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of 16 December 2024

amending Implementing Regulation (EU) 2019/317 as regards new and revised monitoring indicators for the performance and charging scheme in the single European sky

(Text with EEA relevance)

THE EUROPEAN COMMISSION,

Having regard to the Treaty on the Functioning of the European Union,

Having regard to Regulation (EC) No 549/2004 of the European Parliament and of the Council of 10 March 2004 laying down the framework for the creation of the single European sky (the framework Regulation) ([1]), and in particular Article 11(6) thereof,

Whereas:

(1) The performance and charging scheme in the single European sky set up in accordance with Commission Implementing Regulation (EU) 2019/317 ([2]) contains regulatory instruments to set targets and to monitor and report on the performance of air navigation services and network functions in the key performance areas of safety, environment, capacity, and cost efficiency. In addition to key performance indicators on which targets are set, the scheme includes indicators for monitoring the performance in all four key performance areas for both *en route* and terminal air navigation services, as well as network functions, to improve the overall performance of the network.

(2) New developments in measurement of performance and availability of data have allowed to improve the existing indicators and to add new indicators for monitoring the performance of air navigation services and network functions. The information which the new and improved indicators can provide is crucial for the development of the performance and charging scheme in future reference periods.

(3) The work of the performance review body referred to in Article 11(2) of Regulation (EC) No 549/2004 has shown that it is necessary to explore ways to improve the environmental performance of the network to contribute to the implementation of the requirements of the European Green Deal ([3]). Currently, only certain elements of the flight trajectory are covered by the indicators. Therefore, new indicators are necessary in order to measure more precisely the environmental performance of certain elements such as continuous climb operation, taxi-in time, and vertical flight efficiency. In addition, to improve environmental and overall performance, indicators for monitoring in the key performance area of capacity capturing throughput should be included.

(4) The introduction of new or amended indicators should not increase the reporting burden as such indicators should be calculated largely on the basis of data already available to Eurocontrol.

(5) Due to the number of amendments that need to be made in Annex I to Implementing Regulation (EU) 2019/317 and in order to improve its structural and linguistic coherence, that Annex should be replaced entirely.

(6) This Regulation should apply in the fourth reference period and in the subsequent reference periods.

([1]) OJ L 96, 31.3.2004, p. 1, ELI: http://data.europa.eu/eli/reg/2004/549/oj.

([2]) Commission Implementing Regulation (EU) 2019/317 of 11 February 2019 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 (OJ L 56, 25.2.2019, p. 1, ELI: http://data.europa.eu/eli/reg_impl/2019/317/oj).

([3]) Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions 'The European Green Deal' (COM/2019/640 final).

(7) The measures provided for in this Regulation are in accordance with the opinion of the Single Sky Committee,

HAS ADOPTED THIS REGULATION:

Article 1

Implementing Regulation (EU) 2019/317 is amended as follows:

Annex I is replaced by the text in the Annex to this Regulation;

In Annex VI, point 3(a), '2018' is replaced by '2019'.

Article 2

This Regulation shall enter into force on the twentieth day following that of its publication in the *Official Journal of the European Union*.

It shall apply from 1 January 2025.

This Regulation shall be binding in its entirety and directly applicable in all Member States.

Done at Brussels, 16 December 2024.

For the Commission
The President
Ursula VON DER LEYEN

ANNEX

'ANNEX I

KEY PERFORMANCE INDICATORS (KPI) FOR TARGET SETTING AND INDICATORS FOR MONITORING

SECTION 1

KPIs for Union-wide target setting and indicators for monitoring at Union level

1. SAFETY

1.1. Key performance indicators

The minimum level of the effectiveness of safety management to be achieved by air navigation service providers certified to provide air traffic services. This KPI measures the level of implementation of the following safety management objectives:

(a) safety policy and objectives;

(b) safety risk management;

(c) safety assurance;

(d) safety promotion;

(e) safety culture.

1.2. Indicators for monitoring

(a) The rate of runway incursions at Union level with a safety impact calculated in accordance with point 1.2(a) of Section 2;

(b) the rate of separation minima infringements at Union level with a safety impact calculated in accordance with point 1.2(b) of Section 2.

2. ENVIRONMENT

2.1. Key performance indicators

This KPI measures the average horizontal *en route* flight efficiency of the actual trajectory, calculated as follows:

(a) the comparison between the length of the *en route* part of the actual trajectory derived from surveillance data and the achieved distance, summed over IFR flights within or traversing the European airspace as defined in Article 1;

(b) "*en route* part" refers to the distance flown outside a circle of 40 NM around the airports;

(c) where a flight departs from or arrives at an airport outside the European airspace, the entry or exit points of the European airspace are used for the calculation of this indicator as the origin or destination respectively, rather than the departure or destination airport;

(d) where a flight departs from and arrives at an airport inside the European airspace and crosses non-European airspace, only the part inside the European airspace is used for the calculation of this indicator;

(e) "achieved distance" is a function of the position of the entry and exit points of the flight into and out of each portion of airspace for all parts of the trajectory. Achieved distance represents the contribution that those points make to the great circle distance between origin and destination of the flight;

(f) the indicator is calculated for the whole calendar year and for each year of the reference period, as an average. When calculating this average, the ten highest daily values and the ten lowest daily values are excluded from the calculation.

2.2. **Indicators for monitoring**

(a) The average horizontal *en route* flight efficiency of the last filed flight plan trajectory, calculated as follows:

(i) the difference between the length of the *en route* part of the last filed flight plan trajectory and the corresponding portion of the great circle distance, summed over all IFR flights within or traversing the European airspace;

(ii) "*en route* part" refers to the distance flown outside a circle of 40 NM around the airports;

(iii) where a flight departs from or arrives at an airport outside the European airspace, the entry or exit points of the European airspace are used for the calculation of this indicator as the origin or destination respectively, rather than the departure or destination airport;

(iv) where a flight departs from and arrives at an airport inside the European airspace and crosses non-European airspace, only the part inside the European airspace is used for the calculation of this indicator;

(v) the indicator is calculated for the whole calendar year and for each year of the reference period, as an average. When calculating this average, the ten highest daily values and the ten lowest daily values are excluded from the calculation.

(b) The average horizontal *en route* flight efficiency of the shortest constrained trajectory, calculated as follows:

(i) the difference between the length of the *en route* part of the shortest constrained route available for flight planning, as calculated by the path finding algorithms and flight plan validation systems of the Network Manager, and the corresponding portion of the great circle distance summed over all IFR flights within or traversing the European airspace;

(ii) this indicator considers the airspace restrictions on days with and without military activities published in the Route Availability Document (RAD) issued by the Network Manager and the actual status of conditional routes at the time of the last filed flight plan;

(iii) "*en route* part" refers to the part outside a circle of 40 NM around the airports;

(iv) where a flight departs from or arrives at an airport outside the European airspace, the entry or exit points of the European airspace are used for the calculation of this indicator as the origin or destination respectively, rather than the departure or destination airport;

(v) where a flight departs from and arrives at an airport inside the European airspace and crosses a non-European airspace, only the part inside the European airspace is used for the calculation of this indicator;

(vi) the indicator is calculated for the whole calendar year and for each year of the reference period, as an average. When calculating this average, the ten highest daily values and the ten lowest daily values are excluded from the calculation.

(c) The vertical flight efficiency of the actual trajectory between the top of climb and the top of descent, calculated as follows:

(i) this indicator is the percentage of the length of the actual trajectory flown within 1 000 ft below, or at any altitude above the planned flight level from the last filed flight plan, summed over all IFR flights within or traversing European airspace

(ii) the indicator is calculated as a percentage for the whole calendar year and for each year of the reference period.

(d) The effective use of reserved or segregated airspace calculated as the ratio of the finally used time for segregation or reservation from general air traffic to the initially allocated time for the activity requiring segregation or reservation. The indicator is calculated for all airspace allocations notified to the Network Manager.

(e) The rate of planning through available airspace structures, including reserved or segregated airspace, for general air traffic calculated as the percentage of aircraft filing flight plans via such airspace structures to the number of aircraft that could have planned through those airspace structures. The indicator is calculated for all airspace allocations notified to the Network Manager.

(f) The rate of using available airspace structures, including reserved or segregated airspace, by general air traffic calculated as the percentage of aircraft flying via such airspace structures to the number of aircraft that could have planned through these airspace structures. The indicator is calculated for all airspace allocations notified to the Network Manager.

3. CAPACITY

3.1. **Key performance indicator**

The average minutes, of *en route* ATFM delay per flight attributable to air navigation services, calculated as follows:

(a) the *en route* ATFM delay is the delay calculated by the Network Manager, expressed as the difference between the estimated take-off time and the calculated take-off time allocated by the Network Manager;

(b) for the purposes of this indicator:

"estimated take-off time" means the forecast of time when the aircraft will become airborne calculated by the Network Manager and based on the last estimated off-block time, or target off-block time for those airports covered by airport collaborative decision-making procedures, plus the estimated taxi-out time calculated by the Network Manager;

"calculated take-off time" means the time allocated by the Network Manager on the day of operation, as a result of tactical slot allocation, at which a flight is expected to become airborne;

"estimated taxi-out time" means the estimated time between off-block and take-off. This estimate includes any delay buffer time at the holding point or remote de-icing prior to take-off;

(c) this indicator covers all IFR flights and all ATFM delay causes, excluding exceptional events;

(d) this indicator is calculated for the whole calendar year and for each year of the reference period.

3.2. **Indicators for monitoring**

(a) The average time, expressed in minutes, of arrival ATFM delay per flight attributable to terminal and airport air navigation services and caused by landing restrictions at the destination airport, calculated as follows:

(i) the average generated arrival ATFM delay per inbound IFR flight;

(ii) this indicator includes all IFR flights landing at the destination airport and covers all arrival ATFM delay causes, excluding exceptional events;

(iii) this indicator is calculated for the whole calendar year and for each year of the reference period.

(b) The percentage of flights with en route ATFM delay greater than 15 minutes, calculated as below:

(i) en route ATFM delay calculated in accordance with point 3.1(a);

(ii) this indicator covers all IFR flights and all ATFM delay causes, excluding exceptional events;

(iii) this indicator is calculated for the whole calendar year and for each year of the reference period.

(c) The average time, expressed in minutes, of all cause-departure delay per flight, calculated as follows:

(i) the average delay attributable to:

— delays due to airline operations,

— *en route* ATFM delay reported by airspace users,

— reactionary (knock-on) delay,

— airport operations delay, including ATFM airport delay reported by airspace users caused by regulation based on traffic volume which has a reference location classified as Aerodrome Zone or Aerodrome;

(ii) covering all IFR flights and is calculated for the whole calendar year and for each year of the reference period.

4. COST-EFFICIENCY

4.1. **Key performance indicators**

The year-on-year change of the average Union-wide "determined unit cost" (DUC) for *en route* air navigation services, calculated as follows:

(a) a percentage, reflecting the year-on-year variation of the average Union-wide DUC for *en route* air navigation services, starting from the baseline value referred to in Article 9(4), point (a);

(b) calculated for the whole calendar year and for each year of the reference period;

(c) the average Union-wide DUC for *en route* air navigation services is the ratio between the *en route* determined costs and the *en route* forecast traffic, expressed in *en route* service units, expected during each year of the reference period at Union level, as contained in the Commission's assumptions for establishing the Union-wide performance targets in accordance with Article 9(3);

(d) the average Union-wide DUC for *en route* air navigation services is calculated in euro and in real terms.

4.2. **Indicators for monitoring**

The actual unit cost incurred by users separately for *en route* and terminal air navigation services at Union level, calculated as follows:

(a) the weighted average of the sum of the DUC for each Member State for air navigation services and of the adjustments in accordance with Article 25(2) stemming from that year;

(b) expressed in euro and in nominal terms;

(c) calculated for the whole calendar year and for each year of the reference period.

SECTION 2

KPIs for target setting at local level and indicators for monitoring at local level

1. SAFETY

1.1. **Key performance indicator**

The level of the effectiveness of safety management in accordance with point 1.1 of Section 1.

For the purposes of this indicator, "local" means at the level of air navigation service providers.

1.2. **Indicators for monitoring**

(a) The rate of runway incursions at airports located in a Member State, calculated as the total number of runway incursions with a safety impact that occurred at those airports divided by the total number of instrument flight rules (IFR) and visual flight rules (VFR) movements at those airports.

(b) The rate of separation minima infringements within the airspace of all controlling air traffic services units in a Member State, calculated as the total number of separation minima infringements with a safety impact that occurred in that airspace divided by the total number of controlled flight hours within that airspace.

(c) The rate of runway incursions at an airport calculated as the total number of runway incursions with any contribution from air traffic services or communication, navigation and surveillance (CNS) services with a safety impact that occurred at that airport divided by the total number of IFR and VFR movements at that airport.

(d) The rate of separation minima infringements within the airspace where the air navigation service provider provides air traffic services, calculated as the total number of separation minima infringements with any contribution from air traffic services, or CNS services with a safety impact divided by the total number of controlled flight hours within that airspace.

The indicators for monitoring referred to in this point shall be calculated for the whole calendar year and for each year of the reference period.

For the purposes of the indicators set out in points (a) and (c), "local" means at airport level. For the purposes of the indicator set out in point (b), "local" means at national level. For the purposes of the indicator set out in point (d), "local" means the level of air navigation service providers.

2. ENVIRONMENT

2.1. **Key performance indicator**

The average horizontal *en route* flight efficiency of the actual trajectory, calculated as follows:

(a) the comparison between the length of the *en route* part of the actual trajectory derived from surveillance data and the achieved distance, summed over IFR flights within or traversing the local airspace;

(b) "*en route* part" refers to the distance flown outside a circle of 40NM around the origin and destination airports;

(c) 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;

(d) where a flight departs from and arrives at an airport inside the local airspace and crosses a non-local airspace, only the part inside the local airspace is used for the calculation of this indicator;

(e) "achieved distance" is a function of the position of the entry and exit points of the flight into and out of the local airspace. Achieved distance represents the contribution that those points make to the great circle distance between origin and destination of the flight;

(f) for the purposes of this indicator, "local" means at national level or at the level of functional airspace blocks, depending on the level at which the performance plan is established;

(g) the indicator is calculated for the whole calendar year and for each year of the reference period, as an average. When calculating this average, the ten highest daily values and the ten lowest daily values are excluded from the calculation.

2.2. **Indicators for monitoring**

(a) The average horizontal *en route* flight efficiency of the last filed flight plan trajectory, calculated at local level as follows:

(i) the difference between the length of the *en route* part of the last filed flight plan trajectory and the corresponding portion of the great circle distance, summed over all IFR flights within or traversing the local airspace;

(ii) "*en route* part" refers to the distance flown outside a circle of 40 NM around the airports;

(iii) 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;

(iv) where a flight departs from and arrives at an airport inside the local airspace and crosses a non-local airspace, only the part inside the local airspace is used for the calculation of this indicator;

(v) calculated for the whole calendar year and for each year of the reference period, as an average. When calculating this average, the ten highest daily values and the ten lowest daily values are excluded from the calculation.

(b) The average horizontal *en route* flight efficiency of the shortest constrained trajectory, calculated at local level as follows:

(i) the difference between the length of the *en route* part of the shortest constrained route available for flight planning, as calculated by the path finding algorithms and flight plan validation systems of the Network Manager, and the achieved distance summed over all IFR flights within or traversing the local airspace;

(ii) this indicator considers the airspace restrictions published in the Route Availability Document issued by the Network Manager and the actual status of conditional routes at the time of the last filed flight plan;

(iii) "*en route* part" refers to the part outside a circle of 40NM around the origin and destination airports;

(iv) 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;

(v) where a flight departs from and arrives at an airport inside the local airspace and crosses a non-local airspace, only the part inside the local airspace is used for the calculation of this indicator;

(vi) "achieved distance" is a function of the position of the entry and exit points of the flight into and out of the local airspace. Achieved distance represents the contribution that those points make to the great circle distance between origin and destination of the flight;

(vii) calculated for the whole calendar year and for each year of the reference period, as an average. When calculating this average, the ten highest daily values and the ten lowest daily values are excluded from the calculation.

(c) The vertical flight efficiency of the actual trajectory between the top of climb and the top of descent, calculated as follows:

(i) this indicator is the percentage of the length of the actual trajectory flown within 1 000 ft below, or at any altitude above the planned flight level from the last filed flight plan, summed over all IFR flights within or traversing the local airspace.

(ii) the indicator is calculated as a percentage for the whole calendar year and for each year of the reference period.

(d) The additional time in the taxi-out phase, calculated at local level as follows:

(i) the difference between the actual taxi-out time and the reference taxi-out time;

(ii) the reference taxi-out time represents the optimal transit time required to taxi-out without holding;

(iii) expressed in minutes per departure, calculated for the whole calendar year and for each year of the reference period.

(e) The additional time in the taxi-in phase, calculated at local level as follows:

(i) the difference between the actual taxi-in time and the reference taxi-in time;

(ii) the reference taxi-in time represents the optimal transit time required to taxi-in without holding;

(iii) expressed in minutes per arrival, calculated for the whole calendar year and for each year of the reference period.

(f) The additional time in terminal airspace, calculated at local level as follows:

(i) the difference between the Arrival Sequencing and Metering Area (ASMA) transit time and the reference time based on ASMA transit times;

(ii) the reference ASMA time represents the transit time required to execute the approach without holding or vectoring;

(iii) expressed in minutes per arrival calculated for the whole calendar year and for each year of the reference period;

(iv) the ASMA is defined as a cylinder with a radius of 40 NM around the arrival airport.

(g) The vertical flight efficiency of the descent, calculated at local level as follows:

(i) the duration of level flight from the top of descent to landing of all arriving IFR flights;

(ii) expressed as the average duration of level flight in seconds per arrival;

(iii) calculated for the whole calendar year and for each year of the reference period.

(h) The vertical flight efficiency of the climb, calculated at local level as follows:

(i) the duration of level flight from take-off to the top of climb of all departing IFR flights;

(ii) expressed as the average duration of level flight in seconds per departure;

(iii) calculated for the whole calendar year and for each year of the reference period.

(i) The effective use of reserved or segregated local airspace, calculated in accordance with point 2.2(d) of Section 1.

(j) The rate of planning via available local airspace structures, calculated in accordance with point 2.2(e) of Section 1.

(k) The rate of using available local airspace structures, calculated in accordance with point 2.2(f) of Section 1.

For the purposes of the indicators set out in points (a), (b), and (c), "local" means at national level or at the level of functional airspace blocks depending on the level at which the performance plan is established, including cases of delegation of the responsibility for the provision of air traffic services as a result of collaborative cross-border arrangements.

For the purposes of the indicators set out in points (d), (e) and (f), "local" means at airport level with a minimum of 80 000 IFR air transport movements per year.

For the purposes of the indicators set out in points (g) and (h), "local" means at airport level.

For the purposes of the indicators set out in points (i), (j) and (k), "local" means at national level with a breakdown at the level of area control centres' area of responsibility, including cases of delegation of the responsibility for the provision of air traffic services as a result of collaborative cross-border arrangements.

3. CAPACITY

3.1. **Key performance indicators**

(a) The average time, expressed in minutes, of *en route* ATFM delay per flight attributable to air navigation services, calculated as follows:

(i) the *en route* ATFM delay, calculated in accordance with point 3.1 of Section 1;

(ii) this indicator covers all IFR flights traversing the local airspace and all ATFM delay causes, excluding exceptional events; it also covers IFR flights traversing other airspaces, when delay corrections are applied as a result of the post-operations delay adjustment process coordinated by the Network Manager through which operational stakeholders notify the Network Manager of issues that relate to ATFM delay measurement, classification and assignment;

(iii) calculated for the whole calendar year and for each year of the reference period;

(iv) for monitoring, the values calculated for this indicator are broken down at national level in case the performance plan is established at functional airspace block level, including cases of delegation of the responsibility for the provision of air traffic services as a result of collaborative cross-border arrangements.

(b) The average time, expressed in minutes, of arrival ATFM delay per flight attributable to terminal and airport air navigation services, calculated at local level as follows:

(i) the average arrival delay at the destination airport caused by ATFM regulations per inbound IFR flight;

(ii) cover all IFR flights landing at the destination airport and all ATFM delay causes, excluding exceptional events;

(iii) calculated for the whole calendar year and for each year of the reference period;

(iv) for monitoring, the values calculated for this indicator are broken down at airport level.

For the purposes of the indicator set out in point (a), "local" means at national level or at the level of functional airspace blocks depending on the level at which the performance plan is established. For the purposes of the indicator set out in point (b), "local" means at national level.

3.2. **Indicators for monitoring**

(a) The percentage of IFR flights adhering to their ATFM departure slots at local level calculated for the whole calendar year and for each year of the reference period.

(b) The average time, expressed in minutes, of air traffic control pre-departure delay per flight caused by take-off restrictions at the departure airport, calculated at local level as follows:

(i) the average air traffic control pre-departure delay per outbound IFR flight;

(ii) include all IFR flights taking off at the departure airport and cover delays in start-up caused by air traffic control constraints when the aircraft is ready to leave the departure stand;

(iii) this indicator is calculated for the whole calendar year and for each year of the reference period.

(c) The average time, expressed in minutes, of departure delay from all causes per flight, calculated at local level in accordance with point 3.2(c) of Section 1.

(d) The percentage of the total en route ATFM delay minutes that occurred on days when the daily throughput was above the expected daily traffic, calculated as follows:

(i) en route ATFM delay calculated in accordance with point 3.1 of Section 1;

(ii) expected daily traffic refers to the daily traffic profile (guideline traffic) calculated by the Network Manager in January of each year;

(iii) airspace throughput and traffic demand are measured as daily IFR flight entries in the airspace;

(iv) the airspace is the area of responsibility defined for the calculation of en route ATFM delays.

(e) The annual weighted average of the daily peak throughput, expressed as a number of IFR flights per hour, calculated as follows:

(i) the daily peak throughput is an arithmetic average of the number of IFR flights during the three hours of each day with the highest number of flights;

(ii) the value used to calculate the weighting is the number of IFR flights per day.

For the purposes of the indicator set out in point (a), "local" means at national level with a breakdown at airport level.

For the purposes of the indicators set out in points (b) and (c), "local" means at airport level for airports with 80 000 IFR air transport movements or more per year.

For the purposes of indicators set out in points (d) and (e), "local" means at area control centre level.

4. COST-EFFICIENCY

4.1. **Key performance indicators**

(a) The DUC for *en route* air navigation services, calculated as follows:

(i) the ratio between the *en route* determined costs and the forecast traffic in the charging zone, expressed in *en route* service units, expected during each year of the reference period at local level, contained in the performance plans;

(ii) expressed in real terms and in national currency;

(iii) calculated for the whole calendar year and for each year of the reference period.

(b) The DUC for terminal air navigation services, calculated as follows:

(i) the ratio between the determined costs and the forecast traffic, expressed in terminal service units, expected during each year of the reference period at local level, contained in the performance plans;

(ii) expressed in real terms and in national currency;

(iii) calculated for the whole calendar year and for each year of the reference period.

For the purposes of the indicators set out in points (a) and (b), "local" means at charging zone level.

4.2. **Indicators for monitoring**

The actual unit cost incurred by users separately for *en route* and terminal air navigation services, calculated as follows:

(a) a sum of the DUC for air navigation services and of the adjustments in accordance with Article 25(2) stemming from that year;

(b) expressed in nominal terms and in national currency;

(c) calculated for the charging zone level for the whole calendar year and for each year of the reference period.

SECTION 3

KPIs for target setting and indicators for monitoring of the network functions

1. All the indicators set out in this Section shall apply to the geographic area within the scope of this Regulation.

2. SAFETY

2.1. **Key performance indicators**

The level of the effectiveness of safety management of the Network Manager in accordance with point 1.1 of Section 1.

2.2. **Indicators for monitoring**

The ATFM over-deliveries above the capacity limits of a sector declared by the air navigation service provider where ATFM regulations are imposed, calculated as follows:

(a) the ratio between the time that the number of flights exceeds by more than 10 % the capacity limits of a sector declared by the air navigation service provider where ATFM regulations are imposed, and the total time where ATFM regulations are imposed, calculated for the whole calendar year and for each year of the reference period;

(b) for the purposes of this indicator, the regulated time is divided in overlapping hourly segments at every 20-minutes interval.

3. ENVIRONMENT

3.1. **Key performance indicators**

The *en route* flight efficiency improvement generated by the European Route Network Design function related to the last filed flight plan trajectory, expressed as a percentage point of the year-on-year variation of the *en route* flight efficiency of the last filed flight plan trajectory and calculated in accordance with point 2.2(a) of Section 1.

3.2. **Indicators for monitoring**

The annual sum of route extensions resulting from the CDM network procedures and Network Manager Operations Centre actions for *en route* ATFM delay savings. Route extensions are measured in nautical miles as the differences between the distance of the actual trajectories after flights accepted rerouting proposals from the Network Manager and the distance of the last filed flight plan trajectories before accepting the rerouting proposals.

4. CAPACITY

4.1. **Key performance indicators**

(a) The percentage of total initial minutes of *en route* ATFM delay saved as a result of Collaborative Decision-Making network procedures and Network Manager Operations Centre actions. The saved *en route* ATFM delay is calculated as the difference between the initial delay of the IFR flight without the measures and the *en route* ATFM delay of that flight after the delay-saving actions. The *en route* ATFM delay is calculated in accordance with point 3.1 of Section 1.

(b) The percentage of total initial minutes of arrival ATFM delay saved as a result of Collaborative Decision-Making network procedures and Network Manager Operations Centre actions. The saved arrival ATFM delay is calculated as the difference between the initial delay of the IFR arrival without the measures and the airport arrival ATFM delay of that flight after the delay-saving actions. The arrival ATFM delay is calculated in accordance with point 3.2(a) of Section 1.

4.2. **Indicators for monitoring**

(a) The average, over a calendar year, of the daily number of ATFM regulations that each produces less than 200 minutes of delay.

(b) The average, over a calendar year, of *en route* ATFM weekend delay expressed in minutes of delay per flight.

(c) The annual percentage of all first rotation ATFM delays for a pre-selection of area control centres and airports with the most significant potential delay reduction as identified annually by the Network Manager, calculated as follows:

(i) *en route* ATFM delay calculated in accordance with point 3.1 of Section 1;

(ii) the hourly ATFM delay attribution is based on the estimated time of entry into the *en route* airspace affected;

(iii) arrival ATFM delay calculated in accordance with point 3.2(a) of Section 1.

5. COST-EFFICIENCY

5.1. **Indicators for monitoring**

The unit cost for the execution of the tasks of the Network Manager, calculated as follows:

(a) the ratio between the actual costs for the execution of the tasks of the Network Manager and the *en route* traffic, expressed in *en route* service units, during the reference period, at the level of the geographical area where the Network Manager performs its tasks necessary for the execution of the network functions;

(b) expressed in euro and in real terms;

(c) calculated for the whole calendar year and for each year of the reference period.'