ID: **P4.3-571** Type: **e-Poster**

and improvements to DC power systems at IMS waveform stations

Friday, 2 July 2021 10:45 (15 minutes)

Most waveform stations in the IMS network are now 10-20 years old. Problems with power and communication systems often relate to cables, circuit breakers, connectors and/or surge protection becoming corroded or deteriorated to a point where good connections and functionality can be compromised. Many stations are located near the sea, in high humidity and salty environments, which inevitably provokes corrosion over time, almost regardless of precautions during installation to protect the electrical installations. In addition, DC power installations are prone to create a constant ion flow that can create electrolysis and could damage metals in the installation. Examples of corrosion has been observed on cables, connectors and surge protection devices and shows the importance of proper installation, timely inspection and periodic maintenance of the power and communication systems, to ensure sustainable operation and high data availability of IMS stations. Installation methods to simplify inspection and maintenance can help the station operators during troubleshooting and to report power issues before they become problems. This paper describes some of the power systems installed at IMS waveform stations and focusses on the operation and maintenance of these power systems.

Promotional text

DC power systems maintenance and repair, degradation due to time, humidity, etc. State of the art components for DC power and surge protection.

Primary author: Mr JOHANNSEN, Claus (CTBTO Preparatory Commission, Vienna, Austria)

Co-authors: Ms STEFANOVA, Stefka (CTBTO Preparatory Commission, Vienna, Austria); Mr YAO, Palmer (Former CTBTO Preparatory Commission, Vienna, Austria)

Presenters: Mr JOHANNSEN, Claus (CTBTO Preparatory Commission, Vienna, Austria); Ms STEFANOVA, Stefka (CTBTO Preparatory Commission, Vienna, Austria)

Session Classification: T4.3 e-poster session

Track Classification: Theme 4. Performance Evaluation and Optimization: T4.3 - IT, Power Systems and other Enabling Technologies