

THE QUESTIONNAIRE

AGENCY/ORGANIZATION: _____

NAME: _____

PHONE: _____

DATE OF INTERVIEW: _____

Introduction

The Massachusetts Highway Department (MHD) has commissioned JHK & Associates to establish a study, which will result in a conceptual plan for implementing an IVHS program throughout the Boston Metropolitan area. This term IVHS applies to transportation systems that involve integrated applications of advance surveillance, communications, computer display, and control process technologies – on the roadway network, in the vehicle, and for transit modes.

This questionnaire is intended to serve as a guideline for a personal or telephone interview with a representative of JHK

Background

The transportation management initiative known as “Intelligent Vehicle-Highway Systems” (M-IS) refers to transportation systems that involve integrated applications of advanced surveillance, communications, computer, display, and control process technologies -- on the roadway network, in the vehicle, and for transit modes: The goals of IVHS parallel those of the Commonwealth – to improve the efficiency of the transportation network thereby alleviating congestion, reducing fuel consumption and pollution, and improving the timeliness of person movement and goods deliveries; to enhance the safety of the users of the system; and to enhance overall mobility such that productivity and economic competitiveness are maximized.

A key concept in the above definition of IVHS is the term “integrated applications”. This means that IVHS -based systems are more than the mere implementation of advanced technologies. These systems also provide for the sharing of information, hardware, and/or staff between themselves in such a manner that the transportation network – consisting of expressways, surface streets, and transit routes; all passing through multiple jurisdictions – is treated as a single “seamless” entity. Integration not only benefits the users of these systems, but can also provide economies in the installation, operation, and maintenance of the IVHS - based systems.

One of the early goals of this study (and questionnaire), is to identify user services and institutional needs within the Boston Metropolitan area, from which supporting technologies and operational policies can be implemented. There are four areas of user services which are of greatest interest in this study. These are:

- 0 Traveler Information
- 0 Traffic Management
- 0 Freight and Fleet Management
- 0 Public Transport and Emergency Vehicle Management

Users of these services maybe travellers, drivers, transit riders, fleet operators and dispatchers, and transportation management personnel

Transportation in the Boston Metropolitan Area

Your opinions regarding the current and future transportation needs within the Boston Metropolitan and Commonwealth Area are a significant component of this study. The knowledge and insight accumulated will allow us to formulate an effective IVHS program.

1. What do you believe are the most pressing transportation needs with Boston today? (e.g. goods movement, trucking, freight, public transportation, etc.)

2. What additional needs do you foresee within the area? (e.g. traveler information services, a centralized regional management and coordination center / entity, etc.)

Short Term:

Long Term:

3. What role do you see for IVHS in meeting the above-mentioned transportation needs?

IVHS Activities Currently Underway the in Boston Area

We are interested in including within the MHD IVHS program those projects which local agencies already have underway. An integrated program of projects will provide for a “seamless” transportation network; will help to maximize the benefits from each project; and will increase opportunities for additional funding.

1. Please identify any on-going activities in your agency which could, or in your opinion., should be related to IVHS (i.e., the Variable Message Signs slated for installation on the Turnpike, CA/T; ● SP Cellular System; transit dispatch / Scheduling; etc)

2. Please briefly describe the IVHS program(s), including:
 - (A) Description of Program
 - (B) Time Frame for Implementation
 - (C) Estimated Cost
 - (D) Funding Source(s)

3. Is there a central resource defining your program, projects, or any efforts which may relate to IVHS?
 - Yes, the document is _____
 - Yes, the person(s) to contact is/are _____
 - No, but we will generating one and will contact you.
 - No, and there are no plans to do so.
 - Not sure.

4. Please identify any other ideas, concepts, people, agencies/organizations, etc. which you feel should be evaluated / considered under the IVHS planning efforts.

Organization: An effective organization is needed to develop and implement the IVHS plan. Multiple agencies and jurisdictions will need to cooperate to reach agreement on program projects and to carry out demonstration projects. Currently, MHD is the central agency coordinating this effort. Your input on how to organize for future IVHS implementation and operations is requested.

1. What do you feel is the most effective organization and location for leading the IVHS planning and early implementation efforts? _____
2. Once an IVHS plan is adopted, is there another organizational structure you would recommend for carrying out long term implementation of the plan? ——(Yes/No) if yes, please be prepared to elaborate.
3. What involvement is needed at the local and regional level for planning and implementing IVHS activities? How can this involvement be best organized?
4. Within MHD, what Divisions and/or Groups will need to be involved in IVHS activities?
5. What organizational structure at MHD would be desirable to effectively coordinate the needs of the different departments / agencies / authorities? (i.e., Should the IVHS activities be coordinated out of EOTC (cabinet level position) ?
6. What type of jurisdictional / functional boundaries, if any, would you suggest be established to control and manage the IVHS activities? Similarly, what system architecture would you suggest for the IVHS network - for example a single centralized system, multiple systems (MHD MTA, MBTA City of Boston, etc.) which are linked together for coordination, independent systems, etc.

Partnerships

The ability of MHD and the Boston Metropolitan region to compete for Federal dollars will depend in part on our ability to develop partnerships with the private sector. Partnering is also desirable given the leading edge of technology” which some projects may call for (e.g., the FHWA grant to Smart Routes for expansion of their system to meet the “real-time” needs of motorists.)

Because Massachusetts is considered to be one of the leading “high tech” centers of the country, it is important that IVHS efforts should build upon this, and perpetuate Boston Metropolitan’s leadership role. With this in mind, what type of partnership and roles (i.e., public / private / academia) should be considered?

Evaluation Needs

In testing and selecting from among alternative IVHS candidate projects, we will need to decide *what* factors are most important to consider in making these decisions. Please indicate what factors you believe would be crucial to include in this evaluation process. Possible elements for consideration might include:

Congestion Relief (system perspective)

- Reduced Congestion
- Reduced Travel Time

Safety

- Reduced Accident Cost
- Number of Accidents

Comfort & Convenience (user perspective)

- Average Waiting Times
- Average Reduction in Total Travel Time
- Expanded Trip Opportunities

Economic Competitiveness

- Number of Market Opportunities
- Use of Regional Resources
- Commercial Vehicle Time Savings

Environmental / Quality of Life

- Noise Reduction
- Air Quality Reduction
- Aesthetics
- Space Requirements
- Traffic Intrusiveness
- Compliance / incentives

System Throughput

- Increased Capacity
- Reliability of Travel Time
- Tonnage Moved
- Transit Ridership

List of Persons Interviewed

The following table is an alphabetical listing of persons interviewed, their affiliation at the time of the interview, and a notation regarding membership in the Advisory Committee and alignment to the public or private sectors.

NAME	ORGANIZATION	PUBLIC SECTOR	PRIVATE SECTOR	ADVISORY COMMITTEE MEMBER
Laurinda Bedingfield	Commissioner, MHD	X		
Ed Bates	Metropolitan Area Planning Council (MAPC)	X		X
Bruce Campbell	Bruce Campbell and Associates		X	
Kay Carson	CARAVAN for Commuters, Inc.	X		
Cedrone	Massachusetts Turnpike Authority	X		X
Donald Chandler	MHD	X		
Steven Crosby	Smart Routes		X	
Oliver Crosswaite	Digital Equipment Corporation		X	
Dom D'Aramo	Chairman, Joint Regional Transportation Committee	X	X	X
Richard Drake	Central Artery/Tunnel Project (B/PB)	X	X	X
Dan Fortier	MAPC	X		
Jim Gallagher	CTPS	X		
Jack Gillon	City of Quincy	X		
Kerry Hoyer	MHD	X		

NAME	ORGANIZATION	PUBLIC SECTOR	PRIVATE SECTOR	ADVISORY COMMITTEE MEMBER
John Judge	Massachusetts Turnpike Authority	X		X
John Kelley	Raytheon Company		X	
Colonel Thomas Kennedy	Massachusetts State Police	X		X
Ken Kirwin	Metropolitan District Commission	X		X
Dan Krechmer	Central Artery/Tunnel Project (B/PB)	X	X	
Roy LaMotte	City of Newton	X		
John Liebesny	Smart Routes		X	
Jon McDade	FHWA	X		
Skip McCourt	MHD District 5	X		
Charles Mistretta	MHD, Highway Operations (via form)	X		
Rick Morgan O'Conner	Samaritania		X	
Efi Pagitsos	Central Transportation Planning Staff (CTPS)	X		X
Anthony Palmeri	MBTA	X		X
Raymond Pardo	Central Artery/Tunnel Project (B/PB)	X	X	
Lauren Preston	City of Cambridge	X		
Katherine Preston	1000 Friends of Massachusetts		X	X

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