RECOMMENDATION ITU-R SNG.1710

Satellite news gathering carriers universal access procedures

(2005)

Scope

This Recommendation provides guidelines for satellite access for the purpose of satellite news gathering, as recommended by carriers and broadcasters. These are not meant to apply to the commissioning of new earth stations, but mainly for activation of uplinks from existing earth stations, in order to avoid unintentional access and the potential interference caused by those incorrect accesses.

The ITU Radiocommunication Assembly,

considering

a) that satellite news gathering (SNG) services are offered on several radiocommunication satellites;

b) that the use of SNG is expanding in all parts of the world;

c) that the proliferation of the use of SNG stations has caused an increase in unintentional interference to other satellite users;

d) that all SNG operators do not apply the same procedures to access the satellite,

recommends

1 that the SNG operators in the field should follow the universal access procedures described in Annex 1.

Annex 1

Universal access procedures, frequency division multiple access services

1 Definitions

1.1 FDMA: Frequency division multiple access. Mode of operation where several carriers with different frequencies are loaded onto a single transponder. Differentiated from time division multiple access (TDMA) services which follow their own access procedures

1.2 ESO: Earth station operator

1.3 LOC: Space segment lessee operating or control centre (either a broadcasting organization, a union or consortium of broadcasters, a telecom operator, a national agency or any other third party)

1.4 SOOC: Satellite operator's management/operations centre

1.5 TES: Transportable earth station (a fixed earth station that is not permanently dedicated to an orbital slot, should be treated the same way)

1.6 FES: Fixed earth station that is dedicated to an orbital slot (most of the time with fixed settings for specific carriers)

1.7 ATIS: Automatic transmitter identification system.

2 Purpose

This Recommendation defines the procedures all ESO should follow in order to access satellites. This document also describes the criteria for obtaining line-up exemptions in specific cases.

2.1 Customer access requirements

All ESOs who receive authorization (either directly from the satellite provider or through a third party LOC) to transmit to a satellite should contact the SOOC of that satellite provider prior to access so that the initial uplink can be verified, monitored, and documented by an SOOC controller. However, before calling the SOOC, the ESO should always first call the LOC to verify authorization and check for schedule changes.

English is the universally accepted language for SNG operations. All uplink ESOs should be able to communicate and follow instructions given to them in English. Other languages may be used at the discretion of the satellite operator, subject to prior agreement.

The telephone numbers of the LOC and the SOOC should be obtained when reserving the satellite transponder capacity.

2.1.1 Before the satellite access, the ESO should call the LOC in order to check the following:

– exchange of earth station identification/registration code and telephone numbers for emergency contacts;
– confirmation of expected transmission time (due to possible overruns of previous transmissions);
– satellite, transponder, uplink/downlink frequency, and bandwidth allocations.

2.1.2 During the satellite access, the SOOC controller should check the following:

– earth station registration code;
– confirmation of correct transmission time (to be in line with the LOC check above);
– satellite, transponder, and frequency slot allocations;
– uplink polarization;
– carrier power level, signal quality, etc.

2.1.3 During the access procedure, the ESO will be required to:

– transmit signals of differing power levels (both modulated and unmodulated);
– peak the transmit antenna;
– rotate/adjust the transmit antenna polarizers;
– call the SOOC with enough time to allow the controller to complete the entire access procedure, including cross-polar verification. Failure to do this may result in access delays.

2.1.4 The ESO should also inform the SOOC before making any online equipment modifications in real time or before ending a transmission on occasional use capacities (i.e. a goodnight).

Copies of the uplink operator's checklist and uplink operator's procedure are attached to this policy document.

3 Access line-up verification exemption

The SOOC may grant access line-up verification exemption, by way of example:

– when one or several FES for full or part-time access to a satellite is used;

– between successive uplinks from a TES from the same site, for part-time access to a satellite, provided the TES had not been de-pointed (i.e. event lasting several days).

This exemption enables the LOC controller to manage third-party accesses without performing cross-polar measurements or adjustments.

4 Guidelines for exemptions and special authorizations

All exemptions and special authorizations are granted, and remain in effect, at the sole discretion of the SOOC. When an exemption or authorization is granted, the SOOC will send written confirmation to the LOC confirming the exemption or authorization and detailing any specific conditions. A copy of all such confirmations will be kept on file in the SOOC.

An exemption or authorization may be revoked at any time if interference or other problems occur that can be linked to an ESO antenna, service, or space segment management. Although confirmed in writing, all revocations are effective as soon as the customer is notified by phone, fax, e-mail, or other means. A copy of all revocation letters will be kept on file in the SOOC.

Attachment 1
to Annex 1

Uplink operator's checklist

1 **BEFORE** calling the satellite operator (SOOC), make sure the following table has been completed by cross-checking the space segment allocations with the LOC:

Contact information:				
Earth station registration code for operator concerned:				
Your name:				
The uplink company:				
Uplink phone number:				
Dedicated to technical conversations:				
Your assigned satellite/transponder/slot:				
Type of call: ☐ Access ☐ Interference report ☐ Goodnight				
Special cases: ☐ New full-time service ☐ Cross-polarization exempt antenna				
Assigned frequencies:	Uplink:	Downlink:	Bandwidth:	
Type of ad hoc customer: ☐ Third-party resale ☐ Ad hoc				
Access information:				
Actual downlink e.i.r.p.:	**Target downlink e.i.r.p.:**		**Transmit e.i.r.p.:**	
Cross-polarization (leave blank; use this space to record the controller's reading):				
Scheduled access time (UTC):		To		
Actual access time (leave blank; use to record actual access time):				UTC
Signal quality (leave blank; use to record the controller's readings as applicable):				
C/*N*:	FEC:	Symbol/s:	BER:	CER:

CER: Cell error rate

2 When you are ready with this information, **BEFORE** calling the satellite provider, make sure your equipment is ready:

– The transmitter is in standby mode at maximum attenuation. For earth stations performing multiple uplinks through a single uplink chain, please ensure that the modulator is at maximum attenuation.

– All uplink equipment is warmed, stable, and tuned to the correct frequency with proper sub-carriers, if applicable.

– The antenna is properly pointed, optimized, and set for the correct polarization. For optimum performance, antenna pointing should be performed during the centre of box period for the spacecraft (this information can be provided by the SOOC/LOC).

– The waveguide switches are configured properly.

– ATIS is enabled (US domestic analogue transmissions only).

3 Follow the uplink procedure (see Attachment 2).

Attachment 2
to Annex 1

Uplink operator's procedure

1) Before making the call to the SOOC, use the uplink checklist (see Attachment 1) to check transmission equipment and to gather necessary information for the access, by crosschecking with the LOC about 10 min before the scheduled access time. If necessary, the LOC will then direct you to the SOOC as per 2)below.
2) Contact the SOOC at least 5 min before the scheduled access time and provide the SOOC with the information you gathered on the uplink checklist (see Attachment 1).
3) When directed, provide the lowest possible power, unmodulated carrier. Tell the controller you have done this as you throw the switch.

IMPORTANT: During the access procedure, **DO NOT** change power, frequency, polarization, or antenna aiming without specific direction to do so from the SOOC controller, or the LOC by delegation. If you are instructed to cease transmission, you should comply **IMMEDIATELY** without discussion.

1) Wait for further instruction while the controller checks the cross-polar and frequency of the carrier.
2) At the direction and discretion of the SOOC, modulate and increase power to nominal levels, which will be confirmed by the SOOC. After power levels have been set, verify downlink.
3) Wait for further instructions while your transmission is checked.
4) The transmission should commence only when the SOOC has given confirmation the carrier specifications are correct.
5) The controller will verify your telephone number that should be available throughout the transmission/event in case a problem in relation with your uplink has to be solved. The controller will remind you to call the SOOC again just before the end of the transmission (goodnight call for occasional use space segments).
6) It is mandatory to contact the LOC for goodnighting in all circumstances.