

RECOMMENDATION 761*

FREQUENCY SHARING BETWEEN THE FIXED SERVICE AND PASSIVE
SENSORS IN THE BAND 18.6-18.8 GHz

(Question 113/9)

(1992)

The CCIR,

considering

- a) that the WARC-79 made allocations to the earth exploration-satellite and space research services for passive sensors in the band 18.6-18.8 GHz, with primary status in Region 2 and secondary status in Regions 1 and 3;
- b) that the fixed service has a primary allocation in this band in all three ITU Regions;
- c) that the WARC-79 requested the CCIR via Recommendation 706 to study certain aspects of sharing between radio-relay systems and passive sensors, including the maximum restriction that can be tolerated by the fixed service;
- d) that preliminary studies of sharing between radio-relay systems and passive sensors of the earth exploration-satellite service and the space research service have been undertaken by Study Group 7 and are described in Report 850 (Düsseldorf, 1990);
- e) that these studies indicate that the feasibility of sharing between passive sensors and fixed service systems is unaffected by the length and orientation of the fixed system, but is critically dependent on the total number of fixed service transmitters and the transmitter power and antenna gain;
- f) that the parameters which determine the feasibility of sharing are consequently dependent on the specific radio-relay system application;
- g) that the development of fixed service systems for the 18 GHz band is at an early stage and Recommendation 595 indicates that the band may be exploited for digital systems of low, medium or high capacity,

recommends

- 1. that in the band 18.6-18.8 GHz, as far as possible, administrations should endeavour to limit the power delivered into the antenna and the e.i.r.p. of fixed service transmitters, to reduce the risk of interference into passive sensors to a minimum in accordance with Radio Regulation No. 871;
- 2. that the material provided in Report 850 (Düsseldorf, 1990) may be used for information to assist with the planning of sharing between passive sensors and fixed services;
- 3. that further studies may need to be conducted to determine practical measures to facilitate frequency sharing with passive sensors.

Note 1 – In Region 2, the use of the band for passive sensors is on a primary basis. In Regions 1 and 3, where the use of the band by passive sensors is on a secondary basis, it is recognized that their use should not impede the installation of systems in the fixed service and that higher e.i.r.p. values than those mentioned in Report 850 (Düsseldorf, 1990) may need to be used in some applications.

* This Recommendation should be brought to the attention of Study Group 7.