8.33 kHz Radio channel spacing capability survey

Results

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Introduction

A General Aviation Radio Survey was launched on Tuesday, 28th April 2015 and was advertised on the IAA homepage. It included 10 Questions, only one of which was mandatory. See Appendix 1 for the questions.

A closing date of Friday 29th May 2015 was published. This report outlines the results of that survey.

Background

The frequency band 117.975 – 137 MHz is allocated on a worldwide basis to the Aeronautical Mobile Service (AM(R)S) and is mainly used for aeronautical air/ground voice communications and air/ground data communications. This band can support 760 channels, if these channels are spaced by 25 kHz.

The very high number of frequency assignments (channels) in the central European region means that a readily available frequency can rarely be found. This is known as frequency congestion.

To increase the number of channels available, in the medium to long term, it was decided to reduce the channel spacing to 8.33 kHz. This reduction allows for the creation of three channels where before there was only one.

Radios used on aircraft operating in airspace above flight level 195 (19,500 ft) have been required to have 8.33 kHz spacing compliant radios for a number of years now. Aircraft flying under Instrument Flight Rules in Class A, B or C airspace have been obliged to have 8.33 kHz spacing compliant radios since 1 January 2014. Regulation (EU) No 1079/2012 is the final phase of converting all air/ground voice communication channels to 8.33 kHz channel spacing. This requires that all radios used in airspace where carriage of radio is required, be capable of being tuned to frequencies spaced at 8.33 kHz intervals, by 1st January 2018.

Results

Response Rate

The Survey received 26 and 35 responses on the first and second days respectively. At the time of writing, a total of 125 individual responses have been received. One result was disregarded as it was a foreign based aircraft.

Table 1: Types of Radios

Radio Type	No. of respondents
Fixed installation on an aircraft	75
Handheld	19
Ground/Vehicle Based	21
Offshore	9
Total	**124**

Aircraft radios

Radios used on aircraft accounted for 87 of the responses. These included fixed installations and handhelds. A survey response was required for each radio fitted, so 11 aircraft account for two responses each. Another response was disregarded at this stage as it contained insufficient information.

75 unique aircraft were included in the survey responses. Of these, 8 aircraft were reported to have 8.33 kHz spacing capable radios.

Table 2: Types of Aircraft

Aircraft Category	No. of Responses	Yes	No
Balloon	2	1	1
Classic Aircraft	16	3	13
Homebuilt/Amateur built	8	1	7
(Powered) Sailplane	6	0	6
EASA ELA1 (<1,200kg)	29	2	27
EASA ELA2 (1,201kg – 2,000kg)	2	0	2
Light Helicopter	1	0	1
Large Helicopter	1	1	0
Microlight	9	0	9
Total	**74**	**8**	**66**

Results

Table 3 8.33 kHz channel spacing capability

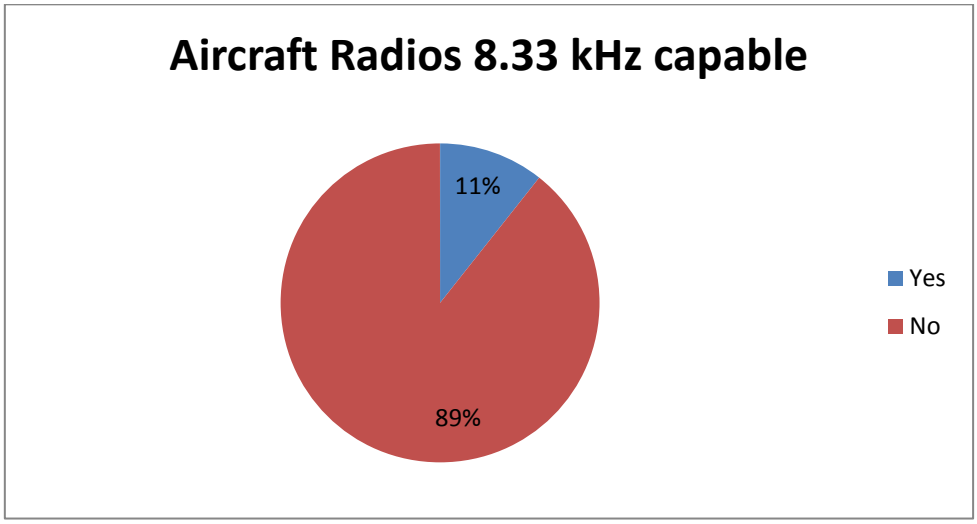
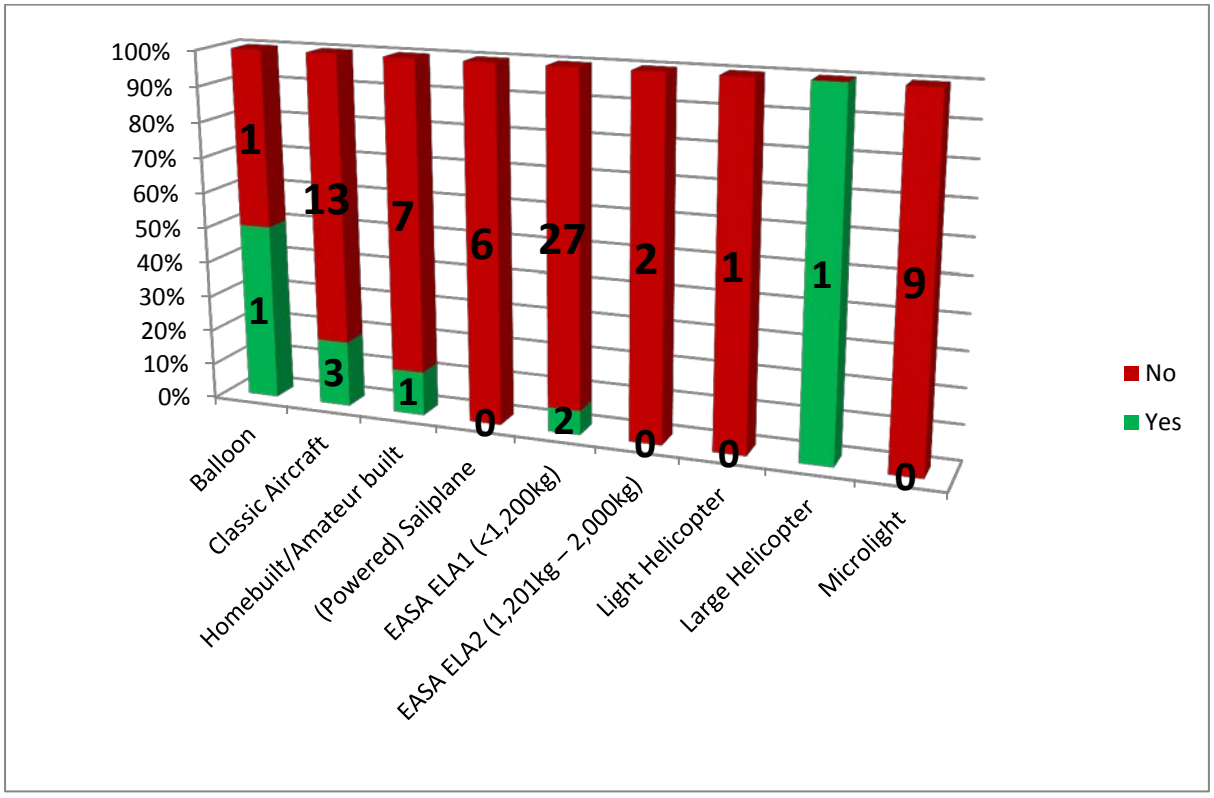


Table 4: Compliance per Aircraft Category



Results

Ground/Vehicle/Handheld Offshore radios

Non-aircraft radios accounted for 52 radios in the survey. Some respondents included multiple radios in one response.

Of the 52 radios, 24 were reported to be 8.33 kHz channel spacing capable. The remaining radios were reported to be installed in operations centres (clubhouses), control towers, vehicles, offshore and handhelds.

Table 5: Non-aircraft radios by Airfield/Airport

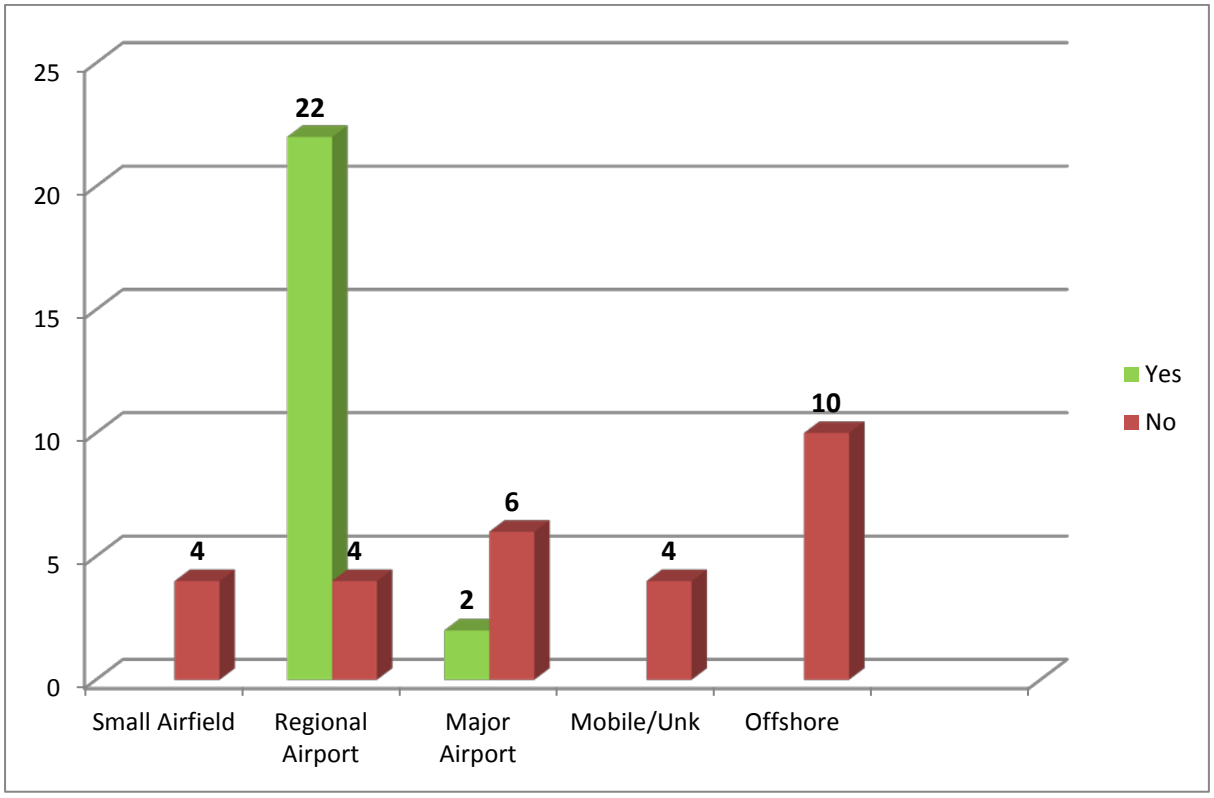


Table 6: Non-aircraft radio response data

Type of Installation	No. of Responses	Yes	No
Control Tower[1]	2	0	2
Handheld	5	0	5
Offshore	10	0	10
Operations Centre	7	3	4
Vehicle	28	21	7
Total	**52**	**24**	**28**

[1] Control Tower was not a dropdown option, but respondents included it in the narrative.

Appendix 1 – Survey Questions

1. Aircraft Radio: Aircraft Nationality and Registration: e.g. EI-ABC, N12345C,

2. Aircraft Type (ICAO designator e.g. C172)

3. Normal base of operations for the aircraft (airfield 4 letter code, or name if no code is available)

4. Radio Installation. (Drop down)

- Fixed installation on an aircraft
- Handheld
- Ground/Vehicle/Other Installation
- Other

5. Ground/Vehicle Radio: Airfield where radio is normally used and description of where? (e.g. EICK Ops Vehicle or EISP Ops Control Centre)

- Operations Centre
- Vehicle
- Handheld
- Offshore
- Other

6. Ground/Vehicle Radio: Where is the radio fitted?

7. Radio Manufacturer and Model

* 8. Is the radio 8.33 kHz channel spacing capable? (Check specification sheet/manual or contact your maintenance provider for advice)

* Mandatory

9. This survey has been completed by: (dropdown)

- Aircraft owner
- Pilot/Operator
- Maintenance Provider
- CAMO
- Other

10. Optional: If you want to be included on a mailing list regarding this, enter your email address: