

# Aviation in EU Emissions Trading, template for the metric tonne kilometre monitoring plan

Marc Kierans  
Climate Change Unit  
Environmental Protection Agency

## Voluntary or mandatory? What is this plan for?

- The tonne-kilometre monitoring plan is optional for all operators regardless of the size of their emissions.
- It is required for those operators who wish to receive a 'free' allocation of allowances (CO<sub>2</sub> credits) in 2012 and 2013 to 2020.
- It may also be referred to as the 'benchmarking plan'

## Tonne kilometre

- Tonne kilometre = distance (km) x payload (t)
- A tonne of payload carried a distance of one kilometre.

# Distance

- Distance (km) = Great Circle Distance (GCD) + 95 km
- Specifically, the GCD is calculated as the shortest distance between the two aerodromes according to the WGS84 system (article 3.7.1.1 of Annex 15 of the Chicago Convention).
- The lat/long of the aerodromes must be determined from the **most recent** Aeronautical Informational Publications (AIP).

## Distance continued

- The operator in their procedures, must be able to demonstrate that their method for the determination of the GCD (+95 km) complies with the MRG requirements. Especially, when it is being determined by third parties.
- Unless they are using 'tool' approved by the CA. This is most likely to be based on EAD from EuroControl.

## Payload.

- Payload = total mass of freight, mail, passengers and baggage.
- ‘Passengers’, does not include the crew.
- Freight and mail does not include the tare weight of pallets/containers and service weights (Catering, wastes etc).

## Mass of passengers

- There are two tiers for the determination of passenger mass.
- **Tier 1:** a default value of 100 kg per passenger including baggage. No allowance is made for sex, age or type of passenger e.g. long-haul, holiday makers or day travellers etc.
- **Tier 2:** mass as specified in the Mass and Balance documentation. E.g. *EU OPS Regulation 859/2008*.

## Tier selection

- When deciding on the tier for the mass of passengers. Operators are free to choose either tier. However, once chosen and confirmed in your monitoring plan, one must apply the same tier for **all flights** within the trading period.



## Freight and Mail

- The MRG requires that mass of freight and mail be calculated using the actual mass contained in the mass balance documentation for the relevant flights.
- If you are not required to use mass and balance documentation you must propose and have approved an alternative method.
- Again, you are required to shown that any third parties engaged by you follow the procedures etc.

When complete, you will be able to show:

**For each aerodrome pair**

- GCD + 95 km distance for each aerodrome pair.
- Total number of flights
- Total mass of passengers
- Total number of passengers
- Total mass of freight and mail
- Total passenger-km and tonne-km data

... and documentation showing how you did it!