

The New Westwide Avalanche Network

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ABSTRACT

The Westwide Avalanche Network is an Internet computer site expressly designed for the professional avalanche community. It allows avalanche professionals to effectively share data and communicate with their peers on subjects such as explosives, avalanche accidents, mountain weather and snow stability and keep abreast of the rapidly changing state of the art. By sharing critical information on a timely basis, avalanche professionals can do their jobs better and more safely.

The Westwide Avalanche Network web site is separated into three sections with increasing levels of security. The section open to the general public includes all available public avalanche advisories from throughout the world, real-time data from selected automated mountain stations and general avalanche news and information.

The Data Exchange section is reserved for professional members of the American Association of Avalanche Professionals and the Canadian Avalanche Association. It contains up-to-date weather data and summaries of avalanche activity from ski areas, highway control programs and helicopter skiing operations, SNOTEL data as well as the news group, "Electronic Patrol Shack."

The final, the Industry Information Exchange is reserved for organizations which are permitted explosives users in the avalanche industry and active avalanche forecasting and control operations. This section will contain detailed avalanche occurrence information, important updates for users of explosives, avalanchers, military weapons, avalanche accidents at commercial operations and other important mountain weather or avalanche-related news which keeps users abreast of the current state of the art of avalanche forecasting and control. Users can receive this information on a timely basis by an electronic mailing list.

INTRODUCTION

Art Judson first started the Westwide Avalanche Network over 25 years ago under the Forest Service and it has acted as a repository of mountain weather and avalanche data ever since. In 1995 however, the Forest Service decided to end funding for the Westwide, and to turn it over to the private sector. Because Westwide enjoyed widespread support among the professional avalanche community, a committee of avalanche professionals from throughout the country volunteered their time to bring the Westwide into the '90s and turn it into an Internet site. The new Westwide Avalanche Network is a vastly expanded and more useful real-time system than the original Westwide.

SERVICES

The new Westwide Avalanche Network is operationally separated into three sections of increasing security (figure 1):

The Public Section

The public section is free of charge and contains all the non-sensitive avalanche information of general interest to the public, including:

- Up-to-date public avalanche advisories from throughout the U.S., Canada and around the world.
- Updates of recent backcountry avalanche accidents including photos when available. (Details of avalanche accidents at commercial operations will appear only in the Industry Information Exchange section.) The public section will also contain an archive of all backcountry avalanche accidents for the current season in three different levels of detail. It will eventually contain a complete database of all avalanche accidents in the U.S., both historical and recent, and on-line forms to fill out for documenting avalanche accidents. Finally it will contain updates of the latest International Commission of Alpine Rescue (IKAR) avalanche accident statistics worldwide.
- Westwide's exclusive weather page features a guide to the most useful weather forecasting information available on the Internet. This includes the most up-to-date doppler radar, satellite imagery, weather maps and weather data, plus all the internet tools avalanche professionals need to display them. This page is required reading for anyone gearing up for the Internet and it also features great advice and tools even for the more experienced users.
- Lists of avalanche classes taught in each different region of the country and updates of various avalanche education issues.
- Links to online databases of avalanche literature, updated each month.
- Links to industry sites such as equipment manufacturers.
- Links to home pages for ski areas and helicopter ski companies.
- Links to home pages of regional, national and international forecast operations

Data Exchange

The Data Exchange section is password protected and is reserved for Professional Members of the American Association of Avalanche Professionals (AAAP) and members of the Canadian Avalanche Association (CAA). The cost is \$25.00 U.S. per season. The Data Exchange section contains:

- Up-to-date mountain weather data and a summary of daily avalanche activity for each region in the U.S., plus hourly data from selected automated stations around the western U.S.
- Subscribers can also access all the historical data which was contributed to Westwide over the years. Each user can query the database for specific date ranges, and in the future subscribers can query by specific conditions. The Westwide Internet site contains by far the most complete historical avalanche and mountain weather information available for the western U.S.
- Up-to-date and user-friendly display of SNOTEL information for all sites in the U.S. SNOTEL is a network of snowpack monitoring stations located throughout the mountains of the western U.S. and operated by the Natural Resources Conservation Service (formerly the Soil Conservation Service). This has never been available before in a user-friendly and useful format. You can also access various colorful maps of snow cover and water storage for all U.S. watersheds.
- Avalanche Notes will be published each month online as well as in *The Avalanche Review*. Avalanche Notes is a national summary of mountain weather, avalanche activity and avalanche accidents for the month.

A special Search and Rescue Dogs page

The "Electronic Patrol Shack" featuring news groups on a variety of subjects which avalanche professionals find important.

Industry Information Exchange

The Industry Information Exchange section is designed specifically for organizations who are permitted explosives users in the avalanche industry and active regional or national avalanche forecasting operations. This would include ski areas, helicopter skiing operations, highway control programs and regional avalanche advisory centers. This section is modeled after the highly successful INFOEX, operated by the Canadian Avalanche Association. Each subscriber will pay a fee of \$300.00 U.S. and each organization will sign an agreement of non disclosure. In this way, subscribers can feel free to pass along sensitive, but critical information to others in the industry without fear that their information end up in the media or a courtroom.

The Industry Information Exchange includes all of the services provided in the above two groups plus:

- Timely email notification to subscribers of important issues concerning explosives, artillery, avalanchers, gazex, accidents at commercial operations, or any other issues avalanche professionals feel are important. For instance, if one user discovers a problem with an explosive, cap or fuse, a safety problem with an avalancher or if an avalanche accident occurs at a com-

mercial operation, then all the other users can read about the details within hours of when it occurred, not through the old system of telephones and faxes, which are slow and less secure.

- Details of daily avalanche activity at ski resorts, helicopter skiing operations, highway control programs and the backcountry. This is separated by regions and includes a narrative of avalanche activity in any length. Entries older than 7 days will be deleted. This enables subscribers to keep abreast of rapidly changing avalanche conditions not only in their own region, but in any other region of the country.
- Secured news group on any subject important to subscribers.
- If they wish, each subscriber can have a home page on Westwide which the subscriber can modify and update at any time from any remote computer.

AFFILIATION

The Westwide Avalanche Network is run by a committee under the American Association of Avalanche Professionals. However, all financial transactions are handled through a separate Westwide Avalanche Network account set up under the Center for Snow Science at Alta (CSSA). The CSSA is a non-profit, tax exempt corporation established in 1989 and has successfully conducted about a quarter million dollars of avalanche research and avalanche conferences. The CSSA is currently conducting several avalanche research projects in partnership with Japanese, Canadian and American researchers. The CSSA board of directors is also composed of prominent avalanche professionals from throughout the country.

The Forest Service National Avalanche Center is also a partner in the new Westwide Avalanche Network. The National Avalanche Center, under the leadership of Doug Abromeit, has generously provided start up funds and also provides funding for the ongoing publication of *Avalanche Notes*. Other partners include the ISSW 94 committee and the Quinney Foundation.

Westwide committee members represent a nucleus of long-time avalanche professionals from throughout the United States who also have a strong computer background and an interest in developing an exciting new electronic communication tool such as this. Committee chair Dan Judd an ex-Utah Department of Transportation avalanche forecaster, now operates his own consulting service which specializes in electronic and computer solutions to avalanche problems.

Although the Internet computer server resides in Utah at both Wasatch.com and the University of Utah Department of Meteorology, Westwide tasks are split up among its various members in different parts of the country. For instance, Dale Atkins of the Colorado Avalanche Information Center updates the section on avalanche accidents, Mark Moore of the Northwest Avalanche Center submits data from automated stations in their area, and each ski area from around the country submits data and information from their own operation.

WHO CAN PARTICIPATE?

Although the Westwide Avalanche Network is designed for avalanche professionals as an industry information exchange, it contains many products for the general public. The Westwide web site is segmented into three groups of increasing security.

In the first group, the general public can access public avalanche advisories from both the U.S. and around the world, lists of avalanche classes, some avalanche news groups, some automated mountain weather data, and other non-sensitive data.

The second Data Exchange section is open to approved professional members of the American Association of Avalanche Professionals or the Canadian Avalanche Association.

The final level is designed as an industry information exchange, reserved only for operations which are permitted explosives users in the avalanche industry and active members of avalanche forecasting and control operations.

HOW TO SUBMIT DATA

Participants can submit weather and avalanche data in one of six ways:

- 1) Fill out a form on the web page
- 2) Use the latest version of Snowlink to submit data. Snowlink is a commercial database program available from Judd Communications in Salt Lake City, UT.
- 3) Use a free DOS program written by Kevin Heineken
- 4) Use a free Windows program written by Randy Trover

- 5) If the subscriber already keeps their data on their own database or spreadsheet program, they can export a file in a specific format.
- 6) Those without computers or an Internet connection can continue to fill out the "green and blue" sheets and mail them. The information will be keypunched into the Westwide database each month.

A free upgrade of Snowlink will be available for registered Snowlink users and is available on the Westwide web site. The other two dedicated programs are free of charge and are also available for download on the Westwide web site. Those who wish to export data from their own database or spreadsheet programs can contact the Westwide committee for copy of the export data file standards. After the subscriber stores a data file on their local hard drive, they simply log onto the Westwide Avalanche Network web site and go to the data exchange section, type in the name of the file on their local hard drive (or store the file in a default directory) and click the button to "send data."

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<p>PUBLIC SECTION - FREE</p> <ul style="list-style-type: none"> • Avalanche Advisory • Avalanche Accidents • Avalanche Education • Weather Page • Links to other sites 	<p>DATA EXCHANGE SECTION - \$25</p> <ul style="list-style-type: none"> • Submit Weather and Avalanche Information • View weather data and generic summaries of avalanche activity • View historical records • Avalanche Notes • Electronic Patrol Shack (News groups for professionals) • SAR Avalanche Dogs • SNOTEL info
<p>INFORMATION EXCHANGE - #300</p> <ul style="list-style-type: none"> • E-mail notification to subscribers of important updates such as explosives issues and accidents at commercial operations • Narratives and details of current avalanche activity at ski resorts, helicopter skiing operations and highway control programs • Secured news groups for the avalanche industry 	