

LARA® Long Range Avalanche Radar

Reliable and precise monitoring of spontaneous and controlled triggered avalanches in one or neighbouring avalanche paths.

The radar device permanently monitors a pre-defined area of the avalanche path and can thus reliably detect when an avalanche has been set off. In combination with the Wyssen avalanche towers, radar enables successful blasting to be verified. The information about whether an avalanche has been released together with a rough estimation of its size can significantly reduce the residual risk when carrying out avalanche control work. Additionally, avalanche radar makes it possible to detect spontaneous avalanche activity and in combination with a traffic light switch, it can be used for operating road closures. Moreover the information about spontaneous avalanche activity is very important when estimating local avalanche risk.

Advantages

- Robust and compact design developed for the harsh alpine climate
- Remote maintenance and data transfer using the mobile phone network
- Wide area of applications, since mudslides and rock falls can also be detected
- Power supply with a combination of solar cells and / or fuel cells is possible

Functional Principle	The Doppler radar sends out electromagnetic waves, which are reflected by objects. The frequency of reflected radiation of moving objectives is different to the one sent out (Doppler Effect). This effect is being used for avalanche detection. The data is sent to a server for processing and visualizing. Run out distance and size of avalanche can be roughly determined.
Set up	The radar can be installed in the valley or at the opposite side of the valley facing the avalanche path to be monitored. The radar and the electronic box are mounted on a mast, which might be held by a fundament or connected to a building.
Display	fully integrated in our Wyssen Avalanche Control Center WAC.3®
Range	up to 4'000 m *(2.5 miles)*
Opening angle	90° x 15°
Communication	Mobile Phone Network
Power supply	electric grid, solar or fuel cell