



US Army Corps  
of Engineers®

Engineer Research and  
Development Center

# High-Mobility Multipurpose Wheeled Vehicle (HMMWV) Snowplow

## Technology

The High-Mobility Multipurpose Wheeled Vehicle (HMMWV) snowplow enables the HMMWV to rapidly transition from a transportation vehicle to a snow-removal machine. The plow employs a quick-disconnect system called Minute-Mount; once the mounting brackets and wiring harness have been installed semi-permanently, the plow and all other attachments can be mounted in less than a minute and can be dismantled in half a minute. The mounting brackets require no drilling, cutting, or welding on the HMMWV. Instead, bolt holes in the frame and bumper are used; the wiring harness plugs into the current lighting harness and the power cable runs from a solenoid through the fire wall to the battery. A controller cable is run through the fire wall to the plow control switch, which is mounted on the dash with Velcro.

The plow has a fully reversible angle capability of 28 degrees to the right and left, and has up (10 inches) and down capability, all of which can be controlled from the driver's position in the cab. The plow also has an integral trip-edge that folds back and allows the plow to ride over obstacles up to four inches high. When the obstacle is cleared, spring tension is released so that the cutting edge returns to its normal plowing position.



*HMMWV with snowplow.*

## Problem

In the recent past, especially in U.S. Army Europe (USAREUR), the Army had extremely limited access to snow removal equipment. The only available implements were graders, the M-9 armored combat earthmover (ACE), and the front-end loader for the small emplacement excavator (SEE). These tools are specialized and dedicated to specific missions, and attempts to use them for snow and ice control (SNIC) proved detrimental to both the equipment and the areas requiring snow removal. The SEE was designed with snowplowing capability, but snowplows had not been available in the inventory. Also, the SEE was a scarce item and heavily employed where deployed.

**Expected Cost  
To Implement**

The 8-foot by 29-inch, 11-gauge steel, trip-edge snowplow is purchased with a continuous curve snow foil and a high-carbon steel cutting edge. The pump, hydraulics, headlights, directional lights, and attaching A-frame are integral to the plow, as are the trip-edge and trip-edge springs.

**Benefits/Savings**

The snowplow has been tested in various scenarios, at various snow depths, at temperatures as low as  $-15^{\circ}\text{F}$ , and performed very effectively. Nearly 200 snowplows for the HMMWV have been fielded to reduce the workload placed on the SEE tractor, thereby realizing a cost savings of approximately \$8000.

**Status**

HMMWV snowplows are being operated by the U.S. Army in Macedonia, Bosnia, Kosovo, Korea, and Germany, as well as at Fort Drum, New York, and at numerous other CONUS locations. To date, some snowplows have accumulated more than 4,000 snowplowing miles during six winter seasons without any significant maintenance or operational problems.

**ERDC POC(s)**

Byron L. Young  
603-646-4602  
e-mail: [Byron.L.Young@erdc.usace.army.mil](mailto:Byron.L.Young@erdc.usace.army.mil)

**Distribution Sources**

This snowplow is available through the Defense Supply Center in Philadelphia, Pennsylvania (1-877-352-2255; DSN 932-7766; [www.dscp.dla.mil/](http://www.dscp.dla.mil/)). (Note: The U.S. Army does not stock parts for any snowplows.) For a complete package, which includes the snowplow, all vehicle components, and all required attachment gear, use NSN 3820-01-473-2777.

**Available  
Documentation**

ERDC/CRREL Special Report SR-02-1, *Snow and Ice Control (SNIC) Equipment and Its Use by Military Units Worldwide* ([http://www.crrel.usace.army.mil/techpub/CRREL\\_Reports/reports/SR02-1.pdf](http://www.crrel.usace.army.mil/techpub/CRREL_Reports/reports/SR02-1.pdf)). To request a paper copy, please write to CRREL, ATTN: Library, 72 Lyme Road, Hanover, New Hampshire 03755-1290.

**Available Training**

Training to operate the HMMWV snowplow and other snow and ice control equipment is provided by users' local units. ERDC/CRREL Special Report SR-02-1, a detailed user's manual, is available on line and in hard copy (see **Available Documentation**, above). A 20-minute training video, *Snowplow Operations with the HMMWV and Tire Chains and How to Install and Use Them* (T99002/T99003), is available from CRREL, ATTN: Library, 72 Lyme Road, Hanover, New Hampshire 03755-1290.

**Available Support**

Arrowhead Equipment, Inc.  
Attention: Parts  
106 Luzerne Road  
Queensbury, New York 12804

Telephone: 518-793-2265

E-mail: [info@arrowheadequipment.com](mailto:info@arrowheadequipment.com)

Web site: <http://www.arrowheadequipment.com>