

**NATIONAL AIR TRAFFIC SERVICES RESPONSE TO THE  
RADIOCOMMUNICATIONS AGENCY CONSULTATION DOCUMENT -  
450-470 MHz BAND ALIGNMENT**

**INTRODUCTION**

National Air Traffic Services Ltd (NATS), as a leading provider of Air Traffic Services within the UK, has provided comments on previous consultations and welcomes the opportunity to comment on the consultation document “450-470 MHz Band Alignment”.

Our response has been aimed at addressing specific items that directly affect NATS but these will also affect other PMR users associated with using vehicles airside at airports.

**SPECIFIC COMMENTS**

NATS is pleased to note that the use of channels for the movement of vehicles at aerodromes has been recognised in Annex C: Band Plan Rationale of the consultation document. We were surprised however, that aviation was not identified explicitly as a separate user in the breakdown of the 450 – 470 MHz band elsewhere in the document. What is also not clear from the document is whether there is an understanding of how these systems are actually used since this will have a significant impact on the way they are replanned.

The Ground Movement Control (GMC) systems provide a safety critical function allowing direct control of airside vehicles by the same ATC operator that is giving instructions to aircraft moving on the airport surface, hence the reason they are approved by the Civil Aviation Authority (CAA) for use. The channels on which these GMC and certain other systems at aerodromes operate have in the past been planned and assigned by the CAA to ensure total interference free communication from the nearest co and adjacent channel user and hence avoid any aerodrome incident. This is likely to be different to the planning criteria used for standard PMR channels where some level of interference is deemed to be acceptable and these aviation-specific planning criteria therefore need to be taken into account with band realignment. There are however, other airside users of PMR, such as engineering staff, who may be able to use “standard” PMR for their non-safety critical requirements where historically they have operated in the CAA sub-band.

Given the nature of the use of the aerodrome systems the only time that a frequency change could take place is during “quiet” periods such as the middle of the night. It may prove difficult at some locations to find a quiet period at certain times of the year and the necessary withdrawal of the UHF service for the period of the change may have a significant operational and therefore cost effects on the airport that are, at this stage, unquantifiable. In addition, due to the large numbers of UHF users and close proximity base station sites say at somewhere like Heathrow, major engineering work may have to been undertaken in order to avoid the generation of intermodulation products. To this end, NATS notes RA’s stated intention to give six month’s notice of the date of change and new frequencies but would suggest that in the GMC case, this period may be insufficient to plan for the changes at a major aerodrome.

Possibly one of the largest obstacles to overcome is how to change the frequencies in the mobile equipment. One aspect that needs to be considered is that the vehicles being controlled at an aerodrome (via a base station operated by, or on behalf of, the airport operator) belong and are licensed to a large number of different companies dealing with all

sorts of operations and therefore the change to specific channels will need to be carefully coordinated. Examples of such airside users would be the police and fire services, aircraft tugs, and airfield maintenance. Other services such as baggage handling, refuelling bowsers, catering, aircraft cleaning etc. may be required to carry UHF GMC depending on the particular aerodrome. Again to use Heathrow as an example, we believe that there could be of the order of 60-80 vehicles fitted with the UHF GMC frequency. In addition to this, a majority of the companies may have the GMC frequency installed in the same equipment as their company UHF frequency which will not be in the current CAA sub band. Consideration will therefore need to be given as to whether it is even possible to operate the mobile radio equipment in both band-aligned and non band-aligned modes at the same time.

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