

Horizontal flight efficiency (KEA) target for RP3

1. This note aims to set out our current thinking with regard to RP3 targets for horizontal flight efficiency (KEA) following recent developments. No target was proposed in our draft RP3 proposals as the EU target and, most importantly, the national reference values for KEA were not known at the time of our consultation.
2. Stakeholders are asked to provide any feedback on this note by **2 August 2019**. Comments should be sent to economicregulation@caa.co.uk and will be taken into account when we publish our final performance plan and will inform associated licence conditions for RP3.
3. The note includes the following sections:
 - a) Background
 - b) EU target
 - c) NERL's proposal
 - d) CAA's current thinking
 - e) Next steps

Background

4. KEA is the horizontal en route flight efficiency of the actual trajectory and is the key performance indicator in the environment area under the performance scheme¹. The target is applied at the local (FAB² or national) level. KEA is defined as:
 - a comparison between the length of the en route part of the actual trajectory derived from surveillance data and the achieved distance in local airspace, summed over Instrument Flight Rules (IFR) flights within or traversing the local airspace;
 - the 'en route part' refers to the distance flown outside a circle of 40 nautical miles diameter around the origin and destination airports;
 - where a flight departs from or arrives at an airport outside the local airspace, the entry or exit points of the local airspace are used for the calculation of this indicator;
 - the indicator is calculated for the whole calendar year and for each year of the reference period, excluding the ten highest and ten lowest daily values.

¹ Regulation (EU) 2019/317 laying down a performance and charging scheme in the single European sky and repealing Implementing Regulations (EU) No 390/2013 and (EU) No 391/2013, available from: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32019R0317&from=EN>.

² Functional Airspace Block. In RP2, our performance plan was a joint plan of the UK and Ireland FAB and the KEA target was set at the level of the FAB. For RP3, the UK is submitting a national performance plan and the KEA target will therefore be set at national level.

5. At the time we published our draft RP3 proposals, the EU target for KEA or the associated national reference values were not known.
6. We confirmed that, as in RP2, we did not intend to apply a financial incentive on KEA but would do so on the other and UK-specific environmental metric, 3Di, as the latter is more suited to assessing flight efficiency in UK airspace and is preferred by airspace users over KEA. We also said we intended to continue to report annually to the Commission on KEA performance.

EU target

7. EU targets for KEA were agreed through Commission Decision 2019/903 of 29 May 2019³ and are illustrated in the table below along with European performance to date. The Commission’s proposals were predicated on advice from the Performance Review Body (PRB) and based mainly on the expected benefits of implementing Free Route Airspace (FRA) for which the European deadline is 2022.

Table 1: KEA EU-wide targets and actual performance to date

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Target	2.96%	2.87%	2.78%	2.69%	2.60%	2.5%	2.5%	2.4%	2.4%	2.4%
Actual	2.81%	2.98%	2.81%	2.84%	n/a	n/a	n/a	n/a	n/a	n/a

8. We consider that the EU target is ambitious given historic performance to date.
9. On 5 July 2019, the Commission sent Member States the expected national and FAB reference values that will contribute to the EU-wide target. The UK reference values are presented in table below.

Table 2: UK national reference values for KEA

UK	Baseline (2018 A)	2019	2020	2021	2022	2023	2024
KEA	4.08%	n/a	3.53%	3.39%	3.25%	3.25%	3.25%

10. The values represent a 0.83 KEA-points improvement in the 2024 figure compared to the 2018 baseline. For RP3 values, this represents an annual growth of around 4% year on year until 2022, after which the level of (in)efficiency remains constant.
11. The information provided to Member States by the Commission was not accompanied by any explanation or narrative to the proposed reference values. The contribution is thought to be calculated by the Network Manager, who previously shared an expected c. 0.6 KEA-

³ Commission Implementing Decision (EU) 2019/903 of 29 May 2019 setting the Union-wide performance targets for the air traffic management network for the third reference period starting on 1 January 2020 and ending on 31 December 2024, available from: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:32019D0903>.

points improvement expectation for the UK-Ireland FAB by 2022, based on FRA implementation in the UK.

NERL’s proposal

- 12. Absent provision of national KEA reference values by the EU, in March 2019 we asked NERL to propose a challenging but meaningful UK KEA profile for RP3, taking into account a wide range of factors. We asked NERL to consider performance to date, RP3 traffic forecasts, planned FRA roll-out and other investments aimed at improving flight efficiency. We also asked NERL to set out any other interdependencies that affect the proposed profile.
- 13. NERL’s proposals considered the relationship between traffic level and KEA to estimate future performance. Their analysis concluded that traffic growth would generate continuous increase in inefficiency throughout RP3.

Table 3: NERL’s proposal for KEA

NERL	2018 A	2019	2020	2021	2022	2023	2024
KEA	4.08%	4.18%	4.23%	4.25%	4.27%	4.29%	4.30%

CAA’s current thinking

- 14. In proposing a target, we have considered the following factors:
 - o historical performance to date, which points to roughly 0.2% year on year rate of improvement since 2014;
 - o NERL’s proposal and the stress placed on improving KEA in the context of anticipated traffic growth;
 - o the proposed national reference values, noting the absence of supporting explanatory material;
 - o the timing of NERL’s implementation of FRA – according to NERL’s business plan, full FRA will not be available until 2022, which suggest the improvement expected by the Network Manager in 2018-2022 may only be observable in terms of KEA performance towards the end of RP3.
- 15. On balance, we consider that a meaningful – both challenging and realistic – UK target should be based on historical performance until 2022, mindful of traffic growth but also the gradual implementation of FRA, with the target for 2023 and 2024 uplifted by Network Manager’s anticipated annual rate of improvement resulting from FRA implementation of c. 4%, following UK full FRA implementation.

Table 4: CAA's target for KEA

KEA	2014	RP2					RP3					
		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2018-2024 CAGR
UK actual	4.10%	3.93%	4.38%	4.15%	4.08%	n/a	n/a					
NERL proposal					4.08%	4.18%	4.23%	4.25%	4.27%	4.29%	4.30%	0.9%
EC Reference values					4.08%	n/a	3.53%	3.39%	3.25%	3.25%	3.25%	-3.7%
CAA proposal					4.08%	4.05%	4.06%	4.05%	4.04%	3.88%	3.72%	-1.5%

16. Our current proposal represents a 0.36 KEA-points improvement vs. the 2018 baseline. This is less than the expectation set out by the Commission, but represents an annual improvement rate of -1.5% vs actual performance in 2018. This approach balances historic performance to date, anticipated traffic growth and the expected impact of FRA implementation.

Next steps

17. We will take account of feedback provided on this note by **2 August 2019** in determining our final policy for RP3. It will not be possible to consider feedback provided after this date. Our final policy will be published along with our final RP3 Performance Plan proposals.