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

## Explanatory notes

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Reference / document no.: L103-0189

### 1 Background information

CO<sub>2</sub> emissions from international air transport are increasing throughout the world, but to date they have not been the subject of international reduction targets in accordance with the Kyoto Protocol or the Paris Agreement. Nonetheless, international civil aviation is also responsible for contributing towards the achievement of the global target (warming by not more than 2°, respectively 1.5° C. The Kyoto Protocol stipulates in Article 2 that these emissions have to be regulated by the International Civil Aviation Organisation (ICAO). Since no global measures had been introduced by 2016, in 2008 the European Union (EU) decided to incorporate emissions from flights that take off or land at airports in the European Economic Area (EEA, EU member states, plus Iceland, Norway and Liechtenstein) as of 2012 into the European emissions trading scheme (EU ETS). This means that, with effect from 2012, aircraft operators are in principle required to issue emission allowances for all flights that take off and land in the EEA. They are allocated free of charge a portion of the emission allowances based on the number of tonne-kilometres recorded in 2010. From 2012 until the end of 2016, the obligation to participate in the EU ETS was restricted to flights within the EEA (stop-the-clock regulation). The EU thus waited for the development announced by the ICAO of a global measure. In October 2016, the general assembly of the ICAO confirmed the objective of targeting CO<sub>2</sub>-neutral growth as of 2020, and for this purpose to also introduce a global market-based measure for compensating CO<sub>2</sub> emissions above that level, namely *Carbon Offsetting and Reduction Scheme for International Aviation* (CORSIA). In response to this decision, on 3 February 2017 the European Commission proposed that the restriction of the EU ETS to flights within the EEA should be continued. This proposal still has to be debated and approved by the EU Parliament and the Council of Ministers. In addition, within the scope of the revision of the EU ETS for the period after 2020, the EU Parliament decided in its initial reading on 15 February 2017 that the quantity of emission allowances for aircraft operators is to be reduced by 10 percent on a one-time basis after 2020, and subsequently by 2.2 percent per annum, and to significantly increase the portion of auctioned emission allowances. Following the initial adoption by Parliament, the Council of Ministers also has to adopt the proposal, otherwise a second reading will be re-

quired. How the EU intends to integrate aviation into the ETS after 2020, and how a potential interaction with CORSIA could be structured, have yet to be decided.

As the basis for the allocation of emission allowances free of charge in the period from 2012 to 2020, the EU had carried out a data acquisition in 2010 concerning the tonne-kilometres performed by aircraft operators on flights within the EEA and between the EEA and third countries. This data acquisition thus also included flights between the EEA and Switzerland. The Swiss ETS currently encompasses 54 stationary industrial facilities. Switzerland commenced negotiations with the European Commission on linking the two ETS at the beginning of 2011, and the negotiations were concluded in January 2016 with the formulation of a corresponding agreement. For Swiss industrial companies it is important that the linking of the two ETS can be concluded as soon as possible, since they will not be able to buy and sell emission allowances on the large and liquid EU market (or have them credited in the Swiss ETS) until the linking has been effected.

In order for the agreement to enter into effect, it has to be signed and ratified by both parties. Following the adoption by Parliament in its 2016 winter session of a solution for the implementation of the federal people's initiative against mass immigration that is reconcilable with the principle of free movement of persons, the blockage of the dossier has been lifted and the agreement on the linking of the two ETS can now be signed. The Federal Council is responsible for signing the agreement on behalf of Switzerland, as well as for ratifying it, providing it has been adopted by Parliament. The Federal Council's goal is for the two schemes to be linked before 2020 if possible. In order to ensure that the linking can take place as quickly as possible, the agreement as well as the necessary amendments to the existing legislation and climate policy after 2020 were submitted for consultation in autumn 2016<sup>1</sup>.

After the agreement on the linking of the ETS has entered into force, in the same way as in the EU ETS, aircraft operators will then have to be integrated into the Swiss scheme. Calculating tonne-kilometre data prior to the linking creates the necessary technical bases for aircraft operators to assert their entitlement to the allocation of emission allowances without charge. Originally the intention was to acquire tonne-kilometre data already in 2013. In May 2012, the Federal Department of the Environment, Transport, Energy and Communications (DETEC) opened the consultation on the Ordinance on the acquisition of data relating to tonne-kilometres performed by aircraft, but in view of the status of negotiations with the EU on the linking of the two schemes it decided to suspend work on the Ordinance. The meanwhile drafted agreement calls for an acquisition of tonne-kilometre data to be carried out during 2018. Contrary to the method that is applicable in the EU ETS, the calculation of tonne-kilometre data in Switzerland has to be carried out in accordance with the provisions of the new Ordinance.

The new Ordinance is based on the version that was submitted for consultation in May 2012. The main change versus the previous version concerns the scope of application: the collection of data now only applies to domestic flights and flights from Switzerland and the binational Basel-Mulhouse Airport (if they are carried out in accordance with Swiss transport law) to the EEA, and to flights between Basel-Mulhouse Airport (if they are carried out in accordance with Swiss transport law) and Switzerland. The original version also called for the collection of data for flights between Switzerland or Basel-Mulhouse Airport and third countries (global acquisition). The current version of the Ordinance reflects the outcome of the 2012 consultation and the consultation that was held in the period from August to November 2016 on post-2020 climate policy. In the latter, the approval of the agreement on the linking between the two ETS (and thus the integration of civil aviation into the Swiss scheme) was put forward for discussion.

## 2 Purpose and content of the Ordinance

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<sup>1</sup> The documentation pertaining to the consultation has been posted on the following website (status, 19 May 2017): <https://www.bafu.admin.ch/bafu/de/home/themen/klima/recht/vernehmlassungen/vernehmlassung-vom-31-08-2016-30-11-2016-ueber-die-zukuenftige-k.html>

## 2.1 Purpose of the Ordinance

In order to prepare the integration of civil aviation into the Swiss ETS, tonne-kilometre data are required for calculating the quantity of emission allowances to be allocated to the individual aircraft operators free of charge, as well as for the initial calculation of the Swiss cap for civil aviation (i.e. the maximum available quantity of emission allowances). The draft agreement on the linking of the Swiss and EU ETS calls for the calculation of tonne-kilometre data in 2018. The new Ordinance specifies how the data are to be collected. However, it does not regulate the reporting of CO<sub>2</sub> emissions from the aviation sector for the later implementation of the Swiss ETS.

In the event that the agreement between Switzerland and the EU on the linking of the two emissions trading schemes should not enter into force, the collected data will not be used for other purposes.

## 2.2 Relationship with the EU emissions trading scheme

The EU integrated civil aviation into its ETS in 2012. In response to the CORSIA measure adopted by the general assembly of the ICAO in autumn 2016, on 3 February 2017 the European Commission proposed that the stop-the-clock regulation should be extended and that only flights within the EEA were to be covered by the EU emissions trading scheme. In addition, the calculation of the quantity of allocated emission allowances without charge should continue to be based on the tonne-kilometre data collected in 2010. These proposals have to be approved by the EU Parliament and the Council of Ministers. The draft agreement on the linking of the Swiss and EU emissions trading schemes stipulates that, in principle, all flights from and to Switzerland have to be integrated into the Swiss scheme. However, the geographic coverage in the Swiss scheme is to reflect that of the EU scheme. In view of this, the new version of the Ordinance only calls for the collection of data for domestic flights and flights from Switzerland into the EEA. This includes flights from Basel-Mulhouse Airport to the EEA and from Basel-Mulhouse Airport to destinations in Switzerland, if these are operated in accordance with Swiss transport law. In order to avoid any geographic duplication of coverage of flights in both the Swiss and EU schemes, in the later implementation of the merged schemes, flights between Switzerland and the EEA are to be allocated as follows on the basis of the airport of departure: flights departing from Switzerland (e.g. Zurich to Berlin) are to be allocated to the Swiss scheme, while flights departing from EEA airports (e.g. Berlin to Zurich) are to be allocated to the EU scheme. Flights between the binational Basel-Mulhouse Airport and the EEA, which are currently covered by the EU scheme because the airport is situated on French soil, are to be excepted. The majority of these flights are carried out under Swiss law. Switzerland is currently holding talks with France with the aim of reaching an agreement on the question of the ETS-related administration of these flights that respects the binational status of the airport. In this context, the tonne-kilometre data for flights from Basel-Mulhouse Airport to the EEA, as well as flights between Basel-Mulhouse Airport and destinations in Switzerland, are also to be collected, insofar as the flights concerned are operated under Swiss transport law.

The requirement to collect and report the data applies to all domestic and foreign aircraft operators who carry out flights in accordance with the scope of application of the Ordinance, even if these operators already have obligations in the EU scheme. If the Swiss and EU schemes become linked, however, a simplified administrative procedure is envisaged for operators who are subject to obligations in both schemes; here, these operators will only be answerable to one authority (Swiss or European), which manages their obligations in both schemes.<sup>2</sup>

## 2.3 Content of the Ordinance

The new Ordinance regulates the following key points:

- Scope of application: In principle, the Ordinance applies to all domestic flights and flights from Switzerland to the EEA and from Basel-Mulhouse Airport to the EEA (if they are operated under Swiss transport law), as well as all flights between Basel-Mulhouse Airport and destina-

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<sup>2</sup> cf. Switzerland's Climate Policy: Explanatory notes on the consultation, 31 August 2016 ([https://www.admin.ch/ch/d/gg/pc/documents/2801/Klimapolitik-der-Schweiz-nach-2020\\_Erl.-Bericht\\_de.pdf](https://www.admin.ch/ch/d/gg/pc/documents/2801/Klimapolitik-der-Schweiz-nach-2020_Erl.-Bericht_de.pdf)).

tions in Switzerland. Certain exemptions apply to specific categories of flights, for example training flights, rescue flights and military flights.

- Data acquisition: Tonne-kilometre data have to be recorded in 2018 for every aerodrome pair (i.e. departure and destination airport). Tonne-kilometre data are calculated by multiplying the distance by the payload. The payload corresponds to the total weight of transported freight, mail, baggage and passengers.
- Monitoring and reporting: Initially, aircraft operators who carry out flights that are governed by the Ordinance are required to draw up a monitoring plan and submit it to the Federal Office for the Environment (FOEN) for evaluation. The monitoring plan must indicate how the tonne-kilometre data are to be recorded. If a monitoring plan fails to meet the specified requirements, the FOEN may require the operator concerned to adjust it and resubmit it within a specified deadline. The next step will be to record the tonne-kilometre data in 2018 in accordance with the evaluated monitoring plan. Aircraft operators will then be required to have the data recorded in the monitoring report verified by an accredited verifier by 31 March 2019. The monitoring report subsequently has to be evaluated by the FOEN. Should a verified report give rise to doubts about the correctness of the data, the FOEN may make an estimate while taking account of all circumstances in each individual case (e.g. based on experience or comparisons), in collaboration with the Federal Office of Civil Aviation (FOCA). For this purpose the FOEN must observe the principles of legal equality and appropriateness, as well as take account of public interests, and its decision must reflect the declared purpose and objectives of the Ordinance.
- Penalties for non-compliance: Aircraft operators who wilfully or negligently submit false data will be penalised with a fine of up to 20,000 Swiss francs. For serious violations, this fine may be increased to a maximum of 40,000 Swiss francs.

Details regarding the individual provisions may be obtained from the explanatory notes on the respective articles (cf. section 3).

### **3 Explanation of the individual Articles of the Ordinance**

#### Article 1:

The purpose of the acquisition of data in 2018 is to prepare for the implementation of a future bilateral agreement with the EU concerning the linking of the ETS and for the simultaneous regulation of civil aviation operations.

The term “aircraft” is defined in detail in the Annex to the Federal Civil Aviation Ordinance.<sup>3</sup> It specifically includes aeroplanes and helicopters.

#### Article 2:

Aircraft operators are responsible for delivering the required data (paragraph 1). If it is not possible to determine who the aircraft operator is, the owner of the aircraft is responsible for delivering the data (paragraph 2).

#### Article 3:

In accordance with paragraph 1, tonne-kilometre data have to be recorded for all flights from Switzerland to destinations in the EEA (paragraph 1b) and for all domestic flights that take off from and land at a Swiss airport (paragraph 1a).

The Ordinance also applies to flights from Basel-Mulhouse Airport to destinations in the EEA (paragraph 1c), and to flights between Basel-Mulhouse Airport and destinations in Switzerland (paragraph

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<sup>3</sup> Civil Aviation Ordinance of 14 November 1973 (SR 748.01).

1d), if they are classified as Swiss flights in accordance with the treaty between Switzerland and France dated 4 July 1949<sup>4</sup> on the construction and operation of Basel-Mulhouse Airport in Blotzheim.

For administrative reasons and in view of their low share of CO<sub>2</sub> emissions from civil aviation operations, certain categories of flights in accordance with paragraph 2 are exempted from the data acquisition requirement. These exemptions correspond to those specified in the EU emissions trading scheme.<sup>5</sup>

The exemption levels cited under j and k only apply if the aircraft operator was not required to participate in the EU ETS in 2016 (paragraph 3). Operators who were obliged to participate in the EU ETS in 2016 have to record the data in accordance with the scope of application of Article 3, paragraph 1, unless they qualify for exemption in accordance with paragraph 2, letters a to i. Whether an operator qualifies for the exemption levels as per j and k is decided on the basis of the flight operations that he carried out in 2016 (paragraph 5). The data for 2016 are the last available figures at the time at which the monitoring plan has to be submitted in accordance with Article 5 of the Ordinance. For calculating the thresholds for total CO<sub>2</sub> emissions and the relevant number of flights in accordance with j and k, only those flights have to be taken into account that fall under the scope of application of the Ordinance. Here the operator has to conservatively calculate the total CO<sub>2</sub> emissions based on the fuel consumption. With the support of the FOCA, the FOEN determines the flights for which data acquisition is required (Article 12, paragraph 2). For this purpose, the authorities may refer to their own statistics or the data recorded by Eurocontrol. Checks are carried out on a random basis and by means of randomly selected data. If an operator's flights exceed the exemption levels as per j and k, data for all the flights of the operator concerned must be recorded in accordance with paragraph 1, unless the flights fall under the exemptions specified in paragraph 2, letters a to i.

For an exemption in accordance with paragraph 2j, the designation of commercial operation<sup>6</sup> refers to the operator, not to the flights in question. This means that the aviation services provided by a commercial operator have to be taken into account when deciding whether the operator concerned qualifies for the application of the exemption levels, even if the services are provided without charge.

Commercial operators whose total number of flights is less than 243 in three consecutive periods of four months each, are exempted from the obligation to acquire data. The four-month periods are January to April, May to August and September to December. The four-month period to which a flight is allocated for the purpose of deciding whether the operator qualifies for the application of the exemption levels is based on the local take-off time of that flight (paragraph 4).

#### Articles 4 to 6:

In accordance with the procedure specified in the EU ETS, before data acquisition is initiated all aircraft operators whose flights do not fall completely under the exemption rules, are required to draw up a complete monitoring plan (Article 4) which describes how the data are collected and which method is used for calculating tonne-kilometres. The details are specified in Annex 2, section 1. The template provided by the FOEN on its website for the monitoring plan is to be used. It is based on the template provided by the European Commission for the EU ETS, but has been modified for the Swiss scheme. The monitoring plan has to be submitted to the FOEN for evaluation by not later than 30 September 2017 (Article 5, paragraph 1).

The FOEN is responsible for evaluating monitoring plans. If a monitoring plan fails to meet all the specified requirements, the FOEN may ask for it to be adjusted as necessary within a given deadline (Article 5, paragraph 2). Any changes that require an adaptation of the submitted monitoring plan must be reported immediately to the FOEN. In the event of a change of operator status (non-commercial to commercial, or vice versa), the monitoring plan has to be resubmitted for evaluation.

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<sup>4</sup> SR 0.748.131.934.92

<sup>5</sup> Annex I to Directive 2008/101/EC of the European Parliament and of the Council of 19 November 2008 amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission trading within the Community, OJ L 8 of 13 January 2009, page 3.

<sup>6</sup> In accordance with Annex 6, Part I of Chicago Convention (SR 0.748.0), all commercial operators have to hold an Air Operator Certificate (AOC). Operators who do not hold an AOC are not classified as "commercial air operators".

#### Articles 7 to 9:

The tonne-kilometre data have to be collected in the 2018 calendar year on the basis of the evaluated monitoring plan, and included in a monitoring report (Article 7). The details are specified in Annex 2, section 2.

The monitoring report then has to be verified by a specialised bureau (“verifier”) that is able to demonstrate that it has the required competence to verify tonne-kilometre data in the civil aviation sector (Article 8). This concerns entities that have been accredited in the civil aviation sector in accordance with the requirements specified in the EU ETS.<sup>12</sup> Accreditation is also possible for Swiss entities. The costs associated with verification have to be borne by the operators. These costs are only incurred once, but they may amount to several thousand Swiss francs.

Verified monitoring reports have to be submitted to the FOEN by not later than 31 March 2019 and evaluated by the FOEN (Article 9). If a verified report should give rise to doubts about the correctness of the data, the FOEN may estimate the data. For this purpose it must take account of all circumstances in each individual case and call on the assistance of the FOCA. It must also observe the principles of legal equality and appropriateness, as well as take account of public interests, and its decision must reflect the declared purpose and objectives of the Ordinance.

#### Article 10:

Monitoring reports and the data contained therein will be retained by the FOEN until they are required for use in connection with a measure aimed at limiting CO<sub>2</sub> emissions from civil aviation, and passed on to the Federal Archive 3 to 5 years after their final processing. The FOEN will treat the data as confidential and guarantee their safekeeping (Article 10, paragraph 1). For the further processing of the data, the required legal provisions will be issued at the same time as the adoption by Parliament of the agreement on the linking of the Swiss and EU ETS and the necessary partial revision of the CO<sub>2</sub> Act. Once the data have been archived, they will be governed by the applicable archiving legislation (Article 10, paragraph 2).

#### Article 11:

Aircraft operators who wilfully or negligently submit false data will be penalised with a fine of up to 20,000 Swiss francs. The FOCA is responsible for the enforcement of penalties in accordance with the relevant civil aviation legislation. For serious violations, this fine may be increased to a maximum of 40,000 Swiss francs.<sup>13</sup> In such cases, it will not be possible to calculate an allocation of emission allowances without charge based on the tonne-kilometre data submitted by the company. This means that an allocation would have to be made on the basis of a conservative estimate by the FOEN. Aircraft operators who wilfully or negligently infringe against the provisions of this Ordinance in another manner (for example, failure to comply with a specified deadline) will be penalised with a fine of up to 5,000 Swiss francs.

#### Article 12:

The FOEN is responsible for the enforcement of the Ordinance with the support of the FOCA, namely with respect to the evaluation of monitoring plans and reports, and deciding on flights for which data have to be collected.

#### Annex 1:

Annex 1 contains a definition of “tonne-kilometre” and other key terminology, and describes the calculation of payload. The latter is based on the total weight of transported freight, mail, passengers and baggage. Tonne-kilometres = distance travelled multiplied by payload. The distance travelled is based on the greater circle distance between the departure and destination airport, plus 95 kilometres.

#### Annex 2:

Annex 2 contains details relating to the compilation of the monitoring plan and the content of the monitoring report. This includes the requirement of completeness and accuracy. The monitoring plan must unequivocally identify the aircraft operator and the aircraft, and must also describe the method used for the acquisition and management of the data. The monitoring report must also indicate the verifier and any deviations from the monitoring plan, as well as present the total of all tonne-kilometres performed in 2018. The following data must be collected for each aerodrome pair: the flight distance, number of flights, number of passengers, payload and tonne-kilometres.

Annex 3:

Annex 3 describes the duties of aircraft operators and verifiers regarding the verification of monitoring reports. Verifiers must be duly accredited. As yet there is no accreditation procedure in Switzerland, but Swiss companies may apply for accreditation in the EU. There are currently around 50 accredited companies in the EU that can be entrusted with the task of verifying monitoring reports. The main duty of a verifier is to ensure that only flights in accordance with the scope of application of the Ordinance are taken into account.