REVIEW OF THE AIR QUALITY OBJECTIVES (AQOS)
STAKEHOLDER ENGAGEMENT MEETING -
CIVIL AVIATION

Digest of Meeting

held on 24 August 2017 at 2:30pm

in Room 4690, 46/F., Revenue Tower, 5 Gloucester Road, Wan Chai

Present:

Representatives from the Airport Authority Hong Kong (AA)

Representatives from Civil Aviation Department (CAD)

Environmental Protection Department (EPD)

Mr. Dave HO (Chairman)	Acting Assistant Director of Environmental Protection (Air Policy)
Mr. Brian LAU	Principal Environmental Protection Officer (Air Policy)
Ms. Josephine HO	Senior Environmental Protection Officer (Air Policy)1
Dr. Kenneth LEUNG	Senior Environmental Protection Officer (Air Science)4

AECOM Asia Co. Ltd. (AECOM)

Mr. Freeman CHEUNG	Consultant's representative

In Attendance:

Miss Queenie CHAU	Assistant Environmental Protection Officer (Air Policy)14, EPD

Agenda Item 1 – Background of the AQOs Review

EPD briefed the meeting members on the background of the AQO review and the purpose of the engagement meeting was to seek stakeholders' views on the practicability to further reduce emissions from civil aviation in the local context.

2. The **Consultant's representative** presented the preliminary assessment on the latest trend and prevailing control measures regarding emissions from civil aviation, with reference to the sustainability reports published by the AA and the approved Environmental Impact Assessment Report of the Expansion of Hong Kong International into a Three-Runway System (3RS). Projected aircraft movement in 2025 was adopted from the "Hong Kong International Airport Master Plan 2030".

Agenda Item 2 – Discussion on the practicability to further reduce emissions from civil aviation in the local context

3. The key discussions were summarized as follows:

Phase-out of old aircraft fleet

- While certification of aircraft engines in accordance with International Civil Aviation Organization (ICAO) emission standards is an international practice, the certification standards for new types of aircraft engines are more stringent than the old one. Phasing out of old aircraft hinged on airlines' commercial operation and business decisions.

Introduction of TaxiBot to reduce emissions from taxiing

- As most of the ground services equipment (GSE) operating at HKIA is owned by different operators, the use of TaxiBots to cut aircraft engine emissions during taxi-out would only be feasible if airline operators (i.e. the end users) are willing to switch to assisted taxiing. Apart from the high capital investment for operators to buy TaxiBot, infrastructure planning to provide return routes from runways to gates would also be required.

Adoption of Biofuel as Alternative Jet Fuels (AJFs)

- Due to global compatibility, it is essential for AJFs to be fully mixable

with conventional jet fuel (i.e. Jet A-1) and meet the same fuel quality standard as required by stringent manufacturing specification. The use of AJFs also depended on local supply which was currently lacking, business decisions of airline operators, as well as infrastructural support to provide Jet A-1 and AJFs in parallel. Given that AJFs are mainly for reducing carbon footprint from aircraft engines, its effect on air quality improvement is considered less significant.

Other initiatives being conducted by AA

- Airport Collaborative Decision Making (A-CDM), which is a tool to improve operational performance at the HKIA (e.g. reduce taxiing time), had been implemented progressively by AA. Compilation of emission inventory of HKIA was underway to facilitate evaluation on further air quality improvement measures. AA would also implement the air quality mitigation measures as required under the environmental permit of the 3RS.

- Measures to control emissions from GSE in the HKIA are summarized at **Annex**.

4. Both CAD and AA considered that the controls of aircraft emission were in accordance with international practices.

Agenda Item 3 – Any Other Business

5. There being no other business, the meeting was adjourned at 4:10 pm.

Annex

Measures to control emissions from GSE in the HKIA

Key discussions at the meeting are summarized as follows:

Replace old airside vehicles and Ground Service Equipment (GSE)

- All saloon vehicles on the airside have been electric powered since July 2017. Charging infrastructure is being provided at Hong Kong International Airport (HKIA) to promote the increased use of electric vehicles (EVs). Nevertheless, as most of the GSE at HKIA is owned by service operators, AA suggested that the Government might consider providing incentives to expedite the replacement of old GSE with cleaner ones.

Retrofit existing vehicle fleet

- As there are a wide range of airside vehicles operating at HKIA, such as passenger buses, catering trucks, aircraft tractors, loaders, etc., the practicability of retrofitting airside vehicles would need to be investigated on a case-by-case basis. Due considerations shall be given to both technical feasibility and cost effectiveness.

Introduction of new technologies

- Some of the airport business partners had adopted the use of new technologies such as solar-powered passenger stairs and electric loaders. Fitting GPS on airside vehicles could also help reduce emissions from idling engines by improving fleet management.

Other initiatives

- Other initiatives being conducted or considered by AA which may contribute to improved local air quality, included enhancement of inspection and maintenance programme for airside vehicles, setting age limits for coaches and limousines operating within the landside, increasing parking fees at HKIA to encourage the use of public transport to and from airport, etc.