

EXHIBIT # 1

Note 1: Transmitter is a subminiature device, designed to work into high impedance, physically forshortened $\lambda/4$ monopole antennas with essentially no ground plane surface. The transmitter, battery pack, and metal container, are an integral part of the radiating system. Direct connection is possible only to the principle radiating element. Conventional measurements equating to 50 OHM sources are therefore not possible.

Note 2: This transmitter is a very low power locating device which emits an RF pulse, 50ms in width, at a rate of ninety two pulses per minute (≈ 1.5 per second). The device is designed as an aid to assist searches in locating individuals trapped in the snow on Mt. Hood.

EXHIBIT # 2

(a) The Mountain Signal Memorial Fund, INC. was formed after an incident on Mount Hood, May 13, 1986, when nine people died. Mt Hood is the second most frequently climbed mountain in the world. The south side is a large snow field devoid of land marks. When bad weather comes in, visibility is so limited (white out conditions) that one can not tell whether he is stepping on snow or the void caused by a glacial crevass.

Locating lost climbers on Mt. Hood has been a difficult and often non-productive procedure for at least fifty years. During bad weather conditions, the best refuge from the 100MPH+ winds and sub-freezing temperatures is to dig a snow cave. This makes the locating of lost people even more difficult. The sixty square mile search area now has an added third dimensional aspect. Searchers in May 1986 were within 100 feet of the snow cave the day following it's first occupation, during extreme weather conditions. They had no way of knowing they were within three miles of the cave. The weather cleared on the third day (an unusual occurrence.) The cave had been buried by the storm and it's occupants too weak to mark it's location for searchers. At the end of the fourth day, searchers luckily found the cave but unluckily time had taken the lives of 7 people in the cave.

Mountain Signal Memorial Fund has had correspondence with mountain climbing and search and rescue units in this country and abroad in order to adopt some type of locating system. No such system exists but many feel the need for such a system. The members of Mountain Signal Memorial Fund are people from the Federal, State and County organizations involved in search and rescue as well as the local division of Mountain Rescue, the Mt Hood Ski Patrol and concerned citizens. The system which best suits our needs, would use telemetry equipment similar to that used for animal tracking. Non-voice, non-two-way transmitters would be available to climbers to wear. A climber who desires to be found would turn on his transmitter. When a search is called out, searchers would monitor the frequency and search for climbers using portable receiving equipment. The transmitters would all utilize a common frequency, as transmission would only occur when the climber was needing to be located or during a short operational test of the equipment.

Six additional frequencies are required for use by search and rescue personnel. Three teams are normally deployed to search. Each team would have it's own frequency in order to provide locating assistance if that team should have trouble as well as providing orientation for the other

EXHIBIT # 2 (cont)

teams. The three remaining transmitted frequencies would be placed at known locations for the purpose of finding the way back or marking obstacles (crevasses, avalanches, etc.) during a search.

(b) The goal of the Mountain Signal Memorial Fund, INC. is to enhance the effectiveness of climber search and rescue on the south side of Mt. Hood with the use or aid of a signal device system. The purpose of the Mountain Signal Memorial Fund, Inc steering committee is to select and implement the signal device system and insure continual support of that system through funding, training and periodic upgrading.

(c) This program has a reasonable promise of extending radio art to the mountain due to the financial backing from the public to this non-profit organization and the support of the entire local mountain search and rescue organizations. Search and rescue on mountains is usually a race against time. These radio transmitters could substantially reduce the amount of time to find lost climbers on Mt Hood.

-EXHIBIT # 3

Mountain Signal Memorial Fund seeks a waiver from station identification due to the equipment limitations. No voice transmission is provided for in this device. See Exhibit # 1, Notes 1 and 2 from item No. 4 of this FCC form 442.