



# SUMMARY OF CONSULTATION



## Amended TAF rules - Ceasing TTF product from BoM

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## Overview

The Bureau of Meteorology (BoM) has advised it will cease issuing the Trend Forecast (TTF) as a meteorological forecast product for aviation users. At the time of this consultation, the change was planned for 13 August 2020<sup>1</sup>. To address the impact of the cessation of the TTF product, CASA is proposing to amend the rules within the Aeronautical Information Publication (AIP) to include TAF3 provisions to ensure:

- a similar safety outcome as the current combination of TAF and TTF products
- the proposed combination of TAF3 and TAF products retains the economic alleviations offered by the current combination as far as practicable.

In March 2020, CASA published a summary of proposed changes to the AIP rules and asked people to comment on their likely safety and economic impacts.

## Respondents

CASA received a total of 34 submissions, of which 14 respondents consented to having their comments published on the CASA website.

Of the 34 respondents, 7 were responding on behalf of an organisation, while 26 provided their personal views (1 did not answer this question).

## Key feedback

The consultation focused on two primary questions regarding the impact on safety and economic cost of the proposed changes, and one secondary question on the more general impact of the proposed changes. It is worth noting comments were generally not received where the respondent gave a yes response to a question. The comments included in this summary are therefore more likely to be from respondents who have a no response to a question.

## Safety impact

25 respondents (73.5%) indicated that the proposed changes would achieve a similar safety outcome as the existing system or would achieve a similar safety outcome with changes. The remaining responses (26.5%) indicated that a similar safety outcome would not be achieved.

Several themes were identified within the responses. The most prominent of these were:

- Concerns over the frequency of the TAF3 product
- Queries over technical operations of the TAF3 product
- Concerns that the TAF3 product increased complexity for pilots
- Concerns that the TAF3 product will not align with international products

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<sup>1</sup> Subsequent to consultation, the BOM has proposed to delay implementation until November 2020 to provide more time for the aviation sector to get ready for the change given the impacts of COVID-19.

### **Concerns over the frequency of the TAF3 product**

Concerns were raised by 5 respondents that the frequency of the new product was insufficient to maintain safety standards. Following analysis of the responses, CASA has identified that there was some misunderstanding regarding the update and review frequency of the TAF3 (i.e. updates every 3 hours, with a review and possible update every hour). It is anticipated that clarification of this issue would address most of the concerns, supplemented by guidance and education products.

Two examples of responses related to this theme follow:

TAF 3 would need to have the flexibility to be updated at short notice to replace the safety efficiencies delivered with the current TTF forecasting system (e.g. TTF specification), in the event of unforecast or rapidly changing weather. TTF specifications allow us to revise fuel loads up or down at short notice, which greatly assists a short haul domestic operation - *Kim Yoannides*

When there is TS or FG events possible at an aerodrome, the update be reduced to 30 minute intervals instead of 1 hour - *Peter Boughen*

### **Queries over technical operations of the TAF3 product**

5 respondents provided feedback that posted several technical questions related to the operation of the TAF3 product. This feedback has been shared with the BoM for consideration. Further to this, CASA notes that additional communication on the technical characteristics of the TAF3 is required for the community to more readily compare the products of the proposed AIP amendments to accommodate the TAF3.

### **Queries over increased complexity**

Concerns were raised by 4 respondents that the new TAF3 product was likely to increase complexity for pilots using the product. One respondent said the current system and the proposed system are both complex and could be replaced with TAF plus METAR as products. Three of these 4 respondents (and 1 other) also indicated that they were concerned that the TAF3 product will not align with international standards.

An example of a response related to concerns on this theme follows:

It only creates more confusion and does not align to world wide standards - *Randall Brink*

However, it was noted by other respondents that the TAF3 would reduce complexity and maintain safety standards. An example follows:

I believe the cessation of TTF services and its replacement with the TAF3 product will improve safety and address two significant risks that are not currently addressed adequately. These being:

1. The lack of communication of probability of weather conditions considered less than 50% probable. This sometimes wrongly indicates to users that the risk of these conditions impacting operations is far lower than it is.
2. The priority that forecasters must place on the TTF results in less-timely updating of TAF products and therefore delayed communications of risk - *Adrian Slootjes*

## **CASA's response to feedback on safety impact**

CASA is satisfied that the public consultation did not identify any significant safety risks that would prevent the implementation of the proposed AIP changes. Notwithstanding, CASA recognises that a key theme arising from this section of the consultation was that some respondents did not have clarity on the technical workings of the proposed TAF3 system and this might be reflective of a wider community consideration. While the suitability of the TAF3 versus the existing TTF product was not the focus of this consultation, CASA notes that additional communications on the technical characteristics of the TAF3 would be a way to raise awareness for the community to more readily be able to compare the products and ultimately the impacts of the proposed AIP amendments to accommodate the TAF3.

With respect to safety, the issue engages the TAF3 product and the proposed compensating AIP rules and the responses tended to focus on the product more than the proposed AIP rules.

## **Economic impact**

28 respondents (82.3%) indicated that the proposed changes would achieve a similar economic outcome as the existing system (3 of these respondents indicated the outcome would be achieved with changes). 6 respondents did not think the proposed changes would achieve a similar economic outcome. None of the respondents provided detailed examples of cost impacts.

Several themes were identified within the responses. The most prominent of these were:

- The requirement for training and guidance
- Queries over technical operations of the TAF3 product
- Cost of additional fuel
- Cost of aircraft diversion

## **Cost of implementation including training and guidance**

Respondents noted that the new product would require training and guidance for existing pilots as well as updates to examination materials for pilots in training. Others raised concerns that there would be additional costs to update existing equipment to become compliant with the new TAF3 product.

## **Technical operations of the TAF3 product**

Respondents again provided feedback that posted technical questions related to the operation of the TAF3 product. For example:

- Amendment criteria versus forecast updates
- Location versus remotely based meteorologists and levels of confidence
- Early release of the TAF3 could lead to ambiguity.

## **Cost of additional fuel and cost of aircraft diversion**

For the most part, respondents did not indicate that there would be an additional economic impact to their operations because of the combined effect of the TAF3 and proposed AIP rule amendments. However, most of these respondents did not provide any further comment on the subject, meaning it is difficult for CASA to fully draw conclusions on the economic impact.

One example of a comment on the subject follows:

No economic impact on industry would be expected if fuel buffer rules remain unchanged - *Warren Williams*

In addition, 7 respondents noted the potential for increased fuel carriage and/or the potential for aircraft diversions would be a negative consequence of these AIP changes. Central to these concerns was the need for frequent updates to the forecasting product to ensure that pilots can safely continue to the planned destination.

An example follows:

There will be significant costs for ultra-long-haul operations arriving to Australia which are not able to operate with alternate or tempo fuel, and instead rely upon en-route diversions as their only option. The ability to continue past PNR to the planned destination for these aircraft when the TAF shows a TS or FG event for the arrival period, is often totally reliant on receipt of a TTF approximately 45 minutes prior to arrival at the planned destination that shows the possibility of a TS or FG event being delayed and allowing the flight to continue to the planned destination. The cost of diversions for these aircraft is significant and often in the order of hundreds of thousands of dollars. A TAF that is only reviewed every 1 hour is not frequent enough for ultra-long haul flights - *Peter Boughen*

### **CASA's response to feedback on economic impact**

The feedback regarding the economic cost of the proposed amendments has been noted. More detail on the impacts such as costs or examples would have been helpful such as likelihood and extent of the impact.

Overall, CASA is satisfied that the amendments appropriately align with the TAF3 product.

CASA is committed to collaborating with BoM in response to the feedback.

### **Other impacts**

For the most part, the responses received in relation to any other impacts of the proposed changes produced themes that have been covered above, particularly:

- The cost of implementation including training and guidance
- Queries over technical operations of the TAF3 product
- Concerns that the TAF3 product increases complexity for pilots and operators through changes to manuals and procedures

For CASA's analysis and response to these themes please see the preceding questions.

One respondent responded with a concern that the product was unsafe in that having different operational considerations within one forecast would increase the probability of errors. It is noted however that no further content was provided to explain the circumstance where the probability for errors may be increased. In any case, the concern has been raised with BoM for consideration prior to implementation.

A small number of respondents noted that the August implementation was too soon to safely introduce the TAF3 and associated AIP rule amendments. The introduction date for the TAF3 and the associated AIP rule amendments has been postponed until November 2020. Comments were received about ICAO compliance and the ERSA entry format.

The next most common theme for this section of the consultation was that the proposed changes would have little or no practical impact on operations. Examples of these responses follow:

The proposed TAF amendment will not have any obvious impact on current or future RAAus operations - *Neil Schaefer, Recreational Aviation Australia*

I can't see where there would be impact elsewhere in our operation (high capacity RPT) - *Brad Wilson*

It is a change, but it can be safely managed - *Adrian Slootjes*

### **CASA's response to feedback on other impacts**

CASA has considered the feedback and recognises the importance of implementation measures that ensure smooth transition between the TTF and TAF3.

### **Future direction**

Overall, respondents have supported the proposed amendments to the AIP to address BoM's proposal to implement the TAF3 product.

Of the comments received, most related to the TAF3 product rather than the proposed AIP rules. They has been provided to BoM. In most cases, respondents who answered yes to the two primary questions did not elaborate with comments. Conversely, those who answered no mostly provided comments. In some cases, the comments indicated some uncertainty about the operational of the TAF3.

CASA will further engage with BoM to ensure that queries related to the technical characteristics of TAF3 are further explored. In particular, CASA has identified more engagement is required on the following topics:

- consistency of terminology (particularly regarding update, amend and review)
- practical differences related to on-site versus remote meteorologist support
- transitional period between TTF and TAF3 and how the rules will be applied
- practical differences related to TAF3 aerodromes and Category A TAF aerodromes
- operational impact where there is ambiguity regarding when TAF and TAF3 rules are in effect.

Central to a better understanding of the TAF3 and associated AIP rule amendments is the training and guidance to ensure successful implementation. It is anticipated that many of the concerns raised through this consultation can be addressed through guidance and education products, however this situation will be monitored in the lead up to the transition of the new product.