Signposts for Snow Trails

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Introduction

Storm after winter storm, snow piles up deeper and deeper, 20 feet (6m) or more on some snowmobile and cross-country ski trails. Trail signs are normally mounted at a set height on a post planted in the ground. Once the snow has piled up over the sign, the sign is no longer effective.

Ranger Districts with winter trails programs have been dealing with the problems of signing snow trails for as long as they have managed winter trails. The Missoula Technology and Development Center (MTDC) asked snow trail managers to tell us how they keep their winter trail signs visible. We also developed some prototype signposts that we thought might work in all snow depths. The prototypes worked, but were too cumbersome and costly for us to recommend, except in special situations.

This report describes signpost systems that work best in shallow, moderate, and deep snowpacks. Traditional signposts, anchored firmly in the ground, work best for trails with moderate and low amounts of snow. Free-floating signposts, supported only by the snow around them, work best in moderate and deep snowpacks. Telescoping signposts and signposts with temporary bases work for shallow, moderate, and deep snowpacks. However, these signposts are more expensive and take more work to install and maintain than traditional or free-floating signposts. The method of driving a steel fencepost or metal pipe into the ground as a temporary support for a tubular plastic signpost is regarded by the Center as an unacceptable safety hazard.

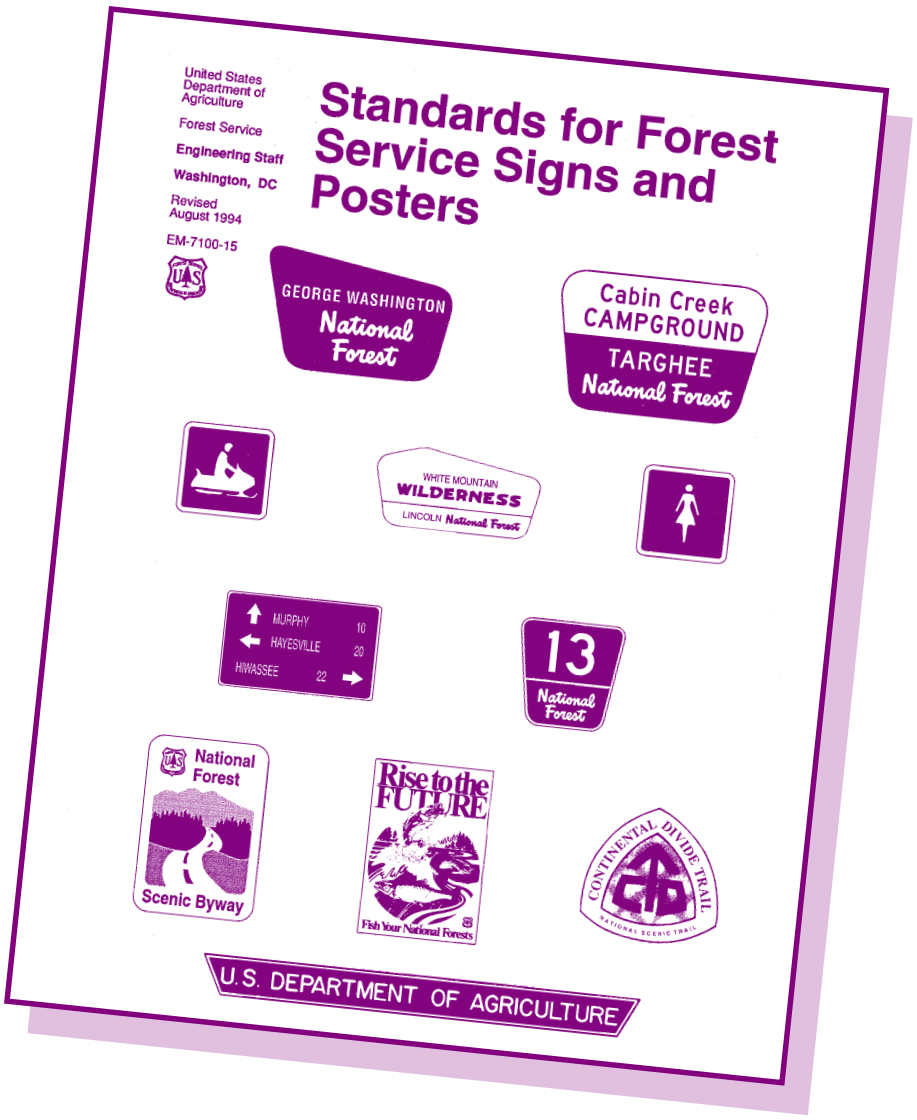
Need for Snow Trail Signing

Designated National Forest snowmobile and cross-country ski trails require signing that is consistent with the purpose of the trail, Forest Service policy, the recreation opportunity spectrum, safety, and Forest Plan direction. These should be spelled out in a written sign plan for the trail system. An individual engineering study, called a sign warrant, is required for regulatory and warning signs.

Verify your written sign plan in the field before you implement it. This will ensure that the right signs end up at the right places. Relying solely on an office-generated sign plan will usually result in unnecessary and inappropriate signs.

Standards for Forest Service Signs and Posters (EM-7100-15) covers all types of signage. Before purchasing or installing any cross-country ski or snowmobile trail signs, review this publication, especially Chapter 5, for sound advice and policy requirements. You should be able to borrow a review copy from your Forest Service sign coordinator.

Some states also have guidelines for snowmobile trail signing. Many of these are based on the International Association of Snowmobile Administrators' *Guidelines for Snowmobile Trail Signing*.



Importance of Placement

Placement is often the criteria that determines whether a particular sign will be effective. This is especially critical for winter signing when visibility can be at its worst. Signs should be clearly visible. You may be installing signs on a warm, clear day. But you should position your sign with the unfamiliar user, blowing snow, and fog in mind. Do not rely on travelers following tracks. Assume the tracks have been obliterated.

Mount signs 2 to 6 feet (610 mm to 1.8 m) from the right edge of the trail tread to the nearest edge of the sign to provide adequate clearance (Figure 1).

Signposts cannot raise themselves after getting buried. Every signpost in this report will need periodic inspection and adjustment throughout the winter.

To keep signs free of snow and ice and to increase visibility, place signs where they will be protected from the prevailing wind, if possible. Reassurance blazers (Figure 2) on trees should be mounted with nail heads exposed. The blazer should be placed halfway between the nail head and the face of the tree to allow it to flex in the wind.

When blazers are mounted on trees, prune limbs well above the sign so that snow-covered limbs will not droop and obscure the sign.

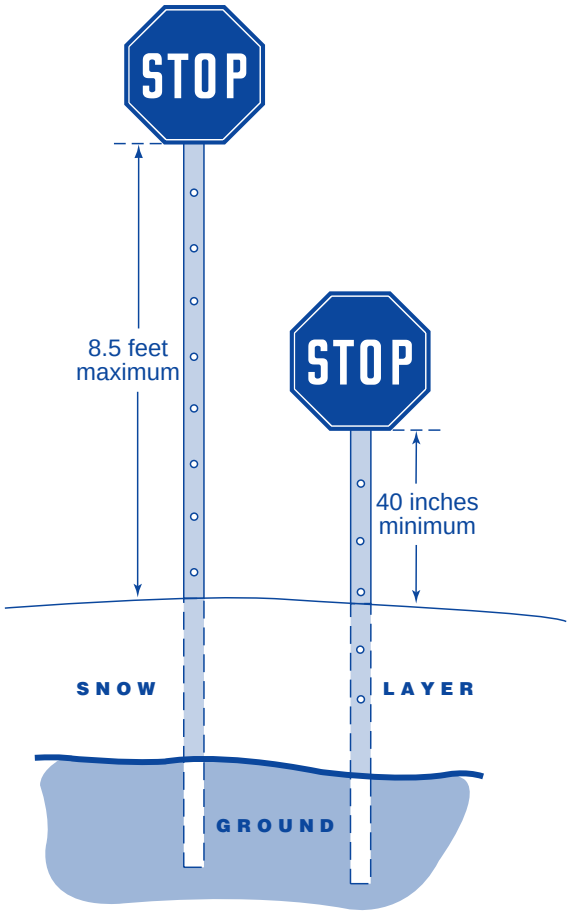


Figure 1—Signs should be mounted at least 40 inches (1 m) above the average maximum snow level at the bottom of the sign. Signs placed more than 8.5 feet (2.6 m) above the snow level may not be visible, especially at night.

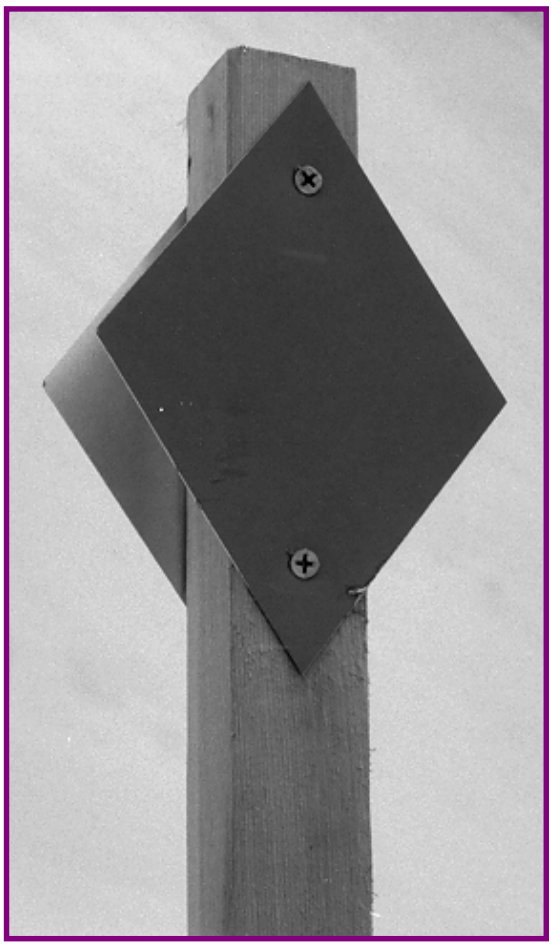


Figure 2—The Hebgen Lake Ranger District at West Yellowstone, Montana, uses 2 by 2's with 5-inch by 7-inch (127-mm by 178-mm) blazers as reassurance markers.

— End Part 1 —