

# Asia/Pacific Airport Coordinators Association (APACA)

## Agenda Item 6

Noise Quota Count Pilot Scheme  
For Hong Kong International Airport

13th APACA meeting  
8 November, 2016  
Atlanta, Georgia, U.S.A.

# 2011 Noise Exposure Forecast (NEF) Contour of HKIA

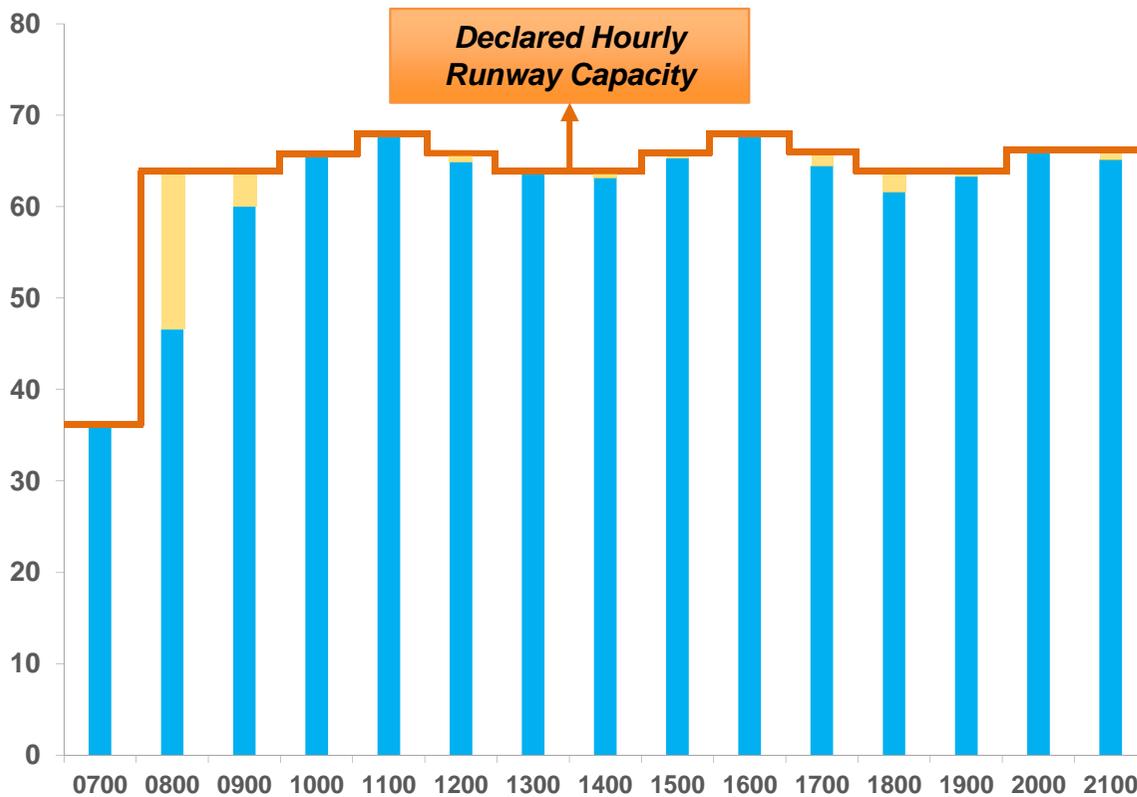
- AAHK has committed under the 3RS EIA that the NEF contour in the remaining years of the 2RS operation would **not expand into any new Noise Sensitive Receivers<sup>^</sup>**.



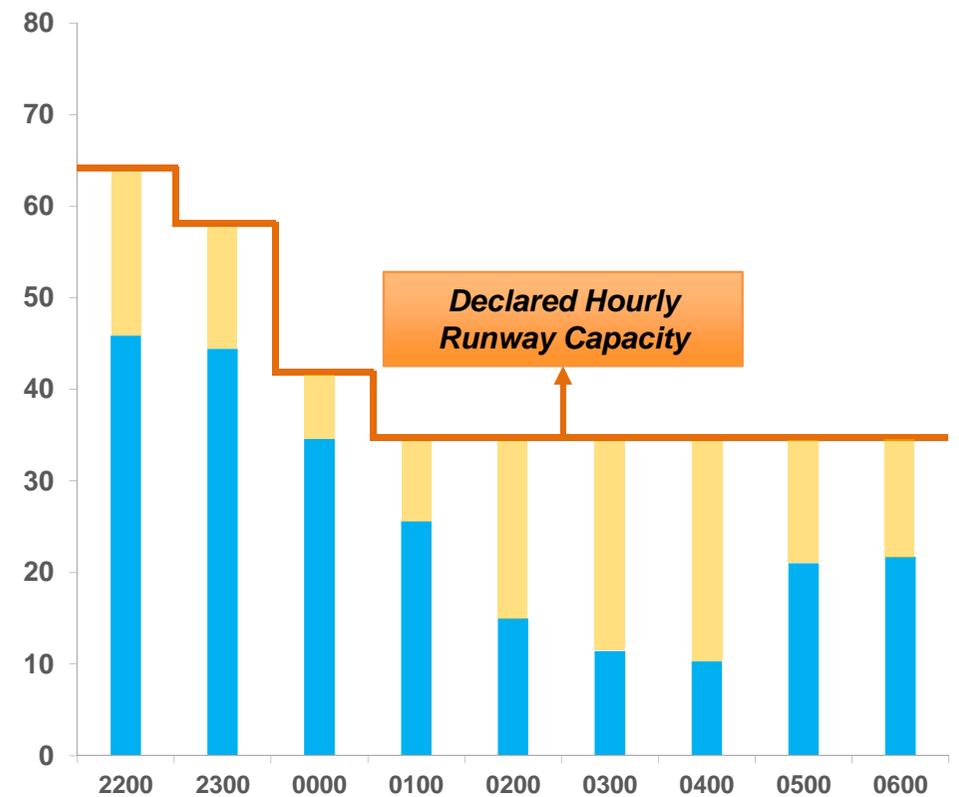
<sup>^</sup> An NSR refers to premises that are used for purposes sensitive to noise and requires protection. Examples of NSRs are domestic premises, hotels and hostels, educational institutions and hospitals and clinics.

# Administrative Measure from Summer 2014 – Day/Night slots allocation maintained at ~ 80/20 ratio

Average scheduled hourly aircraft movement at HKIA during day time<sup>^</sup>



Average scheduled hourly aircraft movement at HKIA during night time<sup>^</sup>



Unused slots

<sup>^</sup> For simplicity and illustration purposes, each bar shown in the charts above represents the average hourly aircraft movement scheduled for the period from 15 – 21 Aug 2016.

\* Operating hours between 0700 and 2159 are regarded as day-time operating hours and between 2200 and 0659 are regarded as night-time operating hours.

# Need for a more effective aircraft noise management tool for the night period

- to **incentivize airlines to use quieter aircraft**;
- to set a **limit** for each airline on their **aircraft noise emission**; and
- to give **flexibility to airlines to adjust their aircraft mix** to optimise their operations and runway utilization.



Proposed Noise Quota Count Pilot Scheme

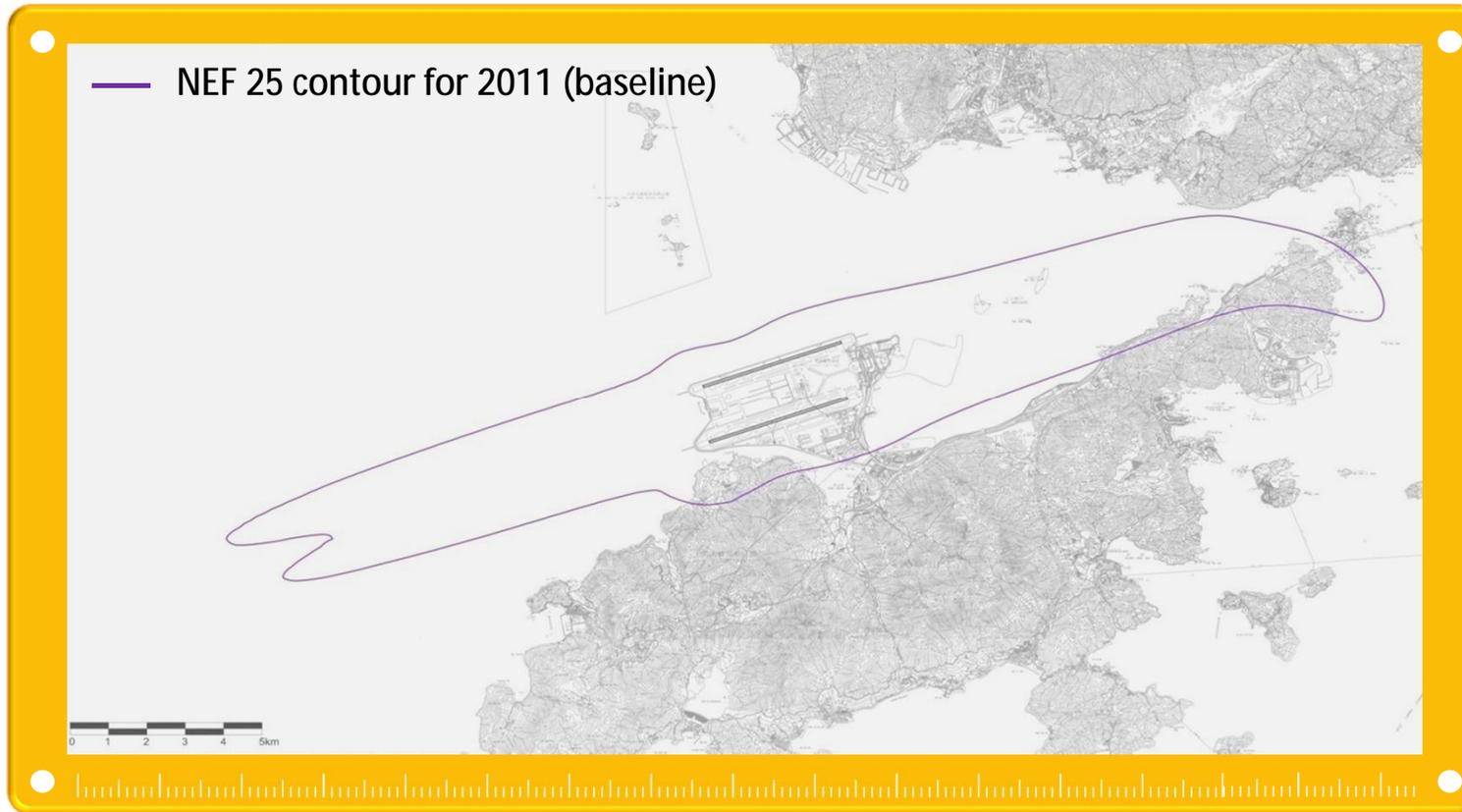
# What is Noise Quota Count ("QC")?

Seven Noise Bands	INM Aircraft Noise Database (in EPNdB*)	Quota Count	Examples of Boeing		Examples of Airbus	
			Landing	Takeoff	Landing	Takeoff
1	84 – 86.9	0.25	B787	Nil	A320-232	Nil
2	87 – 89.9	0.5	B737-300 B737-800	B737-300 B787	A330-343 A380	A320-232
3	90 – 92.9	1	B747-8 B777-300	B737-800	A340-600	A330-343
4	93 – 95.9	2	B747-400	B747-8 B777-300	A300-622R	A300-622R A380 A340-600
5	96 – 98.9	4	B747-300	B747-400	Nil	Nil
6	99 – 101.9	8	B747-100	B747-300	Nil	Nil
7	> 101.9	16	Nil	B747-100	Nil	Nil

^ Classification is based on FAA INM's aircraft/engine prototypes and noise database at 3 reference measurement points for landing and takeoff.

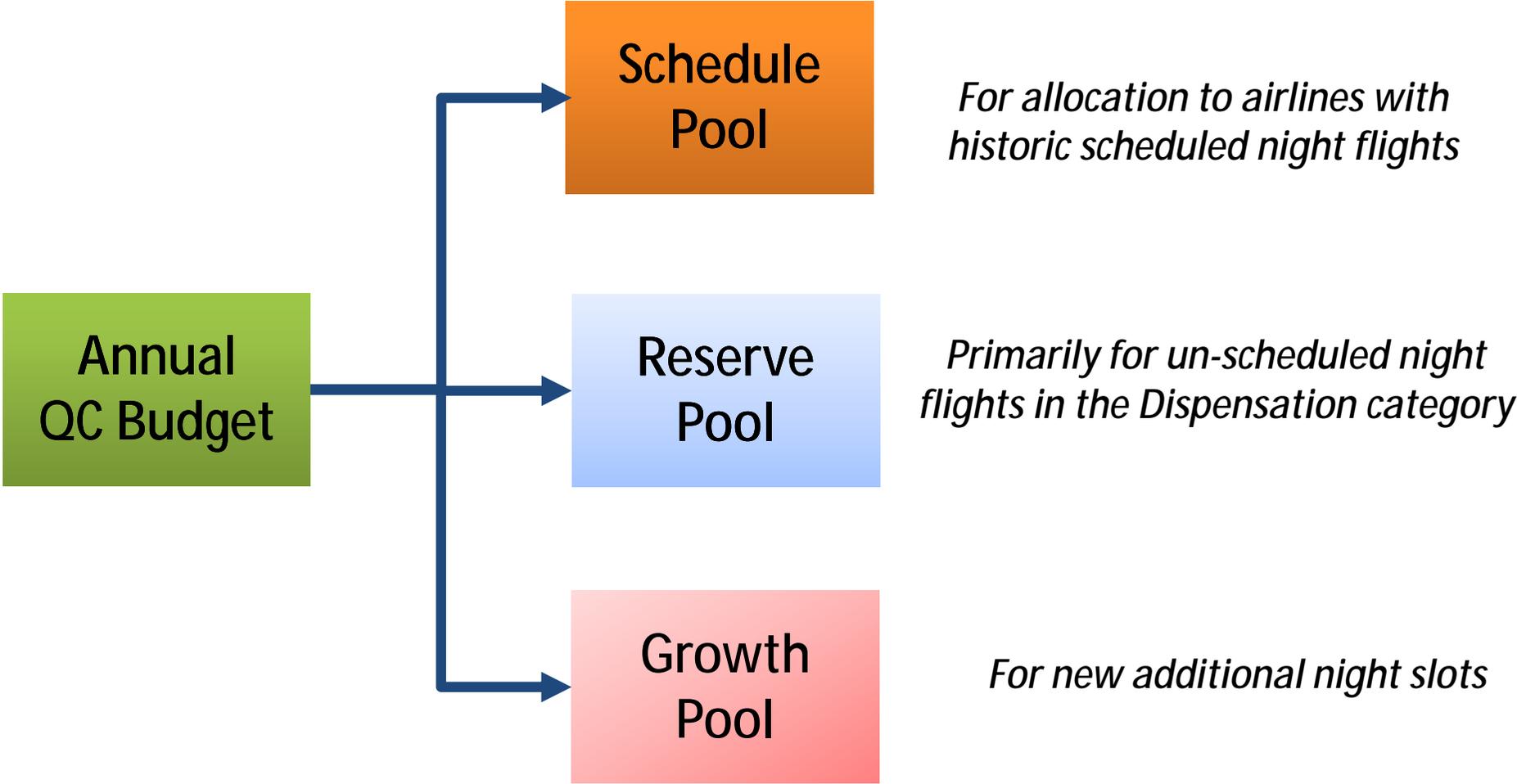
\* Effective Perceived Noise in Decibels, a noise unit used by ICAO for aircraft noise certification tests.

By capping the annual QC budget of HKIA at the 2011 baseline level, the NEF contour will be contained likewise



→ 2011 Baseline  
= ~~X~~ QC

# Concept of QC Allocation



# Dispensation Category to use AA's "Reserve Pool"

- i. Flights involving State VIPs
- ii. Relief Flights
- iii. Military Aircraft and Flights affected by War/Hostilities
- iv. Other Exceptional Circumstances deemed by the Government
- v. Emergencies
- vi. Widespread and Prolonged Air Traffic Disruption due to:
  - *Weather: activation of ALWS and FRCS by AA*
  - *Flow Control: announced by CAD (not covering consequential aircraft rotation delay to destinations not using the air route under flow control)*
- vii. Flights affected by exceptional circumstances that involve serious congestion at the aerodrome or serious hardship or suffering to passengers or animals. (e.g. strike by unions, blockage of the road link to the airport, etc.)
- viii. Shoulder period flights (21:45-21:55 & 07:00-07:10) which actual on or off block in the shoulder period but landing/takeoff in the night period

# Penalty of the QC Pilot Scheme

- If an airline has, on a year-to-date basis, overused its approved QC Plan by 10% of the annual QC allocation:
  - AA may **ask the airlines** to take necessary action to prevent over-use of their QCs by the end of the year, including **the rescheduling and/or cancellation of night flights for the remainder of the year**
- If an airline has over-used its QC allocation by the end of the year, AA will reduce its annual QC allocation, and SCO will disapprove its historic night slots applications, in the following year by the same extent as the amount of QC it has over-used in the preceding year

# Benefits of the proposed QC Scheme

1. Offers **incentives to airlines** to deploy quieter aircraft at HKIA;
2. Enables AAHK to **lift the current control on the frequency of night flights** as controlling the total noise level of aircraft is more effective in managing aircraft noise; and
3. **Commonly understood around the world** as it has been practiced for many years in both UK and some European airports.

# Ongoing Review

1. AAHK will monitor the performance of the QC Pilot Scheme to ensure that its objectives are met and address stakeholders' feedback on the administration process where necessary;
2. An "interim review" will be undertaken one year after implementation of the QC Pilot Scheme to enable earlier refinement of the scheme, if need be. In addition, the scheme will be subject to a final review at the end of the second year; and
3. CAD will continue to track the aircraft noise impact via its noise monitoring terminals to validate the effectiveness of the QC Pilot Scheme.



# Proposed Noise Quota Count ("QC") Pilot Scheme for Hong Kong International Airport

08 November 2016