

QUESTION ITU-R 216-2/5*,**

Compatibility of radionavigation, earth exploration-satellite (active), space research (active), mobile, and radiolocation services operating in the band 5 350-5 650 MHz and compatibility between the radionavigation and radiolocation services in the band 2 900-3 100 MHz

(1997-1998-2001)

The ITU Radiocommunication Assembly,

considering

- a) that the radionavigation service provides a safety of life function (RR 4.10) and harmful interference to it cannot be accepted;
- b) that radars in the radiolocation service operate on a primary basis worldwide in bands including the 3 100-3 300 MHz band and operate on a secondary basis to the radionavigation service in several bands around 3 and 5 GHz;
- c) that considerable radiolocation spectrum (approximately 1 GHz) has been removed or downgraded since WARC-79, particularly affecting the band 3 400-3 700 MHz, and that a need is emerging for increased primary spectrum allocation for the radiolocation service;
- d) that the IMO has recently increased their safety requirements for shipborne radars that lead to the need for use of shorter pulse widths;
- e) that Recommendation ITU-R M.1372 identifies interference reduction techniques which enhance compatibility among pulsed radars;
- f) that radiolocation services, while recognizing radionavigation as a safety service as delineated in RR 4.10, have demonstrated compatible operations with radionavigation services in the bands 2 900-3 100 MHz and 5 350-5 650 MHz over many years because of using similar system characteristics of low duty cycle emissions, scanning beams, and interference reduction techniques;
- g) that the active spaceborne earth sensors in the Earth exploration-satellite and space research services have demonstrated compatible operations with the radiolocation service in several bands over many years,
- h) that agenda item 1.17 calls for WRC-03 to consider upgrading the status of radiolocation allocations in the 2 900-3 100 MHz band;
- j) that agenda item 1.5 and Resolution 736 (WRC-2000) call for WRC-03 to consider allocating the 5 460-5 570 MHz band to the Earth exploration satellite (active) and space research (active) services and to consider allocating the 5 470-5 570 MHz band to the mobile service for wireless access systems including RLAN, and to review the status of the radiolocation service with a view to upgrading it in the frequency range 5 150-5 725 MHz,

* This Question should be brought to the attention of the International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA), the International Civil Aviation Organization (ICAO), the International Maritime Organization (IMO) and the Comité International radio-maritime (CIRM).

** Former Question ITU-R 216-2/8.

decides that the following Questions should be studied

- 1** What are the technical characteristics, protection criteria, and other factors of radiolocation and radionavigation services needed to conduct studies of compatibility between these services in the bands 2 900-3 100 MHz and 5 350-5 650 MHz?
- 2** What is the feasibility of sharing between the radiolocation and radionavigation services in the 2 900-3 100 MHz band?
- 3** What is the feasibility of sharing between the aeronautical radionavigation and radiolocation services in the 5 350-5 470 MHz band?
- 4** What is the feasibility of sharing between the radionavigation and radiolocation services in the 5 460-5 470 MHz band?
- 5** What is the feasibility of sharing between the maritime radionavigation and radiolocation services in the 5 470-5 650 MHz band?
- 6** What is the feasibility of sharing between the mobile (i.e. RLAN) and radiolocation services in the 5 470-5 650 MHz band?

further decides

- 1** that the results of the above studies should be included in one or more Recommendations;
- 2** that the above studies should be completed by 2005.

NOTE 1 –These studies need to respect the safety-of-life considerations of the radionavigation service expressed in RR 4.10 to ensure that future safety systems can operate without harmful interference.