

A fatigue survey of European Pilots - 2026

REPORT

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Project Management

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Background, Scope and Objectives

In 2023, the European Cockpit Association (ECA) and Baines Simmons collaborated on the development, analysis and reporting of a summer fatigue survey of European Pilots. The survey had two aims:

- ▶ Proactively identify signs and contributors of fatigue, prior to the busiest part of the summer season, and
- ▶ Publicly share the results to aid in the industry's continual improvement processes. This improvement is not only for the operators, but also to inform the National Aviation Authorities (NAAs) and EASA's oversight and standardisation activities.

The survey was open for the first 3 weeks of July 2023, with the intent to capture the beginning of the summer peak, and was rapidly reported so that the results were available to industry before the summer peak ended.

In 2026, the ECA decided to repeat the survey with the same overall aims, but with the following adjustments:

- ▶ Undertaking the survey during the summer peak (August)
- ▶ Using AI tools to support the analysis, allowing free-text responses to be collected and analysed swiftly
- ▶ Using largely the same question set (with adjustments where necessary) to allow comparisons between 2023 and 2026
- ▶ Adjusting questions to improve quality/analysis, e.g. operator type question

As in 2023, Baines Simmons have undertaken the analysis and reporting of the survey.

The objective of this report is to provide an independent analysis and comment on the results of the survey, reported according to total population, AOC country, operator type (long- and short/medium-haul), and operation type (low cost carrier, ACMI/wet-lease, network etc.), as appropriate. Results are put into context of the relevant regulation (largely ORO.FTL), regulatory guidance material provided by EASA, and other information in the public domain to support interpretation of the results.

Definitions and Methodology

1.1 Survey design process

The survey design process began with a review of the 2023 survey questions, identifying those that worked well and will be maintained for comparability, those that required changes to improve data quality and/or understanding the response, and any new questions that were required.

The main requirements for the survey remain the same, that:

- ▶ It must be quick and easy to complete
 - This means questions were largely multiple choice, with optional free-text questions added
 - The survey remained short
- ▶ Consistency of key topics with 2023 to allow comparison:
 - Roster stability
 - Use of Commander's Discretion
 - Indicator of fatigue levels
 - The effectiveness of fatigue risk management approaches within the operators
- ▶ Publicly available reports should not identify any individual airline, as the survey aims to explore fatigue across Europe. However:
 - AOC countries are shown in this report, to show differences across Europe, and to support and inform NAAs and EASA within their area of oversight
 - The final survey question provided pilots with the option to provide their airline name. This is to support discussions between the ECA, EASA, the NAAs, and the airlines but will not be further disclosed
- ▶ The survey will be open for approximately 3 weeks
- ▶ The survey results should be made available to the industry to enable continuous improvement in fatigue risk management, and to the national and European authorities to inform and enhance their oversight.

Changes for 2026 were that:

- ▶ The survey was open during the summer peak (August)
- ▶ The open period for the survey was extended by 1 week to allow for further responses, as the ECA had a target of at least 7,000 responses to increase the representativeness of the survey results¹

A full list of survey questions and the answer options are provided in appendix I.

¹ In 2023, 6,893 responses were analysed, with a further 1,379 pilots beginning the survey, but not answering any of the key questions.

1.2 Survey distribution

The ECA distributed and promoted the survey, with the support of National Airline Pilot Associations (the Associations) affiliated to the ECA. The online platform Zoho was used – as in 2023. A single ‘generic’ response link was created, and made available across the ECA website, social media platforms, and shared by the Associations.

The survey open period was 4th August – 7th September² 2026. During the open period, the ECA monitored response rates from the different member countries, and provided updates to the Associations for further promotional efforts.

Participation in the survey was voluntary, and while many of the questions were mandatory, the pilots could leave the survey at any time and responses submitted prior to that point would be saved³. All free-text questions were optional. No identifying information was collected for any pilot responding to the survey.

1.3 Survey analysis

The analysis contained within this report was undertaken by Baines Simmons’ Fatigue Risk Management Specialists, as in 2023. During the analysis process, Baines Simmons discussed the results with the ECA, to provide additional context to the results, and identify key results.

For the analysis:

- ▶ Where there were fewer than 100 responses within either Home Base or Country of AOC responses, these were grouped into an ‘Other’ category to aid in the interpretation of the results
 - Because of a wider spread of respondents, and larger number of countries with fewer than 100 responses in 2026, the ‘Other’ category is larger than in 2023
 - The countries in the ‘Other’ category for each of these questions are shown in Appendix 2
- ▶ All AOC Country categories contain results from multiple operators (where Pilots answered the optional question relating to their operator name). Thus, data reported relating to AOC country cannot be assumed to reflect any individual operator.
- ▶ All free-text responses were analysed with the support of a closed-AI tool (where data does not contribute to the training of the model)
 - The analysis used semantic coding (i.e. the AI read all comments and coded them against an AI codebook that was collaboratively developed between the AI agent and a human FRMS expert), with a sample of the responses validated by the human FRMS expert during the analysis phase, then a second independent sample validated by the FRMS expert

² Originally planned to close on the 29th August, but extended to allow for further responses

³ If responses to the core survey questions were provided in an incomplete survey response, these were included in the overall analysis. If a pilot only answered the demographic questions (e.g. age, rank) but not any of the core survey questions, their answers were not included in the analysis.

- The semantic coding was found to have a much higher accuracy than matching keywords
- All named operators, locations, pilot associations and regulators (other than EASA) were anonymised in the free-text responses, to protect the anonymity of the respondents in all quotes selected for this report. This anonymisation was done before theme coding
- The quotes included in this report were selected to be representative of the comments within each theme, rather than selected at random, to illustrate the views expressed by the pilots raising that theme. Where possible, quotes have also been selected from a variety of different AOC countries, again to support representation from across the responding pilots
- All quotes included in the report are provided verbatim, other than the anonymisation outlined above

The full demographics of the pilots responding to the survey are shown in Appendix 3. Key areas of note for the interpretation of this report, when compared against the 2023 survey are:

- ▶ The percentage split of Captains / First Officers has remained approximately the same in 2026 as in 2023, and is slightly weighted towards Captains (54.5% CN / 45.5% FOs in 2023; 55.5% / 44.5% in 2026)
- ▶ There has been a slight change in the age of the respondents, with a 2.9% increase in the proportion of pilots aged 20-29 responding in 2026, and an increase in those 60 and above (3.1% in 2023, 5.2% in 2026)
- ▶ Substantial change by AOC and home base country – Swiss responses are no longer visible as a standalone category. In 2023, there were 765 responses from Swiss-based pilots (771 from those flying for Swiss AOCs) – both representing 11% of the total survey database. In 2026, this has dropped markedly to 97 respondents from Swiss AOCs, representing 1.3% of the survey sample. All responses from countries with fewer than 100 responses are combined into the ‘Other’ category, as in 2023
- ▶ Conversely, pilots flying for French and Portuguese AOCs are much better represented in 2026. In 2023, there were 66 responses from pilots flying for French AOCs and 57 from pilots flying for Portuguese AOCs, meaning both were within the ‘Other’ category. In 2026, there were 465 and 509 responses, respectively, making them the sixth and fifth largest AOC groups
- ▶ Pilots flying for Irish AOCs are the largest AOC group by proportion of responses (13.4% of the total) in 2026. It was the 5th largest in 2023 with 9.4% of total responses from pilots flying for Irish AOCs
- ▶ The operation type question(s) in 2023 and 2026 were asked differently, which impacts on the comparisons that can be drawn between the two years for this measure
 - In 2023 there was a single ‘select all that apply’ question which combined haul duration and operation type.
 - In both 2023 and 2026, most pilots selected a short or short/medium haul option
 - Regional, ACMI / wet-lease provider and business jet were all new categories added in 2026

Results and discussion

In total 8,589 pilots began the survey. Of these, 7,198 provided answers to the central questions. The remaining 1,391 responses were excluded from the analysis, as none of the central questions were answered (this includes 916 pilots who answered the demographic questions only). These 7,198 responses have been used for the base of the analysis. Where fewer responses were received for a specific question (e.g. the free-text responses), this will be reported. This is a slight increase on the number of responses considered in the analysis in 2023 (6,893).

The data were initially screened to check for internal consistency between questions (e.g. to ensure that pilots did not contradict the answer to one question in another question). The data was internally consistent, and this increases the confidence in the results.

Throughout this report, quotes have been used – both from the freetext responses provided by the pilots responding to the survey, and from regulations, guidance material, and other supporting documents. All quotes are shown in *italic* text and reported verbatim.

1.4 Managing fatigue risk

For CAT operators, ORO.FTL outlines specific operator responsibilities that outline how fatigue risk should be managed through the Management System. For other operators, ORO.GEN.200 requires that all hazards are managed through the Management System, and fatigue is one such hazard. These two regulations mean that for all pilots responding, whether they fly for a CAT operator or not, fatigue should be treated as a hazard and managed appropriately to the level and nature of the risk exposure.

As in 2023, pilots were asked their opinion on how well fatigue risk is managed at their airline. The distribution of this is shown in Figure 1.

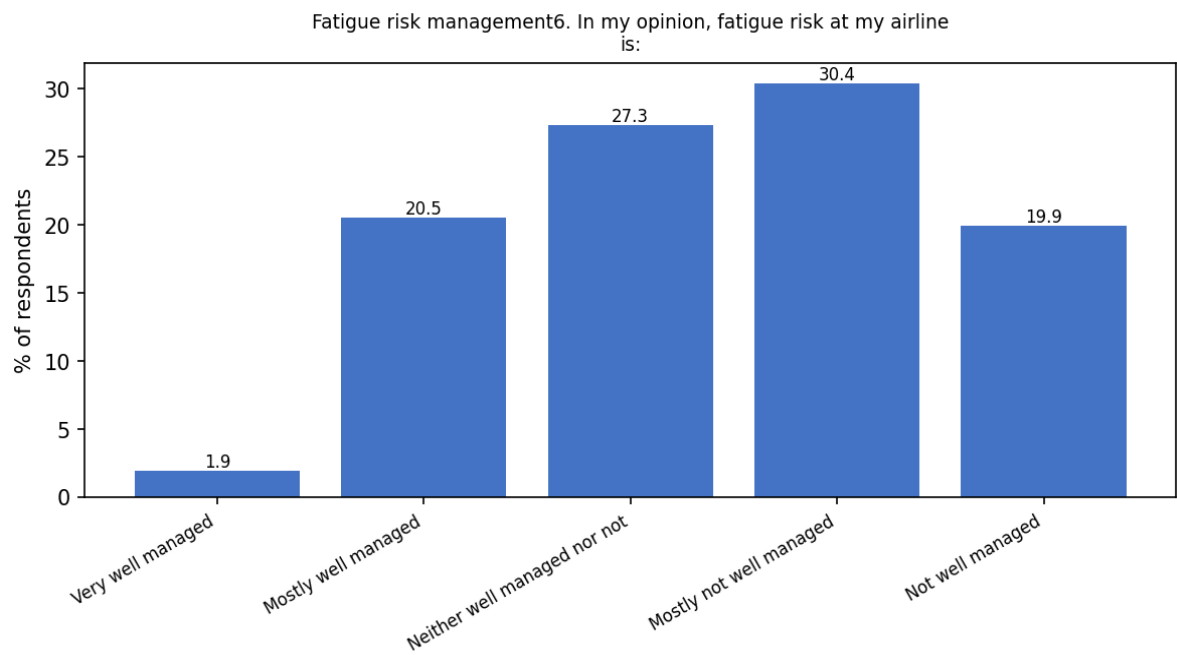


Figure 1: Responses to the question ‘In my opinion, fatigue risk at my airline is...’ (n=7198 responses)

As in 2023, pilots were more likely to respond neutrally or negatively to this question. 50.3% selected mostly not well managed/not well managed, vs 22.4% selecting a positive option (very well/mostly well managed). The distribution has changed since 2023 – with a reduction in the proportion of pilots selecting that fatigue risk management in their airline is not well managed (31.5% to 19.9%, a fall of 11.6 percentage points (pp)). This is shown in Figure 2 and Table 1.

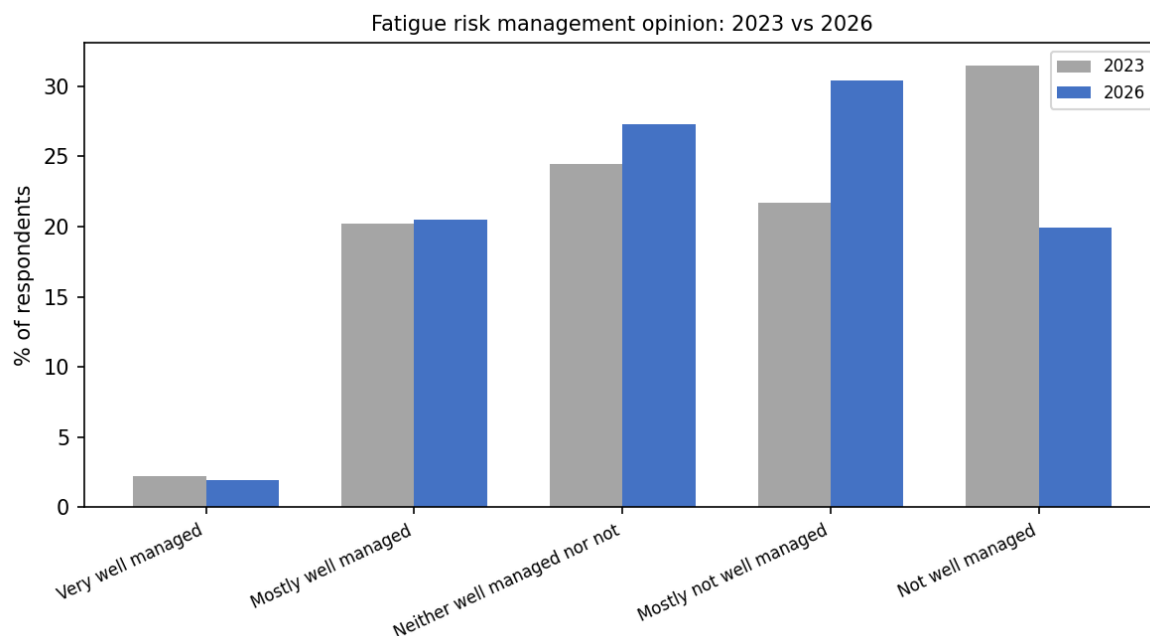


Figure 2: Comparing responses in 2023 (n=6813 responses) and 2026 (n=7198 responses) to the question ‘In my opinion, fatigue risk at my airline is...’

Table 1: Comparing responses in 2023 (n=6813 responses) and 2026 (n=7198 responses) to the question ‘In my opinion, fatigue risk at my airline is...’

Response option	2023	2026	Change
Very well managed	2.2%	1.9%	-0.3 pp
Mostly well managed	20.2%	20.5%	+0.3 pp
Neither well managed nor not	24.5%	27.3%	+2.8 pp
Mostly not well managed	21.7%	30.4%	+8.7 pp
Not well managed	31.5%	19.9%	-11.6 pp

While the proportion selecting mostly not well managed / not well managed individually have changed between 2023 and 2026, this is primarily a shift from the not well managed to the mostly not well managed group. This may reflect a slight improvement across the airlines since 2023, or may reflect a different population responding to the survey.

Again, as in 2023, there is variation in the responses to this question according to the AOC country. This is shown in Figure 3.

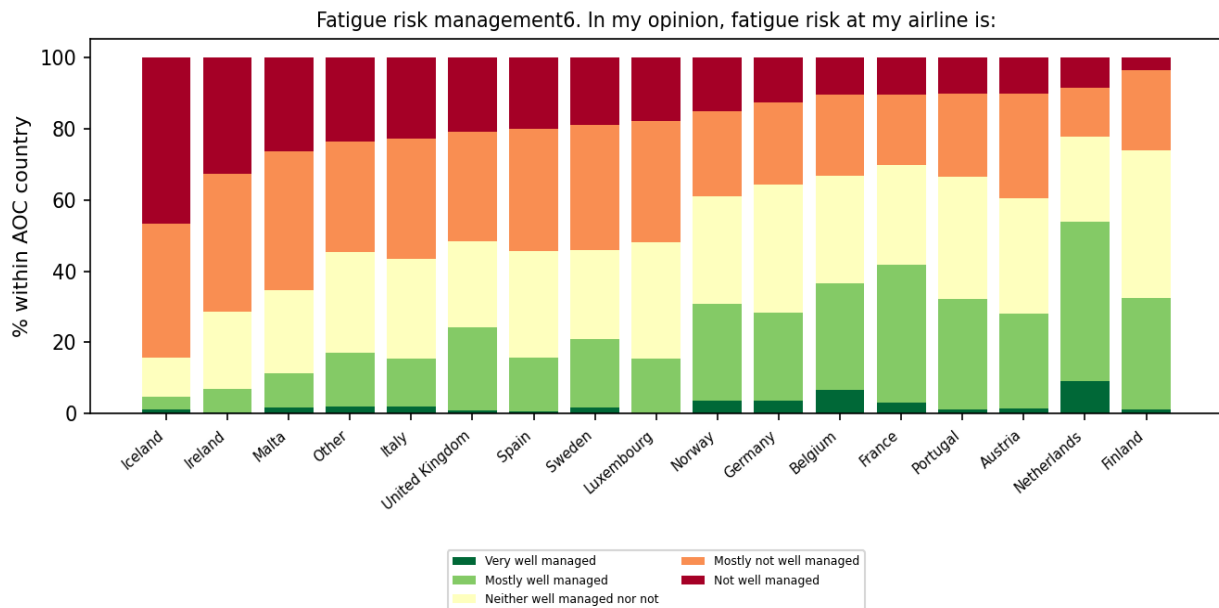


Figure 3: Responses to the question 'In my opinion, fatigue risk at my airline is...' according to AOC country (n=7198)

Figure 3 is sorted according to the proportion of respondents selecting that fatigue risk was not well managed. When the proportion of pilots selecting not well managed and mostly not well managed are combined, the most notable change compared to the 2023 report is the movement of Iceland⁴, (84.3% in 2026 vs 44.2% in 2023) and the United Kingdom (72.0% in 2023 vs 51.6% in 2026). Ireland and Malta remain high in these rankings (71.5% and 65.2% not well or mostly not well managed in 2026, respectively compared to 61.7% (Ireland) and 66.5% (Malta) in 2023). Conversely, only 4.9% of pilots flying for Icelandic AOCs, 6.8% flying for Irish AOCs and 11.3% flying for Maltese AOCs selected that fatigue risk is very well or mostly well managed by their airline.

In 2026, France (30.1%), Finland (26.1%) and the Netherlands (22.4%) have the lowest proportion of pilots selecting that fatigue risk was mostly not well or not well managed. In 2023 the three best-rated countries in this ranking were Switzerland (32.8%)⁵, the Netherlands (34.3%) and Austria (34.4%). In 2026, the Netherlands is the only AOC country where the majority of pilots selected that fatigue risk is very well or mostly well managed (53.9%).

The 2023 report references the EASA FTL/FRM Inspector's Checklist, which has since been further updated⁶. This checklist is designed to support NAA's inspectors, but is available for all operators to use to assess how well they meet the operator responsibilities (in section 1), using a performance- and risk-based approach to fatigue risk management. Operators are also supported with data,

⁴ While this move for Iceland is striking, it should be considered with some caution, as the number of responses are relatively small. In 2026, there were 268 pilots identifying their AOC country as Iceland vs 159 in 2023. This compares with 767 selecting the UK as their AOC country in 2026 vs 874 in 2023.

⁵ In the 2026 survey, there were fewer than 100 respondents from Switzerland, meaning that their responses fall within the 'Other' category.

⁶ Edition 3 was published in February 2024 and is available from <https://www.easa.europa.eu/en/downloads/106865/en>

through the two EASA studies on the effectiveness of the flight time limitations for which all reports are now available⁷. These studies demonstrate that – at the time data was collected – fatigue risk was not sufficiently managed in night flights irrespective of duration, as well as during duties containing long flights where crew are in an unknown state of acclimatisation. The long-haul results have become available since the 2023 survey. While the EASA study results for long FDPs showed a similar elevated fatigue level to night flying, there have not yet been any changes to the ORO.FTL regulations or guidance material in response, unlike the introduction of ‘Appropriate FRM’ in response to the night flight results.

In the survey in 2026, 19.2% of respondents reported that they fly long haul, with an additional 10.8% that operate both short/medium haul and long haul. The remaining 70% operate only short/medium haul.

While the ORO.FTL regulations provide a consistent baseline and structure for all operators, long-haul and short-haul flying have different fatigue contributors, potentially different risk levels, and need different approaches to ensure that fatigue risk is appropriately managed. Figure 4 shows that, based on the experience of the 2026 survey respondents, those who classify themselves as flying purely long-haul operations are more likely to select that their operator manages fatigue more effectively (31.8% report fatigue risk is very well or mostly well managed) than short/medium haul operators (20.7% report fatigue risk is very well or mostly well managed) and where the operator has a mixed flying model (17% report fatigue risk is very well or mostly well managed).

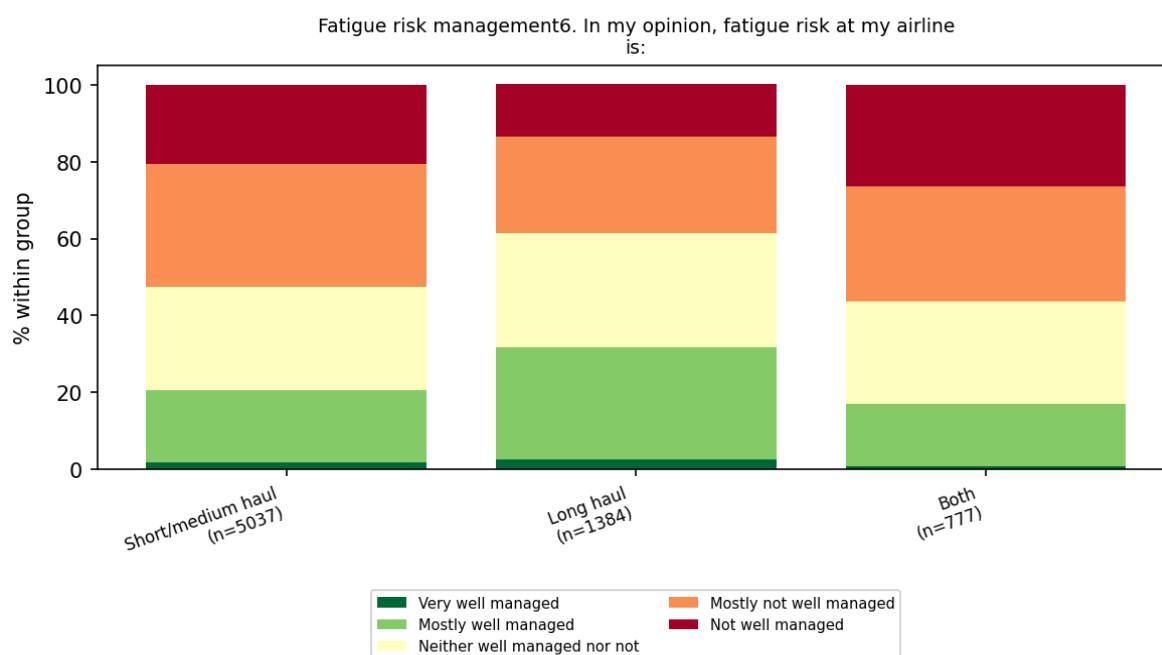


Figure 4: Responses to the question ‘In my opinion, fatigue risk at my airline is...’ according to haul-type (n=7198)

EASA is clear that the fatigue management approaches required by the Operator Responsibilities need to be tailored to the operation type. The Operator Responsibilities (ORO.FTL.I 10) require all CAT operators to demonstrate that they are managing fatigue as a hazard. Some of the Operator responsibilities appear simple (e.g. ORO.FTL.I 10(a) ‘publish duty rosters sufficiently in advance to

⁷ <https://www.easa.europa.eu/en/research-projects/effectiveness-flight-time-limitations-ftl>

provide the opportunity for crew members to plan adequate rest’), while others require more effort to implement and demonstrate that they are working effectively (e.g. ORO.FTL.I 10(g) ‘provide rest periods of sufficient time to enable crew members to overcome the effects of the previous duties and to be rested by the start of the following flight duty period’). The Operator Responsibilities represented a change for many operators when they were first introduced in ORO.FTL (through Regulation (EU) No. 83/2014), but have now been requirements for 10 years⁸. However, effective and consistent implementation and oversight remains variable between operation types and AOC nations – as the results of this survey and EASA’s own studies show. The EASA Inspector’s Checklist was designed to support NAA’s in the oversight of these regulations and to make it easier for standardisation across Europe.

Within the Inspector’s Checklist, the checks for the inspectors to confirm that the Operator is meeting the requirement of ORO.FTL.I 10(b)⁹ include:

- ▶ *‘Check if the operator’s documented rostering policy and procedures are tailored to the type and scope of operation and fatigue risk exposure’*
- ▶ *‘Check if the operator provides for specific mitigation measures in its rostering policy to address fatiguing duties such as: FDPs with extensions; FDPs with WOCL encroachment; training flights, consecutive duties etc., as applicable’*

For summer 2026, EASA also published two articles in the Air Operations Community Network on the topic of fatigue risk management¹⁰. These articles were part of EASA’s Go Safe This Summer – Together campaign, with Watch for Fatigue being one of three key messages. Within part I, EASA states that the:

‘need for proactive risk management becomes particularly important during demanding periods such as summer operations. The question should not simply be; “Are we legal when operating this duty?” We also need to ask “What fatigue risks could prevent our teams from performing at their best, and how are we managing them in our daily operations?”.

This is active management of fatigue as a hazard, rather than simply relying on legality to control the risk of fatigue – in this article, EASA also states:

‘being inside a legal limit does not automatically mean that fatigue risk is being effectively managed. Being compliant does not necessarily mean safe’.

Section summary

In 2026, half of the pilots responding to the survey (50.2%) selected that fatigue risk at their airline is mostly not well managed or not well managed, while just over one in five (22.5%) selected that it is

⁸ The regulations came into force in 2016

⁹ ORO.FTL.I 10(b): *‘ensure that flight duty periods are planned in a way that enables crew members to remain sufficiently free from fatigue so that they can operate to a satisfactory level of safety under all circumstances’*

¹⁰ Part 1: Watch for fatigue – Manage the Risk Not Just the Limits (18th August 2026) (available at <https://www.easa.europa.eu/community/topics/watch-fatigue-manage-risk-not-just-limits>). Part 2: Watch for fatigue – Operationally Ready and Fit for Duty (20th August 2026) (available at <https://www.easa.europa.eu/community/topics/watch-fatigue-operationally-ready-and-fit-duty>)

very well or mostly well managed. Of that only 1.9% selected very well managed. Three AOC countries stand out, with a high proportion of pilots selecting that fatigue risk is not well managed or mostly not well managed: Iceland (84.3%), Ireland (71.5%) and Malta (65.2%).

It is clear that managing fatigue is about more than simple FTL compliance – fatigue is a hazard that must be managed through the management system approach. For CAT operators, the Operator Responsibilities provide a framework for how fatigue can be managed as a hazard, if these Responsibilities are implemented effectively. While the proportion of pilots rating that fatigue risk in their operator is not well managed has fallen since 2023, the overall distribution of very well/mostly well managed vs mostly not/not well managed responses has remained largely the same between the two surveys. While the surveys are not able to target the same population to get an exact comparison, this indicates that there has been limited improvement in pilots' experience of fatigue risk management at their operators in the last 3 years.

1.5 Fatigue reporting

Fatigue reporting is a central component of the operator's fatigue risk management approach, allowing proactive and reactive identification of hazards. While fatigue reports do not, and cannot, alone provide all the data required to manage fatigue effectively, they provide essential information from the crew who experience fatigue on the line.

EASA's Watch for Fatigue article part I states the following with regard to fatigue reporting:

'A strong fatigue reporting culture is [...] essential. A fatigue report should not be seen as somebody complaining that they are fatigued. It is crucial, much-needed safety information. Because only with such information can FRM develop its full potential'.

For a fatigue reporting system to be effective, it needs to be accessible, easy to use, and crew must know that reporting is available to them and what information they need to supply so that the operator can act on the submitted reports.

Fatigue reporting also has another function – in many operators it is the mechanism through which crew declare themselves unfit to operate due to fatigue, and remove themselves from a duty (either before or during the duty). A fatigue report is then submitted to identify why the individual was unfit to operate due to fatigue.

This section of the survey asked both about features of the reporting system (as in 2023), and included new questions relating to reporting unfit due to fatigue.

Features of the fatigue reporting system

As in 2023, pilots were asked to select the positive features of the fatigue reporting system that apply at their operator in their experience. For 2026, a 'none of the above' option was added to support the interpretation of the data where crew did not select any of the options. The proportion of the respondents selecting each of the answer options are shown in Figure 5.

Compared to 2023, the proportion of crew selecting the different options has remained relatively stable. This is shown in Table 2. The only change is that there is a slight increase in the proportion of pilots selecting that fatigue reports are quick and easy to complete.

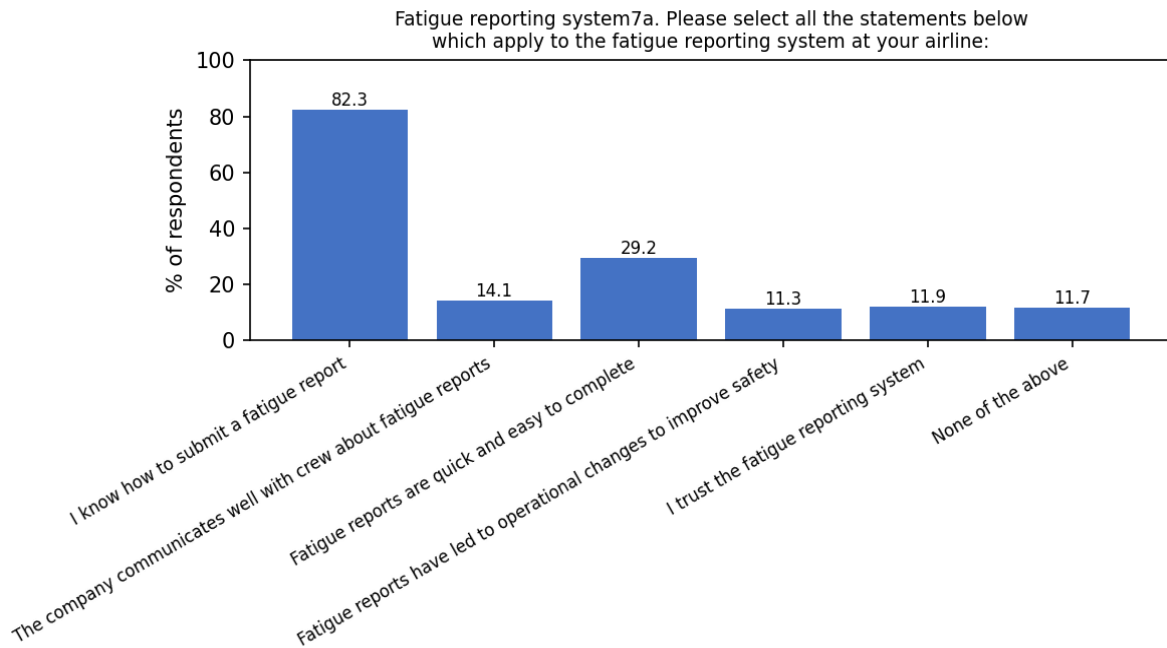


Figure 5: Proportion of the pilots selecting each statement in response to the question 'Please select all the statements below which apply to the fatigue reporting system at your airline' (n=7180¹¹)

Table 2: Proportion of pilots selecting each statement in response to the question 'Please select all the statements below which apply to the fatigue reporting system at your airline in 2023 and 2026

Response option	2023	2026	Change
I know how to submit a fatigue report	82%	82.3%	+0.3 pp
The company communicates well with crew about fatigue reports	13.2%	14.1%	+0.9 pp
The fatigue reporting system is easy to access	44.1%	n/a ¹²	-
Fatigue reports are quick and easy to complete	25.4%	29.2%	+3.8 pp
Fatigue reports have led to operational changes to improve safety	10.8%	11.3%	+0.5 pp
I trust the fatigue reporting system	12.1%	11.9%	-0.2 pp
None of the above	n/a ¹³	11.7%	-

11.7% of the pilots responding to the 2026 survey selected that none of the statements apply to them (i.e. none of the above). This includes that they do not know how to submit a fatigue report. The regulations allow for fatigue reporting to be through either the ability to mark an ASR as a fatigue report, or a separate fatigue reporting structure. One pilot commented:

"As it stands, my airline doesn't even have a dedicated fatigue reporting system. It is [done] through ASRs"

So for some, it may be that they do not think that this question applies to them, because they use ASRs to report fatigue, rather than a dedicated system or form.

¹¹ 19 pilots did not select any option or none of the above for this question, so are not included in the denominator for this question.

¹² This statement was not included in the 2026 survey question set, so there is no 2026 figure to compare with 2023.

¹³ This option was not provided in the 2023 survey, so there is no 2023 figure to compare with 2026.

In the EASA Inspector's Checklist, the checks for inspectors to make relating to fatigue training¹⁴ include:

→ *'Check if the training programme provides for training on operator's processes for reporting fatigue (AMCI ORO.GEN.200(a)(4)).'*

The document also includes the following note:

'the fatigue management training is a competency-based training'.

EASA's FAQ on this topic¹⁵ states that, as this is competency based training:

'The operator should identify what training and competencies are needed for each personnel group: aircrew, instructors, rostering and management staff to perform their roles effectively, and what means of measuring the level of competency attained by each person who receives the training is available'.

From these documents, and the training syllabus outlined in AMCI ORO.FTL.250, it can be inferred that how to use the fatigue reporting system (or submit an ASR relating to elevated fatigue) is an essential piece of knowledge for crew to effectively perform their role within the fatigue management approach.

Other free text comments provided by pilots selecting the none of the above option include:

"Tricky fatigue report system: I wasn't able to find the option to send a fatigue report, because the only clear option was how to send an 'unfit to fly due to fatigue'. After asking people around I found out I had to choose the title 'none' in order to send a fatigue report"

"No one explained to me how to submit a fatigue report"

"I do not trust the fatigue report system and I don't know how to fill a fatigue report"

Overall, as in 2023, the results show a generally poor picture of pilots' experience of the fatigue reporting systems in their airlines. While most pilots (82.3%) selected that they know how to submit a fatigue report, fewer than one in three (29.2%) selected that fatigue reports are quick and easy to complete, 14.1% that the company communicates well with crew about fatigue reports and 11.9% that they trust the fatigue reporting system. Only 11.3% selected that fatigue reports have led to operational changes to improve safety.

Not selecting a statement does not necessarily mean that a pilot believes it to be untrue. However, it does mean that fewer than one in eight of the pilots responding to the survey positively identified that they trust their fatigue reporting system, or that reporting has led to operational change. Nearly one in five pilots (17.7%) did not select that they know how to submit a fatigue report, a similar proportion to 2023. As outlined above, the ability to report fatigue is a key competency that should be provided through fatigue-related training.

For the individual statements, there is again a high level of variation in response between different AOC countries. This is shown in the following figures. Each figure is sorted according to the AOC country with the highest percentage selecting that option, to the lowest.

¹⁴ ORO.FTL.250, AMCI ORO.FTL.250 page 35 Fatigue Management Training

¹⁵ FAQ n.95253 available at <https://www.easa.europa.eu/en/faq/95253>

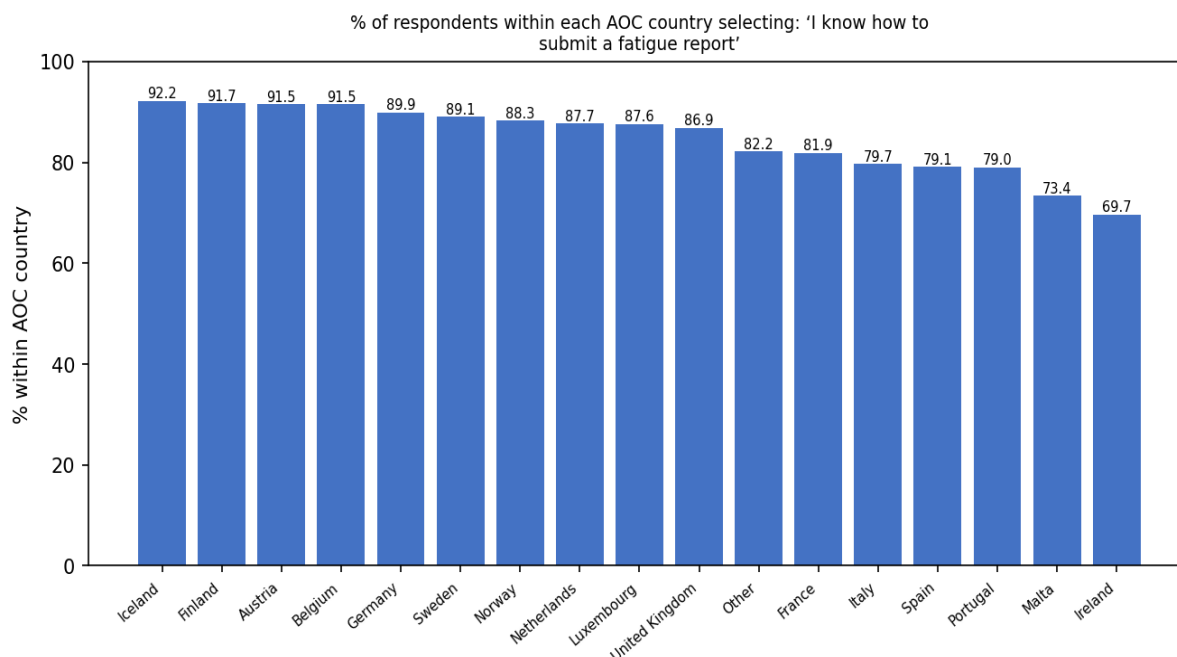


Figure 6: Proportion of pilots responding to this question that selected the statement 'I know how to submit a fatigue report', according to their AOC country. Countries on the x-axis are ordered according to the proportion selecting the statement (high to low)

In Figure 6, over 90% of pilots from AOCs in 4 countries selected that they know how to submit a fatigue report. These are Iceland (92.2%), Finland (91.7%), Austria (91.5%) and Belgium (91.5%). Austria and Belgium also had over 90% selecting this option in the 2023 survey, while Finland has a slight increase from 89.3% and Iceland a larger increase (81.8% in 2023).

This contrasts with the responses from pilots flying for Maltese and Irish AOCs, where 73.4% and 69.7% selected this option, respectively. In 2023, these two countries were also the two lowest in response to this question (70.5% and 68.1% selecting this option, respectively). Both have shown a slight improvement since 2023, but remain below other countries by some distance. The over 10% increase in pilots selecting this answer option from Icelandic AOCs between 2023 and 2026 may be explained by those who answered the question, but could also be because of a change to the reporting system and training by the Operators, and shows that improvement is possible.

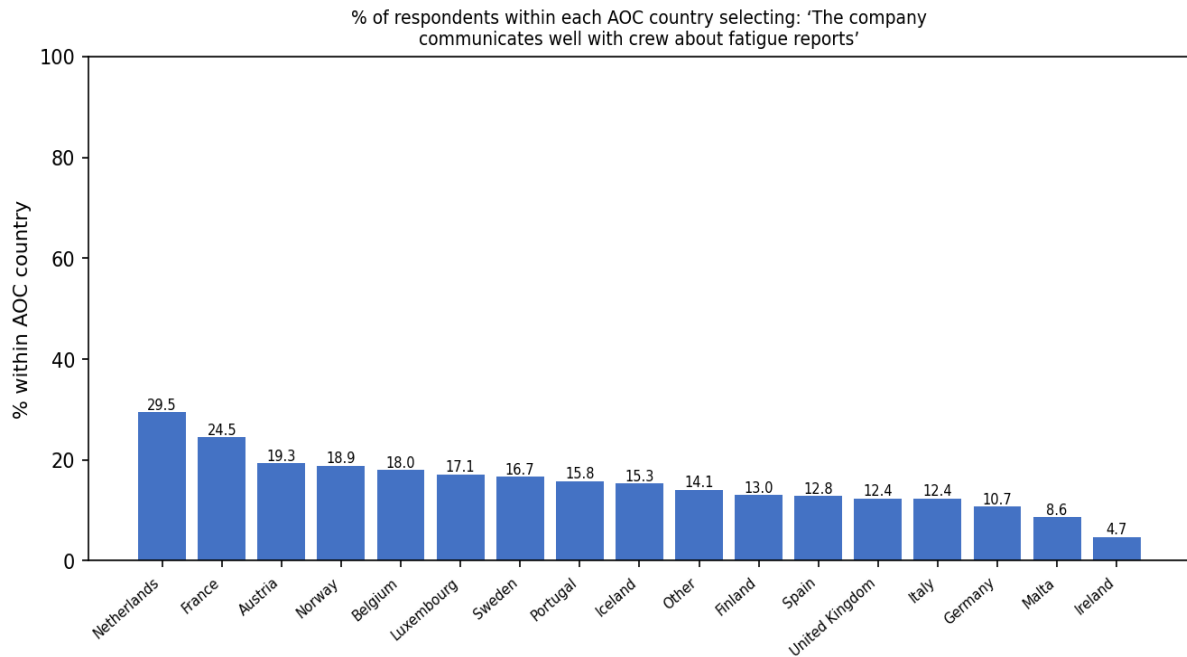


Figure 7: Proportion of pilots responding to this question that selected the statement 'The company communicates well with crew about fatigue reports', according to their AOC country. Countries on the x-axis are ordered according to the proportion selecting the statement (high to low)

Overall, in 2026 14.1% of respondents selected that the company communicates well with them about fatigue reports.

Figure 7 shows the proportion of pilots from the different AOC countries selecting this statement. Again, the AOC country with the highest proportion selecting this statement has improved by a large proportion since 2023. In 2023, 18.2% of pilots flying for a Netherlands-based AOC selected this option, vs 29.5% in 2026. In contrast, the top 3 ranked in 2023 have all fallen (Austria: 2023 26.9% - top ranked – 2026 19.3%; Sweden: 2023 23.4%, 2026 16.7%; Iceland: 2023 22.0%, 2026 15.3%).

In the 2023 report, the 5.6% of pilots flying for Irish AOCs selecting this option was remarked on as being particularly low. In 2026, this figure was 4.7%. Malta, which was the third lowest AOC country for this statement in 2023 (8.4%), is the second lowest in 2026 (8.6%).

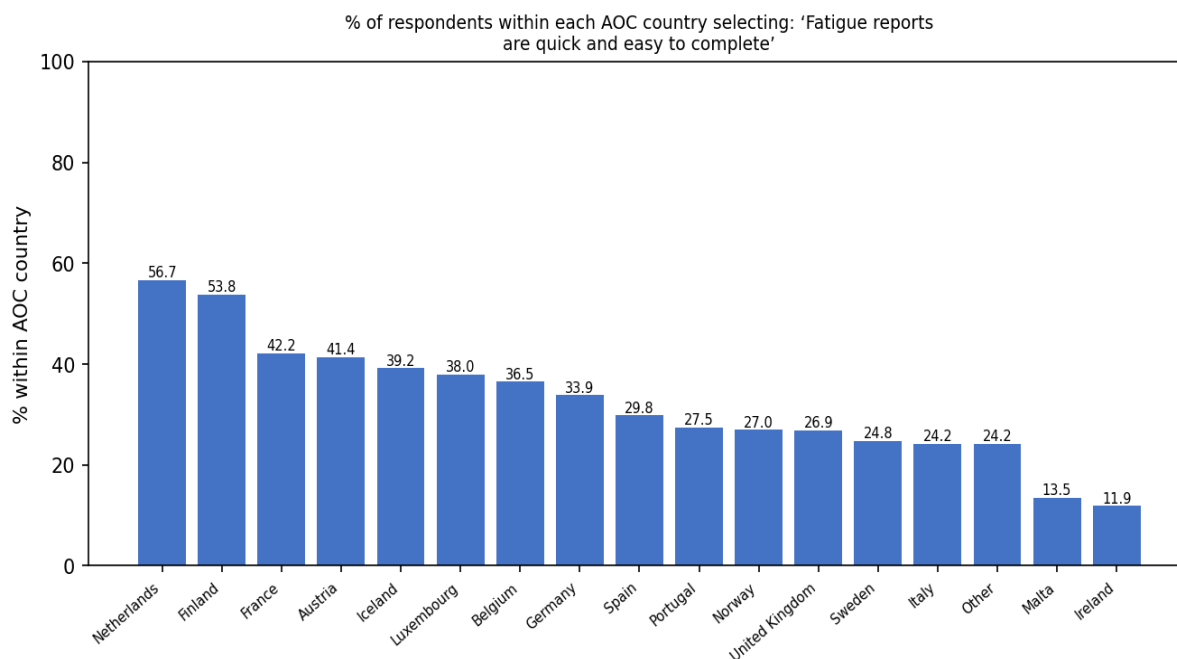


Figure 8: Proportion of pilots responding to this question that selected the statement 'Fatigue reports are quick and easy to complete', according to their AOC country. Countries on the x-axis are ordered according to the proportion selecting the statement (high to low)

The proportion of pilots selecting that the fatigue reports are quick and easy to complete has risen from 25.4% of respondents in 2023, to 29.2% in 2026. The per AOC country breakdown is shown in Figure 8.

Figure 8 shows that the top two rated AOC countries (Netherlands, 56.7% and Finland 53.8% selecting this statement) are over 10 percentage points ahead of all other countries, while the bottom two rated AOC countries (Malta 13.5% and Ireland 11.9%) are over 10 percentage points behind all other countries. The Netherlands and Finland are also the only AOC countries where more than half the responding pilots selected this option.

Fatigue reporting systems walk a fine line between a report form that collects sufficient information for the operator to be able to act on individual reports where required, and to inform broader risk mitigations, while still being quick and easy to complete. This has historically been achieved through the use of checkboxes and multi-selection lists for contributory factors, for example. However, new tools, such as reporting supported by a large language model (LLM) with a 'chat' interface may allow for quicker and more naturalistic reporting, while still getting the information required. The current rapid advancement in technology provides an opportunity for significant improvements in the ease and effectiveness of safety reporting, with appropriate safeguards to ensure data protection and quality.

However, changes and improvements to the fatigue reporting system must be carefully managed to ensure that they have the desired effect. Where pilots provided free-text responses in the survey relating to changes in their operator's fatigue reporting system, all were negative. For example:

"Company have changed fatigue report several times and now it's very difficult to understand and to apply"

"System was changed apparently. No clear instructions"

“The company changed the system and now it’s easy to forget to fill it in. Before, it was on the descent checklist and there was no issue”

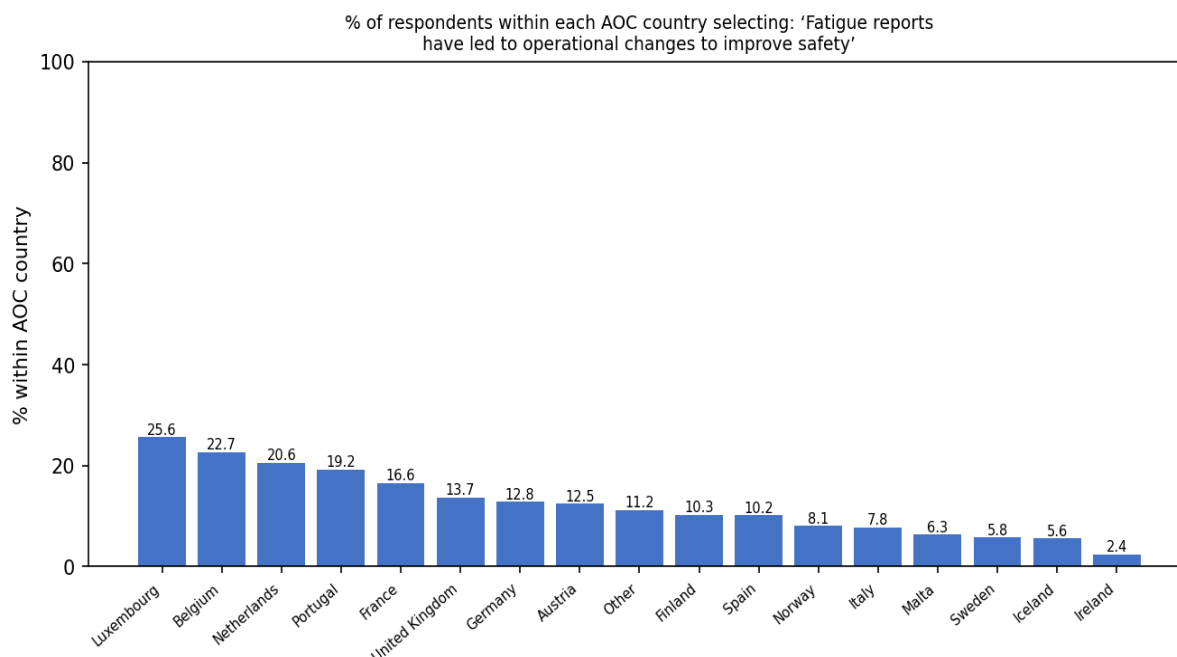


Figure 9: Proportion of pilots responding to this question that selected the statement ‘Fatigue reports have led to operational changes to improve safety’, according to their AOC country. Countries on the x-axis are ordered according to the proportion selecting the statement (high to low)

Across the whole survey, 11.3% of respondents selected the statement ‘fatigue reports have led to operational changes to improve safety’. This compares to 10.8% in 2023. The top ranked AOC countries in 2026 have all seen improvement in the proportion selecting this question in 2026 with Luxembourg (25.6% in 2026 and 15.0% in 2023) and the Netherlands (20.6% in 2026 and 9.3% in 2023) showing particularly large increases. By contrast, Italy has seen a large fall – 23.9% of pilots flying for Italian-based AOCs selected this option in 2023, vs 7.8% in 2026, as has Iceland (13.2% in 2023 vs 5.6% in 2026). Ireland was the lowest ranked AOC in 2023 (3.7% selecting this option), and remains lowest in 2026 (2.4% selecting).

As outlined in the 2023 report, effective and visible operational change resulting from crew engagement with the fatigue reporting process is not only important for operators to manage their risks, and essential to demonstrate continuous improvement as required by regulation, but also to encourage continued engagement by the crew in the reporting system.

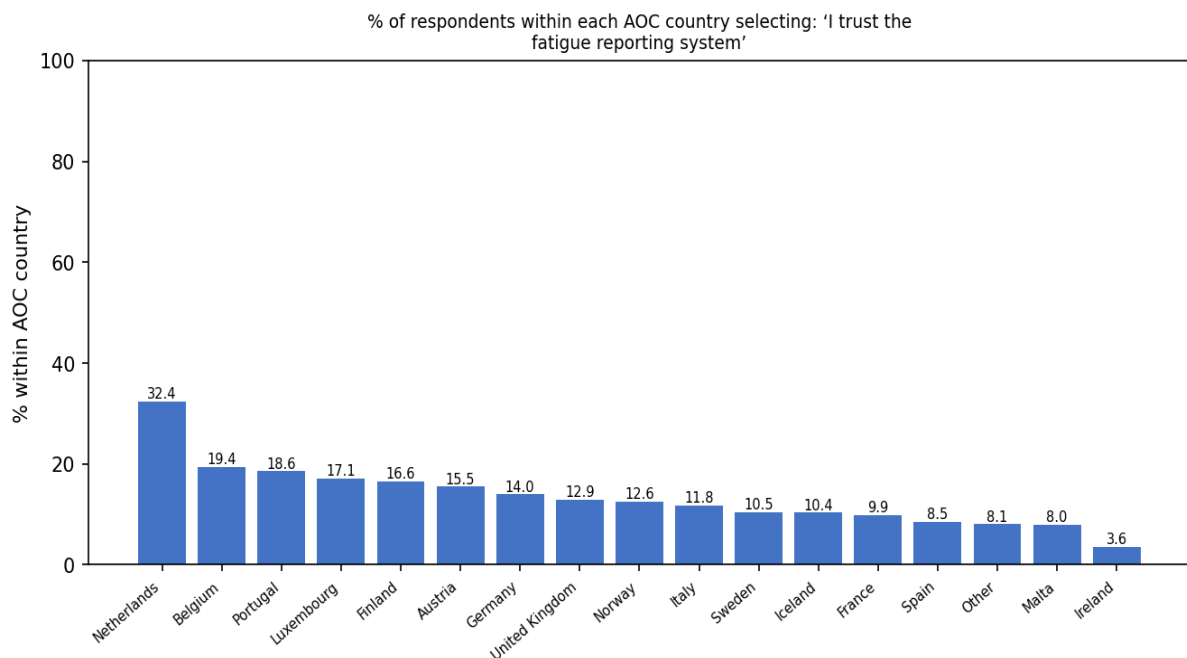


Figure 10: Proportion of pilots responding to this question that selected the statement 'I trust the fatigue reporting system', according to their AOC country. Countries on the x-axis are ordered according to the proportion selecting the statement (high to low)

The final statement in this question is 'I trust the fatigue reporting system'. Across the 2026 survey, 11.9% of respondents selected this statement, compared to 12.1% in 2023. For an essential conduit of safety-related information, this reflects a large gap in the safety culture across many operators.

In the 2026 data, the Netherlands is a clear leader – with 32.4% of pilots selecting this option. While still low, this also represents a much higher proportion than selected this statement in 2023 (16.0%). Other AOC countries with a notably higher proportion than in 2023 (>5 percentage points) of pilots selecting this statement in 2026 include Luxembourg (17.1% in 2026, 9.4% in 2023), and the United Kingdom (12.9% in 2026, 7.7% in 2023).

By contrast, other AOC countries have notably fallen in the proportion of pilots selecting this statement. This includes Iceland (23.9% in 2023, 10.4% in 2026) and Austria (21.8% in 2023, 15.5% in 2026). As in 2023, Ireland and Malta are the two lowest ranked AOC countries for this statement (2023: Ireland 6.5%, Malta 5.7%; 2026: Ireland 3.6%, Malta 8.0%), with Ireland notably lower than the other AOC countries in 2026.

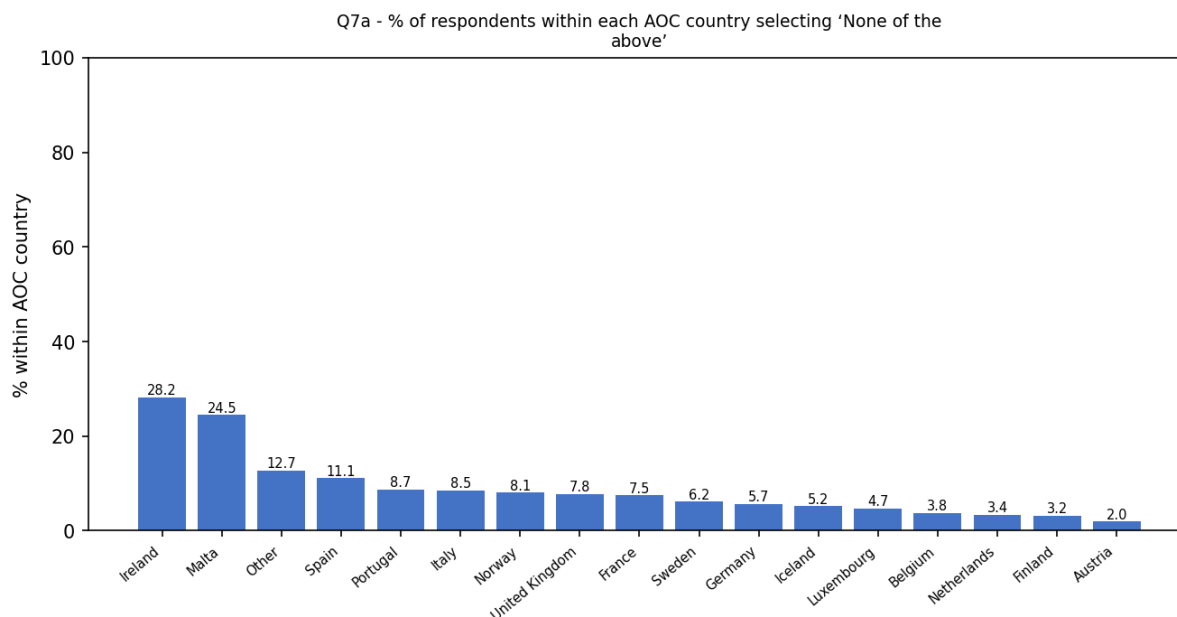


Figure 11: Proportion of pilots responding to this question that selected the statement 'None of the above', according to their AOC country. Countries on the x-axis are ordered according to the proportion selecting the statement (high to low)

While a pilot not selecting a statement does not necessarily mean that they do not believe it to be true, the 'none of the above' option in 2026 gave the pilots the opportunity to specifically highlight that none of the positive statements about fatigue reporting applied at their airline.

28.2% of the pilots flying for Ireland-based AOCs selected that none of the statements containing positive features of a fatigue reporting system applied in their operation. Only Malta (24.5%) comes within 10 percentage points of this figure. While any pilot selecting none of the above for these statements is of concern (given the longstanding requirement for a fatigue reporting system to be present, or for fatigue to be reportable through the safety reporting system, within airlines), the proportion of pilots flying for Irish- and Maltese-based AOCs selecting this option is very high.

Free-text expansions to this question

As described above, in addition to the options for selection, pilots were provided with an optional free-text question to elaborate on their answers to this question. In total, 421 pilots provided a free-text response. Responses were categorised, with multiple categories being possible for each comment – with many pilots mentioning more than one theme.

These comments were analysed for both content and sentiment, with the following key themes identified. All quotes are copied verbatim, other than to anonymise airline names, countries, pilot associations and regulators.

1. The comments were overwhelmingly negative

This may reflect the self-selecting sample, where those who chose to write about the reporting system are more likely to do so because of a negative experience or view. However, 90.3% (380) of the comments for this question were judged to be negative, while 9.0% (38) were neutral, 0.5% (2) were mixed sentiment and 0.2% (1) was positive.

2. The most common theme was fear of retaliation / receiving a punitive response to reporting

38.2% of the responses to this question fell into this theme. Representative examples include:

“It’s the consequences of putting one in that worry me”

“Positive pressure against fatigue reports, even though this will never be acknowledged”

“Intimidating meeting following a fatigue reports is often”

“Submitting a fatigue report will most likely have negative consequences. Pilots are often required to attend meetings where they face extensive questioning about why they reported fatigue. This can create pressure and may discourage them from reporting fatigue in future situations, even when they genuinely feel unfit to operate”

“The report is long and complicated. Serious consequences are to be expected after calling fatigued. I would rather fly fatigued than risk losing my job”

“Our company are now starting to evaluate our fatigue reports and if schedule is within EASA limits they change it to sickness. This is highly concerning and I am very worried going to work since people are scared to call in fatigued and sick”

3. The second most common theme was that the reporting system is hard to find / access / understand

27.8% of the responses to this question fell into this theme. Examples include:

“My company does not explain how to properly report fatigue. System is not well set up and not easy to report fatigue”

“Form is somewhat involved to fill out. Almost seems like less bother to speak with a GP and be signed off sick when you’re feeling fatigued”

“System was changed apparently. No clear instructions”

“Reporting system is not very user friendly and crashes a lot, which leads to having to write some reports twice or more, creating frustration and pushing you unconditionally to just let it be and not re-write it altogether”

“Fatigue reporting is way too complicated. It should be a 30 seconds action. Not a long form...”

“We need easier forms to report fatigue and they need to be followed by changes”

“Fatigue reports are complicated and is somehow ‘difficult’ to complete. You can’t describe exactly what the situation is that leads to fatigue”

4. No / weak FRM(S), company not managing fatigue as a hazard

22.1% of the responses to this question fell into this theme. Examples include:

“The company doesn’t care about fatigue”

“My company does not have an FRMS. It sought an exemption due to the pilot working agreement, however there is noticeable pressure from the company to work beyond that agreement to scheme should the situation warrant, thereby negating the safety basis of the pilot agreement”

“[airline] does not promote a safe environment with regards to fatigue management nor is interested in promoting communication about it”

“The system is in place to to [airline] the ball back to the flightcrew in order to maximize exploitation of FTL”

“When calling fatigue, the crew control agent is supposed to ask some questions to decide whether the <<fatigue>> code is appropriate or it and often changes it to a different code with less legal impact, such as <<not fit to fly>> which doesn’t imply a report to the authorities. It is then almost impossible to change it back to fatigue and to answer the official fatigue survey”

“Fatigue reporting working on paper only, after fatigue report I’ll be called for a meeting with chief pilot. They say that roster is fully compliant with FTL so fatigue is my fault”

Reporting unfit due to fatigue

The other element of the fatigue reporting system, as outlined above, is its use to allow crew to report unfit due to fatigue when they need to. This is a safety-related decision, just as crew are required not to operate when they are unfit to do so for any reason, as outlined in CAT.GEN.MPA.100 (c)(5) where crew members shall not perform duties on an aircraft:

‘if he or she knows or suspects that he or she is suffering from fatigue as referred to in Annex V, point 7.6, to Regulation (EU) 2018/1139 or feels otherwise unfit to the extent that the flight may be endangered’.

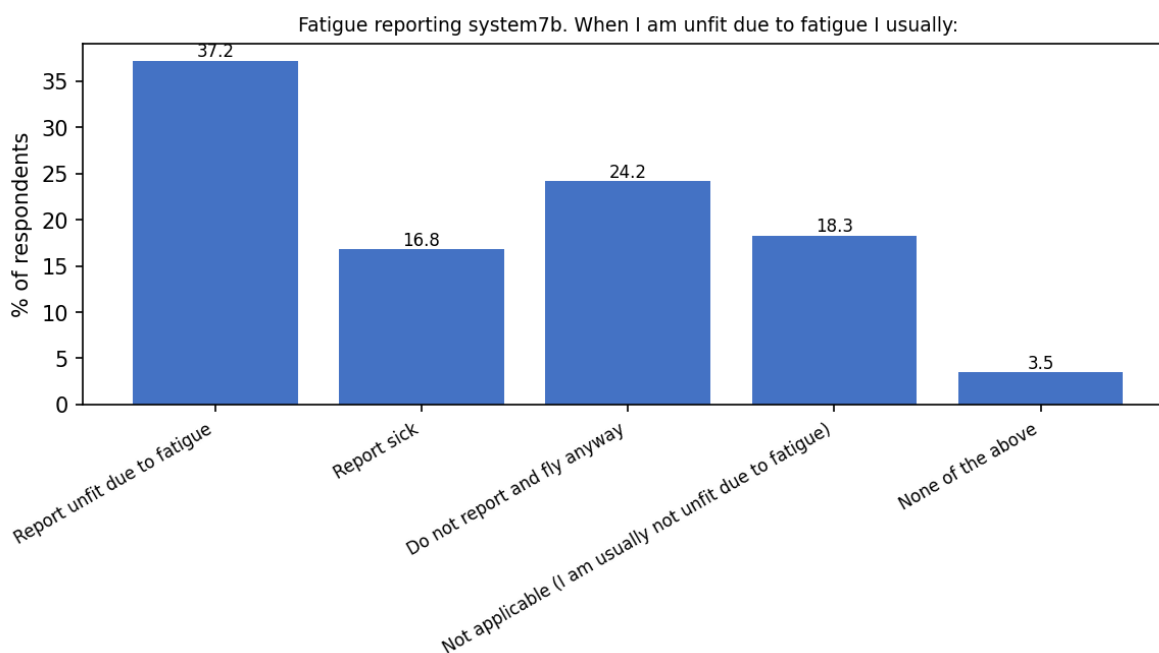


Figure 12: Responses to the question ‘When I am unfit due to fatigue I usually...’ (n=7198)

The results of the question ‘When I am unfit due to fatigue I usually:’ are shown in Figure 12. This was a single option question, with pilots selecting the option that they usually take. Most commonly, pilots selected that they report unfit due to fatigue (37.2%). Concerningly, the second most common option is that pilots do not report and fly anyway (24.2%), with 18.3% selecting that they are usually not unfit due to fatigue, and 16.8% selecting that they report sick instead.

In plain terms, this means that fewer than two in five pilots (37.2%) usually report unfit due to fatigue, while around one in four (24.2%) usually do not report and fly anyway. A further one in six (16.8%) usually report sick instead. Taken together, 41.0% of pilots usually respond to being unfit due to fatigue in a way that does not create a fatigue record with the operator, either because they continue to fly, or because the absence is recorded as sickness. This fatigue is not visible to the operator's fatigue risk management approach, and so cannot be used to identify and mitigate the causes of the fatigue or the resultant risk level.

Part 2 of EASA's Watch for Fatigue articles discusses this topic:

*'...once people stop speaking up, the organisation risks getting blind as to where its issues are. As a result, it loses an important opportunity to manage the risk. A healthy safety culture therefore doesn't simply allow people to raise concerns. **It encourages to speak up and listens, responds and learns from what those concerns are telling the organisation about the conditions in which people are working***

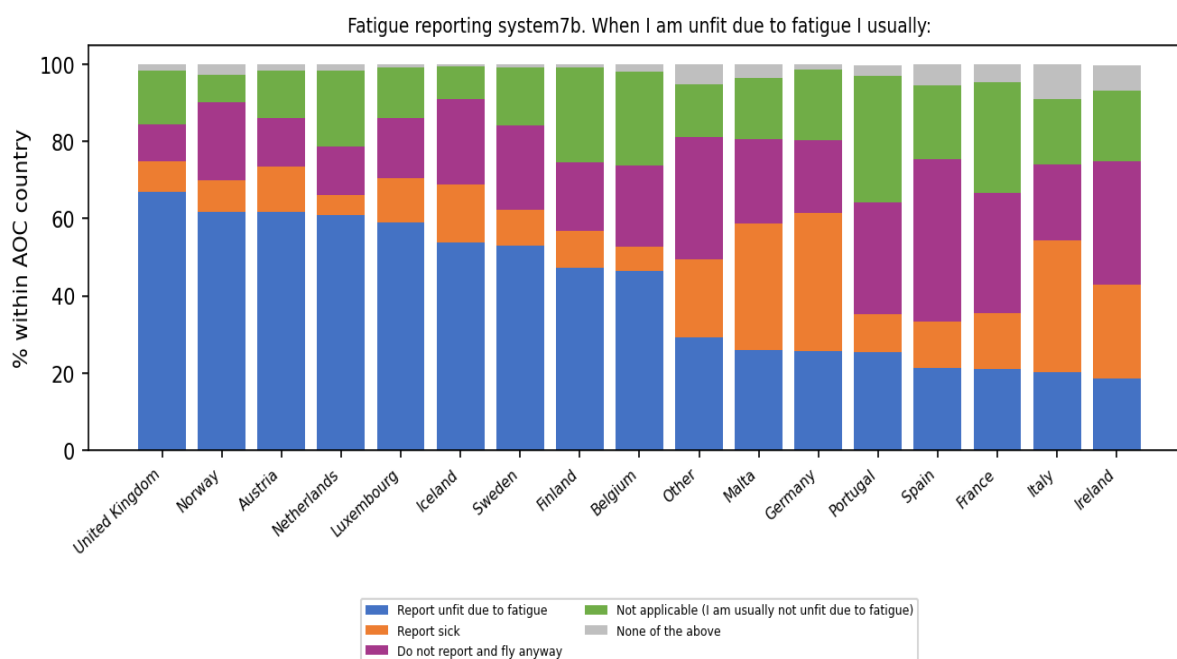


Figure 13: Responses to the question 'When I am unfit due to fatigue I usually...' (n=7198) by AOC country. X-axis countries are sorted according to the proportion of pilots in that AOC country selecting that they report unfit due to fatigue

Figure 13 shows this question according to the AOC country selected by the respondent. The proportion selecting that they would report unfit due to fatigue varies a lot between AOC nation, with 67% of those flying for a UK AOC selecting that they would report unfit due to fatigue, i.e. 2 out of 3 pilots, compared to 18.5% flying for Irish AOCs, i.e. less than one pilot in 5. This is shown further in Table 3.

Table 3: Responses to the question ‘When I am unfit due to fatigue I usually...’ (n=7198) according to AOC country

AOC country	Base (n)	Report unfit due to fatigue	Report sick	Do not report and fly anyway	Not applicable (I am usually not unfit due to fatigue)	None of the above
United Kingdom	767	514 (67%)	61 (8%)	73 (9.5%)	106 (13.8%)	13 (1.7%)
Norway	113	70 (61.9%)	9 (8%)	23 (20.4%)	8 (7.1%)	3 (2.7%)
Austria	458	283 (61.8%)	53 (11.6%)	58 (12.7%)	57 (12.4%)	7 (1.5%)
Netherlands	349	213 (61%)	18 (5.2%)	44 (12.6%)	68 (19.5%)	6 (1.7%)
Luxembourg	129	76 (58.9%)	15 (11.6%)	20 (15.5%)	17 (13.2%)	1 (0.8%)
Iceland	268	144 (53.7%)	41 (15.3%)	59 (22%)	23 (8.6%)	1 (0.4%)
Sweden	258	137 (53.1%)	24 (9.3%)	56 (21.7%)	39 (15.1%)	2 (0.8%)
Finland	253	120 (47.4%)	24 (9.5%)	45 (17.8%)	62 (24.5%)	2 (0.8%)
Belgium	211	98 (46.4%)	13 (6.2%)	45 (21.3%)	51 (24.2%)	4 (1.9%)
Other	652	190 (29.1%)	133 (20.4%)	207 (31.7%)	89 (13.7%)	33 (5.1%)
Malta	653	170 (26%)	214 (32.8%)	143 (21.9%)	103 (15.8%)	23 (3.5%)
Germany	336	86 (25.6%)	121 (36%)	63 (18.8%)	61 (18.2%)	5 (1.5%)
Portugal	509	130 (25.5%)	49 (9.6%)	148 (29.1%)	167 (32.8%)	15 (2.9%)
Spain	658	141 (21.4%)	78 (11.9%)	277 (42.1%)	127 (19.3%)	35 (5.3%)
France	465	98 (21.1%)	67 (14.4%)	145 (31.2%)	134 (28.8%)	21 (4.5%)
Italy	154	31 (20.1%)	53 (34.4%)	30 (19.5%)	26 (16.9%)	14 (9.1%)
Ireland	965	179 (18.5%)	235 (24.4%)	308 (31.9%)	178 (18.4%)	65 (6.7%)

42.1% of the pilots flying for Spanish AOCs report continuing to fly anyway, as do 31.9% of pilots flying for Irish AOCs. From a risk management perspective, these figures are concerning. While crew reporting sick instead of fatigue hides the real extent of fatigue within an operator and results in a loss of crucial data that could inform fatigue risk management approaches, the immediate risk is mitigated as the pilot is not operating. However, where the safety culture and approach to fatigue result in pilots continuing to fly when they have identified that they are not fit to do so, this has the potential to be a clear reduction in safety margins.

Free-text expansions to this question

For this question, crew were provided with the option to elaborate on their answers, and 92 provided a response. These were categorised into themes, the most common of which are shown below. Again, representative responses have been selected below.

1. Most commonly (31 responses) – Manage it yourself /press on without reporting

“Try to swap for a day OFF”

“I used to report, since nothing changes, I don’t care anymore I go flying”

“Fly anyway and report on the last leg”

“I fly anyway”

2. Second most common (19 responses) – causes of fatigue

In this theme, pilots listed reasons why they are fatigued or reasons why they have become unfit when operating.

“Roster is unpredictable and unstable every day”

“I fly cargo, if I was honest I would call fatigue every 2 flights”

3. Third most common (14 responses) – fear of retaliation / punitive response to reporting

“Do nothing due fear of repercussions”

4. Fourth most common (13 responses) – fatigue onset not recognised until during/after duty

“The question is biased when I report and end up unfit, I report tired, and then after 10 or more hours on the last sector I may get unfit and have to deal with it since stopping is not an option, this pressing beyond limits, takes a toll in medium term. Also after finishing this duties the last thing you are able is to elaborate a report on how you slept on the last 5 days, you basically just go to sleep and recover as much as possible for the next flight. Only reported once fatigue, and it was properly managed by the airline”

“I usually don’t feel the fatigue too much until the last leg of a 4 long sector on the last day for example of after a few days of repeated 4 long sectors. When it happens we are usually somewhere away from home base, having to do ‘only a 1h-2h flight’ to come back and finish the day. That being said, this can be called cumulative tiredness but I don’t know if that arrived to the point of LITERAL fatigue”

“It’s hard to be unfit before duty that is leading to unfit condition later on (such as split duty)”

The topic of operating when unfit to fly was further explored by asking pilots whether, in the last 3 months, they have operated when, with hindsight, you realise that they should have reported unfit due to fatigue. The results for the whole survey are shown in Figure 14.

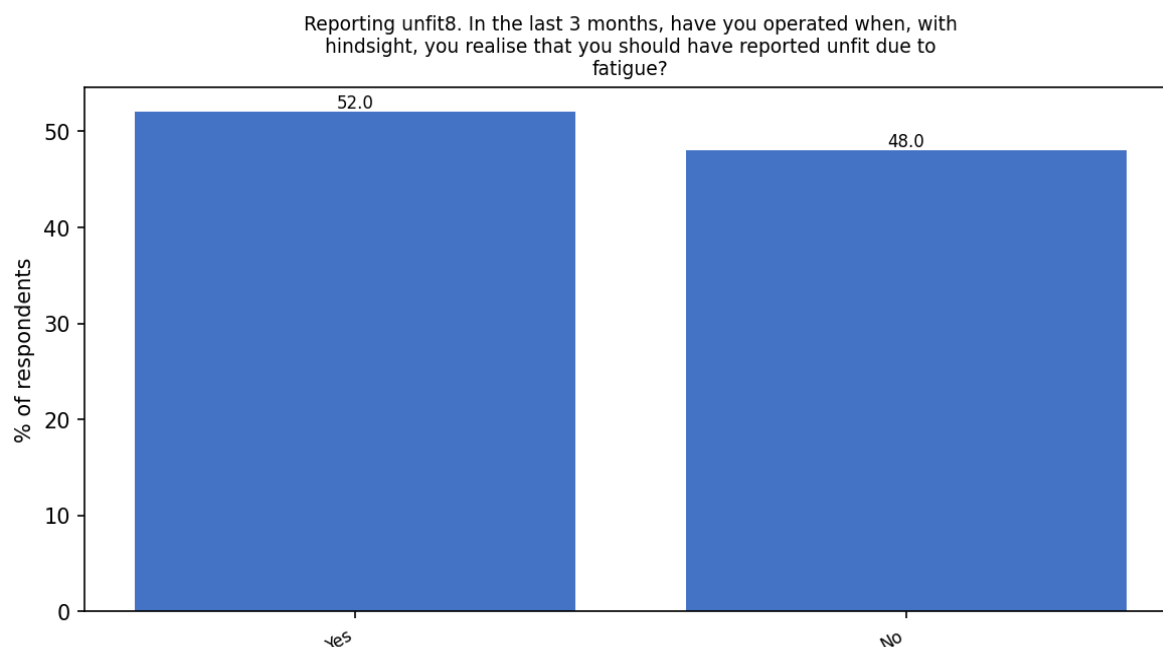


Figure 14: Proportion of pilots selecting Yes or No in response to the question ‘In the last 3 months, have you operated when, with hindsight, you realise that you should have reported unfit due to fatigue?’ (n=7198)

Across all pilots responding to the survey, 52% selected that they have operated at some point in the last 3 months when, in hindsight, they should have reported unfit due to fatigue. This is every second pilot. Together with the high proportion of pilots usually not reporting fatigue and flying anyway (one out of 4) this is a really important consideration for operators – risk assessments may

assume that crew reporting unfit is an effective and consistently used risk control that significantly reduces the likelihood of fatigued pilots operating on the flight deck. This figure shows that is not the case.

This is not an outlying finding, the EASA studies of the effectiveness of the flight time limitations identified that high fatigue levels at top of descent occurred in the populations studied. However, the causes for this were not simple – they were most likely during long FDPs, but complex interactions mean that mitigation methods need to be tailored to the operation in order to be effective. Simply shortening FDPs and/or reducing the number of sectors won't necessarily address the elevated fatigue levels¹⁶. Because of this complexity, an effective 'last line of defence' – pilots reporting that they are not fit to fly – is essential.

Reasons why pilots do not report unfit due to fatigue are complex, and were explored through both a multiple choice and a free-text option. Figure 15 shows the results of the multiple choice question. This question was only shown to those who responded 'Yes' to the previous question.

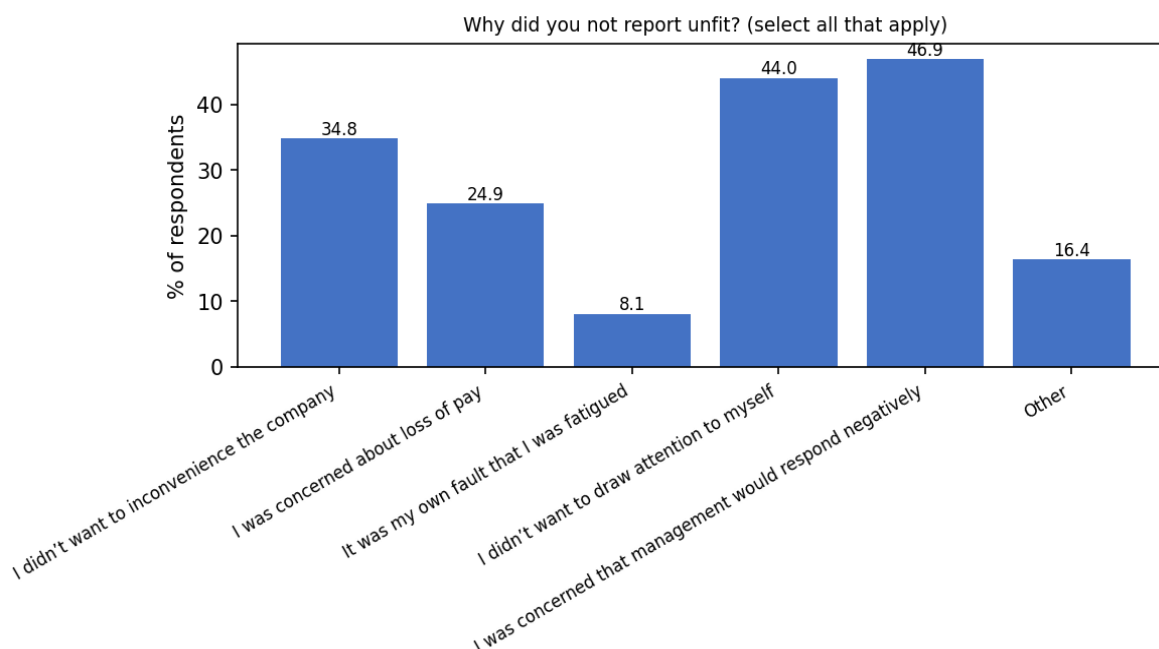


Figure 15: Options selected by crew members in response to the question 'Why did you not report unfit?'. Only shown to those who answered 'Yes' to the previous question (n=3726)

Pilots were free to select all options that apply to them for this question. Most commonly, pilots selected that they were concerned that management would respond negatively if they report unfit (46.9%) - which is almost every second pilot – and that they did not want to draw attention to themselves (44.0%) - 2 pilots out of 5. There is also a large group of pilots who do not want to inconvenience the company (34.8%).

The two most commonly selected reasons both relate to expected negative consequences of reporting, rather than to the fatigue itself, and 66.3% the pilots responding to this question selected at least one of them (that they are concerned about a negative response and/or they are concerned about drawing attention to themselves). Reporting unfit due to fatigue is a key safety-related decision

¹⁶ Research Project [EASA.2019.C31] Deliverable 2.6: Effectiveness of the current flight and duty time limitations in maintaining acceptable levels of aircrew alertness. Suitability of EASA regulatory fatigue mitigation measures. From report conclusion.

where a crew member is not fit to operate safely. EASA agrees, with its Watch for Fatigue part 2 article stating:

‘Sometimes the Professional Decision Is “I’m Not Fit”’.

There is another large category that was identified through the free-text expansion (those selecting ‘other’) – that pilots did not realise they were fatigued at the time.

Free-text expansions to this question

When selecting ‘Other’ pilots were presented with a free-text box. As with other free-text, this was sorted into themes, the most common of which are shown below. 562 responses were received.

1. Most common theme (287 responses) – fatigue onset not recognised until during/after duty

“I knew I might suffer from fatigue but didn’t realize the effect of fatigue until already on duty”

“I thought I was OK”

“I realized only on the last leg that I should have reported fatigued before starting the flight”

“Didn’t know in advance that the last return flight would be too much”

“Mission oriented approach. There is a high expectation to finish your schedule and in hindsight if realized I wasn’t 100% fit to fly. Due to delays, hard schedule. Short rest periods between schedules. Etc.”

2. Second most common theme (88 responses) – causes of fatigue

“Several night flights in a row”

“Very long duty to sby activation my 6th day of rotation, with 5th day free of duty. I was concerned about having one day before free of duty, it will not be considered fatigue”

“Lack of sleep due to noise at sleeping facilities. I was tired, and during flight I realized that I actually was fatigued. Report sent. But it is known that noise is a problem, but it is just for the statistics. There are no plans to do anything about it...”

3. Third most common theme (47 responses) – fear of retaliation / punitive response to reporting

“I feared the way the airline was treating this”

“I already called unfit several times recently. And I have been called to office before because of ‘too many’ unfit”

“Didn’t want it to affect command review board”

As with other questions, there is a large difference between the AOC countries. This is shown in Figure 16.

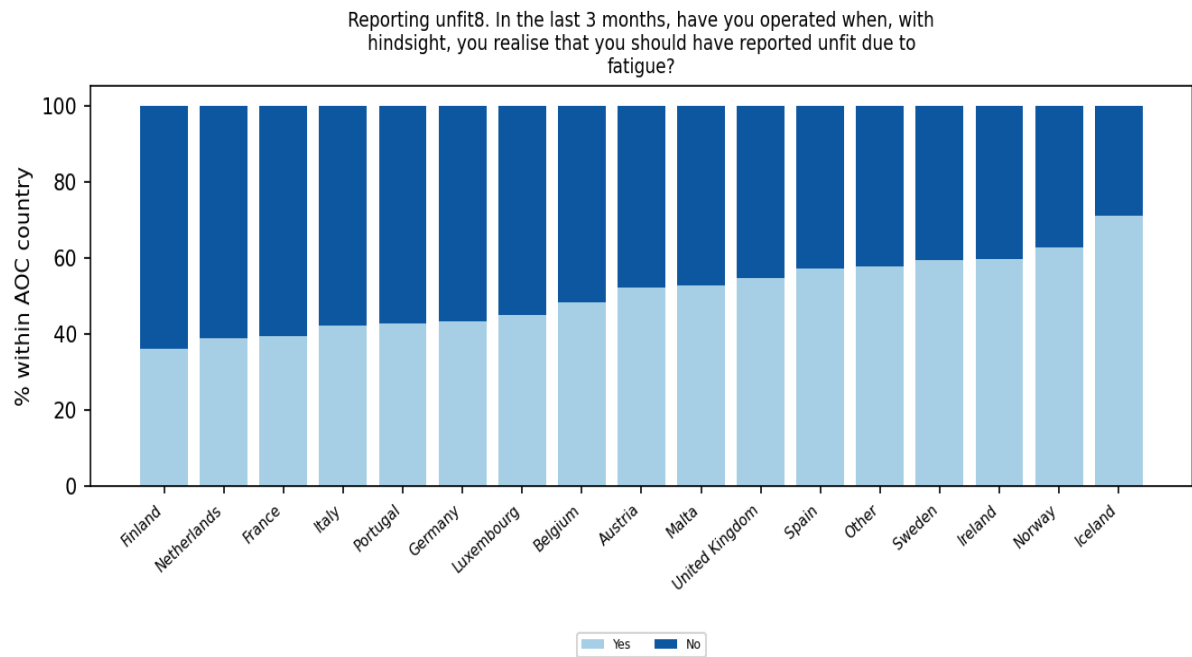


Figure 16: Proportion of Pilots from each AOC country selecting Yes or No in response to the question ‘In the last 3 months, have you operated when, with hindsight, you realise that you should have reported unfit due to fatigue?’ (n=7198)

Pilots were most likely to respond that they have operated when, in hindsight, they should have reported unfit in the last 3 months if they fly for Icelandic (70.9%), Norwegian (62.8%) and Irish (59.8%) AOCs, meaning between 6 and 7 pilots out of every 10 responding from these AOC countries. This is a considerable proportion. Conversely, those flying for French (39.4%), Dutch (39.0%) and Finnish (36.0%) AOCs were least likely, but still represent a large proportion of the pilot population flying unfit during a 3 month period, i.e. one pilot out of 3.

The reasons provided by pilots for why they have continued to operate when, in hindsight, they were unfit is broken down by AOC country in Table 4.

Table 4: Options selected by crew members in response to the question 'Why did you not report unfit?' according to AOC country. Only shown to those who answered 'Yes' to the previous question (n=3726)

AOC country	Country base (n)	% (n) selecting this statement				
		I didn't want to inconvenience the company	I was concerned about loss of pay	It was my own fault I was fatigued	I didn't want to draw attention to myself	I was concerned management would respond negatively
Belgium	100	56% (n=56)	15% (n=15)	12% (n=12)	41% (n=41)	21% (n=21)
Norway	71	54.9% (n=39)	8.5% (n=6)	11.3% (n=8)	43.7% (n=31)	36.6% (n=26)
France	182	52.2% (n=95)	39.6% (n=72)	8.8% (n=16)	40.1% (n=73)	26.9% (n=49)
Netherlands	135	51.9% (n=70)	1.5% (n=2)	9.6% (n=13)	34.8% (n=47)	16.3% (n=22)
Austria	237	44.3% (n=105)	8.9% (n=21)	8.4% (n=20)	46.8% (n=111)	39.7% (n=94)
Portugal	216	44% (n=95)	39.4% (n=85)	15.3% (n=33)	49.1% (n=106)	33.3% (n=72)
Iceland	189	42.9% (n=81)	4.8% (n=9)	11.6% (n=22)	25.9% (n=49)	27.5% (n=52)
Luxembourg	58	41.4% (n=24)	1.7% (n=1)	5.2% (n=3)	34.5% (n=20)	31% (n=18)
Sweden	153	39.2% (n=60)	11.8% (n=18)	6.5% (n=10)	54.9% (n=84)	48.4% (n=74)
Spain	376	34.6% (n=130)	42.8% (n=161)	7.7% (n=29)	39.4% (n=148)	38.3% (n=144)
Italy	64	32.8% (n=21)	35.9% (n=23)	3.1% (n=2)	40.6% (n=26)	48.4% (n=31)
United Kingdom	418	32.5% (n=136)	18.4% (n=77)	6.2% (n=26)	44.7% (n=187)	43.8% (n=183)
Finland	89	31.5% (n=28)	43.8% (n=39)	19.1% (n=17)	40.4% (n=36)	23.6% (n=21)
Germany	145	31% (n=45)	26.9% (n=39)	14.5% (n=21)	42.1% (n=61)	26.2% (n=38)
Other	374	29.7% (n=111)	36.9% (n=138)	7% (n=26)	53.2% (n=199)	58.6% (n=219)
Malta	345	24.9% (n=86)	20.3% (n=70)	4.3% (n=15)	48.1% (n=166)	73.3% (n=253)
Ireland	574	19.7% (n=113)	26.3% (n=151)	5.1% (n=29)	44.6% (n=256)	75.1% (n=431)

Pilots flying for Belgian, Norwegian, French and Dutch AOCs were most likely to continue flying because they did not want to inconvenience their company, those flying for Finnish and Spanish AOCs were most likely to highlight loss of pay as a reason, and pilots flying for Swedish AOCs highlighted not wanting to draw attention to themselves. Those flying for Irish and Maltese AOCs were most likely to select that they were concerned about a negative management response (75.1% and 73.3% respectively), while pilots flying for Dutch AOCs were least likely to be concerned (16.3%), followed by those flying for Belgian (21.0%) and Finnish (23.6%) AOCs.

Concern about loss of pay was selected by more than a third of pilots flying for Finnish (43.8%), Spanish (42.8%), French (39.6%), Portuguese (39.4%) and Italian (35.9%) AOCs, and those in the 'Other' category (36.9%), compared with 24.9% of all pilots responding to this question.

Section summary

As explored above, fatigue reporting is central to an operator's fatigue risk management approach, both to support the collection of data relating to fatigue experiences on the line, and as an avenue for crew who are unfit due to fatigue to report as such and remove themselves from duty.

A fatigue reporting system needs to be trusted to be effective – this will impact both its ability to provide data, and also whether crew will report unfit, vs reporting sick or continuing to fly because they fear negative repercussions of using the reporting system.

The survey data show that this is not currently the case for many pilots. Fewer than two in five pilots (37.2%) usually report unfit due to fatigue when they are unfit, while one in four (24.2%) usually do not report and fly anyway, and 16.8% usually report sick instead. Reporting sick removes the immediate safety risk, but hides the real extent of fatigue within an operation. Together, pilots usually flying without reporting or reporting sick make up 41.0% of respondents: around two in five pilots whose experience of fatigue is not reported, so cannot be used to inform risk-based decisions and potentially resulting in an incorrect understanding of operational risk exposure. Over half of the pilots (52.0%) had operated in the last 3 months when, in hindsight, they recognised that they should have reported unfit due to fatigue.

The reasons for this are complex, but the low proportion of pilots selecting that they trust the fatigue reporting system (11.9%) may play an important role. The low proportions selecting that fatigue reports have led to operational changes to improve safety (11.3%) and that fatigue reports are quick and easy to complete (29.2%) are also likely to contribute, as is the fear of a punitive response to reporting. This was the most common theme in the free-text comments on the reporting system (38.2% of 421 comments), and concern that management would respond negatively was the most common reason selected for not reporting unfit (46.9%).

The 2023 report concluded that operators were not effectively managing fatigue risk through their management systems. Three years later, the results for the whole survey are very similar. Based on the first two sections of this report, with limited change in the proportion of pilots selecting that their operator manages fatigue risk effectively and limited change in the proportion of pilots selecting each feature of the fatigue reporting system, the results indicate that this remains the case.

Throughout this section, the AOC country has a large impact on how the pilot is likely to answer questions. Pilots flying for AOCs based in the Netherlands have a more positive (although not entirely positive) view of the fatigue reporting approach within their airline, and were also less likely to have operated when, in hindsight, they should have reported unfit due to fatigue. The ratings of the features of the reporting system by Netherlands-based pilots has improved since the 2023 survey, demonstrating that improvements can be made.

In contrast, as in 2023, the answers provided by pilots flying for Irish and Maltese AOCs consistently place these nations at the bottom of the rankings. In 2026, pilots flying for Irish AOCs were the least likely to select each of the five positive statements about the fatigue reporting system, and the most likely to select none of the above (28.2%). Pilots flying for Maltese AOCs were the second least likely to select four of the five statements (the exception being that fatigue reports have led to operational changes to improve safety, where Malta ranked fourth lowest), and the second most likely to select none of the above (24.5%). Pilots flying for these AOCs were also the most likely to select that they did not report unfit because they were concerned that management would respond negatively (Ireland 75.1%, Malta 73.3%). The 2023 report noted that these results demonstrated

challenges to be further investigated by the NAAs and EASA. The 2026 results show that these challenges persist, with little or no improvement since 2023.

In practice, these results mean that, for most pilots responding to the survey, the fatigue reporting system is not yet working as the trusted, two-way source of safety information that fatigue risk management depends on. As in 2023, the variation between AOC countries indicates a lack of standardisation across Europe, and the results show that improvement is required in all AOC countries, not only those at the bottom of the rankings. The improvement reported by pilots flying for Netherlands-based AOCs shows that this is achievable. Tools are available to support this standardisation and improvement – including the EASA Inspector’s Checklist, and attendance at industry events and meetings – but as yet, these tools are seemingly having limited impact.

Amongst those crew who have operated when they realised they were unfit to do so due to fatigue, the responses show interesting differences. For many pilots, identifying at the start of the duty that they may become too fatigued to operate safely later in the duty is a challenge – as noted in the free-text comments – often leaving them with no option but to continue the duty. Where short-haul crew recognise their elevated fatigue levels during an FDP, reporting unfit may not be simple – particularly where they are out of base, and reporting unfit will lead to flight cancellations. Equally for crew flying long-haul routes, there may not be a point during an FDP where they can declare themselves unfit. Operators should recognise the challenges that their crew have when it comes to reporting unfit due to fatigue, and identify how they can be supported to take this safety decision, or how fatigue risk can be mitigated where pilots have no option but to continue operating (e.g. because they are already inflight). This may be one reason why the EASA studies, which measured fatigue levels at the final top of descent of a duty, also saw high fatigue levels on some duty types – because those crew members did not recognise the fatigue until they had limited remaining options to mitigate it.

1.6 Commander’s Discretion Utilisation and Concern

As in the 2023 survey, this survey explored Commander’s Discretion usage to extend maximum FDPs in the last 4 weeks and the level of concern that pilot have about negative consequences if they refuse to extend a maximum flight duty period under Commander’s Discretion.

ORO.FTL.205(f) outlines the provision for Commander’s Discretion, which also allow for the shortening of a flight duty period, the extension of a rest period, or the shortening of a rest period. These three applications of Commander’s Discretion were not explored through this question.

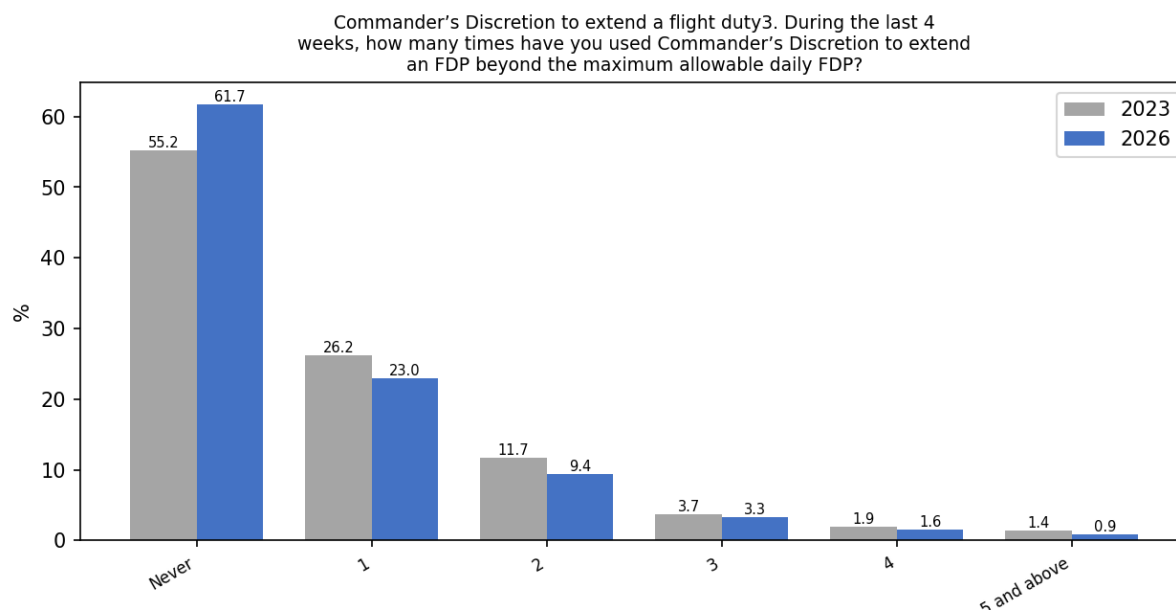


Figure 17: Responses to the question 'During the last 4 weeks, how many times have you used Commander's Discretion to extend an FDP beyond the maximum allowable FDP' in 2023 (n=5849¹⁷) and 2026 (n=6871)¹⁸

Figure 17 shows a comparison between the frequency of Commander's Discretion usage in the prior 4 weeks in 2023 and 2026. Since the 2023 survey, pilots are reporting a lower usage of Commander's Discretion to extend a flight duty period in the prior 4 weeks. While the fall in usage reaches statistical significance, the effect size is very small¹⁹ – indicating that this change is not a meaningful one. Part of the change may also be explained by the clarification in the question, specifying that this is to extend beyond the **maximum** allowable FDP, rather than just using the word FDP as in 2023 – which may have been understood by some as meaning a lengthening of the day within the allowable limit.

While Commander's Discretion has fallen since 2023, 38.3% of the pilots responding to the survey still report using it at least once during the prior 4 weeks in 2026. This is almost 2 out of 5 pilots. 15.3% of the pilots had used Commander's Discretion to extend an FDP beyond the maximum twice or more in the last 4 weeks. As noted in the 2023 report, Commander's Discretion usage should be exceptional²⁰, and only in unforeseen circumstances²¹. EASA have also re-emphasised the exceptionality of Commander's Discretion usage in part I of the Watch for Fatigue articles. EASA states:

'Commander's Discretion: Exceptional Means Exceptional' and *'Commander's Discretion exists to provide flexibility when **unforeseen circumstances** arise in actual flight operations. EASA guidance describes these as events that could not reasonably have been predicted and accommodated and which*

¹⁷ A slightly different question was asked in 2023: 'During the last 4 weeks, how many times have you used Commander's Discretion to extend an FDP?

¹⁸ A further 66 people responded I don't know, and 26 I selected not applicable.

¹⁹ Chi-square test of independence (2023 vs 2026): $p < 0.001$, Cramer's $V = 0.069$ (negligible effect)

²⁰ AMC I ORO.FTL.105(f) (a)

²¹ ORO.FTL.205(f)

begin at or after reporting time. It is not simply extra time available when the schedule becomes difficult. Not a standard buffer to compensate for disruptions or overly optimistic planning’.

When considering the results according to AOC country, again there is a wide variation. Pilots flying for Finnish (11.1%), Dutch (14.3%), and Belgian (16.7%) AOCs were least likely to report that they had used CD to extend an FDP at least once in the last 4 weeks. This contrast with pilots flying for Maltese (65.3%) and Irish (56.6%) AOCs using CD at least once over this period, and 36.1% and 31.6% of pilots flying for Maltese and Irish AOCs using it at least twice, respectively. Operators should examine their utilisation of Commander’s Discretion to identify if there are predictable patterns, indicating where usage is not exceptional.

While overall use of Commander’s Discretion has fallen slightly since 2023, concern about refusing to utilise discretion has risen, as shown in Figure 18. The proportion of pilots reporting being highly concerned has increased by 5.9 percentage points since 2023.

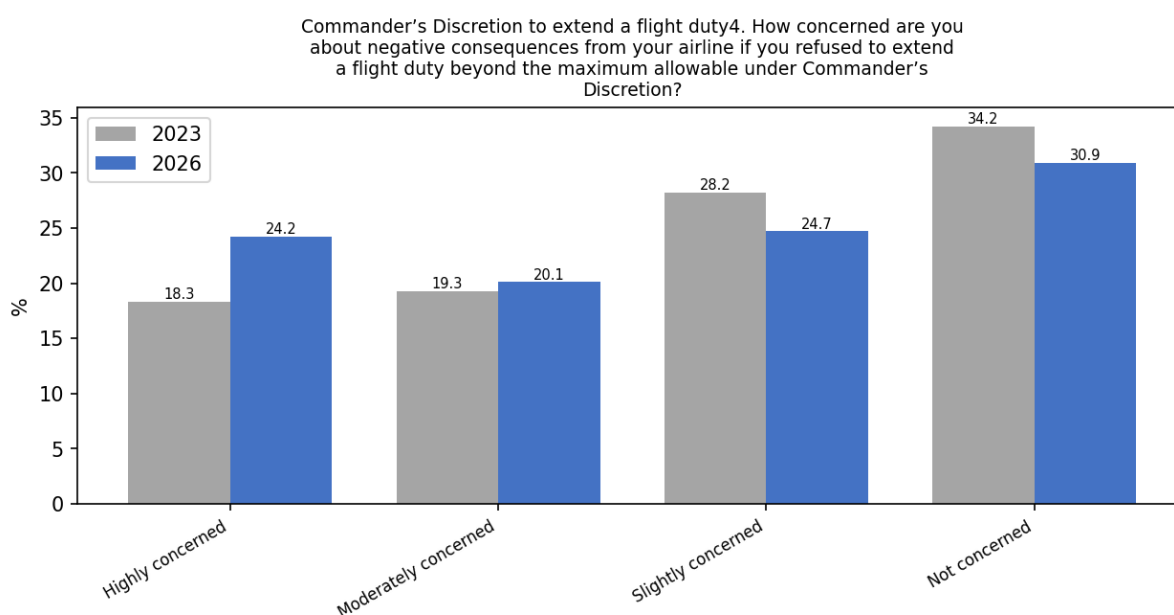


Figure 18: Proportion of pilots selecting each answer option to the question ‘How concerned are you about negative consequences from your airline if you refused to extend a flight duty beyond the maximum allowable under Commander’s Discretion?’ in 2023 (n=6588)²² and 2026 (n=6962)²³

It is not clear why concern has increased since the 2023 survey, even though usage has declined. In 2026, 69.1% of pilots (around seven in ten) were at least slightly concerned about negative consequences from their airline if they refused to extend a flight duty under Commander’s Discretion. 44.3% (just over two in five) were highly or moderately concerned, and one in four (24.2%) were highly concerned. ORO.FTL.205(f)(6) requires that the operator implements a non-punitive process for the use of Commander’s Discretion, and that this is described in the operations manual. These results indicate that, in the experience of many pilots, this non-punitive process may exist on paper, but is not reflected in practice.

²² In 2023, the question was ‘How concerned are you about negative consequences from your airline if you refused to extend a flight duty under Commander’s Discretion?’

²³ An additional 236 pilots selected ‘I don’t know’

This is another question with a high degree of variability between AOC country, as shown in Figure 19. 55.2% of pilots flying for Irish AOCs and 47.7% of pilots flying for Maltese AOCs report being highly concerned about refusing Commander's Discretion. If one adds moderately concerned pilots, the proportion of pilots highly/moderately concerned are 76.1% for pilots flying for Maltese AOCs and 80.0% for pilots flying for Irish AOCs. This compares to 4.7% of pilots flying for German AOCs who are highly concerned (19.1% highly/moderately concerned) and 3.2% flying for Dutch AOCs highly concerned (9.1% highly/moderately concerned).

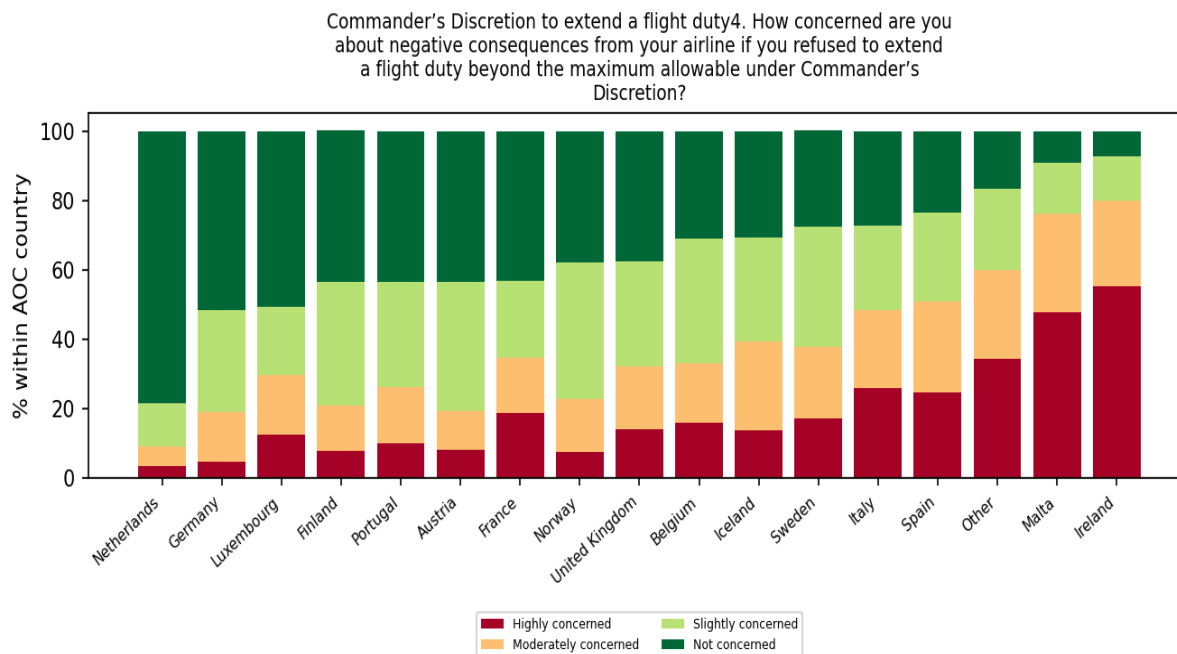


Figure 19: Proportion of pilots from each AOC country selecting each answer option to the question 'How concerned are you about negative consequences from your airline if you refused to extend a flight duty beyond the maximum allowable under Commander's Discretion?' (n=6962)²⁴. Responses are sorted by the % of pilots in each AOC country selecting 'not concerned'

The 2023 report highlighted the requirement that Commander's Discretion be a non-punitive process (as outlined in ORO.FTL.205(f)(6)²⁵), and is extensively covered in the EASA Watch for Fatigue article part I. In this article, EASA outlines principles for Commander's Discretion:

'Don't plan for it.'

Don't pressure people to use it.

Have a non-punitive process in place.

Learn when it is used'

²⁴ An additional 236 pilots selected I don't know

²⁵ 'The operator shall implement a non-punitive process for the use of the discretion described under this provision and shall describe it in its operations manual'

In recognition of the importance of the Commander's Discretion policy and approach, EASA outlines multiple checks for inspectors, within the Inspector's Checklist part 2 reference 4. These are:

- Check if the OM-A contains the operator's policy on CD.
 - The policy has to account for the shared responsibility of management, flight crew and cabin crew in the case of unforeseen circumstances
 - The policy has to state the safety objectives and account for factors that might decrease a crew member's alertness levels
 - The policy has to state the non-punitive nature of the use of commander's discretion
 - The policy should include guidance to pilots as to what type of events fall under 'unforeseen circumstances' in the context of commander's discretion. For example, in view of the ICAO definition of 'unexpected conditions', unforeseen circumstances in flight operations for the purpose of ORO.FTL.205(f) may be events that could not reasonably have been predicted and accommodated, such as adverse weather, equipment malfunction or air traffic delay, which may result in necessary on-the-day operational adjustments
 - The policy should include guidance to pilots that commander's discretion should be avoided at home base
- Check if the operator includes sufficient margins in rostered FDPs so that commanders do not exercise discretion as a matter of routine
- Check during audits how the operator assesses pairings where commander's discretion has been exercised?
- Check if the OM-A contains a procedure specifying how the commander can increase the maximum FDP for the actual number of sectors and the crew configuration and/or reduce the rest period following that FDP.
 - The rest period must not be less than 10 hours
 - The procedure shall instruct the commander to consult all crew members on their alertness status before applying commander's discretion
- Check if the OM-A contains a procedure specifying how the commander can reduce the actual FDP and/or increase the rest period following that FDP
 - The procedure shall instruct the commander to consult all crew members on their alertness status before applying commander's discretion
- Check if the OM-A contains an instruction to the commander to report cases of discretion to the operator
 - Does the operator provide adequate training to flight crew members on reporting cases of discretion to the operator?
 - How does the operator ensure all cases of commander's discretion are recorded, and reports are submitted in a timely manner?
 - Does the operator specify in their policy the timescales for submitting a commander's discretion report form?
- Check if the operator has a procedure how to collect the CD reports and use them for the purpose of evaluating the roster robustness (ORO.FTL.110(j))

- Check if the OM-A contains a procedure for reporting cases of discretion, whereby the FDP is increased or rest period is reduced by more than 1 hour, to the competent authority
 - The operator must add its comments and ensure that these reports are submitted to the competent authority not later than 28 days after the event
- Check if augmented crew are used for all cases of commander's discretion over 2 hours
- Check during audits a sample of rosters if no more than 3 hours commander's discretion is used
- When commander's discretion is applied to the maximum daily FDP with extensions without in-flight rest, check that Table 2 of ORO.FTL.205(b) is used to calculate the limits of commander's discretion

1.7 Roster stability

Roster stability and Commander's Discretion are linked – rosters that are more unstable may not have sufficient buffers remaining to absorb operational delays within maximum duty periods. Across the whole survey database, 27.6% of pilots reported that they had very stable rosters in the last 4 weeks. This compares with 23.9% in 2023. Overall, almost two thirds of pilots (64.4%) rated their roster as very or moderately stable in the last 4 weeks, which is positive. However, over a third (35.6%) rated their roster as moderately or very unstable, which is still a substantial proportion.

The full comparison between the 2023 and 2026 results for this question are shown in Figure 20. In 2026, the 'neither stable nor unstable' option was dropped – requiring the pilots to pick whether their roster was stable (very or moderately) or unstable (very or moderately). This impacts the distributions.

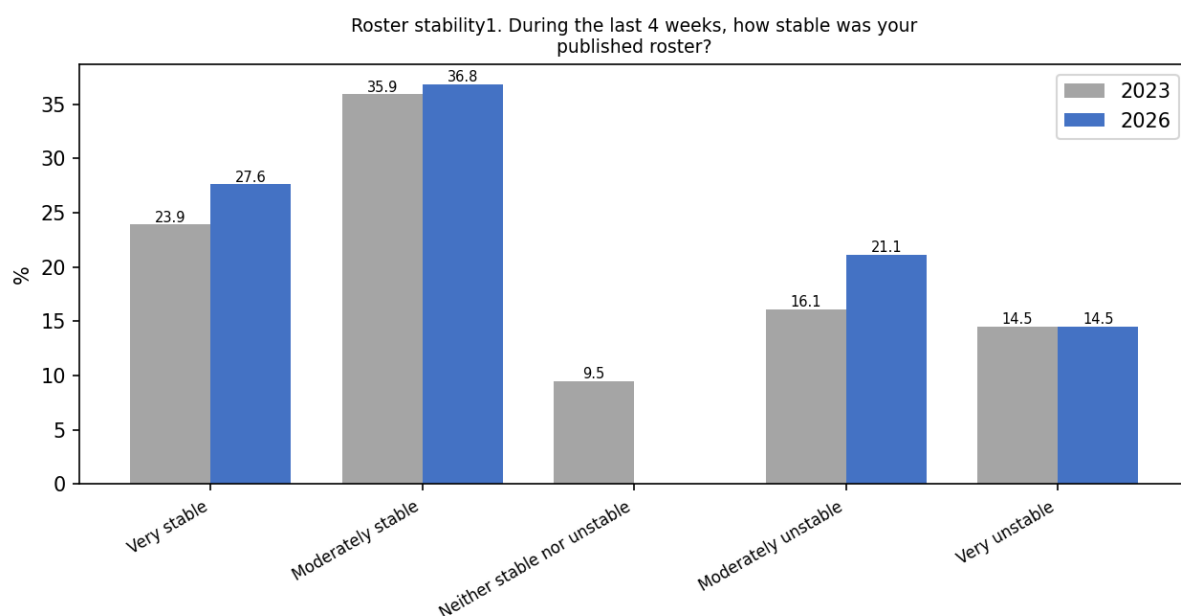


Figure 20: Proportion of pilots selecting the options in response to the question 'During the last 4 weeks, how stable was your published roster?' for 2023 (n=6857) and 2026 (n=7198)

As in 2023, roster stability varies across AOC countries – this is shown in Figure 21. Italy, Malta and Luxembourg were the three countries that had the lowest proportion of pilots rating their rosters as 'very stable' in 2023, and are the three countries where the highest proportion of pilots rated their rosters as 'very unstable' in 2026.

Roster stability and instability can impact on the fatigue of pilots, both directly through extended duty days and shortened rest periods, by impacting on the ability to plan rest, and also indirectly through introducing stress. Those responding to the survey reporting a higher degree of roster instability were also more likely to report experiencing microsleeps – while this result was statistically significant, the effect size was small²⁶ meaning that this connection requires further exploration.

Roster changes should be managed to ensure that they are not introducing risk through fatigue. As outlined in the 2023 report, the EASA Inspector’s Checklist describes roster changes as hazards that may impact on fatigue, specifically stating ‘check if the operator’s existing hazard identification, risk assessment and mitigation processes deal with roster changes and their impact on aircrew in a given period’. This is one of the ways in which EASA expects compliance with ORO.FTL.110(a) to be demonstrated.

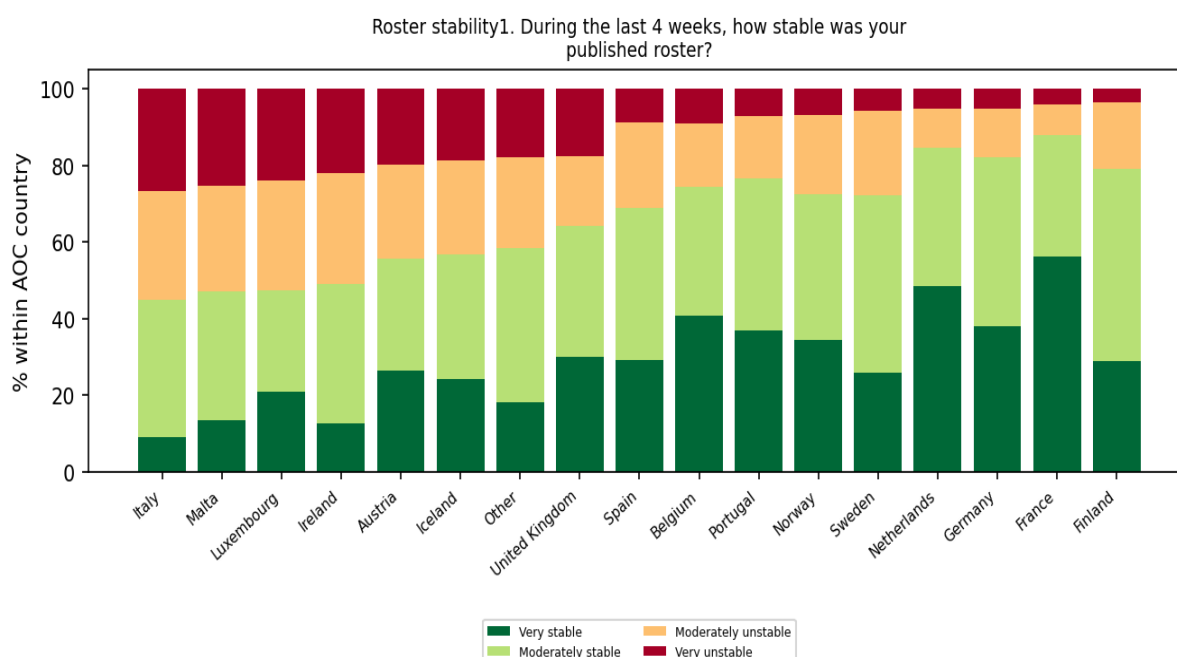


Figure 21: Proportion of pilots selecting the options in response to the question ‘During the last 4 weeks, how stable was your published roster?’ sorted according to the % of pilots selecting ‘very unstable’ (n=7198)

1.8 Recovery within the roster

Rosters need to strike a balance between appropriate productivity and sufficient provision of rest periods to ensure that crew do not experience cumulative fatigue. This includes time off between individual duties, and the provision of sufficient ‘extended recovery rest periods’. Minimum rest periods are outlined in the regulation, but this does not mean that they are appropriate for all operators and all circumstances. ORO.FTL.110(b) requires that the operator shall:

‘ensure that flight duty periods are planned in a way that enables crew members to remain sufficiently free from fatigue so that they can operate to a satisfactory level of safety under all circumstances’ and ORO.FTL.110(d) states ‘take into account the relationship between the frequency and pattern of flight duty

²⁶ Roster stability vs microsleeps $\rho=0.236$, $p<0.001$ (BH adjusted), small association.

periods and rest periods and give consideration to the cumulative effects of undertaking long duty hours combined with minimum rest periods’.

While the summer peak is always a challenging time with demanding schedules and high load factors, this must be managed while maintaining fatigue risk to a level that is tolerable. As well as the Operator Responsibilities outlined above, ORO.FTL.110(g) states ‘the operator ensures that rest periods allow aircrew to recover from transient and cumulative fatigue and be rested prior to undertaking the next FDP’. Three in four pilots (76.8%) reported that, at least sometimes during the last 4 weeks, they had not had adequate time off to recover from fatigue between duties (Figure 22).

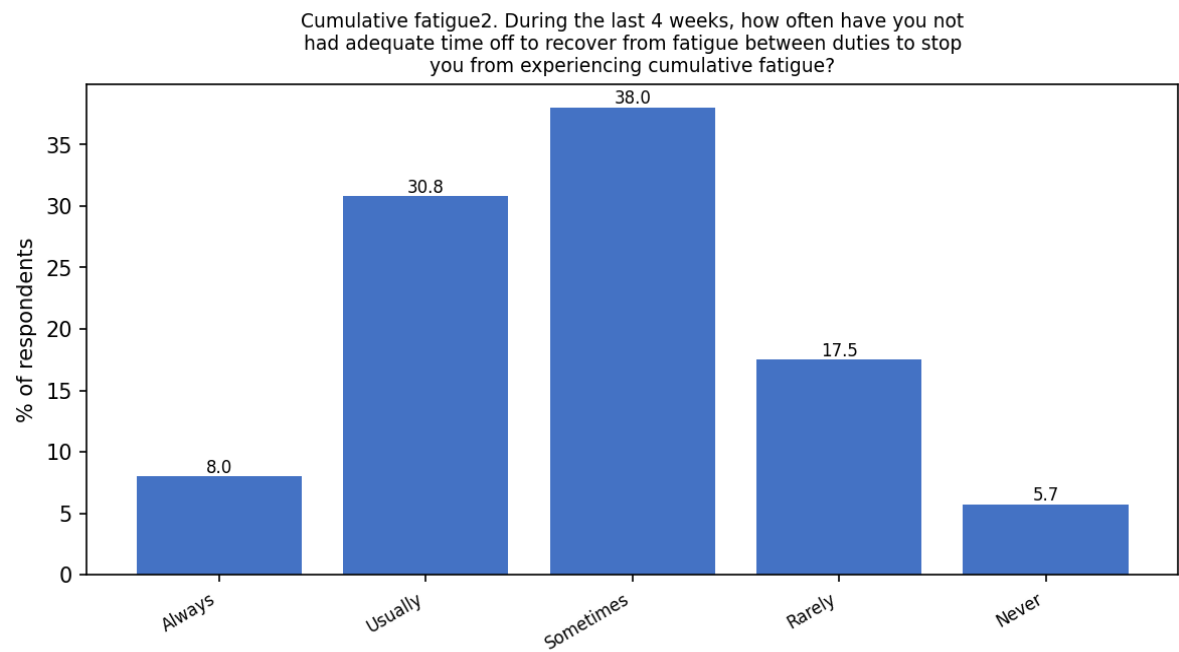


Figure 22: Proportion of pilots selecting answer options for the question ‘During the last 4 weeks, how often have you not had adequate time off to recover from fatigue between duties to stop you from experiencing cumulative fatigue?’ (n=7198)

Across the whole database, 8% of the pilots responded that they always had insufficient rest within their roster in the last 4 weeks (Figure 22). This proportion was 6.8% in 2023. When those selecting usually are included, 38.8% of pilots (almost two in five) always or usually had insufficient rest, rising to 76.8% (three in four) when those selecting sometimes are also included. Conversely, in 2026 23.2% of pilots reported that rarely or never did they have insufficient rest (compared to 27.1% in 2023). This change may reflect the time of year that the survey was undertaken in 2026 – during the summer peak (August) rather than the build-up (July) as in 2023. The comparison between 2023 and 2026 is shown in Figure 24.

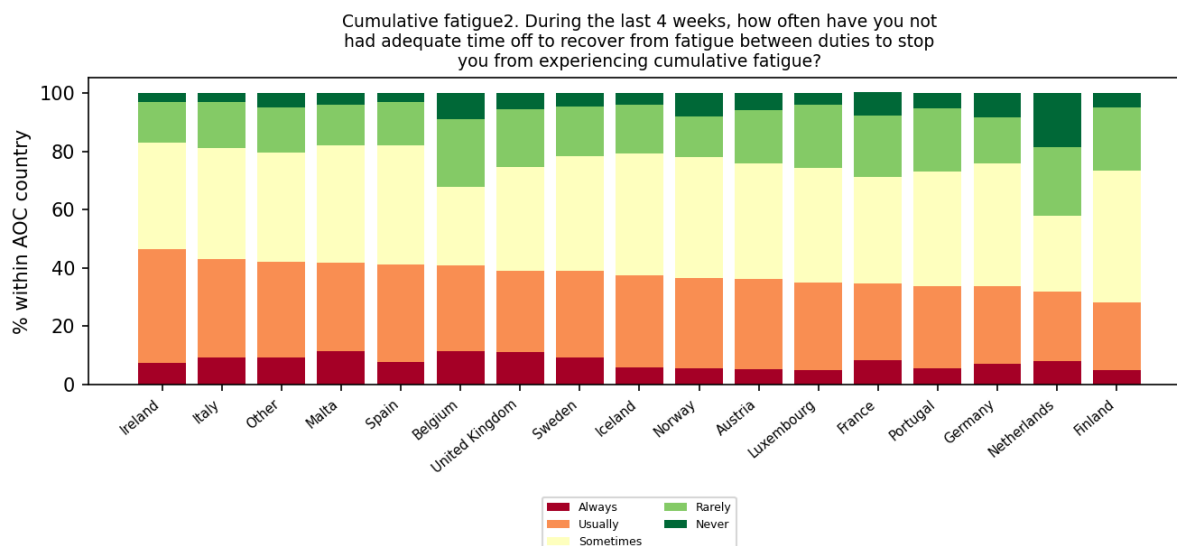


Figure 23: Proportion of pilots selecting answer options for the question ‘During the last 4 weeks, how often have you not had adequate time off to recover from fatigue between duties to stop you from experiencing cumulative fatigue?’ sorted according to AOC country (n=7198)

Compared to 2023, Italy has seen a significant change in the proportion of pilots reporting that they always/usually experience inadequate recovery has risen from 26.1% in 2023 to 42.9% in 2026. In the ranking of AOC countries, Italy has moved from the second lowest proportion of pilots stating that they always/usually experience inadequate rest to the second highest proportion in 2026 (Figure 23). In 2026 conversely, the UK – which was an outlier in 2023 with 15.8% of pilots selecting that they always had insufficient rest – has shown a slight improvement, this figure is now 11% (with 27.9% selecting usually). The other two AOC countries with the highest proportion selecting that they always/usually experience inadequate rest are also ranked worse than in 2023 – but with smaller movements:

- ▶ 46.4% of pilots flying for Irish AOCs selected that they always/usually experience inadequate recovery in 2026 – the highest proportion of any AOC country (vs being 3rd lowest ranked in 2023 with 39.2% selecting these options)
- ▶ 41.8% of pilots flying for Maltese AOCs selected that they always/usually experience inadequate recovery in 2026 – the 4th lowest ranked (although 3rd AOC country, behind ‘Other’) (vs being 4th in 2023 with 36.1% selecting these options).

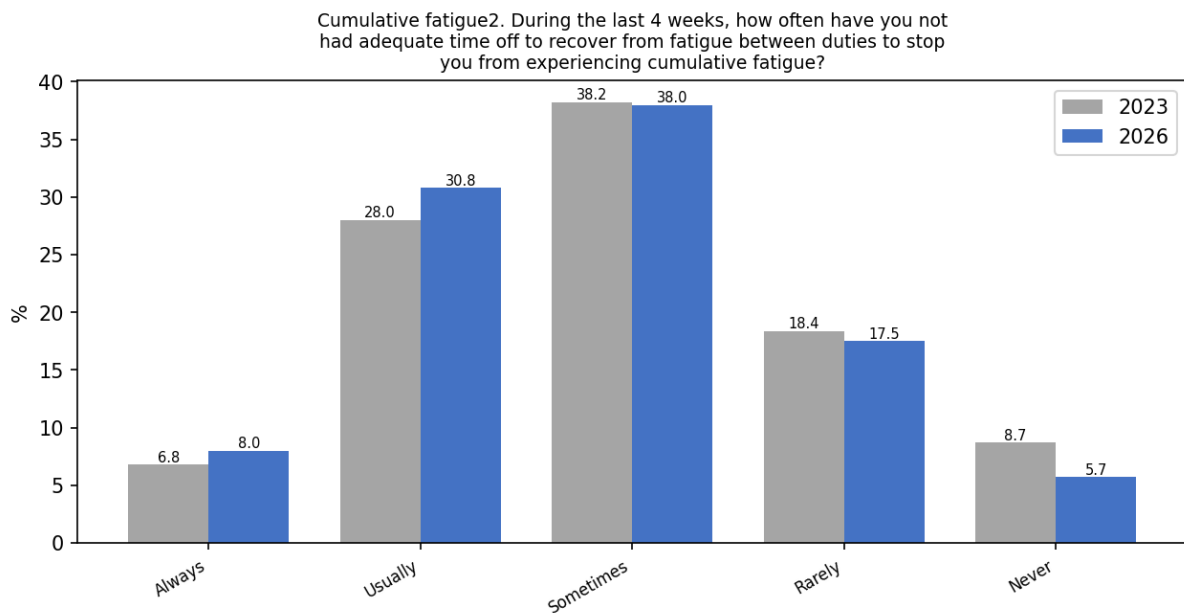


Figure 24: Proportion of pilots selecting answer options for the question 'During the last 4 weeks, how often have you not had adequate time off to recover from fatigue between duties to stop you from experiencing cumulative fatigue?' in 2023 (n= 6808) and 2026 (n=7198)

1.9 Microsleeps during flight operations

Microsleeps are brief, unintentional periods of sleep that can occur with our eyes open or closed. Microsleeps:

- ▶ Are often an indication of significant elevated sleepiness and associated reduced performance, occurring at any time
- ▶ Can occur more readily during periods of low workload, even in the absence of high levels of sleepiness

For this question, pilots were provided with symptoms of microsleeps²⁷ – in slightly different wording to the question presented in 2023²⁸. This may have impacted the responses to this question. Equally, the survey took place during the summer peak (August) in 2026, vs the ramp up to the summer in 2023 – where fatigue levels may differ. Microsleeps are a visible and notable indicator of likely elevated fatigue levels (although they may not always be remembered).

²⁷ In the last 4 weeks, when operating on the flight deck, how often have you experienced brief uncontrolled periods of sleep (microsleeps), head nodding, or fought to keep your eyes open

²⁸ In the last 4 weeks, when operating on the flight deck, how often have you experienced brief uncontrolled periods of sleep (microsleeps)?

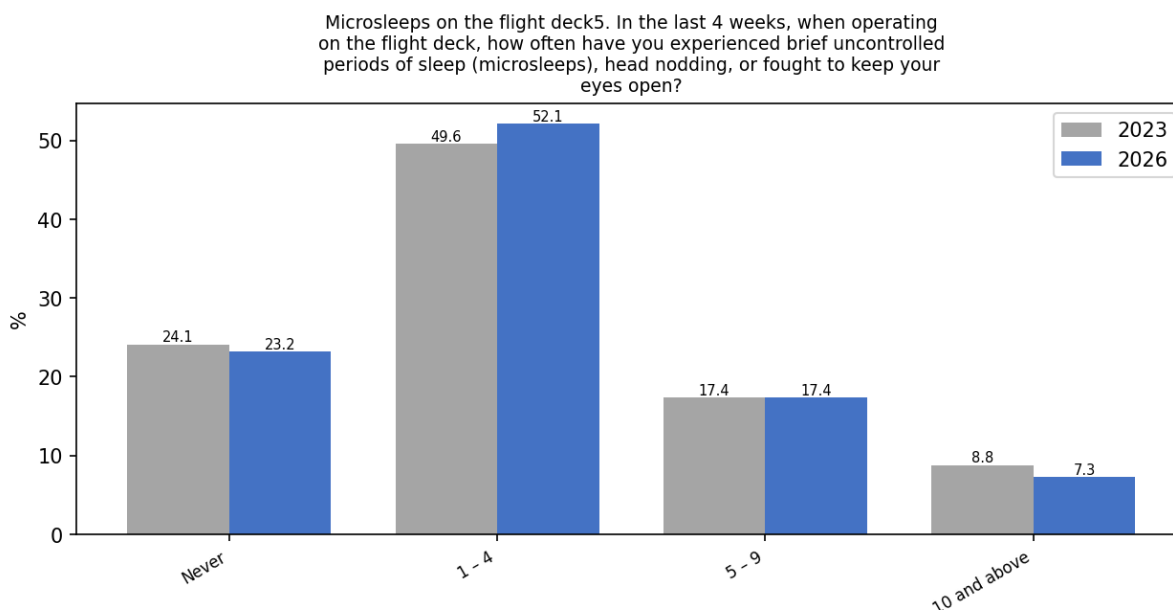


Figure 25: Proportion of pilots selecting the number of microsleeps they have experienced in response to the question 'In the last 4 weeks, when operating on the flight deck, how often have you experienced brief uncontrolled periods of sleep (microsleeps), head nodding, or fought to keep your eyes open in 2023 (n=6722) and 2026 (n=7110)²⁹

As Figure 25 shows, there is limited difference in the number of microsleeps reported by the pilots in 2023 and 2026. In 2026, 3 out of 4 pilots responding to the survey (76.8%) reported having at least 1 microsleep while operating in the 4 weeks prior to completing the survey (this compares with 75.9% in 2023), while one in 4 responding pilots (24.7%) experienced more than 5 microsleeps (26.2% in 2023).

Microsleeps are one indicator of high levels of sleepiness (although they can also occur more readily in periods of low workload), so should be reported through the fatigue reporting system. Where operators receive a large number of reports of microsleeps associated with a particular route, flight type, flight timing or other pattern, then this should be reviewed to identify where mitigations could be applied to support the management of risk – particularly if microsleeps are being reported associated with critical phases of flight.

²⁹ Additionally, 88 pilots selected 'Don't know' for this question.

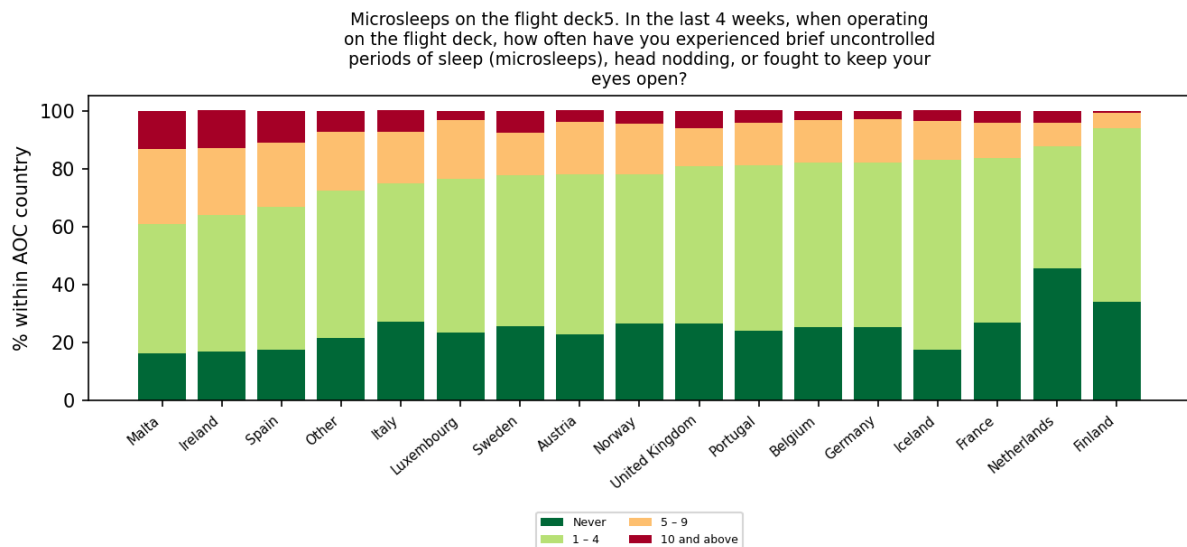


Figure 26: Proportion of pilots selecting the number of microsleeps they have experienced in response to the question 'In the last 4 weeks, when operating on the flight deck, how often have you experienced brief uncontrolled periods of sleep (microsleeps), head nodding, or fought to keep your eyes open 2026 (n=7110) sorted by the proportion of pilots in each AOC country reported having at least 5 microsleeps

In the overall database, the proportion of pilots reporting experiencing 10 or more microsleeps while operating in the prior 4 weeks was 7.3% in 2026 (which itself is a high figure, even though we do not know the phase of flight during which they occur). However, when looking by AOC countries, there is more variation - Malta (13.3%) and Ireland (13.1%) both had proportions of pilots reporting experiencing 10 or more microsleeps almost double the database average. In Finland (0.8%) and Germany (3.0%), the proportion of pilots reporting experiencing 10 or more microsleeps in the last 4 weeks is much lower.

Figure 26 is sorted by the proportion of pilots reporting experiencing 5 or more microsleeps. On this measure, pilots flying for Maltese (39.3%), Irish (36.2%) and Spanish (33.1%) AOCs were the most likely to report 5 or more microsleeps in the last 4 weeks. This compares with 24.7% reporting 5 or more microsleeps across the whole database, with those flying for Finnish (6.1%), Dutch (12.4%) and French (16.3%) AOCs were the least likely to report this level of microsleep.

1.10 Operation type

In the 2026 survey, the data has been assessed according to the type of operation that the pilots identified that they fly for. Pilots were asked to select one option from a list provided, which is shown in Table 5.

Table 5: The proportion of pilots responding to the survey who selected each operation type (n=7198)

Operation type	% (n)
Network	49% (n=3530)
Low-cost point to point	30.7% (n=2207)
Cargo	6% (n=430)
Regional	5% (n=359)
Charter	3.2% (n=230)
ACMI / wet-lease provider	2.3% (n=167)
Other	2% (n=142)
Business jet	1.8% (n=133)

Because there are sufficient responses in each of these groups, the survey results can be examined according to the operation type.

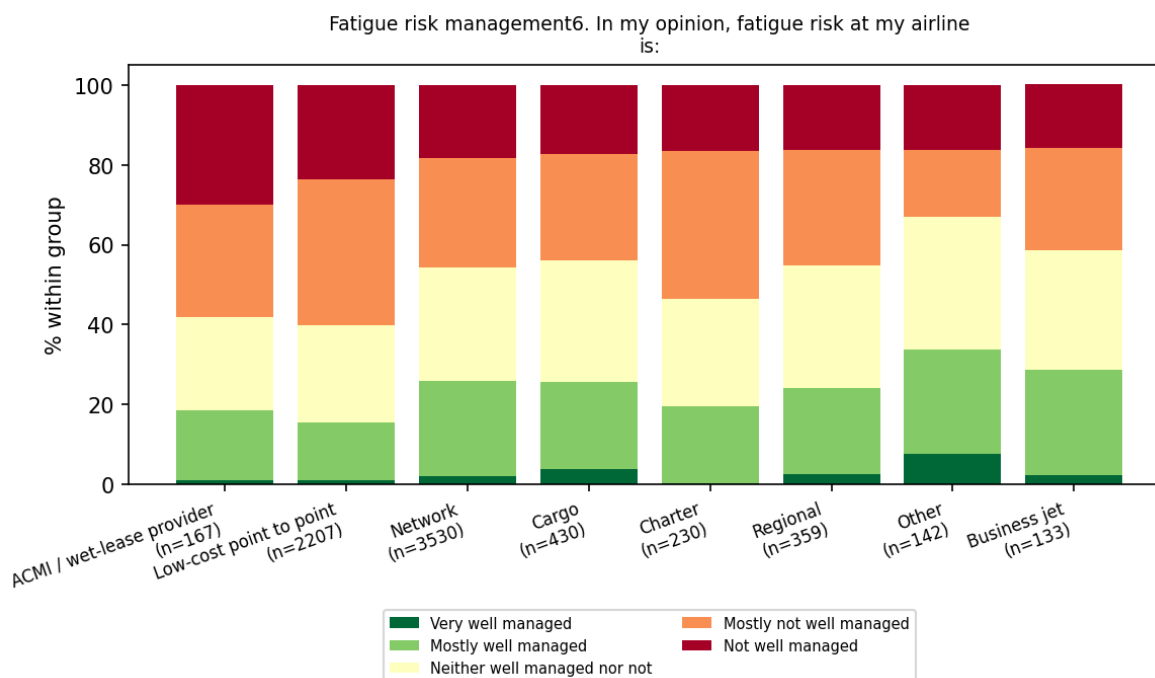


Figure 27: Responses to the question 'In my opinion, fatigue risk at my airline is...' (n=7198 responses) according to operation type. Operation types are sorted according to the proportion of pilots selecting 'not well managed'.

Figure 27 shows the opinion that the pilots flying for the different operation types have of how well fatigue is managed within their airline. Pilots flying for low-cost point to point operations (15.6%) and ACMI/wet-lease providers (18.6%) were the least likely to select that they consider fatigue risk to be very well or mostly well managed by their airline. Pilots flying for ACMI/wet-lease providers were also more likely to select the option 'not well managed' for this question (29.9% of the pilots flying for this operation type), as were pilots flying for low-cost point to point operators (23.7%). When not well managed and mostly not well managed are combined, 60.2% of pilots flying for low-cost point to point operators and 58.1% of those flying for ACMI/wet-lease providers selected one of these options, meaning that more than one in every two pilots flying for these operation types consider fatigue risk at their airline to be not well or mostly not well managed.

This contrasts with the percentage of pilots selecting that fatigue risk is very well or mostly well managed who fly for network operators (25.9%), Cargo (25.6%), business jet operations (28.6%) and 'other' operators (33.8%).

When it comes to fatigue reporting, operation type also appears to play a role, as shown in Table 6. As with the charts shown in section 1.5 of this report, Table 6 shows the proportion of the pilots who had selected this operation type, who also selected each statement about the fatigue reporting system at their operator.

A particularly notable value in Table 6 is the proportion of pilots flying for cargo operators who report that fatigue reports have led to operational changes to improve safety – 31.0%. This contrasts with 6.4% of pilots flying for low-cost point to point operators and 7.2% flying for ACMI/wet-lease

providers who selected this statement. Trust in the fatigue reporting system was lowest amongst pilots flying for ACMI/wet-lease providers (9.0%) and low-cost point to point operators (9.6%), within an overall low level of trust across all respondents (11.9%). Across the five statements, pilots flying for low-cost point to point operators had the lowest or second lowest proportion selecting every statement, and those flying for ACMI/wet-lease providers had the lowest or second lowest proportion for four of the five. The exception was knowing how to submit a fatigue report, where pilots flying for ACMI/wet-lease providers had the highest proportion of any operation type (86.8%).

Table 6: Proportion of pilots selecting each statement in response to the question 'Please select all the statements below which apply to the fatigue reporting system at your airline' according to operation type

Response option	Network (n=3522)	Low- cost point to point (n=2199)	Charter (n=230)	Cargo (n=429)	Regional (n=359)	ACMI / wet- lease provider (n=167)	Business jet (n=132)	Other (n=142)
I know how to submit a fatigue report	3004 (85.3%)	1701 (77.4%)	195 (84.8%)	368 (85.8%)	293 (81.6%)	145 (86.8%)	103 (78%)	100 (70.4%)
The company communicates well with crew about fatigue reports	477 (13.5%)	276 (12.6%)	41 (17.8%)	82 (19.1%)	57 (15.9%)	22 (13.2%)	30 (22.7%)	25 (17.6%)
Fatigue reports are quick and easy to complete	1166 (33.1%)	465 (21.1%)	61 (26.5%)	157 (36.6%)	126 (35.1%)	41 (24.6%)	45 (34.1%)	35 (24.6%)
Fatigue reports have led to operational changes to improve safety	412 (11.7%)	141 (6.4%)	40 (17.4%)	133 (31%)	41 (11.4%)	12 (7.2%)	20 (15.2%)	14 (9.9%)
I trust the fatigue reporting system	422 (12%)	211 (9.6%)	31 (13.5%)	79 (18.4%)	53 (14.8%)	15 (9%)	27 (20.5%)	20 (14.1%)

Commander's discretion usage also varies between the operation type. This is shown in Figure 28.

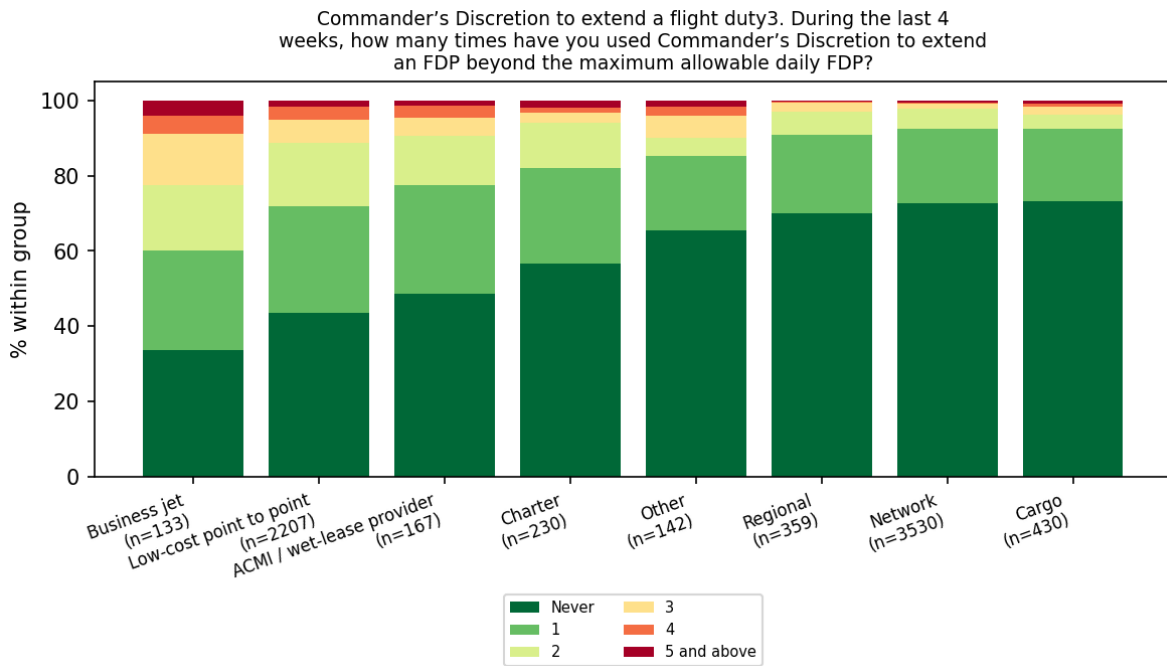


Figure 28: Responses to the question 'During the last 4 weeks, how many times have you used Commander's Discretion to extend an FDP beyond the maximum allowable FDP' according to operation type. Operation types are sorted according to the proportion of pilots selecting 'never' (lowest first)

While pilots being asked to use Commander's Discretion multiple times a month forms a relatively small proportion in some operation types (e.g. 7.5% of the pilots flying for Network carriers selected that they had used Commander's Discretion to extend the maximum FDP 2 or more times in the last 4 weeks, while 72.6% selected that they had not used Commander's Discretion at all in the last 4 weeks), it appears more common in others:

- ▶ 40% of pilots flying for business jet operators had used Commander's Discretion 2 or more times in the last 4 weeks (vs 33.6% who had never used it)
- ▶ 28% of pilots flying for low-cost point to point operators had used Commander's Discretion 2 or more times in the last 4 weeks (vs 43.6% who had never used it)
- ▶ 22.6% of pilots flying for ACMI/wet-lease operators had used Commander's Discretion 2 or more times in the last 4 weeks (vs 48.7% who had never used it)

Concern regarding refusal of Commander's Discretion also varies depending on operator type, as shown in Figure 29.

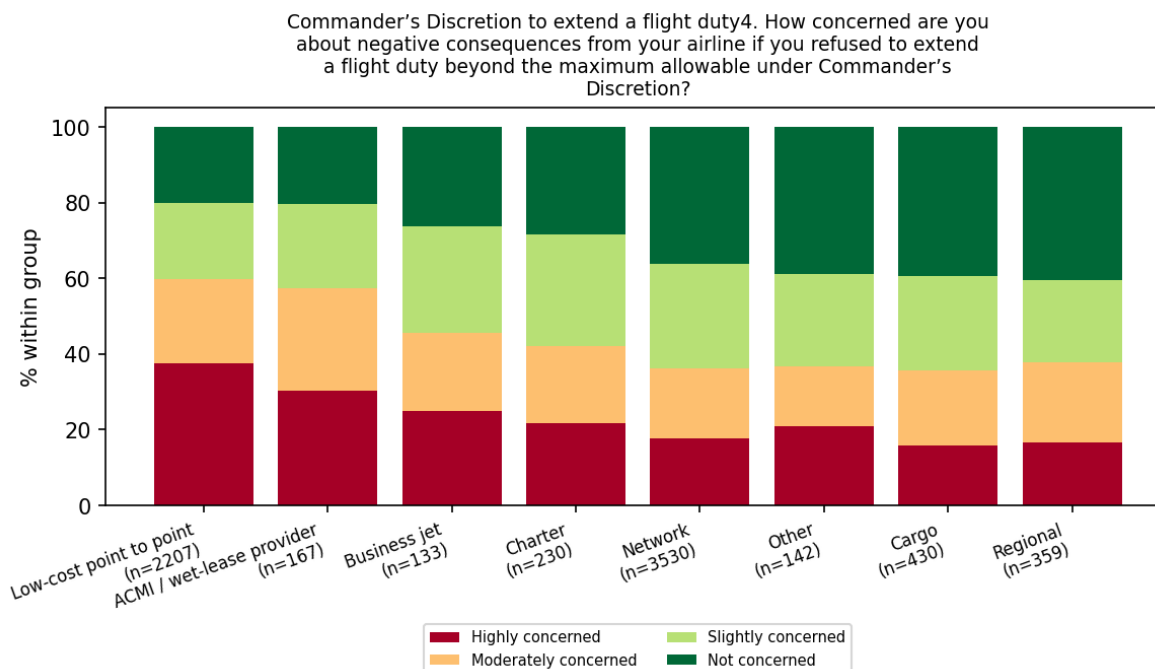


Figure 29: Proportion of pilots selecting each answer option to the question 'How concerned are you about negative consequences from your airline if you refused to extend a flight duty beyond the maximum allowable under Commander's Discretion?' according to operation type. Operation types are sorted according to the proportion of pilots selecting 'not concerned' (lowest first)

Notably, 59.7% of the pilots flying for low-cost point to point operators and 57.4% of pilots flying for ACMI/wet-lease operators report that they are highly or moderately concerned about negative consequences of refusing Commander's Discretion, as do 45.7% of those flying for business jet operators. This increases to 79.8% (low-cost point to point), 79.6% (ACMI/wet-lease operators), and 73.6% (business jet operators) when slightly concerned, moderately concerned and highly concerned responses are combined.

Section 1.6 outlines the requirement for Commander's Discretion to be a non-punitive process. The variation in concern relating to refusing to use Commander's Discretion indicates a weakness in safety culture. The results from this survey indicate that when it comes to fatigue and Commander's Discretion usage, the implementation of the safety culture and non-punitive CD process differs across AOC countries and operator types. Where there is a high degree of concern about a negative response to refusing Commander's Discretion, this does not reflect that the non-punitive process is working effectively, as required in the regulation.

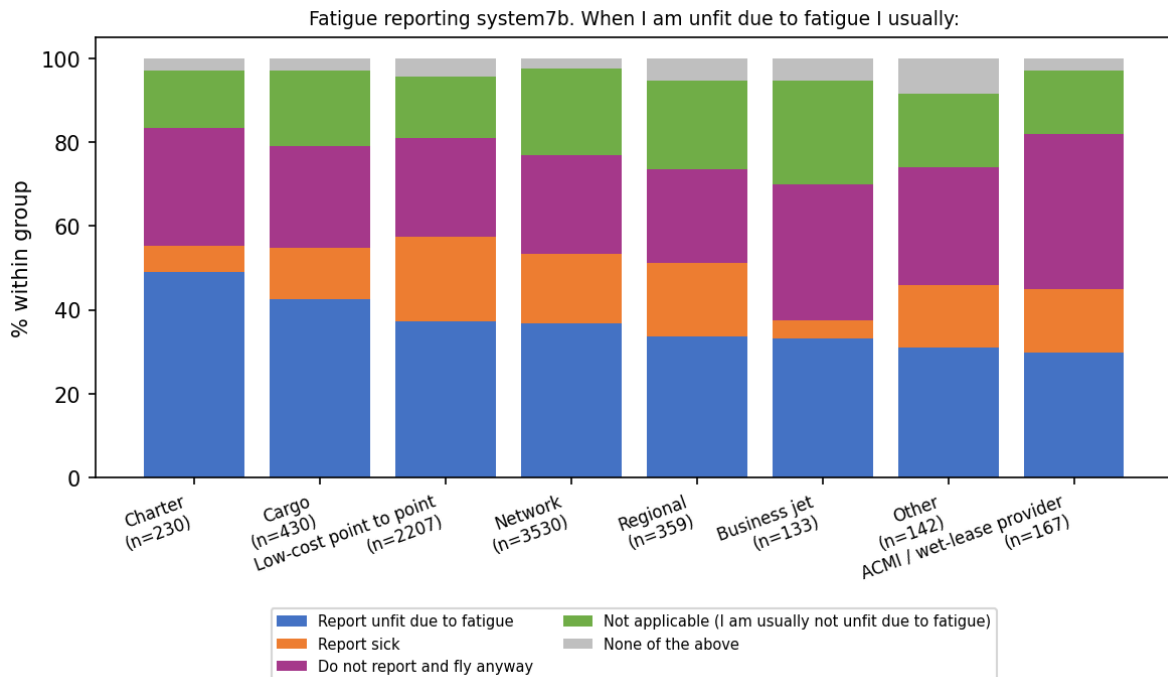


Figure 30: Responses to the question 'When I am unfit due to fatigue I usually...' (n=7198) by operation type. Operation types are sorted according to the proportion of pilots selecting that they report unfit due to fatigue

Figure 30 shows another reflection of the culture around fatigue risk management – the actions pilots take when they are unfit due to fatigue. For all but one operator types, pilots selecting that they report unfit due to fatigue is the most common approach. However, for pilots flying for ACMI/wet-lease operators, pilots were most likely to select that they would not report and fly anyway (37.1%). Pilots flying for business jet operators were almost as likely to select that they do not report and fly anyway (32.3%) as to select that they report unfit due to fatigue (33.1%). This is shown in more detail in Table 7. Reporting sick was most common amongst pilots flying for low-cost point to point operators (20.2%, compared with 16.8% across all respondents), while 15.0% of pilots flying for ACMI/wet-lease providers selected this option.

Table 7: Options selected by crew members in response to the question 'Why did you not report unfit?' according to operator type. Only shown to those who answered 'Yes' to the previous question (n=3726)

Response option	Network (n=3530)	Low-cost point to point (n=2207)	Charter (n=230)	Cargo (n=430)	Regional (n=359)	ACMI / wet-lease provider (n=167)	Business jet (n=133)	Other (n=142)
Report unfit due to fatigue	1304 (36.9%)	821 (37.2%)	113 (49.1%)	183 (42.6%)	121 (33.7%)	50 (29.9%)	44 (33.1%)	44 (31%)
Report sick	581 (16.5%)	445 (20.2%)	14 (6.1%)	53 (12.3%)	63 (17.5%)	25 (15%)	6 (4.5%)	21 (14.8%)
Do not report and fly anyway	828 (23.5%)	522 (23.7%)	65 (28.3%)	104 (24.2%)	80 (22.3%)	62 (37.1%)	43 (32.3%)	40 (28.2%)
Not applicable (I am usually not unfit due to fatigue)	726 (20.6%)	322 (14.6%)	31 (13.5%)	78 (18.1%)	76 (21.2%)	25 (15%)	33 (24.8%)	25 (17.6%)
None of the above	91 (2.6%)	97 (4.4%)	7 (3%)	12 (2.8%)	19 (5.3%)	5 (3%)	7 (5.3%)	12 (8.5%)

Roster stability also varies by operation type, as shown in Figure 31. Pilots flying for network operators were the most likely to rate their roster as very or moderately stable (76.6%), with 7.7% rating it as very unstable. By contrast, 31.6% of pilots flying for business jet operators, 28.6% flying for cargo operators and 24.0% flying for ACMI/wet-lease providers rated their roster as very unstable in the last 4 weeks.

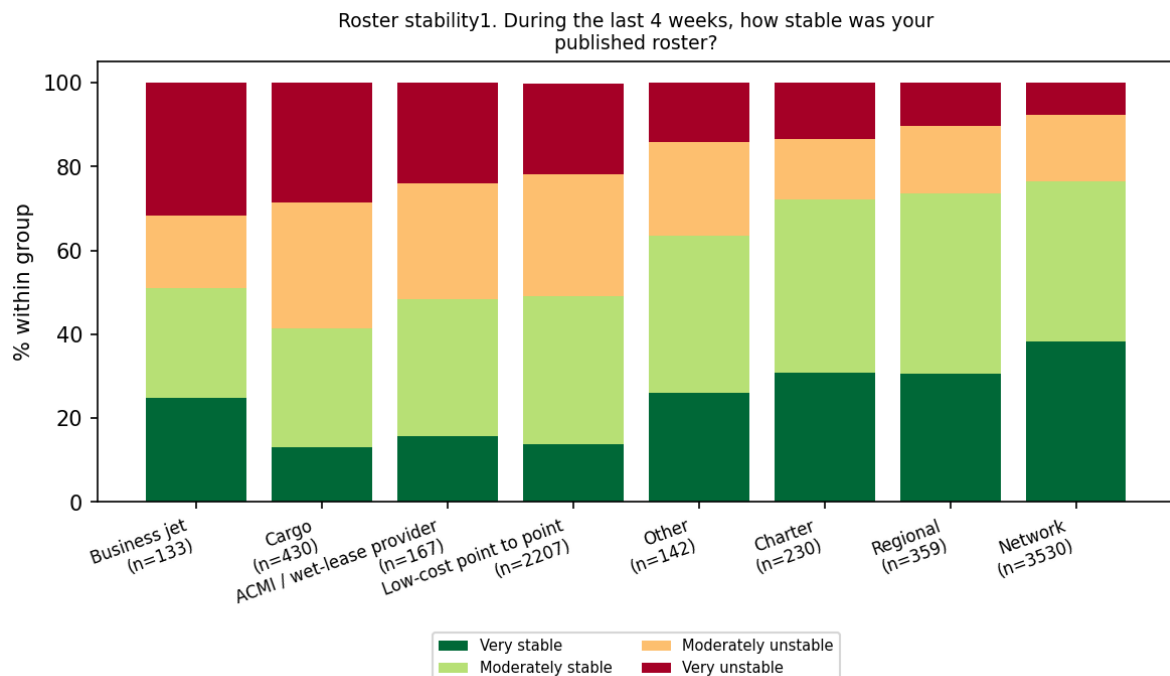


Figure 31: Proportion of pilots selecting the options in response to the question 'During the last 4 weeks, how stable was your published roster?' according to operation type (n=7198). Operation types are sorted according to the proportion of pilots selecting 'very unstable'

The proportion of pilots selecting that they always or usually did not have adequate time off to recover from fatigue between duties was highest amongst pilots flying for ACMI/wet-lease providers (43.7%) and low-cost point to point operators (42.2%), and lowest amongst those flying for business jet operators (30.8%), as shown in Figure 32.

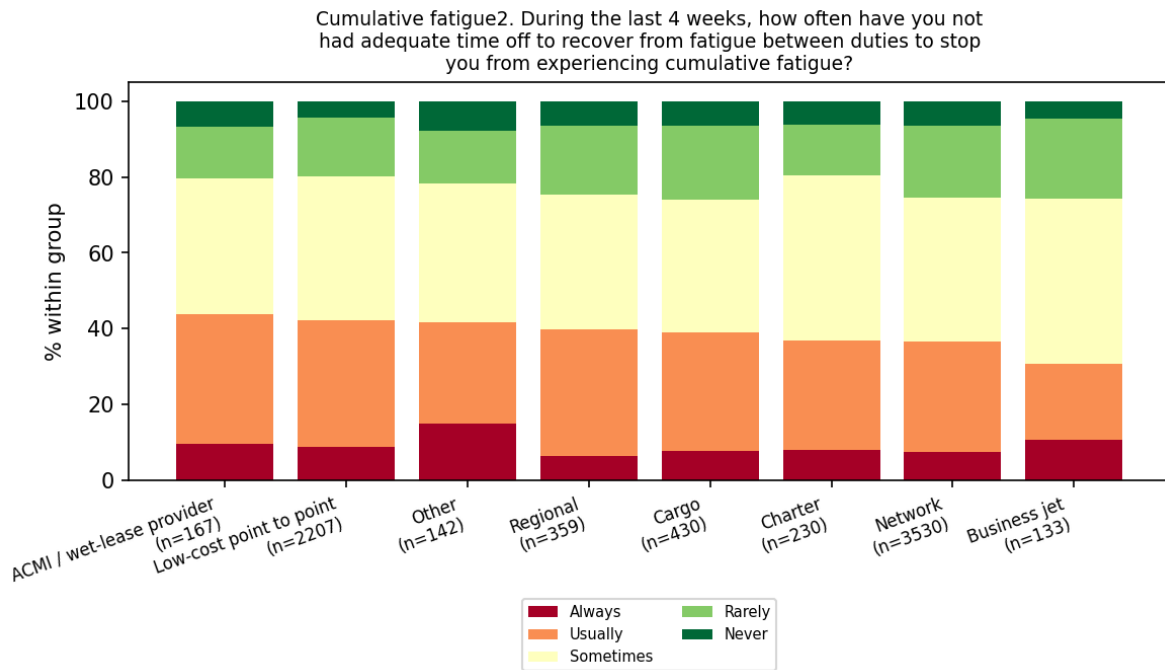


Figure 32: Proportion of pilots selecting answer options for the question 'During the last 4 weeks, how often have you not had adequate time off to recover from fatigue between duties to stop you from experiencing cumulative fatigue?' according to operation type (n=7198). Operation types are sorted according to the proportion of pilots selecting always or usually

Reported microsleeps also vary according to operation type. Pilots flying for low-cost point to point operators were the most likely to report 5 or more microsleeps in the last 4 weeks (34.1%), followed by those flying for charter operators (30.7%), compared with 19.6% of pilots flying for network operators (Figure 33). Pilots flying for low-cost point to point operators were also the most likely to report 10 or more microsleeps (11.1%).

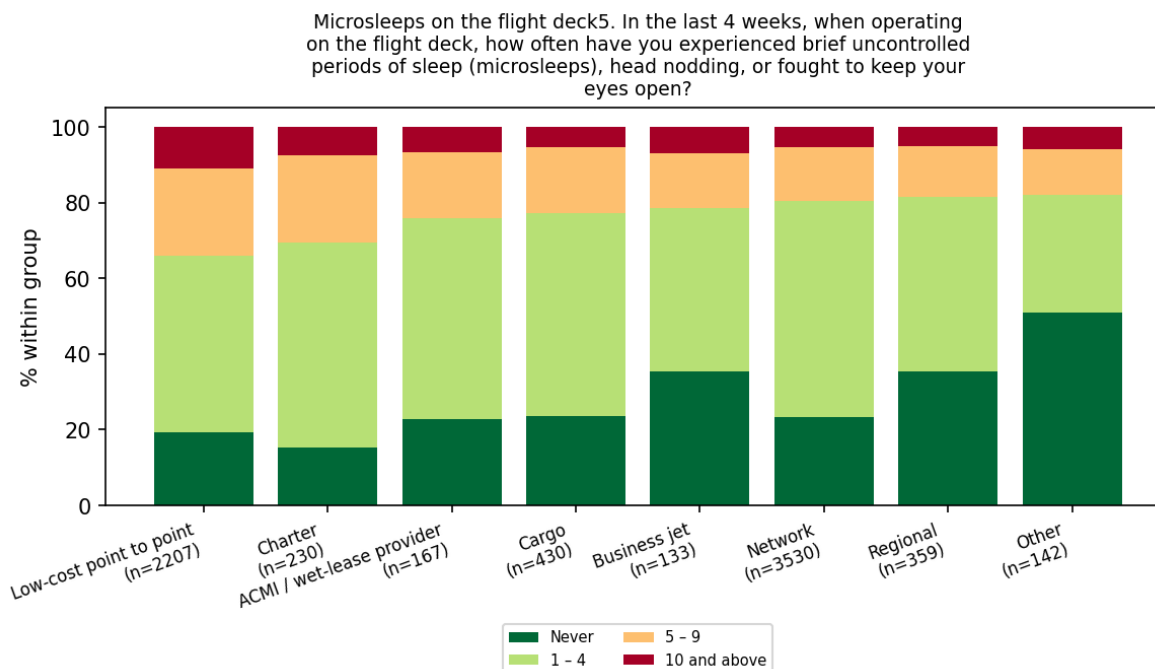


Figure 33: Proportion of pilots selecting the number of microsleeps they have experienced in response to the question 'In the last 4 weeks, when operating on the flight deck, how often have you experienced brief uncontrolled periods of sleep (microsleeps), head nodding, or fought to keep your eyes open' according to operation type (n=7110). Operation types are sorted according to the proportion of pilots reporting 5 or more microsleeps

Section summary

While much of this report focuses on AOC country, amongst which there is a high degree of variation in terms of the results of this survey, operation type also plays a role. Considering all questions in the round, pilots flying for low-cost point to point and ACMI/wet-lease providers are more likely to be highly concerned about refusing Commander's Discretion, use Commander's Discretion more commonly, not trust the fatigue reporting system and have a negative view of the fatigue risk management approach in their operator. The results indicate a weakness in the safety culture relating to fatigue in the experience of pilots flying for this type of operation. A consequence of this is that it is likely that the fatigue data available to inform the fatigue risk management approach for these operators is reduced – limiting their ability to identify and mitigate fatigue hazards. However, there was a small response from ACMI/wet-lease operators compared to some of the other groups, so this is an area that should be further explored by EASA and NAAs to clarify whether this is representative of the experiences of the rest of the pilots in this operation type.

Business jet and cargo operations show a mixed picture: pilots flying for these operation types were among the most likely to report very unstable rosters, and business jet pilots reported the highest Commander's Discretion usage, but both were more likely than average to select that they trust the fatigue reporting system (business jet 20.5%, cargo 18.4%).

For NAAs with a high proportion of low-cost point to point or ACMI/wet-lease operators among their AOC holders, these results indicate areas where oversight of the fatigue reporting system, the non-punitive use of Commander's Discretion and the wider safety culture may be particularly beneficial.

1.11 Operator type – flight duration

The data analysis also considered the operator type by flight duration – whether pilots fly short/medium haul, long haul or both. The proportion of pilots selecting each option is shown in Table 8.

Table 8: The proportion of the responding pilots who fly different haul lengths (n=7198)

Haul length	% (n)
Short/medium haul	70% (n=5037)
Long haul	19.2% (n=1384)
Both	10.8% (n=777)

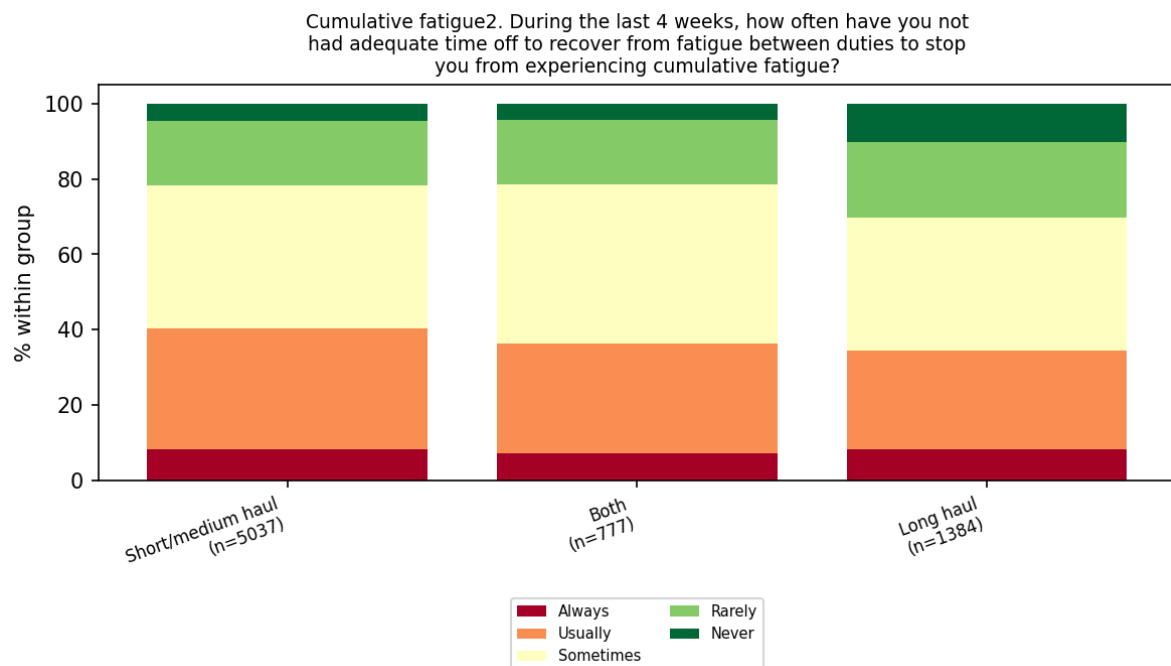


Figure 34: Proportion of pilots selecting answer options for the question 'During the last 4 weeks, how often have you not had adequate time off to recover from fatigue between duties to stop you from experiencing cumulative fatigue?' sorted according to haul length (n=7198). Haul types are sorted according to the proportion of pilots selecting always or usually

Pilots flying short/medium haul were more likely to select that they always or usually had insufficient time off to recover within their roster (40.4%), vs those that fly long haul (34.4%) and those that fly both types (36.4%). This is shown in Figure 34. Approximately ten percentage points more pilots flying long haul selected that they never or rarely have insufficient rest in their roster (30.2%) than those flying short/medium haul (21.6%) or both (20.3%).

Roster stability is another factor that is impacted by the haul-type that the pilots operate. This is shown in Figure 35.

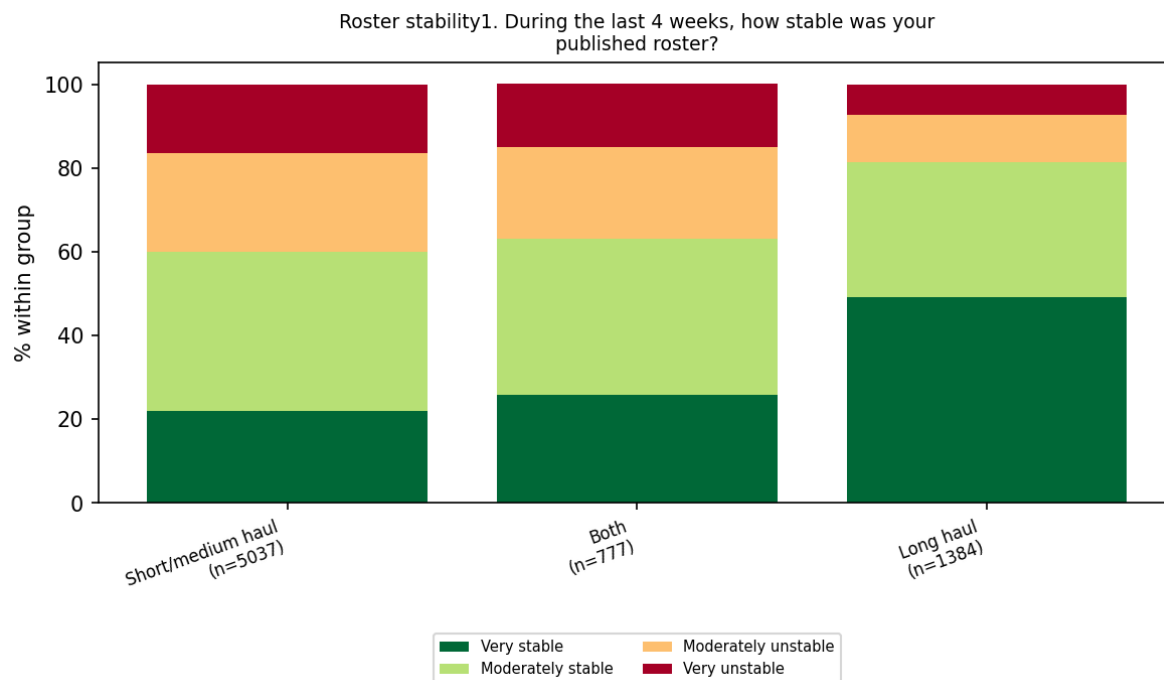


Figure 35: Proportion of pilots selecting the options in response to the question 'During the last 4 weeks, how stable was your published roster?' according to haul type (n=7198). Haul types are sorted according to the proportion of pilots selecting 'very unstable'

Long haul pilots were much more likely to report that their roster was very or moderately stable (81.4%) compared to pilots flying short/medium haul (60%) and both (63.1%). This is likely a feature of how long-haul vs short/medium-haul rosters are built, and how a delay to an individual flight impacts subsequent flights and duty periods.

Long haul pilots were also less likely to select that they have operated when, in hindsight, they realise that they should have reported unfit due to fatigue as shown in Figure 36. 65.4% of the long-haul pilots selected 'no' in answer to this question, compared to 43.6% of the short/medium haul pilots and 45.3% of the pilots who fly both types.

The survey does not provide an explanation for this. However, based on the free-text themes earlier in this report, one of the most common reasons why crew operate when they are unfit is because they did not realise that they were fatigued until during or after the duty. When flying long-haul, flights are obviously longer, and FDPs may also be longer – giving more opportunity for pilots to become unfit while operating, having felt fit when they reported for duty. However, long-haul pilots may have more opportunities to mitigate elevated fatigue inflight (through controlled rest and/or augmented crews where flights are long enough) than their short haul colleagues, allowing them to take action before they become unfit. The workload and duty timing profiles are also very different between these operation type, and will also influence fatigue levels.

However, this should not be read as meaning that fatigue in long-haul operations is under control. As outlined in section 1.5, the EASA studies of the effectiveness of the flight time limitations found that high fatigue levels at top of descent were most likely during long FDPs, and section 1.4 of this report outlines that fatigue risk was not sufficiently managed during duties containing long flights where crew are in an unknown state of acclimatisation.

Alternatively, short-haul crew – despite landing more frequently and theoretically able to declare themselves unfit during the duty when on the ground, may be unlikely to do so away from home base – as this will result in flight cancellations and significant roster disruption. On particularly short flights, these pilots may also not be able to use controlled rest (as the cruise period is not long enough to allow for the sleep and recovery period), and experience high workload associated with a high number of sectors.

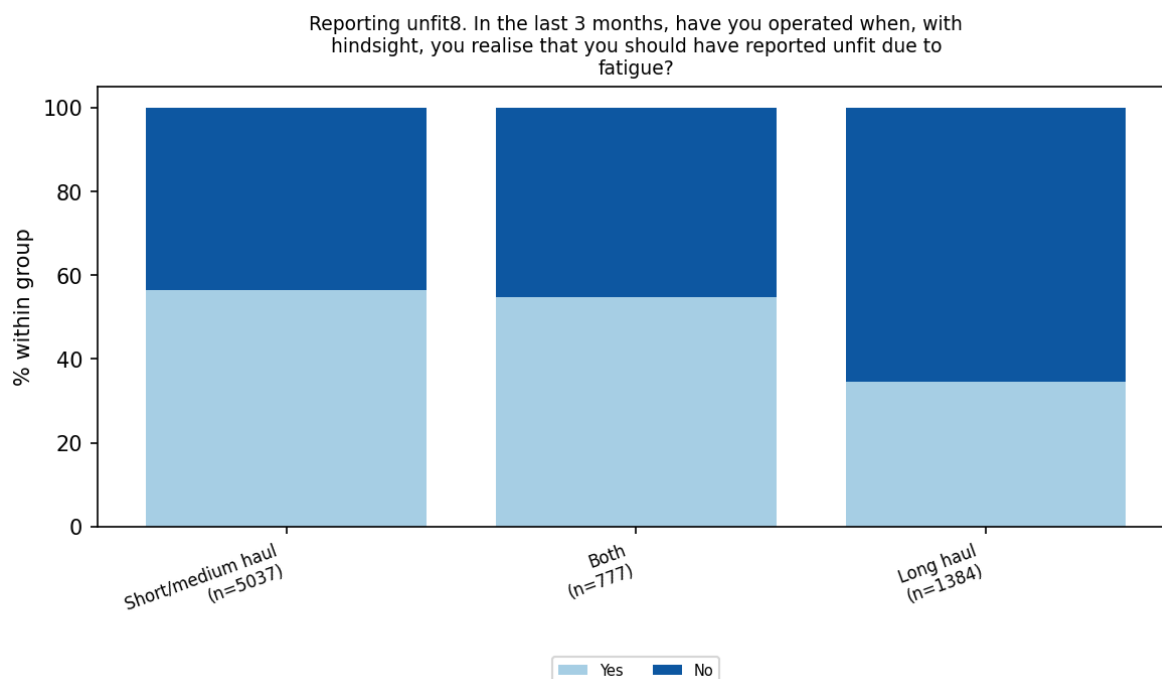


Figure 36: Proportion of pilots selecting Yes or No in response to the question ‘In the last 3 months, have you operated when, with hindsight, you realise that you should have reported unfit due to fatigue?’ according to haul type (n=7198). Haul types are sorted according to the proportion of pilots selecting ‘yes’

Section summary

Haul-type is one area where operators need to tailor their fatigue management approaches to ensure that fatigue risk is appropriately controlled by the operator-specific individual flight time specification scheme (IFTSS)³⁰.

This section of the report indicates that pilots flying for long haul operators have more rest opportunity, more stable rosters, and are less likely to have flown when – in hindsight – they were not fit to do so. Long haul rosters are often less compressed, with longer rest periods. While many focus on the long FDPs and high proportion of night flying as clear fatigue hazards within the industry, this report indicates that short/medium haul or mixed flying also require appropriate attention – workload, roster disruption, and short rest periods are reported by pilots as contributing to elevated fatigue and require mitigation. This reflects the regulatory requirement that both the individual flight time specification scheme, and risk controls, are tailored to the specific operation type.

³⁰ ORO.FTL.125(a) Operators shall establish, implement and maintain flight time specification schemes that are appropriate for the type(s) of operation performed and that comply with Regulation (EC) No 216/2008, this Subpart and other applicable legislation, including Directive 2000/79/EC

1.12 Cross-question patterns and statistical analysis

Comparisons between questions were initially undertaken descriptively, as with the 2026 vs 2023 comparisons described through the previous sections of this report. For specific elements, statistical analysis was then undertaken to identify where there may be statistically significant differences between groups.

For the statistical comparisons, p-values and effect sizes are reported. This is because while a significant p-value denotes that a difference is unlikely to be due to random chance, the effect size shows whether there is a big enough difference to likely matter operationally. Thus, any results with both a significant p-value and a moderate or large/moderate effect size show the greatest difference. These are the results reported below. Other comparisons which did not show a large effect size are not described. Exact statistical tests used vary depending on the data type being assessed, so the test is also reported below.

Where both a significant p-value and a large/moderate effect size has been found:

FRM opinion / CD concern

Crew members' reported opinion about the effectiveness of the management of fatigue risk in their airline is significantly related to their level of concern about refusing Commander's Discretion. This was tested using a Spearman Correlation ($\rho = -0.463$, a moderate monotonic association, negative (categories move in opposite directions), statistically significant). This means that pilots who rate fatigue risk management in their airline poorly are also markedly more concerned about negative consequences from refusing to extend a duty under Commander's Discretion. This confirms operational experience – where both FRM opinion and CD concern are often reflections of the overall safety culture within the airline, thus views on both are likely to strongly reflect each other.

FRM opinion / unfit behaviour

FRM opinion is also statistically significantly related to unfit behaviour, with a moderate effect size. For this comparison, chi-square was used (because the actions taken when unfit are not ordered). For this test Cramer's $V = 0.175$, a moderate effect size. This means that a pilot's view of how well their airline manages fatigue risk is associated with whether they will report unfit due to fatigue, report sick instead, or continue to fly anyway without reporting. In practice, pilots who rated fatigue risk management in their airline poorly were less likely to report unfit due to fatigue, and more likely to report sick instead or to continue to fly anyway without reporting. Of the pilots selecting that fatigue risk is not well managed at their airline, 31.8% usually report unfit due to fatigue, 23.4% usually report sick and 34.5% usually do not report and fly anyway. This compares with 44.8%, 7.7% and 10.7%, respectively, of those selecting that it is very well or mostly well managed. Again, this aligns with operational experience – crew who are sceptical of the fatigue risk management approach may be concerned about consequences, or may see that reporting sick is a better route as reporting fatigue could invite negative response or repercussions, or no change in the system while short-term sick does not result in questions or negative perception.

Cumulative fatigue / in hindsight operated when unfit

Both these questions provide answers which can be ranked, so a rank-biserial test was used. The results are that the rank-biserial $= 0.309$, moderate effect, statistically significant, with the results indicating that those who reported not receiving adequate rest in their roster were also more likely

to have operated when, in hindsight, they should have reported unfit due to fatigue. This is potentially explained by known difficulties in recognising impairment due to cumulative fatigue vs following shorter-term sleep deprivation.

Roster stability / CD usage

Roster stability is also significantly related to Commander's Discretion usage. This was tested using a Spearman correlation ($\rho=0.344$, a moderate monotonic association, positive (categories move in the same direction), statistically significant). This means that pilots who rated their roster as less stable were also more likely to have used Commander's Discretion to extend an FDP, and to have used it more often, in the last 4 weeks. This aligns with operational experience, and with the link described in section 1.7: rosters that are less stable may not have sufficient buffers remaining to absorb operational delays within maximum duty periods.

AOC country with:

CD concern: Comparing the AOC countries with the highest level of concern about refusing Commander's Discretion (Ireland, Malta, Other) vs the lowest level of concern (Netherlands, Germany, Norway) using a Kruskal-Wallis test produces a significant result with a large effect size (epsilon-squared=0.2357, $p<0.001$).

CD usage: Comparing Commander's Discretion usage across the AOC countries, where usage was highest amongst pilots flying for Maltese (65.3% using Commander's Discretion to extend an FDP at least once in the last 4 weeks), Irish (56.6%) and 'Other' (49.5%) AOCs and lowest amongst those flying for Finnish (11.1%), Dutch (14.3%) and Belgian (16.7%) AOCs, the Kruskal-Wallis test produces a significant result with a moderate effect size (epsilon-squared=0.1176, $p<0.001$).

Roster stability: Comparing the AOC countries with the highest level of roster stability (Finland, France, Germany) vs those with the lowest (Italy, Malta, Luxembourg) using the Kruskal-Wallis test produces a significant result with a moderate effect size (epsilon-squared=0.1047, $p<0.001$).

FRM Opinion: Comparing the AOC countries with the highest proportion of pilots rating that fatigue risk is not well managed (Iceland, Ireland, Malta) with those with the lowest proportion (Finland, Netherlands, Portugal) using the Kruskal-Wallis test produces a significant result with a moderate effect size (epsilon-squared=0.1269, $p<0.001$).

These results mean that the country of AOC is a strong predictor in the survey results of pilot's views on FRM, level of concern about CD, CD usage and roster stability. This is when comparing the countries rated at the top- and bottom-of each area, when ranked. Pilots flying in the bottom ranked countries in these indices (with Irish-based and Maltese-based AOCs regularly featuring within the bottom 3) have a demonstrably worse experience of fatigue risk management than their colleagues flying within other European states.

Operation type with:

Roster stability: Comparing roster stability across the eight operation types using the Kruskal-Wallis test produces a significant result with a moderate effect size (epsilon-squared=0.1054, $p<0.001$). Pilots flying for network operators were the most likely to rate their roster as very or moderately stable, and those flying for business jet, cargo and ACMI/wet-lease operators the most likely to rate it as very unstable.

CD usage: Comparing Commander's Discretion usage across the operation types using the Kruskal-Wallis test produces a significant result with a moderate effect size (epsilon-squared=0.0952, $p < 0.001$), with usage highest amongst pilots flying for business jet (66.4% using Commander's Discretion to extend an FDP at least once in the last 4 weeks), low-cost point to point (56.4%) and ACMI / wet-lease (51.3%) operators.

Other differences between the operation types, including in FRM opinion, CD concern and trust in the fatigue reporting system, were statistically significant but with small or negligible effect sizes, so are not reported here.

Survey Summary

This report provides the results of the 2026 fatigue survey of European Pilots. 7,198 pilots provided responses to the core survey questions. This large, robust dataset, and comparisons with the 2023 survey, provides confidence in the results presented. Of course, the pilots responding in 2026 are not the identical population to 2023, and the survey was undertaken within the peak of the summer season (August) vs the build-up to the peak (July), but nevertheless, a comparison does allow for changes within European Aviation fatigue risk management approaches in the last three years to be compared.

Since the 2023 report, EASA has held 3 industry conferences³¹ on the topic of FTL and fatigue risk management. The aim of these conferences was to share industry best practice, and the latest developments, challenges and innovations through an operational, scientific and human factors lens. This is part of EASA's response to the European Plan for Aviation Safety (EPAS) actions for improving fatigue risk management across Europe.

However, despite the industry conferences and EPAS actions, the results of this survey indicate that – across the whole database – there has been limited improvement in the experiences reported by pilots since 2023. All statistical comparisons comparing the results of 2023 and 2026 at the full database level found negligible effect sizes, indicating no operational difference between the two surveys. The AOC country breakdowns show that pilots within some countries have seen improvement in specific indices, but others – notably those flying for Irish and Maltese AOCs – remain overwhelmingly likely to report a negative experience of fatigue risk management. This contrasts with other nations where pilots are much more likely to report a positive experience, including those pilots flying for AOCs based in Finland and the Netherlands. For the key measures, results for 2023 and 2026, along with the statistical/operational significance are provided in appendix 4.

Operation type also plays a role. Pilots flying for low-cost point to point operators and ACMI/wet-lease providers report a more negative experience than those flying for other operation types across most of the questions in this survey. They were the least likely to select that fatigue risk is very well or mostly well managed (15.6% and 18.6%, respectively), had the lowest levels of trust in the fatigue reporting system (9.6% and 9.0%), and were the most likely to be highly or moderately concerned about refusing Commander's Discretion (59.7% and 57.4%). Pilots flying for business jet operators reported the highest Commander's Discretion usage and the highest proportion of very unstable rosters. By contrast, pilots flying long-haul operations reported more stable rosters, and were less likely to have operated when they should have reported unfit, although the EASA studies show that long-haul fatigue risk still requires attention. These results show that the fatigue risk management approach, and the oversight of it, needs to be tailored to the type of operation.

Half of the pilots responding to the survey consider that fatigue risk is mostly not well or not well managed within their operator. The answers in this survey relating to fatigue reporting, Commander's Discretion and crew flying unfit due to fatigue support this view.

³¹ Austria 2024 (with Austro Control), Spain 2025 (with AESA), Croatia 2026 (with CCAA)

In plain terms, the survey found that there is still a requirement for improvement:

- ▶ only around one in five pilots (22.5%) consider fatigue risk to be very well or mostly well managed by their airline
- ▶ fewer than one in eight pilots selected that they trust their fatigue reporting system (11.9%), or that fatigue reports have led to operational changes to improve safety (11.3%)
- ▶ fewer than two in five pilots (37.2%) usually report unfit due to fatigue when they are unfit, while one in four (24.2%) usually do not report and fly anyway, and one in six (16.8%) usually report sick instead
- ▶ over half of the pilots (52.0%) had operated in the last 3 months when, in hindsight, they should have reported unfit due to fatigue
- ▶ around seven in ten pilots (69.1%) are concerned about negative consequences if they refuse to extend a flight duty under Commander's Discretion, and 38.3% had used Commander's Discretion to extend an FDP at least once in the last 4 weeks. 15.3% had used Commander's Discretion to extend the FDP beyond the maximum two or more times in the last 4 weeks
- ▶ three in four pilots (76.8%) had, at least sometimes in the last 4 weeks, not had adequate time off to recover from fatigue between duties, and the same proportion (76.8%) reported at least one microsleep on the flight deck in that period

Considering the operation type, the survey found that:

- ▶ pilots flying for low-cost point-to-point operators and ACMI/wet-lease providers³² report the most negative experience across most questions:
 - only 15.6% and 18.6% respectively consider fatigue risk to be very well or mostly well managed, compared with 25.9% of pilots flying for network operators
 - more than half (60.2% and 58.1%, respectively) consider fatigue to be mostly not well or not well managed
- ▶ trust in the fatigue reporting system is lowest amongst pilots flying for ACMI/wet-lease providers (9.0%) and low-cost point-to-point operators (9.6%), and only around one in fifteen of these pilots selected that they have seen fatigue reports lead to operational changes to improve safety (7.2% and 6.4%, respectively)
- ▶ Commander's Discretion usage is highest amongst pilots flying for business jet operators, two in five of whom (40.0%) used it to extend a maximum FDP 2 or more times in the last 4 weeks, followed by low-cost point-to-point (28.0%) and ACMI/wet-lease (22.7%) operators – this compares with 7.5% of pilots flying for network operators
- ▶ Almost 3 in 5 pilots flying for low-cost point-to-point operators (59.7%) and ACMI/wet-lease providers (57.4%) are highly or moderately concerned about negative consequences from refusing to extend an FDP under Commander's Discretion, compared with just over 1 in 3 flying for network operators (36.1%)

There are also some positive results, which show where improvement is possible:

³² Note that the response rate from ACMI/wet-lease operators is relatively low (n=167), so results should be confirmed more widely.

- ▶ most pilots (82.3%) know how to submit a fatigue report, and in four AOC countries (Iceland, Finland, Austria and Belgium) over 90% of pilots selected that they know how to submit a fatigue report
- ▶ Almost two-thirds of pilots (64.4%) rated their roster as very or moderately stable in the last 4 weeks, rising to 81.4% of pilots who fly long-haul rosters
- ▶ Pilots flying for Netherlands-based AOCs have seen clear improvements since 2023: trust in the fatigue reporting system doubled (16.0% to 32.4%), as did the proportion seeing fatigue reports leading to operational changes (9.3% to 20.6%). The Netherlands is the only AOC country where the majority of pilots consider fatigue risk to be very well or mostly well managed (53.9%)
- ▶ Almost one in three pilots flying for cargo operators (31.0%) selected that fatigue reports have led to operational changes to improve safety, nearly three times the rate across all respondents (11.3%)

Free-text responses were a new addition to this survey compared to 2023. 999 pilots provided free-text answers, each of which has been semantically coded, read and categorised for meaning. Each was also tested for sentiment (negative, neutral or positive). When pilots were asked to provide further information about the fatigue reporting system in their airline, the responses were overwhelmingly negative. Most commonly, (38.2% of 421 respondents to this question) pilots commented on a fear of a punitive or retaliatory response to submitting a fatigue report. Of the pilots who had operated when they should have reported unfit due to fatigue, the most common reasons selected for not reporting unfit were concern that management would respond negatively (46.9%), not wanting to draw attention to themselves (44.0%) and not wanting to inconvenience the company (34.8%).

A later free-text question, asking for more detail on why pilots have continued to operate despite later realising that they should have reported unfit due to fatigue, and received 562 responses. For this question, it was most common that the pilots had continued operating because they did not realise their fatigue level until it was too late (51.1% of respondents to this question) – either realising while operating, or in hindsight when reflecting on the duty. The proportion of pilots continuing to operate when, in hindsight, they realise that they should have reported unfit due to fatigue, is a clear demonstration that this barrier – that pilots should not operate when they are not fit to do so – is not robust. While pilots reporting unfit due to fatigue is an important safety barrier, operators should not assume in their risk assessments that it will be used every time it is needed.

Where pilots are submitting fatigue reports, there is a notable proportion of the pilots responding to the survey not selecting that they see operational change to improve safety (88.7%), or report in their free-text responses that there is no visible action or feedback to reporting. Fatigue risk management is a data-driven approach, whether it is part of a formal 'FRMS' structure, through 'appropriate FRM'³³, or managed as another hazard within the SMS. The EASA FTL/FRM Inspector's Checklist provides examples of metrics that can be calculated by operators to help demonstrate whether they are meeting the operator responsibilities. A central component of being able to identify hazards, and demonstrate that the operator responsibilities are being met is through having

³³ Introduced through ED Decision 2023/023/R. CS FTL.I.205 Flight duty period (FDP)(a)(2) The operator applies appropriate fatigue risk management (appropriate FRM) to actively manage the fatiguing effects of night duties and late finish duties in relation to the surrounding duties and rest periods.

an effective fatigue reporting approach. Without an effective and trusted reporting system, that pilots believe will lead to change, this essential source of data will not be effective, and reporting rates will dwindle, thereby reducing the ability of operators to effectively manage their fatigue-related safety risks.

An effective safety culture is an essential component of any operation, with its benefits for safety expanding far beyond fatigue risk management. Safety culture is multi-faceted, and includes the requirement for the refusal of Commander's Discretion to be non-punitive, the provision of a 'Just Culture', and the organisation providing a culture which ensures that safety is a core priority of an organisation, rather than a checkbox activity.

Survey limitations

As with all surveys, these results are based on the opinion and personal experiences of those responding, who are a self-selecting group. Those with a more negative experience of fatigue risk management may be more motivated to respond to a survey shared with them by their Associations. However, the large dataset, and consistency with 2023 provide confidence that these results are not a 'one-off', or reflective of a particular view point held by a small group of pilots. While this is a large data set, responses from some countries (e.g. Switzerland, when comparing 2023 and 2026 results) are low, and there are many more pilots operating across Europe than completed the survey.

When applying these results at the AOC country level, it is important to note that, for every AOC country in this survey, there are multiple operators represented (where pilots completed the optional question to provide the name of their operator). Thus, the results do not reflect any individual operator. Rather, they should be used to inform a deeper exploration of the potential for improvements in fatigue risk management approaches by operators, NAAs and EASA.

Equally, European aviation contains some very large operators, which may influence the results where a large number of their pilots have responded to the survey.

A critical note is that the survey does not report consequences of fatigue or risk levels – rather the experiences of pilots can be used to inform risk management approaches of operators, and oversight approaches from the NAAs and EASA, to ensure that risk is managed appropriately.

Aviation is a 24h industry, with long duty periods, night work, and body clock disruption as a result of flying across time-zones and at different times of day. This means that fatigue cannot be eradicated, and some degree of tiredness in the cockpit is to be expected. However, the associated risk should be identified and mitigated to a tolerable level.

Placing the results in the wider context

This report adds to the data available at an industry level that can be used by Operators, NAAs and EASA to support their ongoing fatigue risk management efforts. EASA's studies of the effectiveness of the flight time limitations highlighted specific operational areas where risk is elevated and additional controls may be required – either through additional changes to regulations, or implemented by operators in response to elevated risk levels.

Operators and regulators also need to consider the wider context in which fatigue sits. Under Article 89 of Regulation (EU) 2018/1139, EASA is required to assess the interdependencies between aviation safety and the socio-economic factors that impact safety critical personnel. The most recent

resulting report was published in 2026³⁴. The report used surveys of >6,000 aviation personnel, occurrence reports in the European Central Repository (ECR) and a literature review to examine 'safety precursors' (*'underlying human and organisational factors that have the potential to influence safety outcomes'*). Of the safety precursors examined, the report found that aircrew fatigue provided the *'clearest and most internally consistent signal across the evidence base'*. Simply put, fatigue was linked in the literature to multiple socio-economic pathways, fatigue related concerns were the most recurring theme in the survey analysis, and in 2024, fatigue was the most frequently reported precursor in the ECR data, present in almost 60% of occurrences categorised as being one of EASA's Safety Precursors³⁵. These reports were mostly of low-severity occurrences, and fatigue was not linked to significant events or accident outcomes in this report. Similarities are seen between the two sets of survey results – for example Low Cost Carrier respondents in the EASA Article 89 report raised concerns about negative consequences as a result of reporting³⁶, a result also seen in this report.

In combination with an Operator's own data, results of this survey, and other publicly available data and research can be used to support risk management and improve the effectiveness of fatigue risk management approaches – which have, based on this survey – not progressed much, nor uniformly across Europe since 2023 despite the regulatory requirement for continual improvement. The survey also gives an indicator of elements of safety culture (e.g. relating to trust in fatigue reporting systems, and concern regarding refusal of Commander's Discretion). This survey's AOC nation level data has shown that while some AOC countries are demonstrating positive change, for many the situation has not improved since 2023. Positive change can be made, but it requires effort and consistency, both at operator and at NAA level, supported by EASA. NAAs can therefore use the AOC country results, as well as those relating to the operation types, to inform and direct their oversight and enforcement activities at national level.

³⁴ EASA (2026) Article 89 Report Mapping the Impact of Socio-Economic Factors on Aviation Safety for Safety Critical Aircrew and OCC Personnel (08/06/2026). Available from <https://www.easa.europa.eu/en/document-library/general-publications/article-89-report>

³⁵ Although Safety Precursor-related reports (of which 60% related to fatigue in 2024) only formed 9.6% of reports in the ECR in 2024. Article 89 report, page 119-120

³⁶ Survey free text comments, reported on page 171 of the Article 89 report

Appendix 1: List of Survey Questions

1. Your position

Captain / First Officer

2. Your age

20-29 / 30-39 / 40-49 / 50-59 / 60 and above

3. Your location: Country of your Home Base

[Respondent selects from a list of European countries] / No fixed home base

4. Your airline's AOC: Do you know the country of your airline's Air Operator Certificate (AOC)?

[Respondent selects from a list of European countries]

5. Do you fly

Network / Low-cost point to point / Charter / Cargo / Regional / ACMI/wet-lease provider / Business jet / Other

6. Do you fly:

Short/medium haul / Long haul / Both

7. Roster stability

During the last 4 weeks, how stable was your published roster?

Very stable / Moderately stable / Moderately unstable / Very unstable

8. Cumulative fatigue

During the last 4 weeks, how often have you not had adequate time off to recover from fatigue between duties to stop you from experiencing cumulative fatigue?

Always / Usually / Sometimes / Rarely / Never

9. Commander's Discretion to extend a flight duty

During the last 4 weeks, how many times have you used Commander's Discretion to extend an FDP beyond the maximum allowable daily FDP?

Never / 1 / 2 / 3 / 4 / 5 and above / I don't know / Not applicable

10. Commander's Discretion to extend a flight duty

How concerned are you about negative consequences from your airline if you refused to extend a flight duty beyond the maximum allowable under Commander's Discretion?

Highly concerned / Moderately concerned / Slightly concerned / Not concerned / I don't know

11. Microsleeps on the flight deck

In the last 4 weeks, when operating on the flight deck, how often have you experienced brief uncontrolled periods of sleep (microsleeps), head nodding, or fought to keep your eyes open?

Never / 1-4 / 5-9 / 10 and above / Don't know

I2. Fatigue risk management

In my opinion, fatigue risk at my airline is:

Very well managed / Mostly well managed / Neither well managed nor not / Mostly not well managed / Not well managed

I3. Fatigue reporting system

Please select all the statements below which apply to the fatigue reporting system at your airline:
(select all that apply)

I know how to submit a fatigue report / The company communicates well with crew about fatigue reports / Fatigue reports are quick and easy to complete / Fatigue reports have led to operational changes to improve safety / I trust the fatigue reporting system / None of the above

I4. Fatigue reporting system

When I am unfit due to fatigue I usually:

Report unfit due to fatigue / Report sick / Do not report and fly anyway / Not applicable (I am usually not unfit due to fatigue) / None of the above

I5. Reporting unfit

In the last 3 months, have you operated when, with hindsight, you realise that you should have reported unfit due to fatigue?

Yes / No

I6. Why did you not report unfit? (select all that apply)

[Asked only of respondents who answered "Yes" to Q15]

I didn't want to inconvenience the company / I was concerned about loss of pay / It was my own fault that I was fatigued / I didn't want to draw attention to myself / I was concerned that management would respond negatively / Other

Appendix 2: Countries in the 'Other' Category

The AOC 'Other' category contains the responses from all pilots from AOC nations with fewer than 100 responses. These countries are:

Table 9: The 'Other' AOC country category

Category	n
Switzerland	97
Latvia	53
Poland	51
Denmark	43
Greece	42
Bulgaria	30
Hungary	26
Czech Republic	23
Lithuania	20
Romania	12
Croatia	10
Estonia	7
Slovakia	4
Cyprus	2
Slovenia	1

Home base was not used to categorise data in the report, but was collected as part of demographics. As with AOC country, responses from all pilots from nations with fewer than 100 responses were grouped in 'Other'.

Table 10: The 'Other' home base country category

Category	n
Switzerland	96
Poland	52
Greece	45
Latvia	43
No fixed homebase	39
Romania	31
Bulgaria	26
Czech Republic	22
Malta	18
Croatia	12
Lithuania	10
Hungary	9
Slovakia	9
Cyprus	5
Other (NO FIXED BASE)	5
Estonia	4
Other (NO FIXED BASE) - Turkiye	2
Other (NO FIXED BASE) - Turkey	2
Other (NO FIXED BASE) - Albania	1
Other (NO FIXED BASE) - Belgrad	1
Other (NO FIXED BASE) - Сърбия	1
Other (NO FIXED BASE) - MAN since March	1
Other (NO FIXED BASE) - TÜRKİYE	1
Other (NO FIXED BASE) - Turkey/ istanbul	1
Other (NO FIXED BASE) - Istanbul	1
Slovenia	1
Other (NO FIXED BASE) - Albania. Tirana	1

Appendix 3: Demographics of pilots responding to the survey

This section describes the 7,198 pilots who answered questions in the main body of the survey.

Table 11: Rank of the pilots responding to the survey

Response option	% (n)
Captain	55.5% (n=3997)
First Officer	44.5% (n=3201)

Table 12: Age of the pilots responding to the survey

Response option	% (n)
20-29	12.9% (n=927)
30-39	30.9% (n=2223)
40-49	29.7% (n=2135)
50-59	21.4% (n=1541)
60 and above	5.2% (n=372)

Table 13: Home base of the pilots responding to the survey

Response option	% (n)
Spain	14.4% (n=1035)
United Kingdom	12.3% (n=887)
Italy	9.6% (n=689)
France	9.2% (n=662)
Portugal	8.1% (n=586)
Germany	7.2% (n=520)
Netherlands	5.2% (n=371)
Finland	3.7% (n=266)
Iceland	3.5% (n=252)
Ireland	3.4% (n=244)
Sweden	3.4% (n=243)
Belgium	3.3% (n=240)
Austria	2.3% (n=163)
Norway	1.8% (n=127)
Luxembourg	1.7% (n=124)
Denmark	1.6% (n=115)
Other	9.4% (n=674)

Table 14: AOC nation of the pilots responding to the survey

Response option	% (n)
Ireland	13.4% (n=965)
United Kingdom	10.7% (n=767)
Spain	9.1% (n=658)
Malta	9.1% (n=653)
Portugal	7.1% (n=509)
France	6.5% (n=465)
Austria	6.4% (n=458)
Netherlands	4.8% (n=349)
Germany	4.7% (n=336)
Iceland	3.7% (n=268)
Sweden	3.6% (n=258)
Finland	3.5% (n=253)

Belgium	2.9% (n=211)
Italy	2.1% (n=154)
Luxembourg	1.8% (n=129)
Norway	1.6% (n=113)
Other	9.1% (n=652)

Table 15: Haul type of the pilots responding to the survey

Haul type	% (n)
Short/medium haul	70.0% (5,037)
Long haul	19.2% (1,384)
Both	10.8% (777)

Table 16: Operation type selected by the pilots responding to the survey

Operation type	% (n)
Network	49.0% (3,530)
Low-cost point to point	30.7% (2,207)
Cargo	6.0% (430)
Regional	5.0% (359)
Charter	3.2% (230)
ACMI/wet-lease operator	2.3% (167)
Business Jet	1.8% (133)
Other	2.0% (142)

Appendix 4: Whole survey comparison 2023 vs 2026

The survey results can be summarised into six ‘headline’ indicators for comparison between 2023 and 2026. For each indicator, they have been scored according to the % of respondents selecting the answer option(s) that are **less favourable**. This means that an increase between 2023 and 2026 below shows that the results have got worse, while a reduction between 2023 and 2026 is an improvement in that indicator.

This is shown in Table 17, alongside whether the change between 2023 and 2026 is statistically (i.e. the results are not just due to chance) and operationally (i.e. there is at least a moderate effect size) significant. Only those results that are operationally significant are reported in the main body of this report, as statistical significance does not necessarily mean there would be an operationally noticeable change.

Table 17: Indicators for the whole survey, 2023 vs 2026

Indicator	2023	2026	Change	Statistically / Operationally significant?
Roster instability (% selecting moderately / very unstable)	30.6%	35.6%	+5.0 percentage points	Statistically yes, but negligible effect size
Inadequate recovery time (% selecting always/usually)	34.8%	38.8%	+4.0 percentage points	Statistically yes, but negligible effect size
Commander’s Discretion use (% selecting any use in the last 4 weeks)	44.9%	38.3%	-6.6 percentage points	Statistically yes, but negligible effect size
Concern about refusing Commander’s Discretion (% selecting highly/moderately concerned)	37.6%	44.3%	+6.7 percentage points	Statistically yes, but negligible effect size
Microsleeps on the flight deck (% reporting any)	75.8%	76.8%	+1.0 percentage point	Not significant
FRM perceived poorly managed (% selecting mostly/not well managed)	53.2%	50.2%	-3.0 percentage points	Statistically yes, but negligible effect size

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