



ICAO

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**Agenda Item 4: Provision of AOP in the Asia/Pacific Region  
- Certification and Operations of Aerodromes**

**AERODROME LICENSING FOR INTERIM TWO-RUNWAY SYSTEM (I-2RS)  
OF THE HONG KONG INTERNATIONAL AIRPORT**

(Presented by Hong Kong, China)

**SUMMARY**

With the collaborative efforts of key stakeholders, the aerodrome licence covering Interim Two-Runway System operations at the Hong Kong International Airport was issued by the Civil Aviation Department, Hong Kong, China to the Airport Authority Hong Kong on 31 May 2022, which represents a key milestone towards the full commissioning of a Three-Runway system at the airport in 2024. The new North Runway (i.e. the third runway) is expected to be commissioned in 2022. The actual commissioning date of the new North Runway will be promulgated in due course by NOTAM. This paper shares Hong Kong, China's experience in the relevant aerodrome licensing process for a third runway and associated taxiways at an operational dual-runway airport.

**1. INTRODUCTION**

1.1 To meet the growing air traffic demand and to enhance Hong Kong, China's competitiveness as an international and regional aviation hub, the Hong Kong International Airport (HKIA) is undergoing an expansion from a Two-Runway System (2RS) to a Three-Runway System (3RS). Relevant construction works, including reclamation and construction of a new North Runway (i.e. the third runway), associated taxiways and corresponding facilities north of the existing airport island, commenced in 2016. Whilst the new North Runway is expected to be commissioned in 2022 (with the actual commissioning date of the runway to be promulgated in due course by NOTAM), the Centre Runway (i.e. the former North Runway under 2RS) will be closed for reconfiguration. During this interim period, the HKIA will be operating under an Interim Two-Runway System (I-2RS) configuration (i.e. with the new North Runway and the existing South Runway in operation) until the full commissioning of 3RS in 2024.

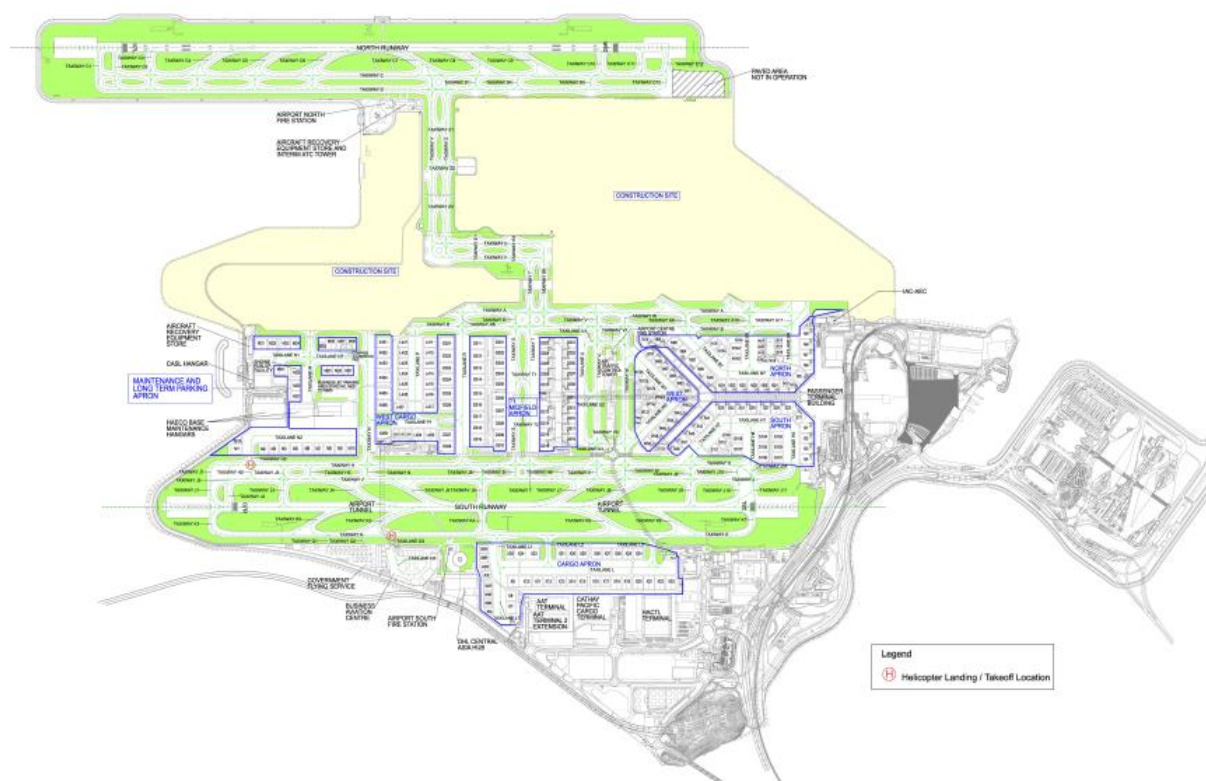


Figure 1 Aerodrome Layout Plan of Hong Kong International Airport (I-2RS Stage)

1.2 The Civil Aviation Department (CAD), Hong Kong, China is the regulator for aerodrome safety and security for the HKIA. CAD has been working closely with Airport Authority Hong Kong (AAHK), the aerodrome operator of the HKIA, to ensure that the new aerodrome facilities and the relevant operational procedures developed to support the commissioning of I-2RS operations comply with aerodrome licensing requirements.

## 2. DISCUSSION

### *Aerodrome Licensing Regulatory Framework in Hong Kong, China*

2.1 Under the existing regulatory regime in Hong Kong, licensing of aerodrome is governed by the Civil Aviation Ordinance (Cap. 448)<sup>1</sup> and the Air Navigation (Hong Kong) Order 1995 (Cap. 448C)<sup>2</sup>. Pursuant to Article 73 of Cap. 448C, the Director-General of Civil Aviation (DGCA), with power delegated by the Chief Executive, may grant an aerodrome licence to an aerodrome licence applicant if he is satisfied that (a) the aerodrome licence applicant is competent, having regard to his previous conduct and experience, his equipment, organization, staffing, maintenance and other arrangements, to secure that the aerodrome is safe for use by aircraft; and (b) the aerodrome is safe for use by aircraft, having regard in particular to the physical characteristics of the aerodrome and of its surroundings; and (c) the aerodrome manual submitted is adequate in containing all information and instructions necessary to enable the aerodrome operating staff to perform their duties.

<sup>1</sup> Article 5 of Cap. 448 provides the Chief Executive in Council may by order make provision for the licensing, inspection and regulation of aerodromes.

<sup>2</sup> Article 71 of Cap. 448C stipulates that aircraft for public transport of passengers and instruction in flying shall not take-off or land at a place in Hong Kong other than a licensed aerodrome or a government aerodrome.

2.2 In this connection, CAD published the Aerodrome Licensing Requirements Document (ALRD) which set out all the detailed regulatory requirements with reference to the relevant Standards and Recommended Practices (SARPs) in Annex 14 and guidance materials published by ICAO, together with additional local requirements including organisation structure and staffing of the aerodrome licence holder, training to be provided to the aerodrome operating staff etc. ALRD provides guidance to an aerodrome licence applicant on the criteria and procedure for the issue of an aerodrome licence, and is amended from time to time to take into account the latest amendments made by ICAO and specify additional local requirements when necessary.

*Regulatory Oversight for Existing Operations*

2.3 AAHK has been the aerodrome operator of the HKIA since 1998. In order to maintain its aerodrome licence for operating the HKIA, AAHK is required to demonstrate that the operations of the HKIA continuously comply with the requirements set out in ALRD. CAD is responsible for assessing AAHK's compliance with the requirements set out in ALRD. The aerodrome licence issued to AAHK is valid for one year and renewable on an annual basis. Throughout the licensing period, the compliance of AAHK with ALRD requirements is continuously monitored and the aerodrome licence will only be renewed if the results of the assessments are satisfactory.

2.4 CAD and AAHK endeavour to achieve the common objective in the compliance and continuous improvement of aerodrome safety and security. For this purpose, regular review meetings, inspections and audits are in place to enhance two-way communications between CAD and AAHK and facilitate timely feedback, continuous adaptation and quality-assured best practices into their operations. An Aerodrome Licensing Review Committee (ALRC) chaired by CAD and attended by AAHK was established and meets regularly throughout the licensing period to jointly discuss and review issues related to aerodrome licensing.

*Aerodrome Licensing Assessment for I-2RS*

2.5 The new North Runway of the HKIA is targeted for commissioning in 2022. Upon the commissioning of the new North Runway, the Centre Runway will be closed for reconfiguration while a new movement area consisting of the new North Runway and associated taxiways will be commissioned under I-2RS operations.

2.6 To commission its operations under the new I-2RS configuration, not only shall AAHK complete construction and installation of new aerodrome facilities and develop relevant operational procedures, they are also required to complete a series of other preparation works including but not limited to re-designation of the former North Runway, designation of the new North Runway, flight check of the new North Runway, aircraft crash exercise, drills and operational trials using the new North Runway etc. AAHK is required to demonstrate to CAD that all the new facilities and procedures comply with the relevant requirements set out in ALRD, which covered a wide spectrum of areas including but not limited to manpower planning and training, updating of manuals (such as the aerodrome manual, airport operations manual and safety management system manual), aerodrome data, aerodrome physical characteristics, visual aids, equipment and installations, rescue and fire-fighting services, emergency and rescue planning, operational services and maintenance and aviation security arrangements.

2.7 Of particular note is that AAHK is required to undertake the construction works associated with I-2RS at an operational dual-runway airport. In the meantime, the safety of the airport operations at the HKIA must not be compromised by such construction works. For this purpose, AAHK has established a robust mechanism to ensure effective coordination among various stakeholders (including various AAHK departments, construction works contractors, airfield operators for 2RS (e.g. line maintenance operators, ramp handling operators), relevant government departments, etc.), timely

promulgation of information on various construction works, and targeted communication of safety messages, so that relevant stakeholders are adequately informed of important airport safety information, and the enforcement of airport safety requirements can be effected.

2.8 In light of the amount and complexity of the works and submissions involved, CAD has started planning and discussions with AAHK at an early stage on all necessary preparation works. Provisional submissions for I-2RS, such as aerodrome layout plans and relevant manual amendments, were provided by AAHK to CAD for preliminary assessment since a year ago. In addition, to facilitate effective discussions and compliance assessments, detailed checklists have been developed based on ALRD requirements. Throughout the iterative process of submissions, comments and discussions between CAD and AAHK based on the checklists, improvement areas were identified early for AAHK to continuously refine their submissions.

2.9 Apart from early assessment on document submissions, CAD has also arranged early on-site visits, pre-licensing inspections and witnessed equipment testing jointly with AAHK on I-2RS related works, not only to monitor the works progress and but also to preview the quality control by AAHK on the relevant works at an early stage. It enabled early identification of potential non-compliance so that rectification works can be formulated and undertaken as early as practicable. Followed by on-site inspections by CAD on the quality control duties by AAHK, quality assurance of I-2RS related works was further enhanced. In parallel, test reports and other quality control documents, etc. were vetted to ascertain the compliance of the works with ALRD requirements. This iterative approach enabled AAHK to deliver the works in phases and respond to CAD's feedback in a timely manner.

2.10 In addition, a number of new taskforces and working groups related to aerodrome licensing for I-2RS have been set up at an early stage, which involve key stakeholders including CAD, AAHK and other relevant government departments (e.g. Fire Services Department), so as to further enhance communication and facilitate early discussions on the readiness of various parties regarding compliance with aerodrome licensing requirements. The ambits of these taskforces and working groups covered various aspects, including aerodrome licensing requirements compliance, airfield ground lighting, runway and taxiway pavements and rescue and fire-fighting services readiness, etc.

2.11 Prior to the flight check for the new North Runway in April 2022, CAD has conducted joint inspections with AAHK to assess the readiness of the runway and associated facilities to support the safe conduct of flight check from aerodrome licensing perspective. The remaining facilities, including the associated taxiways, were inspected and assessed to the satisfaction of CAD by May 2022.

2.12 Considering the impact of the COVID-19 pandemic, it was indeed a challenging task to ensure that the licensing assessments were on track whilst enforcing preventive measures against COVID-19. The CAD has strived to adopt an agile approach and has been working closely with AAHK to provide support for the aerodrome licensing process in various aspects, including early vetting of document submissions, involvement in numerous on-site inspections and equipment testing jointly conducted by CAD and AAHK, and participation in various meetings with AAHK and other key stakeholders. With the collaborative efforts among CAD, AAHK and all key stakeholders, AAHK has demonstrated that all new aerodrome facilities and relevant operational procedures for supporting the commissioning of I-2RS operations have met ALRD requirements by May 2022. A renewed aerodrome licence incorporating I-2RS operations was issued by CAD to AAHK on 31 May 2022, which paved the way for the commissioning of I-2RS operations at the HKIA as planned and represents a key milestone towards the commissioning of the 3RS in 2024.

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) share experience and information regarding certification of new aerodrome facilities at respective aerodromes, particularly the challenges associated with the certification work of new aerodrome facilities at an operational airport.

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