



*Radiocommunication Bureau*  
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Administrative Circular  
CA/90

30 November 2000

## **To Administrations of Member States of the ITU and Radiocommunication Sector Members**

**Subject:** Request for administrations and Sector Members to supply data on the characteristics of GSO/FSS earth stations uplinking in the band 14-14.5 GHz

### **1 Introduction**

Resolution 733 (WRC-2000) invites ITU-R to conduct studies, as a matter of urgency and in time for consideration by WRC-03, in order to review the constraints contained in footnote S5.502 on radiolocation (maximum e.i.r.p. averaged over one second of 59 dBW) and GSO/FSS (minimum earth station antenna size of 4.5 m) and to propose alternative sharing conditions to those contained in S5.502 and S5.503. Joint Task Group 4-7-8 has been assigned the responsibility for reporting the results of those studies to the 2002 Conference Preparatory Meeting (CPM-02).

At its first meeting in October 2000, Joint Task Group 4-7-8 identified parameters which would have an impact on the sharing conditions between FSS and other co-primary services in the band 13.75-14 GHz, if the current minimum 4.5 m GSO/FSS earth station antenna size requirement in footnote S5.502 were to be relaxed. The distributions of geographical locations and antenna sizes of GSO/FSS earth stations operating in the band, as well as the characteristics of emissions from these earth stations were identified as factors which could strongly influence the interference levels experienced by both the Radiolocation and the Space Research Services sharing the band.

JTG 4-7-8 decided it would be desirable to obtain such information for GSO/FSS earth stations currently using, or expected to use, the adjacent band 14-14.5 GHz, in order to obtain reference information concerning the potential deployment of small GSO/FSS earth stations which could occur in the band 13.75-14 GHz if the 4.5 m minimum antenna size requirement in footnote S5.502 were to be relaxed.

This letter extends an invitation to administrations and Sector Members to supply data on the current or expected use of the band 14-14.5 GHz by GSO/FSS earth stations. A similar Circular letter (CA/89) is being sent to Administrations and Sector Members to supply data on the current and expected use of the band 13.75-14 GHz by radiolocation/radionavigation services in order to permit JTG 4-7-8 to perform analysis of the global sharing environment between co-primary services in the band 13.75-14 GHz.

## **2 Data on GSO/FSS earth stations using the band 14-14.5 GHz**

Administrations and Sector Members are requested to supply information regarding the following characteristics of GSO/FSS earth stations located on their territory and uplinking in the bands 14-14.5 GHz, or expected to do so in the near future (e.g. in the next 10 years):

- distribution of antenna sizes (number of GSO/FSS earth stations having a given antenna diameter);
- distribution of GSO/FSS earth stations according to geographical location/service area;
- types of applications (VSAT, SNG, feeder link station etc.);
- typical emission characteristics (bandwidth, e.i.r.p., maximum e.i.r.p. spectral density);
- percentage of time FSS earth stations are active (i.e. actually emit).

If these characteristics are different for GSO/FSS earth stations in the 14-14.25 GHz band and those in the 14.25-14.5 GHz band, administrations and Sector Members are kindly requested to supply separate information for both bands if available.

Annex 1 gives a tabular format that can be used for the submission of this data.

## **3 Submission of contributions**

Administrations and Sector Members are urged to submit the information requested at the latest by 2 April 2001.

Contributions should be sent to the Special Rapporteur Mr. Tony Reed (UK) through Mr. Jinxing Li (Counsellor Study Group 4, Radiocommunication Bureau, Tel.: +41 22 730 5990, Fax: +41 22 730 5806, e-mail: [jinxing.li@itu.int](mailto:jinxing.li@itu.int)). Mr. Li's postal address is:

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Robert W. Jones  
Director, Radiocommunication Bureau

ANNEX 1

**Input data requested from administrations and Sector Members  
regarding GSO/FSS use of the band 14-14.5 GHz**

<b>Name of Administration/Sector Member (example : Administration X)</b>									
<b>Associated GSO orbital positions</b>									
<b>E/S antenna diameter</b>	<b>Type of application</b>	<b>Number of E/S</b>	<b>Typical emission characteristics</b>			<b>Activity Rate</b> (% time E/S transmits)	<b>Existing/ planned</b>	<b>Location(s)/ Service Area(s)<sup>1)</sup></b>	<b>Remarks<sup>2)</sup></b>
			Bandwidth	Typical e.i.r.p.	Typical e.i.r.p. spectral density				
m			kHz	DBW	dBW/Hz				
0.8	VSAT	3 000	68.3	45.9	-2.5	15%	Existing	Country X	
1.2	VSAT	1 500	2 000	61	-1.95	40%	Existing	Capital city of X	
1.5	VSAT	1 000	2 000	63	-0.03	50%	Existing	North East of X	
1.5	SNG	200	2 000	65	2	10%	Planned	Country X	Planned for 2001 in band 14-14.25 GHz
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4.5	Feeder-link station	200	33 000	79	3.8	85%	Existing	Europe	
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The values in this table are given as examples only.

1) Administrations and Sector Members are requested to supply the most detailed information available regarding the geographical location of FSS earth stations.

2) Administrations may specify any further relevant information, including expected deployment dates and specific sub-bands in which the FSS earth stations operate or are expected to operate.