

Wyssen Reference Projects

How remote avalanche control systems may help to safe on snow making



Safety through **innovation**

WYSSSEN switzerland **avalanche control**



How remote avalanche control systems may help to safe on snow making

Project:	Remote avalanche control system and snow making
Place:	Samnaun
Country:	Switzerland
Year:	Installation 2015
Customer:	Bergbahnen Samnaun AG
Protected Object:	Ski slope
Installed Systems:	- Wyssen Avalanche Tower 12 shots - WAC.3

Initial Situation

The ski resort of Samnaun makes big efforts to offer an excellent ski experience to their guests. This includes top-notch cableways, comfortable and cosy restaurants, and of course, perfectly prepared ski slopes. In addition, the master planning of a ski resort is crucial for customer satisfaction. That means it is important how easy the skiers get around in the area and how attractive the slopes are. No less important are the mitigation (safety) measures against risks on the cableways and slopes that might be caused by alpine natural hazards such as snow avalanches.





Reopening of a Ski slope due to remote avalanche control systems

In order to optimize the way skiers get back from the ski resort to one of the villages in the Samnaun valley, the decision was taken to reopen an old slope that had to be closed some years ago due to less snowfall, caused by global warming. This slope leads through a very narrow valley directly above the river in the valley bottom. In the past, there was always enough natural snowfall to cover all the rocks in the riverbed allowing the snow groomers to prepare a nice slope.

Therefore, the plan was to cut out a new ski path along one of the steep valley sides because it would have taken far too much artificial snow to keep the line down directly above the rocks of the river. The investment for such a snowmaking installation and the energy costs for producing that huge amount of snow needed was completely unreasonable. Besides the construction of the new ski path a regular snow making system, safety nets and remote avalanche control systems were planned. Total investment of all that was estimated at EUR 3.5 Million.

Fortunately, one of the employees from the Samnaun ski resort had the brilliant idea of using avalanche control to bring the huge amounts of necessary snow all the way down on the river. It was of course an experiment because it is almost impossible to foresee whether it would work out or not. However, it was worth a try because remote avalanche control systems had to be installed anyway to guarantee the safety of the skiers.

The result was awesome. Even though there was less than average snowfall at the beginning of the past winter, the new strategy worked out fine. Thanks to the great effect of the installed Wyssen Avalanche Towers, all the necessary snow was released and brought down to the place where it was needed. In addition, the avalanche danger was obviously eliminated too.



Besides the economic gains this solution lead to significant ecological benefits. On one hand the physical and visual impact in nature for the construction of the path, nets and snowmaking could be prevented. On the other hand, all the energy to produce the huge amounts of snow will be permanently saved.

The considerable economic benefits where a reduction of investment at EUR 3 Million and significant savings for running costs.



A Project of:

Wyssen Avalanche Control AG

3713 Reichenbach
Switzerland
Tel.: +41 33 676 76 76
avalanche@wyssen.com
www.wyssenavalanche.com

Sam Wyssen

Tel.: +41 33 676 76 70
sam@wyssen.com



Safety through **innovation**

WYSSSEN *avalanche*
switzerland **control**