Department of Transportation

The Department of Transportation's Arctic and cold weather programs cover transportation issues in the air, on land, and at sea and are conducted by the Federal Aviation Administration and the Federal Highway Administration.

Federal Aviation Administration

The FAA is the principal sponsor of the Capstone project, which links multiple programs and initiatives under a common umbrella for planning, coordination, focus, and direction. It enables aircraft traffic control and enhances safe air operations in the remote regions of Arctic Alaska.

	Funding (thousands)	
	FY 04	FY 05
FAA Capstone Project	21	28
Total	21	28

Federal Highway Administration

No resources are devoted specifically to Arctic concerns under the FHWA Road Weather Management program; however, the mandate is to address all aspects of weather as it affects highway operations (e.g., mobility and safety). Consequently, research is conducted on road weather information systems and decision support systems that enable transportation users and operators to make more informed decisions regarding highway use and management under all weather conditions. This includes everything from buckling of pavements because of heat to snow and ice on pavements. Much of FHWA's work is on high-resolution observing and forecasting systems, since there is great variation in road weather conditions at small scales (for example, a bridge deck can freeze but the road on either side of it may be ice free).

One activity in this regard is the Clarus initiative (www.clarusinitiative.org). Under this initiative, FHWA will design, develop, and demonstrate a system that will assimilate, quality-check, and disseminate the Nation's road weather observations. Such a system will enable public and private sector weather providers to develop tailored road weather information products for the host of road users and operators. These observations include more than 2,300 fixed sensors deployed by state transportation departments across the country, as well as the emerging capability to gather observations from mobile sensors (for example, cars and trucks). FHWA is working with the Alaska Department of Transportation and Public Facilities as part of a proof-of-concept test of the Clarus system.

In 2005, a Memorandum of Understanding was signed between FHWA and NOAA to support surface transportation weather challenges and to work together to address this challenge.