SUMMARY OF CONSULTATION Proposed new Part 131 MOS Balloons and hot air airships

## OFFICIAL

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Acknowledgement of Country
The Civil Aviation Safety Authority (CASA) respectfully acknowledges the Traditional Custodians of the lands on which our offices are located and their continuing connection to land, water and community, and pays respect to Elders past, present and emerging.
Artwork: James Baban.

## Overview

## We asked

This was the second consultation of the Part 131 Manual of Standards (MOS). Since the first consultation closed in September 2021, we have been working with the balloon transport AOC holder's technical working group (TWG) to make changes to the Part 131 MOS.

We have also been drafting a Guide to Balloons and Hot Air Airships that brings together the applicable rules in Parts 91 and 131 of the Civil Aviation Safety Regulations 1998 (CASR) and their MOS into one plain English document. A preview was attached to the consultation for information.

This consultation asked whether the proposed amendments to the 131 MOS achieved the policy intention.

## About this consultation

The consultation opened on 4 August 2023 and closed on 4 September 2023. This consultation sought detailed comments on the amendments to the proposed Part 131 MOS that will support the Part 131 regulations that commenced on 2 December 2021.
This summary of consultation summarises the main themes that emerged from a review of the responses, the CASA response to the feedback and the changes CASA will make to the proposed Part 131 MOS as a result of this feedback.

## Feedback

## You said

Seventeen policy amendment questions were posed and 21 responses to the consultation were received. Eight respondents identified as submitting feedback on behalf of an organisation, seven as balloon AOC operators and one sport aviation organisation responded. Nine people identified as commercial balloon pilots and eight as recreational balloon pilots. One person responded for Airservices Australia. Ten respondents permitted their response to be published and 11 requested to remain anonymous.
Each submission was evaluated to determine the key issues and themes expressed in the responses. Examples of responses received in submissions to the policy proposals have been included in the feedback section below. Feedback is attributed to the respondents via anonymous ID labels.
We value the contributions made by all respondents. The comments of respondents that agreed to publication will be included in the published summary of consultation.

## Summary of feedback

## Emergency and survival equipment information - Chapter 7

Two thirds of the respondents agreed that the rule was acceptable, 2 offered comments that the requirements were not clear and 5 did not answer.
Under regulation 131.295 of CASR, if a balloon transport operator is carrying any emergency or survival equipment specified in Table 7.01 of the MOS, then the details of that equipment must be available for transmission to a rescue coordination centre in the event of an emergency. CASA advises that this information may be included on a flight note left with the retrieve crew on the ground. This guidance will be added to the Part 131 AMC/GM document.

CASA is not intending to amend to this chapter.

## Use of supplemental oxygen equipment etc - Chapter 10

Seventeen respondents agreed that the MOS proposal was acceptable, 3 did not answer and 1 made a comment.

ANON-AT3U-D6ZT-5 Personnel operating above 10000ft AMSL depending on their fitness level and how their body process oxygen will respond in different ways. Prolonged exposure to high altitudes without the correct training may lead to incidents with balloons at this attitude. Mandated training will need to be considered to allow personnel to operate at these attitudes. A full medical should also be considered as some people will become hypoxic at attitudes below 10000ft AMSL.

CASA is not intending to amend to this chapter.

## Fuel and ballast requirements - Chapter 21

Eighteen respondents agreed that the MOS proposal was acceptable and 3 did not answer.
CASA is not intending to amend to this chapter.

## Flight preparation - Chapter 12

Fifteen respondents agreed that the MOS proposal was acceptable and 3 did not answer.

Comments received from respondents that were not in full agreement were as follows:
ANON-AT3U-D6ZC-M 2 hours of having a weather report is fine. It's not needed to obtain a fresh report if after 2 hours because you can certainly be out of communications to get a current report. The communication services in this country of Australia are not reliable in remote areas. Pilots have the understanding of weather to make good judgements. After all it's where we are flying and what we study for. We fly the weather and always watch what we are flying.
ANON-AT3U-D6Z8-9 Still overly restrictive and prescriptive for balloon operators who in many instances can rely better on sources other than the Bureau of Meterology.

ANON-AT3U-D6ZN-Y I think 2 hours after the planned landing time is a little excessive especially given mandated final fuel reserves of 20 minutes are being proposed in Chapter 10

ANON-AT3U-D6ZD-Y 2 hours after the planned landing time is a little excessive especially given mandated final fuel reserves of 20 minutes are being proposed in Chapter 10

The requirement to obtain a weather forecast for up to 2 hours after the planned landing time is currently specified in the Regulation 259/260 of CAR approvals for balloon transport operators. A forecast allows the pilot in command (PIC) to have an awareness of any approaching weather systems or significant changes that may move quicker than expected. Under paragraph 12.02(1)(b) of the Part 131 MOS the PIC may use any other sources of weather information they wish but must ensure at least one relevant forecast from the Bureau of Meteorology is studied.

CASA is not intending to amend to this chapter.

## Air traffic services - Prescribed requirements - Chapter 15

Fifteen respondents agreed that the MOS proposal was acceptable, 3 did not answer and two offered comment.

ANON-AT3U-D6ZT-5 Communications with balloons in general is difficult and in my experience flying in NSW, VIC and QLD, it doesn't occur. Considerations that balloons should fly with Skyecho to allow traffic to see them through EFBs. It makes it easier to understand their flight plan especially when they are flying towards a CTAF airfield.

ANON-AT3U-D6ZJ-U Note: Balloons do not cruise or have cruising level/altitude. Using generic fixed-wing aviation terms here is not applicable. Perhaps use fly or drift.

For clarity, the word 'drift' has been added to subsection 15.02(4) of the Part 131 MOS.
CASA is not intending to further amend to this chapter, however appropriate use of devices such as a Skyecho is encouraged.

## Operations at non-controlled aerodromes - Chapter 17

Sixteen respondents agreed that the MOS proposal was acceptable, 3 did not answer, one person offered changes and one disagreed with the proposed provisions.

ANON-AT3U-D6ZC-M Balloon pilots need to use all airspace to steer the aircraft. Winds from surface level up are a vital part of steering a balloon to create safety. Ballon pilots should be allowed to access everything from surface level up. If CASA had a commercial balloon pilot or a private balloon pilot they would realise this. CASA has in this situation has never understood the importance of low level flying.

ANON-AT3U-D66Z-7 17.02(2) - When within 3 NM of a non-controlled aerodrome, the pilot in command of a Part 131 aircraft who holds a qualification mentioned in subsection (3) may take off or conduct manoeuvres necessary to achieve a safe landing.There should be mention of the need to conduct navigational manoeuvres to achieve landing in preferred locations. It should also mention that 'qualified persons' can conduct flight above 2000ft without limitations.

The MOS allows a qualified pilot to operate within 3 nm of a non-controlled aerodrome at any altitude if they comply with the Part 91 rules that apply to any aircraft operating at a non-controlled aerodrome. Pilots without the qualifications mentioned in this section cannot operate below 2000 ft AGL above the aerodrome when within 3nm of the aerodrome.

CASA is not intending to amend to this chapter.

## Dropping things from a Part 131 aircraft — Chapter 9

Sixteen respondents agreed that the MOS proposal was acceptable, 3 did not answer and 2 offered suggestions for improvement.

ANON-AT3U-D6ZT-5 Fine sand at attitude can cause issues for aircraft down wind at a lower level. Fine sand drops should be at lower levels not above 3000ft.
ANON-AT3U-D66Z-7 9.02(1)a should mention salt, as salt is commonly mixed with fine sand for aid with drying and clumping of sand.

Only gas balloons release fine sand for altitude control and there are no gas balloons operating in Australia currently. The mineral content of fine sand is not regulated by CASA.

CASA is not intending to amend to this chapter.

## Flights over water - Chapter 18

Fourteen respondents agreed that the MOS proposal was acceptable, 4 did not answer, 1 disagreed and 2 offered comment.

> ANON-AT3U-D6Z8-9 here is too much scope for different FOl's to apply different requirements in the risk assessment process. This is particularly the case with initial acceptance of Expositions by new operators. There is no belief in industry that the risk assessment rules will always be applied appropriately.
> ANON-AT3U-D6ZB-K Often balloons may end up in situations due to wind shift and conditions that may see them over water. Unless it is planned to fly over water it would not be necessary to have procedures in place, however the way this is written assumes that you may always be in that situation hence you will need to have something in place. It seems like you have a choice but actually you do not.
> ANON-AT3U-D66J-Q Flights over large bodies of water must require the carriage of life preservers. Operators who have a large body of water within their common flight paths may need to have a rescue / recovery plan in their exposition.

This chapter is an example of outcome-based regulation as opposed to prescriptive requirements. This allows an operator to design their own safety procedures that are appropriate to their operation. This chapter is intended to apply to a specialised balloon operation, or a recreational balloon activity, or a balloon transport operator that conducts flights over bodies of water such as a lake, bay, or estuary for long enough that in the event of an emergency the water would present a hazard. As for any hazard a balloon transport operator should conduct a risk assessment and have appropriate mitigation procedures for their circumstances documented in their exposition.

CASA acknowledges the concerns raised that this rule might result in inconsistent assessments by CASA oversighting staff of operator methods of compliance. In line with the recent publication of CASA's internal documents to inspectors for other sectors, CASA is also producing, and will publicly publish, a Part 131 protocol, principle and worksheet suite that is designed to ensure a consistent approach is taken to assessments of operator practices, procedures and processes.

## Operation of a tethered Part 131 aircraft other than a subpart $131 . Z$ tethered gas balloon - Chapter 20

Thirteen respondents agreed that the MOS proposal was acceptable, 2 did not answer, 2 disagreed and 4 offered comment.

ANON-AT3U-D6ZC-M 4000m from an aerodrome is excessive. 1000 m is more appropriate.

ANON-AT3U-D6Z8-9 The addition of the term 'relevant aerodrome' (3a) may solve the ATC approval with regard to active controlled aerodromes but it is a confusing and clumsy drafting method. Seems a little ambiguous to me. 20.02 refers to tethered balloons where crown of the aircraft exceeds 300 ft AGL but then part 20.01 (2) (b) deems that the part does not apply to "a Part 131 aircraft that is tethered to the ground for the flight by a launch restraint."
ANON-AT3U-D6ZN-Y I can't ever imagine a time when the crown on a balloon on a launch rope might exceed 300 ft AGL. Seems there needs to be a more clearly defined definition provided for tethered balloons. e. Can a balloon be tethered at a non-controlled aerodrome for the purpose of an inspection for airworthiness requirements if its crown does not exceed 300 ft AGL?

ANON-AT3U-D6ZD-N 20.02 refers to tethered balloons where crown of the aircraft exceeds 300 ft AGL but then part 20.01 (2) (b) deems that the part does not apply to "a Part 131 aircraft that is tethered to the ground for the flight by a launch restraint." I can't ever imagine a time when the crown on a balloon on a launch rope might exceed 300ft AGL. There needs to be a more clearly defined definition provided for tethered balloons. ie. Can a balloon be tethered at a non-controlled aerodrome for the purpose of an inspection for airworthiness requirements if its crown does not exceed 300 ft AGL?
ANON-AT3U-D66H-N A tethered balloon regardless of having an approval to operate within 4000 m and/or 300FT of a Controlled Aerodrome still requires a clearance from ATC to operate and they will be provided an ATS in accordance with the aircrafts flights rules declaration and Airspace Classification. They are not treated the same way as an unmanned tethered balloon (Part 101). This means, if the tethered manned balloon is under the approach path at a Class C Tower, the aircraft will need to be separated from IFR aircraft not segregated like an RPAS (unmanned tethered balloon).

This chapter applies to a balloon equipped for free flight that is temporarily tethered to the ground, or an object on the ground, by flexible restraints that limit movement as defined in the CASR dictionary. This chapter does not apply a balloon that is restrained with a launch rope prior to take-off.
Amendments have been made to this chapter. A regulation 131.035 approval was required if the height of the crown of a tethered balloon would exceed 300 ft AGL This has been amended to 400 ft AGL to be consistent with the requirements for an unmanned tethered balloon.
A balloon operator will be required to obtain an approval from ATC if the PIC of a balloon wishes to conduct a tethered operation at a controlled aerodrome or anywhere within the control zone of the aerodrome at any time the ATC service is operating. If the ATC service is not operating the aerodrome becomes a noncontrolled aerodrome.

A balloon operator is required to hold a regulation 131.035 approval from CASA if the PIC of a balloon wishes to conduct a tethered operation at or within 2 NM of a non-controlled aerodrome listed in AIP-ERSA, unless they have a written approval provided by the aerodrome operator.

## Tethered gas balloons - Chapter 29

Sixteen respondents agreed that the MOS proposal was acceptable and 5 did not answer.

## Carriage of persons requiring assistance - Chapter 22

Fifteen respondents agreed that the MOS proposal was acceptable, 4 did not answer, 1 disagreed and 1 offered a comment.

ANON-AT3U-D6ZB-K Without affecting section 22.02, the exposition of a balloon transport operator must contain procedures for the following: (a) the risk assessment and management of a passenger who requires assistance due to sickness, injury or disability (the passenger); I would like to ask how a risk assessment can be done and covered for every circumstance relating to- sickness, injury or disability for every flight?

Under subsection 22.02(2) of the proposed MOS, the pilot in command must be satisfied that the passenger can be safely accommodated on the flight without causing a hazard to any other passenger or person on the aircraft. These kinds of assessments are a routine part of ensuring safe operations.

The safety intent of the requirement for balloon transport operators to include procedures in their exposition for the risk assessment and management of passengers who require assistance due to sickness, injury or disability is to provide additional organisational support to PIC decisions.

Where a passenger requires assistance due to sickness, injury or disability, then the purpose of the risk assessment is for the operator to identify whether the nature of the sickness, injury or disability means the safety of the flight and persons onboard would be unacceptably impacted. If safety would be unacceptably impacted, then the risk assessment identifies whether there are any additional safety controls that can acceptably mitigate the consequences of these hazards.
These safety controls are then incorporated into the operator's procedures to ensure that the safety of the flight and other passengers is maintained.

Generally, these risk assessments would be conducted by the operator in advance using their knowledge of the kinds of passengers routinely carried. However, passengers might present for a flight without informing the operator in advance of sickness, injury or disability that requires assistance to be provided. In such cases, if the sickness, injury or disability does not fit within the operator's existing risk assessments, then the exposition procedures should enable the conduct of a new risk assessment to support the decision making of a PIC at the launch site.

If an operator is advised in advance by a passenger that they require assistance due to sickness, injury or disability, then the operator should assess whether the risks are unacceptable following the application of any extra safety controls compared to passengers that don't require assistance.

## Passengers - Safety briefings and instructions - Chapter 23

Sixteen respondents agreed that the MOS proposal was acceptable and 5 did not answer.

## Flight related documents - Chapter 5

Fifteen respondents agreed that the MOS proposal was acceptable, 4 did not answer and 2 disagreed because they felt the requirements should not apply to private flights.

The proposed requirements for the carriage of documents on a flight would apply to all Part 131 aircraft flights and are appropriately consistent with other Australian rules.

## Equipment - Chapter 26

Twelve respondents agreed that the MOS proposal was acceptable, 3 did not answer. Five respondents disagreed and one agreed with changes. Sample comments were:


#### Abstract

ANON-AT3U-D6ZC-M Pilot restraint harness, definitely not. You're restricting mobility and creating an entanglement device. Once again if CASA had balloon pilot they would realize this. Equipment device to measure drift! A compass or GPS, it's called spit or saliva that picks up drift change below you. A compass or GPS will tell you the direction your traveling.


ANON-AT3U-D6ZN-Y 26.05 (1) (f) Free Air Temperature equipment ?? Firstly how could such equipment be accurate in a balloon basket under a burner that is producing a significant amount of radiant heat? Secondly what purpose does it serve during the flight? In this day and age of Automatic Weather Stations and access to their data electronically free air temperature is easily attained and accessible and would only ever be used prior to flight for load/lift calculations! 26.11 (2) (a) \& (b) Wearing of the harness - This should be at the discretion of the pilot. Yes it may reduce the severity of injuries to the pilot in the event of an accident. But I can also envisage a situation where the pilot could be trapped (possibly unconscious) in a basket unable to be removed quickly due to wearing a harness eg fire on board, collision with powerlines. etc

ANON-AT3U-D6ZB-K I believe safety restraints should be worn at all times.
ANON-AT3U-D66Z-7 The requirement to wear a life jacket if carried when below 1000ft is ludicrous. The slow descent rate of a balloon, and the fact the basket will tend to float for a least a short period when in contact with water backs up this statement.
All this regulation is doing is providing a reason for operators and pilots to not carry life jackets in baskets. If a balloon is conduction a flight over a lake at 50 ft , will passengers all have to don life jackets when carried? This requirement to pre-emptively don life jackets should be removed. If it needs to be included it should read something along the lines of 'The life jacket or flotation device must be: (a) for a flight described in section 18.03 worn by the person for whose use it is provided, as soon as any indication of a water landing needing to imminently occur; and (b) when there is no indication of an imminent water landing - stowed in a position from which it is readily retrievable by that person given the position on the aircraft which the person occupies during the flight.'

## Pilot harness

The requirement to wear a pilot restraint harness when operating below 500 ft AGL only applies if such a harness is fitted to the basket. It should be noted that for some larger balloons fitting of a pilot restraint harness is required by the type certificate. Pilot harnesses are equipped to permit quick release and restriction of movement, or entanglement, is not likely. Several pilots have been ejected from a balloon basket on landing and were killed or injured. If a balloon takes off with 24 passengers on board after a pilot is ejected many lives are endangered.

## Life jackets

An amendment to Section 26.18 Life jackets and flotation devices has been made to remove specific requirements about when life jackets must be worn on a balloon flight. An amendment has been made to Chapter 18 Flights over water to provide that it is the responsibility of a balloon transport operator PIC to determine the circumstances for the wearing of life jackets or flotation devices.

## Flight crew - Chapter 27

Twelve respondents agreed that the MOS proposal was acceptable, 4 did not answer. Three respondents disagreed and 2 agreed with changes. Sample comments were:

ANON-AT3U-D6ZC-M If you make it so hard to have ground crew, balloons will cease to exist. Ground crew is so hard to come by and hard to keep because of various factors. Leave the ground crew training to AOC holder or pilot.
ANON-AT3U-D6Z8-9 The requirement of 27.09(d) for in water training, even just once, remains overly burdensome given the remaining uncertainty as to the application of the requirement to carry life jackets by different FOl's. The requirement should be for a complete understanding of the life jacket and donning instructions.
ANON-AT3U-D6ZD-N 7.09 (2) (a) General Survival Procedures (This seems very broad and open to interpretation particularly by an FOI who may or may not have a good understanding of ballooning operations and limitations)

This chapter applies to flight crew not ground crew.
An amendment to Chapter 27 has been made to remove the requirement for in-water training if life jackets are carried. A pilot of a balloon transport operation must know how to locate, access, and use any emergency or survival equipment carried on the aircraft.

Paragraph (2) (a) of section 27.09 has been amended to 'the operator's general emergency procedures' replacing 'general survival procedures'.

## Ground support personnel - Chapter 28

Thirteen respondents agreed that the MOS proposal was acceptable, 5 did not answer. One respondent disagreed and 2 agreed with changes.

Two respondents noted that private operators should be excluded. This chapter is only applicable to balloon transport operators under regulation 131.570 of CASR. Balloon transport operators must design and conduct their own training for ground crew.

## Flights over populous areas, public gatherings, and other areas (Chapter 8)

One respondent agreed that the MOS proposal was acceptable, two did not answer. Eighteen respondents disagreed with the proposal. Sample comments include:

> ANON-AT3U-D6Z8-9 Flight limits should be removed and replaced with a requirement to remain clear of ground and obstacles. The application of a 1000ft minimum is in all cases with regards balloons a degradation of safety standards compared with the removal of the limit. More height means a greater vertical impact speed and still absolutely no option to 'glide' to a preferred area.
> ANON-AT3U-D6ZJ-U The existing rule set allows for flight lower than 1000ft over built-up areas on approach to land. This has resulted in no significant reported safety issues over the years it has been in place. It is however inappropriate that the condition apply principally to the landing as that allows considerable and unpredictable subjective interpretation. Proper and safe flight planning and operation regularly involve requiring lower-level steerage during other phases of the flight. Safety is optimised by effective and skilled use of lower-level conditions, not compromised.
> Safety Reasons Why The Existing 1000 ft Rule Should Be Amended
> - Safe navigation of a balloon requires pilots to use low-level drainage winds for steerage.The ability to utilise wind speed from the surface upwards is fundamental to how pilots fly and navigate.
> - The certainty of achieving a specific desired landing site is often compromised/reduced the higher the balloon starts its approach to that site.
> - There is no glide ratio associated with a balloon and therefore no benefit to having height in relation to engine failure.
> - In the extremely unlikely event of simultaneous failure of all of a balloon's burner
systems the higher the balloon is the harder it will impact the ground. The pilot has limited choice over sites as there is no ability to glide from any height. (as noted such a circumstance is extremely rare).

- Balloons do not routinely take off or land from airports and can readily make entirely safe controlled landings in very small areas, a common occurrence, so the associated apprehended risk that the regulation has been written to mitigate is just not relevant to the ballooning industry.
The proposal is to remove the across-the-board limit for operations over built-up areas and replace it with the requirement to operate clear of obstacles and in such a way that the a balloon can maintain clearance of approaching downwind obstacles.
ANON-AT3U-D6ZM-X I think it is important to remove the minimum height requirements over built up areas (currently 1000ft), as balloons need to utilise low level winds for safe flight planning and navigation to suitable landing sites. In removing this restriction, wording could be included to require 'sufficient height and distance to safely avoid any obstacles and buildings'.


## ANON-AT3U-D6ZB-K Safety Reasons Why The Existing 1000 ft Rule Should Be Amended

- Safe navigation of a balloon requires pilots to use low level drainage winds for steerage. The ability to utilise wind speed from the surface upwards is fundamental to how pilots fly and navigate.
- The certainty of achieving a specific desired landing site is reduced the higher the balloon starts its approach to that site.
- There is no glide ratio associated with a balloon and therefore no benefit to having height in relation to engine failure.
- In the extremely unlikely event of simultaneous failure of all a balloon's burners systems the higher the balloon is the harder it will impact the ground. The pilot has no choice over sites as there is no ability to glide from any height. (as noted such a circumstance is extremely rare).
- Balloons do not generally take off from or land at airports (they routinely make controlled landings in very small areas) so the perceived risk that the regulation has been written to mitigate, is not relevant to the ballooning industry.
The proposal is to replace the across-the-board limit for operations over built-up areas with the requirement to operate clear of obstacles and in such a way that the balloon can maintain clearance of approaching downwind obstacles.
Objectives of the Proposal
The proposal aims to address safety concerns with the existing rules and provide an appropriate rule set for the aircraft type involved.
The proposal aims to remove a rule that was designed for other aircraft types and applied to balloons simply for uniformity without regard to the operating differences.

All the respondents who disagreed with the proposed MOS requirements for the minimum height for flight over a populous area expressed a similar view that there is no safety reason for requiring a minimum height of 1000 ft AGL at any time. One respondent suggested the minimum should be 500 ft AGL but the rest suggested that there should be no restriction at any time.
CASA agrees that Part 131 aircraft operations involve different safety risks to other aircraft. However, it does not agree that there is no safety value in setting a minimum height over populous areas. CASA acknowledges that in some Part 131 aircraft emergency circumstances, a lower altitude might enable safer outcomes however this is not the case for all emergency circumstances.
To provide additional flexibility in relation to the periods during a flight that this height must be maintained, this chapter has been amended to permit a Part 131 aircraft to operate below 1000 ft AGL if the PIC is navigating to a planned landing area.

## Additional amendments

An amendment has been made to Chapter 6 Reporting and recording information to correct an error of omission. A record of loading weights, and fuel usage from a metered supply, must be made and retained for 3 months by a balloon transport operator or an operator conducting commercial balloon flight training.
An amendment has been made to Chapter 25 to provide that the number of passengers that may be located in any single passenger compartment must be that specified in the AFM.

## Question - when should the Part 131 MOS commence?

Seven respondents suggested the MOS should commence 6 months after it is made and 13 favoured 12 months after making. One respondent did not answer this question.

Many respondents argued that they would need time to update their manuals/expositions. CASA is developing mapping documents and a sample exposition that will be updated when the MOS is settled, and these documents will be freely available to operators who wish to use them.

CASA agrees that more than 6 months should be provided between making the MOS and its commencement. CASA acknowledges the need for operators to update their manuals/exposition. CASA has been discussing potential commencement dates with industry representatives and will announce a date once it is finalised.

## Do you have any additional comments about the proposed policy amendments?

Many respondents contributed general comments and those that agreed to publication are shown below.
Topics mentioned in the general comments were not necessarily related to the MOS but concerned other issues around the implementation of Part 131, Part 91 and other regulations.
Regarding Civil Aviation Order (CAO) 48.1 Instrument 2019 and flight and duty times, it was suggested that the relevant parts of this instrument including Appendix 4A be included in the MOS to avoid FOIs applying inappropriate provisions. The incorporation of the provisions of CAO 48.1 into CASR is a separate project that CASA is investigating.
Regarding a dedicated balloon Flying Operations Inspector (FOI) many respondents noted that the retiring balloon FOI had not been replaced this year and that such a person was urgently required. Concern was also expressed about what training FOls receive on balloon matters.
The timeframes around the transitioning of pilot licensing and Part 131 aircraft maintenance into Part 131 of CASR was queried by some respondents. CASA has included these topics into its publicly announced forward regulatory program and anticipates commencing work in 2024. This work will begin when this current version of the Part 131 MOS is settled and the transfer of administration of recreational ballooning activities from the Australian Ballooning Federation is completed.

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## Future direction

## We did

We continue to engage with the Part 131 Technical Working Group (TWG). We have made the amendments to the MOS as outlined above. Work continues on topics under review including the easy language Guide to Balloons and Hot Air Airships which is in an advanced stage of development.

The TWG has reviewed the amended MOS and has provided their advice to the Aviation Safety Advisory Panel.

Because the MOS is made in-house by CASA any further necessary amendments can be incorporated more expeditiously than changes to the regulations which require additional government agency process.

