Case Study
Gonda Avalanche
(Summary)

Protection of Road and Railway
by means of Artificial Avalanche Control with Wyssen Avalanche Towers

The entire “Case Study Gonda Avalanche” can be ordered from avalanche@wyssen.com
Motivation

This case study contains information and reports about the use of Wyssen Avalanche Towers for avalanche control in the paths of the Gonda and Urezza avalanches in Switzerland, to protect the cantonal highway between Scuol and Susch and the railway to St. Moritz.

The area had a significant problem with frequent and big natural avalanches causing long periods of closed roads and accidents resulting in casualties and big material damages.

A pilot project was initiated by the Department of Forestry for Graubünden to determine whether the use of Wyssen Avalanche Towers would be an effective method protecting the state roads from avalanches.

The first 3 towers were installed in the area in 2001, followed by 5 more towers in 2008. By April 2011, there are in total 8 avalanche towers protecting the roads, railways and cross country skiing tracks.

This document is divided into three parts:

I. Preliminary study made in connection with the decision to expand the number of towers from the initial 3 to a total of 8 in 2008, including technical report, estimates and plans. The study is conducted by Jörg Kindschi, Dipl. Ing. ETH and owner of KINDSCHI Ingenieure und Geometer Suol und Ftan, by request of Department of Forestry for Graubünden, represented by Gian Cla Feuerstein.

The preliminary study includes the following elements:

- Description of the regional conditions
- Description of the security problem and problem analysis
- Utilization demands
- Existing protection measures
- Requirement analysis
- Incident register
- Risk assessment
- Pilot project objectives
- Solution alternatives
- Proposed measures
- Assessments of cost-effectiveness
- Project management

II. Extracts and conclusions from an analysis of the results of the initial project of 3 towers, produced in 2004 by Jörg Kindschi.

III. Short interview with Peder Caviezel and Gian Cla Feuerstein. Peder is Avalanche Control Manager in the Road Administration of Graubünden, and Gian Cla is the chief of the regional Department of Forestry for Graubünden.
Case Study: Artificial Avalanche Release with Fixed Installations / Extension of Avalanche Tower Installation Gonda, Urezza

Switzerland - Gonda Avalanche Location

[Map of Switzerland with Gonda Avalanche Location marked]

Piz Chapisun, 2930 m

Lavin, 1390 m