Ordinance
on the Acquisition and Reporting of Tonne-Kilometre Data relating to Distances Covered by Aircraft

of 2 June 2017 (Status as of 1 July 2017)

The Swiss Federal Council,

on the basis of Article 16 paragraph 1 of the CO₂ Act of 23 December 2011¹ and Article 58 paragraph 2 of the Federal Civil Aviation Act of 21 December 1948² in conjunction with Article 47 paragraph 4 of the Government and Administration Act of 21 March 1997³,

ordains:

Art. 1 Purpose and acquisition unit

¹ This Ordinance regulates the acquisition of data relating to distances covered by aircraft in 2018 and the corresponding payloads, and the reporting thereof.

² In this Ordinance, the term «aircraft» refers to aircraft as defined in the Annex to the Civil Aviation Ordinance of 14 November 1973⁴.

³ The acquired data are reported in tonne-kilometres and calculated in accordance with the instructions in Annex 1.

Art. 2 Responsibility for acquisition of data

¹ The operator of the aircraft concerned is responsible for the acquisition of the data.

² If the operator cannot be identified, the owner of the aircraft is deemed to be the aircraft operator.

Art. 3 Flights for which data have to be acquired

¹ Tonne-kilometre data have to be acquired for the following flights:

a. domestic flights;

AS 2017 3477

¹ SR 641.71
² SR 748.0
³ SR 172.010
⁴ SR 748.10
b. flights from Switzerland to member states of the European Economic Area (EEA);

c. flights from Basel-Mulhouse Airport to member states of the EEA, if they are performed under Swiss transport law in accordance with the treaty between Switzerland and France dated 4 July 1949 on the construction and operation of Basel-Mulhouse Airport in Blotzheim;

d. flights between Basel-Mulhouse Airport and Switzerland, if they are performed under Swiss transport law in accordance with the treaty between Switzerland and France dated 4 July 1949 on the construction and operation of Basel-Mulhouse Airport in Blotzheim.

2 Data do not have to be acquired for the following flights:

a. flights performed exclusively for the transport on official mission of a reigning monarch and his/her immediate family, heads of state, heads of government and government ministers, where this is substantiated by an appropriate status indicator in the flight plan;

b. military, customs and police flights;

c. flights relating to search and rescue, fire-fighting flights, humanitarian flights and emergency medical service flights;

d. flights performed exclusively under visual flight rules as defined in Annex 2 to the Convention of 7 December 1944 on International Civil Aviation;

e. flights terminating at the aerodrome from which the aircraft has taken off and during which no planned intermediate landing has been made;

f. training flights performed exclusively in order to acquire or maintain a licence, or a rating in the case of cockpit flight crew, where this is substantiated by an appropriate remark in the flight plan provided that the flights are not for the transport of passengers and/or cargo, or for the positioning or ferrying of aircraft;

g. flights performed exclusively for the purpose of scientific research;

h. flights performed exclusively for the purpose of checking, testing or certifying aircraft or airborne or ground-based equipment;

i. flights performed by aircraft with a certified maximum take-off mass of less than 5,700 kilograms;

j. flights performed by commercial operators in each of three successive four-month periods if they perform less than 243 flights in accordance with paragraph 1 or if their total annual emissions of CO₂ are below 10,000 tonnes;

k. flights performed by non-commercial operators if the total annual emissions of CO₂ from the flights performed by these operators in accordance with paragraph 1 are below 1,000 tonnes.
The exemptions cited in paragraph 2 letters j and k, do not apply to aircraft operators who were subject to the European emissions trading scheme in 2016.

For the allocation of flights to the four-month periods cited in paragraph 2 letter j, it is the local take-off time of each flight that is of relevance.

The basis for determining whether the emission limits in accordance with paragraph 2 letters j and k, have been reached or exceeded is a realistic estimate of the fuel consumption of all relevant flights in 2016.

Art. 4 Monitoring plan

Aircraft operators shall draw up a plan for the acquisition and reporting of the data (monitoring plan). For this purpose they shall use the template provided by the Federal Office for the Environment (FOEN).

The monitoring plan shall include all the information stipulated in Annex 2 section 1.2.

Art. 5 Evaluation of monitoring plan

Aircraft operators shall submit their monitoring plan by not later than 30 September 2017 to the FOEN for evaluation.

If a submitted monitoring plan fails to meet all the stated requirements, the FOEN may ask for it to be modified by a reasonable deadline.

Art. 6 Changes of relevance to the monitoring plan

Aircraft operators shall immediately inform the FOEN of any changes that require a modification of the monitoring plan.

In the event of a change in the status of the aircraft operator, the monitoring plan must be resubmitted to the FOEN for evaluation.

Art. 7 Monitoring report

In accordance with the monitoring plan, aircraft operators shall record the tonne-kilometres performed in the period from 1 January to 31 December 2018 and present the data in a monitoring report. For this purpose they shall use the template provided by the FOEN.

The monitoring plan shall include all the information stipulated in Annex 2 section 2.

Available from the FOEN website: www.bafu.admin.ch > Topics > Topic Climate > Information for specialists > Climate policy > Emissions trading

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Art. 8 Verification of monitoring report
1 Aircraft operators shall have their monitoring report verified by a verifier.
2 Verification shall be carried out as specified in Annex 3 sections 1 to 3.
3 Verifiers must meet the requirements specified in Annex 3 section 4.

Art. 9 Submission and evaluation of monitoring report
1 Aircraft operators shall submit their verified monitoring report to the FOEN for evaluation by not later than 31 March 2019.
2 If on the basis of the verification doubts should arise as to the correctness of the monitoring report, the FOEN may adjust the reported number of tonne-kilometres at its own dutiful discretion.

Art. 10 Archiving and processing of data
1 The FOEN shall archive the monitoring plans and reports and the data contained therein. It shall store the data safely and treat them as confidential.
2 The FOEN shall pass on the received data to the Federal Office of Civil Aviation (FOCA) if they are required for the implementation of measures to limit greenhouse gas emissions from the civil aviation sector. Archived data shall be subject to the provisions of the relevant archiving legislation.

Art. 11 Criminal provisions
1 Aircraft operators who submit false data shall be liable to the penalty under Article 91 paragraph 1 letter i, of the Federal Civil Aviation Act of 21 December 1948.
2 Aircraft operators who wilfully or negligently infringe the provisions of this Ordinance in another manner shall be liable to a fixed penalty imposed by the FOCA and not exceeding 5,000 Swiss francs.

Art. 12 Enforcement
1 The FOEN is responsible for enforcing this Ordinance.
2 The FOCA shall support the FOEN in the performance of its duties, in particular determining the flights for which data have to be collected and the evaluation of the monitoring plans and monitoring reports.

Art. 13 Amendments to the annexes
The Federal Department of the Environment, Transport, Energy and Communications (DETEC) may amend the annexes to this Ordinance in order to ensure that they are compatible with European Union legislation.
Art. 14 Commencement and duration
This Ordinance comes into force on 1 July 2017 and is valid until 31 December 2019.
Calculation rules

1  Calculation of tonne-kilometres

Tonne-kilometres shall be calculated on the basis of the following formula:

\[ \text{tonne-kilometres [tkm]} = \text{distance [km]} \times \text{payload [t]} \].

2  Terminology

2.1 Distance means the great circle distance between the aerodrome of departure and the aerodrome of arrival, plus an additional factor of 95 km.

2.2 Payload means the total mass of the conveyed freight, mail, passengers and baggage.

3  Calculation of payload

For the purpose of calculating the payload:

3.1 The number of passengers corresponds to the number of people on board, excluding crew members.

3.2 Aircraft operators may choose to apply:
   a. either the actual or standard mass for passengers and checked baggage contained in their mass and balance documentation; or
   b. a default value of 100 kilogrammes for each passenger and his/her checked baggage.
Annex 2
(Art. 4, para. 2 and 7, para. 2)

**Acquisition and reporting of tonne-kilometre data: monitoring plan and monitoring report**

1  **Monitoring plan**

1.1 The monitoring plan must guarantee that all flights for which data have to be collected are included and that the required data for each flight are calculated accurately.

1.2 The monitoring plan must include all the following information:

1.2.1 the details required to identify the aircraft operator;
1.2.2 the details required to identify the aircraft operated;
1.2.3 a description of the methodology for ensuring the complete acquisition of data for all aircraft and flights for which data have to be recorded;
1.2.4 a description of the method of data acquisition and management;
1.2.5 a description of the methodology for calculating the tonne-kilometres for each flight.

2  **Monitoring report**

The monitoring report must contain the following information:

2.1 the details required to identify the aircraft operator;
2.2 the details required to identify the verifier responsible for verifying the monitoring report;
2.3 the details required to identify the aircraft operated;
2.4 a description and substantiation of any deviations from the underlying monitoring plan;
2.5 the total of all tonne-kilometres for flights for which the data have to be recorded and which were performed by the operator in 2018;
2.6 for each aerodrome pair:

2.6.1 the ICAO\(^9\) aerodrome designation,
2.6.2 the distance,
2.6.3 the number of flights for which the data have to be recorded,
2.6.4 the number of passengers and transported payload,
2.6.5 the number of tonne-kilometres.

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\(^9\) International Civil Aviation Organisation; www.icao.int
Verfication of tonne-kilometre data and requirements to be met by the verifier

1 Duties of the verifier and the aircraft operator

1.1 The verifier shall verify the reliability, credibility and accuracy of the monitoring systems, the submitted data and other information as specified in Annex 2 section 2. In particular it shall ensure that the data permit the calculation of tonne-kilometres.

1.2 The aircraft operator shall grant the verifier access to all data and documentation that are required for the verification procedure. In particular, the aircraft operator shall obtain from Eurocontrol the necessary flight operation data or equivalent data and make them available to the verifier.

2 Specific requirements concerning verification

2.1 The verifier shall ensure that only those flights are taken into account:
   a. for which the aircraft operator is responsible;
   b. that have in fact been performed;
   c. for which data have to be recorded in accordance with this Ordinance.

2.2 For this purpose the verifier shall use the flight plan data and the data obtained by the aircraft operator from Eurocontrol or other sources.

2.3 The verifier shall ensure that the data reported by the aircraft operator relating to the payload correspond to the payload data applied by the aircraft operator.

3 Verification steps

The verification of monitoring reports shall be carried out as follows:

3.1 Analysis of all activities carried out by the aircraft operator (strategic analysis);

3.2 Performance of random checks in order to determine the reliability of the submitted data and other information (process analysis);

3.3 Analysis of error risk relating to the utilised data, and examination of the procedures for limiting error risk (risk analysis);

3.4 Preparation of a verification report in which it is stated whether the monitoring report meets the requirements of this Ordinance. The verification report shall list all relevant aspects of the activities carried out within the scope of the verification procedure.
4 Requirements to be met by the verifier

4.1 The verifier must be accredited for the mandated verification activity in accordance with:
   a. the Accreditation and Designation Ordinance of 17 June 1996¹⁰; or

4.2 The verifier must be independent of the aircraft operator and perform its duties professionally and objectively.

4.3 The verifier must be able to demonstrate that it possesses the required competence to verify tonne-kilometre data in the civil aviation sector and is familiar with the way in which all information for the monitoring report is produced, in particular with respect to the acquisition, calculation and transmission of data.

4.4 The verifier must be familiar with all the relevant provisions and applicable legal and administrative regulations.

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¹⁰ SR 946.512