**ECC options that may assist in the alleviation of interference to meteorological radar from WAS/RLAN at 5.6-5.65 GHz**

| **Option** | **Advantage** | **Disadvantage** | **Effectiveness of interference reduction** |
| --- | --- | --- | --- |
| Status Quo | Actions under the current frameworks including enforcement actions (on users, vendors, manufacturers and resellers) would continue. Business as usual. | No improvement of the situation for meteorological radars, if current levels of enforcement (both vendors and users), across CEPT, continue. | **NONE** |
| Turn ECC Report 192, into a Recommendation:  - Guidance to manufacturers and notified bodies[[1]](#footnote-2)  - Guidance to enforcement authorities1 | Amplifies the need to exercise rigorous and consistent enforcement in order to increase pressure on rogue vendors. | Market surveillance and monitoring activities on 5 GHz WAS/RLAN have significantly increased since the first publication of ECC Report 192 (2014). However, this hasn’t stopped the continuous increase, taking CEPT as a whole, in the number of reported interference cases. | **NONE** (if this action is not associated with improvement of the enforcement actions)  to **MEDIUM** (if the guidance in ECC Report 192 are applied (see ECC action plan Item 1)) |
| Revise ECC/DEC/(04)08 include the use of a database for **fixed outdoor** PtP[[2]](#footnote-3) and PmP[[3]](#footnote-4) equipment through mandatory registration, at national level, of e.g. SSID, MAC, address and location (as proposed by FM22) | Provides mechanisms to spectrum monitoring and enforcement experts to handle interferences to meteorological radars caused by WAS/RLAN fixed outdoor installations.  A new incentive of using compliant equipment.  Improve locating and identifying the interfering source.  May provide a reduction in resources needed for investigation and enforcement. | Users might not register equipment into the database, either intentionally or unintentionally. In case of simple database without some automatic management, it may contain users who do not have operational equipment.  Requires additional administrative resources, where no database exists. | **NONE** (if this action is not associated with improvement of the enforcement actions)  … to **MEDIUM/HIGH** (improving interferer location together with improved enforcement actions will put pressure on all manufacturers) |
| Highlight the band 5350-5470 MHz as an extension / additional opportunity to 5.6 GHz via guidance in an ECC output (which may include sharing issues with EESS, radars and other incumbents). | Provides national administrations with information on the conditions for possible radar band migration on a case by case basis.  May be an effective action for some radars (e.g. in urban areas) that are particularly exposed to potential interference by RLANs.  Should avoid any RLAN interference to meteorological radars and hence provide a long-term solution. | Additional cost to replace existing radars in order to change band.  The implementation of this option will hide the difficulties of individual CEPT administration, and ECC as a whole, around dealing effectively with spectrum sharing using advanced/software defined mitigation techniques for licence-exempt use.  This might lead to some impact on incumbent services.  Possible requirement for guidance on coordination/compatibility with incumbent services (other radars, Copernicus…). | **HIGH** (for the related radars) |
| Revise ECC/DEC/(04)08 to exclude the use of 5600-5650 MHz band by WAS/RLAN equipment. | This should facilitate actions by administrations to prevent interference with radars as use would be non-compliant in its entirety.  Simple restriction that applies to all equipment and can be easily implemented in corresponding harmonised standard. | Legacy equipment can and will remain in place for some time, there will be the need for a transitional period.  Reduced spectrum availability for 5 GHz WAS/RLAN use, both indoor and outdoor.  Would require an update of the EC Decision for EU/EFTA countries. | **NONE** (if this action is not associated with improvement of the enforcement actions)  … to **HIGH** (in the medium term, if transitional measures are taken to ensure a rapid refarming) |
| Revise ECC/DEC/(04)08 to remove the use of 5600-5650 MHz band by **fixed outdoor** PtP and PmP equipment | This should facilitate actions by administrations to prevent interference with radars from fixed outdoor PtP and PmP use.  This should facilitate actions by administrations to prevent interference on radars by targeting only the main interference scenarios. | Legacy equipment can and will remain in place for some time, there will be the need for a transitional period.  Reduced spectrum availability for fixed outdoor 5 GHz PtP and PmP use.  Would require an update of the EC Decision for EU/EFTA countries. | **NONE** (if this action is not associated with improvement of the enforcement actions)  … to **MEDIUM/HIGH** (in the medium term, if transitional measures are taken to ensure a rapid refarming and that clear and efficient rules are set to qualify fixed outdoor equipment) |
| Improve collaboration between ECC, ADCO and EC, through a focus on the weather radar interference issue |  |  | **MEDIUM** (as such would be a flag to RLAN manufacturers and users)  … to **HIGH** (in the medium term, if it leads to real measures toward improving interference monitoring, enforcement and putting on the market) |

1. - In those interference cases where the DFS mechanism in the WAS/RLAN equipment is disabled, or where the equipment could be configured to a country where different or no DFS requirements apply, market enforcement shall not allow such equipment to be operated or remain in use and no effort should be undertaken to resolve the interference case by re-configuring the country of operation or by re-enabling DFS;

   - Market enforcement and surveillance authorities are also advised to initiate appropriate actions to prevent further that such equipment is placed on the market. It is also recommended that the equipment is submitted to a test laboratory to determine why the DFS mechanism is failing [↑](#footnote-ref-2)
2. PtP = Point-to-Point [↑](#footnote-ref-3)
3. PmP = Point-to-multi-Point [↑](#footnote-ref-4)