



CAUTUS GEO
surveying for safety



CAUTUS
TOTAL 

SAAF

3D sensor for geo-monitoring

- » **Robust and flexible**
- » **High accuracy**
- » **Optional compass**
- » **Automatic and real time monitoring**
- » **3D accelerometer and temperature measurements**
- » **Integrated in Cautus Web**

SAAF (ShapeAccelArrayField) is a rope-like array of sensors and microprocessors that fits into a small casing. Any deformation that moves the casing is accurately measured as a change in shape of the SAAF.

The 3D sensor consisting of 305 or 500 mm long measuring segments and the device measures the angle changes between the various segments with very high accuracy. The SAAF system is flexible and can be used both for vertical and horizontal measurements. The system is very robust and long-lasting.

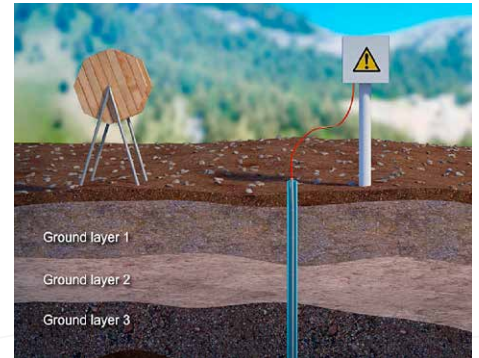
Data is automatically and continuously presented in Cautus Web.

- » Robust and flexible
- » High accuracy
- » Optional compass
- » Automatic and real time monitoring
- » 3D accelerometer and temperature measurements
- » Integrated in Cautus Web

Flexible, robust and accurate

The SAAF is established either in a borehole, lying on the ground or on a construction for continuously recording of tilt, acceleration and temperature. In operation the system will be oriented geographically and provide 3D geographically information about the deformation.

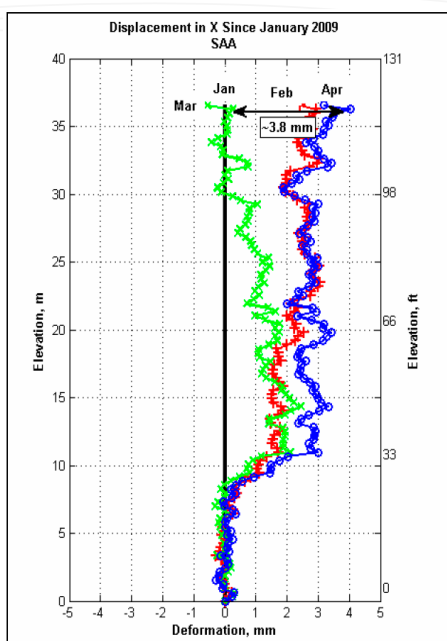
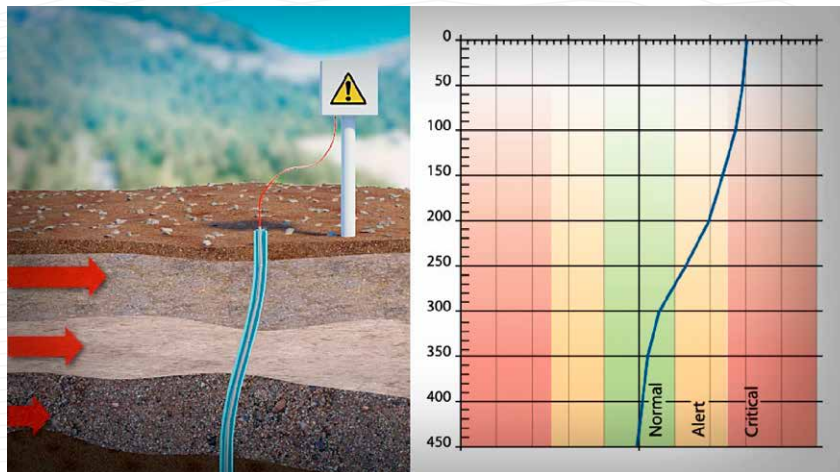
The system has an accuracy of 1.5mm at 30 meters and comes in custom lengths up to 100 meters.



Real-time Solution

The SAAF system can be directly connected to a PC or data logger and then send

observation data to Web Cautus for further analysis, presentation and event notification.



SYSTEM OVERVIEW

Missing segment:	305 og 500mm segments
Overall length:	Custom lengths up to 100 meter
Diameter	25 or 19 millimeters
Weight	0.5 kg per meter
Power	12VDC @ <20mA/octet.
The maximum deformation	60 degrees
Measurements	Angle Changes in 2-axis between each paragraph, the acceleration in each stage and temperature in every 8 paragraph. Deformation xyz (N, E, H) in mm, angular measurements (degrees), acceleration (g), temperature (C)
Measurement results	1.5 mm at 32 meters
Accuracy - example	Data logger or PC
Logging	50Hz, scalable measurement rate
Measuring Rate	Manual to the north or dig.compass
Orientation	Waterproof to 980kPa (100m)
Robustnes	Operation temperature
Operation temperature	-20 To 70 C (-40 to 85 C option)

Data presentation SAA 3D, Cautus Web