Project Title		Agmt./Task No.	Item No.	Agency Bgt. No.
Pacific Northwest Snowfighters, TPF-5(035)			09-950	
Research Agency		Start Date	Estimated Completion	Revised Completion
WSDOT		11/30/01	11/30/03	12/31/10
Principal Investigator(s)		Technical Contact		
Dr. Xianming Shi, WTI		Monty Mills (360) 705-7803		
WSDOT Program Manager		FHWA or Other Technical Contact		
Kim Willoughby (360) 705-7978				
Funding Source		Schedule Status		
WA, ID, OR, MT, CO, IN, IO, MN, ND, UT, VA, America West, Redmond Materials, Tetra				
		☐ On schedule ☐ Ahead of schedule ☐ Behind schedule		
Technologies, WTI UTC		on revised senedure		senedare
Original Estimated Cost	Revised Cost	-		Work Completed
\$40,000	\$450,000	80%		75%
Objective				
Develop specifications for chem	nicals related to snow and	l ice control. Suppo	ort winter maintenan	ce professionals
with information on current te				

Progress in the Current Quarter:

maintenance chemicals and activities.

The research project "Determine the Longevity and Cost-Effectiveness of Corrosion Inhibitors added to Liquid and Solid Deicing Chemicals" continues. Quarterly reports are available by contacting Kim Willoughby at willouk@wsdot.wa.gov. Following the meeting that took place in Bozeman, MT on November 17-18, 2009, the laboratory testing protocols have been refined and more laboratory tests have been designed and conducted to address some key questions or to test hypotheses relevant to this project. These include lab tests to quantify chloride concentration, inhibitor concentration, deicer performance (via DSC), pH, deicer corrosivity (via both electrochemical & gravimetric methods). The laboratory testing related to the deicer samples collected from stockpiles or storage tanks over the 12-month sampling period is nearly completed. Standard operating procedures for three field tests were developed by researchers and approved by the steering committee. Two of the three field tests (a black ice event and a man-made snow event) aimed to quantify how meteorological parameters impact corrosion inhibitor longevity and deicer performance following application to a roadway were successfully conducted.

The Qualified Products List (QPL) and deicer specifications can be viewed at: http://www.wsdot.wa.gov/partners/pns/resources.htm.

Summary of Activities Expected to be Performed Next Quarter:

Laboratory testing will continue to address action items identified during the November 2009 meeting at Bozeman. One additional field test (natural snow storm event) will be conducted in April to quantify how meteorological parameters impact corrosion inhibitor longevity and deicer performance following application to a roadway. Pavement-collected liquid samples over the seven day sampling period for each field test will be analyzed.

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