

Federal Agency Weather Information Needs and Requirements



Federal Highway Administration

Paul Pisano

**Weather & Winter Mobility
Coordinator**

Office of Transportation Operations



U.S. Department of Transportation
Federal Highway Administration





Presentation overview

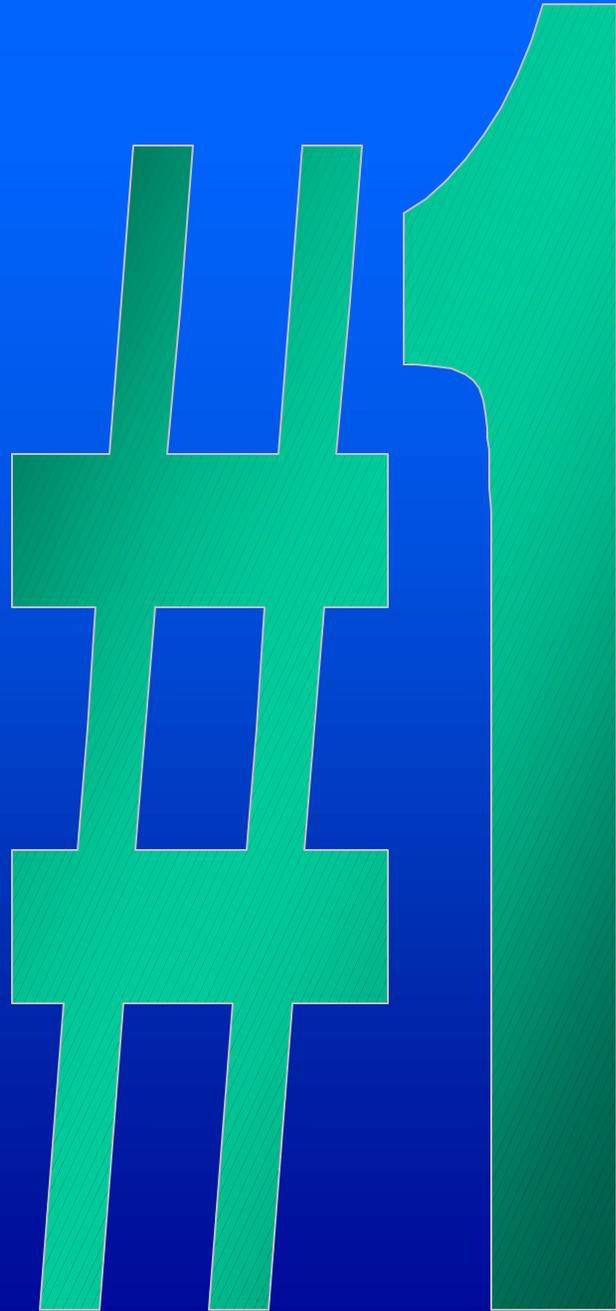
FHWA & the Weather



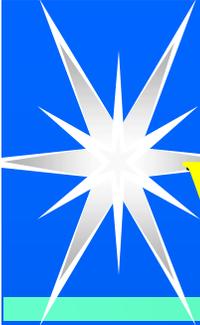
**Info. Needs
Fulfilled to Date**

**Next Step -
Requirements**

**Optimizing performance through road weather information
that is tailored for surface transportation decision makers.**



FHWA & the Weather



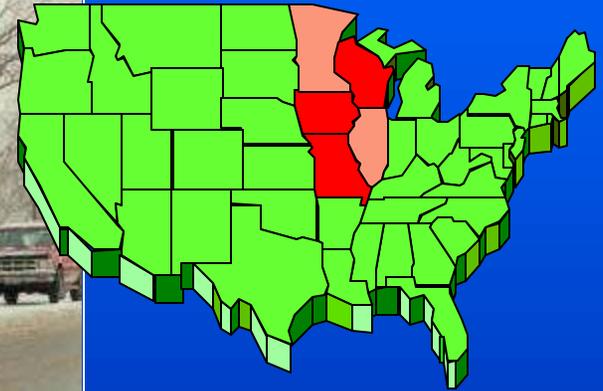
Why FHWA is involved

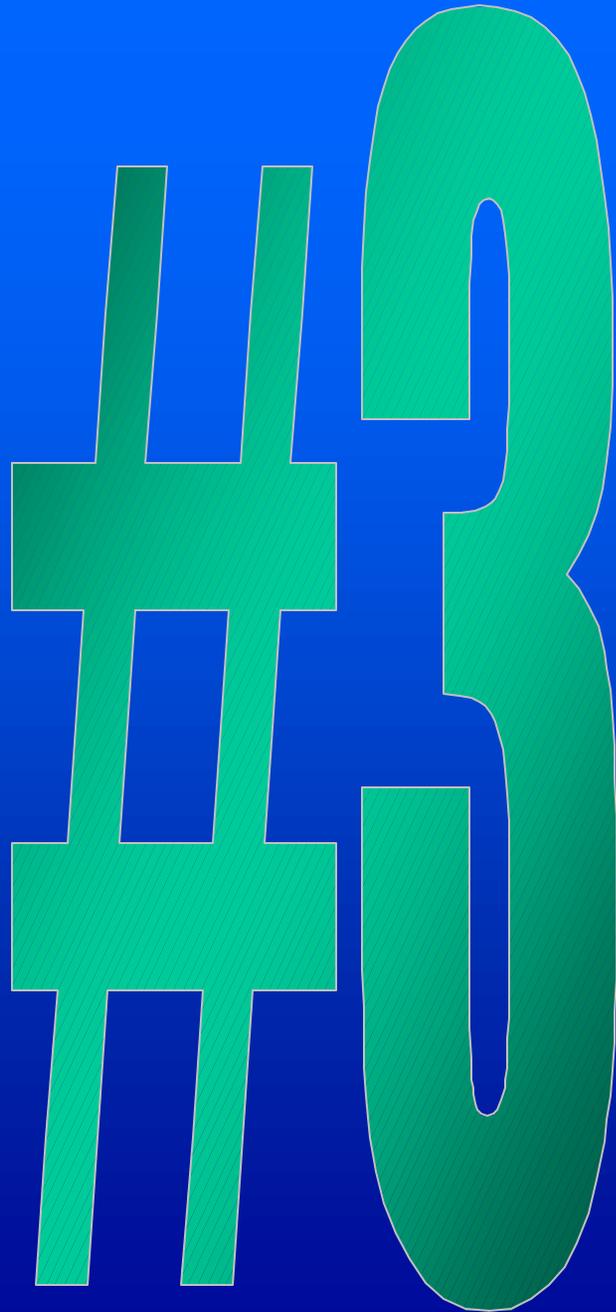
- Conduct R&D with State DOT partners
- Serve as catalysts and advocates to promote a nationally consistent and effective transportation system
- Serve as the liaison to other Federal agencies on behalf of our customers



**Information Needs
Fulfilled to Date**

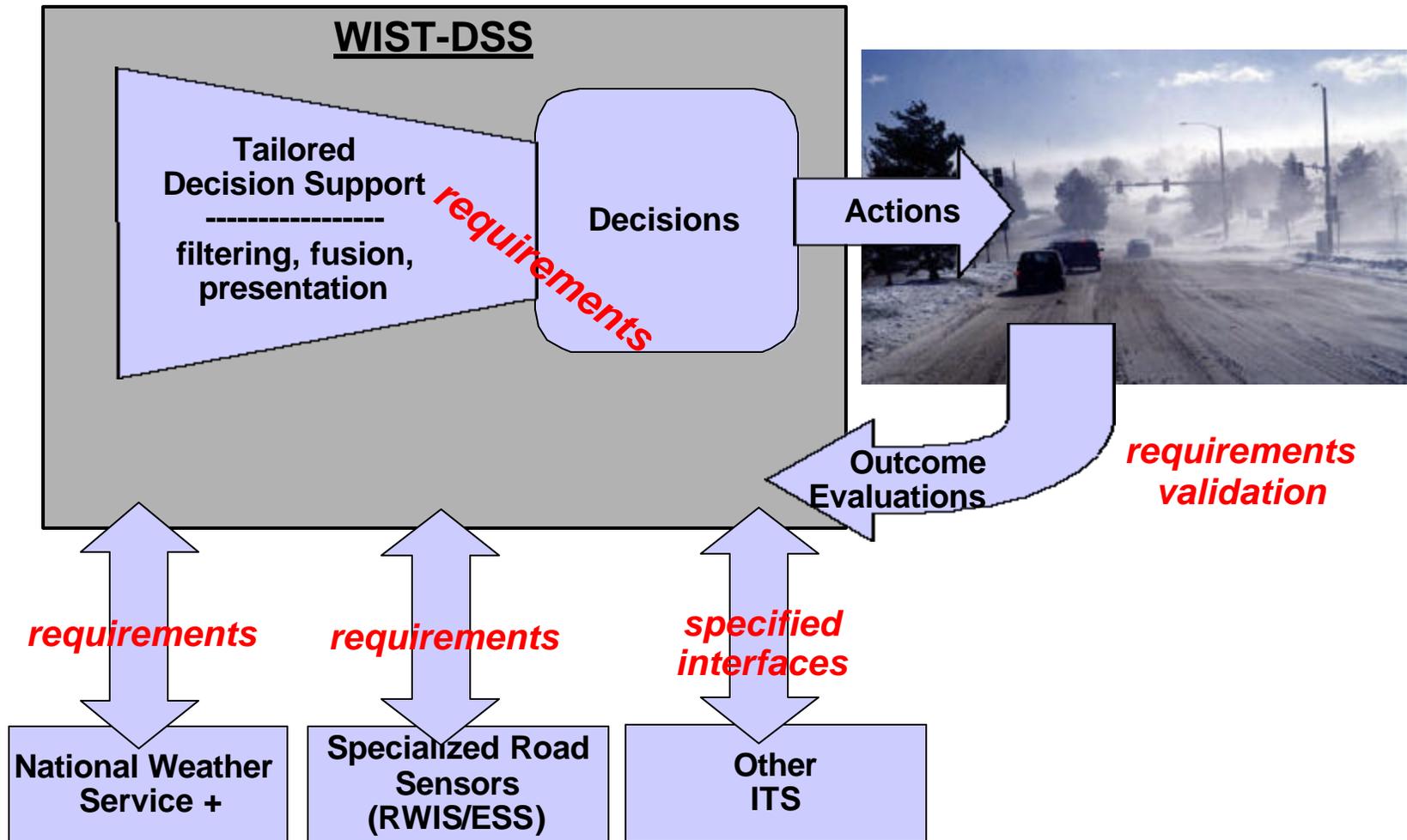
Road Weather Information Systems (RWIS)





**Next Step -
Requirements**

Requirements within Surface Transportation Decision Support



Capturing the Needs

		Micro-Scale	Meso/Synoptic	Synoptic/Climatic
D M #	Need#	Warning	Operational	Planning
1.0		Infrastructure Operators		
1.1		Highway maintainer (winter)		
	1.1	control spreader application		
	1.2	control plow		
	1.3	control static (bridge) deicer		
	1.4	observe/report		
	1.5	navigate spreader/plow truck		
	2.1		detect/monitor weather event	
	2.2		schedule crews (split shifts)	
	2.3		prepare equipment	
	2.4		mix/load/replenish expendables	
	2.5		dispatch crews	
	2.6		program treatment control	
	2.7		repair/adjust equipment	
	2.8		coordinate (e.g., traffic mgt.)	
	2.9		request resource aid	
	2.10		dispatch damage repair	
	3.1			devise response plan
	3.2			hire staff
	3.3			train staff
	3.4			buy equipment/services
	3.5			stock stores
	3.6			budget
	3.7			schedule seasonal tasks
	3.8			calibrate treatment controls



Stakeholder Review Process

NOAA LABS	DOD LABS	University Consortium
Forecast Systems Lab (FSL)	Army Cold Regions Research and Engineering Lab (CRREL)	National Center for Atmospheric Research (NCAR)
Environmental Technology Lab (ETL)	Air Force/MIT Lincoln Laboratory	
National Severe Storms Lab (NSSL)		

U. S. DEPARTMENT OF AGRICULTURE,
WEATHER BUREAU.

CHARLES F. MARVIN, Chief.

New England Highway
Weather Bulletin.

BOSTON, MASS., *March 31, 1920.*

For New England: Continued thawing weather, with probability of showers by Friday night, will further open the routes still closed to motor traffic in mountain sections of northern New England and western Massachusetts.

Motorists are advised to travel only on surfaced, improved highways; dirt roads are rough and muddy, and in hill districts are blocked with drifts.

Subscription at 50 cents per year. Mail money order or New York draft to Superintendent of Documents, Government Printing Office, Washington, D. C. Send copy only of your letter to this office.

Depth of Snow and
Ice on Roads.

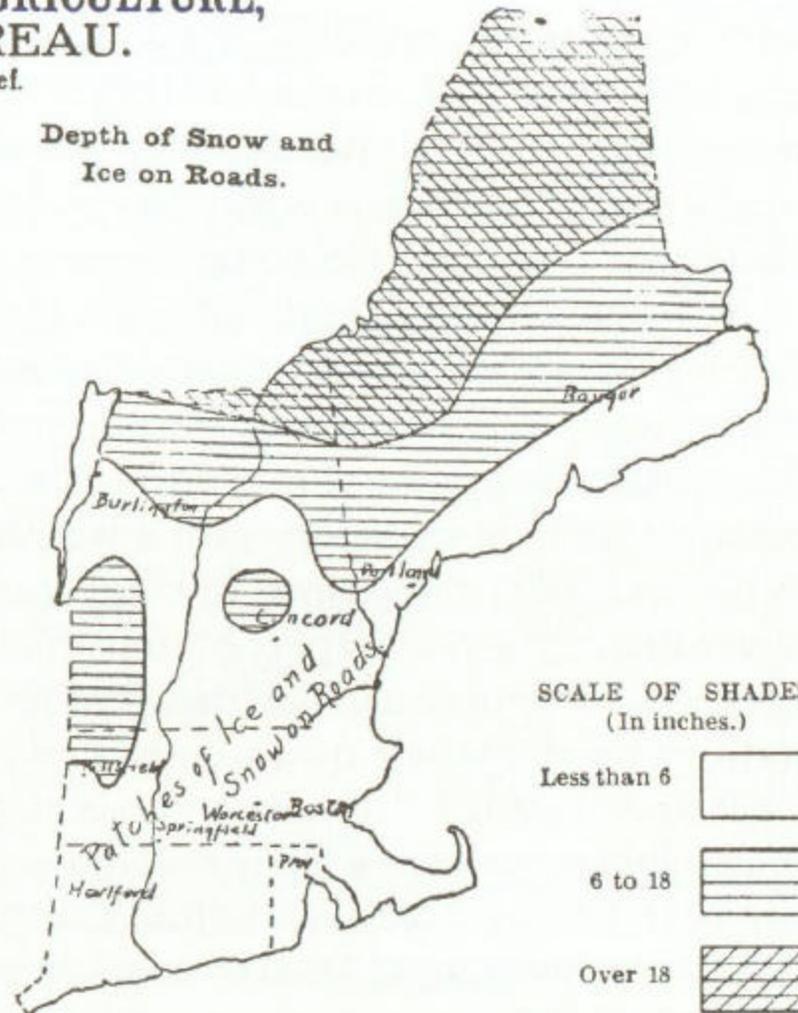


Fig. 9.5 from *Air Apparent*, Mark Monmonier, U. Chicago Press, 1999

