

AVALANCHE SAFETY IN A MICRO COMMUNITY

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Abstract

Fort Lewis College is an undergraduate institution with 4,000 students located on the southern edge of the San Juan Mountains in southwestern Colorado. The student body is very active in the outdoors during all seasons. The snow months present a particular challenge because the students access the mountains via the US Highway 550 corridor, one of the most avalanche prone areas in the country. This paper offers a review of the avalanche safety instruction programs, equipment rental options, online weather and avalanche forecast information which are provided to the students of Fort Lewis College. Techniques of how best to reach a homogeneous community of 19 to 25 year old college students are discussed.

Introduction

Fort Lewis College is located on the eastern edge of the Colorado Plateau and the southern edge of the San Juan Mountains. This spectacular geographical setting is a strong magnet for college students interested in outdoor activities. The San Juan Mountains provide a diverse and exciting playground for the students of Fort Lewis College. During the snow months the students are faced with the ever-present avalanche hazard of these mountains. The steep glacial valleys, combined with a shallow and weak snow pack, provide all of the ingredients for some of the highest avalanche hazard in North America.

The Outdoor Pursuits program was established at Fort Lewis College to provide the opportunity for students to participate on organized trips and to allow them access to high quality outdoor equipment. The program also serves as an information clearing house and assists students in their recreational planning.

For the last seventeen years the Fort Lewis College Outdoor Pursuits program has pursued an aggressive avalanche safety program. This program evolved because of the students' desire to educate themselves on avalanche safety issues and the fact that an educational institution which provides access to outdoor

equipment has the responsibility to promote a reasonable degree of safety. This paper reviews the avalanche safety program and discusses how best to get the avalanche safety message to college students.

Equipment Rental

The Outdoor Pursuits program provides a variety of outdoor equipment to the students free of charge. A full selection of cross country ski and snowshoe equipment is available. The program also provides avalanche transceivers, shovels and probe poles.

FAT SKIS & SNOWSHOES

The trend in telemark skiing to fatter skis and stiffer boots has enabled strong alpine skiers to make the transition into the backcountry with few problems. With an eye on avalanche safety, Fort Lewis College has promoted fatter skis. Wide skis make it easier for skiers to control their descent and provides them with better floatation. One can therefore ski a lower angle slope and avoid steep avalanche-prone slopes.

TRANSCIVERS, PROBES & SHOVELS

Ortovox avalanche transceivers are made available to the students to increase their personal safety and to provide educational opportunities to use the equipment. Few consumers are willing to spend \$250.00 for a magic box until they know how to use it and understand the importance of the device. Any one who is a fee-paying student can check out avalanche safety equipment. Students are encouraged to attend a transceiver training session, but it is not required. Individuals checking out a transceiver are required to take a self graded test. The test provides the user with feed back as to her/his knowledge of the Ortovox. Written instructions are provided with each transceiver and students are required to take Life Link collapsible probes and shovels with each unit. I have found the Ortovox transceiver to be the most user friendly of all transceivers on the market.

Guided Trips

The Outdoor Pursuits program offers a full schedule of guided trips. These trips range from half-day activities to multi-day excursions. All of the skiing and snowshoeing trips involve avalanche safety instruction. Route finding and avoidance of avalanche terrain is favored over stability prediction for travel on suspect slopes.

CLINICS

Field clinics are provided for structured avalanche safety education. Topics covered include: Route finding, snow pit and stability evaluation, backcountry and organized rescue, and Ortovox practice sessions. Participants in these activities tend to be aware of the need to become educated on the dangers of avalanches.

RECREATIONAL TRIPS

These trips include: Hut trips, day tours and peak climbs. Many of the students participating have no knowledge of the avalanche hazard and are often surprised to learn that there is increased risk in avalanche terrain. Although the focus of these trips is not avalanche safety, the very nature of the topography in the San Juan Mountains dictates the need for safe avalanche practices by all participants.

Lectures

IN-HOUSE INSTRUCTION

The college provides a number of instructional opportunities for the student body. Comprehensive safety lectures are taught which coincide with the field sessions. We give avalanche safety talks to clubs and dormitories, write articles and give interviews for the college newspaper and radio station.

OUTSIDE LECTURES

Each year Outdoor Pursuits brings in experts in avalanche forecasting and control work as guest lecturers. The staffing of the Silverton Forecast office with Colorado Avalanche Information Center employees has provided a great resource for Fort Lewis College. Other topics that have been covered include avalanche safety for the world speed skiing championships, highway safety, and helicopter forecasting. Critical stress debriefings teams have worked with student participants in La Plata County Search and Rescue after avalanche rescues and body recoveries.

Weather and Avalanche Forecast Information.

Weather and avalanche forecast information is posted daily in the Outdoor Pursuits office. On-line computer data is the main source for this information. When the San Juan Mountains are under an avalanche warning, the information is posted on bulletin boards outside our office.

INTERNET INFORMATION

Each morning satellite maps are down loaded and printed from the National Renewable Energy Lab in Golden, Colorado. Regional weather reports are down loaded from the National Center for Atmospheric Research in Boulder, Colorado. When avalanche warnings have been issued they are also pulled down from the NCAR computer.

COLORADO TRAVEL BANK

The daily Colorado Avalanche Information Center forecast is available from the Colorado Travel Bank, an electronic bulletin board in Denver. These reports are printed daily by the Outdoor Pursuits office. 6:00 am snow reports from the ski areas are also listed and are used as a tool to find out how much snow is being reported around the state.

SILVERTON FORECAST OFFICE

The CAIC/CDOT Silverton office provides field observations, instrument data and pit data when they have time, and when the information is appropriate to backcountry recreation.

Avalanche Safety Information at Public Events

Fort Lewis College students are active members of the community and therefore we hold many of the best events, to educate the majority of down hill skiers, in the town of Durango. A soft sell approach is used at these events because people are not attending them with the goal of learning about avalanche safety. The most effective way to educate these students and the general public is by promoting the use of the local CAIC Avalanche Information Phone. We have designed phone stickers that provide the avalanche information and the road report phone numbers, and the name and phone number for Pine Needle Mountaineering, the local retailer who sponsors the phone line and pays for the printing of the phone stickers. These stickers have been very effective because individuals with even a passing interest in mountain weather will use the avalanche information phone to get avalanche safety information along with weather information.

SKI MOVIES

The yearly tour of ski movies is a great place to start the avalanche information process. The message has to be soft and is only intended to make the skiers more aware that avalanche danger exists in the San Juan Mountains.

SKI SWAPS

The people who attend ski swaps are there to get a deal on ski equipment, but a small amount of education can take place with a handout on avalanche safety and a phone sticker to go with it. I have established a good working relationship with the local National Ski Patrol Ski Swap.

COMMUNITY CLUBS and RETAIL CLINICS

Many of the college's non-traditional students will attend a talk at a local retail store or with a friend at a snowmobile club meeting. Although these activities are limited, they are effective ways to get the word out on avalanche safety.

Recreational Counseling

TRIP PLANNING

The majority of college age students are unwilling to participate in organized outings, but still desire the experience of taking part in the activity. There are opportunities to educate the students about avalanche safety while helping them to plan their own trip. In an undergraduate school most of the students move away from the area before they acquire a good knowledge of the local outdoor opportunities. The Outdoor Pursuits office is the local source of information on places to go and things to do.

CONSUMER COUNSELING

The advice of a professional in the outdoor field is important to most students when they are purchasing outdoor toys. Over the years the Outdoor Pursuits office has helped hundreds of students make informed choices on avalanche safety equipment.

Conclusion

The more information that is available, the more informed our choices can be on almost anything. Avalanche safety information that is up-to-date and accurate can be a life and death determinate. Colleges, community recreation departments, and resorts have a responsibility to provide educational opportunities for the public so that they can learn about avalanche safety. Once the education process has taken place, sources of information need to be available so that informed decisions can be made.

The information highway is the logical next step for avalanche safety information. As professionals we need to work at setting up a file on the

Internet to provide daily avalanche information. This file could also provide graphics such as pit data and instrument data. By sharing avalanche information we can raise the knowledge base and provide the most accurate information possible.

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