



# **AMATEUR RADIO**

**The  
INTERNATIONAL  
AMATEUR RADIO  
UNION**



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IARU Region 2 ARDF Coordinator

December 2018

# 2018 IARU Region 2 ARDF Community Survey

# The 2018 Survey Goals

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Activity	Infrastructure	Barriers	Rules	Future
Better understand the current levels of ARDF activity in Region 2	Better understand the availability of ARDF specialty equipment across Region 2	Identify barriers to participation and the growth of the sport in Region 2	Survey active Region 2 ARDF competitors and organizers regarding potential and proposed international rule changes	Serve as a baseline for future, hopefully annual, surveys

# Survey Overview

- Survey was opened for submissions from November 1, 2018 through November 30, 2018
- <https://www.surveyhero.com/user/surveys/89726>
- All questions offered in Spanish and English
- 134 individuals contributed responses
- 83 individuals answered all questions
- 19% of those who viewed the survey participated
- The average time spent answering survey questions was 21 minutes
- 63% of survey responses came from the US and Canada



# Top Observations

Overall, there appears to be satisfaction that current ARDF events are fair, the rules are clear, competitors feel safe at events, and there are no major concerns with judging or cheating

When looking for barriers that prevent participation at the larger ARDF events like national and regional championships, cost does not factor as highly as other barriers

Although more respondents report reduced levels of ARDF activity in recent years, a majority claim that they are likely to very likely to participate in ARDF events in 2019

A relatively high percentage (30%) of respondents are comfortable building their own ARDF gear

# Top Challenges and Opportunities



Overall activity is lower than we want

63% of ARDF community members did not compete in 2018  
Less than 20% were able to participate in more than 2 events this year



Fewer than half of all respondents have access to local clubs or groups that are active in ARDF and related activities, or they do not know about them



There is still clearly a “chicken and egg” problem with specialty ARDF equipment in Region 2

There are few places in Region 2 where more than a small handful of newcomers can try ARDF specialty equipment at a meet without having to buy their own gear



Most respondents are satisfied with either no GPS use at all or passive run tracking, and all other uses of GPS in competition (many of which are currently legal under the rules) met with disapproval to strong disapproval



Of those with opinions, most favor relaxing the current rules limitations on Bluetooth devices

# ARDF Activity

16 Questions



# Observations – ARDF Activity

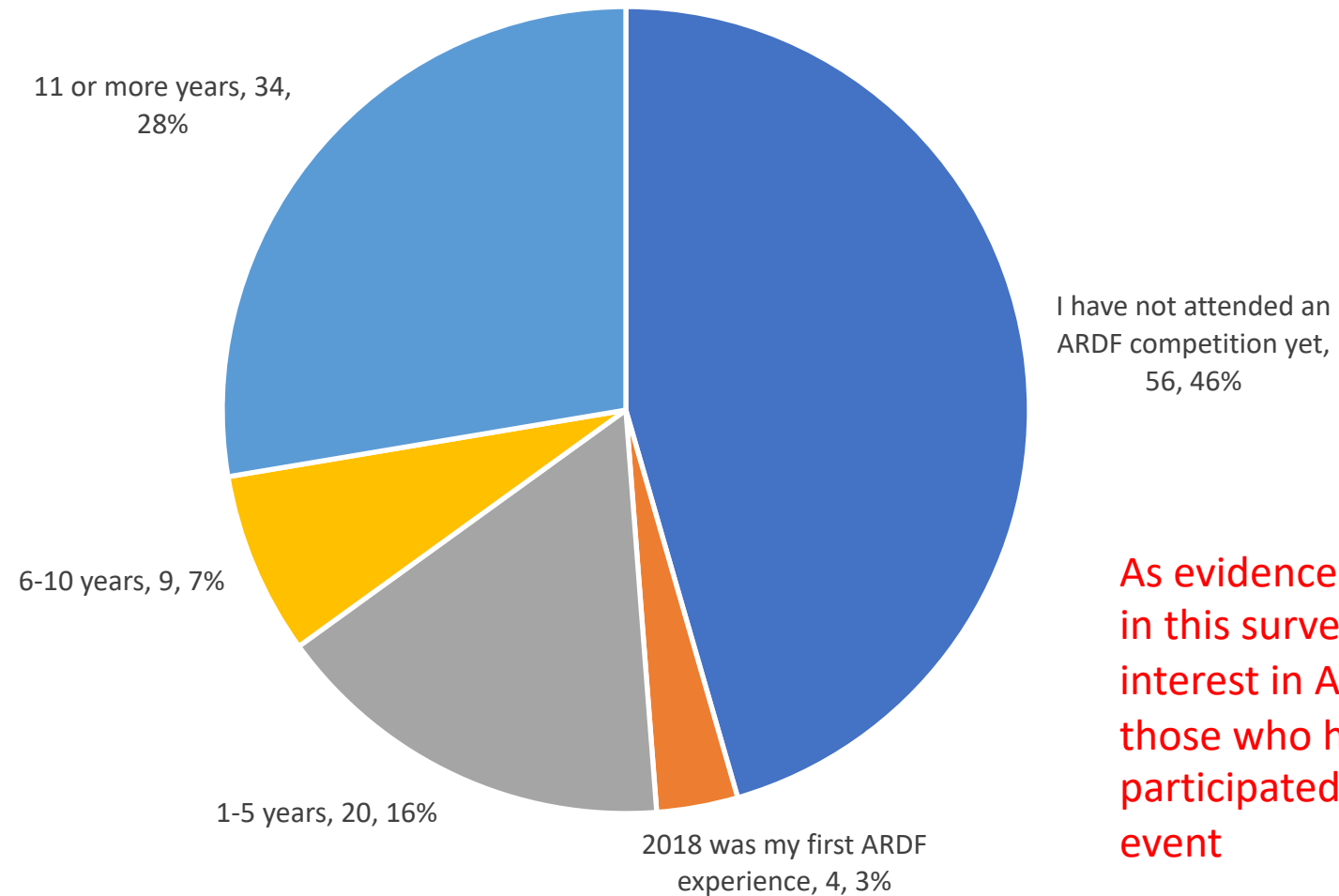
- This section of the survey resulted in the most responses
- The top ways that people discover ARDF are through local radio clubs, friends and family, or through a (non-social) web site
- When looking for barriers that prevent participation at the larger ARDF events like national and regional championships, cost does not factor as highly as other barriers
- Although more respondents report reduced levels of ARDF activity in recent years, a majority are likely to very likely to participate in ARDF events in 2019
- Nearly 1 in 4 respondents has helped organize or volunteer at an ARDF event

# Challenges and Opportunities – ARDF Activity

- Relatively few people discover ARDF through orienteering or social media
- Overall activity is lower than we want
  - 63% of ARDF community members did not compete in 2018
  - Less than 20% were able to participate in more than 2 events this year
- Fewer than half of all respondents have access to local clubs or groups that are active in ARDF and related activities, or they do not know about them
- Very few ARDF community members are purposefully training in ARDF skills outside of organized competitions
  - Nearly 40% report infrequent physical activity like running or hiking

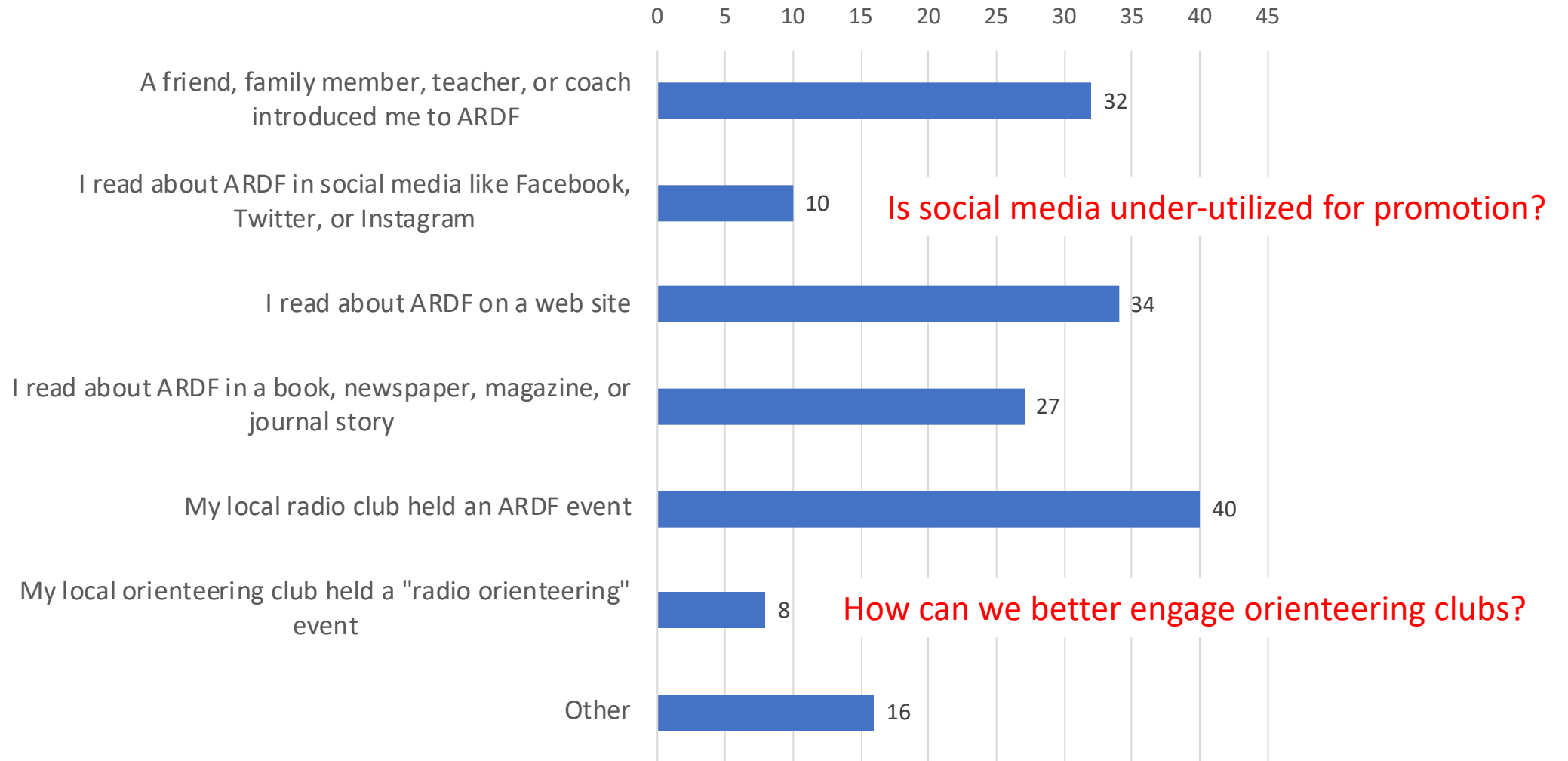


## How long have you been active in ARDF?



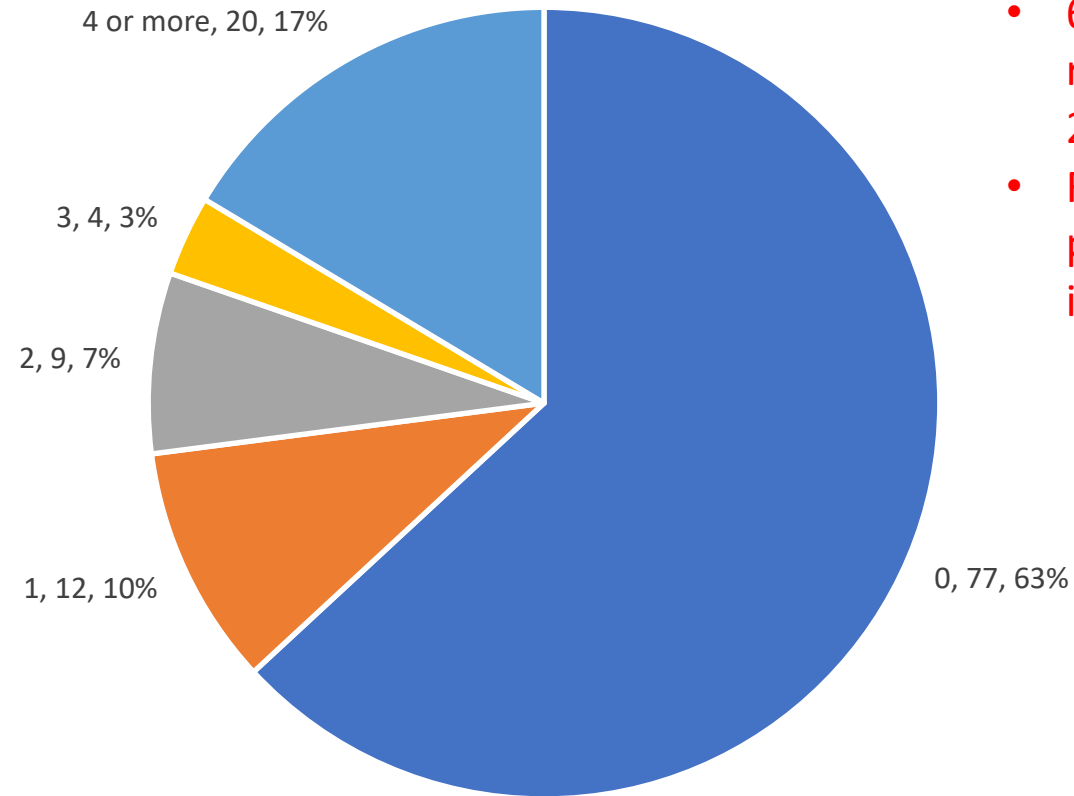
As evidenced by participation in this survey, there is strong interest in ARDF even from those who have never participated in an organized event

## Where did you first hear about ARDF?



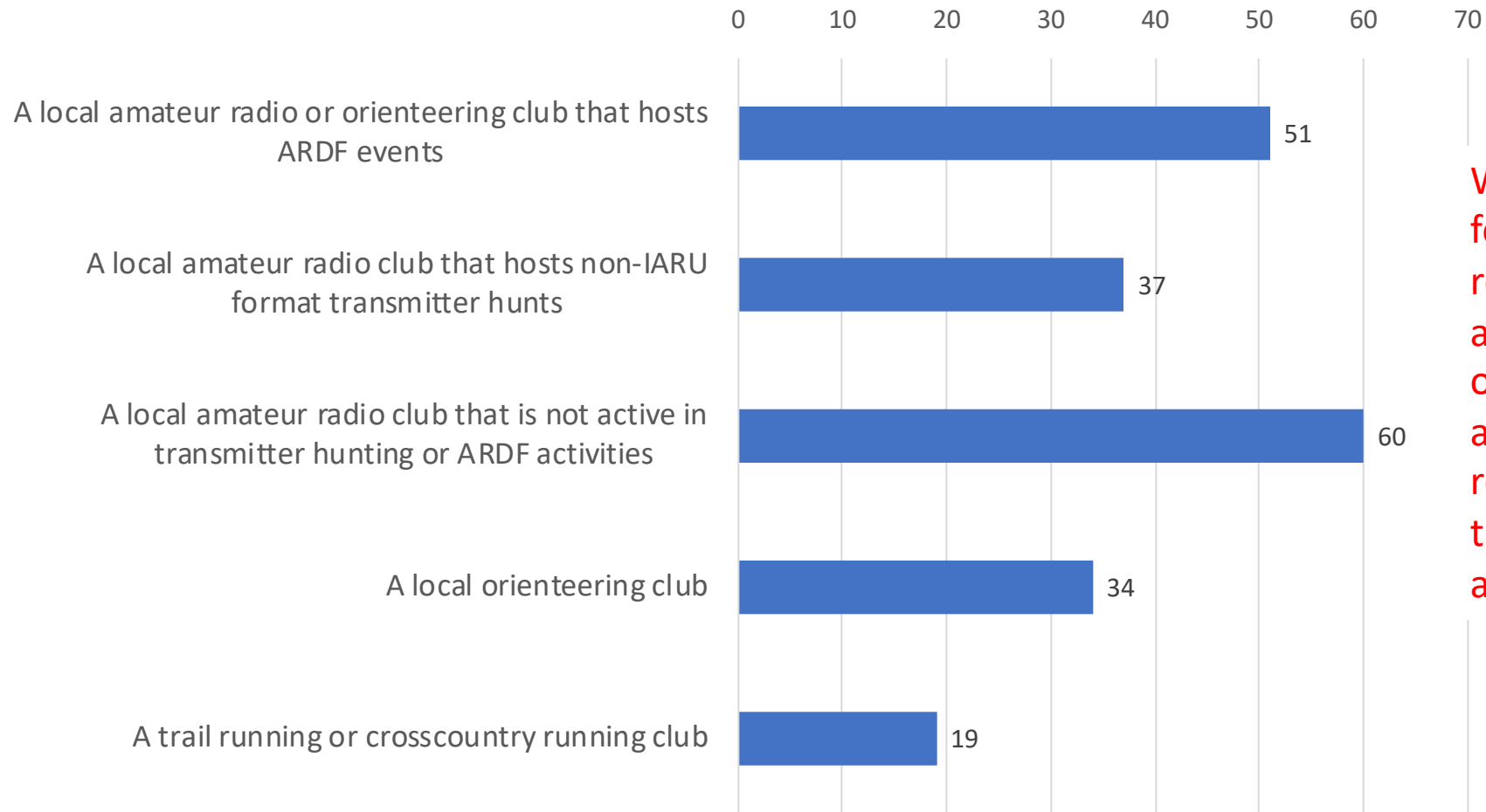
Multiple answers allowed  
Number of responses: 122

## In how many organized ARDF competitions did you participate in 2018?



- 63% of the ARDF community respondents did not compete in 2018
- Fewer than 1 in 5 were able to participate in more than 2 events in 2018

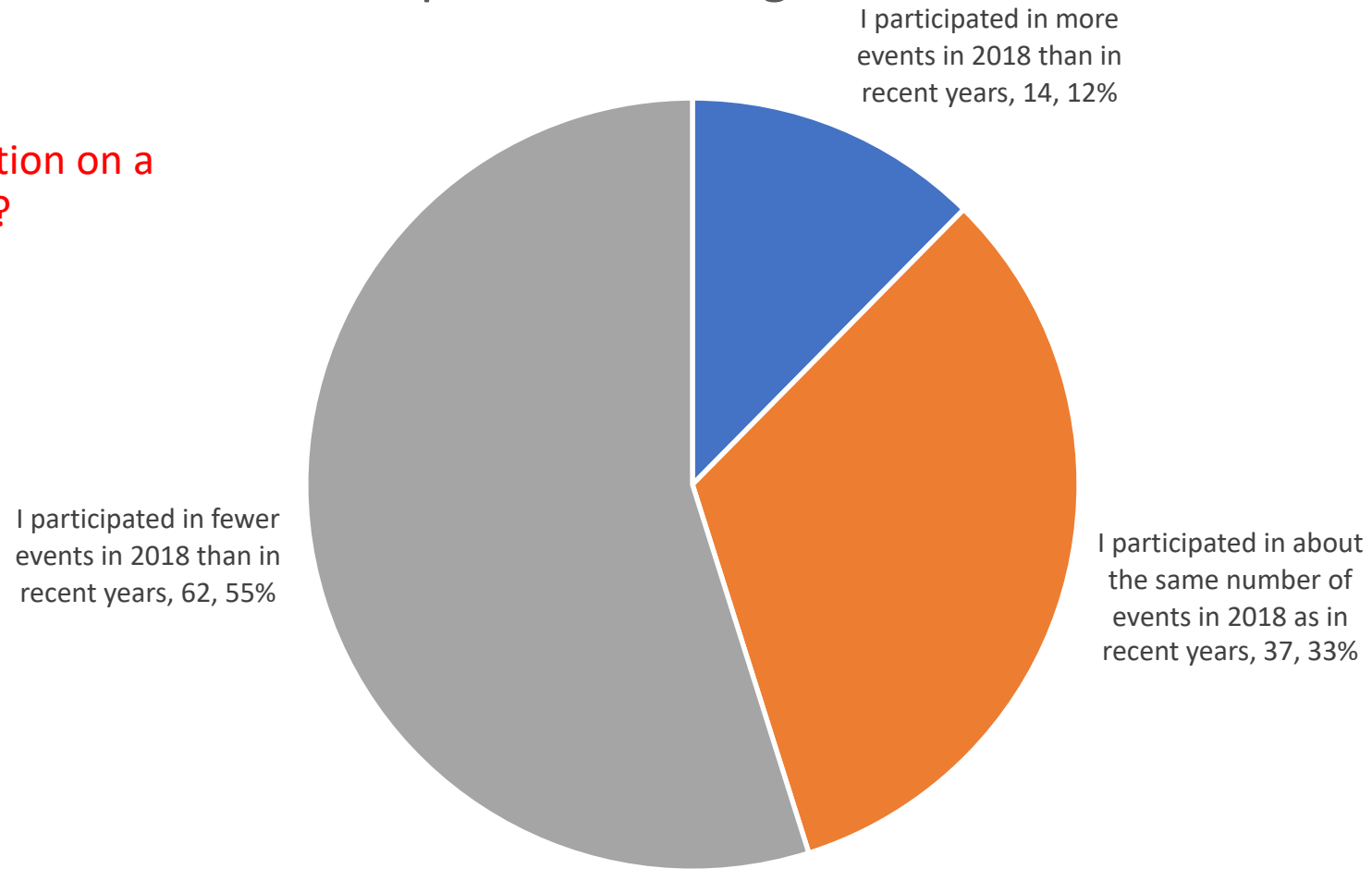
## Which of the following are available to you within 80 kilometers (50 miles) of your residence?



With 115 responses, fewer than half of all respondents have access to local clubs or groups that are active in ARDF and related activities, or they do not know about them

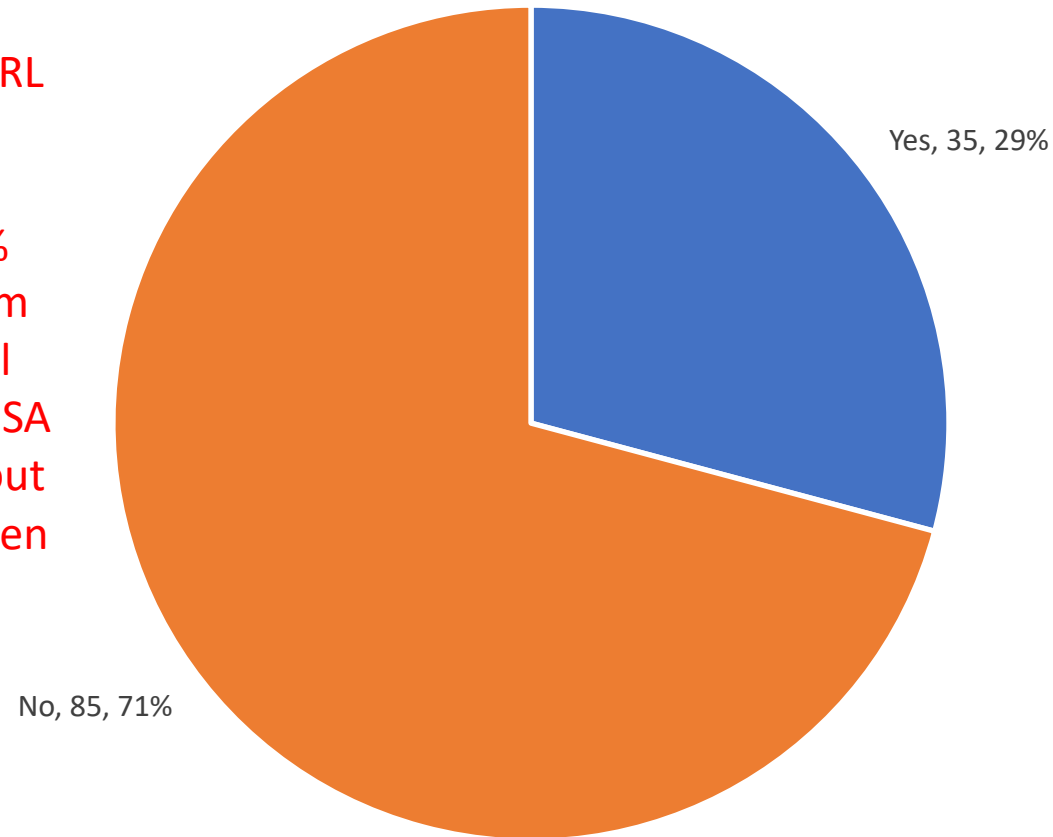
## How has your participation level in ARDF competitions changed in 2018?

Is ARDF participation on a downward trend?

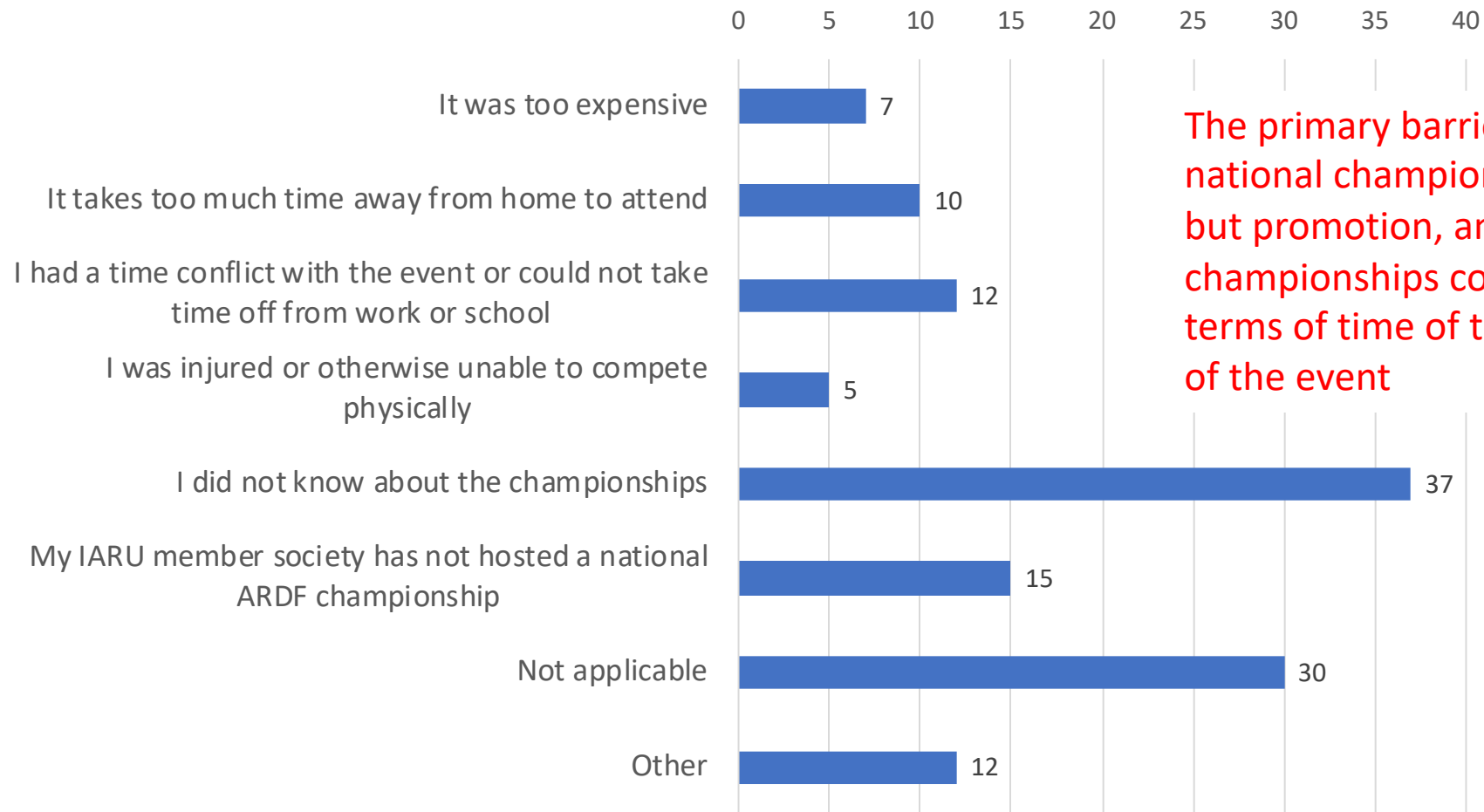


## Have you competed at your national ARDF championship in the past 10 years?

This result is not surprising. The ARRL is the only national radio society regularly holding national championships, and only about 50% of the survey respondents were from the United States. Assuming that all of the “yes” responses are for the USA championships, that still means about 40% of US respondents have not been to the US championships.

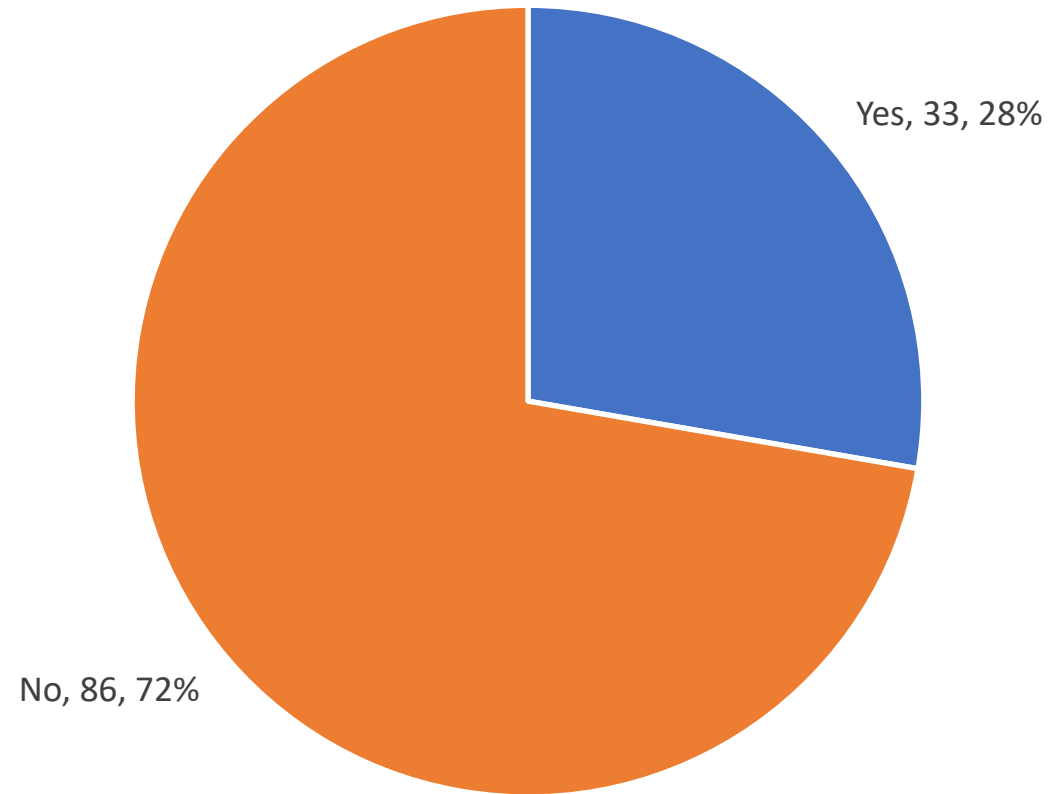


## If you have not competed at your national ARDF championship in the past 10 years, why not?



The primary barriers to attending a national championships are not cost, but promotion, and making the championships convenient to attend in terms of time of the year and duration of the event

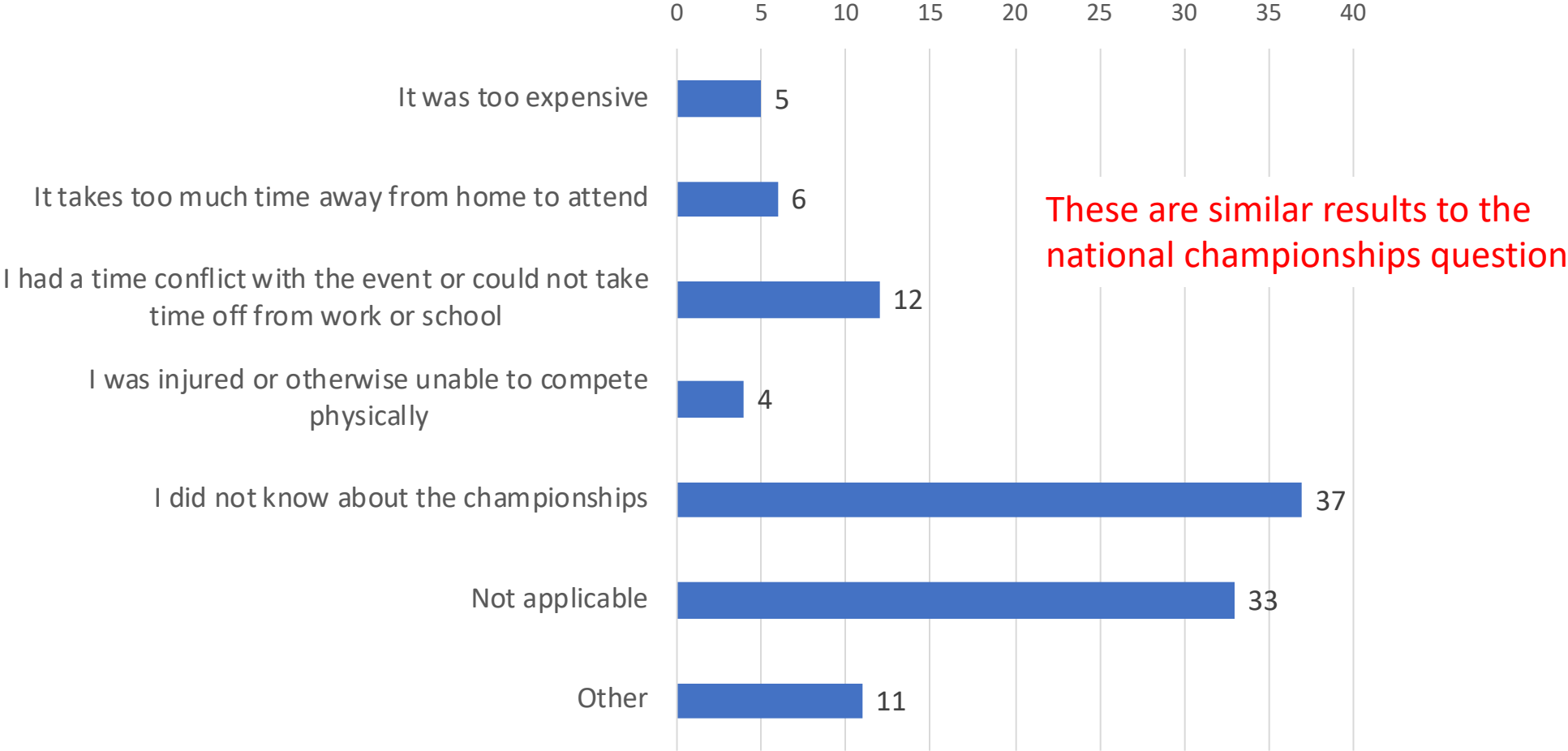
## Have you competed in an IARU Region 2 Championship in the past 10 years?



This result almost exactly mirrors the national championship question, and further analysis indicates that the “yes” answers come from ARRL members



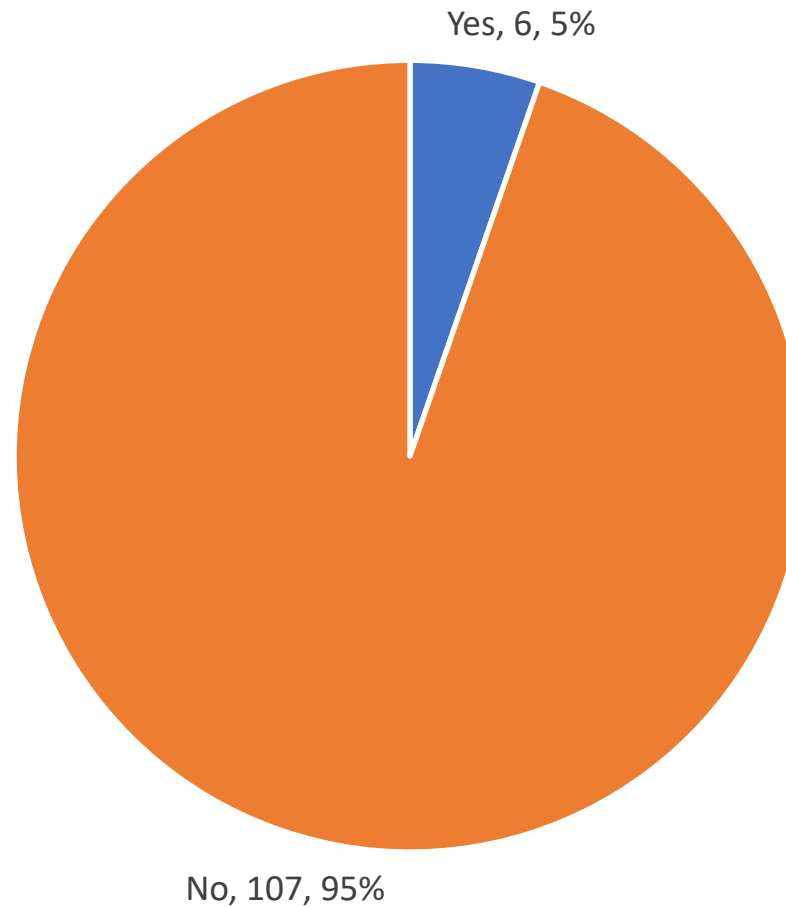
# If you have not competed at an IARU Region 2 Championship in the past 10 years, why not?



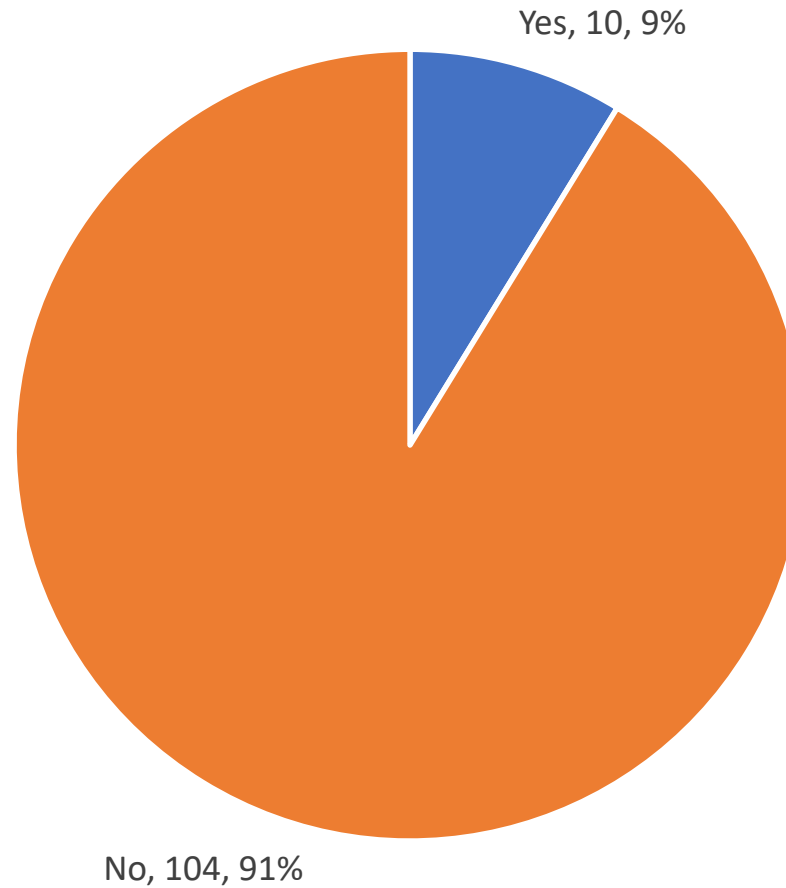
Multiple answers allowed  
Number of responses: 100

## Have you been to a World Youth ARDF Championship?

This result is not surprising. There have only been two World Youth ARDF Championships so far, and both have been held in Europe



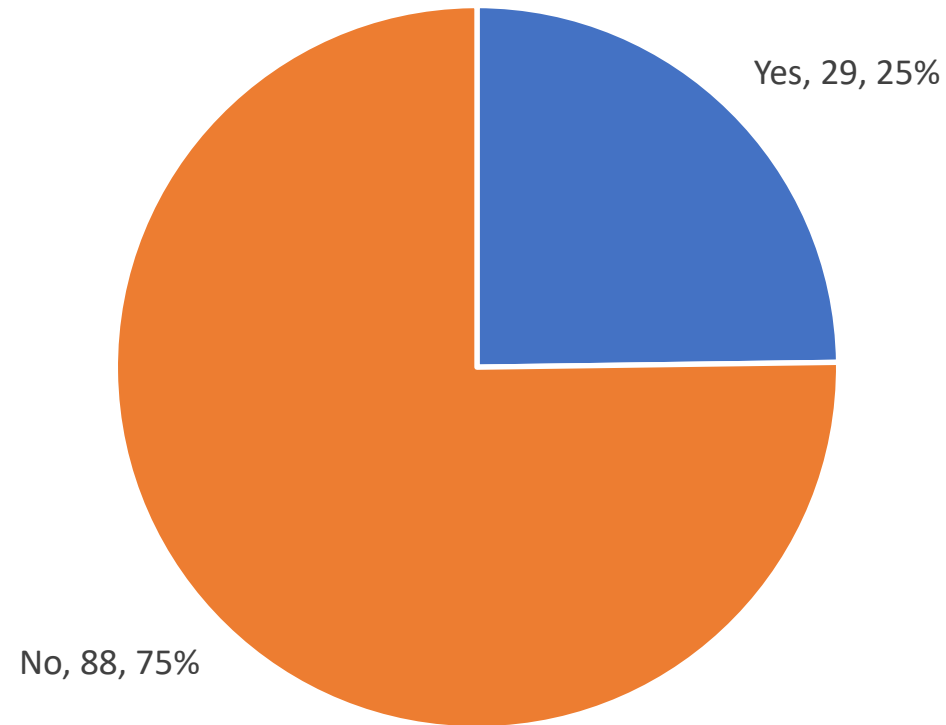
## Have you ever attended an ARDF for the Blind competition?



This result is not surprising.  
There have been relatively few  
ARDF for the Blind competitions  
held in recent years anywhere  
in the world

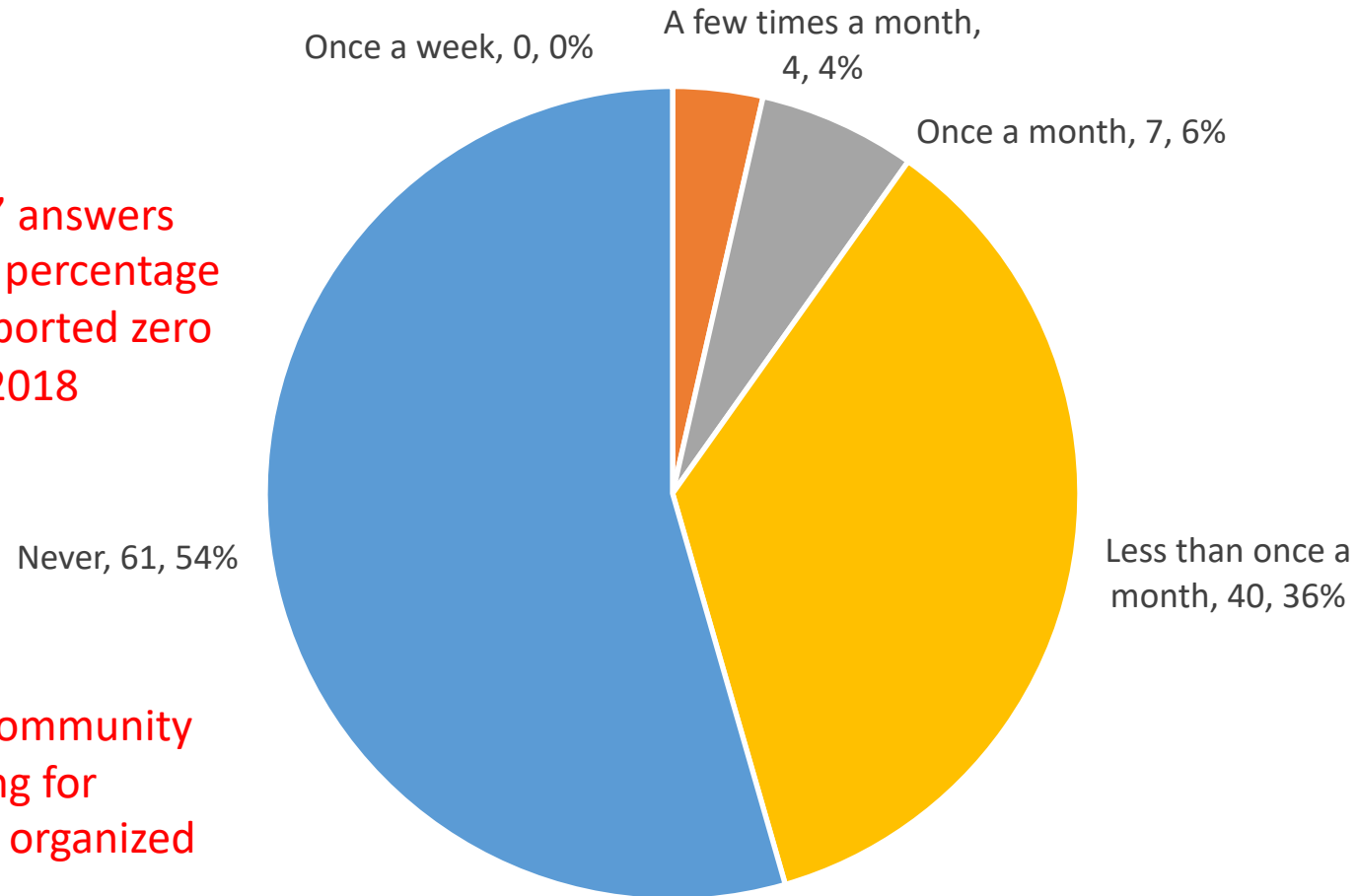
Have you organized or volunteered as a helper at an ARDF event in 2018, or are you planning to do so in 2018?

This is a higher percentage than expected given the relatively small number of events held in Region 2 in 2018

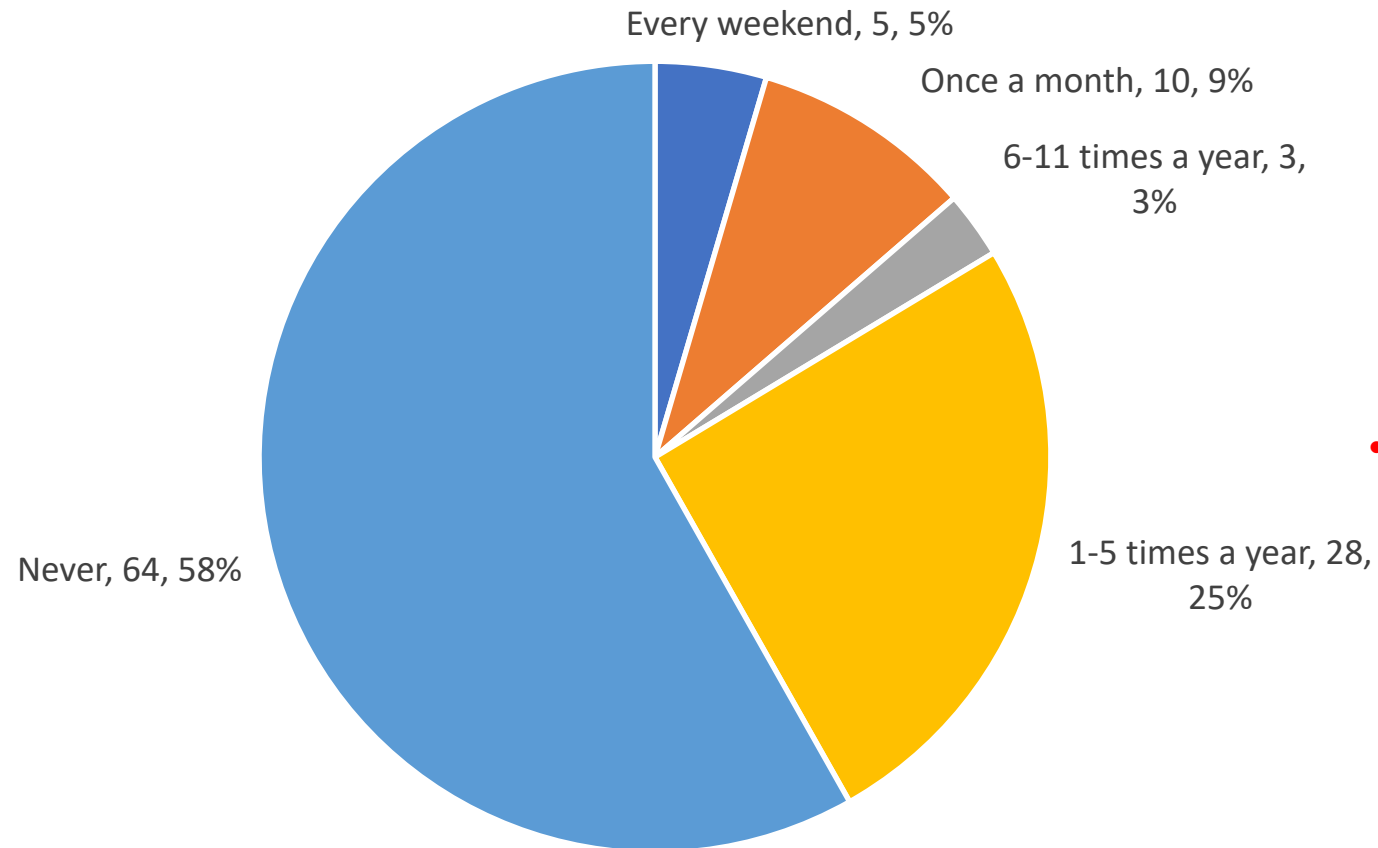


How frequently do you train/practice ARDF competition skills (using ARDF transmitters and receivers) outside of organized events?

- The number of “never” answers lines up with the same percentage of respondents that reported zero competitive events in 2018
- Very few in the ARDF community are purposefully training for competition outside of organized events



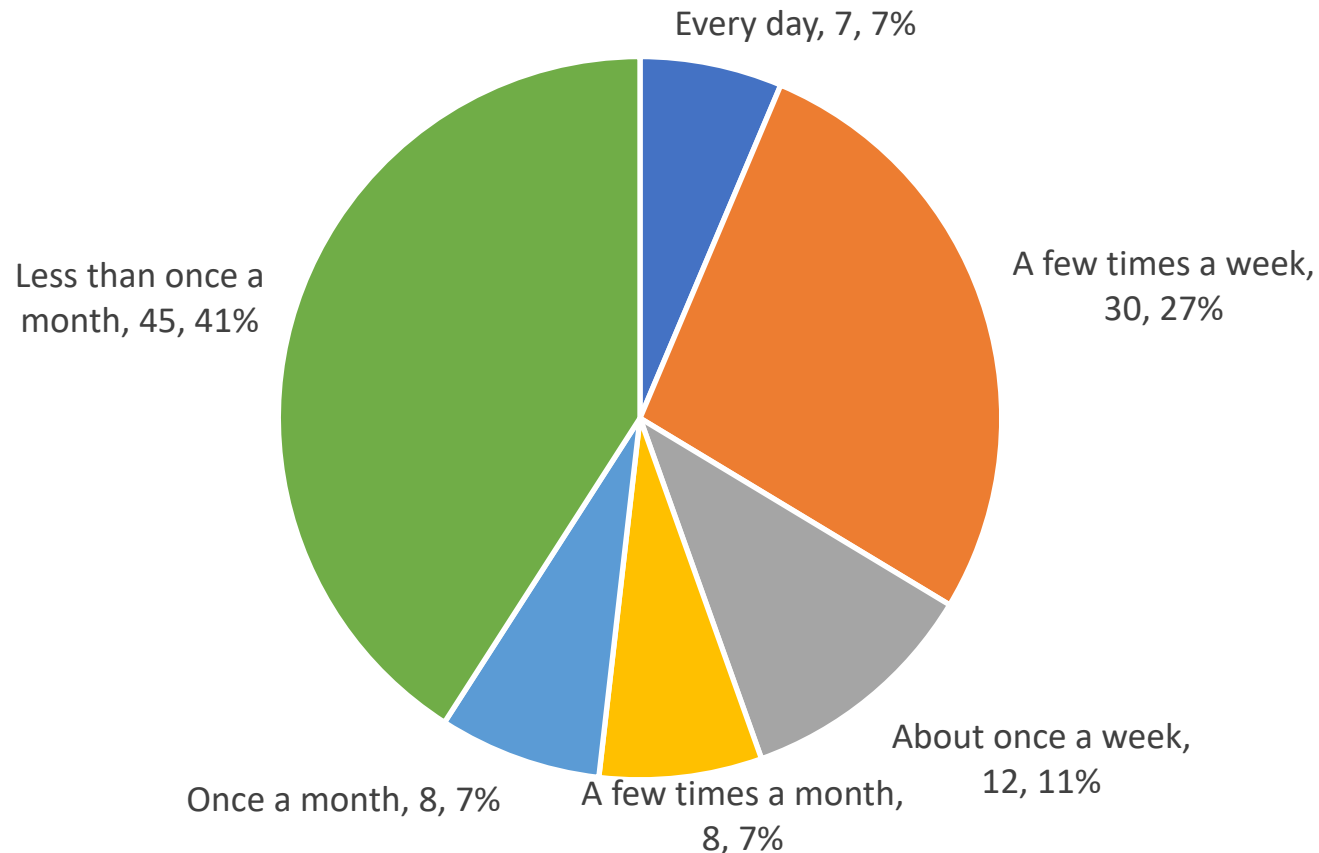
## How frequently do you compete in orienteering events?



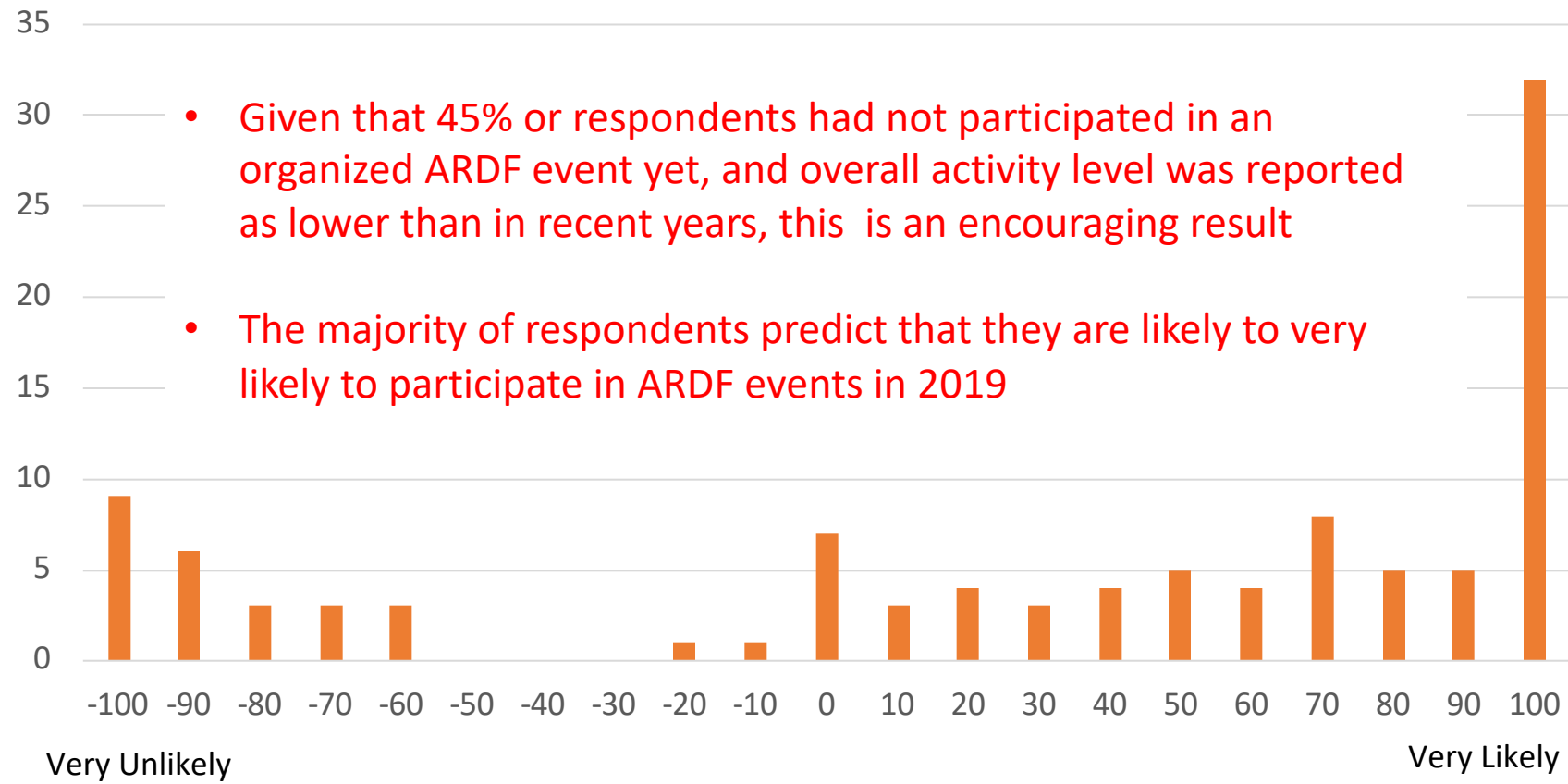
- Orienteering is an essential skill for ARDF, and one that potentially can be practiced with greater regularity than ARDF-specific skills
- There is a much higher level of orienteering training activity than ARDF-specific training

## How frequently do you engage in other physical activity (running, hiking, strength training) to help improve your ARDF performance?

- Even if no ARDF or orienteering training is available, one can go for a run or hike to stay in shape
- Unfortunately, 40% of the respondents have infrequent activities



## How likely are you to be participating in ARDF events (in any capacity, as a competitor, organizer, supporter, or spectator) in 2019?





# ARDF Equipment

12 Questions



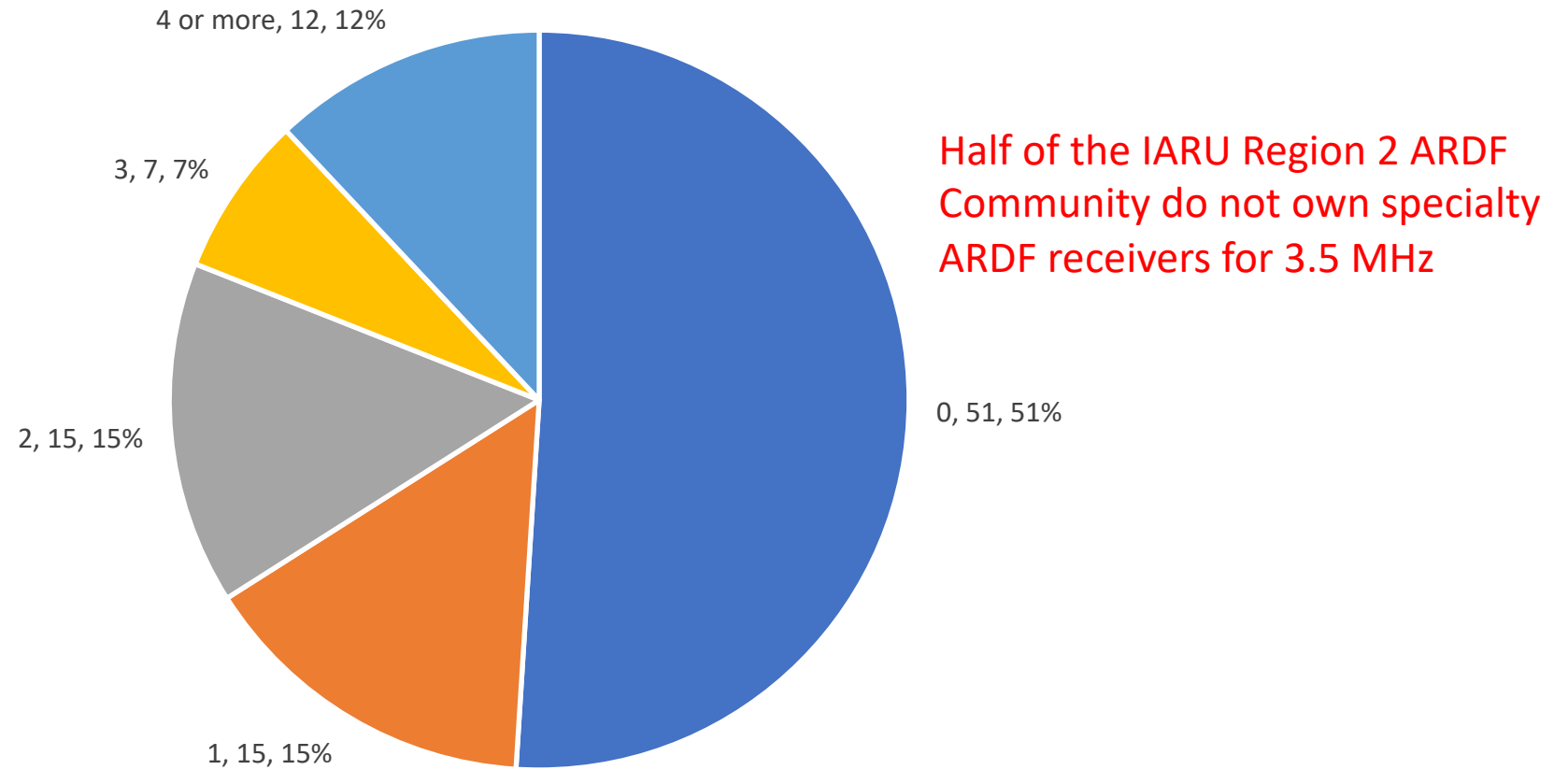
# Observations – ARDF Equipment

- Half of the Region 2 ARDF community does not own a specialty receiver for 3.5 MHz, and more than 40% do not own specialty receivers for 144 MHz
  - Some respondents are relying on non-specialty equipment, especially for 144 MHz ARDF
- A relatively high percentage (30%) of respondents are comfortable building their own ARDF gear
- A small number of respondents are investing in advanced technologies for real-time tracking of runner and online results
- A higher percentage than expected (7%) of respondents are selling ARDF specialty equipment

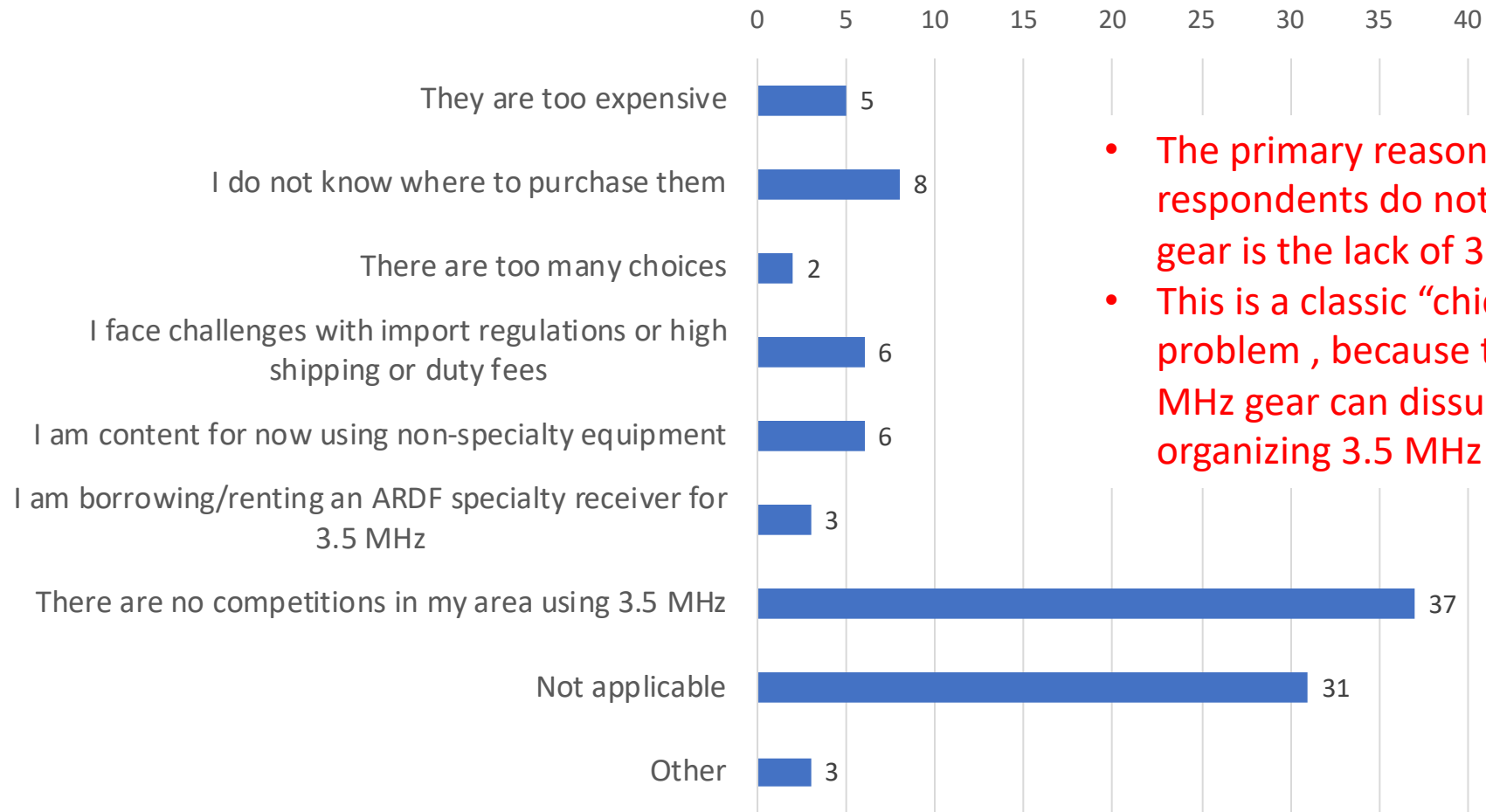
# Challenges and Opportunities – ARDF Equipment

- There is still clearly a “chicken and egg” problem with specialty ARDF equipment in Region 2
  - Respondents that do not own specialty gear for ARDF report that there are no ARDF events near them and are likely to have not participated in one yet
  - It is likely that ARDF events are not being held in part because there is a lack of ARDF specialty equipment
  - The problem is a little less pronounced on 144 MHz than 3.5 MHz
- There are few places in Region 2 where more than a small handful of newcomers can try ARDF specialty equipment at a meet without having to buy their own gear
- Fewer organizers in Region 2 can support a Sprint event than the other World Championships event formats

## How many ARDF specialty receivers do you own for 3.5 MHz?

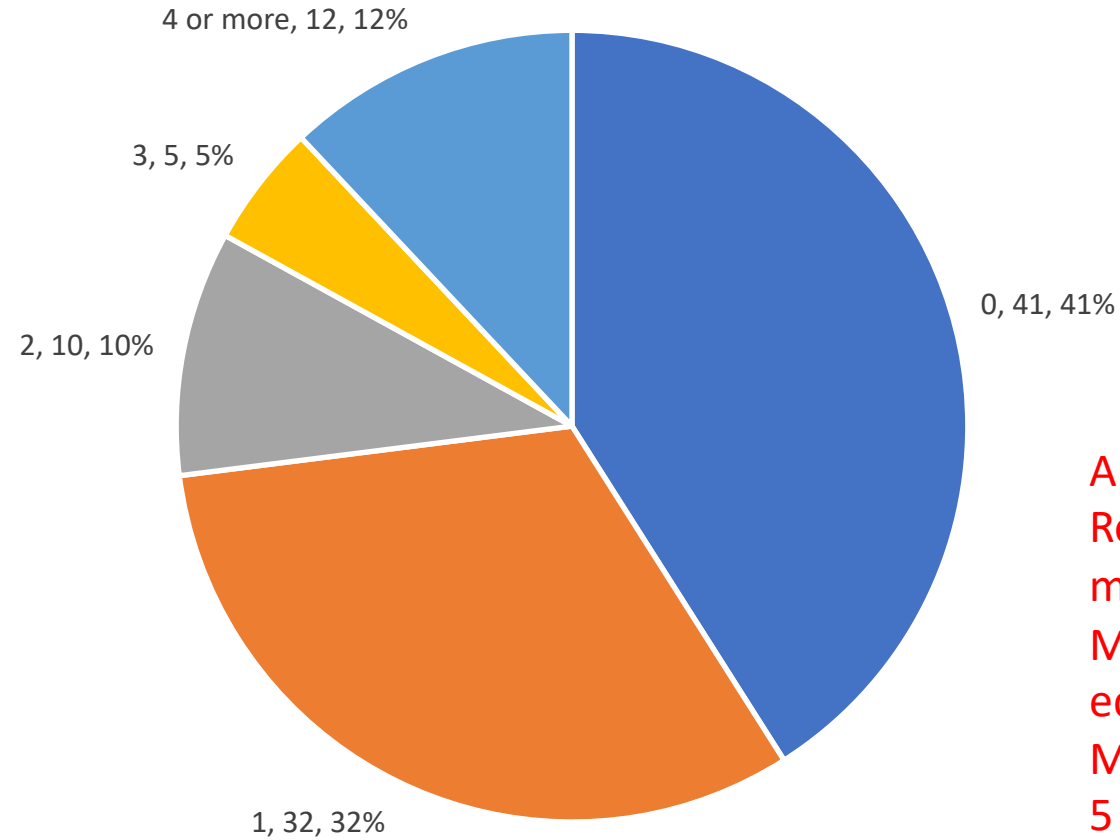


## If you do not own ARDF specialty receivers for 3.5 MHz, what are the main reasons why?



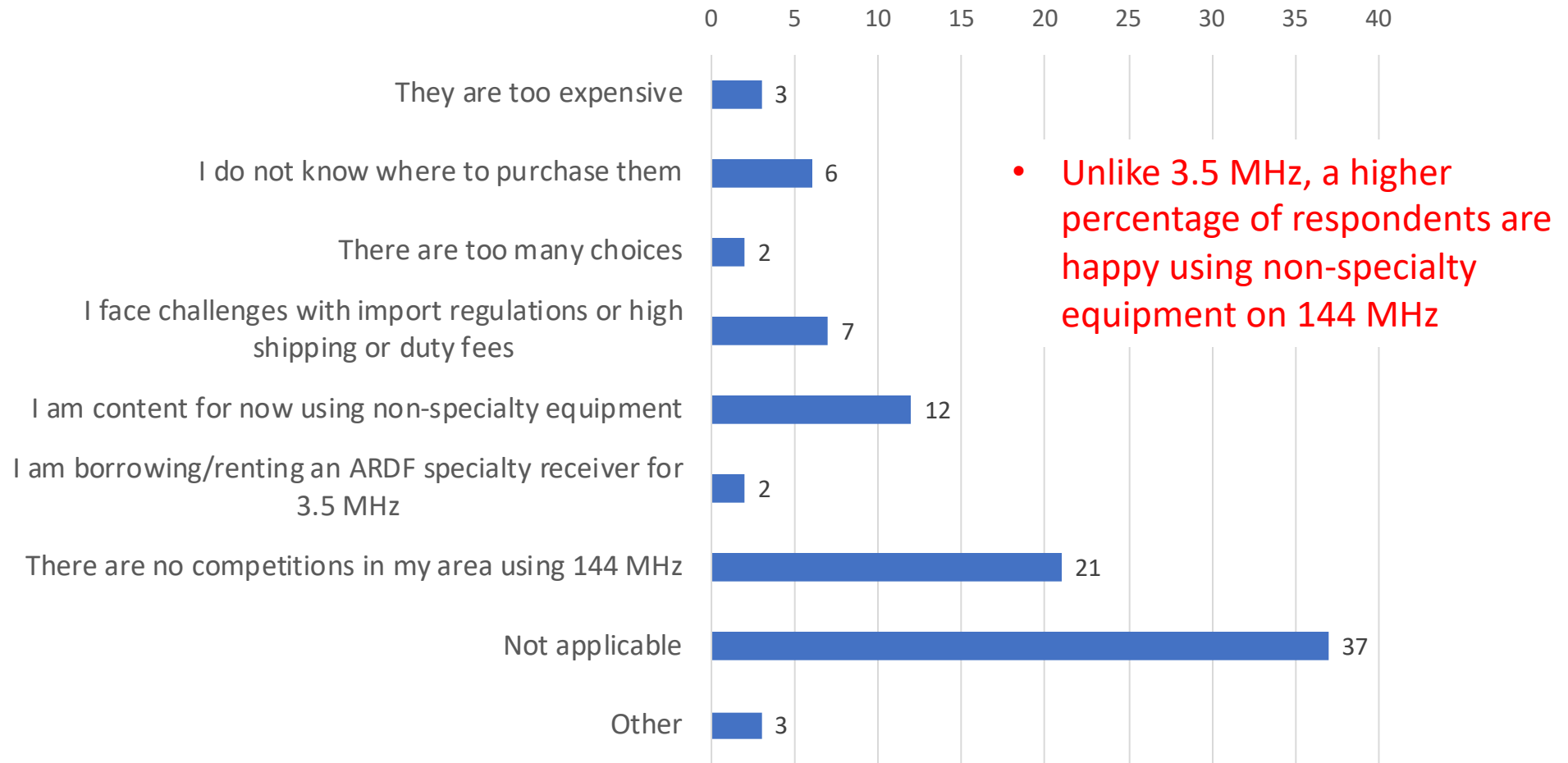
- The primary reason that respondents do not own 3.5 MHz gear is the lack of 3.5 MHz events
- This is a classic “chicken and egg” problem , because the lack of 3.5 MHz gear can dissuade clubs from organizing 3.5 MHz competitions

## How many ARDF specialty receivers do you own for 144 MHz?



A higher percentage of IARU Region 2 ARDF community members own their own 144 MHz direction finding equipment than we saw for 3.5 MHz, but there are still 2 out of 5 who do not own specialty equipment yet

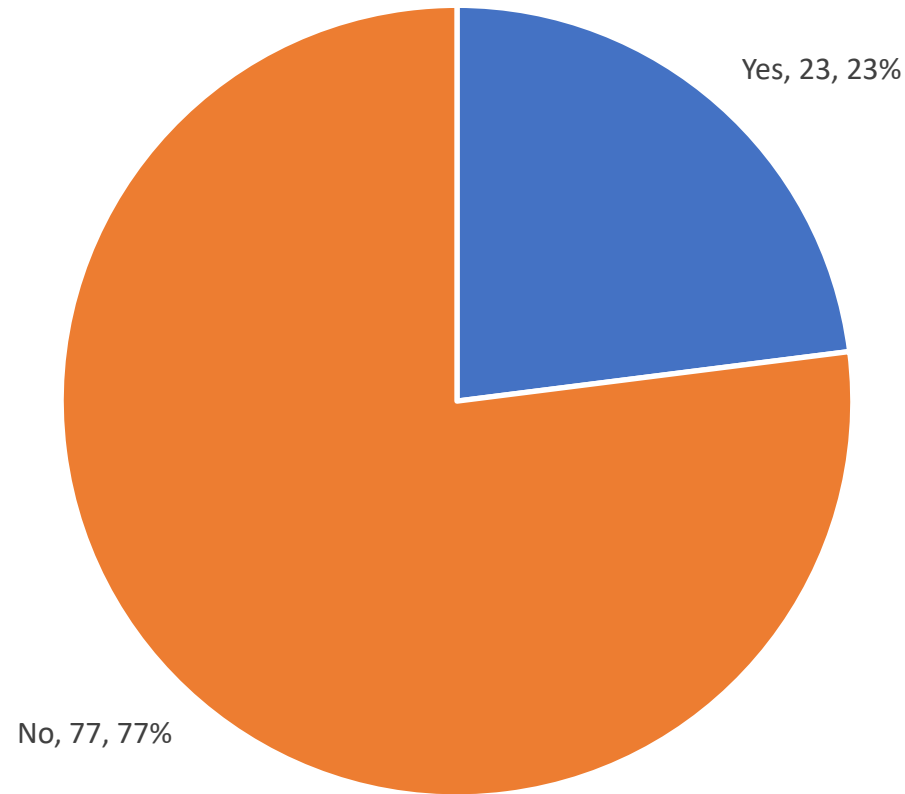
## If you do not own ARDF specialty receivers for 144 MHz, what are the main reasons why?



Multiple answers allowed  
Number of responses: 78

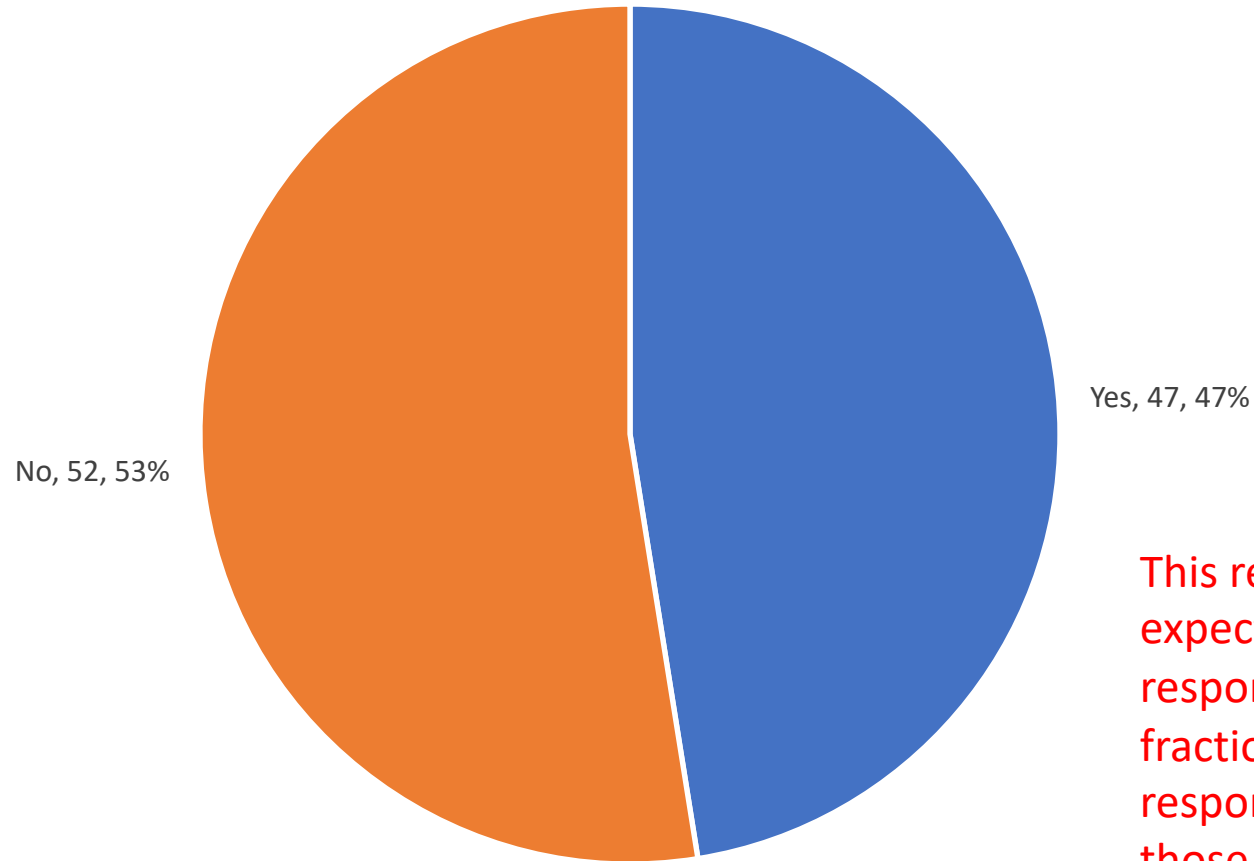
## Have you purchased or do you plan to purchase new radio equipment specifically for ARDF in 2018?

This response was higher than expected. It indicates that of those who are invested in specialty ARDF equipment, they may be purchasing new equipment relatively frequently, either as replacements or upgrades





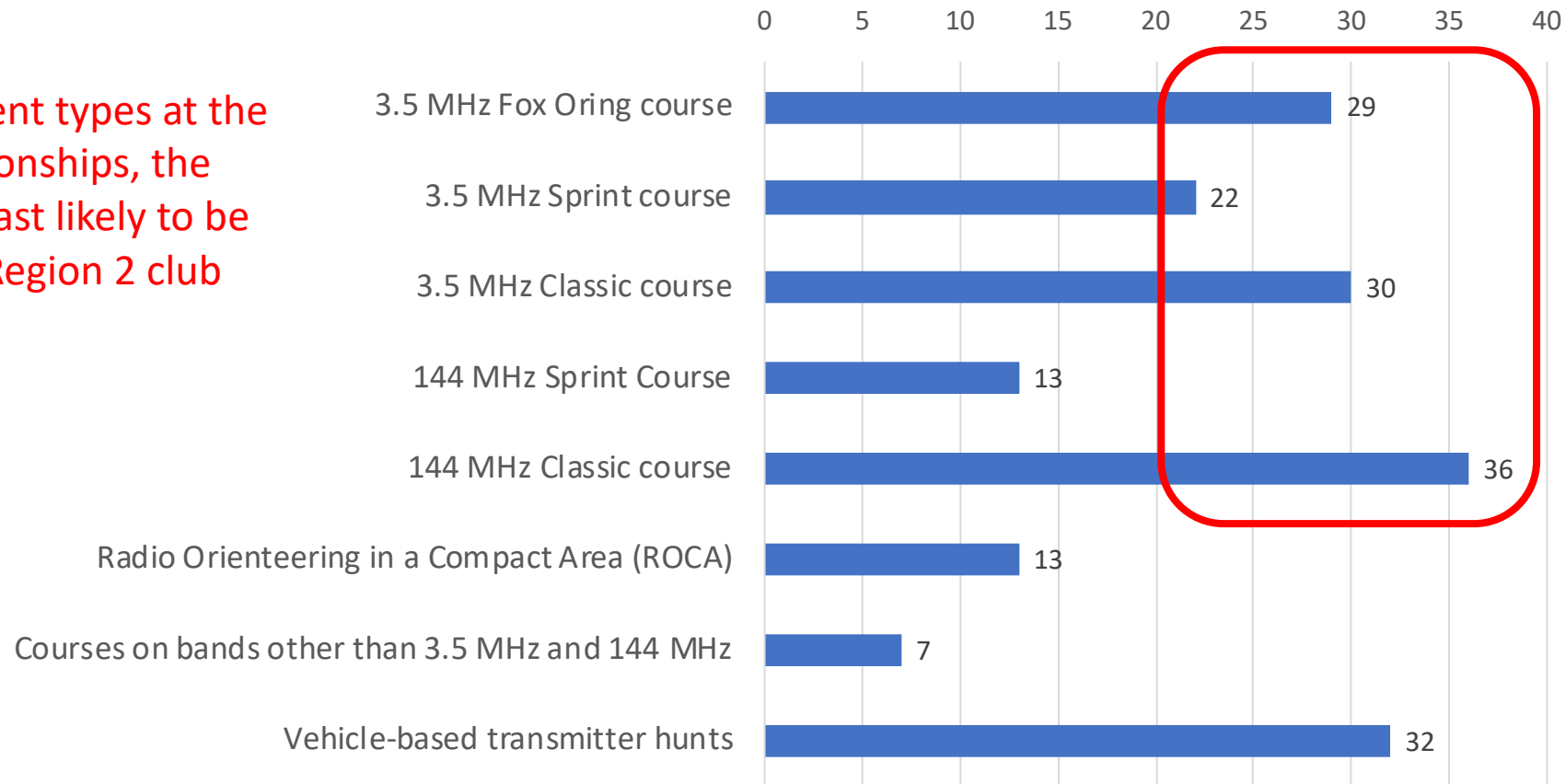
## Do you or your local club own ARDF transmitters?



This response was also higher than expected. Diving into individual responses, it appears that a high fraction of US and Canadian respondents answered “yes” while those outside of the US and Canada were heavily “no”.

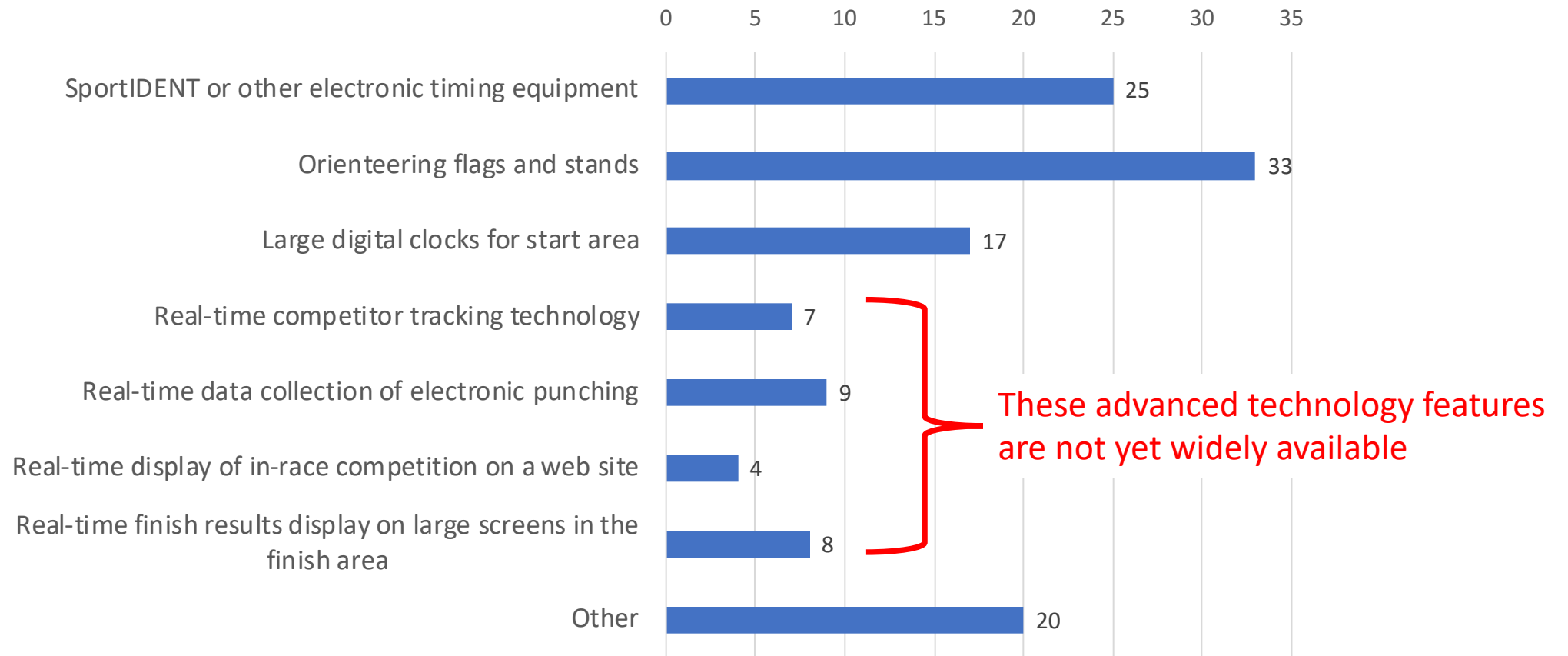
If you or your local club own ARDF transmitters,  
what kind of events can you support with a  
complete set of transmitters?

Of the four event types at the  
World Championships, the  
Sprint is the least likely to be  
available at a Region 2 club  
event

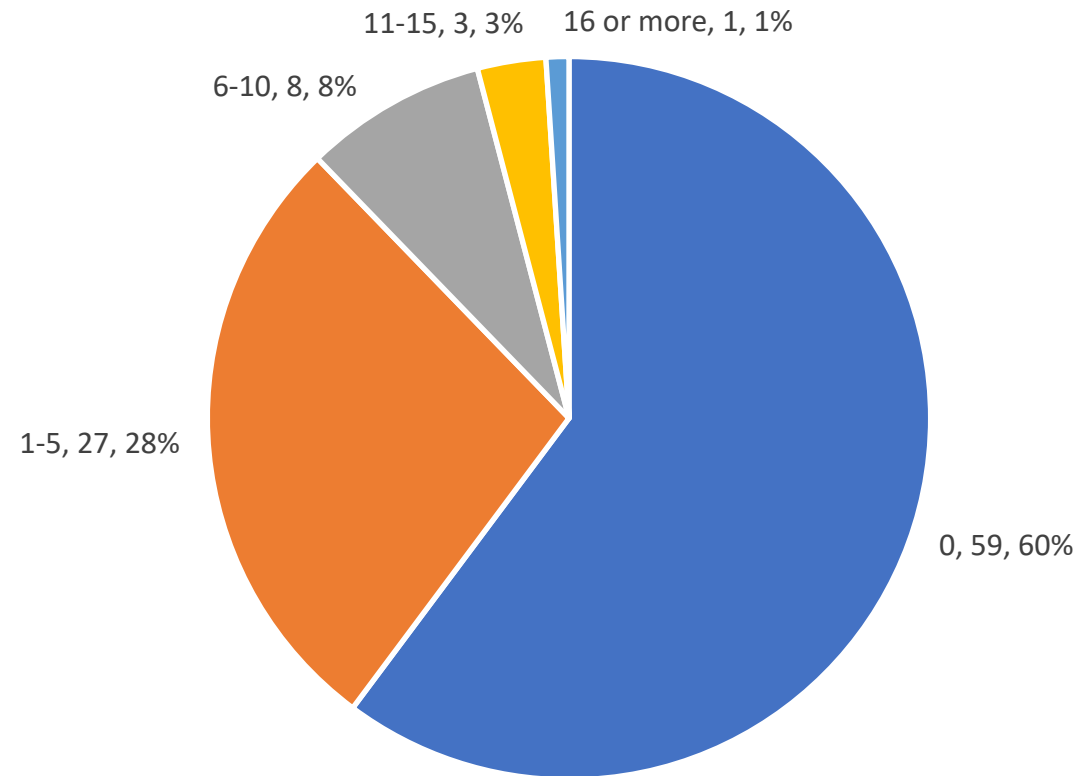


Multiple answers allowed  
Number of responses: 73

## In addition to ARDF transmitters, do you or your local club own the following equipment useful for hosting ARDF competitions?

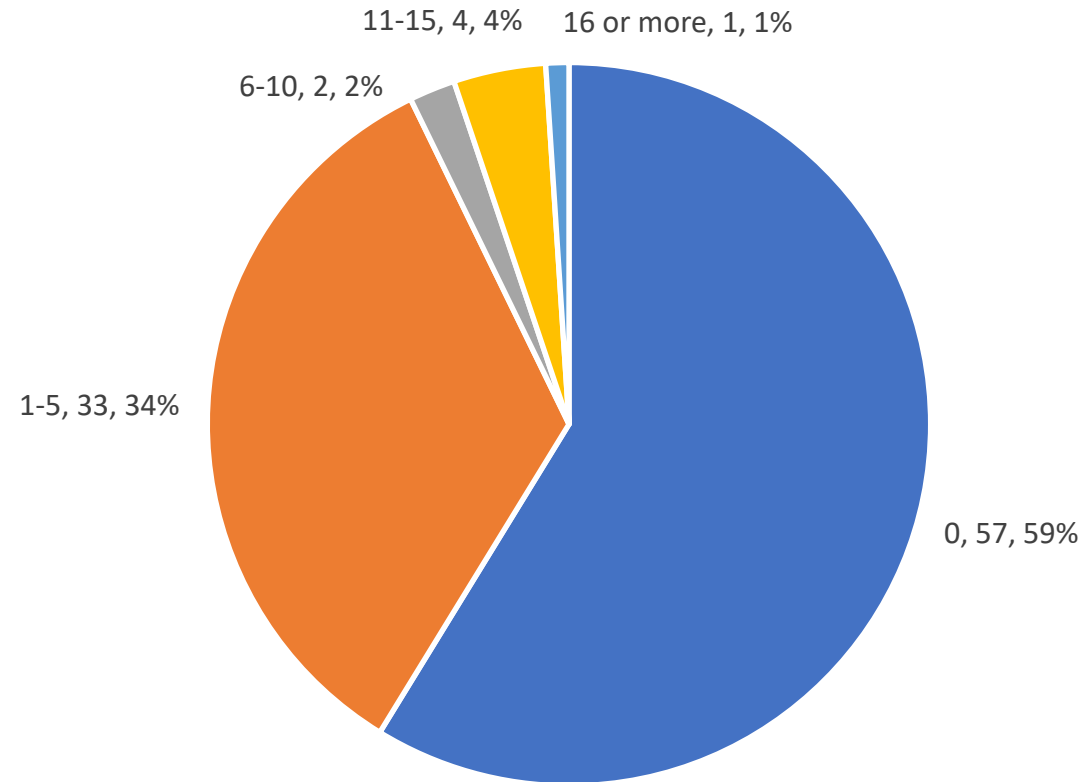


How many 3.5 MHz ARDF receivers do you or your local club have to loan or rent to those who want to try the sport but lack their own equipment?



- To overcome the low ownership rate for specialty 3.5 MHz ARDF receivers, clubs can supply loaner or rental gear
- Unfortunately, 87% of respondents have 5 or fewer receivers to let newcomers try ARDF without buying their own equipment

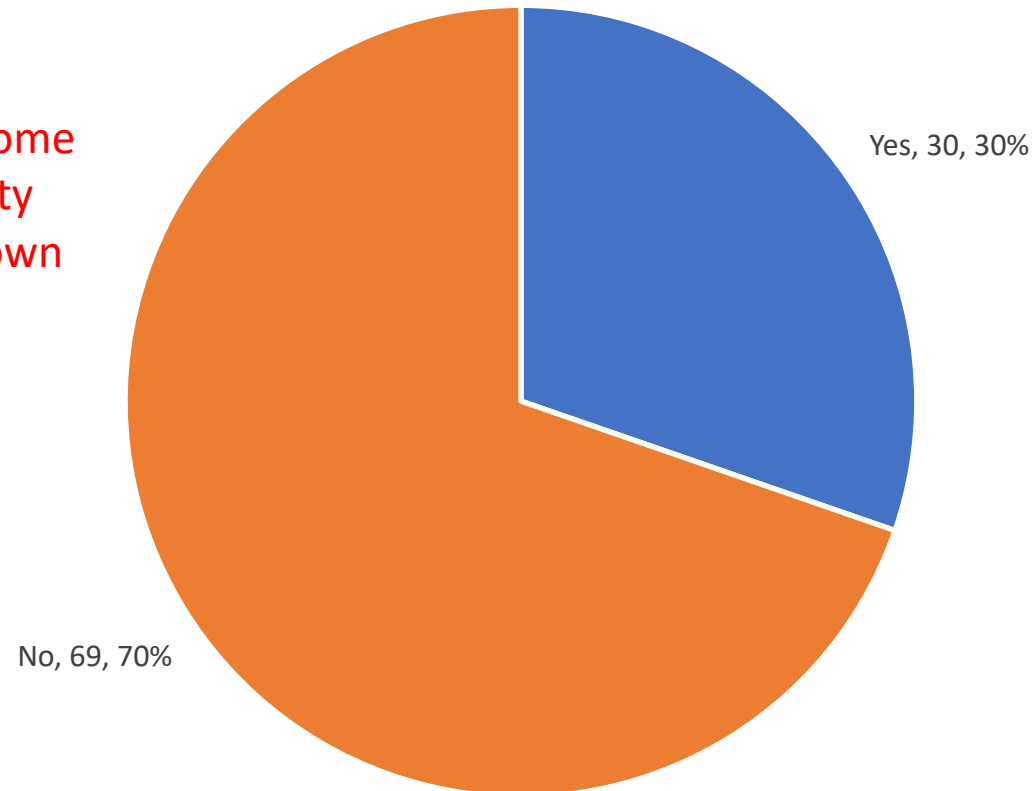
How many 144 MHz ARDF receivers do you or your local club have to loan or rent to those who want to try the sport but lack their own equipment?



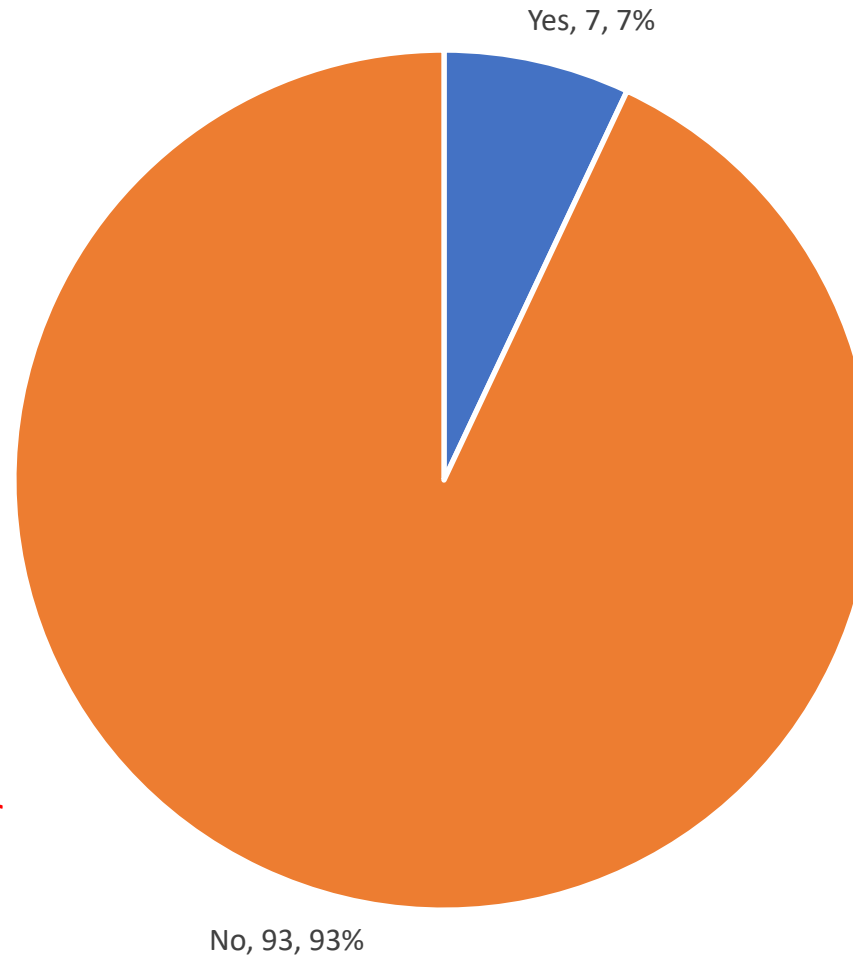
- The results are not meaningfully different for 144 MHz
- There are few places where more than a small handful of newcomers can try 144 MHz ARDF without their own equipment

## Do you design and/or build your own receivers for ARDF?

- Building equipment can overcome obstacles of cost and availability
- 30% are willing to build their own receivers



## Do you sell ARDF specialty equipment?



- There is a small market for ARDF specialty equipment, but it is still primarily driven by European suppliers
- Nonetheless, 7 out of 100 respondents are providing ARDF specialty equipment, a good sign for better access for Region 2

# ARDF Rules, Promotion, and Priorities

8 Questions

## Part A Organization

• 1. Definitions .....	2
• 2. General provisions .....	2
• 3. Event program .....	2
• 4. Event preparations .....	3
• 5. Participation .....	3
• 6. Costs .....	3
• 7. Event information .....	3
• 8. Entries .....	4
• 9. Jury .....	5
• 10. Complaints .....	5
• 11. Protests .....	5
• 12. Media service .....	6
• 13. Event reports .....	

[http://www.ardf-r1.org/ardf\\_rules](http://www.ardf-r1.org/ardf_rules)



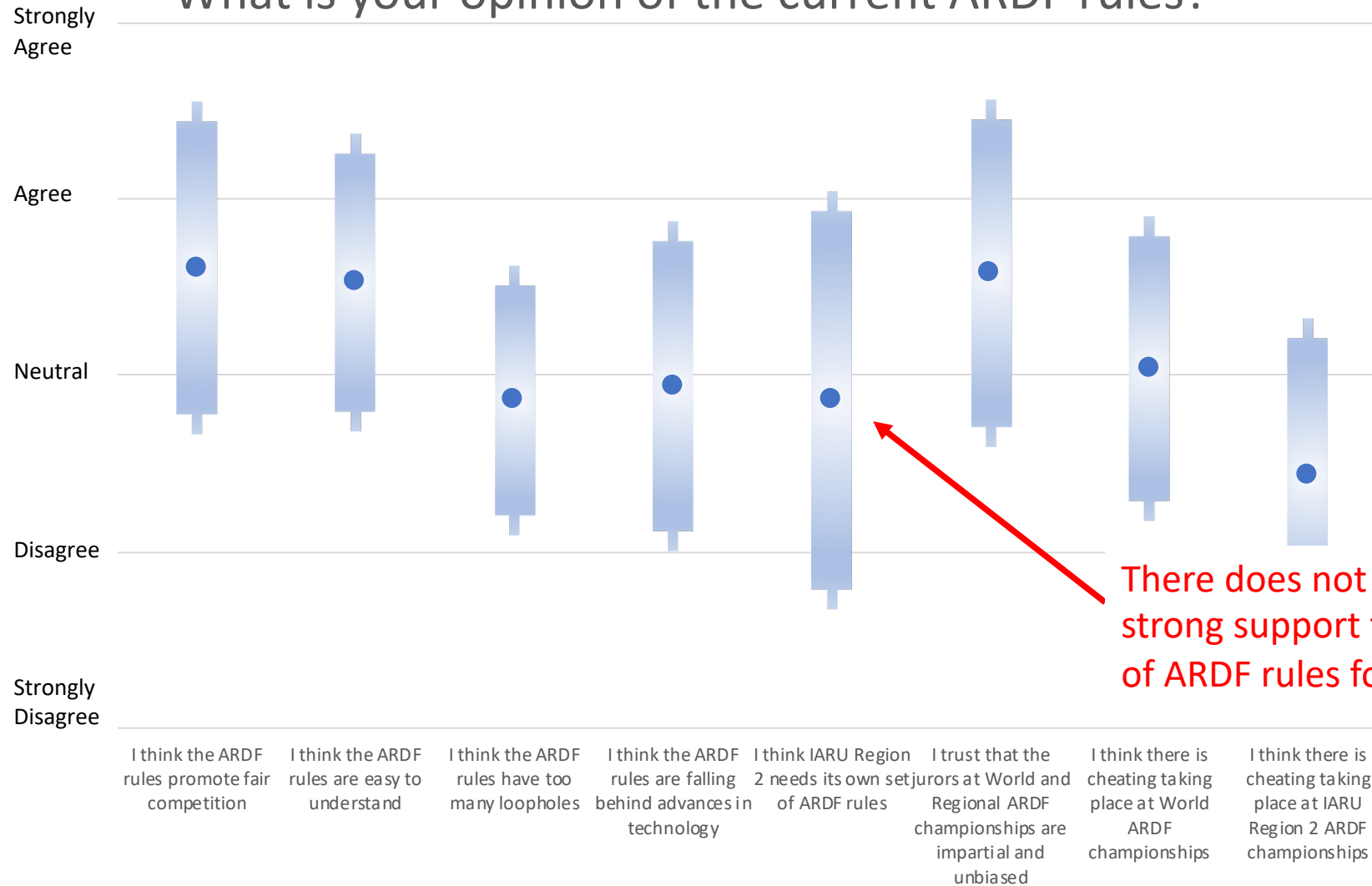
# Observations – Rules, Promotion, Priorities

- Relatively fewer respondents answered these questions – primarily those from the ARRL and RAC
- Overall, there appears to be satisfaction that ARDF events are fair, the rules are clear, competitors feel safe at events, and there are no major concerns with judging or cheating
- Respondents are not in favor of separate ARDF rules for Region 2
- There is support for new W70 and M80 categories, but not for hosting a separate Masters Championship for the older age categories
- There was no clear support for leaving the IARU to organize as a separate sports federation
- Potential new coeducational team categories had stronger support than potential new relay event categories

# Challenges and Opportunities – Rules, Promotion, Priorities

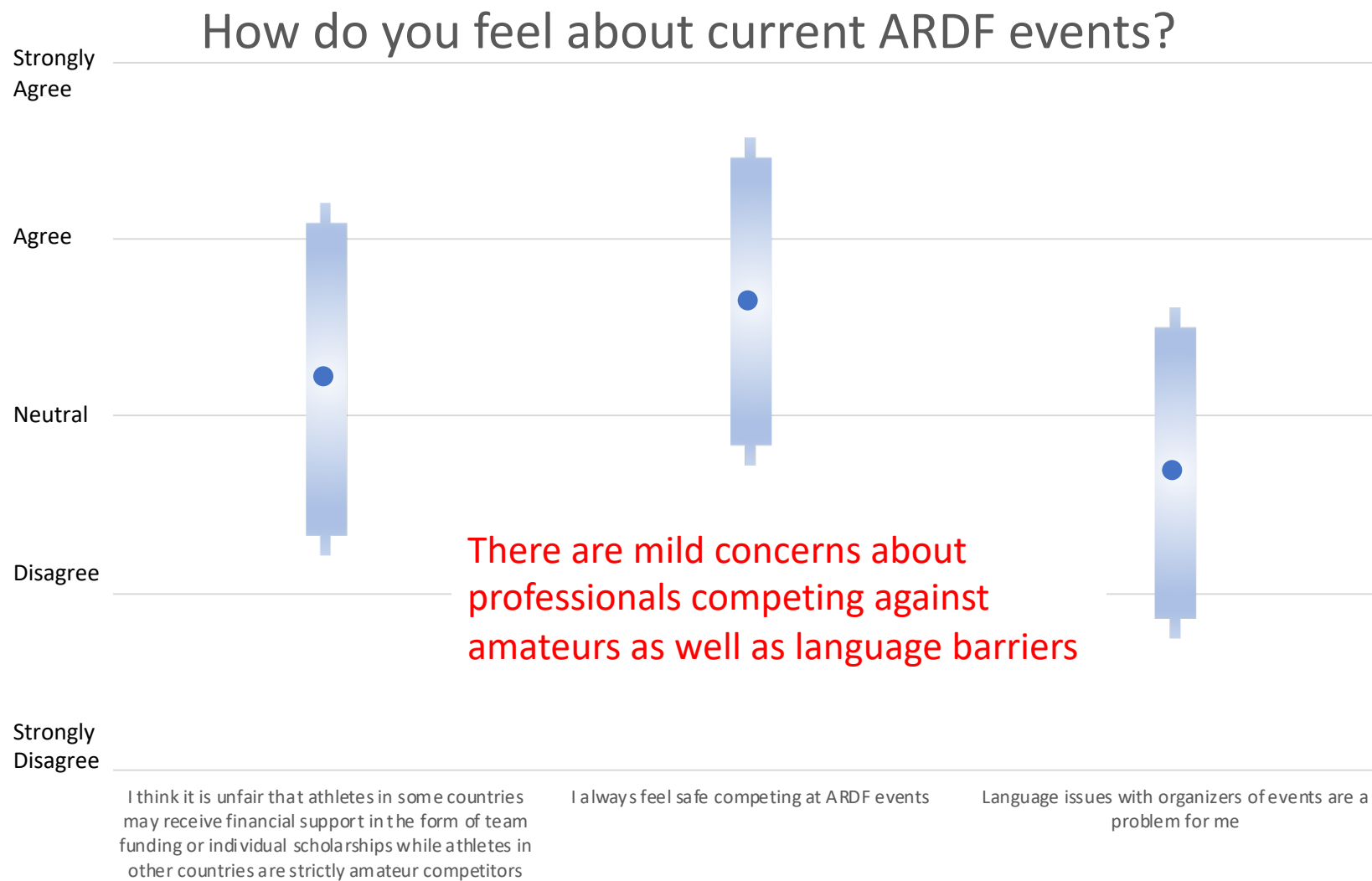
- The topic of GPS use in competition had some of the clearest trends in strong opinion
  - Most respondents are satisfied with either no GPS use at all or passive run tracking
  - All other uses of GPS in competition (many of which are currently legal under the rules) met with disapproval to strong disapproval
- Of those with opinions, most favor relaxing the current rules limitations on Bluetooth devices
- There is strong support for complete embargoes of competition areas prior to championships events
- While there was mild support for joining the International Association of Athletics Federations (IAAF), there was not strong support for anti-doping drug testing at the championships level that the IAAF would require

## What is your opinion of the current ARDF rules?



There does not appear any strong concern over fairness, unclear rules, judging, or cheating

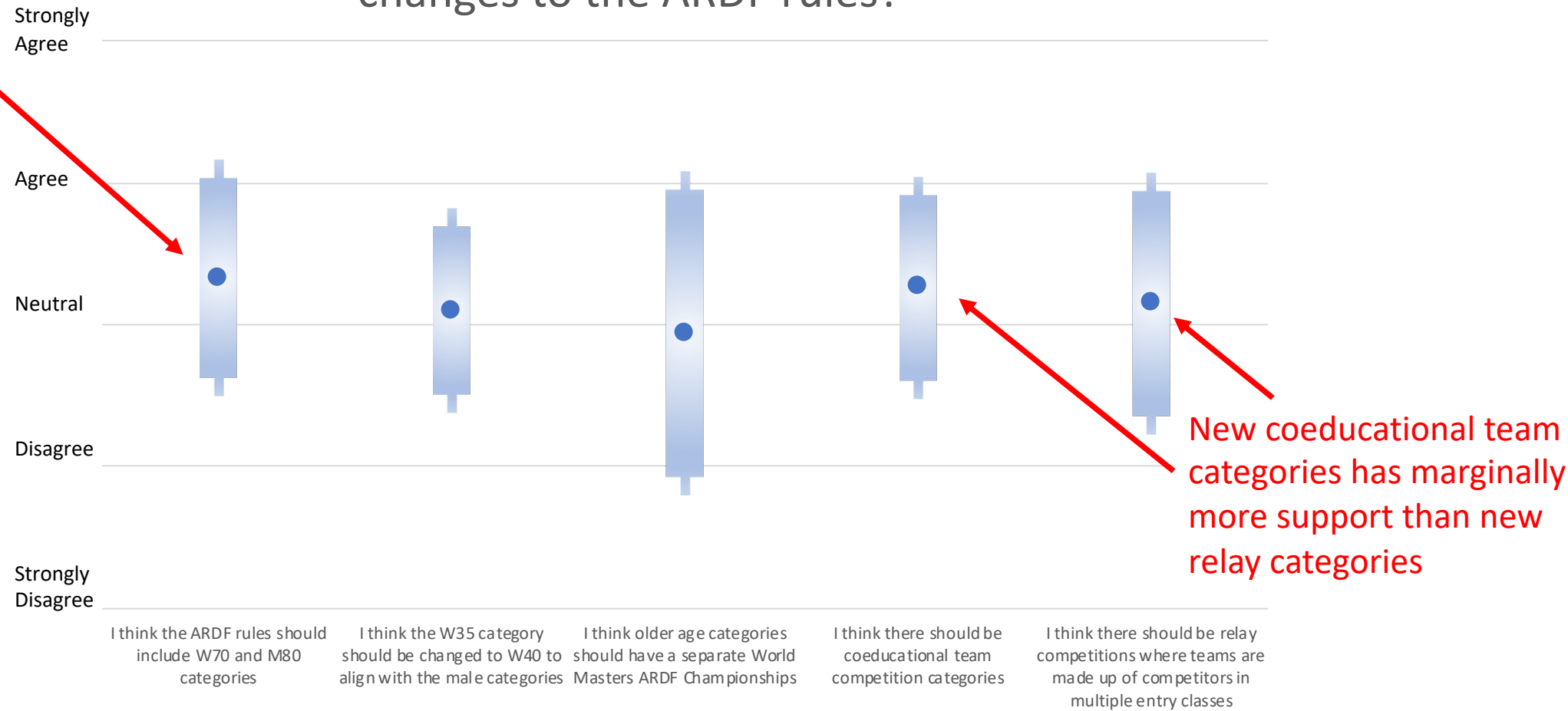
There does not appear to be strong support for a separate set of ARDF rules for Region 2



Multiple answers allowed  
Number of responses: 78

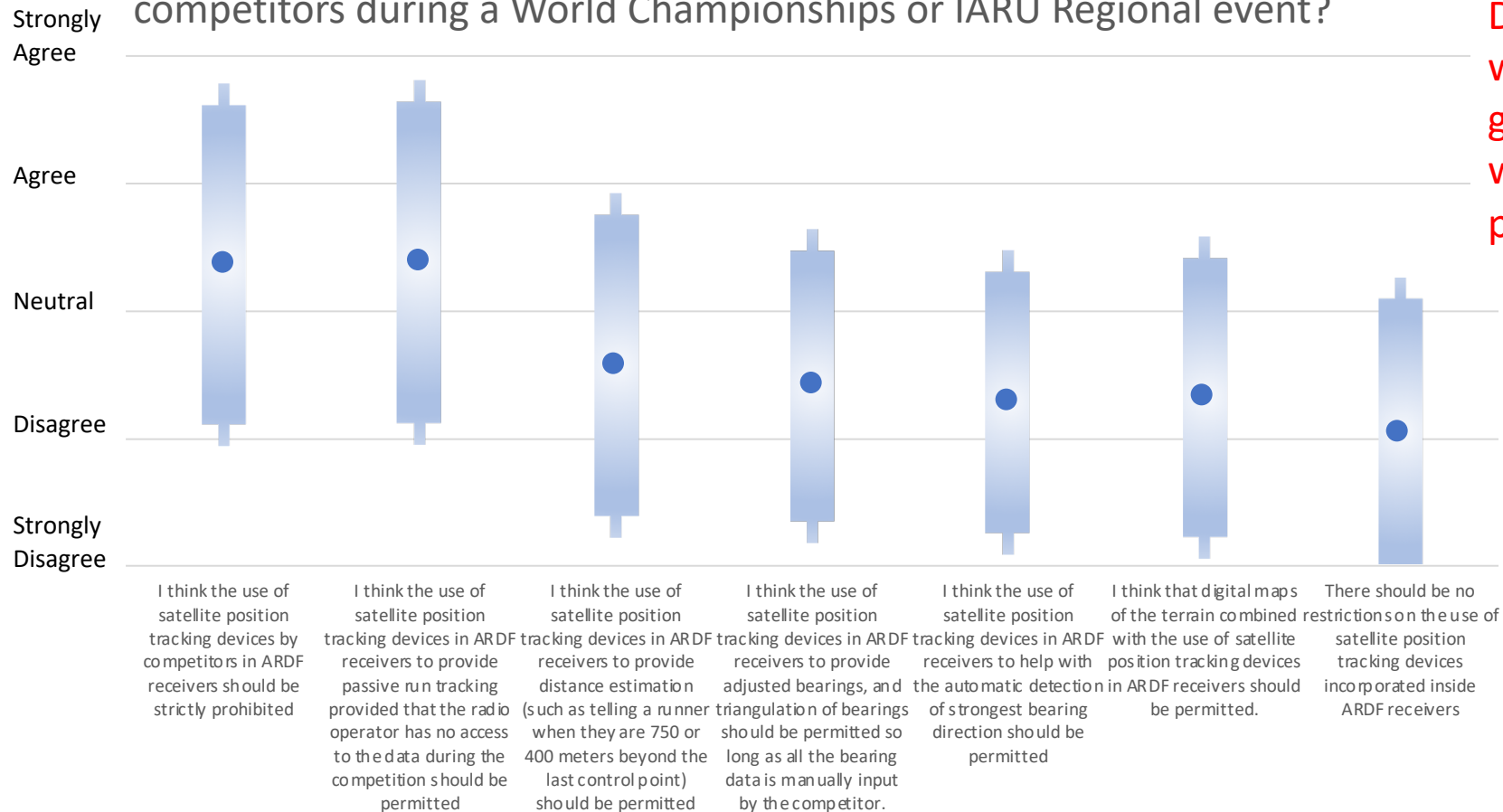
There is moderate support for new entry categories for W70 and M80

# How do you feel about these potential category changes to the ARDF rules?



Multiple answers allowed  
Number of responses: 78

To what extent should the ARDF rules permit the use of satellite position tracking devices integrated into ARDF receivers by competitors during a World Championships or IARU Regional event?

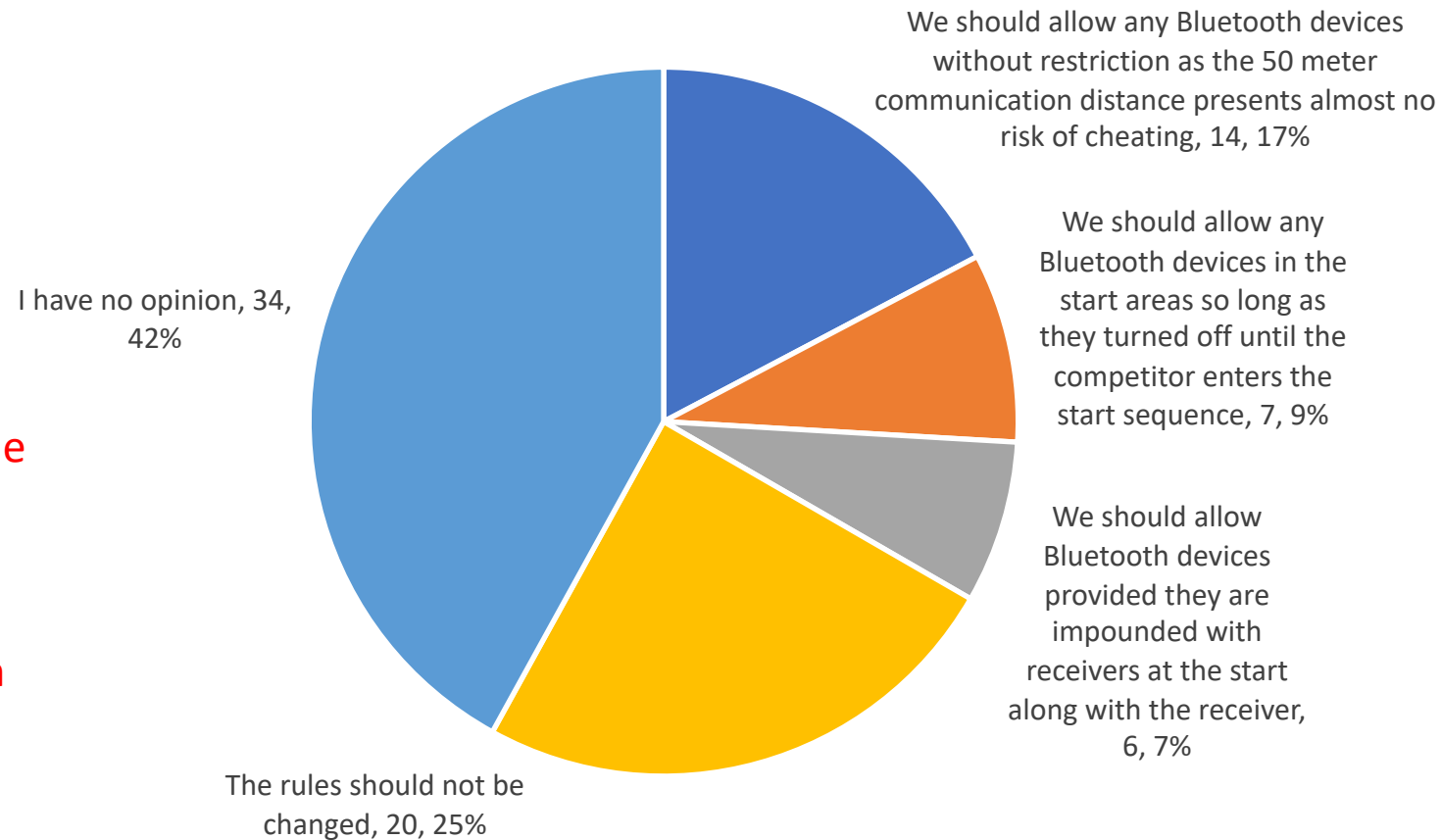


All other uses of GPS fell into Disagree/Strongly Disagree ranges, with the feeling getting stronger with the more permissive options

Most respondents are OK with either no GPS at all, or its use exclusively for passive run tracking

Multiple answers allowed  
Number of responses: 79

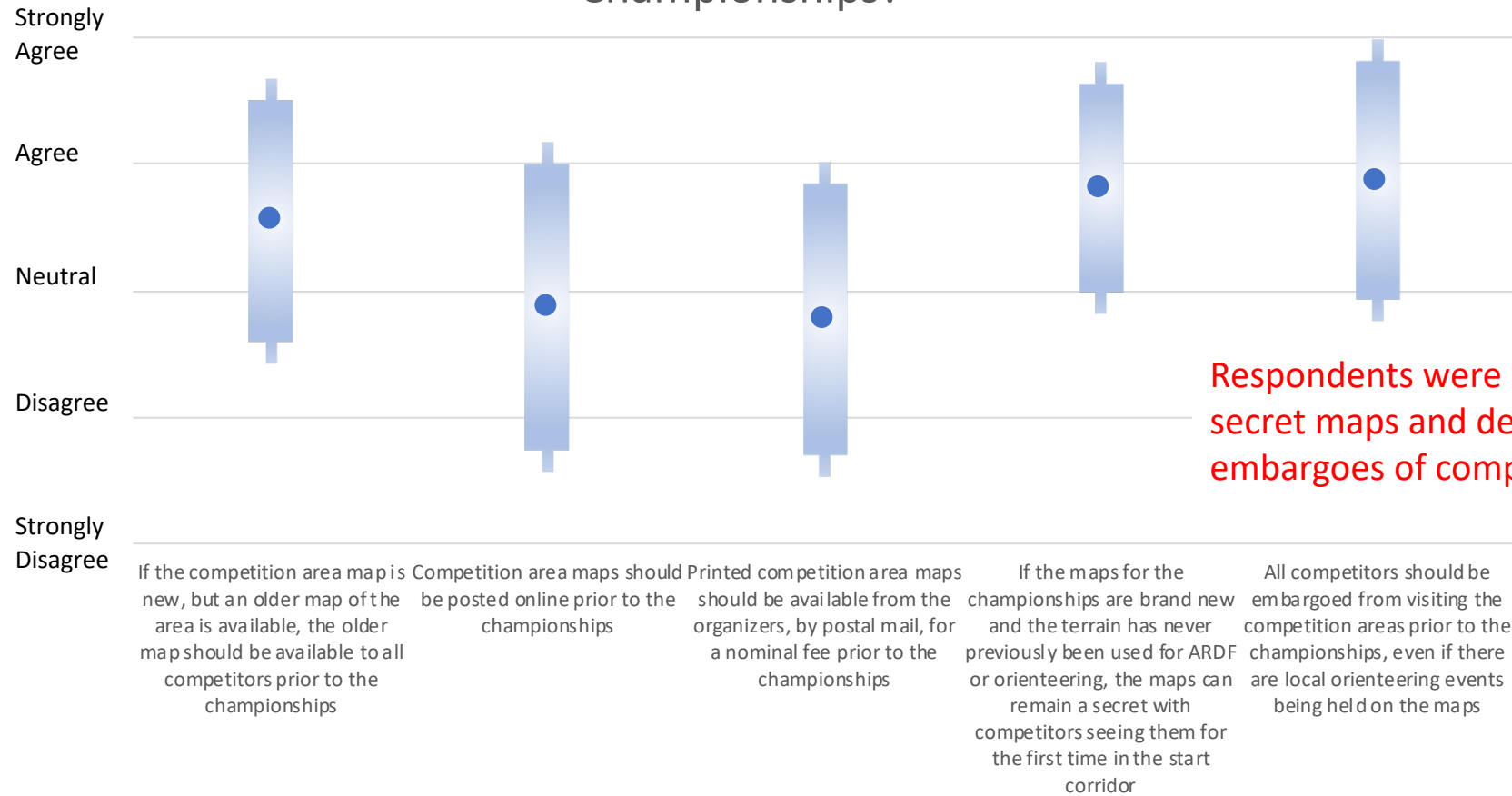
The ARDF rules presently forbid the use of GPS watches or headphones that include Bluetooth features at World Championships, as they are communication devices. Do you have a preference on the following rule change proposals?



If we throw out the “no opinion” answers, 57% of respondents would relax the current restrictions on Bluetooth, with the most popular of those options being to allow all Bluetooth devices without restriction

Single answer allowed  
Number of responses: 81

## Are you in favor of any of the following rules changes regarding competition maps at World Championships and Regional Championships?



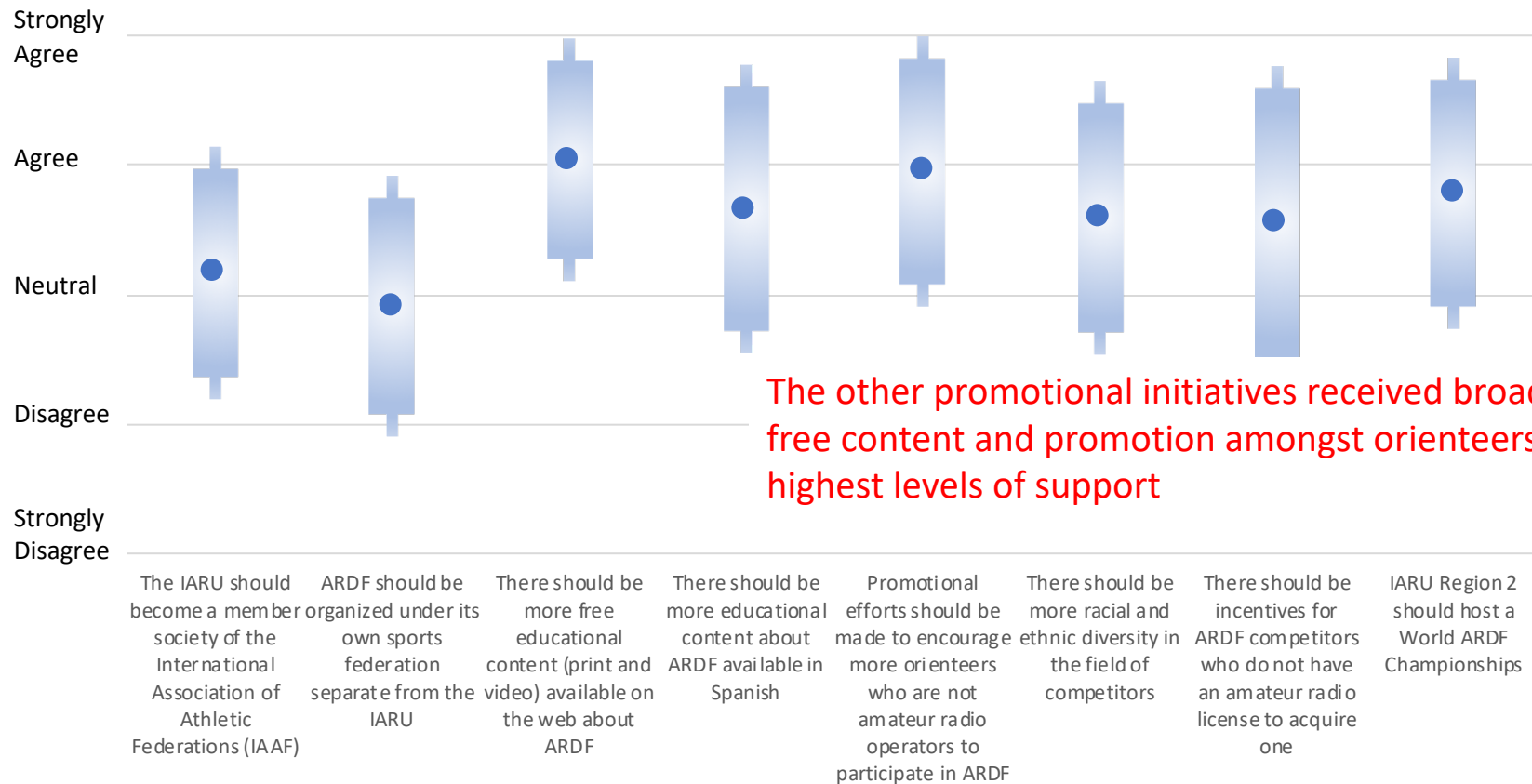
Respondents were comfortable with secret maps and desire more complete embargoes of competition areas

There was not a strong opinion in favor of map distribution prior a championships event online or by mail, unless it is an older map of the area

Multiple answers allowed  
Number of responses: 77



There are many ways we can promote the sport of ARDF. How important are each of the following to you?

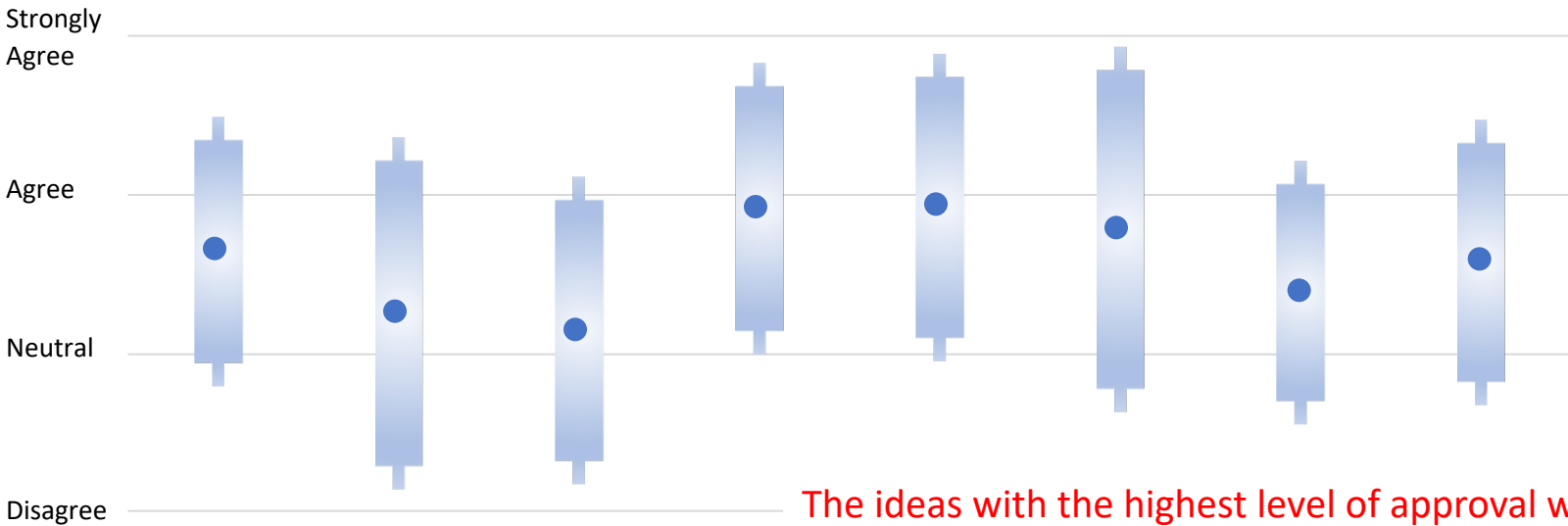


The other promotional initiatives received broad support with more free content and promotion amongst orienteers being getting the highest levels of support

There is very mild support for IAAF membership and no support for leaving the IARU for a new sports federation

Multiple answers allowed  
Number of responses: 77

# How can ARDF events be improved?



The ideas with the highest level of approval were open and low-cost championships, and establishing a list of international jurors from Region 2

All of these ideas received some level of approval, with the weakest approval for child care at events, drug testing, and live tracking of competitors

Multiple answers allowed  
Number of responses: 78

# More About You

9 Questions



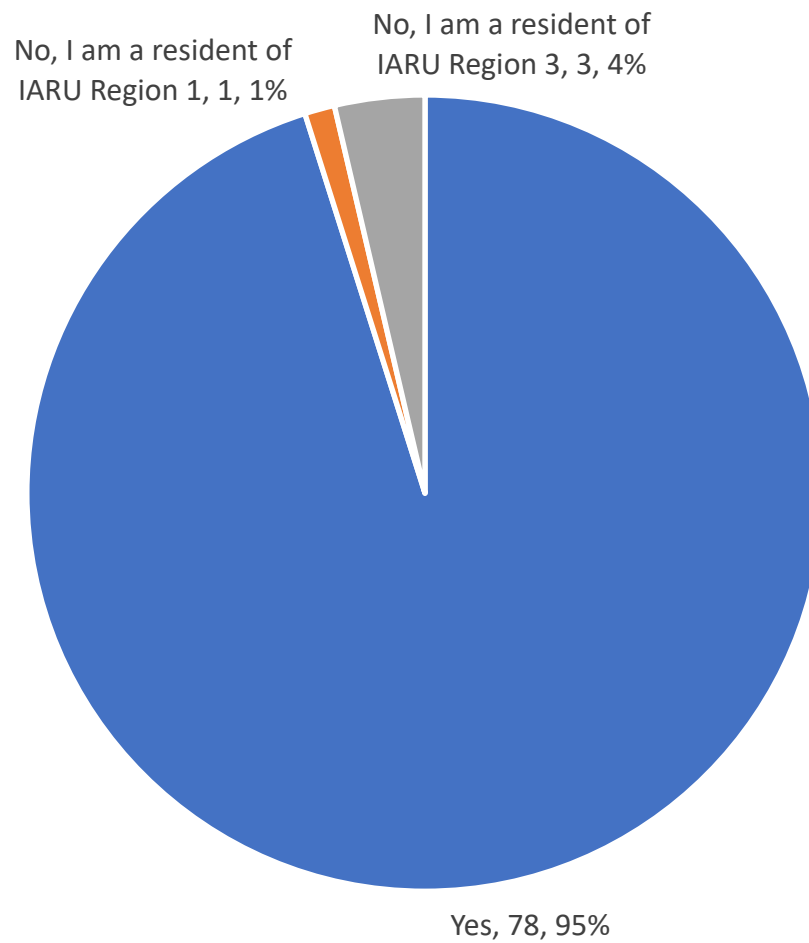
# Observations – Respondents

- Relatively fewer respondents answered these questions, but more did than answered the questions regarding rules and promotion ideas
- Only half of the respondents were from the USA and another 13% from Canada, the two countries with active ARDF competition schedules
  - This establishes that there is serious interest in ARDF in Region 2 countries that currently lack active competitions
- The few non-licensed survey respondents all answered that ARDF was the only activity in amateur radio that interested them

# Challenges and Opportunities – Respondents

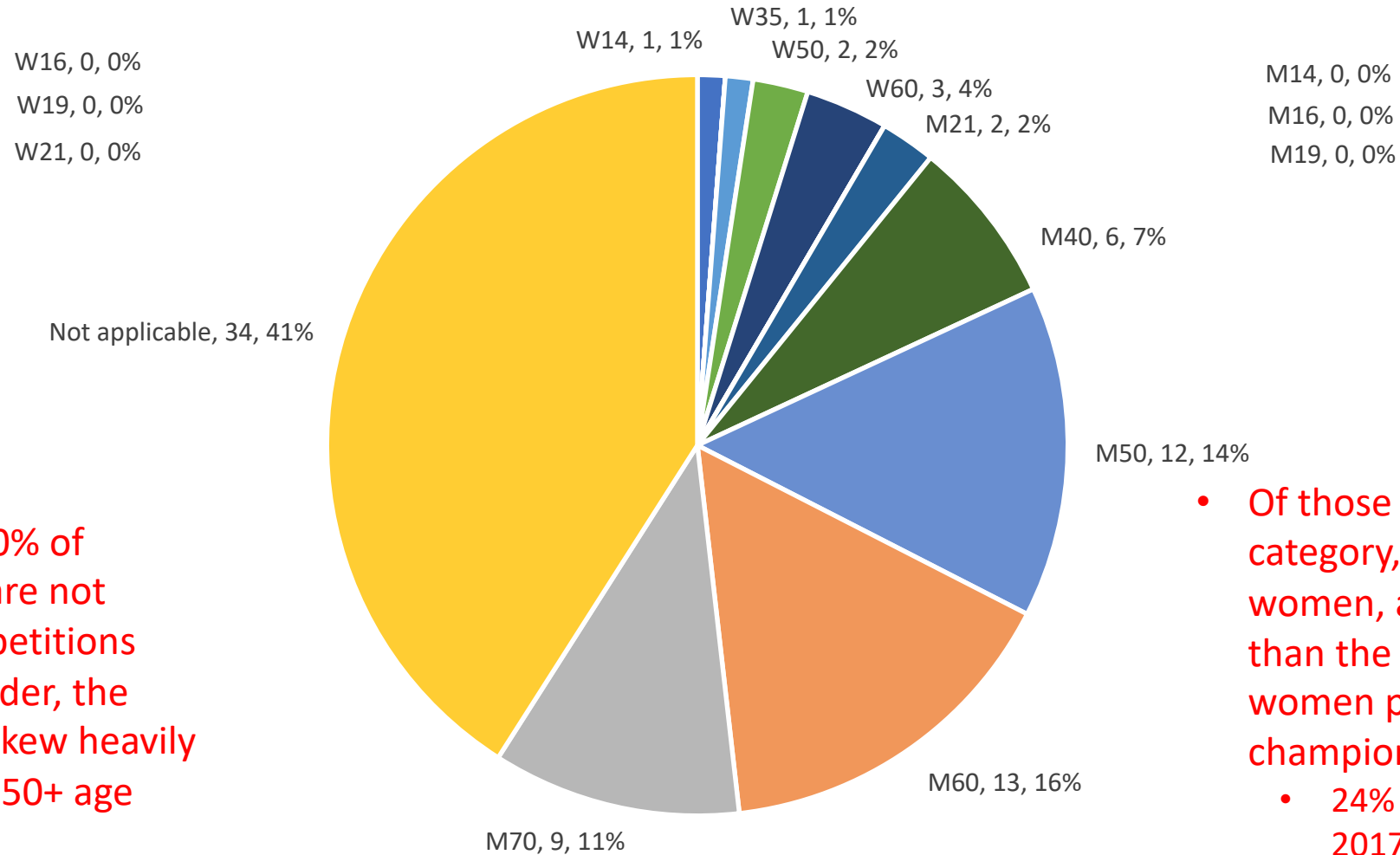
- Women are under-represented in the responses to the survey compared to their participation in organized ARDF competitions in the US and Canada
  - How can we encourage more participation in the non-competition aspects of the sport?
- Very few non-licensed ARDF competitors answered the survey
  - How do we reach out to these athletes to ensure their interests are represented?
- The respondents to the survey are Amateur Radio veterans with nearly half of the respondents licensed for more than 30 years
  - How do we ensure younger/newer participants are engaged?

## Are you a resident of an IARU Region 2 country (countries in North and South America)?



The vast majority of  
respondents were from  
IARU Region 2

## What is your competitive category in ARDF?

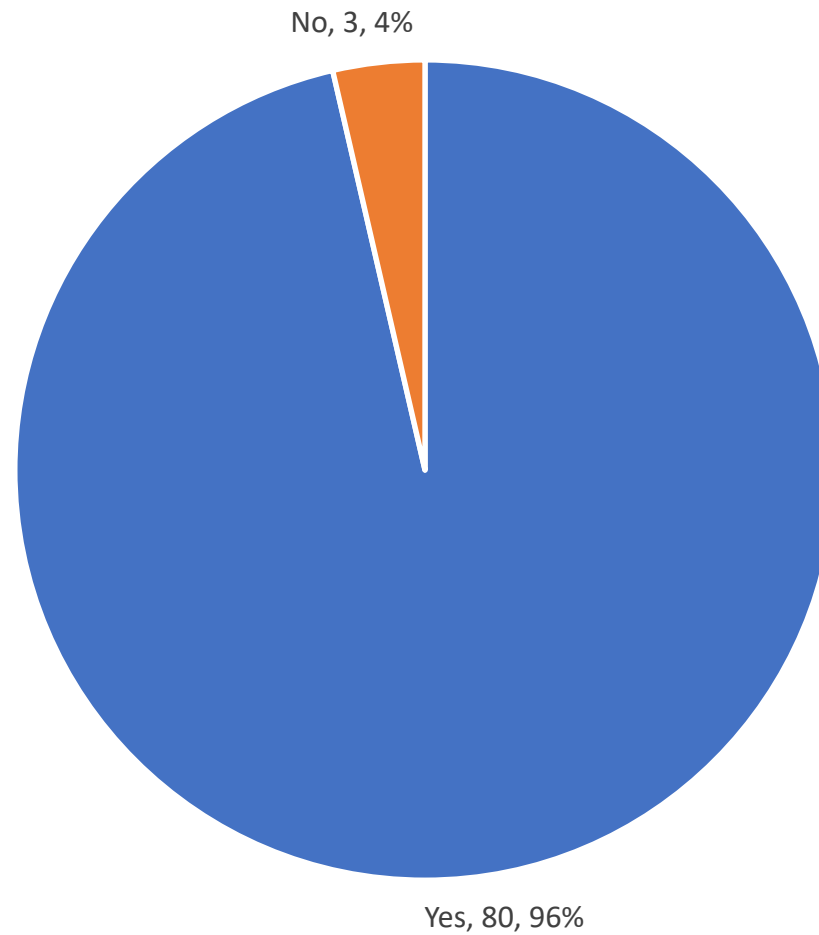


- A little over 40% of respondents are not active in competitions
- Of the remainder, the respondents skew heavily to men in the 50+ age categories

- Of those answering with a category, about 16% were women, a lower percentage than the percentage of women participating in championships events
  - 24% of competitors in the 2017 IARU Region 2 Championships were women

Single answer allowed  
Number of responses: 83

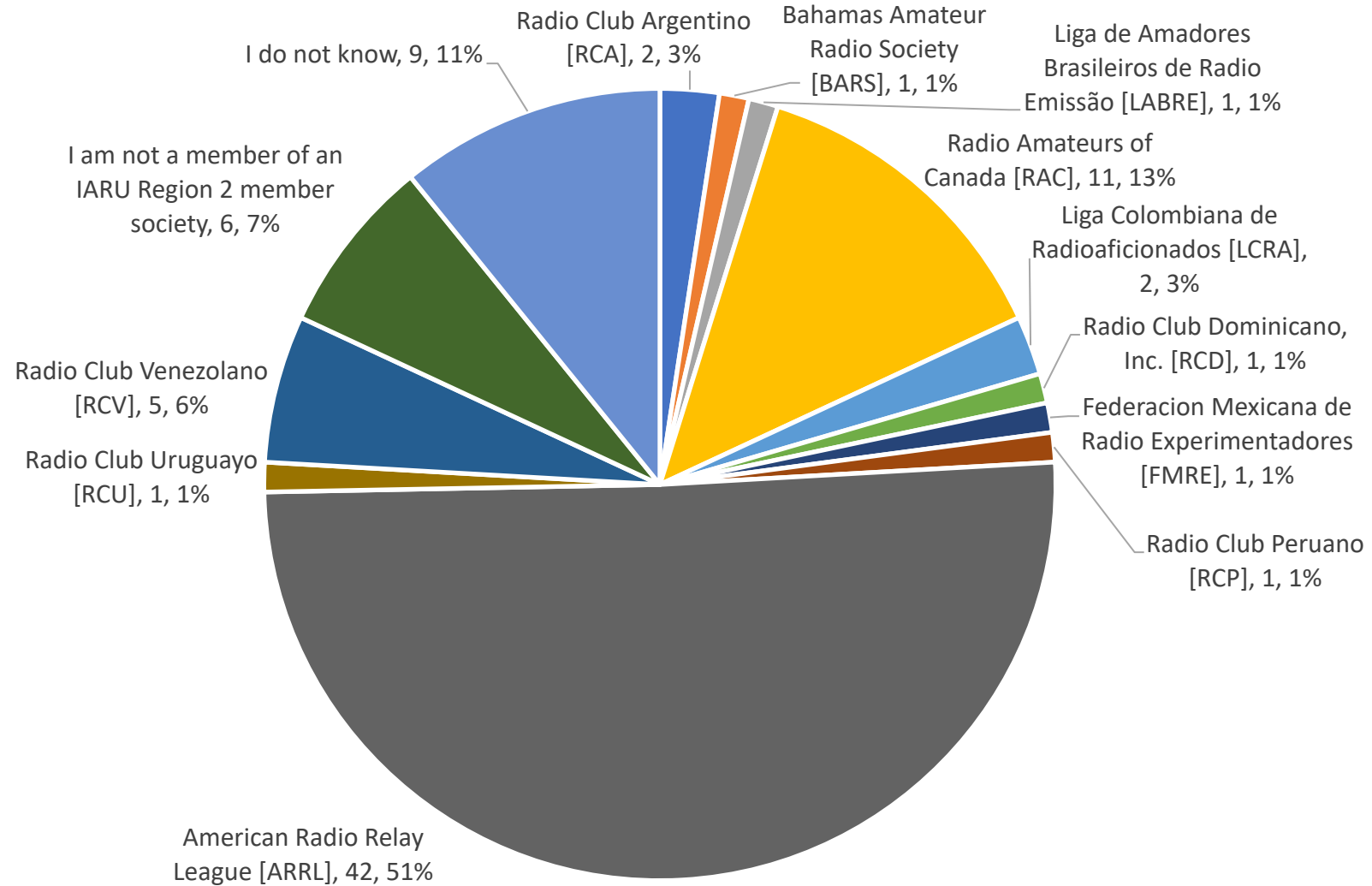
## Are you a licensed amateur radio operator?



- The vast majority of respondents were licensed amateur radio operators
- The percentage of non-licensed ARDF competitors at events is higher than 3.6%

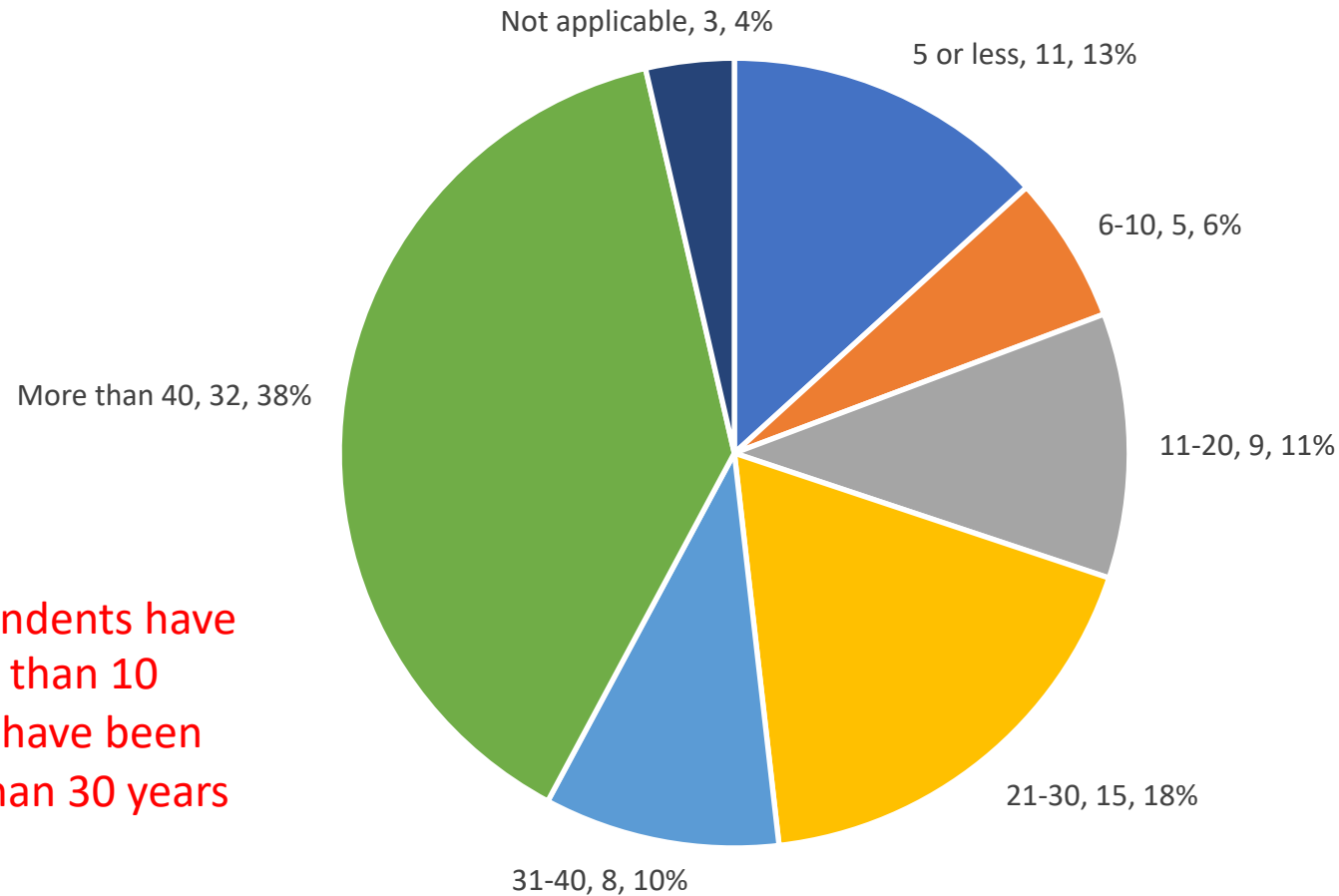


## What is your IARU Region 2 member society?



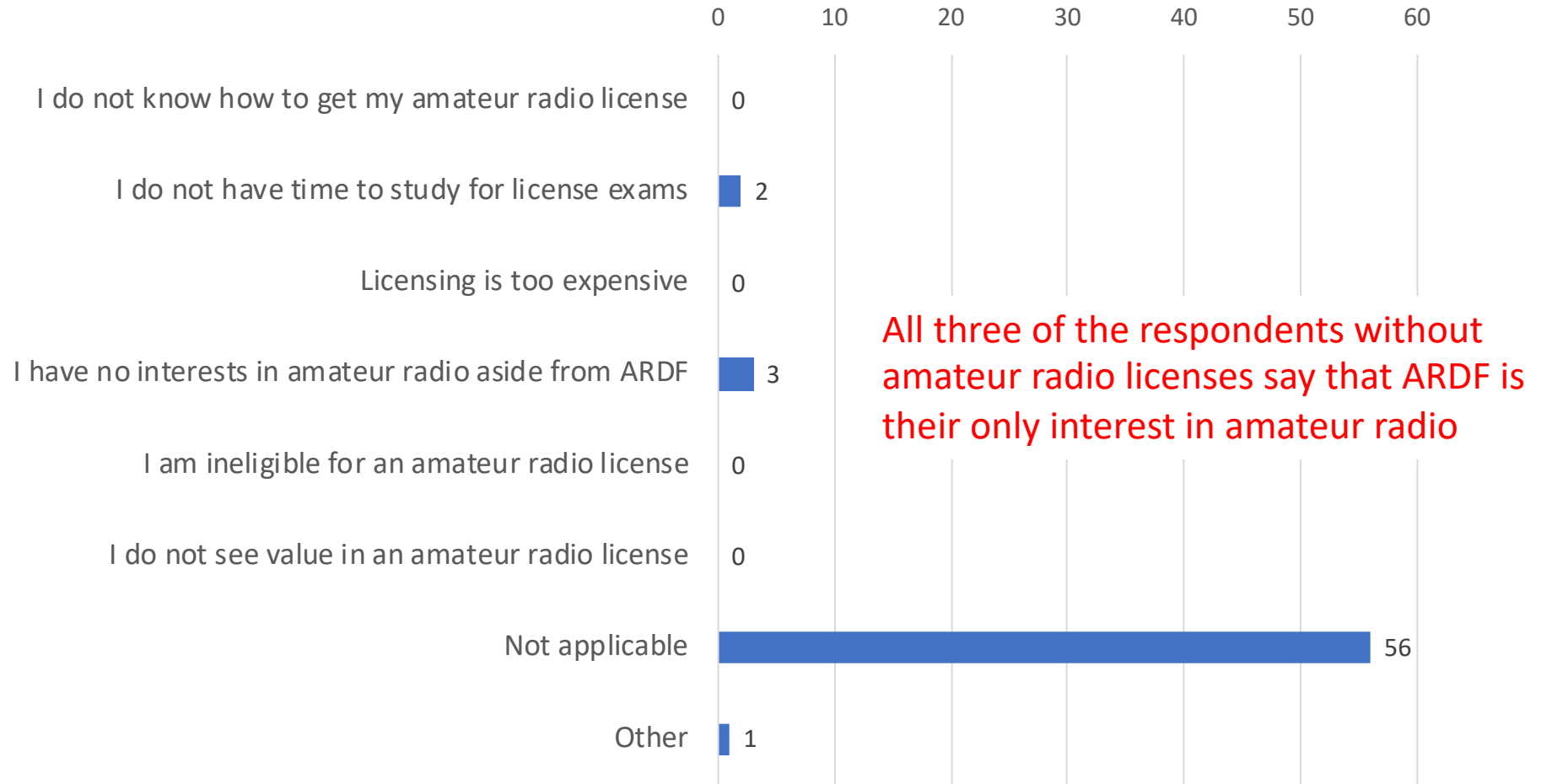
Half of the  
respondents  
were from the  
USA

If you are a licensed amateur radio operator, for how many years have you had your license?

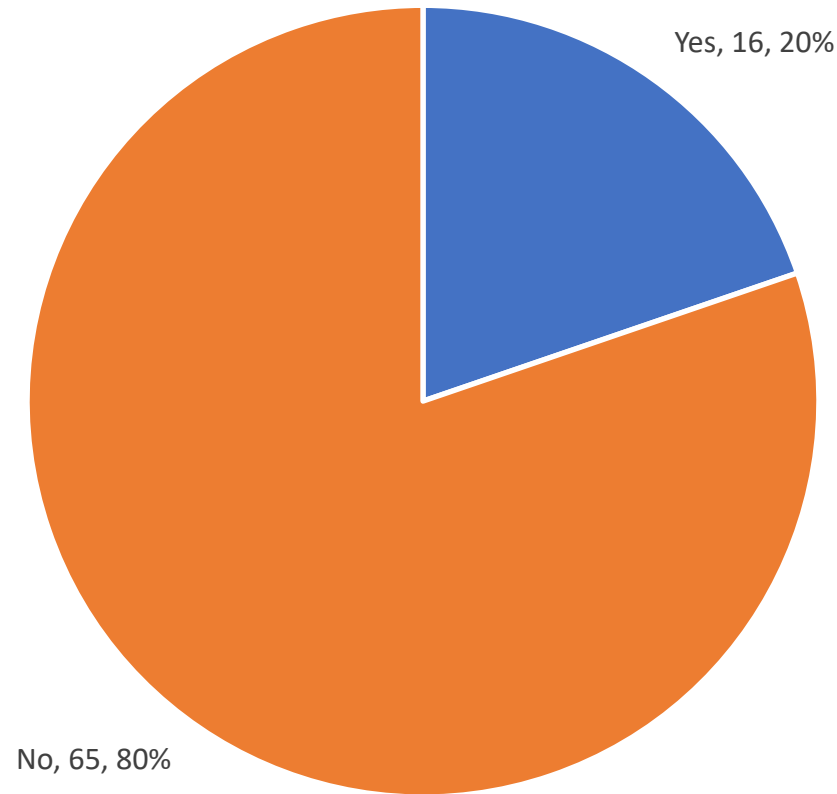


- Over  $\frac{3}{4}$  of the respondents have been licensed more than 10 years, and nearly  $\frac{1}{2}$  have been licensed for more than 30 years

## If you are not a licensed amateur radio operator, why not?



## Do other members of your family also compete in ARDF events?



Can this percentage be improved with more active participation by youth? The age ranges of respondents suggest that most would have already-grown children.



# Conclusion

# Future Surveys – Planned Improvements

Analyzing the result of the first survey, we have identified some opportunities:

- Clearly define some terms used in the survey to reduce any chance of misinterpretation:
  - ARDF event, ARDF competition, ARDF championships
  - ARDF specialty receivers and transmitters
  - What is meant by help or participate or attend
- More clarity about IARU-format ARDF versus other transmitter hunting activities
- Offer more options “I do not know” or “no opinion” options to the questions
- Consider making more of the questions “must answer”



# Contact

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IARU Region 2 ARDF Coordinator

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