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|  | **Radiocommunication Study Groups** | |  |
| **INTERNATIONAL TELECOMMUNICATION UNION** | |  | |
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| Source: Document 5A/TEMP/105(Rev.1) | | **Annex 12 to Document 5A/298-E** | |
| **21 November 2016** | |
| **English only** | |
| Annex 12 to Working Party 5A Chairman’s Report | | | |
| Elements for draft CPM text  for WRC-19 Agenda Item 9.1 Issue 9.1.5 | | | |
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Agenda item 9.1 – Issue 9.1.5

(**WP 5A** / **WP 5B**, (WP 3M))

*9.1.5* Resolution **764 (WRC‑15)** – *Consideration of the technical and regulatory impacts of referencing Recommendations ITU-R M.1638-1 and ITU-R M.1849-1 in Nos.* ***5.447F*** *and* ***5.450A*** *of the Radio Regulations*

# 2/9.1.5/1 Executive summary

*[Text of the executive summary, not more than half a page of text to describe briefly the purpose of the issue, summarize the results of the studies carried out and provide a conclusion]*

# 2/9.1.5/2 Background

*[Text of the background, not more than half a page of text to provide general information in a concise manner, in order to describe the rationale of the issue]*

WRC-03 allocated the 5 150-5 350 MHz and 5 470-5 725 MHz frequency ranges to the mobile service on a primary basis for the implementation of Wireless Access Systems (WAS) including Radio Local Area Networks (RLANs) subject to Resolution **229**. WRC-03 also decided that the radiolocation service, the Earth exploration-satellite service (active) and the space research service (active) (RR No. **5.447F**) and the radiodetermination service (RR No. **5.450A**) shall not impose on the mobile service more stringent protection criteria, based on system characteristics and interference criteria, than those stated in Recommendations ITU-R M.1638-0 and ITU-R RS.1632-0, which were incorporated by reference. Since WRC-03, millions of RLAN devices have been widely deployed worldwide.

During the WRC-15 study cycle, Recommendation ITU-R M.1638-0 was revised. In this revision process, several new radars with different system characteristics were included in Recommendation ITU-R M.1638-1 and the technical characteristics and protection criteria for ground based meteorological radars were removed from Recommendation ITU-R M.1638-1 and relocated to Recommendation ITU-R M.1849-1. Consistent with the provisions of Resolution **27 (WRC-07)**, for an ITU-R Recommendation (e.g. ITU-R M.1638), the reference in the Radio Regulations shall continue to apply to the earlier version incorporated by reference until such time as a competent WRC agrees to incorporate the new version. Given the potential impact on the widespread deployment of RLANs in the 5 250-5 350 MHz and 5 470-5 725 MHz frequency ranges and the provisions of RR No. **5447F** and **5.450A**, WRC-15 decided to study this matter under WRC-19 agenda item 9.1, issue 9.1.5.

# 2/9.1.5/3 Summary and analysis of the results of ITU-R studies

*[This section should contain a summary of the technical and operational studies performed within ITU-R, including a list of relevant ITU-R Recommendations. The results of the ITU-R studies should also be analysed with respect to the possible conclusions, and presented in a concise manner.]*

## 2/9.1.5/3.1 Summary of technical and operational studies

The initial studies showed that in case of reference replacement of Recommendation ITU-R  
 М.1638 -0 by the Recommendation ITU-R М.1638-1 in RR Nos. **5.447F** and **5.450А** the maximum permissible interference field strength in the frequency band 5 250–5 350 MHz is increased by 10 dB and by 7.2 dB in the frequency band 5 470–5 725 MHz. As a result the required protection first of all to the meteorological radars operating in this frequency band is not ensured.

[*Editor’s Note: Similar calculations related to meteorological radars as in Recommendation   
ITU-R M.1849-1 should be performed.*]

## 2/9.1.5/3.2 List of relevant ITU-R Recommendations

1 Recommendation ITU-R M.1638-0 “Characteristics of and protection criteria for sharing studies for radiolocation, aeronautical radionavigation and meteorological radars operating in the frequency bands between 5 250 and 5 850 MHz”;

2 Recommendation ITU-R [M.1638-1](http://www.itu.int/rec/R-REC-M.1638/en) Characteristics of and protection criteria for sharing studies for radiolocation (except ground based meteorological radars) and aeronautical radionavigation radars operating in the frequency bands between 5 250 and 5 850 MHz;

3 Recommendation ITU-R [M. 1849-0](http://www.itu.int/rec/R-REC-M.1849/en) “Technical and operational aspects of ground-based meteorological radars”;

4 Recommendation ITU-R [M. 1849-1](http://www.itu.int/rec/R-REC-M.1849/en) “Technical and operational aspects of ground-based meteorological radars”.

# 2/9.1.5/4 Conclusions

*[This section should contain the conclusions of the studies on this issue]*