General Access Procedures – Best Practices

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RFI-EUI

Radio Frequency Interference – End Users Initiative

Best Practices, Documentation, and New Technologies Working Group

Universal Access Procedure

Now know as the

General Access Procedure

General Access Procedure

- Formally ITU-R SNG.1710
- Covers Occasional Use communications to fixed satellites
- Expanded to cover more than SNG
- Covers C-band and Ku-band frequencies
- Basic Uplink procedures and processes
- Recommended practices for equipment settings and power
- Use CID if available

General Access Procedure

- Has been passed by the WP-4B group at the ITU meeting last April in Geneva
- Expecting the Group 4 acceptance shortly
- There after it will be an ITU Recommendation
- Completed text at rfi-eui.org once released

UAP Brochure

- Has been available for 13 months.
- Distributed at SAT 2012, CableTec, NAB, and SAT 2013
- Available on the back table

Universal Access Procedure

Bringing Carrier Down

When ready to bring the carrier down, contact the access center and provide the satellite, transponder, frequency, and polarity of the carrier whose transmissions you are terminating. The access center will verify that you have stopped the transmission and that the space is clear. Exchange names (or initials) with the access center.

ANTENNA POINTING

Do not move the antenna while the antenna is transmitting a signal unless instructed to do so by the access center.

For permanent services, the antenna should be pointed when the satellite is in the center of the box. Satellite operators have tools on their websites to estimate the time of day for a center of the box event.

It is recommended to point the antenna using a spectrum analyzer to measure the received satellite signals levels.

Make sure you calculated the azimuth and elevation angle of the antenna for the antenna location.

Set the elevation, and then move the antenna on the azimuth axis around the calculated azimuth. Once signals appear on the spectrum analyzer, verify that you are pointing to the correct satellite. If not on the correct satellite, keep moving the antenna on the azimuth axis.

Once on the correct satellite, verify that the satellite is on the main lobe of the antenna and not a side lobe, by moving on the

azimuth axis until you find the maximum signal strength. Then move on the elevation axis to maximize the received signal strength.

For linear polarization systems, proceed to align the polarizer of the antenna (rotate the feed) to maximize the received signal level.

ADDITIONAL INFORMATION

Power Levels. The required transmit power level is calculated using a link budget analysis. Make sure that you have sufficient power for your transmission.

Time of Day. The time of day for occasional use services is given in GMT/UTC time. Make sure you know the conversion factor for your local time.

Inclined Orbit Satellites. Special antenna tracking equipment is required for transmission to inclined orbit satellites.

Transportable Earth Stations and Fly Aways. Make sure that the antenna is properly secured and not on a platform that could move (e.g., long bridge, windy, unanchored truck, etc.)

Comms on the Move Earth Stations. It is important that the terminal stops transmission to the satellite if it loses tracking to the assigned satellite.

VSATs. For additional information on access procedures for VSATs, visit www.gvf.org.

UNIVERSAL ACCESS PROCEDURES (UAP)

for Satellites

Your guide for an interference free satellite users community.

Sponsored by SES

Operations and Maintenance Guidelines to Minimize Satellite Interference

- The Operations and Maintenance Guidelines are for satellite Network Operators and Station Operators to follow with the intention of minimizing degraded service and outages caused by interference.

Maintenance Guidelines

- Station Records
- Registration of Antennae
- Transmission Logs
- Procedures for dealing with Interference
- Use trained and certified staff
- Have basic test equipment

Maintenance Guidelines
cont.

- Never perform maintenance while transmitting to the satellite without the operators consent
- Properly terminate all cables and connectors
- Turn off HPA's and BUC's when not in use to ensure no possibility of transmissions

Maintenance Brochure

Future Directions

- Collaborating with VSF on their Mutual Recognition Arrangement Working Group
- We will be provide links to the GVF web site listing the products that are certified.
- Promoting Carrier ID

Thank you

Remember to follow Best Practices