

## RESOLUTION 611 (WRC-07)

**Use of portion of the VHF band by the radiolocation service**

The World Radiocommunication Conference (Geneva, 2007),

*considering*

- a) that the band below 300 MHz is primarily allocated to terrestrial services;
- b) that the radiolocation service has no global primary allocations in the band 30-300 MHz;
- c) that the frequency band 138-144 MHz is allocated to the radiolocation service on a primary basis in Region 2, the frequency band 216-225 MHz is allocated to radiolocation service on a secondary basis in Region 2, and the frequency band 223-230 MHz is also allocated to radiolocation service on a secondary basis in Region 3;
- d) the current regional allocations to radiolocation service are used on the shared basis with other services, specifically with fixed and mobile services;
- e) that due to extensive development of broadcasting service in the frequency bands 174-230 MHz and 470-862 MHz there is an increasing need to accommodate the existing radiolocation service operating in these bands to different frequency bands, while improving the interference mitigation techniques and introducing modern technologies;
- f) that there are emerging requirements for increased resolution and range for radars operation;
- g) that VHF radiowaves propagate well through the ionosphere, thus enabling various space object detection applications including remote space sensing and asteroid detection, as well as for defining the position of natural and artificial Earth satellites, from terrestrial-based radiolocation systems;
- h) that Recommendation ITU-R M.1372 identifies interference reduction techniques which enhance compatibility among radar systems;
- i) that over the horizon operation of radiolocation in VHF frequency range is technically not feasible;

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j) that current requirements for radiolocation systems for space-object detection from terrestrial locations in portion of the band 30-300 MHz are based on 2 MHz bandwidth systems, however allocation with a wider frequency range may provide flexibility and facilitate sharing with existing services;

k) that, to provide adequate spectrum for new radar systems, there is a need to allocate on a primary basis worldwide additional spectrum in the 30-300 MHz frequency range,

*recognizing*

a) that it is important to ensure radiolocation radars can be operated compatibly with the existing primary services having allocations in the portions of the VHF band;

b) that ITU-R initiated studies in response to Question ITU-R 237/8 on characteristics and protection criteria for radars operating in the radiolocation service in the frequency band 30-300 MHz,

*resolves*

1 to consider at WRC-11 a primary allocation to the radiolocation service in the portion of the band 30-300 MHz for the implementation of new applications in the radiolocation service, with bandwidth no larger than 2 MHz, taking into account the results of ITU-R studies;

2 that the introduction of new systems in the radiolocation service shall be avoided in the frequency bands 156.4875-156.8375 MHz and 161.9625-162.0375 MHz, which are used by distress and safety applications in the maritime mobile service,

*invites ITU-R*

1 to continue to study, as a matter of urgency, the technical characteristics, protection criteria, and other factors to ensure that radiolocation systems can operate compatibly with systems operating in accordance with the Table in service in the 30-300 MHz frequency range band;

2 to include the results of the above studies in one or more new or existing ITU-R Recommendations, if appropriate;

3 to complete these studies in time for WRC-11.