

Annex III

Traffic Alert Threshold Setting

Guidance on the setting of traffic alert thresholds

22 February 2019

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1. Introduction

- 1 The Commission Implementing Regulation (EU) 2019/317 of 11 February 2019 (below referred to as “new Implementing Regulation”) contains increased guidance for the setting of alert thresholds. The alert thresholds may be used by Member States to request revisions to their performance targets and plans in exceptional circumstances.
- 2 RP1 and RP2 had an alert threshold mechanism on the percentage deviation between actual and planned service units set at $\pm 10\%$. The traffic risk sharing threshold after which the entire risk transfers to ANSPs (when above) or airspace users (when below) is also set at $\pm 10\%$.
- 3 Points (b)(i) and (ii) of Article 9(4) of the new Implementing Regulation specify two of the alert thresholds to be the deviation of actual traffic from the forecast traffic in terms of service units and IFR movements. The latter is a new requirement.
- 4 To recommend these alert thresholds for RP3, the PRB first considered whether the current $\pm 10\%$ threshold would be suitable.
- 5 The revision requests during RP2 are also used to support setting of the alert thresholds. For example, Malta, Bulgaria, Poland, Romania and Portugal’s revision requests were permitted due to unforeseen changes out of control of the Member State, rendering the assumptions in the performance plan as invalid, this included deviation from the STATFOR forecasting. The traffic variation of these states can serve as an indicator of the impact such unforeseeable factors going forward.
- 6 Thus, the methodology and results aim to address the following questions to enable effective setting of the alert thresholds:
 - How effective are the STATFOR forecasts at predicting traffic variations?
 - Are the current thresholds ($\pm 10\%$) suitable for RP3?

2. Method

- 7 First, a calculation of the measure of uncertainty of the STATFOR high and low scenario forecasts was carried out for RP1, RP2 and RP3. The aim was to determine whether the same alert threshold is valid for RP3 through comparison with this measure of uncertainty across the reference periods.
- 8 For RP1, RP2 and RP3 the STATFOR forecasts used are the February edition issued in the preceding year of the Reference Period commencement.
- 9 To calculate this measure, the magnitude of the deviation of the STATFOR high or low scenario forecasts with respect to base for each year - both for IFR movements and service units – was computed. This was then checked to determine if either scenario has a greater deviation from the STATFOR base forecast than $\pm 10\%$ (RP1 and RP2 alert threshold).
- 10 This analysis shows whether the alert threshold is consistently higher than the STATFOR high/low forecasts for each year of the RPs. If not, it would suggest increasing the

threshold since the STATFOR forecasts are only known prior to the RP and therefore variations beyond them could be considered exceptional.

- 11 For the second stage of analysis, the actual deviation of individual Member States’ traffic from STATFOR base forecast is calculated. These are then compared to the current $\pm 10\%$ threshold to determine the STATFOR forecast variability and potentially account for it within the alert threshold setting.
- 12 Additionally, to calculate the alert thresholds for RP3, the PRB has analysed the revisions requested during RP2. The alert threshold is set to ensure that the states successful in revising their targets during RP2 would have also been eligible under a new proposed alert threshold.
- 13 This method assures the alert thresholds apply in the cases of previous exceptional circumstances pursuant to points (a)(i) and (ii) of Article 18(1) of new Implementing Regulation.

2.1 Service Units – Member States

- 14 Figure 1 presents the Service Unit uncertainty, defined as the percentage variation of the high/low forecasts relative to base for all three reference periods based on the February issue of STATFOR in the year preceding commencement i.e. February 2011, February 2014 and February 2019.
- 15 To determine the suitability of the current thresholds for RP3, the similarity of forecasts was assessed with the rationale that if the forecasts are similar for RP1, RP2 and RP3 in terms of uncertainty then no grounds exist to deviate from the status quo.

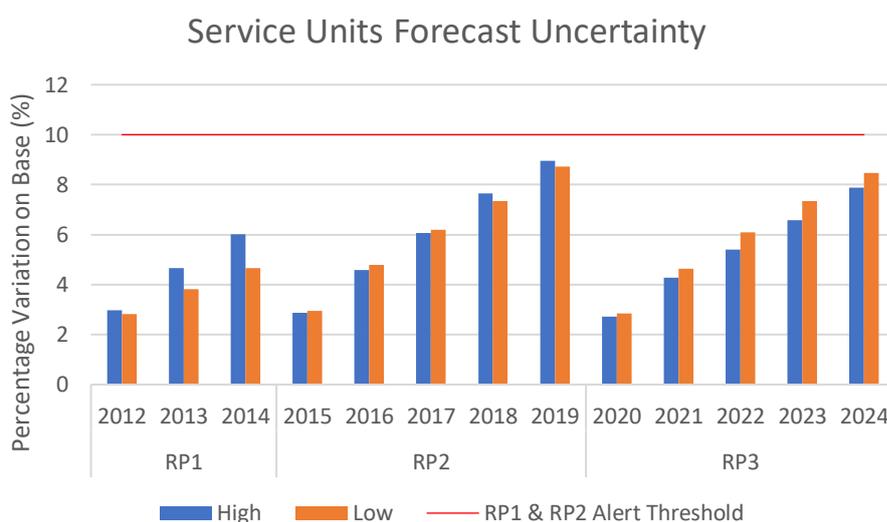


Figure 1 - Comparison of STATFOR high/low service unit uncertainty with respect to the base forecasts across the RPs based on draft February 2019 issue for RP3.

- 16 From Figure 1, no material changes in the RP3 forecast when compared with the historical forecasts are present to suggest a deviation from the status quo alert threshold of $\pm 10\%$ is necessary.

- 17 Figure 2 shows that during RP2, 14 Members States had actual service units that were greater +/-10% compared to the STATFOR base forecast.
- 18 Compared with Figure 1, the analysis suggests STATFOR for RP2 significantly under-/overestimated the traffic variations for Member States. The February high/low STATFOR forecast preceding RP2 showed that only two Member States could be expected to exceed the +/- 10% from base (i.e. the alert threshold).

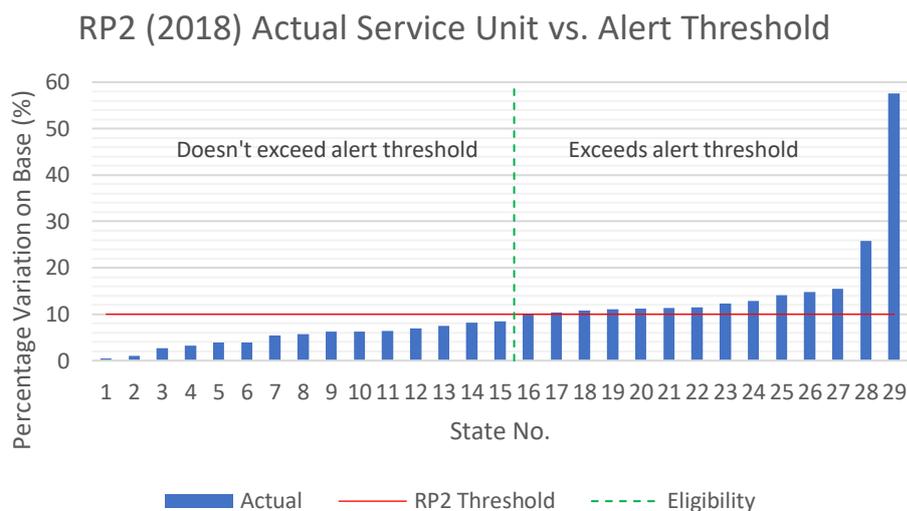


Figure 2: Comparison of actual service units for each SES Member compared to the STATFOR base forecast within the context of the alert threshold.

- 19 Thus, historically it is likely for many Member States’ actual service unit traffic to deviate by more than the variation predicted by the STATFOR forecast and even the current +/- 10% threshold, particularly towards the end of a five-year Reference Period.
- 20 However, since each revision request is judged on a case-by-case basis and tested against the full set of provisions set out in the new Implementing Regulations, the PRB deem this an insufficient reason alone to deviate from the status quo.

2.2 IFR Movements – Member States

- 21 Figure 3 presents the IFR movement uncertainty, defined as the percentage variation of the high/low forecasts relative to base for all three reference periods based on the February issue of STATFOR in the year preceding the commencement i.e. Feb 2011, Feb 2014 & Feb 2019.
- 22 Since the threshold on IFR movements is new, the same test as for service units is applied i.e. is the +/- 10% threshold applicable given the STATFOR forecast uncertainty.
- 23 Due to the similar results to service units (Figure 1) it is suggested that the +/-10% service unit is equally applicable to the IFR movement metric.

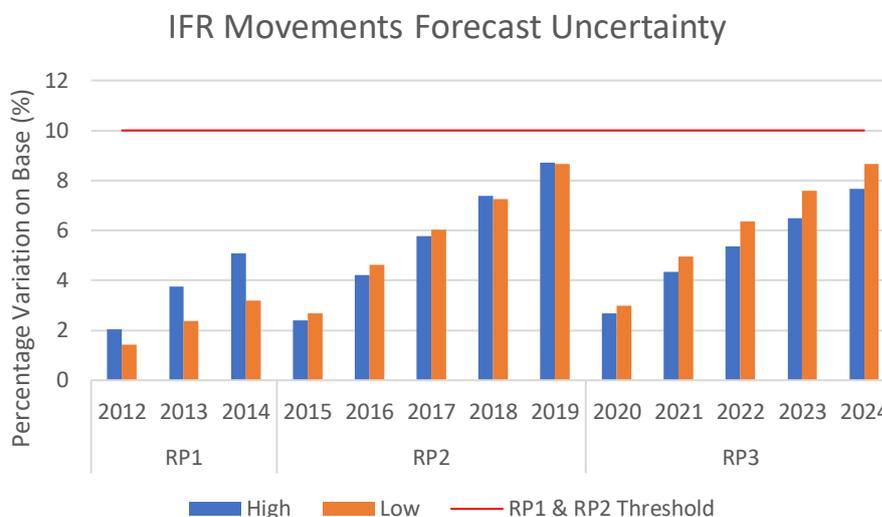


Figure 3 - Comparison of STATFOR high/low uncertainty with respect to the base forecasts across the RPs.

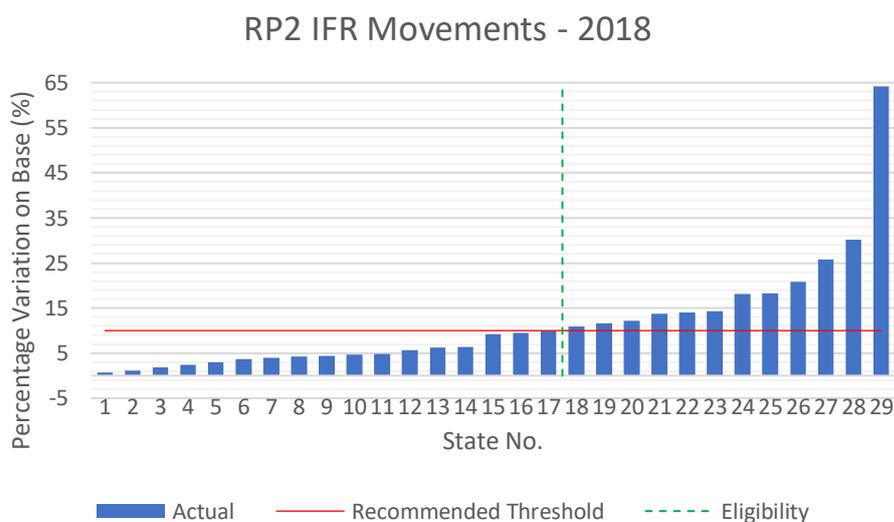


Figure 4 - Comparison of actual IFR movements for each SES Member compared to the STATFOR base forecast within the context of the alert threshold.

- 24 Figure 4 shows that during RP2, 12 Members States had actual IFR movements that were greater than +/-10% compared to the STATFOR base forecast.
- 25 Compared with Figure 3, the analysis suggests STATFOR also under-/overestimated the traffic variations. The February high/low STATFOR forecast preceding RP2 showed that only three Member States could be expected to exceed the +/- 10% from base (i.e. the alert threshold)
- 26 Thus, historically it is likely for many Member States' actual IFR movement traffic to deviate by more than the variation predicted by the STATFOR forecast and even the current +/-10% threshold, particularly towards the end of a five-year Reference Period.

- 27 However, since each revision request is judged on a case-by-case basis and tested against the full set of provisions set out in the Implementing Regulations, the PRB deem this an insufficient reason to deviate from a proposal of +/- 10%.

3. Recommendation

- 28 On account of the $\pm 10\%$ traffic risk sharing limit, the status quo and the similarity of STATFOR forecast characteristics between RP1, RP2 and RP3; it is determined that setting both alert thresholds at the same level is suitable i.e.:
- At Member State level:
 - An alert threshold for percentage variation of actual IFR movements in relation to the base forecast at **10%**.
 - An alert threshold for percentage variation of actual service units in relation to the base forecast at **10%**.
- 29 The prevailing traffic during RP3 shall be monitored by the PRB to determine the effectiveness of the option, future alert thresholds setting and whether STATFOR forecasts are improving.
- 30 Through experience during RP1 and RP2, the PRB consider this threshold enables those Member States with genuine business need to adjust their targets eligible to make a request.