

Towers and Masts Monitoring



Background

The requirement was to monitor a mast (radio base station) positioned on a slope in a valley in the province of Aosta, because of suspected subsidence of the foundations on the valley side. Aside from widespread oxidation, the structure had actually lost verticality equivalent to 1/186 of the total height of the tower.

The solution


The WineCap™ solution has two components - dual-axis inclinometers with MEMS technology, offering IP67 grade protection, and the MWDG-GSM data collection control unit placed inside the PPS box. The kit is equipped with a 10 W solar panel, lead/calcium battery and 6 A charge regulator, and can therefore operate without a mains power supply.

The result

The verticality pattern over time is conveniently monitored remotely, by viewing the data through the Service Centre. Furthermore, thanks to the two-way nature of the WineCap™ protocol, sampling frequency can be changed at any time.

BOX-PPS



The winning choice 

- ✓ BOX-PPS (photovoltaic power supply)
- ✓ WSD15TIIDR (vertical biaxial inclination)

