



Transportation Safety Advancement Group

2010 – 2012

STRATEGIC PLAN

TSAG Vision:

Protected travelers and public safety personnel who serve them through integrated Intelligent Transportation Systems technologies

NOVEMBER 2009

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TRANSPORTATION SAFETY ADVANCEMENT GROUP 2010 – 2012 STRATEGIC PLAN

FORWARD

Through its charter, the Transportation Safety Advancement Group (TSAG) provides important input to the US Department of Transportation (US DOT), Research and Innovative Technology Administration (RITA) and to the RITA ITS Joint Program Office by identifying technology applications that address our nation's surface transportation safety challenges. This Strategic Plan updates an earlier 2008-2010 Plan and refines the form and direction through which TSAG continues pursuit of its *technology for public safety* mission. Through an awareness of our operating environment, an awareness of our operating capacities, and through setting our *strategic direction*, this Plan defines a path for serving key TSAG objectives into the year 2012.

I. WHERE WE ARE

THE NATIONAL TRANSPORTATION SAFETY CHALLENGE

The “hazards” associated with travel, quantified through incidents and resultant injuries and fatalities, has for too long been viewed as an expected cost of the freedom of mobility enjoyed by travelers. In recent years, highway crashes have resulted in some 40,000 fatalities and over 3-million injuries annually. More recent downward trends in these numbers can be attributed to a combination of interventions, including vehicle and roadway design, driver behavior, incident response and management, and new technologies, among others. This transportation safety challenge persists however, with current highway incidents continuing to result in some 38,000 fatalities and still over 3-million injuries annually. At the same time, highway incidents, whether associated with vehicle crashes or other events, are a cause of major congestion, with associated costs of delay, and associated environmental hazards.

Today, our nation's transportation safety focus, led by the US Department of Transportation is expanded to employing Intelligent Transportation Systems (ITS) and related technologies to help address these persistent challenges, while at the same time advancing the mobility and environmental quality of our transportation networks. Supported by consortiums of safety interests, the US DOT, ITS Joint Program Office has set out to aggressively reduce highway traffic incidents and in concert, reduce injuries and fatalities.

THE ITS JOINT PROGRAM OFFICE

The US Department of Transportation through its Research and Innovative Technologies Administration, ITS Joint Program Office (JPO), is focused on intelligent vehicles, intelligent infrastructures and on the advancement of safe and efficient transportation systems through *connectivity* between and among transportation system components. Through its program goals, the ITS JPO supports the advancement of Intelligent Transportation Systems through investment in major initiatives, exploratory research, and deployment support. The ITS JPO pursues its goals through research and development, operational testing, technology transfer, training, and technical guidance particularly in the areas of intelligent vehicles, advanced traffic and transit management, commercial vehicle operations, public safety, traveler information, and inter-modal freight.

II. THE TSAG CONNECTION

From its inception as the Public Safety Advisory Group, the Transportation Safety Advancement Group has been dedicated to its purpose of ***gaining insight and knowledge of transportation safety needs and how these may be served through proven and emerging technologies***. Through a dedicated group of volunteer transportation and public safety professionals, TSAG is maturing as a significant advocate for employing public safety technologies to address our national transportation safety challenge. Through pursuit of its charter “to advise the Research and Innovative Technologies Administration, ITS Joint Program Office on Intelligent Transportation Systems and advanced technologies,” TSAG supports the ITS Joint Program Office mission.

III. THE TSAG OPERATING ENVIRONMENT

Within a redesigned operating framework, its professional members, and a growing corps of strategic partners, TSAG moves toward its 2012 Strategic Plan horizon recognizing that an awareness of its operating environment is essential to pursuit of the TSAG mission. From its original 2008-2010 Strategic Plan that included a Situation Assessment based on a detailed SWOT analysis, TSAG now directs its resources toward a more focused vision, mission and strategic direction - - discussed in subsequent Sections of this Plan.

Table A below highlights the SWOT assessment of the TSAG 2008-2010 Strategic Plan. Noteworthy is the fact that elements of TSAG strengths and opportunities in place in 2008 remain today, if not more so. As the TSAG organization has matured, and as TSAG members have become increasingly immersed in its *technology for public safety* paradigm, the identified threats and weaknesses continue to be diffused through annual Work Plans designed to target these through sound project management and resource management strategies.

TABLE A
2008 TSAG SWOT Summary
 (With 2010 Updates)

<p>STRENGTHS</p> <ul style="list-style-type: none"> • Strong ITSA & US DOT Commitments • Strong ITSA & US DOT Leadership • Strong ITSA Project Management • Highly Motivated TSAG Members & Partners • National Concern for Public Safety • Emerging Technologies 	<p>WEAKNESSES</p> <ul style="list-style-type: none"> • Major Effort Required of Volunteers • Incomplete Strategic Partnerships • TSAG National Identity Not Fully Established • Infrequent Meeting Opportunities • Project Development & Funding Constraints
<p>OPPORTUNITIES</p> <ul style="list-style-type: none"> • ITSA & ITS JPO Support for Innovation • TSAG Member Creative Enthusiasm • Advancing Private Investment in Technology • National Interest in ITS Technologies • National Transportation Priorities Focus 	<p>THREATS</p> <ul style="list-style-type: none"> • Political Uncertainties • ITS Competitive Environments • Environmental Concerns • Volunteer Resource Limitations • Disparate ITS Interests

To help ensure positive outcomes, TSAG Annual Work Plans continue to be responsive to its operating environment, and responsive to important insight and guidance from its US DOT sponsors, from key ITS industry leaders, and from evolving political, institutional, and technical environments.

Working within this operating environment, TSAG will dedicate its expanding resources of volunteer member knowledge, US DOT leadership, and a growing bank of strategic partners, in pursuit of its public safety mission. As an additional management tool for responding to a dynamic operating environment, quarterly *TSAG Issues/Actions Reports* are designed to identify and track threats and risks associated with TSAG activity. Interventions in the form of ‘actions’ will address these threats and risks, plus will respond to *opportunities* associated with TSAG Work Plan activity and with operating environment developments.

Thus, from the foregoing assessment, and through a maturing working relationship with US DOT, and select modal administrations, plus its working relationship with the Research and Innovative Technology Administration ITS Joint Program office, strategic TSAG vision and mission directives are defined to help guide the TSAG journey toward its transportation and public safety objectives.

IV. A STRATEGIC TSAG VISION & MISSION

Building on its growing experience, learning from maturing partnerships including US DOT T3 partners, and guided by insight gained from its first US DOT executive briefing, TSAG now tightens its strategic focus to serve more precise *vision* and *mission* directives.

The TSAG *vision* represents the long-range ideal that the organization and its partners collectively pursue. This ideal inspires TSAG, its stakeholders, partners, and like interests to unite behind a core purpose and recognizes a service to its communities of public safety interests.

TSAG Vision:

Protected travelers and public safety personnel who serve them through integrated Intelligent Transportation Systems technologies

While the TSAG Vision describes an ideal state pursued through TSAG Annual Work Plans, a companion TSAG Mission focuses on who we are, how we will progress toward this ideal, and the focus of TSAG activity to serve its charter and its stakeholders.

TSAG Mission:

*Within its **technology for public safety** strategy, the Transportation Safety Advancement Group promotes transportation safety and efficiency through optimized connectivity between and among travelers, vehicles, infrastructures, and public safety providers*

It is this TSAG Mission that then sets the near term directive for TSAG Annual Work Plans and for its broader technology knowledge transfer purpose. Additional guidance to development of TSAG Annual Work Plans is structured within adopted Operating Principles and Operating Goals.

V. OPERATING PRINCIPLES / OPERATING GOALS

OPERATING PRINCIPLES

In support of its charter to provide feedback and insight to US DOT and to its Research and Innovative Technology Administration, ITS Joint Program Office, TSAG is dedicated to advancing public safety across transportation modes, across transportation services and functions, and across transportation and public safety jurisdictions. To these ends, TSAG has shaped this Strategic Plan through commitment to its charter Operating Principles, including:

- **Public Safety Through Technology** – The advancement of proven and emerging technologies for traveler safety and for the safety of emergency services providers remains a TSAG priority as these and as broader Intelligent Transportation Systems are deployed along our nation’s multi-mode transportation networks.
- **Public Safety Through Strategic Partners** – Strategic Partnerships and institutional frameworks that serve to advance transportation safety and mobility through technology, are encouraged and will be promoted through TSAG support of relevant public policy, technology research, and competitive and open technology research and development markets.
- **Public Safety Through Knowledge Transfer** – TSAG will advance traveler and emergency responder safety through forums that share knowledge, promote awareness and exchange experience - - all employed to create a national awareness of, and connection to, transportation and public safety goals and achievements.

OPERATING GOALS

Guided by the foregoing Operating Principles, a companion set of strategic Operating Goals will build cohesion among TSAG members, their communities of interest, and TSAG strategic partners as all come together to a unified program of actions. Accordingly, specific TSAG Operating Goals will be pursued in support of this *2010-2012 Strategic Plan* and companion Annual Work Plans, and include:

1. Support operating partnerships within TSAG Interest Communities and like interest stakeholders
2. Strengthen the interplay among TSAG members and partners through interactive working events
3. Establish functional knowledge transfer and information exchange mediums and mechanisms
4. Strengthen TSAG identity with federal, state, regional and local transportation operators and with US DOT modal administrations
5. Support and help expand a national partnership among leading transportation operations and public safety organizations and related technology industries
6. Identify and support the needs of first responder safety technologies
7. Identify and promote best practices for improving public safety inter-discipline coordination
8. Identify and promote public safety communications technologies

VI. TSAG STRATEGIC DIRECTION

To optimize its Strategic Plan effectiveness, TSAG must know its core strategy for achieving its Work Plan objectives, and must also know that it cannot be distracted from this core strategy. This declaration of strategic discipline is termed our *Strategic Direction*. The focus of this TSAG 2010-2012 Strategic Plan is thus defined through its:

Strategic Direction:

The Transportation Safety Advancement Group, through its Annual Work Plans, promotes technologies that minimize transportation incidents and support safe and efficient emergency management, through interdisciplinary and inter agency communications and coordination.

Through a primary focus on its Strategic Direction, TSAG will address issues and opportunities identified through Annual Work Plan elements and actions. These actions include strategic goals to be pursued and strategies for their achievement.

VII. TSAG COMMUNITIES OF INTEREST

The Transportation Safety Advancement Group is organized under its Bylaws to provide general input and advice to the US DOT and its Research & Innovative Technologies Administration, ITS Joint Program Office. Administered by ITS America and supported through US DOT resources, TSAG complies with US DOT policies and regulations. Within this framework, TSAG functions through a proactive dialogue among representatives of its interest communities, ITS JPO staff, and US DOT Modal Administrations, collectively dedicated to advancing transportation operations safety efficiency, economy and environmental quality.

From its inception, the collection of a member team of multi-discipline professionals dedicated to a common public safety mission showed great merit. Today, eight (8) specific interest communities, representing a broad range of stakeholder organizations, nominate sixteen members (**Appendix A**) to administer the business of TSAG. TSAG communities of interest include:

- **Academic & Research**
Play key roles in research, education and evaluation of transportation technologies, plus support continuing performance measurement of technology applications and systems operations.
- **Emergency Communications**
Serves public safety disciplines and elements through technologies that manage data, address interoperability and communications frequencies for incident response and management.
- **Emergency Medical Services**
Represent the front line of on scene assessment, medical treatment, and evacuation of victims in life threatening circumstances from incident sites to emergency-room settings.
- **Transportation Operations**
Oversee day to day surveillance, control and management of transportation systems and multi mode networks through inter-agency and inter-discipline communication and coordination.

- **Fire & Rescue**
Serve fire-suppression needs, hazardous materials handling, victim rescue and incident scene management support.
- **Law Enforcement**
Serve as the first line authority in incident response and management including incident scene management and protection, and incident evidence preservation.
- **Technology & Telematics**
Serve multi-level technology applications for transportation operations and for interfacing between drivers, vehicles, and infrastructures, through communications and integrated systems.
- **Emergency Management**
Addresses coordinated response to unplanned events or catastrophic incidents through multi agency communications and multidiscipline / multilevel management strategies.

VIII. TSAG OUTREACH & KNOWLEDGE TRANSFER

Through its forums, its publications, and through its broader communications programs and mediums, TSAG reaches out to public and private transportation services organizations and to technology research and development interests. Guided by its Strategic Plan, TSAG Annual Work Plans pursue programs and projects that directly advance the application of transportation safety technologies. Further, through their communities of interest, stakeholders and strategic partners TSAG members share their expert knowledge and insight on transportation and first responder safety technologies. Thus, supported by its US DOT sponsor and by member based expert knowledge and insight, TSAG Annual Work Plans focus on core functions to advise the ITS Joint Program Office on transportation safety through ITS technology applications and ITS based programs.

Figure 1 illustrates the multi-directional knowledge and information flow through which TSAG reaches across transportation safety interests, to US DOT, and to its modal administrations. As the TSAG knowledge base is expanded and as its knowledge transfer flow matures, information exchange mediums and strategies will be leveraged through partnerships and with allied transportation operations and public safety interests. This activity transcends all elements of TSAG Annual Work Plans, refined annually and pursued through member and leadership guidance and support.

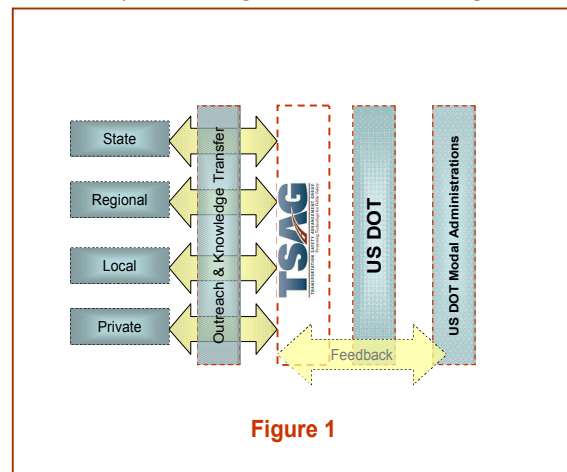


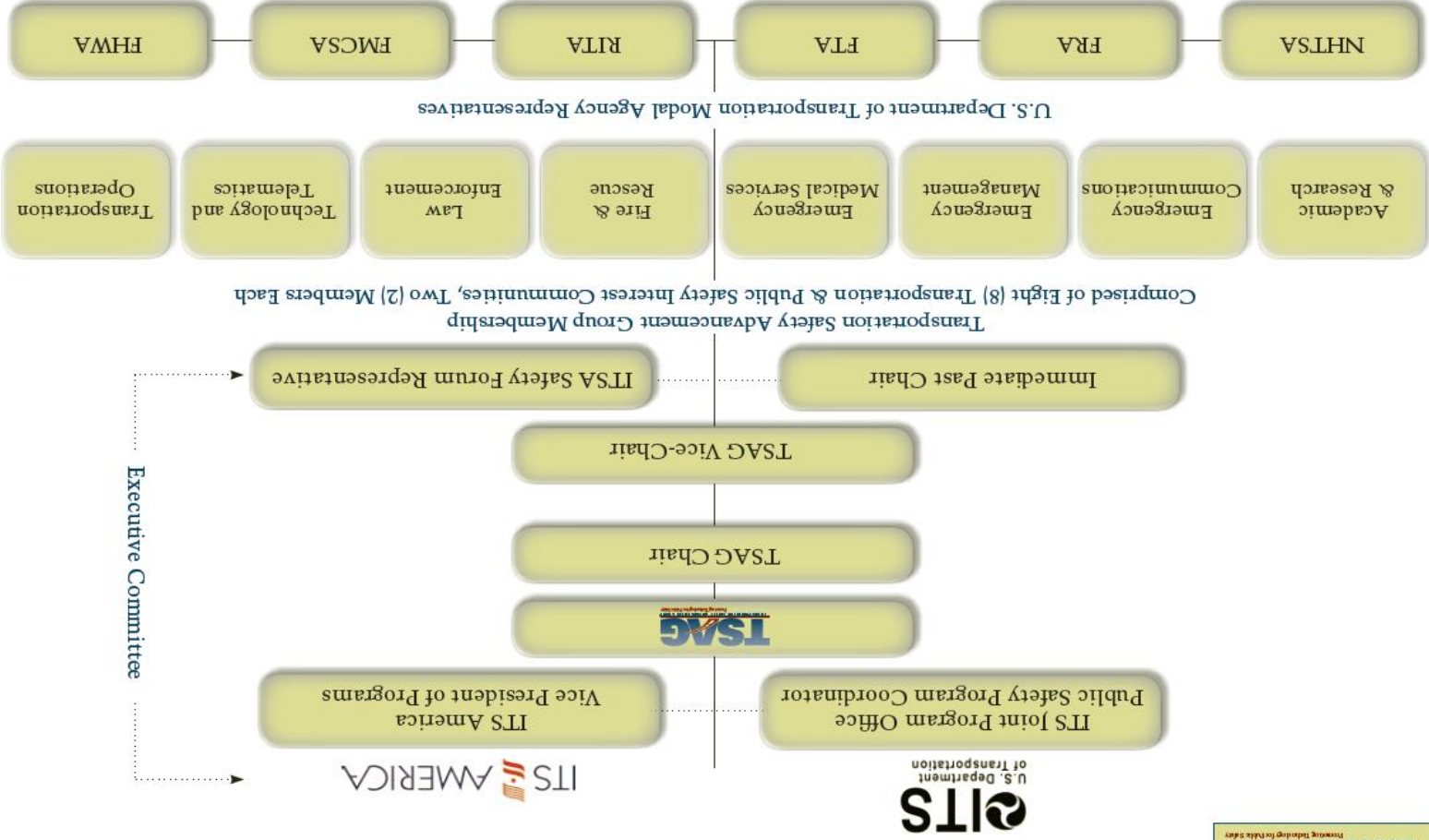
Figure 1

IX. TSAG ORGANIZATIONAL STRUCTURE

To help address evolving challenges and capture identified opportunities, TSAG is organized through a traditional structure that engages a broad range of professions and professional insight. The TSAG Organizational Structure (*following page*) engages an administrative and management core of leaders including US DOT, ITS America and TSAG leadership and members. From the ground up, US DOT Modal Administrations provide policy and research insight, plus provide important knowledge from federal policy, from modal deployments and from lessons learned perspectives.

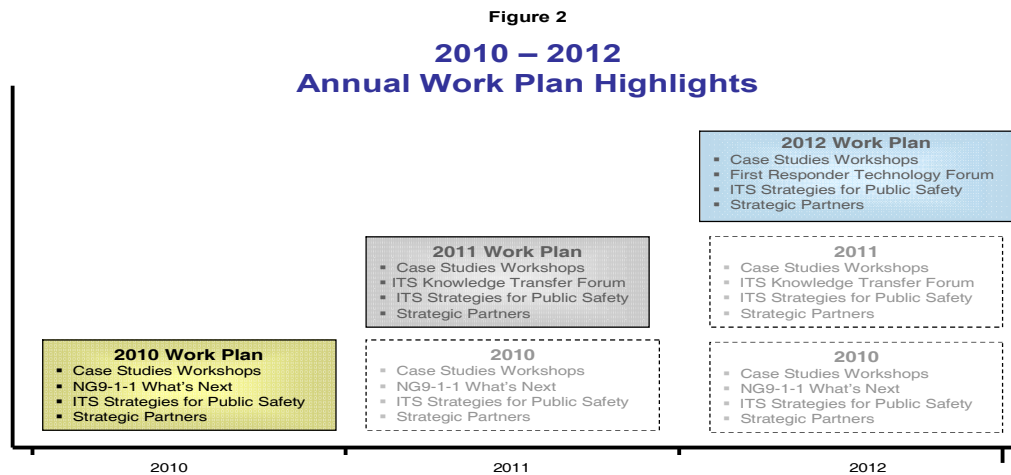


ORGANIZATIONAL STRUCTURE



X. ANNUAL WORK PLANS

The *TSAG Road Map* for achieving its strategic goals is laid out within its Annual Work Plans. Through specific Annual Work Plan elements (highlights illustrated in **Figure 2** below), TSAG pursues strategic goals and progressively builds upon previous year work toward serving this three-year Strategic Plan.



Evident in individual Annual Work Plans are the common threads of TSAG identity, knowledge transfer, multi-level communications, and technology assessment. These common threads maintain a progressive growth path from one year to the next. Specific tasks associated with any given element will in turn respond to the TSAG operating environment. Thus, as Annual Work Plans are pursued, measures of performance and effectiveness will be pursued to identify necessary corrections, to strengthen outcomes and to maintain a proper course toward meeting identified objectives.

Through its 2010 Work Plan, TSAG intends to serve these goals through key elements including:

- **Case Studies Workshops** -- Continue a highly successful TSAG Case Studies Workshops series through a refined process to expand participation and target instructive workshop events
- **NG9-1-1 What's Next** -- Through a special NG9-1-1 "What's Next" Forum and follow on report to US DOT, enlist a corps of public safety experts to address the issue of prioritizing emergency responder information from 9-1-1 PSAP centers
- **ITS Strategies for Public Safety** -- Complete an assessment of state level ITS Strategic Plans to identify opportunities to promote ITS Strategies for Public Safety, including technologies for emergency response and incident management
- **Strategic Partners** -- Broaden alliances with strategic partners for leveraging resources toward advancing its *technology for public safety* mission

In subsequent years, considering a changing operating environment and emerging opportunities, Annual Work Plans will account for such circumstances and emerging challenges and opportunities.

XI. TSAG OPERATIONS SUPPORT

As enumerated in earlier discussions of its fundamental strengths, TSAG enjoys a three-legged support base (**Figure 3**) comprised of the professional staffs of RITA Intelligent Transportation Systems, Joint Program Office; the Intelligent Transportation Society of America; and the direct support and guidance of its public safety and transportation professional members representing the broad knowledge and experience base of the transportation operations and public safety communities.

The ITS Joint Program Office provides direct support through its contractual underwriting of TSAG plus provides guidance of TSAG program management, administration, Work Plan implementation, and policy guidance and oversight. ITS America provides front-end program management support, web-services management, internal alliances support, plus technical/administrative support. TSAG members volunteer their professional experience and expert knowledge through direct engagement in Annual Work Plan implementation, through management guidance, through pursuit of strategic alliances, and, through associated communications within and throughout interest communities and stakeholder organizations. Together, US DOT, ITS America and TSAG members provide substantial investments of professional knowledge and experience, time, and financial resources, all toward serving TSAG in its pursuit of its core mission and of its strategic objectives.

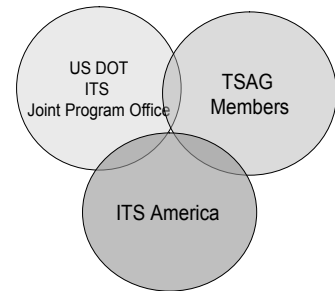


Figure 3

XII. MEASURING OUR PROGRESS

WORK PLAN TRACKING

Action planning sets forth how strategic goals will be pursued. As Annual Work Plans are implemented, progress reports, budget reviews and effectiveness measurements will be a part of Work Plan tracking. Through these implementation and tracking tools, TSAG will measure its progress and levels of success as it pursues its core mission and strategic objectives. Management of the TSAG Strategic Plan and Annual Work Plans will be through ITS America staff with milestone oversight of the TSAG Executive Committee, ad-hoc teams and at-large members. Work Plan budgets will be defined and managed through ITS America, in compliance with US DOT (ITS JPO) policies and procedures.

RISK MANAGEMENT

Specific elements of Annual Work Plans will not be risk averse. For example, risks associated with aggressive schedules, or expectations of volunteer members will need to be identified, weighed, and managed. Risk management will involve active tracking of known risks, identification of emerging risks, and, the development of needed interventions or implementation strategy adjustments. Through risk management planning, TSAG will minimize potentials for work plan implementation shortfalls and optimize levels of success.

ISSUE-ACTION TRACKING

Similar to identified program implementation risks, program implementation issues will also be defined and tracked. Issues will be classed as policy, technical, or administrative, and will be addressed openly to the interest of members and stakeholders. Through applying sound project-management practices, project implementation issues will be identified and tracked for proper management and disposition.

STATUS REPORTING

Work Plan elements represent the core actions through which TSAG will pursue its mission and strategic goals. Each Work Plan element will be implemented through identified actions, milestone tracking, and through implementation status reports to TSAG members delivered on a regular basis.

TSAG IMAGE & REPUTATION

A final and key measure of performance comes through a maturing TSAG image and reputation. Clearly this key measurement begins with TSAG partners, allied interests, and with the ITS community at large. ITS America and the ITS Joint Program Office, as partners, will reflect a first view of the overall TSAG image and reputation as TSAG moves further into the public arena.

XIII. Annual Reports

Through its Annual Reports, TSAG will provide the ITS Joint Program Office an overview of the foregoing performance parameters. From this review, Plan refinements and adjustments may be adopted for subsequent year Work Plan development.

XIV. Looking Ahead

In subsequent years this Strategic Plan will be revisited and adjusted to add an additional year plus to define Annual Work Plan elements to respond to changing operating environments, and to resource management priorities. The TSAG vision and mission will drive its fundamental focus and its Operating Principles and Operating Goals its template for identifying public safety challenges and opportunities.

Appendix A
Member Roster
October 2009

Interest Community	Stakeholder Groups (Partial)	Designated Members
<i>Emergency Communications</i>	APCO NENA NPSTC NASNA	<ul style="list-style-type: none"> ▪ Jim Goerke, NENA ▪ Nancy Pollock, APCO
<i>Law Enforcement</i>	IACP NSA MCCA	<ul style="list-style-type: none"> ▪ Vacancy, IACP ▪ Dan Dytchkowskyj, NSA
<i>Emergency Medical Services</i>	NASEMSD NAEMSO NAEMT ACEP	<ul style="list-style-type: none"> ▪ Dia Gainor, NASEMSO ▪ Ted Delbridge, NAEMSP
<i>Fire & Rescue</i>	IAFC IAFF NVFC	<ul style="list-style-type: none"> ▪ Mike Brown, IAFC ▪ T. J. Nedrow, NVFC
<i>Transportation Operations</i>	AASHTO NAGHSR AAA ATSIP	<ul style="list-style-type: none"> ▪ John Corbin, AASHTO ▪ Jill Ingrassia, AAA
<i>Emergency Management</i>	NEMA IAEM NASNG	<ul style="list-style-type: none"> ▪ Bill Hinkle, NEMA ▪ Richard Comerford, IAEM
<i>Technology & Telematics</i>	NASCIO AAAM NASTD	<ul style="list-style-type: none"> ▪ Vacancy, ▪ Skip Yeakle, ATA
<i>Academic & Research</i>	TRB UTCs NRC	<ul style="list-style-type: none"> ▪ Michele Bunn, TRB ▪ Thomas West , CCIT

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