

# Appendix to support the Independent review of the Civil Aviation Authority's Air Display Enhanced Measures

## Document information

<b>Document title</b>	Appendix to support the Independent review of the Civil Aviation Authority's Air Display Enhanced Measures
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# 1 Introduction

## 1.1 Overview

This document is the Appendix to the 'Independent Review of the Civil Aviation Authority's Air Display Enhanced Measures'.

## 1.2 Document Structure

The structure of the appendix is as follows:

- Annex A contains a copy of the FDD & Organiser, Pilot, and Public surveys.
- Annex B contains survey results.

## 1.3 Acknowledgements

We would like to thank all the individuals and organisations who provided valuable input to this review by attending workshops, responding to surveys or otherwise giving feedback.

# A Surveys

## A.1 FDD & Organiser Survey

Thank you for taking the time to complete this survey. It is designed to collect data pre- and post- the introduction of the enhanced measures. Please answer questions which are applicable to you.

Your response to this questionnaire will remain anonymous.

You may complete one form for each air display if you wish.

Please return it and any additional supporting information to: [caapost-implementationreview@askhelios.com](mailto:caapost-implementationreview@askhelios.com)

Name of air display: \_\_\_\_\_

Did your air display take place this year? **YES / NO**

If your air display did not take place this year, please go straight to Section B.

### **SECTION A**

#### **DISPLAY ITEMS**

How many display items did you have?	<i>Before enhanced measures were implemented (2015):</i>	<i>After enhanced measures were implemented (2016):</i>
	Number:	Number:
Please state the reason for any changes below, that are relevant to the introduction of the enhanced measures:		

#### **COST**

How much did an air display ticket cost?	<i>Before enhanced measures:</i>	<i>After enhanced measures:</i>
	£	£
How much did it cost to organise the event?	<i>Before enhanced measures:</i>	<i>After enhanced measures:</i>
	£	£

Please itemise any additional costs incurred after the enhanced measures when organising the air display. For example, road closures, measures taken to prevent public viewing in unauthorised areas, etc.

	Item	Cost
1		
2		
3		
4		
5		
6		
7		

8		
9		
10		

What was the cost of insurance?	<i>Before enhanced measures:</i> £	<i>After enhanced measures:</i> £  Did your arrangements change? Did you take out any additional insurance?
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**SEPARATION DISTANCES**

Did you have to move your display line this year?  If so, what was the impact?	YES / NO  Impact:
Did you apply for a dispensation / exemption as a result of enhanced separation distances?	YES / NO  Comments:

**RISK ASSESSMENT**

Did you complete a written risk assessment <u>before</u> the enhanced measures were implemented?	YES / NO  Comments:	
Did you identify additional areas beyond the aerodrome that required risk assessing?	<i>Before enhanced measures: YES / NO</i>  Comments:	<i>After enhanced measures: YES / NO</i>  Comments:
Approximately how many people in the general public viewed the air display from outside of the show?	<i>Before enhanced measures:</i>	<i>After enhanced measures:</i>

**PROCESS DOCUMENTATION**

<p>Please comment on the display application process:</p>	<p>Is it clear? YES / NO Is additional guidance required? YES / NO Comments:</p>
<p>Please comment on the risk assessment process:</p>	<p>Is it clear? YES / NO Is additional guidance required? YES / NO Comments:</p>
<p>Please comment on the exemption/dispensation process:</p>	<p>Is it clear? YES / NO Is additional guidance required? YES / NO Comments:</p>

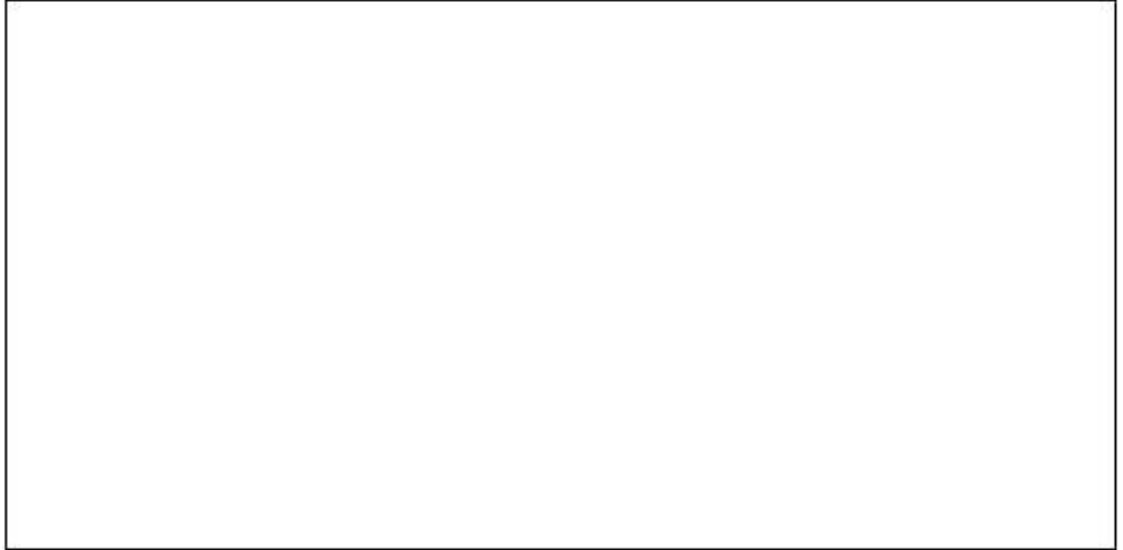
**PERSONNEL**

<p>Please comment on 'STOP' calls</p>	<p>Is this process well defined? YES / NO Is additional guidance required? Comments:</p>
---------------------------------------	--

**SECTION B**

**CANCELLATION**

*If your air display did not take place this year, please explain below if this was related to the introduction of the enhanced measures:*

A large, empty rectangular box with a thin black border, intended for the user to provide an explanation if their air display was cancelled.



## A.2 Pilot Survey

*Thank you for taking the time to complete this survey. It is designed to collect data pre- and post- the introduction of the enhanced measures. Please answer questions which are applicable to you.*

*Your response to this questionnaire will remain anonymous.*

*You may complete one form for each air display if you wish.*

*Please return it and any additional supporting information to: [caapost-implementationreview@askhelios.com](mailto:caapost-implementationreview@askhelios.com)*

Name of air display: \_\_\_\_\_

Did your air display take place this year? **YES / NO**

*If your air display did not take place this year, please go straight to Section B.*

### **SECTION A**

#### **COST**

What was the cost of insurance?	Before enhanced measures:  £	After enhanced measures:  £  Did your arrangements change? Did you take out any additional insurance?
---------------------------------	------------------------------------	---

#### **SEPARATION DISTANCES**

Did you apply for a dispensation / exemption as a result of enhanced separation distances?	YES / NO  Comments:
Please comment on the exemption/dispensation process:	Is it clear? YES / NO  Is additional guidance required? YES / NO  Comments:

**PERSONNEL**

<p>Please comment on Medical Standards:</p>	<p>Have you been affected by the change in medical requirements? YES / NO</p> <p>Comments:</p>
<p>Please comment on the DA validation process:</p>	<p>Do you think a change to the minimum hours flying requirement in a high-performance aircraft will increase safety? YES / NO</p> <p>Will a change in your DAE evaluator impact your DA revalidation process (after two years) in a negative way? YES / NO</p> <p>Do you think the new DAE evaluation process (i.e. asking pilots to perform a series of unrehearsed linked manoeuvres) enhances safety? YES / NO</p> <p>Comments:</p>
<p>Please comment on 'STOP' calls:</p>	<p>Is this process well defined? YES / NO</p> <p>Is additional guidance required?</p> <p>Comments:</p>

**SECTION B**

**CANCELLATION**

*If your air display did not take place this year, please explain below if this was related to the introduction of the enhanced measures:*

## A.3 Public Survey

Thank you for taking the time to complete this questionnaire about your experience at the air display today. Your input is greatly appreciated. Your response to this questionnaire will remain completely anonymous.

**Instructions:** Please circle **one** answer, where applicable, for each of the questions below.

- What is the purpose of your visit today?:
 

<input type="button" value="Air Display"/>	<input type="button" value="Other"/>
--	--------------------------------------
- Who have you come with today?
 

<input type="button" value="Alone"/>	<input type="button" value="Family"/>	<input type="button" value="Friends"/>	<input type="button" value="Other"/>
--------------------------------------	---------------------------------------	--	--------------------------------------
- How far have you travelled today?
 

<input miles")"="" type="button" value("&lt;10=""/>	<input miles")"="" type="button" value("10-30=""/>	<input miles")"="" type="button" value("&gt;30=""/>
---	--	---
- How many air displays have you attended this year, prior to this one?
 

<input -="" 2")"="" type="button" value("0=""/>	<input -="" 5")"="" type="button" value("3=""/>	<input +")"="" type="button" value("6=""/>
---	---	--
- Have you attended this air display before?
 

<input type="button" value="YES"/>	<input type="button" value="NO"/>
------------------------------------	-----------------------------------
- If you have attended before, have you noticed a difference with this air display compared to the display you attended previously?  
 If you have not attended this air display before, please move to the next question.
 

<input type="button" value="1"/>	<input type="button" value="2"/>	<input type="button" value="3"/>	<input type="button" value="4"/>	<input type="button" value="5"/>
Significant difference				No change
- Were you able to see the air display clearly today?
 

<input type="button" value="1"/>	<input type="button" value="2"/>	<input type="button" value="3"/>	<input type="button" value="4"/>	<input type="button" value="5"/>
Poor visibility				Excellent visibility
- Did the air display meet expectations?
 

<input type="button" value="1"/>	<input type="button" value="2"/>	<input type="button" value="3"/>	<input type="button" value="4"/>	<input type="button" value="5"/>
Significantly below expectation				Significantly above expectation
- If the air display did not meet your expectations, please select the main reason why from below:  
 If the display did meet expectations, please move to the next question.
 

<input type="button" value="Unable to see the air display clearly"/>	<input type="button" value="Not enough aircraft"/>	<input type="button" value="Poor variety of aircraft type"/>
<input type="button" value="Poor flying display"/>	<input type="button" value="Too expensive"/>	<input type="button" value="Other"/>
- Do you think the air display is value for money?  
 Please answer if you attend, on average, 2 or more air displays in a year. If not, please move to the next question.
 

<input type="button" value="1"/>	<input type="button" value="2"/>	<input type="button" value="3"/>	<input type="button" value="4"/>	<input type="button" value="5"/>
Poor value				Excellent value
- How safe did you feel watching the air display?
 

<input type="button" value="1"/>	<input type="button" value="2"/>	<input type="button" value="3"/>	<input type="button" value="4"/>	<input type="button" value="5"/>
Extremely anxious				Very safe
- Would you attend this air display in the future?
 

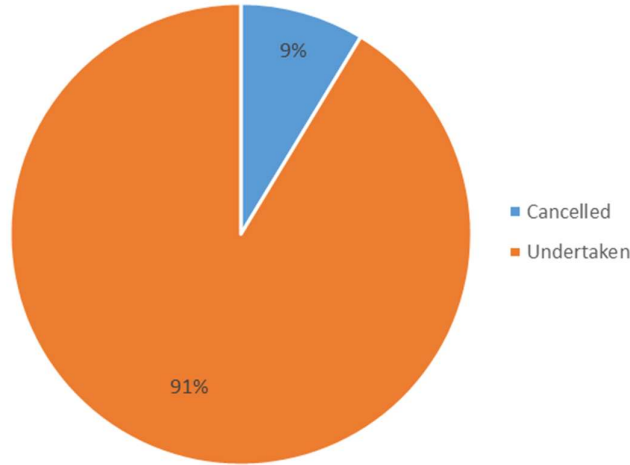
<input type="button" value="YES"/>	<input type="button" value="NO"/>
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## B Survey Results

### B.1 FDD & Organiser Survey

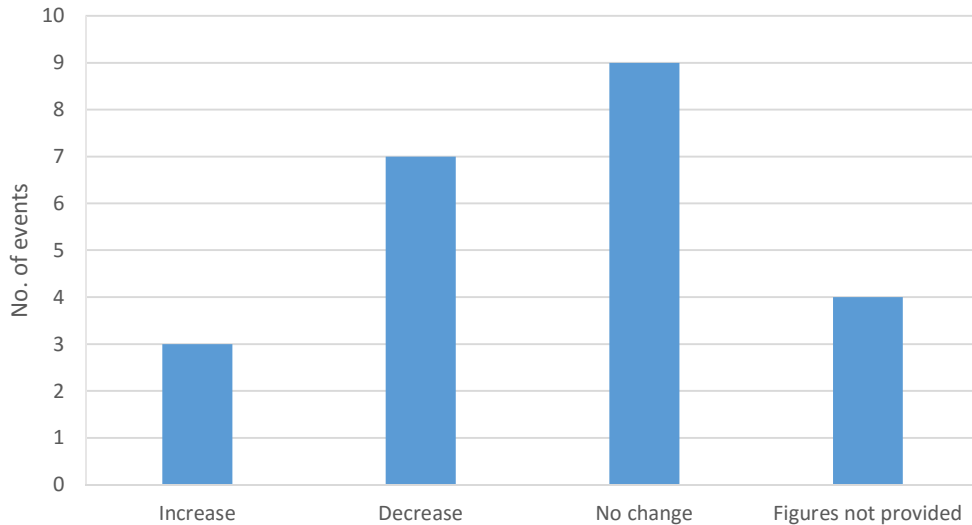
The CAA distributed the FDD & Organiser Survey to about 500 industry representatives on behalf of Helios. We received 23 responses to this survey. All comments and feedback we received via the survey have been integrated into our final report (Independent review of the Civil Aviation Authority's Air Display Enhanced Measures).

**Question.** Did your air display take place this year?



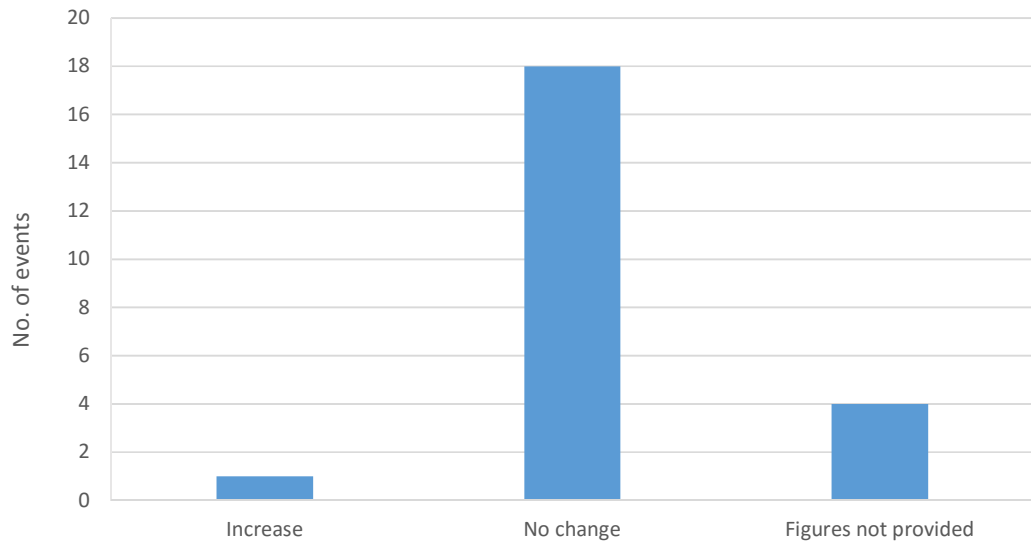
In total, 2 of the 23 events which we received feedback about were cancelled. Neither event was cancelled because of the enhanced measures.

**Question.** Change in the number of display items from 2015 to 2016



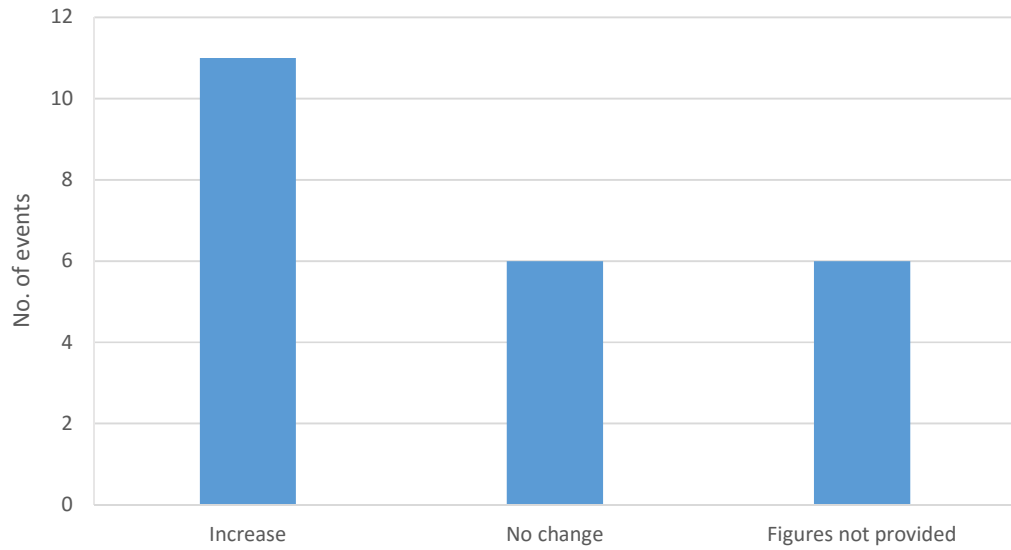
In total, 3 of the 23 events increased their number of display acts. One of these events (Farnborough) had extra display items to compensate for the RAF's decision that Red Arrows would not do the full display at Farnborough.

**Question.** Change in air display ticket cost from 2015 to 2016



Only 1 of the 23 events increased their ticket price. Consultees said that increased costs haven't generally been reflected in ticket prices this display season because of late implementation of the enhancements, which left no time for organisers to alter their ticket prices.

**Question.** Change in event organisation cost from 2015 to 2016



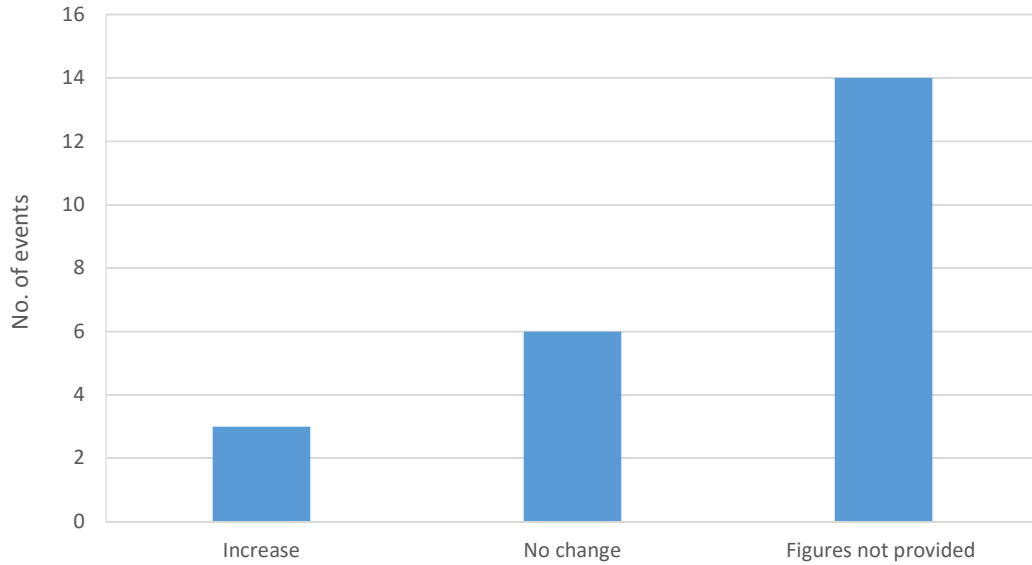
**Additional costs** described in survey responses

Air display	Description of additional costs at air display	Cost (£)
1	Sea rescue enhancements.	2,000
2	Additional PR & Notices.	Not provided
	Considerable extra time in preparing/negotiating application with CAA.	Not provided
3	Protection measures to keep public outside MOD land outside the airfield.	150,000+
	Additional direct cost to FIA of increased permission preparation, Risk Assessment amendment, briefings with CAA on proposed new Farnborough rules.	3,000
	Additional costs absorbed personally by FDD in carrying out additional work to develop a safety concept, test that at all levels in GA Unit and CAA, coordinate requirements with organiser, educate SAG on how aviation regulation (military and civil) works and explain the SAG's relationship to and (lack of) responsibility for judging aviation risk.	3,000+
	Additional FCC cost in light of increased liabilities following Shoreham.	2,000+
4	Post show charges.	700
5	The only real cost was the time.	Immeasurable
6	Enhancing the existing risk assessment. Costed at £100/hour for a suitably qualified and experienced person (SQEP).	8,000
	Writing a case for the CAA to grant an exemption to CAP 403 changes to pilot currency. Costed at £100/hour for a SQEP.	4,000
	Writing a case for the CAA to grant an exemption to CAP 403 changes to separation distances to protect 'vulnerable' aircraft and permit hop type flights along the runway. Costed at £100/hour for a SQEP.	3,200
	Writing a case for the CAA to grant an exemption to CAP 403 changes to separation distances. Costed at £100/hour for a SQEP.	10,000
	Costs arising from road and footpath closures, signage, security, police and traffic management for Season Premier (Red Arrows footprint).	11,267
	Costs arising from road and footpath closures security, police and traffic management for remaining 5 Sunday airshows at £3934 per show (Warbird footprint).	19,670

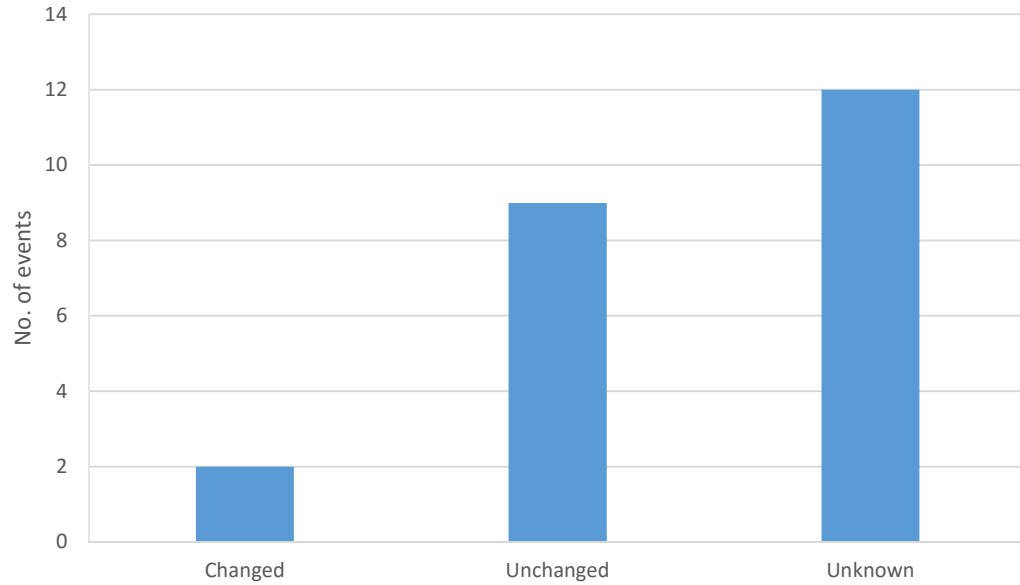
Commercial-in-Confidence

	Costs associated with recovery from the unnecessary and ill-considered removal of the General Exemption. Costed at £100/hour for a SQEP.	1,600
	Costs associated with recovery from the unnecessary and ill-considered change to the definition of aerobatics. Costed at £100/hour for a SQEP.	1,600
7	CAA charges	3,000
	Crowd line adjustments due to change to MSD's.	3,000
	Secondary crowd policing.	15,000
	Admin	2,000
	Extra FDD charges.	3,000
	Extra display charges.	5,000
8	Additional vessels to monitor and police the enlarged Marine Safety Zone (MSZ).	4,200
	Additional buoys for enlarged MSZ.	1,000
	Additional resources e.g. generators, phone lines, fencing, additional security / stewards due to relocation of FDD and officer time.	5,200
	Council officers time to promote and communicate the new MSZ.	5,000
	Costs to relocate and loss of revenue from Hospitality offer due its relocation as a result of the movement of the datum line.	20,000

**Question.** Change in insurance costs from 2015 to 2016



**Question.** Change in event insurance arrangements from 2015 to 2016

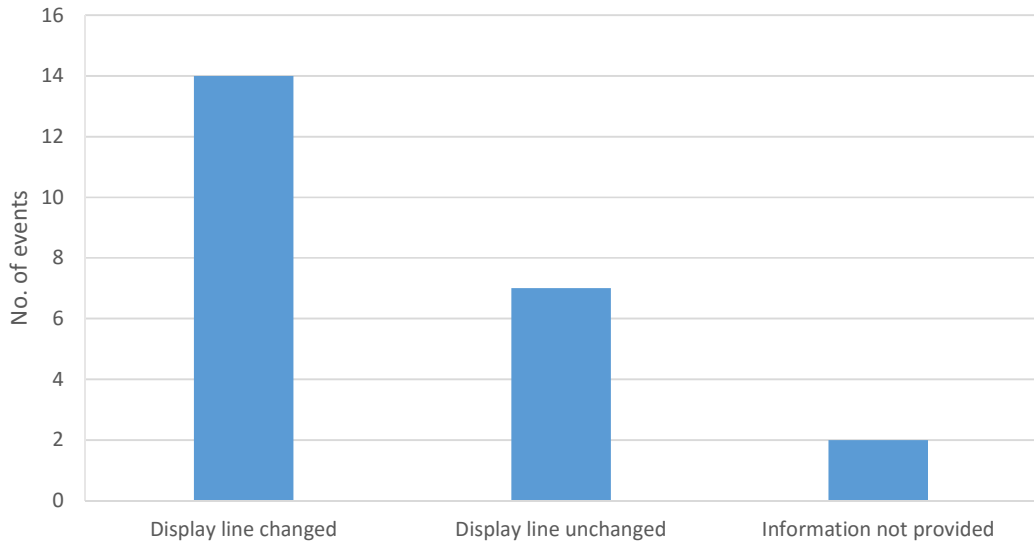


In total, 2 of the 23 respondents told us they changed their insurance arrangements for the event they were managing. Both respondents managed events at Shuttleworth. The same information was therefore provided by their individual responses, as seen below:

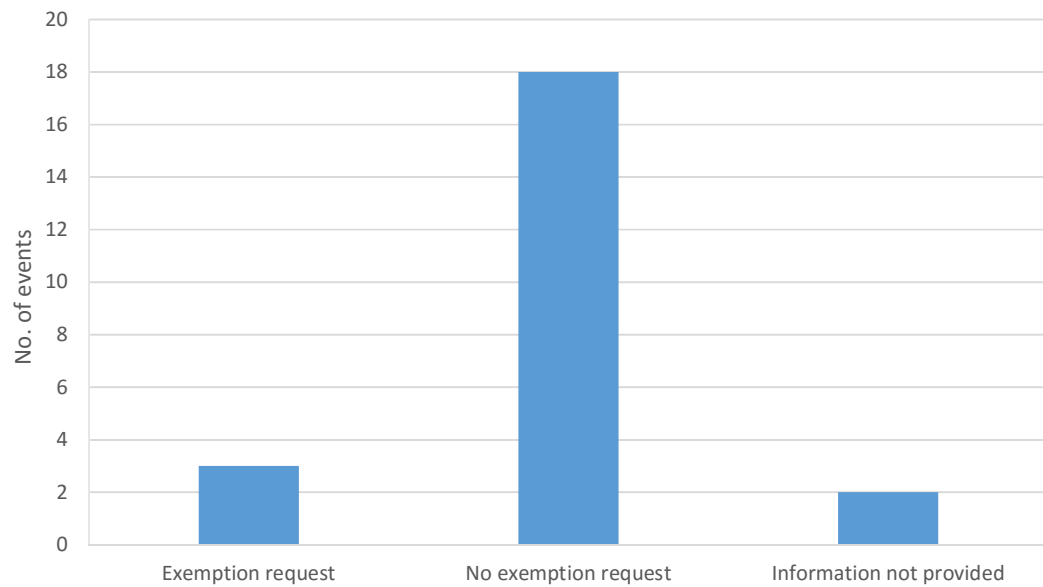
*'Increase premises (air show venue) cover to £50M - + £5096 Provide 'top-up' cover for underinsured visiting airshow acts +£2463.'*



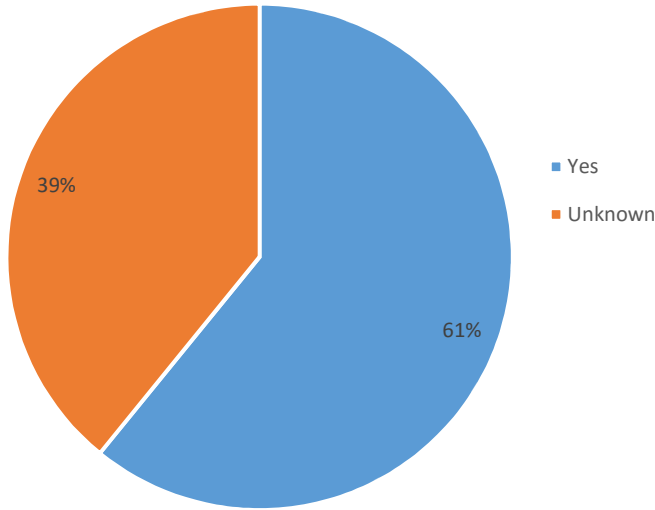
**Question.** Did your display line move this display season (2016)?



**Question.** Did you apply for an exemption/dispensation?

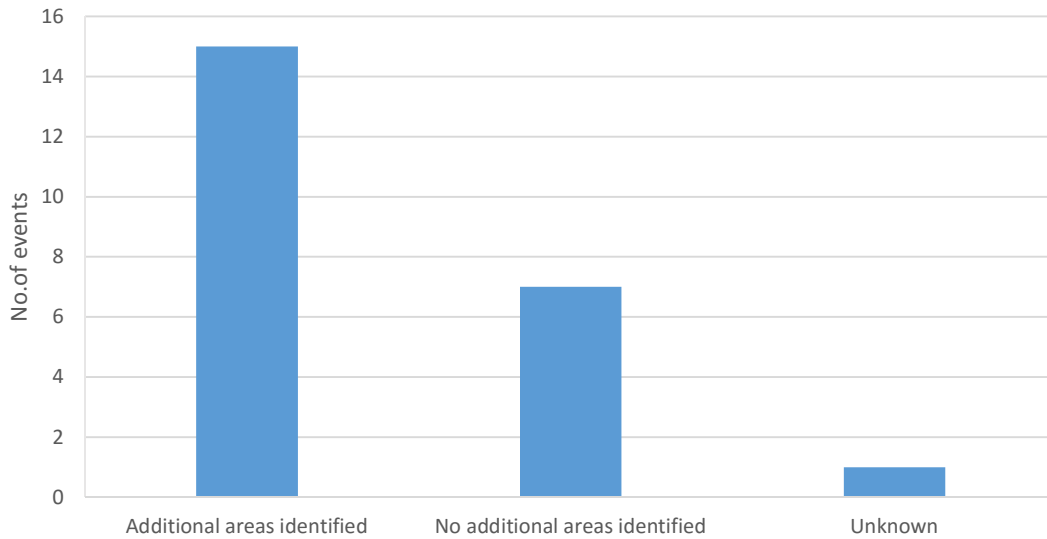


**Question.** Did you complete a written risk assessment before the enhanced measures were implemented?

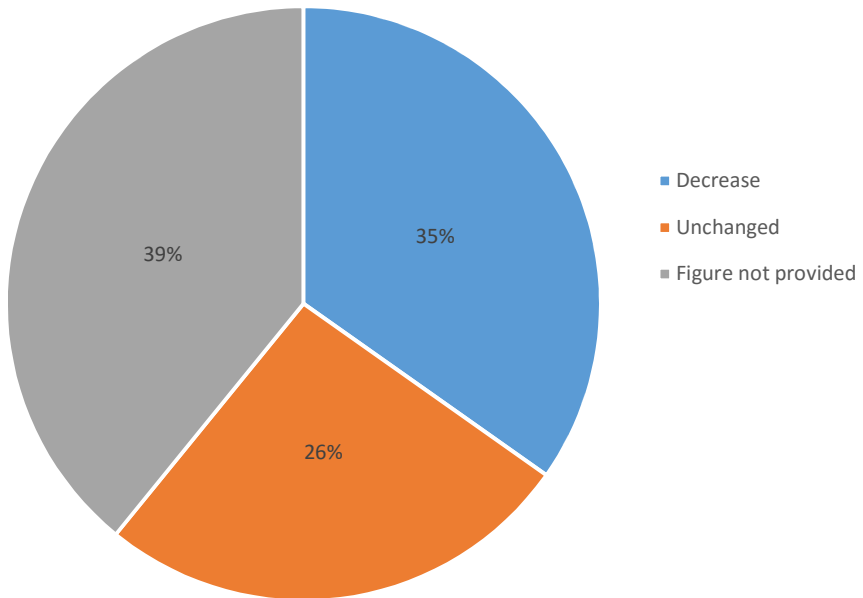


Risk assessments are a compulsory requirement, enforced by the CAA. In total, 9 of the 23 respondents didn't provide feedback. Of these responses, 5 said that they were not involved with the event in question in 2015 and therefore were unable to answer the question, 1 told us that their assessment was carried out by TSA Consulting, 1 event wasn't risk assessed because it was cancelled in the early stages, and 2 respondents provided no feedback.

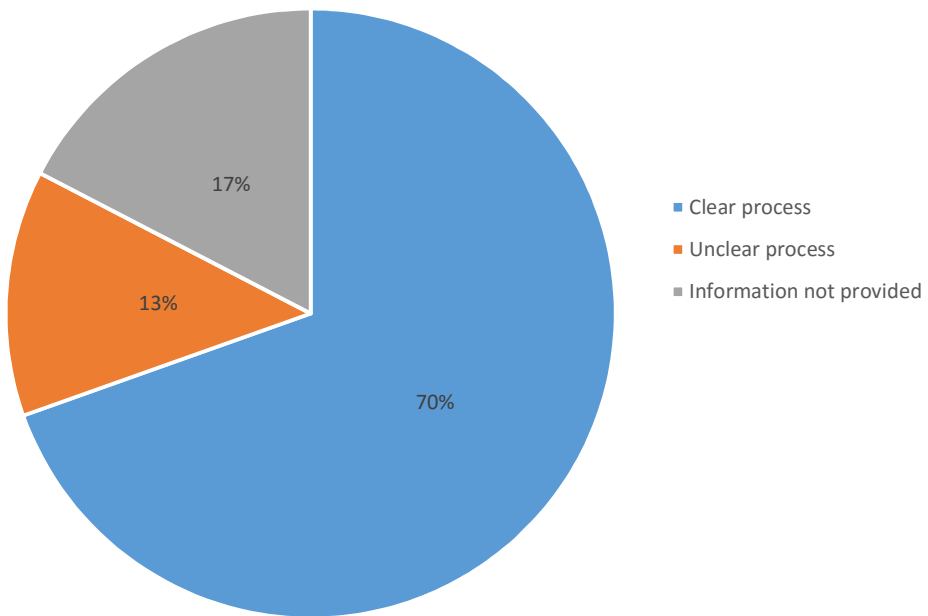
**Question.** Were additional areas risk assessed (beyond the aerodrome) compared to 2015?



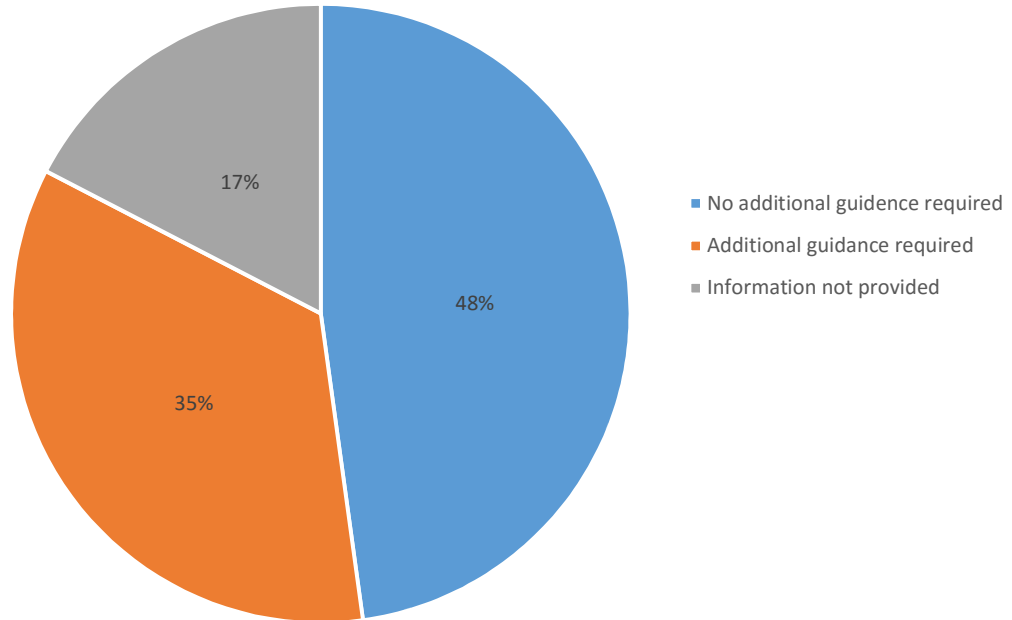
**Question.** Number of people viewing the display from outside of the show from 2015 to 2016



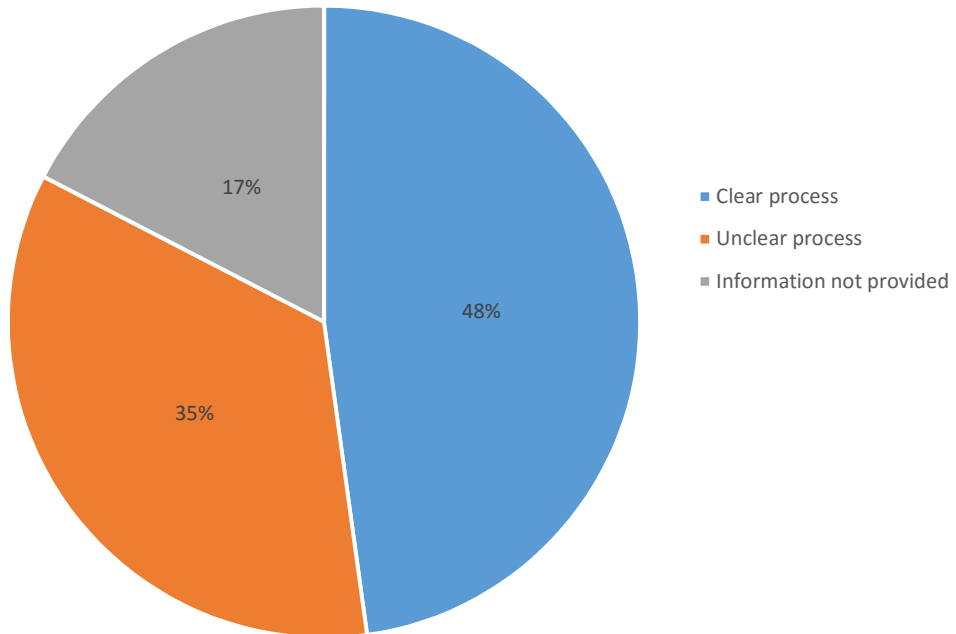
**Question.** Is the application process clear?



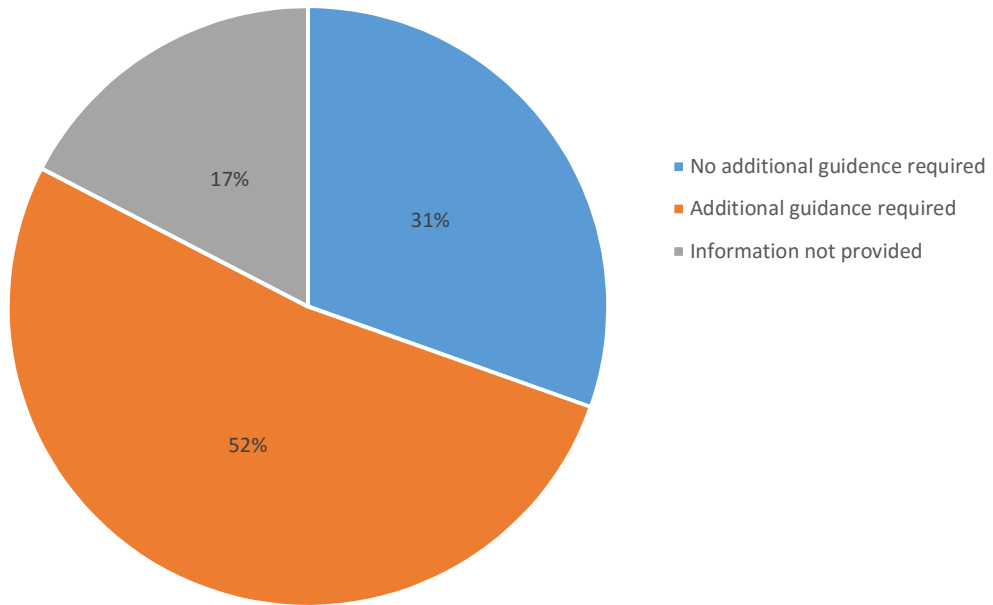
**Question.** Is additional guidance required for the application process?



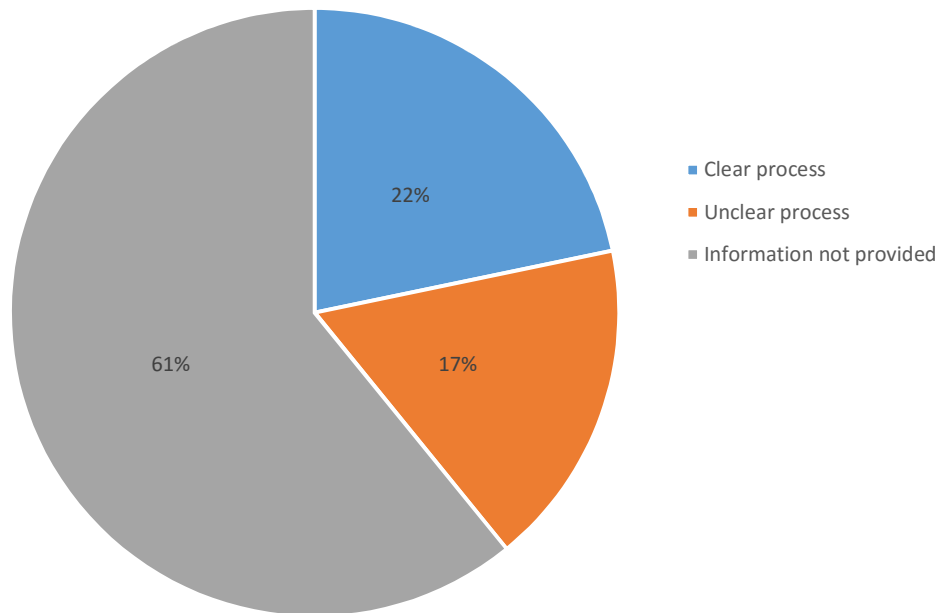
**Question.** Is the risk assessment process clear?



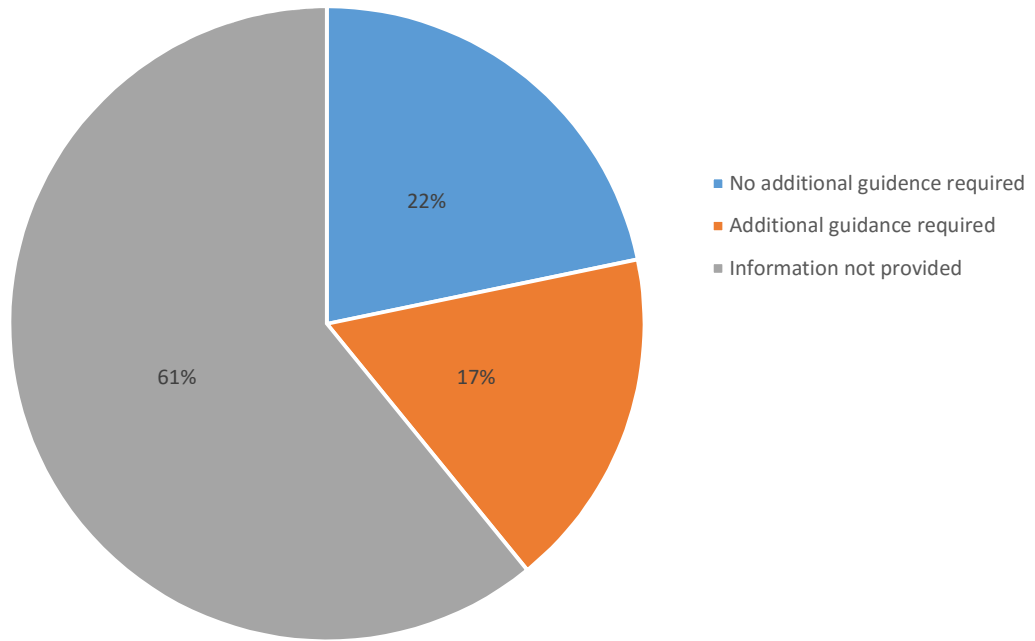
**Question.** Is additional guidance required for the risk assessment process?



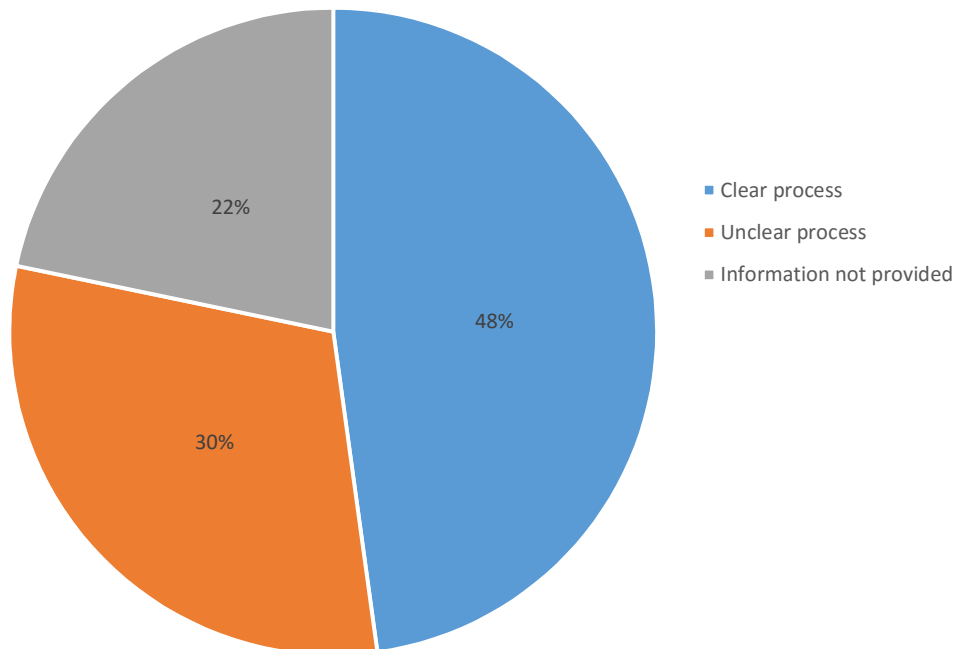
**Question.** Is the dispensation/exemption process clear?



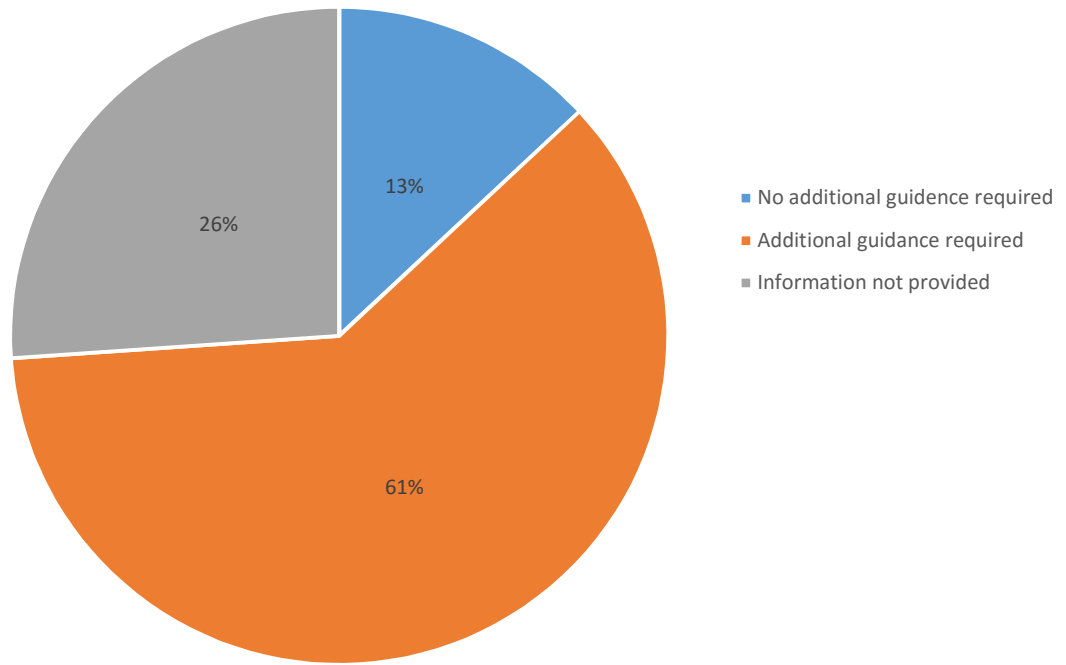
**Question.** Is additional guidance required for the dispensation/exemption process?



**Question.** Is the STOP call process clear?



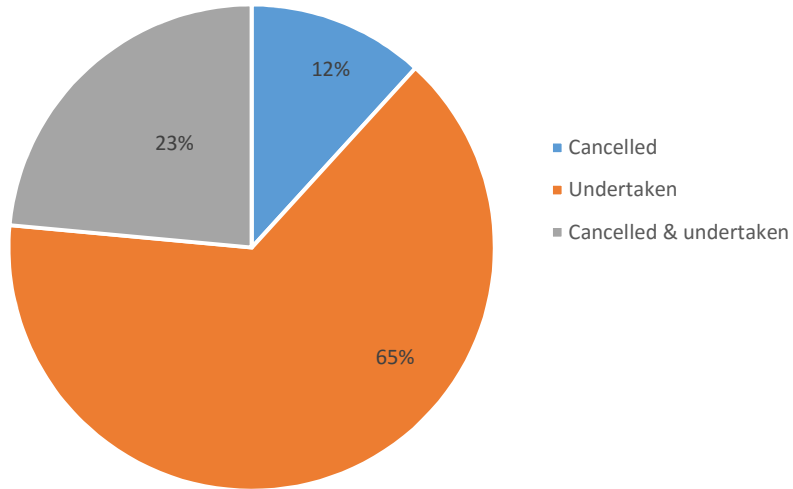
**Question.** Is additional guidance required for the STOP call process?



## B.2 Pilot Survey

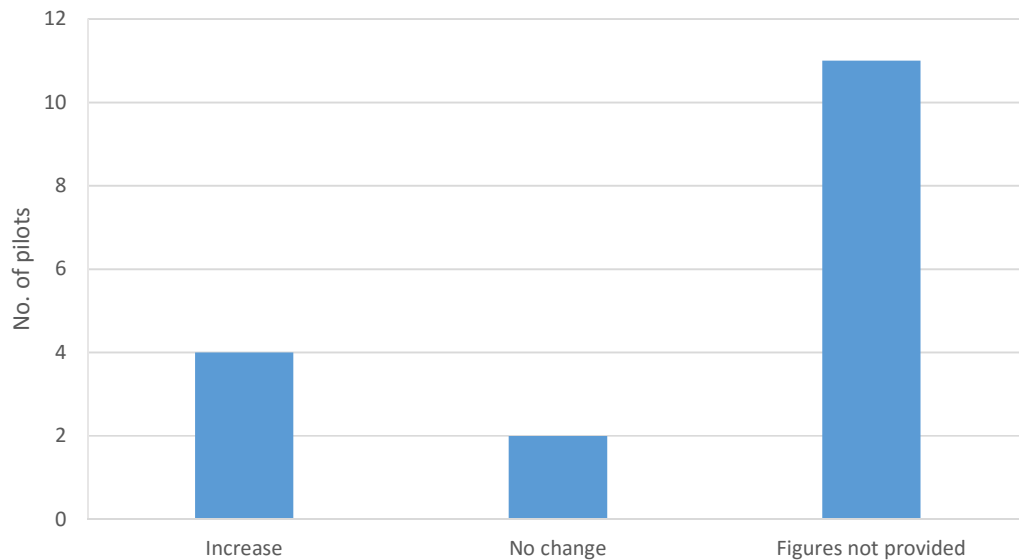
The CAA distributed the Pilot Survey to about 500 industry representatives on behalf of Helios. We received 17 responses to this survey. All comments and feedback we received via the survey have been integrated into our final report (Independent review of the Civil Aviation Authority's Air Display Enhanced Measures).

**Question.** Did your air display take place this year?



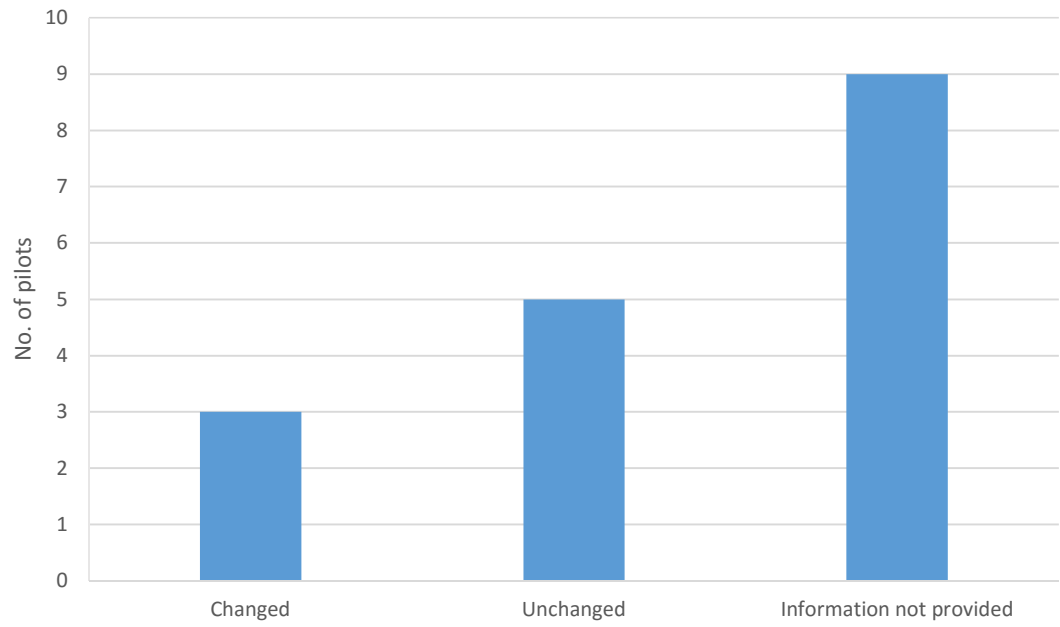
Some survey respondents told us that they performed at more than one event this display season. In total, 2 of the 17 respondents provided information about events which were cancelled, 11 respondents provided information about events which went ahead, and 4 respondents provided information about a mixture of events they attended, of which some went ahead and some were cancelled.

**Question.** Change in insurance costs from 2015 to 2016

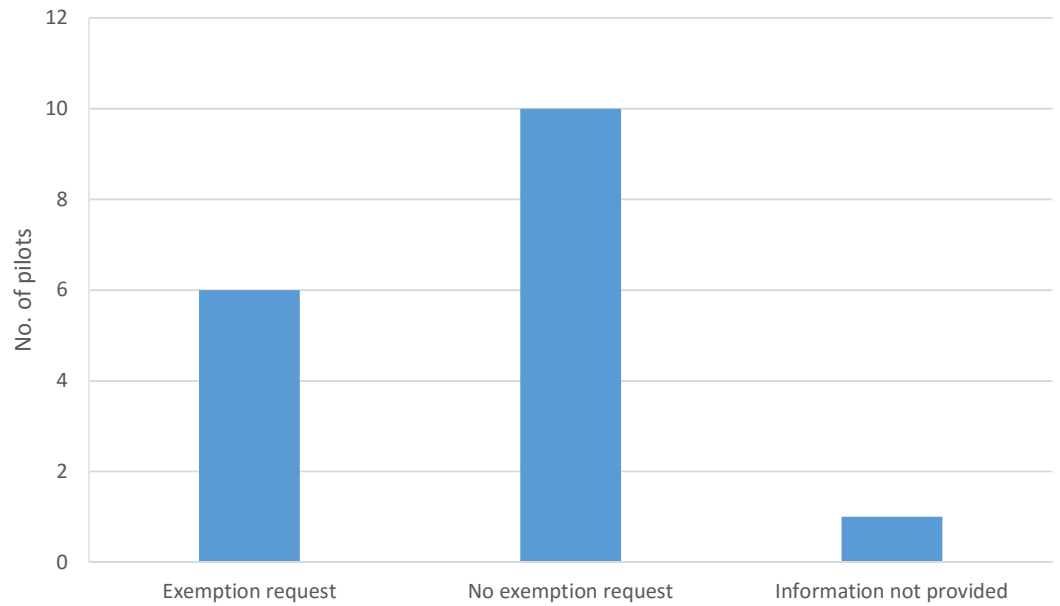




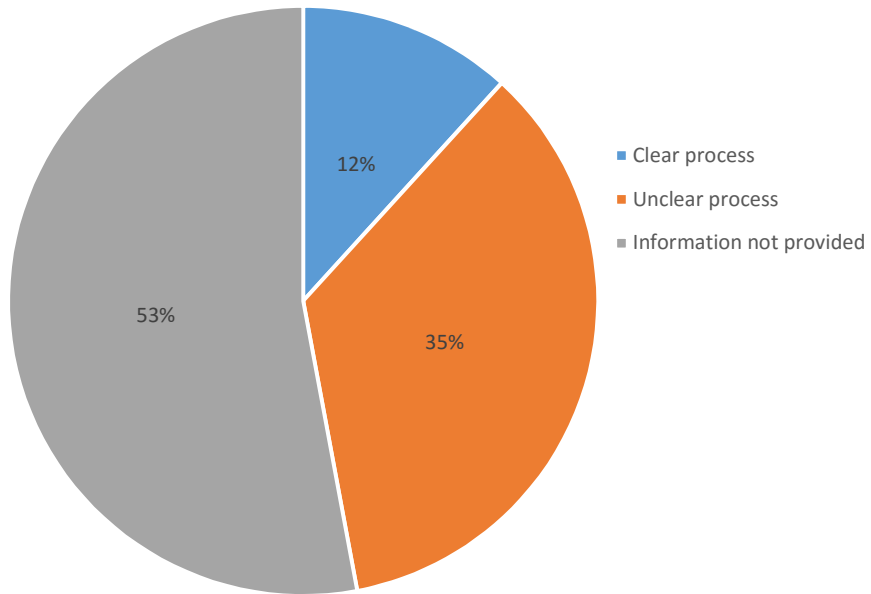
**Question.** Change in event insurance arrangements from 2015 to 2016



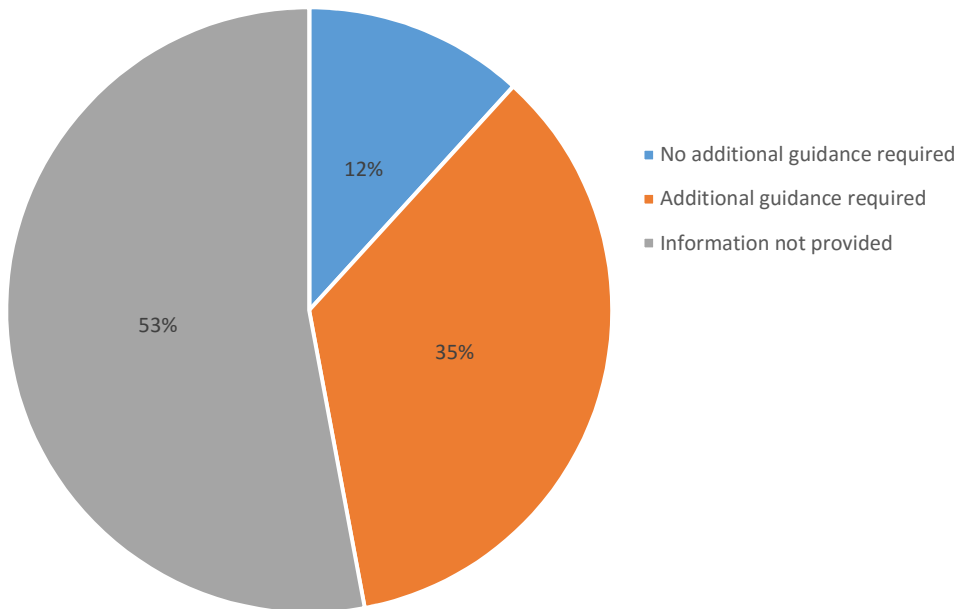
**Question.** Did you apply for an exemption/dispensation?



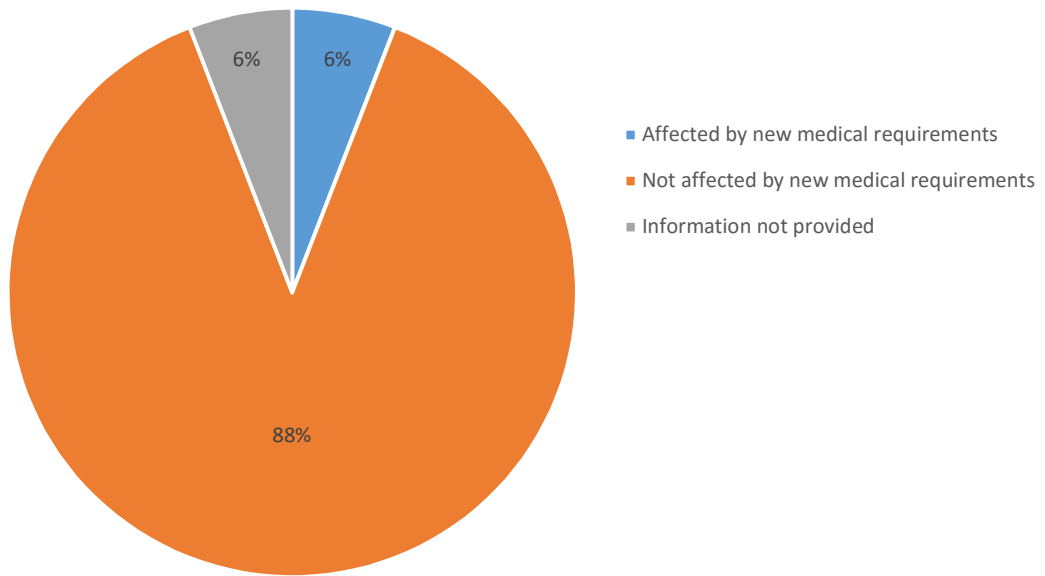
**Question.** Is the dispensation/exemption process clear?



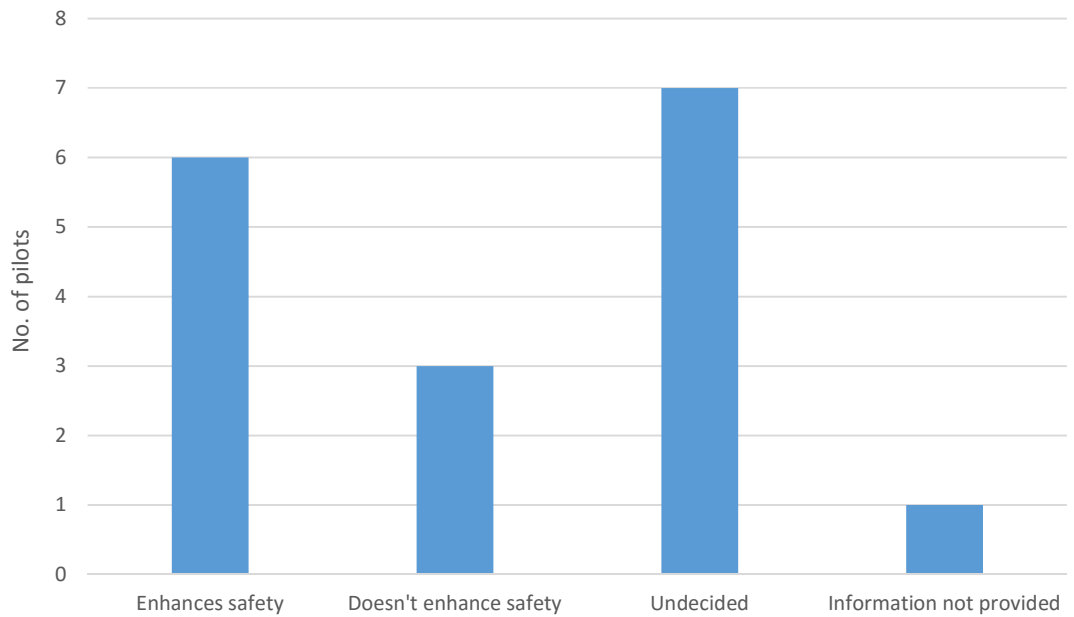
**Question.** Is additional guidance required for the dispensation/exemption process?



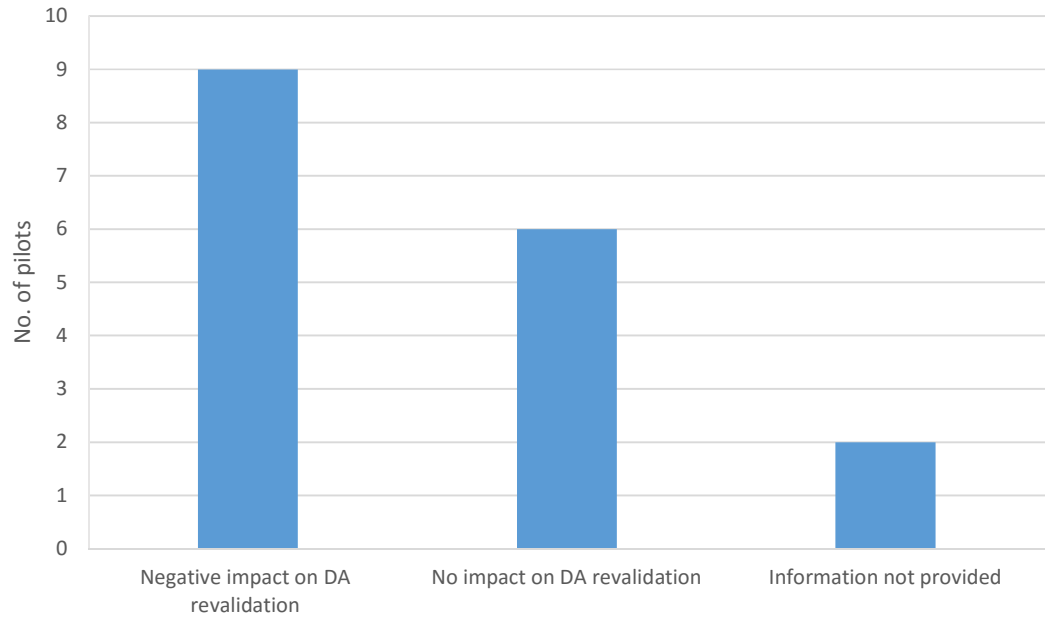
**Question.** Have you been affected by the change in medical requirements?



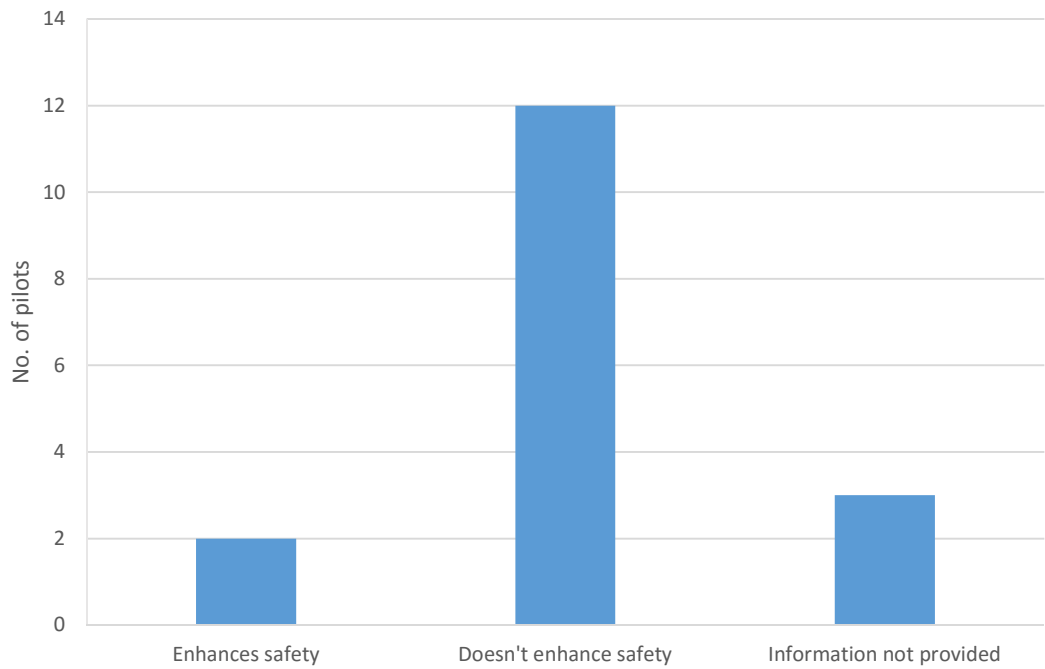
**Question.** Do you think a change to the minimum hours flying requirement in a high-performance aircraft will increase safety?



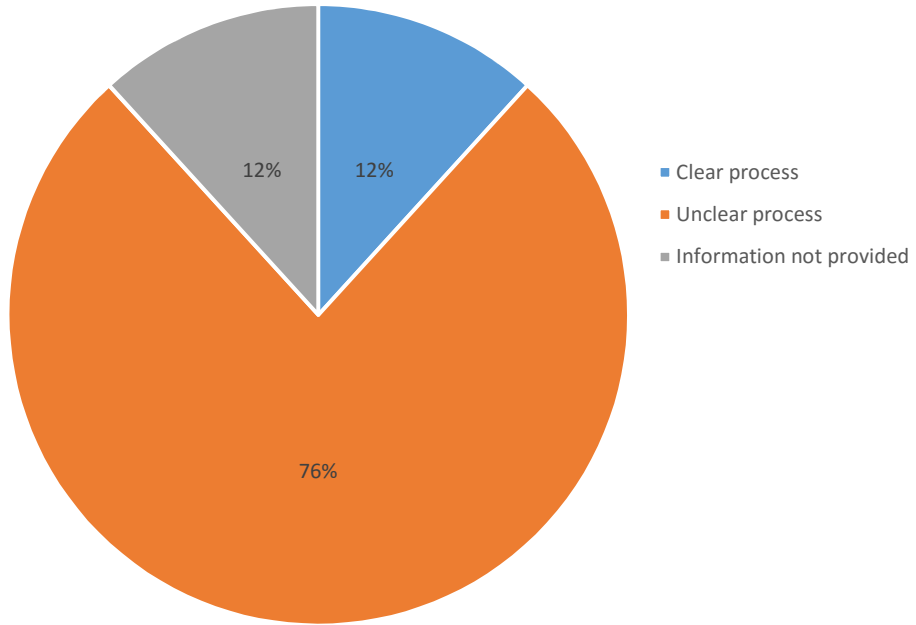
**Question.** Will a change in your DAE evaluator impact your DA revalidation process (after two years) in a negative way?



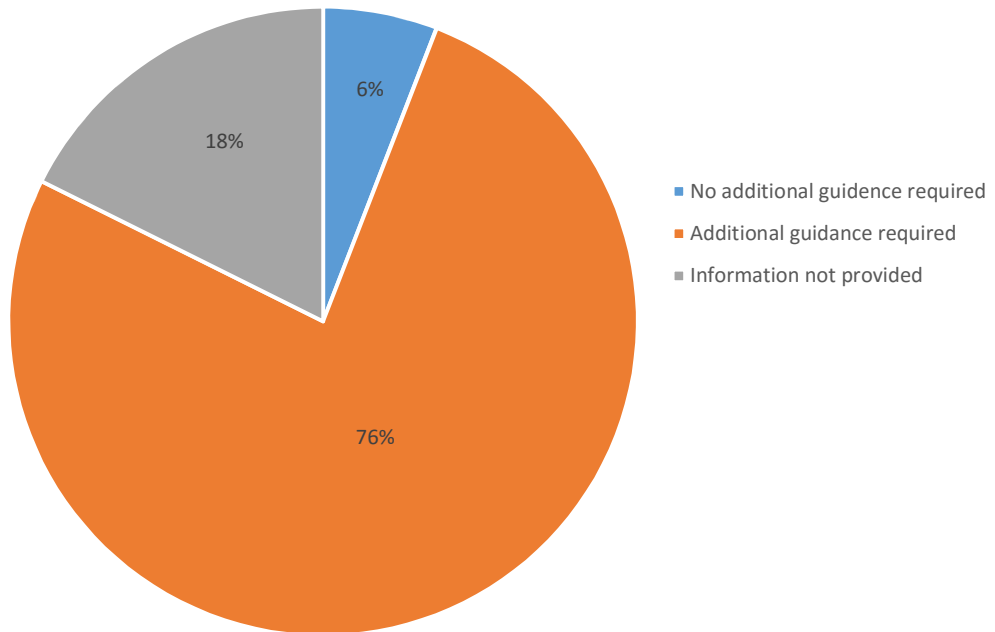
**Question.** Do you think the new DAE evaluation process (i.e. asking pilots to perform a series of unrehearsed linked manoeuvres) enhances safety?



**Question.** Is the STOP call process clear?



**Question.** Is additional guidance required for the STOP call process?



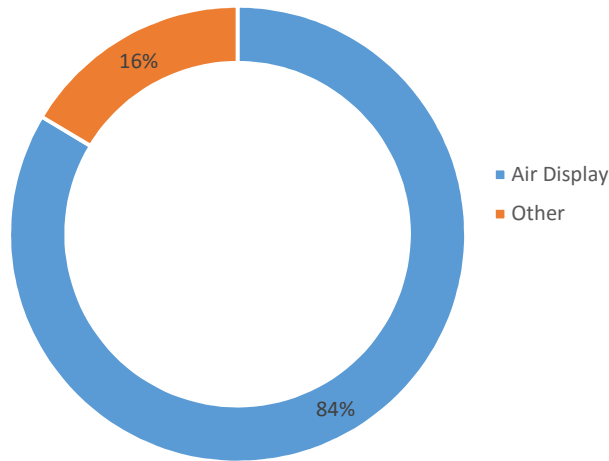
### B.3 Public Survey

We visited 5 air displays located around the UK, at which we surveyed 372 people in total through a questionnaire. The air displays were:

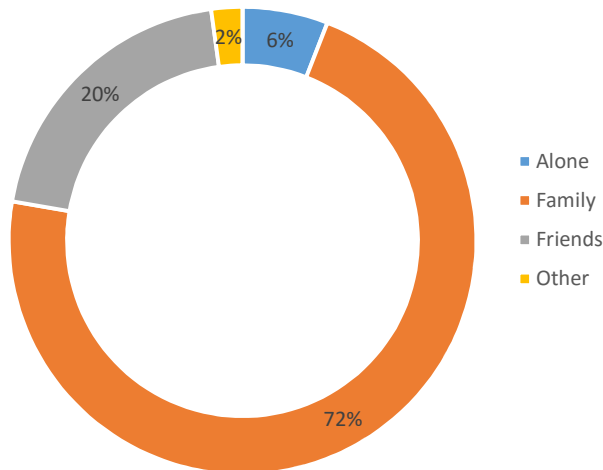
- 1) Seething Charity Air Day;
- 2) Southport Air Show;
- 3) Cranfield Festival of Flight;
- 4) Sywell Classic - Pistons and Props;
- 5) Shuttleworth Season Finale - Race Day & Roaring Twenties Finale.

The survey results are presented below.

**Question.** What was the purpose of your visit today?

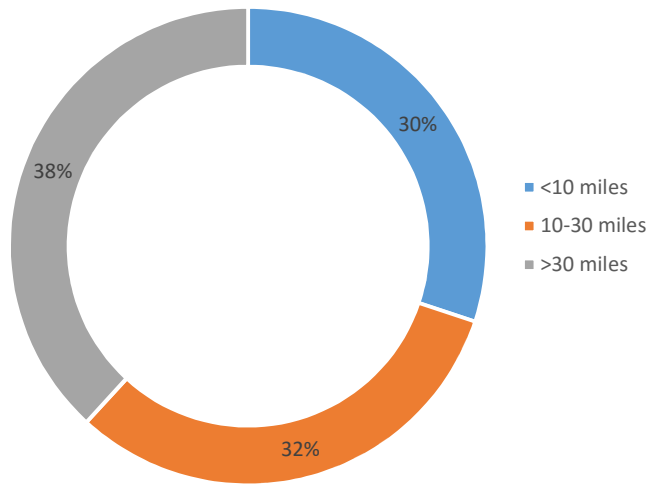


**Question.** Who have you come with today?

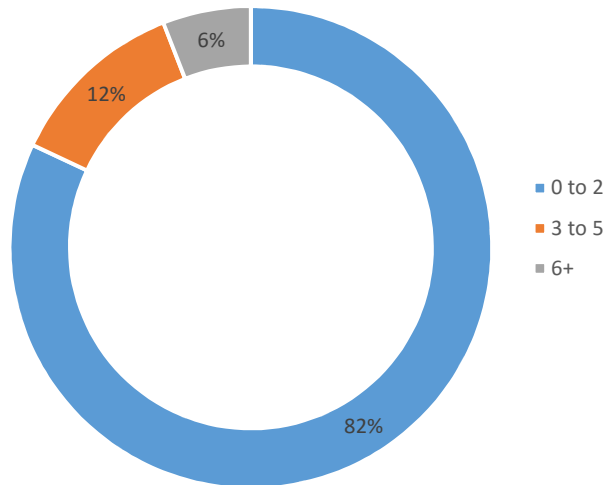


'Other' included partner/boyfriend/girlfriend.

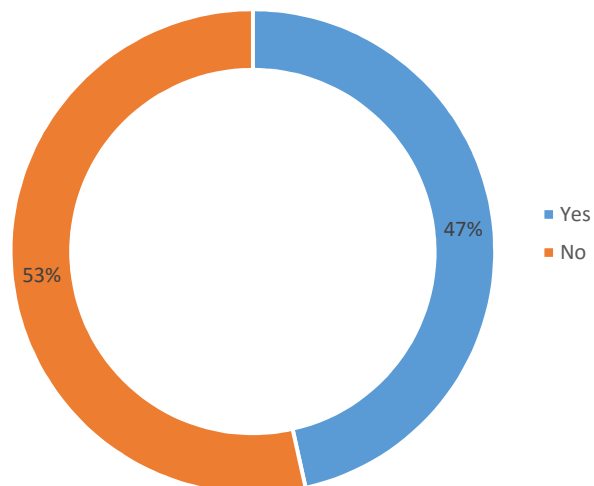
**Question.** How far have you travelled today?



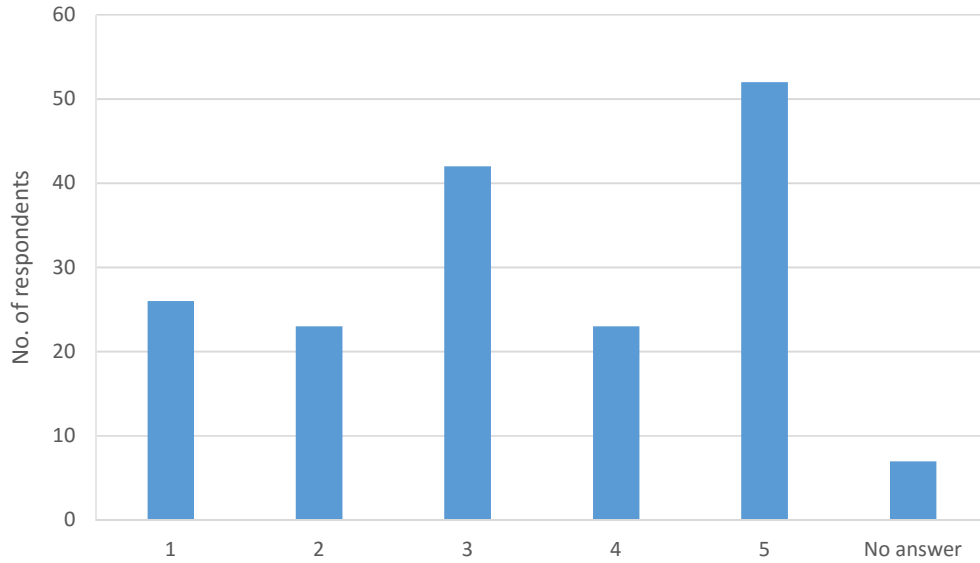
**Question.** How many air displays have you attended this year, prior to this one?



**Question.** Have you attended this air display before?

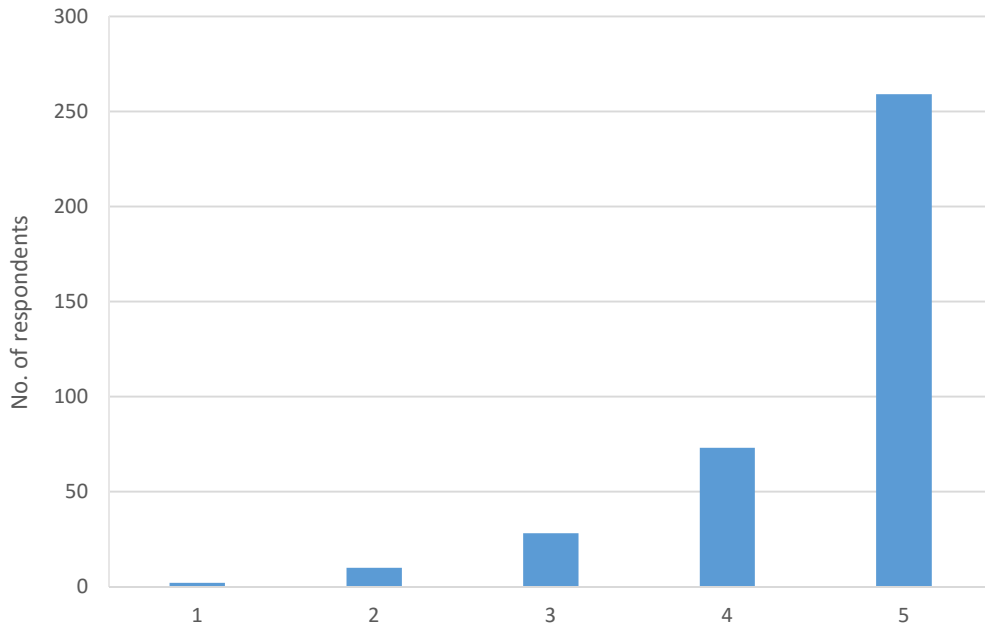


**Question.** If you have attended before, have you noticed a difference with this air display compared to the display you attended previously?



Results were provided on a sliding scale where 1 was 'Significant Difference' and 5 was 'No Change'. In total, 173 (47%) of the 372 respondents told us that they had attended the air display in question before. The graph above represents feedback from the 173 respondents only.

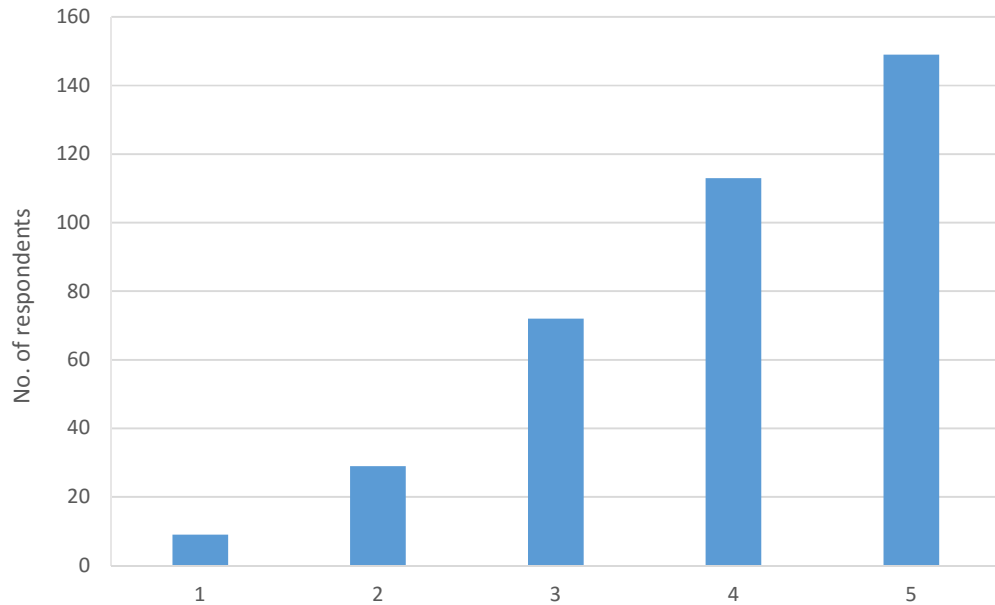
**Question.** Were you able to see the air display clearly today?



Results were provided on a sliding scale where 1 was 'Poor Visibility' and 5 was 'Excellent Visibility'.

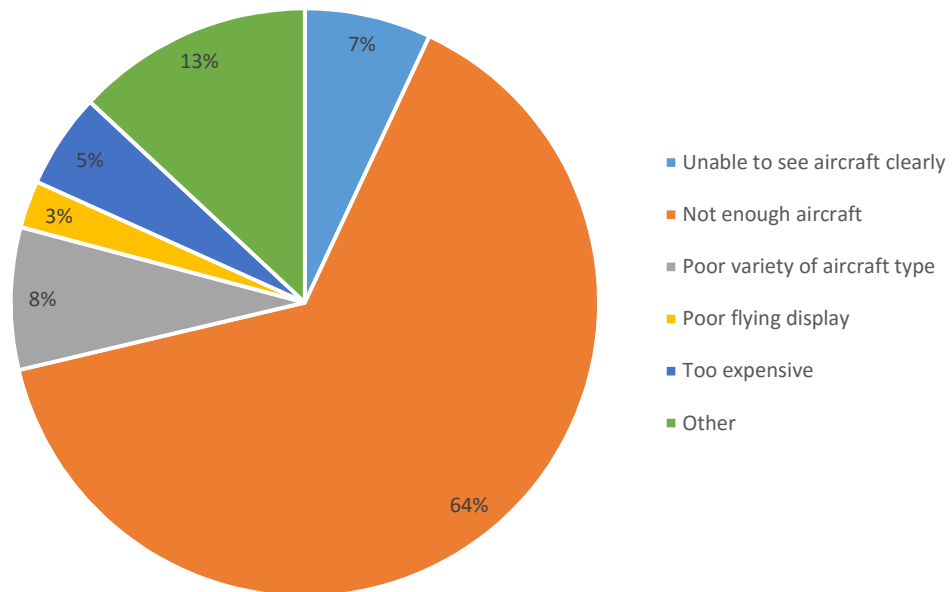


**Question.** Did the air display meet expectations?



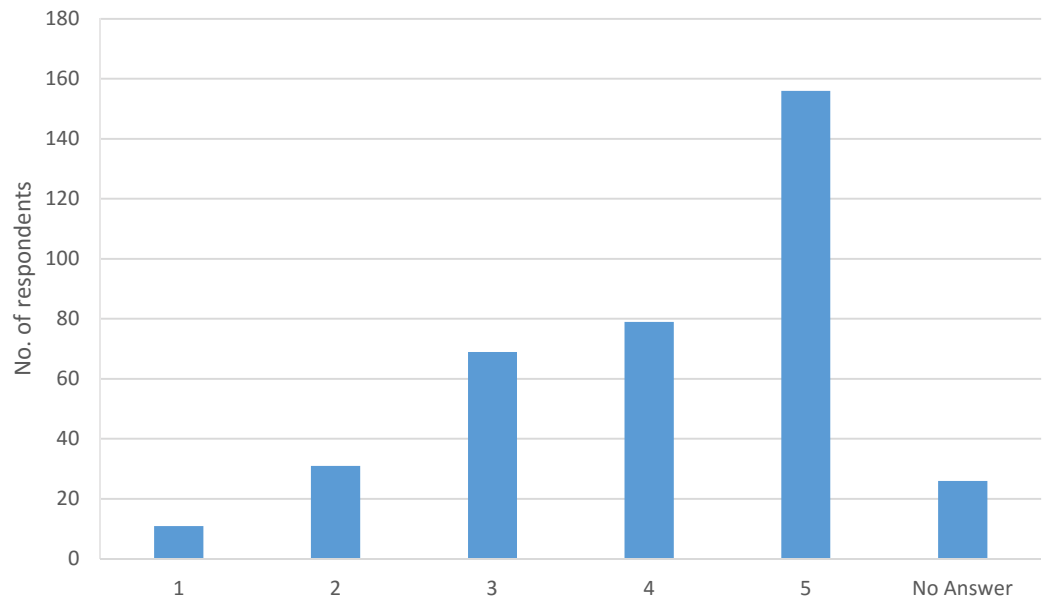
Results were provided on a sliding scale where 1 was 'Significantly Below Expectation' and 5 was 'Significantly Above Expectation'.

**Question.** If the air display did not meet your expectations, please select the main reason why:



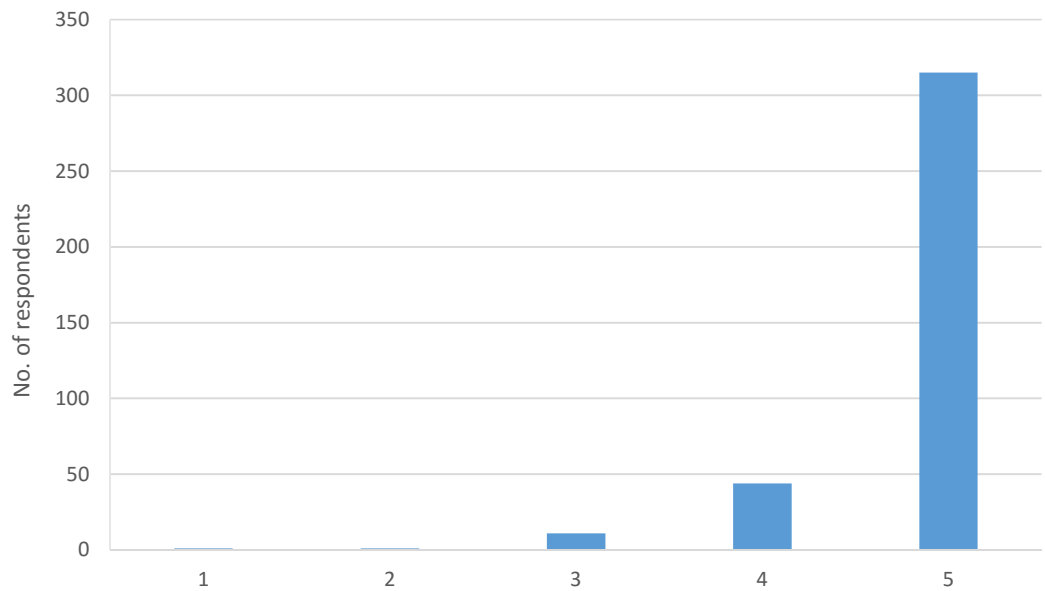
In total, 115 out of 372 respondents provided feedback to the question above, as represented in the chart. 13% of respondents selected 'Other' which included event related issues such as poor parking facilities, poor accessibility to disabled toilets and no availability of family tickets, for example.

**Question.** Do you think the air display is value for money?



Results were provided on a sliding scale where 1 was 'Poor Value' and 5 was 'Excellent Value'.

**Question.** How safe did you feel watching the air display?



Results were provided on a sliding scale where 1 was 'Extremely Anxious' and 5 was 'Very Safe'.

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**Question.** Would you attend this air display in the future?

