

Performance Measures Performance Measures DASHBOARD 2011 LEFT LANE BLOCKED AT 59TH AVE

This Region and the AZTech[™] Partnership have made some significant traffic operations investments, and some impressive strides in advancing traffic management and operational strategies. For nearly two decades local, county and state agencies in the region have been very focused on improving the way we manage and operate the transportation network. We all strive to improve these functions within our jurisdiction, and are also focused on how decisions influence our neighboring agencies...and most importantly, the travelers.

AZTech[™] and Arizona's participation as an FHWA Operations Opportunity State has elevated the need within our region to actively measure the performance of our transportation network. Many agencies were already closely monitoring, evaluating and enhancing their individual systems, such as transit partners. The collective effort by the partners to report on regional performance is represented within this initial Performance Measure Book for 2011. Important next steps include taking these results to improve how we do things, and take a closer look at where we need to improve.

The 2011 Performance Measure Book is a snapshot of where we are today...and it is just a starting point. Many thanks to those agencies and partners that provided the data and analysis for this inaugural regional traffic management focused performance report. There is a concerted effort at the AZTech[™] Executive Committee to continue to refine those measures that are meaningful, and create a framework for ongoing measuring, reporting, and improving how we operate our transportation network.

Traffic management and operations encompasses a lot of activities, and through incremental improvements and focusing our efforts on those activities that will yield the greatest benefits, we will truly provide our travelers with a safe and seamless experience on our transportation network every day.

EXECUTIVE COMMITTEE CHAIRS

Robert Samour Robert Samour, P.E. ADOT Deputy State Engineer

John Hauskins, P.E. MCDOT Director



"What gets measured gets done, what gets measured and fed back gets done well..." — John E. Jones



For more information on the *AZTechTM Traffic Management Performance Measures* book or to download the full publication or the dashboard visit: **www.aztech.org/perfmeasure**



	Policy Goal/ Performance Measure	Previous Reporting Period	Current Reporting Period	Trend	Description	
FREEWAYS	Limit the % increase in average travel time to less than the % increase in traffic volume: MAG Regional Concept of Traffic Operations (RCTO) Goal			$\widehat{\mathbf{v}}$	Reduction in overall travel times means effective management of the freeways	
	Daily Vehicle-Miles of Travel (2005-2009)	28,370,000	29,872,000	+5.3%		
	Travel Time Reliability of Inbound/Outbound Freeways (using aver- age times) (2010-2011)	442 min	432 min	Total travel time reduction of 0.3% for inbound and 3.7% for outbound—individual freeway statistics vary widely from 29.6% reduction to 45.1% increase in travel times		
ARTERIALS	Limit the % increase in average arterial travel time to less than the % increase in traffic volume—for arterials with ITS infrastructure only: MAG RCTO Goal			$\mathbf{\hat{v}}$	Some of the major arterials in the Phoenix region have shown actual reductions in travel time	
	Develop practices for after-hours monitoring of local TMC systems and devices: MAG RCTO Goal			$\langle \boldsymbol{\textcircled{b}} \rangle$	Improve service to respond to actual needs	
	Daily Vehicle-Miles of Travel (2005-2009)	34,105,000	35,728,000	Increase in vehicle-miles of almost 5%		
	Bell Road Travel Time from 303 to 101 Aqua Fria (2008-2010)	14 min EB / 20 min WB	12 min EB / 15 min WB	-14% EB and -25% WB reduction in travel time due to ITS infrastructure deployment		
	City of Mesa Country Club NB Travel Time Reduction (2007-2011)	11 min 55 sec	8 min 52 sec	Reduction in travel time of 3 minutes (or 27% reduction) due to improved signal coordination along corridor		
	Town of Gilbert Signal Retiming % Change in Delay and % of Stops on Warner Road	0 / 0	-35% / -58%	Based on before and after study of town-wide signal retiming project		
	Number of TMCs with Coverage Outside of Standard Business Hours (2009-2011)	4	7	After-hours monitoring of local traffic management systems and optimization of traffic across city boundaries is becoming a more common functionality		
SAFETY	Vision of Zero Fatalities with an annual reduction goal 15% per year: Arizona Strategic Highway Safety Plan Goal				Road fatalities have stayed consistent and other measures showing minimal improvement	
	% of All Road Fatalities in Arizona Concentrated in MAG Region (2006-2008)	38%	38%	While total crash related fatalities in Arizona are dropping, the % that occur in the MAG Region is staying the same		
	Urban Freeway System – Crash Rate on US-60 (1999-2008) (Total Crashes per Total Million Vehicle Miles Traveled)	~1.5	~1.3	I-17 experiences the highest crash rate typically each year, but US-60 matched I-17 in 2002 and has since decreased to one of the lowest crash rates in the Phoenix metropolitan region		
	Bicycle Crashes on Arterials and Local Roads – Total Crashes (2007-2009)	~1250	~1400	Total bicycle crashes have increased		

CIDENT MANAGEMENT: FREEWAYS • INCIDENT MANAGEMENT: ARTERIALS • TRAVELER INFORMATION • TRANSIT

		9	Performance trending in favorable direction	Tre	nd is holding Performance trending in unfavorable direction	
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MGMT AYS -	Reduce incident duration by 20%: MAG RCTO Goal To be developed by TIM Coalition: Additional Goals				The recently established Traffic Incident Management Coalition is focused on collaborating and coordinating to reduce impacts of incidents on the transportation network	
INCIDENT FREEW	DPS Average Time to Remove Blockage from Travel Lanes (2nd Qtr 2011 to 4th Qtr 2011)	49.8 min	34.2 min (-31.33%)	Quicker clearance time increases overall safety and reduces congestion		
AGMT. LS -	Zero secondary crashes when REACT is present: REACT Goal To be developed by TIM Coalition: Additional Goals				There will be additional arterial incident management goals reported in upcoming years	
INCIDENT N - ARTERIA	Number of Secondary Crashes When REACT is Present (2009-2011)	0	0	Regional Emergency Action Coordination Team (REACT) presence on-scene supports public safety in traffic control and mitigation		
TION	Increase travel information usage by 200 percent: MAG RCTO Goal			$\mathbf{\hat{v}}$	Progress toward this goal is positive by increased usage of 511 phone and web services	
FORMA	Post travel information/messages on freeway and arterial DMS: MAG RCTO Goal			$\langle \boldsymbol{\ominus} \rangle$	There are plans to enhance the freeway travel time program in the coming years	
ER IN	511 Phone Service 750,000 calls 1,150,000 calls Usage (2006-2010) 1,150,000 calls 1,150,000 calls		Partnership of FHWA, ADOT, MCDOT and AZTech [™] agencies			
TRAVEL	Total Miles of Freeway Corridors Providing Travel Times (2008-2011)110 miles (50 inbound, 60 outbound)110 miles (50 inbound, 60 outbound)		ADOT's travel time program in the metropolitan area is planned for expansion to more routes and more freeway dynamic message signs			
	On-time performance of 92%: Valley Metro Goal			$\mathbf{\hat{v}}$	Increased passenger miles means achieving this goal benefits more passengers	
	On-time performance of 93%: METRO Light Rail Goal			$\mathbf{\hat{v}}$	METRO Light Rail has achieved this service goal every year in existence	
ANSIT	Annual Passenger- Miles of Travel (2005-2009)	260 million	303 million	Passenger	miles have increased	
TR	Valley Metro Fixed Route Average On-Time Performance (2007-2010)91.55%95.27%		95.27%	Increased on-time performance from all fixed – route transit services		
	METRO Light Rail Average On-Time Performance (2007-2010)	93.5%	95.8	Increased on-time performance from METRO Light Rail transit services		











AZTECH™ PARTNERS IN INTELLIGENT TRANSPORTATION

- » Arizona Department of Public Safety
- » Arizona Department of Transportation
- » Arizona Division of Emergency Management
- » Arizona State University
- » University of Arizona
- » City of Avondale
- » City of Chandler
- » 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 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
- Regional Public
 Transportation Authority
- » Private Partners

