PROVA ESTRATTA

Gruppo 2:

1) Metodologia e accorgimenti da adottare per misure idrometriche in misure accelerometriche

2) Pianificazione di una campagna di misure di portata in ambiente carsico

3) Scaricati i dati di una sonda CTD qual è la migliore modalità per la validazione analisi e rappresentazione del dato acquisito

4) Lettura ad alta voce e traduzione testo tratto dal "Etna Digital Recorder – user guide" pag. 47 "checking the etna setup"

> *Caution*: Make a note of the recorder password. If you forget the password, you will need to physically remove both PCMCIA cards from the recorder to remove password protection and reset the password to nothing. This means a site visit!

If the recorder is connected to a PC with an RS-232 cable only, consider physically securing the recorder and the PC. Use the locking hasps on the top of the case to secure the contents of the unit. The RS-232 port is not secure unless the recorder is password-protected.

Checking the Etna Setup

Check the Etna installation by running a functional test or by using the keyboard trigger if the recorder uses sensors other than an EpiSensor.

You can also gently shake the unit to simulate an event and check that Autocall mode is functioning.

Refer to Chapter 4, *Maintenance & Service*, for information about running remote and on-site systems checks.

The full scale range of the internal EpiSensor and their voltage levels are set at the factory to the correct values specified at the time of purchase. If you wish to change the settings, refer to Chapter 6, *Advanced Installations*.

Performing a Functional Test

The firmware in your instrument performs a dual polarity pulse test on EpiSensors as the standard functional test when correctly configured.

The height of the pulse will depend on the full-scale setting of the instrument but will correspond to a g level of approximately 0.125g. The exact value will be 2.5V multiplied by the sensor module's calibration coil sensitivity value provided on the sensor's data sheet.

NON ESTRATTA

Gruppo 1:

1. Per quale motivo è importante monitorare la regione dal punto di vista sismico e idrogeologico?
2. Metodologia e accorgimenti da adottare per misure idrometriche in pozzo;
3. Come organizzeresti i dati idrogeologici all'interno di un geodatabase?
4. Lettura ad alta voce e traduzione testo tratto dal "Iaspei" New Manual of seismological Observatory Practice, pag. 5 paragrafo 7.1.2.3 Topographical considerations

7.1.2.3 Topographical considerations

The topography in the vicinity of a potential site has to be considered. Extremely steep mountain slopes or deep valleys may unpredictably and unfavorably influence seismic waveforms and signal amplitudes. In addition, mountain peaks are usually much more susceptible to wind-generated seismic noise, lightning strikes, and perhaps icing of the communications equipment. Therefore it is wise to avoid such locations, if possible. Sites in moderately changing topography are preferable.

The topography also has to be considered for radio-frequency (RF) telemetry networks. Establishing RF links is much simpler if hill-top sites are selected, but it is important not to let this consideration compromise the seismological considerations. (See IS 7.2 Using existing communication tower sites as seismic sites.)

7.1.2.4 Station access considerations

Seismic stations are generally located in remote areas, as far as possible away from any human activity. This can often result in relatively difficult access. Public roads do not (or should not) reach most good seismic stations and walking a considerable distance, or the use of off-road vehicles, is more or less inevitable. Inexperience in site-selection often leads to too much compromise in this respect. One needs to find a reasonable trade-off between remoteness and ease of access. Stations which are too difficult to access are expensive to establish and maintain. In consequence, they often suffer from inadequate maintenance and long repair times.

Road maps and 1:25.000 scale topographic maps usually allow an approximate estimate of the difficulties and time needed to access any potential sites. In mountainous regions both the distance from the nearest road accessible by vehicle and the elevation difference between the site and the last point accessible by vehicle are important. One should allow between 15 and 30 min of cross-country walking time for each km of distance (25 to 50 min for each mile), depending on vegetation cover, and between 20 and 30 min for each 100 m (300 feet) of height difference. Stations which require more than half an hour of cross-country walking are rare. However, one has sometimes to accept longer walking distances, particularly if RF telemetry is involved.

Seismic stations are frequently set up at existing meteorological stations. This often happens in countries which are not experienced in seismometry and especially when meteorological institutions are appointed to maintain seismic installations. Such combination of stations or network operations are not advisable, since seismological and meteorological site selection criteria are very different.

7.1.2.5 Evaluation of seismic noise sources

An assessment of man-made and natural seismic noise sources in the region from maps is only the first stage of a proper seismic noise study. It should always be followed by field measurements of the noise. Nevertheless, road and railway traffic, heavy industry, mining and quarry activities, extensively exploited agricultural areas, and many other sources of man-made seismic noise around the potential sites, along with natural sources like ocean and lake