County, MAG, cities and towns across the greater Phoenix metropolitan region. AZTech has become an integrating mechanism that has demonstrated the distinct advantages of a regional operations-related partnership.

AZTech adopted several Values and Goals to guide its growth from a demonstration project to what has become a sustainable regional partnership. The AZTech Values include:

- Collaboration;
- Leadership;
- Integration; and
- Results.

Driven by the values, the AZTech goals are to:

- Integrate the existing ITS infrastructure into a regional system;
- Establish a regional integrated traveler information system; and
- Expand the transportation management system for the Phoenix metropolitan area.

AZTech is organized into committees and working groups that each have a strategic focus and role for the organization as a whole. Many of the groups have a charter, some of which were updated in 2015, that delineates their role, mission, and values. Currently, there are six committees, including:

- AZTech Executive Committee;
- AZTech Strategic Steering Committee;

- AZTech TIM Coalition;
- AZTech Operations Committee;
- AZTech ATIS Working Group; and
- AZTech TMC Operators Working Group.

The **AZTech Executive Committee** (AEC) is comprised of agency leaders and decision makers representing transportation, emergency management, public safety and public information. The role of the Executive Committee is to provide the top-level buy-in and support for AZTech initiatives and outputs, help clear significant political, institutional, or resource barriers that might exist, and resolve issues that might arise amongst the other committees and working groups.

The **AZTech Strategic Steering Committee** (ASSC) is comprised of public agency ITS and Public Safety leaders and serves as the liaison between the AEC and all other AZTech committees and working groups. The mission of the ASSC is to champion the implementation of TSM&O strategies in the region by collaboration among AZTech partner agencies. They report progress to the AEC and forward the requests and recommendations from the other committees.

The **AZTech Traffic Incident Management (TIM) Coalition** is a multi-disciplinary partnership including state, tribal and local emergency responders, transportation management staff and towing companies in the Phoenix metropolitan area. The TIM Coalition is focused on bringing key stakeholders together to collaborate on improvements to traffic incident management. The goal of the TIM Coalition is to meet the objectives of the National Unified Goal, which includes ensuring responder safety, executing safe and quick clearance of hazards on the road, and provide prompt, reliable and interoperable communications.

The **AZTech Operations Committee** (AOC) specializes in public traffic operations and transportation management in the region. The AOC coordinates and seeks to attain consensus on traffic operations and management issues that span agency boundaries in the region. The goal of the AOC is to ensure that policies adopted by the AEC are carried out in their member agencies.

The **AZTech Advanced Traveler Information Systems (ATIS) Working Group** is a partnership between public and private entities from the fields of transportation, telecommunications, emergency response, public safety and public information. This group looks at ways to improve coordination between agencies and private media outlets and improve the quality, accessibility, and timeliness of traveler information offered to the public in order to increase safety and mobility in the region. Currently, the ATIS Working Group is meeting jointly with the TIM Coalition.

The **AZTech Traffic Management Center (TMC) Operators Working Group** is made up of traffic management and traffic operations center operators throughout the region. The purpose of the group is to improve the working relationships among local TMCs in the region and explore how to better integrate TMCs into regional transportation operations and management functions.

The Action Plan is organized in a way that each of these committees or groups can tackle projects related to their specializations and priorities. Through simultaneous efforts on behalf of all groups, AZTech as a whole can make strides towards addressing the major focus areas and strategic actions put forth in the 2015-2020 AZTech Operations Implementation Plan.

Developing the AZTech Action Plan

The development of the Action Plan was the final step in a two-year process of identifying gaps, goals and priorities for AZTech for the 2020 planning horizon. The graphic below provides an overview of the key steps and milestones during this planning process that resulted in this Action Plan.

Acronyms

CMM—Capability Maturity Model
TSM&O—Transportation Systems Management and Operations
ICM—Integrated Corridor Management
IGA—Intergovernmental Agreement

In 2014, as part of a federal Strategic Highway Research Program 2 (SHRP2) assistance project, AZTech agencies participated in a Regional **Capability Maturity Model (CMM) Workshop**. The CMM workshop is conducted by the Federal Highway Administration (FHWA) and is a self-assessment tool to help evaluate the state of an organization or region with respect to Transportation Systems Management and Operations (TSM&O). The tool looked at TSM&O from six dimensions, including business processes, systems and technology, performance measurement, culture, collaboration and organization and staffing. Based on the results of this self-assessment, AZTech participants identified a set of key goals and recommendations to advance TSM&O in the region at both the local and regional levels.

Building on the results of the CMM workshop and including input from AZTech committees and from the Operations Implementation Priorities workshop in 2015, AZTech developed its **2015 Operations Implementation Plan**. The Implementation Plan is a five-year vision for operational strategies and collaboration to help advance key, regional operations initiatives. The Plan documents key gaps that were identified and that will be tracked over the next five years. These gaps are organized into seven vision statements which include:

- We have a well-informed traveling public;
- We have qualified, well-trained staff and a pipeline of new talent;
- We leverage our regional infrastructure and partnerships to support proactive system management;
- Incident management is responsive and effective on freeways and arterials;
- Our performance measures tell our story;

- Upper management, the public, and elected/appointed officials appreciate our value; and
- Technology supports operations with innovation.

For each of these focus areas, a set of implementation strategies are identified that further define the focus areas in terms of specific gaps and strategies.

Finally, starting in 2015 and continuing into 2016, AZTech began to develop its first **Action Plan**. The Action Plan takes the priority implementation strategies identified in the Implementation Plan and makes them into tangible projects and activities to be completed by the AZTech committees and working groups.

The process used to develop the Action Plan involved an iterative approach that was highly participatory amongst AZTech members. The development process began with a Core Team that included committee chairs and other AZTech champions who would be the champions of the Action Plan. This committee provided direction on the Action Plan's foundation, and helped define its purpose and objectives, the basis for its content and its structure.

Inputs into the Action Plan included the Operations Implementation Plan, the most recent FHWA TIM Self-Assessment, and the outputs from the CMM workshop, as described above. Based on these inputs, a summary of priorities and initiatives were compiled into a master table. The Core Team reviewed the list and made updates as appropriate, which included adding actions or redefining some actions based on updated information or shifts in the region's priorities or state of the practice. With a final list of priorities and actions assembled, the Core Team then underwent a prioritization activity where they ranked the list of actions based on a high, medium and low ranking system. They also identified the most likely and appropriate committee or group associated with each action.

Based on these initial prioritizations and committee identifications, a list of projects specific to each individual committee or group was developed and presented to the group at their respective meetings. Each group engaged with the Action Plan at three meetings. The first meeting provided an introduction to the Action Plan, its goals and purpose, and the expectations for participation by AZTech members. The second meeting involved a discussion about that committee's list of actions that was developed from the master table. Each committee or group was asked to verify that the actions in their table were those that were important and those that they would be willing to address between 2016 and 2020. During these conversations, actions were added, removed and refined as necessary, and a set of actions for FY 2016 – FY 2017 were identified. The final meeting with each group involved final refinement of actions that would be started during this time period and the identification of individual champions for each.

The result of this process is the FY 2016 – FY 2017 Action Plan. Because this Action Plan has a one-year focus, it is anticipated that the later part of this development process, where each group or committee is asked to identify and specify projects for that fiscal year, will be undertaken on a yearly basis. It is important to note that many actions identified in the Plan will be completed over a series of steps. The following portions of the Action Plan, which provide information on the specific projects for FY 2016 – FY 2017, will be updated annually to reflect the projects that are selected for implementation each of the subsequent years through FY 2020.

Summary of the FY 2016 – FY 2017 Action Plan

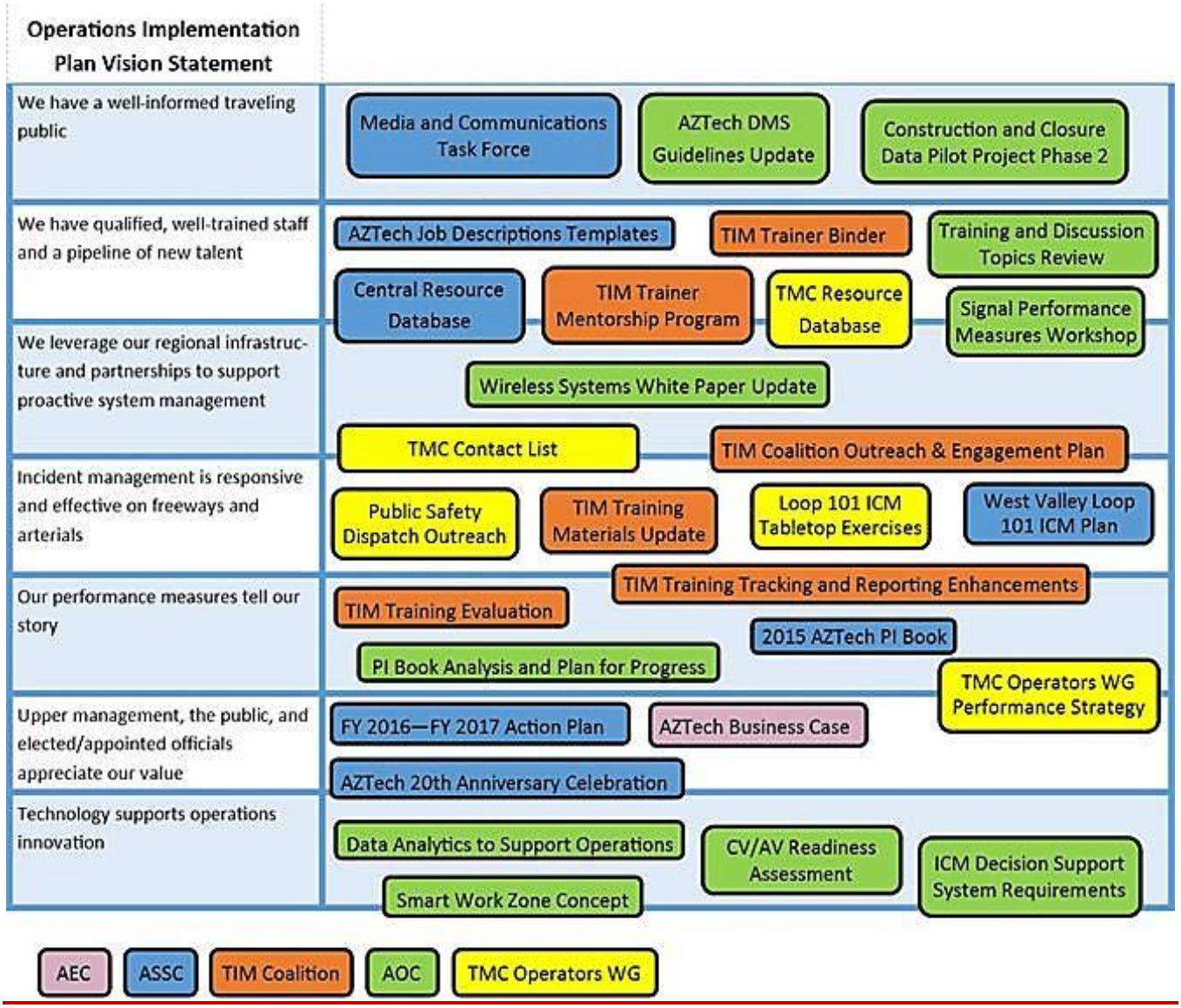
Project Title	Responsible Party / Project Champion	Anticipated Outputs
AZTech Executive Committee		
1. AZTech Business Case	AEC, ASSC / Committee Chairs	Developing a succinct business case for AZTech and its value to the region, as well as identify key audiences for outreach focus.
AZTech Strategic Steering Committee		
2. AZTech 20th Anniversary Celebration	ASSC / Nicolaas Swart, Faisal Saleem, Cynthia Lopez	Planning and execution of a 20th Anniversary Celebration that highlights the accomplishments and value of AZTech to the region.
3. 2015 AZTech Performance Indicators Book	ASSC / Committee Chairs	Completion of 2015 Traffic Management and Operations Performance Indicators Book that is approved by the AEC and provides an overview of the performance of the regional transportation system.
4. FY 2016 – FY 2017 AZTech Action Plan	ASSC / Core Planning Team	FY 2016-2017 (this document) AZTech Action Plan that is submitted and approved by the AEC.
5. Media and Communications Task Force	ASSC, ATIS WG / Faisal Saleem, Tim Tait, Traci Ruth and Monica Hernandez, Gil Estrada	Convene a task force of agency Public Information Officers (PIOs) to conduct focus groups with different local media (TV, radio, print) to identify specific media engagement opportunities.
6. Central Resource Database	ASSC / Bruce Littleton, April Wire, Cynthia Lopez, David Lucas	Identifying and beginning to put into place a maintenance structure for a database of resources, system inventory and guidance materials that AZTech members can access through a secure website and hard copy binder. This resource also would include the various training resources being developed by the different AZTech committees. Align with AZTech web site updates.
7. West Valley Loop 101 ICM Plan	ASSC / April Wire, Faisal Saleem	Developing Integrated Corridor Management strategies for the Loop 101 in the West Valley.
8. AZTech Job Description Templates	ASSC / Nicolaas Swart, Reza Karimvand	Developing a set of job description templates for ITS and traffic operations/management positions that can be used by agencies to support new or updated job descriptions.
AZTech Traffic Incident Management Coalition		
9. TIM Coalition Outreach and Engagement Plan	TIM Coalition / Barbara Hauser, Raul Amavisca, Dan Jarrett, Scott Crawford, John Ford	Developing a list of priority agencies in the region who are not currently active in the TIM Coalition and have been contacted by MCDOT regarding participation. A plan for outreach to these agencies, including identification of a peer agency who can support the outreach.
10. TIM Training Materials Update	TIM Coalition / Sergeant Cartier, Barbara Hauser	Developing locally relevant TIM training materials that include freeway and arterial examples. Initial contact with a representative at Palo Verde to discuss future integration of TIM training into their

		Response Planning exercises.
11. TIM Training Tracking and Reporting Enhancements	TIM Coalition / Sergeant Cartier, Cynthia Lopez, MCDOT TMC Assistant	Creating a single location on the AZTech website where trainers can find all relevant TIM training websites and links for tracking and reporting on training activities.
12. TIM Trainer Binder	TIM Coalition / Sergeant Cartier, Sergeant Williams	Developing an electronic and hardcopy binder accessible to TIM trainers that includes training materials, lesson plans, and other guidance to support improved training.
13. TIM Trainer Mentorship Program	TIM Coalition / All Coalition participants	Developing a trainer mentorship program that provides support and encourages trainers to continue to remain an active trainer
14. TIM Training Evaluation	TIM Coalition / Sergeant Cartier	Developing a set of performance measures relevant to TIM training in the region that can be collected and tracked to support future updates to the training and support the TIM Coalition business case.
AZTech Operations Committee		
15. Training and Discussion Topics Review	AOC / David Lucas, Cynthia Lopez	Updating the list of training and discussion topics of interest to the committee as well as organizing and conducting those that are a priority.
16. AZTech DMS Guidelines Update	AOC / Tricia Boyer, Albert Garcia, Steve Ramsey, Barbara Hauser, David Egliskis	Updating the AZTech Dynamic Message Sign (DMS) Guidelines to reflect current practices for using and coordinating DMS messages in the region.
17. Construction and Closure Data Pilot Project Phase 2	AOC, ATIS / Faisal Saleem	Using lessons learned from phase 1 to incorporate and make available the planned construction and incident-related closures data from 8 agencies into the Regional Archive Data System (RADS).
18. Wireless Systems White Paper Update	AOC / Albert Garcia	Updating the Wireless Systems White Paper that reflects the current state of practices for communications infrastructure and sharing in the region and identifies national and international best practices in communications infrastructure and systems.
19. Signal Performance Measures (SPMs) Workshop	AOC / April Wire, Avery Rhodes, Simon Ramos	Planning and hosting a Traffic Signal Performance Measures Workshop locally to raise awareness and identify regionally significant SPMs to use in the future.
20. Data Analytics to Support Operations	AOC / Faisal Saleem, Marshall Riegel, Vahid Goftar	Developing a high-level concept that highlights existing strategies and gaps related to identifying, analyzing and utilizing data to support improved real-time operations.
21. ICM Decision Support System Requirements	AOC / Faisal Saleem, Reza Karimvand, Steve Ramsey	Developing a set of requirements for a Decision Support System that can support improved, real-time operations and coordination in the region.

22. AZTech Performance Indicators Book Analysis and Plan for Progress	AOC / Faisal Saleem	Reviewing and analyzing the 2015 Traffic Management and Operations Performance Indicators book and developing a plan to address declining performance in some key areas in the region.
23. Smart Work Zone (SWZ) Concept	AOC / Faisal Saleem	Developing a concept for deploying Smart Work Zone technology and systems in MCDOT work zones, with a specific focus on the MC-85 project.
24. Connected and Autonomous Vehicle (CV/AV) Readiness Assessment	AOC / Faisal Saleem, Steve Ramsey	Developing a report or white paper that discusses the opportunities and challenges that the region faces with respect to current and future CV/AV technologies and initiatives.
AZTech Traffic Management Center Operators Working Group		
25. Public Safety Dispatch Outreach	TMC Ops WG / Barbara Hauser, Ray Ramirez	Developing a presentation at MAG Public Safety Answering Point (PSAP) Managers Group to raise awareness of TMC capabilities at local agencies.
26. TMC Operators WG Performance Strategy	TMC Ops WG / To be determined	Creating a performance measurement strategy for traffic management center metrics identified by the working group.
27. TMC Contact List	TMC Ops WG / John Hoang	Updating and expanding the TMC contact list to distribute to all members.
28. TMC Resource Database	TMC Ops WG / Ray Ramirez	Collecting useful documents and resources that are available to TMC operators that can be shared and uploaded to a shared database.
29. Loop 101 Integrated Corridor Management Tabletop Exercises	TMC Ops WG / Barbara Hauser	Engaging AZTech partners on regional Integrated Corridor Management initiatives through tabletop exercises, with the goal of promoting awareness and preparedness for the expansion of ICM in the region.

The following graphic shows how each of the above projects relates to the Focus Areas found in the Operations Implementation Plan. As can be seen in the graphic, all of the Focus Areas are being addressed with FY 2016 – FY 2017 projects and many of them are being addressed by multiple AZTech Committees or Groups.

FY 2016 – FY 2017 Projects Aligned to the 2015 Implementation Plan Focus Areas



AZTech Action Plan FY 2016 – FY 2017 – Individual Projects

The following section provides details on the specific projects that each AZTech committee or group will strive to accomplish or initiate in the FY 2016 – FY 2017 timeframe. Each project includes specific actions, required inputs, anticipated outcomes and measures of success. Some projects will be completed in the FY 2016 – FY 2017 timeframe while others are scheduled to begin and have continued effort beyond FY 2017. A majority of the projects are identified for leadership by a specific committee or group, but there are cases where collaboration or partnering between groups will be necessary in order to complete a project or address priority that is overarching across AZTech.

AEC FY 2016 – FY 2017 Projects (1 project)

Title	**AZTech Business Case**
Timeframe	Complete in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: AEC (ASSC Support) Individual Champion(s): AZTech Committee Chairs
Project Description	This project involves updating the AZTech background and mission as well as updating documentation that highlights the value of AZTech to the region. This project will establish a business case for AZTech that captures the successes of the partnership over the last 20 years, and takes a forward-looking approach to AZTech's next 20 years. Another important goal is to examine and potentially redefine the role of the AZTech Executive Committee going forward, including executive level engagement in AZTech policy-level planning and decision-making activities. This could result in a realignment of current AZTech Committees and Working Groups. This project also will involve identifying specific audiences (such as policy/decision-makers and legislators) that will require specific messages about AZTech's impact and benefits to the region. This project will coordinate with the AZTech 20th Anniversary (which occurs in 2016).
Required Inputs / Prerequisites	• Case studies and successes from the Center-to-Center Concept document, the AZTech Traffic Management and Operations Performance Indicators Books, the AZTech Operations Implementation Plan and others that highlight AZTech's successes and value. • Updated mission and vision. • Updated strategy for committee alignment, composition and coordination.
Anticipated Outcomes	• One page brochure for executives, decision-makers and the media aligned with the AZTech 20th anniversary celebration. • Easy-to-communicate "elevator speech" to highlight the AZTech business case.
	How will success be measured? • Growth in AZTech participation after development of business case and dissemination of brochure.

ASSC FY 2016 – FY 2017 Projects (7 projects)

Title	**AZTech 20th Anniversary Celebration**
Timeframe	Complete in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: ASSC (with support from other AZTech Committees)
	Individual Champion(s): Nicolaas Swart (MCDOT), Faisal Saleem (MCDOT), Cynthia Lopez (MCDOT)
Project Description	This project will include organizing an event and prepare appropriate materials to celebrate AZTech's 20th anniversary. This event could include: • Guest speakers and presentations; • Media/press releases about AZTech accomplishments over the last 20 years and next steps looking ahead to future priorities; • Articles in industry publications; and • Brief presentation to be able to present at MAG Regional Council, Local City Council Meetings, and other local opportunities.
Required Inputs / Prerequisites	• Small group to lead strategic planning for the anniversary acknowledgement. • Schedule strategic planning meetings and develop timeline of activities, working back from October 2016 AZTech Executive Committee meeting. • Identify appropriate budget parameters for event and materials.
Anticipated Outcomes	• Understanding from local decision makers regarding AZTech's achievements and benefits to travelers. • Updated collateral materials and presentation materials that can be presented by any AZTech committee member. Materials will be tailored with specific messages for specific audiences (such as media, policy/decision-makers, elected officials).
	How will success be measured? • Successful completion in time for the October 2016 Executive Committee meeting.

Title	**2015 AZTech Performance Indicators Book**
Timeframe	Complete in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: ASSC
	Individual Champion(s): Committee Chairs
Project Description	This project involves working with the designated consultant to develop the 2015 edition of the AZTech Traffic Management and Operations Performance Indicators (PI) Book. The PI Book is completed every two years and is a compilation of key regional transportation management and operations performance measures that provide a snapshot of the regional transportation network. Each AZTech agency is asked to participate in the development of the book through provision of data and/or submittal of stories about successes or innovations in operations or system management. The development of the book helps to document and track performance of the region's freeways and arterials over time.
Required Inputs / Prerequisites	• Input from agencies on stories that they would like to share. • Specific data from agencies used to track performance measures for the region.
Anticipated Outcomes	• Published document that provides overview of the 2014-2015 performance of operations and management of the regional transportation network.
	How will success be measured? • Completion of the book. • Number of agencies that contribute to the Book's contents.

Title	**FY 2016-2017 AZTech Action Plan**
Timeframe	Complete in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: ASSC
	Individual Champion(s): ASSC Core Planning Team
Project Description	This project will finalize the FY 2016-2017 AZTech Action Plan for the AZTech Committees, including the individual Action Plan for the ASSC. The Action Plan identifies specific priorities to be acted upon to help achieve the goals outlined in the AZTech Implementation Plan (2015).
Required Inputs / Prerequisites	• Feedback from all AZTech Committees on specific priorities and action items that align with their group's focus and support the Implementation Plan priorities. • Consensus on priority timeframes, identification of specific champions
Anticipated Outcomes	• Consensus-based action plan for each AZTech Committee to present for approval by the AZTech Executive Committee for FY 2016-2017.
	How will success be measured? • Actions and priorities completed by individual AZTech Committees.

Title	**Media and Communications Task Force**
Timeframe	Complete in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: ASSC/ATIS WG
	Individual Champion(s): Faisal Saleem (MCDOT), Tim Tait (ADOT), Traci Ruth (MCDOT) and Monica Hernandez (City of Phoenix), Gil Estrada (Total Traffic and Weather Network)
Project Description	This project is an effort to build on the relationships and results from the 2015 Media and Transportation Lunch Forum to promote communication with and participation of media and communications stakeholders in AZTech. • The goal is to establish a task force of key public information officers within the AZTech partnership to be able to identify unique needs with various media partners • This activity will organize separate focus groups with television, radio and print media stakeholders to identify specific coordination and information needs of each.
Required Inputs / Prerequisites	• Attendance list/contact information from Media and Transportation Lunch Forum. • Identification and scheduling of a meeting time and location.
Anticipated Outcomes	• A plan for future, regular engagement with media and PIOs as part of AZTech.
	How will success be measured? • Existence of a plan related to ongoing media/PIO participation in AZTech.

Title	Central Resource Database
Timeframe	Begin in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: ASSC (with help from AOC and TMC Operators Group)
	Individual Champion(s): Bruce Littleton (City of Phoenix), April Wire (MCDOT), Cynthia Lopez (MCDOT), David Lucas (City of Tempe)
Project Description	This project involves developing a centralized location to collect and make available resources for AZTech members. The ASSC identified a need to facilitate the sharing of best practices, lessons learned and other guidance to help improve transportation operations and maintenance functions at agencies. There are many other resources that could be identified for inclusion into the database. A few of the desired resources that have already been identified include: • Guidance on the development of IGAs and other master agreements between agencies to allow for sharing of resources; • Training materials and resources developed by the different committees; • Guidance on staffing and job descriptions; • Inventory of systems and equipment used by each agency; • Presentations and outreach materials for various audiences; and • Lessons learned and best practices on specific devices or systems. This project will involve the following steps: 1. Identify a database that can be accessed via the AZTech website where members can login and retrieve resources; 2. Elicit additional agency needs in terms of desired guidance or information. These will be more easily identified when the initial foundation of materials is available; 3. Identify an owner of this database and a structure for maintaining it; and 4. When materials are identified, assess the need for a hard-copy binder of materials to distribute to each AZTech agency as deemed necessary.
Required Inputs / Prerequisites	• Initial resources to populate the database (including those already identified and additional resources that are available). • Identification of a secure location for the database that can be accessed by AZTech members (via login).
Anticipated Outcomes	• Database of guidance, training and reference materials. • Structure of ownership and maintenance of the database. This project will set the foundation for a follow-up project that looks at the region's future needs and resources with respect to cutting edge and upcoming processes, technologies and skills. These future or anticipated needs will be identified as part of a future project and might include: regional operations models and cooperative funding examples; future technologies and associated technical skills; and models for contacted operations and maintenance.
	How will success be measured? • 100% of AZTech members are able to access the database. • The database is easily managed (documents can be added or updated). • Agencies identify additional guidance needs that become available on the database. • Agencies are able to leverage experience and resources from other partners.

Title	**West Valley Loop 101 ICM Plan**
Timeframe	Complete in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: ASSC (with help from AOC)
	Individual Champion(s): April Wire (MCDOT), Faisal Saleem (MCDOT)
Project Description	Based on the successes and lessons learned from the Loop 101 ICM program in the East Valley (Scottsdale), this project will involve developing an ICM plan for Loop 101 in the West Valley. This plan should look to designate coordination processes as well as detour plans that will be used during closures on Loop 101.
Required Inputs / Prerequisites	• Lessons learned from Loop 101 ICM in Scottsdale • Inputs from local agencies regarding arterial detour options and coordination processes
Anticipated Outcomes	• Coordination plan and detour guidebook to execute an ICM strategy for Loop 101 in the West Valley
	How will success be measured? • Completion of detour plans that are supported upon by MCDOT, ADOT and local agencies • Full agreement to utilize ICM strategy from traffic operations and incident management staff from all involved agencies

Title	**AZTech Job Description Templates**
Timeframe	Begin in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: ASSC
	Individual Champion(s): Nicolaas Swart (MCDOT), Reza Karimvand (ADOT)
Project Description	This project involves developing standardized templates for ITS-related job descriptions that agencies can use when developing or updating job descriptions, titles or responsibilities. Previous work has been done to survey agencies in the region and collect their staff positions and descriptions so that they can be compared. As part of this project, the previously collected information should be revisited and updated where necessary. It should then be used as a foundation for developing recommended language for a spectrum of ITS positions that might be present within an agency. The goal is to have resources available to those agencies who may have the opportunity to update current job descriptions or develop new job positions related to ITS and traffic operations and management.
Required Inputs / Prerequisites	• Job descriptions (titles, responsibilities, required education/certifications, etc.) from various agencies within the region. • Input from AZTech members about those that are most favorable to be supported by AZTech.
Anticipated Outcomes	• Series of templates for ITS and traffic operations/management staff positions.
	How will success be measured? • Availability of job descriptions on the AZTech website.

Other ASSC actions identified to start in FY 2017-2018 and beyond:

- As a follow up to the Central Resource Database project, identify the region's future needs and resources with respect to cutting edge and upcoming processes, technologies and skills. These future or anticipated needs might include: regional operations models and cooperative funding examples; future technologies and associated technical skills; and models for contacted operations and maintenance. In addition to identifying needs, this project should begin to identify appropriate resources, such as guidance documents, trainings or peer exchanges that will provide the region with the information and guidance needed.
- Develop an ICM Opportunities White Paper that discusses the Loop 101 ICM program in Scottsdale and the processes, outcomes and lessons learned from that effort. Based on these findings, the document should discuss priorities that should be considered when applying ICM or similar enhanced coordination strategies to other corridors in the region and identify regional opportunity corridors that AZTech should focus on in the near-term.
- Partner with other AZTech committees to advance training priorities, including training needs for emerging technologies (Connected and Autonomous Vehicles, Active Traffic Management (ATM), etc.)
- Identify candidates for future Operations Academy attendance.

TIM Coalition FY 2016 – FY 2017 Projects (6 projects)

Title	TIM Coalition Outreach and Engagement Plan
Timeframe	Begin in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: TIM Coalition
	Individual Champion(s): Barbara Hauser (MCDOT), Raul Amavisca (ADOT), Dan Jarrett (Daisy Mountain Fire), Scott Crawford (Mesa Fire and Medical), John Ford (Mesa Fire and Medical)
Project Description	This project is an effort to identify and make contact with agency responders that are critical for TIM success in the region in the near-term. This project will consist of four supporting actions: 1. Develop a priority list of local agencies and towing companies who should be involved in TIM in the region. 2. Identify a local peer agency/individual who can advocate for participation in the TIM coalition and its benefits to each of the priority agencies. Examples might include Chief Danny Sharp (Tucson) and Chief Bob Costello (Buckeye). 3. Develop a specific plan to follow up and close the loop with agencies that have already been contacted via letters from MCDOT regarding the TIM coalition or those that will be involved in meetings with ADOT in the near future. 4. Develop an informational pamphlet to distribute to agencies that provides information about the TIM Coalition, what it means to be involved, and the benefits/value of being involved.
Required Inputs / Prerequisites	• General understanding of agencies currently involved, agencies involved in the past but not in the present, and agencies that have not been involved. • List of agencies who were sent a letter from MCDOT regarding the TIM Coalition. • Coordination with ADOT who holds quarterly meetings with various local agencies.
Anticipated Outcomes	• List of priority agencies or groups to reach out to and each having an identified peer agency that is active with the TIM Coalition. • Action plan for following up with agencies who have already been contacted.
	How will success be measured? • 50% of the agencies from the priority list that are participating in the TIM coalition by the end of 2016 and 100% participation by the end of 2017.

Title	**TIM Training Materials Update**
Timeframe	Complete in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: TIM Coalition
	Individual Champion(s): Sergeant Cartier (AZ DPS), Barbara Hauser (MCDOT)
Project Description	This project involves updating existing TIM Training materials to help make them more relevant to the local agencies in the region. 1. Update training materials to include local and arterial incident management examples pertinent to all responders. 2. Provide appropriate inputs to the statewide TIM training program. 3. Work with County Emergency Management representative who deals with Palo Verde Response Planning to eventually integrate TIM Responder Training with Palo Verde Response Planning Exercise.
Required Inputs / Prerequisites	• Identification of local TIM photos, case studies, etc. to tailor TIM training materials to a local agency audience. • Identification of County Emergency Management staff responsible for Palo Verde Response Planning.
Anticipated Outcomes	• TIM training presentations and materials that have local examples of both freeway and arterial TIM. • All TIM training materials include Arizona-specific legislation. • Incorporation of TIM training in future training sessions at the Palo Verde facility. • Incorporation of TIM training materials to the AZTech Resource Database and AZTech web site.
	How will success be measured? • 100% of TIM training materials have at least two local case studies and at least one arterial example. • The next Palo Verde training includes a TIM component (either through materials or presentation by a TIM trainer).

Title	**TIM Training Tracking and Reporting Enhancements**
Timeframe	Begin in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: TIM Coalition
	Individual Champion(s): Sergeant Cartier (AZ DPS), Cynthia Lopez (MCDOT), TMC Assistant (MCDOT)
Project Description	This project involves taking initial steps to compile and review individuals and agencies that are trained in TIM as well as track training activities for certified TIM trainers. 1. Identify databases and resources (ERMA, DEM, and FHWA) used to report on and track TIM training activities and participation, and provide links for each in a single location on the AZTech TIM website. 2. Develop a brief list of steps required to create and conduct a training class and to track/report training activities. 3. Develop a plan for compiling and organizing the data on those who have been trained and make sure it is properly inputted into the appropriate database. 4. Identify databases that are used to track individuals who are TIM trainers and develop a plan for tracking the level of activity/participation of trainers. An important component of these later steps is to create an understanding that TIM training is not exclusively done by the Department of Public Safety (DPS) and that there is buy-in from local agencies as well.
Required Inputs / Prerequisites	• Understanding of and access to existing databases used for tracking TIM training participants and TIM trainer activity. • Coordinate with MCDOT for AZTech website updates with resource and database links.
Anticipated Outcomes	• Single location to access all training and reporting links. • Document of step by step processes for recording training activities. • Plan for how to encourage improved tracking of training participants. • Plan for encouraging trainers to remain active.
	How will success be measured? • 100% compliance with TIM tracking requirements. • Meeting annual TIM training goal set by FHWA.

Title	**TIM Trainer Binder**
Timeframe	Complete in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: TIM Coalition
	Individual Champion(s): Sergeant Cartier (AZ DPS); Sergeant Williams (AZ DPS)
Project Description	Assemble a single binder (in both physical and electronic format) that compiles all relevant materials and guidance to support TIM trainers. Materials might include: • Lesson plans; • A variety of example presentations given for different audiences; and • Lessons learned from past experiences on both things that worked and things that did not work as part of a training session.
Required Inputs / Prerequisites	• Identification of active TIM trainers to get feedback and provide materials. • Existing TIM training materials provided to trainers. • Feedback from TIM trainers on lesson plans and on do's and don'ts.
Anticipated Outcomes	• Provide electronic and hardcopy binder to trainers to allow more effective and adaptable training. • Make TIM training information and materials available as part of the Resource Database.
	How will success be measured? • Availability of materials to all TIM trainers. • Standard format for trainer binder.

Title	**TIM Trainer Mentorship Program**
Timeframe	Begin in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: TIM Coalition
	Individual Champion(s): All Coalition Participants
Project Description	This project involves the development of a program to engage trainers in the region and encourage active training. The program should include some or all of the following: • A 'trainer mentorship' program that provides newer or less active trainers with an experienced mentor to provide support and accountability. • An annual luncheon or awards ceremony to acknowledge trainers who have been active in region and encourage others to stay active and engaged in training activities. • Bi-annual meetings where trainers meet to discuss training activity, provide lessons learned or guidance, and facilitate collaboration between trainers.
Required Inputs / Prerequisites	• List of active trainers and their monthly training activity.
Anticipated Outcomes	• A community of trainers that share experiences and lessons learned. • Trainers feel encouraged to providing training opportunities. • More training classes are available throughout the year by a variety of instructors.
	How will success be measured? • 100% of trainers in the state hold at least 2 training sessions each year.

Title	TIM Training Evaluation
Timeframe	Begin in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: TIM Coalition Individual Champion(s): Sergeant Cartier (AZ DPS)
Project Description	The focus of this project is to develop performance metrics for the TIM training program to generate targeted and strategic data. The measures chosen should be twofold: • To collect meaningful participant feedback on training activities to inform updates or changes to the training to maximize its efficiency and benefits; and • To generate data on the benefits of TIM to inform the development of a business case for participation in TIM. There are three activities associated with this project: 1. Develop specific performance measures that can be collected to support the business case and value of participation in TIM in the region. 2. Develop incentives program for training participants to complete the post-training evaluation and establish a response target for these evaluations. 3. Integrate feedback into updated TIM training materials or training strategy.
Required Inputs / Prerequisites	• Understanding of the types of data that are or can be collected regarding TIM activities and TIM training outcomes. • The FHWA has resources in development that look to support the performance measurement of TIM. These resources may be useful for this project.
Anticipated Outcomes	• This project is anticipated to identify and begin collecting data on the measures that will help improve TIM training and inform the development of a business case for TIM, which will be undertaken starting 2017.
	How will success be measured? • Identification of at least 5 measurable metrics that will help inform the development of a business case for participation in TIM. • At least 75% of people who participate in a training session complete the post-training evaluation.

Other TIM Coalition actions identified to start in FY 2017-2018 and beyond:

- Capture business case for local agency TIM based on performance measures and data strategy developed in 2016 project.
- Conduct outreach to Executive staff of priority agencies – Fire/Police Chief; City Managers.
- Complete TIM Self-Assessment and identify correlation between results and those from 2015 assessment.
- Develop a library of localized TIM presentations for different local audiences:
    - Urban fire/police/EMS;
    - City/Town Executives/Decision Makers; and
    - Universities/Community Colleges.
- Develop a plan to improve external outreach and safety communications to the public.

AOC FY 2016 – FY 2017 Projects (10 projects)

Title	**Training and Discussion Topics Review**
Timeframe	Complete in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: AOC
	Individual Champion(s): David Lucas (City of Tempe), Cynthia Lopez (MCDOT)
Project Description	This project is a continuation of an annual AOC initiative to identify and conduct technical training or workshops for other AOC members on various topics related to ITS and operations. This project involves three steps: 1. Review and update the list of training and discussion topics that the AOC has compiled; 2. Facilitate an exercise to identify priority training/discussion topics to be held in 2016; and 3. For each of the topics that are prioritized for 2016, identify champions to help organize each training, including identifying the appropriate speakers/presenters.
Required Inputs / Prerequisites	• List of AOC training/discussion topics. • Additional AOC input.
Anticipated Outcomes	• Organization and execution of trainings or workshops hosted by the AOC and provided to AOC members.
	How will success be measured? • Execution of at least 2 trainings from the priority list. • Attendance at the training/workshop.

Title	**AZTech Dynamic Message Sign (DMS) Guidelines Update**
Timeframe	Complete in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: AOC
	Individual Champion(s): Tricia Boyer (City of Mesa), Albert Garcia (City of Surprise), David Egliskis (ADOT), Barbara Hauser (MCDOT)
Project Description	The AOC recently updated the Regional Video Feed and Camera Control Guidelines to make sure they stay current. This project will follow a similar process for the Dynamic Message Sign Guidelines, which have not been updated in 10 years. As part of the update, the Guidelines should include a process for local agencies to coordinate with ADOT to have freeway DMS display messages about events or construction in a local agency jurisdiction that may have a regional impact.
Required Inputs / Prerequisites	• Current guidelines to be updated found on the AZTech website. • Input from AOC and ASSC members.
Anticipated Outcomes	• Updated and approved guidelines for interagency posting of messages on DMS within the region.
	How will success be measured? • Completion of updates and approval from AOC, ASSC and AEC.

Title	**Construction and Closure Data Pilot Project Phase 2**
Timeframe	Complete in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: AOC / ATIS WG
	Individual Champion(s): Faisal Saleem (MCDOT)
Project Description	This project is a continuation of a current MCDOT initiative to incorporate agency planned construction and emergency closure data into the Regional Archived Data System (RADS). A consultant team has undergone the first phase of a project where planned construction data from two agencies was collected and shared via RADS. The next phase of this project involves expanding this initiative to other agencies and including emergency road closure data from local police dispatch. The steps required in the project include: • Identify lessons learned from the first phase of the project; • Outreach to priority agencies and identify those who are willing to participate in phase 2 of the project; and • Work with those agencies to facilitate the data sharing through RADS.
Required Inputs / Prerequisites	• Lessons learned from the initial pilot. • List of priority agencies for phase 2.
Anticipated Outcomes	• Agency planned construction data and emergency road closure data being provided to RADS and being available via the AZTech Region Information System (ARIS) and/or the via the ADOT File Transfer Protocol (FTP) site.
	How will success be measured? • Successful completion of phase 2 of the pilot project.

Title	**Wireless Systems White Paper Update**
Timeframe	Complete in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: AOC
	Individual Champion(s): Albert Garcia (City of Surprise)
Project Description	There have been previous efforts to document information about communications infrastructure in the region, including fiber optics and wireless communications. This project will look at these documents and update them to reflect the current state of these technologies in the region based on agency input. The document may also include any current best practices in communications technology that might be informative for AZTech participants.
Required Inputs / Prerequisites	• Past white papers on communications and/or wireless infrastructure (from Cynthia Lopez). • Identify appropriate personnel from Committee agencies. • Input from agencies on the current state of communications infrastructure. • Research on current best practices for communications.
Anticipated Outcomes	• Updated white paper that reflects the current state of communications infrastructure in the region as well as best practices nationally and/or internationally.
	How will success be measured? • Updated document that is available on the AZTech website.

Title	**Signal Performance Measures Workshop**
Timeframe	Begin in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: AOC
	Individual Champion(s): April Wire (MCDOT), Avery Rhodes (City of Mesa), Simon Ramos (ADOT)
Project Description	Signal Performance Measures (SPMs) are an important tool to improve signal operations and efficiency. Generating SPMs helps to identify intersections that are not operating correctly or efficiently. In 2015, two AOC members participated in a workshop held at the Utah DOT (UDOT) to get introduced to SPMs and their value to agencies. The findings were presented at an AOC meeting and there was interest surrounding the topic. Based on interest and on the anticipated value that local agencies could gain by using SPM, the goal of this project is to coordinate with UDOT and Purdue University to have them conduct an SPM workshop in the region for AZTech partners. This could be coordinated through the FHWA as a peer-to-peer exchange or through the National Operations Center of Excellence (NOCoE), to bring both the workshop instructors as well as UDOT signal technicians that can provide a demonstration of how UDOT actually uses SPMs in real-time to improve their intersection functions. One agenda item of the workshop should be a discussion about a way forward with respect to SPMs in the region, including development of a list of recommended and standardized SPMs that agencies who eventually gather SPMs should collect. Future years will build on this initial effort concerning SPMs and how to integrate them into the region.
Required Inputs / Prerequisites	• Work with FHWA to explore options for funding the workshop through ITS peer-to-peer exchange. • Work with the NOCoE to explore peer exchange opportunities. • Garner/identify interest among AZTech members and identify a time and location for the workshop.
Anticipated Outcomes	• A full-day workshop on SPMs held locally. • A list of recommended and standardized SPMs for the region.
	How will success be measured? • Coordinating with FHWA to fund the workshop as a peer exchange. • Attendance at the workshop. • Identification of standard SPMs and guidance for agencies on how to collect and use them. • Number of agencies that implement signal performance measures.

Title	**Data Analytics to Support Operations**
Timeframe	Begin in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: AOC
	Individual Champion(s): Faisal Saleem (MCDOT), Marshall Riegel (City of Phoenix), Vahid Goftar (ADOT)
Project Description	The project involves exploring how the region can more effectively collect, analyze and use current and future data to inform real-time operations. Actions within this project should include: • Identifying best practices for using data to support operations. Some examples might include existing integrated corridor management (ICM) or active traffic management (ATM) deployments, signal performance measures, or dynamic variable speed limits; • Testing commercial products that support improved or expanded data collection and analysis; • Completing an inventory of the current and anticipated data available on ARIS and what the data is currently used for; and • Identifying gaps and recommending strategies to make better use of the data that is available.
Required Inputs / Prerequisites	• Best practices research. • Product and system testing. • Information on data available on ARIS currently and in the near-term. • Understanding of how various types of data are currently used in the region.
Anticipated Outcomes	• A high-level concept for how the region can more effectively use data to support operations based on current gaps and opportunities as well as current best practices.
	How will success be measured? • Completion of concept that includes strategies for using current and future data in the region.

Title	**ICM Decision Support System Requirements**
Timeframe	Complete in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: AOC
	Individual Champion(s): Faisal Saleem (MCDOT), Reza Karimvand (ADOT), Steve Ramsey (ADOT)
Project Description	This project looks to develop a set of requirements for a decision support system (DSS) to support implementation of ICM activities along Loop 101 in Scottsdale and future ICM activities. A DSS would assist MCDOT and other agencies involved in deciding what actions should be executed during a freeway closure, such as recommended detours or signal timing plans to use.
Required Inputs / Prerequisites	• Input from agencies involved in ICM activities to understand the type of functionality such a DSS would provide. • Systems and software engineering principles and expertise.
Anticipated Outcomes	• High level functional requirements for an ICM DSS for the region.
	How will success be measured? • Completion of requirements report such that software could be developed in the future.

Title	**AZTech Performance Indicators Book Analysis and Plan for Progress**
Timeframe	Complete in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: AOC
	Individual Champion(s): Faisal Saleem (MCDOT)
Project Description	The 2015 AZTech Traffic Management and Operations Performance Indicators (PI) Book reported on the performance of the current state of the regional transportation system with respect to operations and management. The results of the 2015 analysis found that some key performance measures in the region, such as travel time, congestion and crashes, have increased in the past two years, which is a trend that the region does not want to continue into the future. Based on these results, this project involves reviewing and analyzing the 2015 PI book results and devising a plan for addressing the reduced performance in some measures.
Required Inputs / Prerequisites	• 2015 AZTech Performance Indicators Book. • Input from AOC members regarding what might have caused declined performance and the types of activities they can take individually and collectively to improve system performance.
Anticipated Outcomes	• Plan for how to address areas where performance has declined between 2013 and 2015.
	How will success be measured? • All measures that declined in performance in 2015 show improvement in the 2017 PI book.

Title	**Smart Work Zone (SWZ) Concept**
Timeframe	Complete in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: AOC
	Individual Champion(s): Faisal Saleem (MCDOT)
Project Description	This project involves developing a smart work zone (SWZ) concept that can be used throughout the region to support improved operations and safety within work zones. The concept will include recommended equipment and systems as well as their placement within a work zone. It will also look at processes for improved communications, coordination and data sharing based on the concept. This concept will be used to develop standard contractor language to be used to procure SWZ equipment. It will also be used to deploy a pilot SWZ project for the MCDOT MC-85 project, which is set to begin construction in early 2017.
Required Inputs / Prerequisites	• SWZ best practices research. • Input from agencies on current work zone practices and procedures. • Input from SWZ vendors on equipment and placement within the work zone.
Anticipated Outcomes	• A SWZ concept that AZTech agencies can use to plan, design and implement a SWZ on any roadway within the region.
	How will success be measured? • A SWZ pilot is successfully deployed for the start of construction for MC-85. • Lessons learned from this deployment are used to make adjustments for Phase 2 of the MC-85 project and are shared with all AZTech members in the form of a report or white paper.

Title	Connected and Autonomous Vehicle (CV/AV) Readiness Assessment
Timeframe	Begin in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: AOC
	Individual Champion(s): Faisal Saleem (MCDOT), Steve Ramsey (ADOT)
Project Description	Phoenix has recently become the fourth city in which Google will test autonomous vehicles. This project is a result of this announcement, and it will help investigate the readiness of the region with respect to connected and autonomous vehicles (CV/AV). It should also identify opportunities and challenges in the region with respect to CV/AV. Actions as part of this project might include: • Gathering lessons learned from the Anthem CV test bed that could be applicable to other areas in the region. • Engage with Tesla and other industry leaders in CV/AV technology and progress. • Conduct research on best and innovative practices internationally concerning CV/AV.
Required Inputs / Prerequisites	• Lessons learned from Anthem test bed. • Contacts at Tesla or others who can provide insight on the current state of AV and how it will affect the region. • Best and innovative practices research.
Anticipated Outcomes	• White paper that provides an assessment of the opportunities and challenges that the region faces with respect to current and future CV and AV initiatives as well as future initiatives.
	How will success be measured? • Technologies and systems for future CV/AV needs begin to be included in agency Capital Improvement Programs (CIPs) and the MAG Transportation Improvement Program (TIP).

Other AOC actions identified to start in FY 2017-2018 and beyond:

- Develop a plan for expanding arterial travel time collection based on the results of the East Valley Travel Time study and lessons learned from agencies who currently collect this data.
- Based on the results of the ASSC effort to engage media and PIOs as part of AZTech, the AOC should partner with that stakeholder group to develop innovative ways to get information to people, especially with respect to current and future ICM strategies.
- Develop a plan to improve sharing of planned special event information between agencies. This project can build on the 2016 project to update the DMS Guidelines.
    - Events that close down arterials are rarely reported (only those events that affect freeways), however, the closure of a major arterial for an event can cause issues to other agencies as well as the freeways.
    - One barrier to this includes weekend events because most local agencies are not 24/7.
- Explore options for developing a public-facing side of ARIS. This could include social media to other outlets for sharing public information. This will likely be a joint project between the AOC, TIM Coalition and the group that emerges that includes the media/PIOs.

TMC Operators Working Group FY 2016 – FY 2017 Projects (5 projects)

Title	**Public Safety Dispatch Outreach**
Timeframe	Complete in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: TMC Operators Working Group
	Individual Champion(s): Barbara Hauser (MCDOT), Ray Ramirez (City of Phoenix)
Project Description	A priority of TMC/TOC operators at ADOT, MCDOT and local agencies is to improve coordination and communications with local agency emergency responders (fire, police, EMS). The type of assistance that a TMC and its operators can provide is often unknown to local emergency responders, and an entity that could help improve coordination with local agency responders is local Dispatch centers. The MAG Public Safety Answering Point (PSAP) Managers Group consists of PSAP mangers from MAG member agencies, oversees technical needs, and provides coordination of the Maricopa County 9-1-1 system. The group meets quarterly in February, May, August and November of every year. This project involves: • Developing a presentation that the TMC Operators Working Group can give to this MAG Group about the roles and benefits that can be provided by TMCs. • Coordinating with the Group to get onto the agenda and provide the presentation during one of the quarterly meetings. The project will also include engaging with Phoenix emergency management which involves: • Using the presentation from the MAG committee to present at the quarterly Phoenix and Phoenix Police Department coordination meetings. • Identifying a strategy to engage Phoenix Fire Dispatch.
Required Inputs / Prerequisites	• Identification of appropriate contacts within the MAG 911 PSAP Group. • Input from best practices and working group participants about the benefits provided by TMC Operators (both ADOT, MCDOT and local) to emergency responders.
Anticipated Outputs	• A presentation at the MAG PSAP group to convey the capabilities of TMCs and the benefits that emergency response agencies could get from coordinating with them.
	How will success be measured? • TMCs see an increase in coordination with local agency emergency responders.

Title	**TMC Operators Working Group Performance Strategy**
Timeframe	Complete in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: TMC Operators Working Group Individual Champion(s): To be determined
Project Description	The goal of this project is to identify and begin tracking some performance measures related to participation in the TMC Operators Working Group. As a fairly new group, it will be important to be able to point to specific benefits or added value that operators can gain by participating in the group, and these will be most easily identified and developed by tracking and analyzing some targeted performance measures. For example, it was noted that there was a lot of value in holding meetings at various TMCs/TOCs in the region to get an understanding of the devices, systems and procedures used – it will be important to capture both the efforts put in and the benefits that arise from these efforts. Performance tracking is a process that will take time to develop, implement and have enough data to identify results. This project is the first step and involves identifying measurable performance metrics and a platform for tracking them over time. Such measures might include: number of events coordinated across multiple agencies; and number of direct multi-agency incident notifications that occur. Other measures will be determined.
Required Inputs / Prerequisites	• Identification of measurable datasets or metrics to highlight the benefits of participating in the TMC Operators WG.
Anticipated Outputs	• Performance measurement strategy including data and a tracking mechanism that can be used to support the WG's business case. • Based on the metrics, a future project will include development of a business case for participating in the TMC Operators Working Group which should be shared with agencies throughout the region.
	How will success be measured? • At least 5 performance measures are identified that include data that is measurable and easily tracked. • 100% of agencies participating in the WG begin to track the agreed upon measures by the beginning of 2017.

Title	TMC Contact List
Timeframe	Complete in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: TMC Operators Working Group
	Individual Champion(s): John Hoang (City of Tempe), TMC Office Assistant (MCDOT)
Project Description	A TMC contact list (AZTech Public Agency TOC-TMC Incident Contact List) was developed for the region so that information about all TMCs was in a centralized location. The list includes information such as contact information (names and numbers) and the TMC addresses. The goal of this project is to update the list and make sure that it is still accurate and complete. During this update, there should be discussions with the Working Group members about the types of additional information that would be helpful to include. Examples might include hours of operation, or identification of regional resources available at that TMC. After the update, the list should be distributed to all members of the TMC Operators Working Group (and other AZTech committees) for reference. The list is not intended for public or media distribution. Ideally, this process of updating the contact list would be undertaken annually to make sure that it is always accurate and reflects the most up to date information.
Required Inputs / Prerequisites	• Existing contact list. • Updated contact information (names, numbers, addresses, etc.) for participating TMCs and operators. • Input from Working Group about additional desired information or additional agencies who should be involved.
Anticipated Outputs	• Updated and expanded contact list for TMCs and operators.
	How will success be measured? • 100% of the time, the information on the list is accurate when one TMC operator tries to call another.

Title	TMC Resource Database
Timeframe	Complete in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: TMC Operators Working Group (supporting larger ASSC 2016-2017 project)
	Individual Champion(s): Ray Ramirez (City of Phoenix)
Project Description	In FY 2016, the ASSC will begin a project that involves developing an AZTech shared resource database that will be accessible (via login) to all AZTech members. The goal of this database is to create a centralized location for agencies to share ITS and operations resources such as guidance documents, manuals, lessons learned, example documents that could be useful to other agencies. This FY 2016 – FY 2017 project for the Operators WG involves collecting existing resources from TMCs in the region that could be helpful to AZTech partners if shared. Documents that might be collected include: • TMC manuals; • Response manuals; and • Lessons learned and helpful tips regarding systems, devices, or processes dealt with at TMCs. • Specific knowledge, skills or expertise that a staff member might have These documents should be collected into a single location so that they can easily be uploaded to the AZTech shared resource database (led by the ASSC) upon its completion.
Required Inputs / Prerequisites	• Input from WG participations on existing TMC guidance and resource manuals that should be shared with the group.
Anticipated Outputs	• Collection of useful TMC resources that can be uploaded and shared via a future AZTech resource database.
	How will success be measured? • 100% of WG participants provide materials or input on materials. • Availability of materials on the AZTech resource database (when available).

Title	**Loop 101 Integrated Corridor Management Tabletop Exercises**
Timeframe	Complete in FY 2016 – FY 2017
Responsible Party	Committee/Group Lead: TMC Operators Working Group
	Individual Champion(s): Barbara Hauser (MCDOT)
Project Description	This project involves engaging agency stakeholders throughout the region about the lessons learned from the planning and execution of an ICM strategy on Loop 101 in Scottsdale through tabletop exercises. ICM has emerged as a high priority strategy and is expanding to freeways through the region. Providing a hands-on exercise about the processes and lessons learned from the first ICM deployment in the region can help spread awareness amongst operations and emergency response staff throughout the region so that they can be prepared to participate in ICM as it continues to grow.
Required Inputs / Prerequisites	• Lessons learned from the Scottsdale ICM project. • Outreach with agencies or groups of agencies to schedule time for the exercise.
Anticipated Outputs	• A series of tabletop exercises that are held throughout the region to support awareness and understanding of ICM strategies.
	How will success be measured? • For all agencies who have a freeway running through their jurisdiction, at least one person attends the ICM tabletop exercise.

Other actions identified to start in FY 2017-2018 and beyond:

- Annual updates of the TMC contact and inventory list.
- Partner with other AZTech committees to advance training priorities, including training needs for emerging technologies (CV/AV, ATM, etc.).