



# SUMMARY OF CONSULTATION

## FREQUENCY USE AT LOW LEVEL IN CLASS G AIRSPACE

<b>Project number</b>	16/03
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## 1. Executive summary

This report provides an analysis of the survey responses received on CASA's notice of proposed rule making (NPRM) *Frequency use at low level in Class G airspace*. Consultation was conducted via a public survey on CASA's Consultation Hub between 7 December 2017 and 12 January 2018. We received 1,064 responses to the survey, with permission to publish 754.

Overall, 42.8% of respondents supported the proposal and 57.2% of survey respondents did not support the proposal. An analysis of the voluntary feedback revealed that the majority of respondents were in favour of the use of MULTICOM 126.7 in low level uncontrolled airspace but a substantial number of respondents were not in favour of expanding the common traffic advisory frequency (CTAF) areas from 10 NM to 20 NM. The proposed expansion of the CTAF was the predominant reason for the proposal being rejected.

More than half of the respondents offered a free text response to support or qualify their overall vote, noting a number of issues, concerns and considerations. The common issues, questions or suggestions raised by respondents related to:

- overlapping CTAFs
- frequency congestion, either on MULTICOM 126.7 or within expanded CTAF areas
- irrelevant transmissions from neighbouring aerodromes in expanded CTAF areas
- procedures for inbound calls
- pilot workload required for radio carriage and changing frequencies for hang gliders and paragliders.

The results of this survey will help inform future decisions, consultation and developments on this issue.

## 2. About the survey

CASA released a discussion paper in early 2017 entitled *Frequency use at low level in Class G airspace*, to seek the preferences of the aviation community about which radio frequency should be used in low level uncontrolled airspace. The results would influence a decision by CASA on whether the advice published in the aeronautical information publication (AIP) and CAAP 166-1 would be amended. The consultation yielded a majority preference to switch from the practice of monitoring and broadcasting on the local area frequency where relevant to monitoring and broadcasting on a common low level radio frequency, MULTICOM 126.7. However, some industry stakeholders expressed concern about changing the procedures.

Following consultation on the discussion paper, CASA developed a proposal seeking to (a) implement MULTICOM 126.7 in low level uncontrolled airspace and (b) safeguard regular public transport and instrument flight rules operations by expanding the size of CTAFs out to a 20 NM radius and up to 5,000 feet AMSL. This notice of proposed rule making (NPRM) was unanimously accepted by the Aviation Safety Advisory Panel (ASAP) before being published for public consultation on 7 December 2017. Consultation closed on 12 January 2018.

### 3. Methodology

This report is based on quantitative and qualitative analysis of the survey responses received in CASA's Consultation Hub. The survey enabled respondents to accept or reject the overall proposal with a checkbox response with the option to support this response with free text feedback. Both response types have been analysed separately and together to build an accurate picture of the feedback. For qualitative analysis, common key words were extracted from the free text answers and analysed in context to build a picture of the common views and issues presented. A small number of written responses were also reviewed for issues and concerns, but do not form part of the analysis generated from the data submitted through the Consultation Hub.

### 4. Representation

#### 4.1 Response rate and demographics

CASA received 1,064 responses to the survey on the CASA Consultation Hub.

In order to review the preferences and feedback by sector, as well as individually, respondents were asked to nominate the aircraft type they typically fly, where applicable. The aircraft types that could be selected were: aeroplane – VH registered (448<sup>1</sup>), gliders (130), helicopters (52), sport or recreational aircraft registered by RAAus (180), balloons (6) and other aircraft types (231<sup>2</sup>). Free text responses showed the majority of the 'other aircraft types' nominated were gliders and paragliders.

Of the responses received, 117 nominated that they mainly operated under the instrument flight rules (IFR), 879 nominated that they mainly operated under the visual flight rules (VFR) and 68 respondents selected 'not applicable'.

Respondents could select whether they were submitting an individual response or submitting a response on behalf of an organisation. 1,017 submissions were received as individual responses and 47 were received on behalf of organisations with 40 agreeing to publication.

#### 4.2 Organisations represented

In the analysis it was determined that an organisational submission had to meet the following criteria:

- (A) The response was provided on behalf of an organisation
- (B) The response officially represented the views of an organisation
- (C) The response was provided in the name of the organisation.

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<sup>1</sup> Numbers displayed in parentheses are the number of responses received

<sup>2</sup> Those that selected 'Other' were predominantly pilots of paragliders, hang gliders, microlights, gyrocopters and paramotors

Those that agreed to publication are identified at the end of this report.

## 5. Summary of results

The overall preferences were:

- 42.8% (455) of respondents supported the proposal
- 57.2% (609) rejected the proposal.

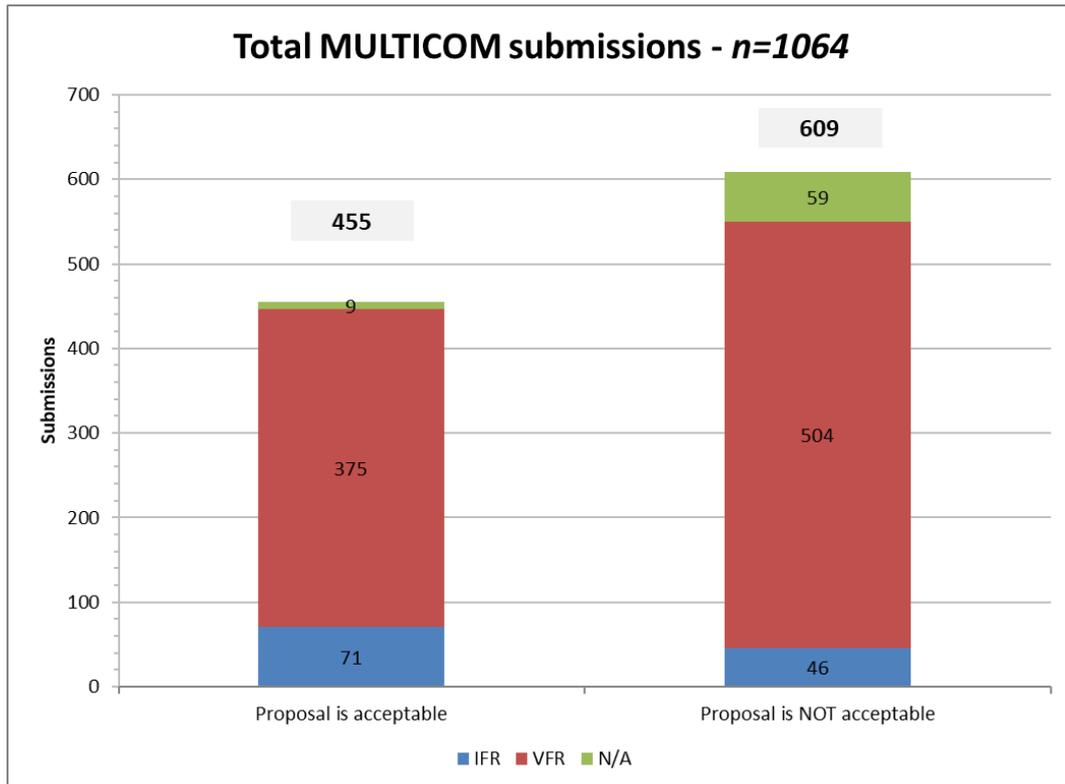


Figure 1: Outcome of survey responses (filtered by VFR vs IFR)

Figure 1 provides a quantitative overview of the results, indicated through the 'acceptable' or 'not acceptable' checkbox options to the proposal. The free text responses provide further insights.

Of the 1,064 respondents, 683 (64%) also submitted a free text response to qualify or support their preference.

When moderated against the free text responses offered, 431 respondents supported the proposal as presented, with 383 against the proposal. The remainder may have voted either way, but specifically noted support or opposition to a particular element of the proposal.

The strongest theme in the free text was support for the first part of the proposal (implementing MULTICOM 126.7) and opposition to, or questioning, the need for the second part of the proposal (expanding CTAFs to 20 NM).

Supporters of the proposal commonly noted it would provide clarity around which frequency to use in low level airspace, would legitimise the procedures used already and would improve communication and

situational awareness by having all traffic on the same frequency. Gliders and paragliders who accepted the proposal commonly requested that the communications exemption they currently operate under remains in place.

The most common reasons given for rejecting the CTAF expansion were that it would create too many situations where frequency boundaries would overlap, unnecessarily expand the area where radio carriage was mandatory, cause frequency congestion or increase irrelevant radio transmissions.

The smaller number of supporters for the CTAF expansion (around 55, when moderated) cited better management of high performance and regular public transport aircraft.

Among those who supported and those who didn't support the proposal overall, several issues, concerns and suggestions were raised that are further explored in the 'Common themes' section of this report.

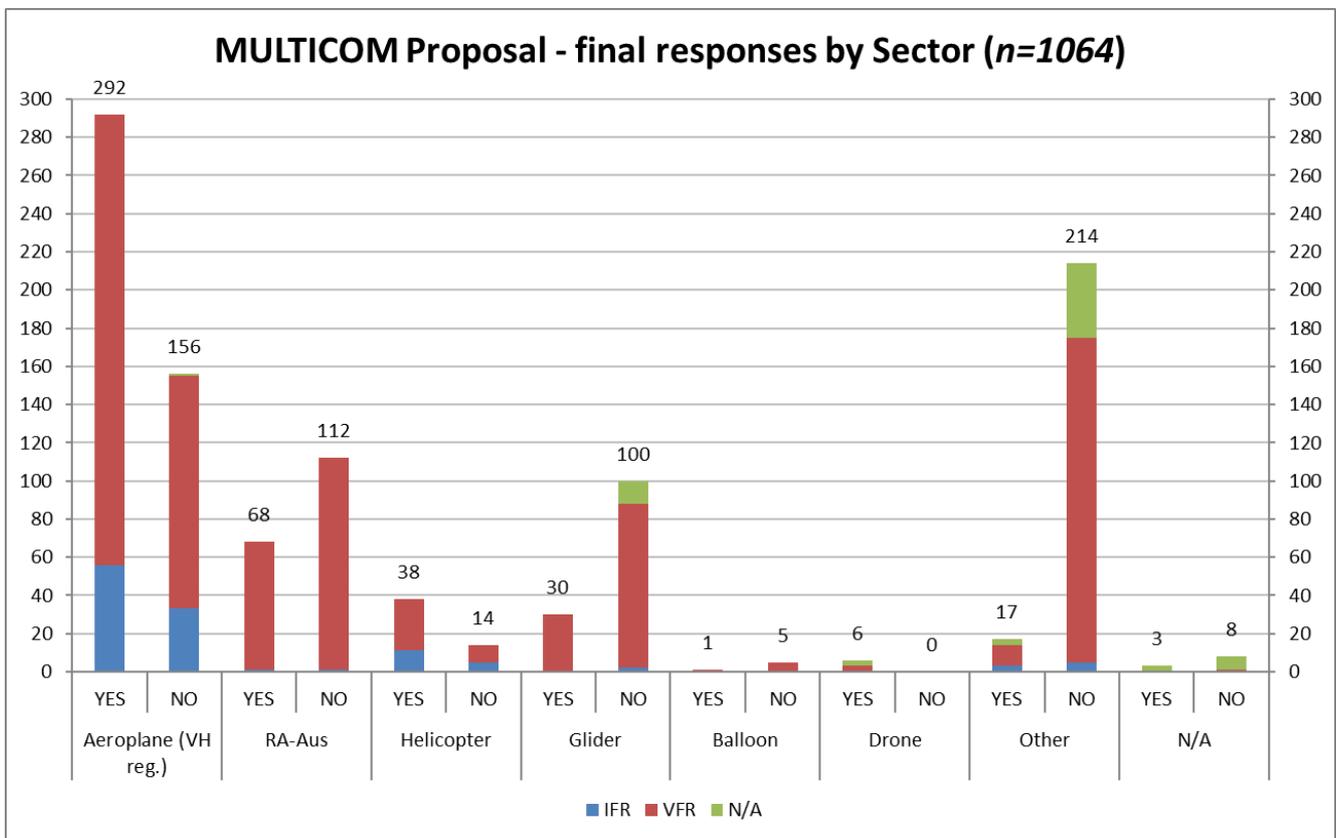


Figure 2 – overall response across demographics

## 6. Common themes – discussion

This section discusses common themes obtained from the free text comments. De-identified examples taken from the free text responses in the Consultation Hub survey are included for each discussion point.

### 6.1 Radio procedures

The common procedural questions and concerns raised by respondents were around which frequency to use when CTAFs overlap, radio procedure requirements for hang gliders and paragliders, and procedures for making inbound calls when approaching a circuit.

Respondents spoke of a number of areas in Australia where an expanded CTAF area would overlap one or more other existing CTAFs, or draw in private airfields. These responses suggested this would lead to confusion about what frequency to use where CTAFs overlap, irrelevant transmissions from neighbouring airfields and frequency clutter.

*“Just one concern: what happens when two airfields are within 40nm, so their 20nm radii overlap? For example, Goulburn and Crookwell (YGLB and YCRL respectively) are about 25nm apart. Flying from Goulburn to Crookwell, do I switch to 126.7 when I'm 5nm from Goulburn, so I can hear traffic at Crookwell at the expense of not hearing the IFR Metro that's descending into Goulburn? Do I split the difference and change 12.5nm from each?”*

Paragliders and hang gliders commonly expressed concern they would be excluded from larger areas of Australian airspace and that a requirement to carry a radio and change frequencies in larger volumes of airspace could be dangerous and unmanageable.

*“A big issue for both hang gliders and para gliders is that both hands are required to be on the control bar or lines at all times, particularly in rough conditions for safety, which makes making radio calls in such conditions difficult and potentially dangerous and renders frequency changes near impossible. For hang glider pilots, VHF radios are pre-set to a frequency and volume prior to the flight and stowed securely in the pilots harness and operated via a push to talk that can be located on the pilots harness, helmet or finger. Changing of radio frequencies is near impossible to be conducted for a hang glider pilot during flight. Further, affordable and battery operated compact VHF radios are required. This is the same for the UHF radio with the pilot uses to communicate with other hang glider pilots and ground crew which is pre-set and stowed in the pilots harness prior to flight.”*

[Keywords analysed: overlap (76), switch (21), changing (53), multiple (53), complexity (12)]

### 6.2 Radio carriage

The potential requirement to carry a radio or monitor two frequencies was a common concern for most respondents who typically fly hang gliders or paragliders. Respondents believed this would make flying unsafe and also may exclude them from flying in CTAF areas. Respondents suggested radio carriage should remain voluntary, dedicated frequencies for paragliders and hang gliders should continue to exist and current exemptions continue to apply.

There was some general concern that this proposal would increase pilot workload.

For glider and paraglider respondents, a requirement to monitor different frequencies and carry a radio in greater volumes of airspace was the single most influencing reason given for rejecting the proposal.

*“The current CTAF radius is 10 nautical miles. Expanding it will cause multiple overlapping of CTAFs. Hang Gliders and Paragliders carry VHF radio if they intend to fly through CTAFs. Expanding these CTAFs will cause additional workload on the pilot (through constant changing of channels), hence decrease their operational safety, yet will not improve operational safety for other aircraft flying under VFR conditions.”*

[Keywords analysed: Radio (206) workload (34)]

### 6.3 Frequency congestion and clutter

One of the strongest themes in the free text feedback on the proposal was related to increased congestion on MULTICOM 126.7, misuse of this frequency as a ‘chat channel’ and frequency congestion in areas where common traffic advisory frequencies (CTAFs) would overlap. Respondents pointed to some areas of Australia where MULTICOM 126.7 is already congested, and many respondents suggested that additional discrete frequencies at non-controlled aerodromes would need to be established as a matter of urgency in high-traffic areas if this proposal was to be implemented. Many respondents also noted that expanding CTAFs could lead to unmanageable congestion and irrelevant transmissions from operations at other airfields. With overlapping CTAFs, many respondents raised concerns about extra workload required for the pilot, as well as confusion from over-transmissions resulting in a loss of situational awareness.

For example, one supporter for using MULTICOM 126.7 notes that an expanded CTAF in their local area would cause problems:

*“I don't understand the need to increase the size of the CTAF. In my case this will mean that the airfield that I fly from will come into the adjacent CTAF. This will cause endless problems, and numerous conflicting radio calls, as people doing circuits at my airfield will be on the same frequency as those doing circuits at the CTAF.”*

[Keywords analysed: Clutter (16) Conflict (51) Congest (68) Overlap (76)]

### 6.4 Airspace implications

Some concern was raised about establishing a CTAF as a fixed size volume of airspace. A small number of respondents said the CTAF changes would be an anomaly by international standards or non-ICAO compliant.

*“Overseas companies will be able to correctly say that the Australian airspace has fundamental differences with airspace in the rest of the world, and that we have changed the ICAO recommended practices so drastically that they no longer resemble the original ICAO intention.”*

Supporters of the expanded CTAFs felt it would more appropriately suit high performance aircraft:

*“It will be beneficial to increase the volume of airspace to assist with the high speed traffic that use the CTAF.”*

Several respondents expressed a concern that expanding CTAFs would have implications for inbound calls and that procedures would need to be clarified as to when and how often a pilot would need to alert other traffic of their intention to join a circuit within a CTAF.

*“An inbound pilot making a call at 20 nautical miles will do so 10 to 15 minutes prior to joining the circuit area. Some departing pilots will not hear this inbound report and may be in the air before the inbound pilot reports joining the circuit. This is the real danger zone close to the circuit area. An inbound report at 10 nautical miles is much less likely to be missed by departing traffic.”*

A handful of submissions suggested inbound calls should be made at a specified time from the circuit area to account for this difference in performance.

A common concern was also that a dangerous situation could arise from an inbound call being made too far in advance and before other traffic have departed within the circuit.

*“I question the need to extend CTAF boundaries, particularly for RAAus aircraft. I cruise at 70kts. My inbound call at 20nm would be forgotten by most by the time I arrive overhead.”*

A small number of respondents suggested new procedures for making inbound calls, such as keeping a 10 NM inbound call mandatory and a 20 NM inbound call ‘optional’ for faster aircraft to give due notice when they are joining a circuit. Some suggested that the procedures needed to be based on time rather than distance, such as ‘six minutes prior to arriving in the circuit area’.

Alternative suggestions raised by respondents were:

- expand CTAFs to 15 NM, rather than 20 NM
- CTAFs should be 10 NM with a mandatory inbound or over flying call and a 20 NM inbound or over flying call should be optional
- only expand CTAFs at aerodromes with published instrument procedures or high volumes of traffic, otherwise keep the 10 NM radius.

[Keywords analysed: airspace (159) circuit (32), inbound (29)]

## 6.5 Implications for regional/remote aerodromes

The majority of free text answers that mentioned ‘airfields’ raised concern about overlapping CTAFs, if they are extended as proposed, resulting in confusion as to which frequency to use and the loss of situational awareness and safety.

Many respondents were concerned that an extended CTAF would in some instances draw in many privately owned airstrips. It was commonly noted that this would require sport and recreational pilots to carry radios and monitor frequencies where it was not previously required and that pilots would be hearing irrelevant transmissions from different circuits, further cluttering the CTAF frequency.

There was a lot of support for discrete CTAFs with respondents noting these would capture all traffic in a designated area, and it was commonly suggested that more discrete CTAFs would be required if the proposal was implemented, to ensure MULTICOM 126.7 doesn't become cluttered.

Many submissions also supported replacing area frequency with MULTICOM 126.7 at airfields located outside CTAF locations. Respondents said this would reduce confusion and conflict.

*"[The] proposal to establish Multicom below 5,000 feet IS acceptable and desirable BUT NOT to expand the volume of CTAFs. Twenty mile radius CTAFs would be in my opinion less safe than the current ten miles as broadcasts would occur much further from airfields and might allow large gaps between broadcasts and possible conflictions. To avoid this there would probably be more radio calls required thus causing unnecessary clutter as the area covered is significantly larger."*

[Keywords analysed: remote (11), regional (6), airfield (49), airstrips (13)]

## 6.6 Safety considerations

Respondents raised concerns that as MULTICOM 126.7 is not monitored by air traffic control therefore MAYDAY or PAN transmissions may not be heard. There was some concern about the practicality of any requirement to switch frequencies to report an emergency situation, or put the onus on other pilots to relay information an emergency situation.

*"Multicom makes good sense for flights B050. ATC/Flight Service etc MUST monitor this frequency in case of PAN/mayday calls. An emergency is no time to change frequency to get help."*

There were mixed views on whether the proposal would increase or reduce situational awareness. Supporters suggested having all traffic on one frequency or within a CTAF boundary would be beneficial, while others voiced concern that overlapping frequencies would reduce situational awareness.

A number of gliders requested that the current exemptions to the rules of radio use be maintained.

*"The current CAO 95.4 exemption at paragraph 3.1(r) must be retained, and no change to be made to the requirements outlined in AIP ENR 1.1-48, paragraph 6.1.12. These exemptions are evidence-based from research undertaken by CASA in 2002 that showed the highest risk of mid-air collision in Australia is glider to glider."*

Some respondents also suggested a safety case had not been prepared and that it should be made available for the aviation community justifying the expansion of CTAF areas.

*“There has been no safety case or risk assessment regarding the proposal to expand a CTAF size to 20nm. Little consideration has been given to overlapping CTAF areas, which would be a major problem with CTAF areas four times the current size.”*

[Keywords analysed: emergency (17), safety (155), situation (66), awareness (33), collision (25), ATC (44)]

## 7. General feedback

Many respondents took the opportunity to provide general comments, feedback on the proposal, consultation process and survey design for this notice of proposed rule making as part of their free text responses.

Overall, respondents took the opportunity to express solid support for the MULTICOM part of the proposal and concern with the expanded CTAFs.

A number of respondents expressed disappointment with the survey design, which allowed them only to be able to accept or reject the proposal as a whole, rather than as two individual questions. A few respondents expressed disappointment with the inclusion of the proposal to expand CTAFs, which had not featured in the related discussion paper, *Frequency use at low level in Class G airspace*, or consulted on previously through other means.

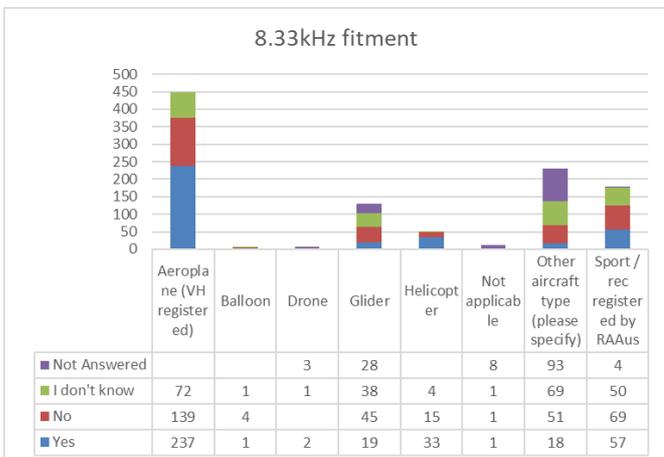
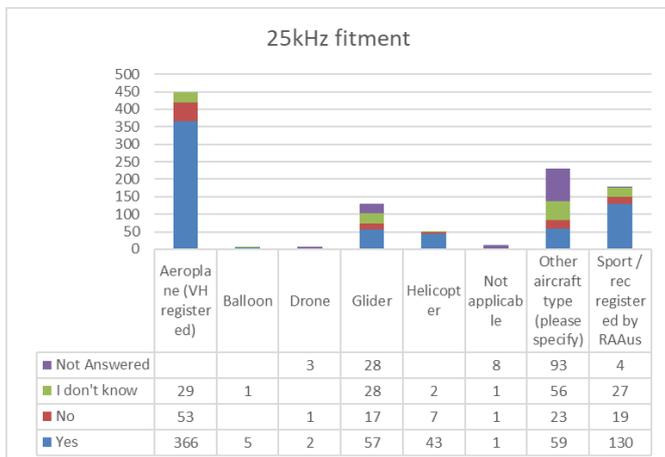
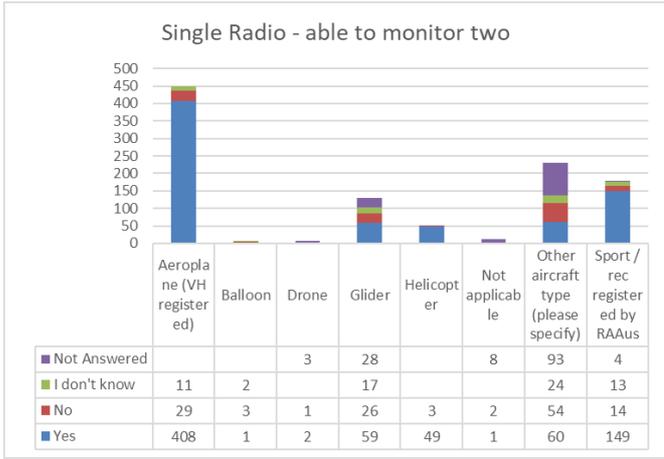
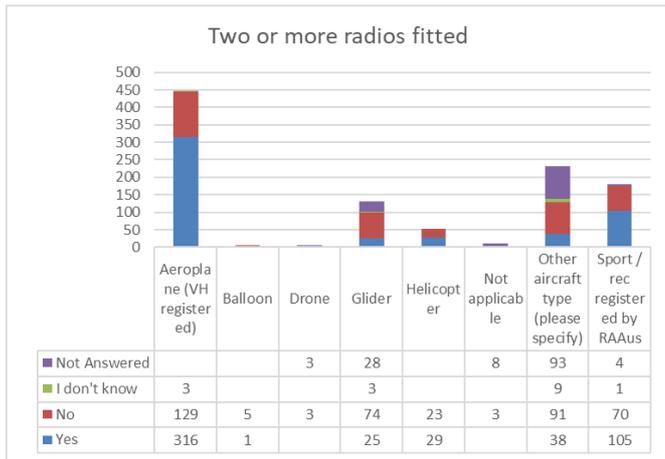
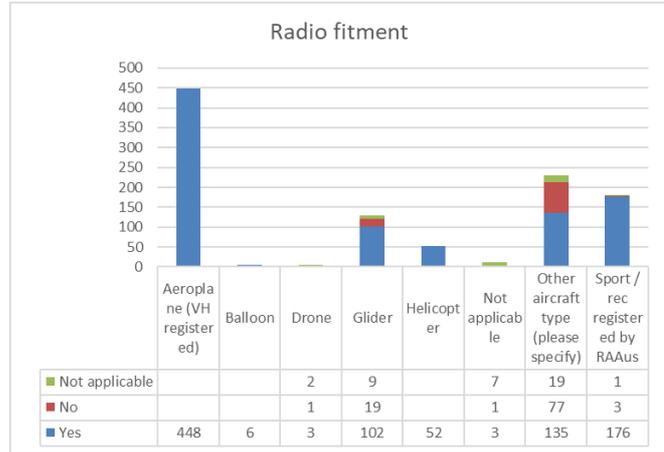
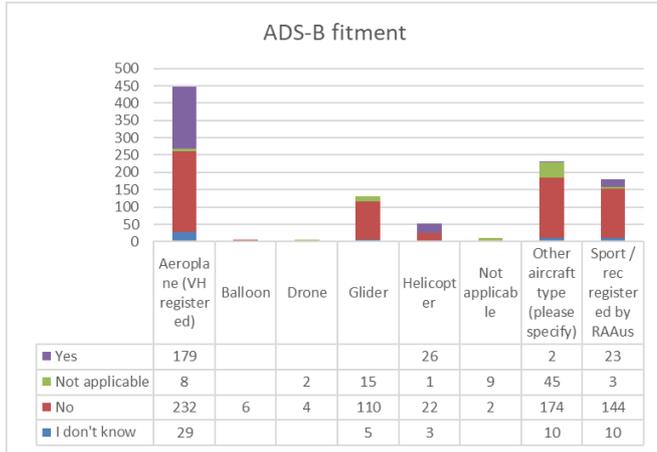
## 8. Guidance and education

Some submissions requested some particular education and guidance if the procedures for radio use are changed. The requests included:

- general education and pilot awareness of correct radio procedures, calls and frequency selection
- guidance on defining the location of where aircraft making broadcasts are in order to effectively assess the traffic situation
- depiction of the CTAFs (if implemented) discrete area frequencies on VNC, VTC and WAC charts as well as third party electronic flight bag products, to make it clear when it is time to switch to 126.7
- education on operating with only one radio
- clarity and guidance on when to make an inbound call.

## 9. Other data – aircraft radio capabilities

The survey collected information about the radio capabilities of the respondents' aircraft (where applicable). This information is captured in the graphs below.



## 10. Conclusion

The analysis outlined within this report concludes that respondents are not supportive of the proposal as put forward in the NPRM, *Frequency use at low level in Class G airspace*. While the results conveyed strong support for the MULTICOM 126.7 aspect of the proposal correlating with the outcomes of the related discussion paper (DP 1610AS), overall the outcomes of this survey indicate strong opposition to the proposal to expand all CTAFs to 20 nautical miles.

Respondents raised a number of issues and suggestions, outlined earlier in this report, that will need to be considered by CASA when developing policy relating to the use of low level airspace frequency use.

The feedback continued to show a strong desire for an education and awareness campaign on radio procedures in uncontrolled airspace. There is a strong desire from the aviation community for an education and awareness campaign for radio use procedures and clear guidance if the radio procedures are changed.

CASA thanks the aviation community for their feedback on this proposal and for all comments and suggestions received on the process for consultation. This feedback will be used for continual improvement.

## Appendix

### Organisations represented – Ref 4.2

Agrimuster  
Air ag  
Air Bush Charter  
Aldinga Aviation (Aldinga Airfield)  
Australian Ballooning Federation  
Bell Sport Aviation  
Beverley Soaring Society  
Caboolture Aeroclub (Caboolture Aerodrome)  
Cairns Hangliding Club  
Cobham Aviation Services – Special Mission  
Devonport Aeroclub  
DEWNR, SA Government  
Esperance Aero Academy  
FlyFreely  
Hang Gliding Federation of Australia  
Jetstar Airways Pty Ltd  
Lone Eagle Flying School  
MI Helicopters Pty Ltd  
Monitor Industries  
National Jet Systems – Cobham Aviation Services –  
Airline Services  
RAAus  
Rainbow Coast Flying School  
RAPAC  
Recreational Aviation Australia

Regional Express Group  
RioTinto Iron Ore (Pilbara Iron (Company) Services Pty  
Ltd)  
Skeye Drones  
Skydive Oz  
Skyhigh Paragliding Club  
South Australian Gliding Association  
Sport Aircraft Club of South Australia  
Tasmanian Hang Gliding and Paragliding Association  
(THPA)  
Textron Systems Australia  
The Honourable Company of Air Pilots (HCAPA)  
The Illawarra Flyers Inc  
Topfun Aviation Flying School  
Victorian Hang Gliding and Paragliding Association Inc.  
Victorian Soaring Association  
WA Aviation College  
Western Victorian Hang Gliding Club