



香港特別行政區政府  
民航處

**Civil Aviation Department**

The Government of the Hong Kong  
Special Administrative Region

**CAD 232**

Recognition of Training Courses

**Issue 1**  
**10 January 2022**

## **CAD 232**

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Please note that CAD 232 is available at CAD website: <http://www.cad.gov.hk/>  
Hardcopies will not be published.

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**FOREWORD**

**Recognition of Training Courses**

1. CAD 232 provides information regarding Training Courses recognised by CAD for certain post holders of CAD approved organisations. This document supersedes the contents of Chapter 32 of HKAR-2.
2. It also covers requirements and application procedures of course recognition by CAD. Any applicant can refer this document for the application of course recognition.
3. Amendments are incorporated into the text by means of a 'Revision' or a complete 'Re-issue'.
4. New, amended and corrected text is indicated by a marginal line.

**CHECKLIST OF PAGES****Recognition of Training Courses**

Issue 1, dated 10 January 2022

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**PREAMBLES**

**Recognition of Training Courses**

CAD 232 was issued on 10 January 2022 and became effective on the same date. The preambles are intended to be a summarised record of the main changes introduced by each amendment of CAD 232.

*Issue 1*

*10 January 2022*

- New guideline for the application of CAD Recognised Training Courses.

**SECTION 1****Introduction of Recognition of Training Courses****1 Introduction**

Certain post holders of CAD approved organisations should meet specified qualification requirements and have received appropriate trainings such as Hong Kong Airworthiness Course and/or related training courses before CAD's acceptance for these posts.

**2 Background**

- 2.1 As CAD may not deliver these training courses, this Section specifies the procedures for CAD to recognise these courses delivered by local or overseas training organisation(s).
- 2.2 CAD will recognise the training certificates issued upon the completion of the recognised training courses as a means of compliance with the training requirements of certain post holders of CAD approved organisation.
- 2.3 In order to have better control on the standard of these courses, each individual course has to be recognised through the procedures in CAD 232.

**3 Criteria of Course Recognition**

The course recognition is to be based on the following criteria during assessment.

**3.1 Experience and quality system of the training organisation**

Its experience in delivering similar course, the structure and quality system of the organisation will be assessed. A Quality Manual should be submitted to CAD for assessment.

The organisation should demonstrate, through its Quality Manual, the procedures for delivering the course including, but not limited to the following:

- procedures for preparing and conducting the course;
- qualifications, roles and responsibilities of the trainer(s);
- controlling process of the course;
- delivered subjects;
- post-course follow-up; and
- handling of feedback from participants.

### 3.2 Trainer qualification and arrangement

The organisation should specify the minimum qualification requirements of their trainers in the Quality Manual. The trainers should possess (i) at least ten years of working experience on the related area of presented subjects; or (ii) at least five years of teaching experience on presenting similar subjects. Their qualification and teaching capability should be reflected in the Quality Manual or trainer's curriculum vitae.

### 3.3 The Course Subjects

3.3.1 The Course Subjects to be delivered should follow the specifications shown in the relevant Section. The organisation should regularly review the latest relevant CAD regulations, requirements, forms and airworthiness publications for the amendment of the content of the Course Subjects accordingly.

3.3.2 Training organisation should deliver the Subjects in accordance with the sequence of the Subject Numbers in the table as this will give participants a smooth and complete flow of the airworthiness concept. Minor alteration to the sequence of the delivery is acceptable, provided that the alteration will not affect the learning of a participant on a particular Subject.

3.3.3 Optional Subjects related to Airworthiness could be added as supplements to the course by the training organisation, provided that all the Subjects specified in the table are delivered.

### 3.4 Duration, number of participants, venue and attendance of the course

#### 3.4.1 Duration

The training duration of each Subject should follow that provided in the relevant sections. It could be varied by training organisation, provided the variation is within 10%. The training hours should not exceed seven hours per day.

#### 3.4.2 Number of participants

Maximum number of participants should be limited to 30.

#### 3.4.3 Venue

The venue should be suitable for the training with sufficient lighting, training aids such as visual and audio equipment, and appropriate



furniture.

#### 3.4.4 Attendance

A minimum of 90% attendance of course duration should be achieved before the participant is issued with a training certificate.

## 4 Course Specification

The specifications of Course Subjects are listed in an applicable Section.

## 5 Application Process

- 5.1 The training organisation, as the applicant, should submit an application for recognition of a training course. The application should include a covering letter with Training Course Assessment Form DCA 561 and supporting documents. Form DCA 561 can be downloaded from CAD website:  
<http://www.cad.gov.hk/english/applications.html>
- 5.2 The assessment will usually take 30 calendar days. Upon satisfactory assessment by CAD, a letter of recognition with individual course recognition number will be issued to the applicant. The applicant should therefore make provision for sufficient time to plan the course schedule.

## 6 Course Oversight

- 6.1 CAD monitor the performance of the organisation through regular visits to the course site and review of the feedback from the participants. In this connection, CAD should be given access to the training venue for assessment purpose.
- 6.2 Evaluation forms should be provided to participants for feedbacks after the completion of course. CAD should be given access to examine the evaluation forms and review the actions taken by the organisation in response to the comments from the participants. Should CAD consider the actions taken not satisfactory, the organisation should take further appropriate actions. The recognition of the course may be revoked if actions are not taken to CAD's satisfaction.

**7 Course Completion**

No later than 30 calendar days after completion of the course, a course report should be submitted to CAD. The course report should include copies of, but not limited to the following:

- training materials;
- attendance records;
- training certificates;
- participants' feedback; and
- documents showing actions taken by the organisation.

## SECTION 2

## Hong Kong Airworthiness Course

The minimum duration of the course is 70 hours with the following Subjects.

**Subjects:****1. Airworthiness Concept and Legal Framework**

Subject No. 1A	<b>Airworthiness Concept</b>	1 hour
Objective	Understand airworthiness and who is responsible for airworthiness	
Topic	<ul style="list-style-type: none"> <li>a. Initial airworthiness requirements</li> <li>b. Design and production</li> <li>c. Continuing airworthiness</li> <li>d. Air operator operations</li> <li>e. Human factors and safety management</li> </ul>	
Subject No. 1B	<b>International and Hong Kong Civil Aviation</b>	2 hours
Objective	Understand the International Civil Aviation Organisation (ICAO) and civil aviation legislation system of HKSAR	
Topic	<ul style="list-style-type: none"> <li>a. ICAO - history, annexes, safety oversight concept, safety oversight system</li> <li>b. HK legislation system - Basic Law of HKSAR, Civil Aviation Ordinance, Air Navigation (Hong Kong) Order 1995.</li> <li>c. Organisational structure of Civil Aviation Department</li> <li>d. Safe operating environment</li> </ul>	
Subject No. 1C	<b>Hong Kong Aviation Legislations &amp; Airworthiness Requirements</b>	4 hours
Objective	Understand Hong Kong aviation legislations & airworthiness requirements	
Topic	<ul style="list-style-type: none"> <li>a. Evolution of legislations for aviation in Hong Kong</li> <li>b. Aviation legislations, regulations and requirements</li> <li>c. Civil Aviation Ordinance and its subsidiary legislations</li> <li>d. Air Navigation (Hong Kong) Order 1995</li> <li>e. Air Operator's Certificates Requirements Document (CAD 360)</li> </ul>	

	<ul style="list-style-type: none"> <li>f. Airworthiness procedures</li> <li>g. Mandatory requirements</li> <li>h. Organisation Approval</li> <li>i. Instruments in AN(HK)O 1995</li> </ul>	
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## 2. Initial Airworthiness

Subject No. 2A	<b>HKAR-21 Type Certification</b>	2 hours
Objective	Understand the validation process of Type Certification	
Topic	<ul style="list-style-type: none"> <li>a. Initial Airworthiness Requirements</li> <li>b. Responsibilities of CAD, State of Design and applicant</li> <li>c. Application Procedures</li> <li>d. Presentation by applicant</li> <li>e. Presentation scope and documentation</li> <li>f. Basis of Certification</li> <li>g. Compliance Reports</li> <li>h. Approvals</li> <li>i. Schedule of Event/Milestone</li> </ul>	

Subject No. 2B	<b>HKAR-21 Design and Production</b>	4 hours
Objective	Understand HKAR-21 Design and Production Approval	
Topic	<ul style="list-style-type: none"> <li>a. Legal framework</li> <li>b. Overview of HKAR-21- background, layouts and subparts</li> <li>c. Design Organisation Approval (DOA)</li> <li>d. Production Organisation Approval (POA)</li> <li>e. Hong Kong Parts Manufacturer Approval (HPMA)</li> </ul>	

Subject No. 2C	<b>HKAR-21 Modification and Repair</b>	4 hours
Objective	Understand HKAR-21 aviation requirements and approval procedures on modification and repair	
Topic	<ul style="list-style-type: none"> <li>a. Legal framework</li> <li>b. Criteria for classification of modification</li> <li>c. STC</li> <li>d. VSTC</li> <li>e. Minor Mod Approval</li> <li>f. Minor Repair Approval</li> </ul>	

Subject No. 2D	<b>HKAR-1 and Other Approvals in Sub-section 1.8</b>	2 hours
Objective	Understand HKAR-1 and other approvals in the HKAR-1 Sub-section 1.8	
Topic	<ul style="list-style-type: none"> <li>a. Overview of HKAR-1</li> <li>b. Other 1.8 Approvals - Group B4</li> <li>c. Organisation Approvals <ul style="list-style-type: none"> <li>1. 1.8-9 Organisation Approval for Flight Under 'B' Conditions</li> <li>2. 1.8-10 Approval of Welders</li> <li>3. 1.8-11 Approval of Organisation concerned with Radiographic Inspection of aircraft</li> <li>4. 1.8-12 Approval of Organisation concerned with Ultrasonic Inspection of aircraft</li> <li>5. 1.8-13 Aircraft and Aircraft Component Maintenance Organisation</li> <li>6. 1.8-14 Approval of Organisations to Recommend CoA Renewal of aircraft above 2730 kg MTWA</li> <li>7. 1.8-15 Aircraft not exceeding 2730 kg – Maintenance Organisations Group M3</li> </ul> </li> </ul>	

Subject No. 2E	<b>HKAR-183 Representatives of the Director-General</b>	2 hours
Objective	Understand HKAR-183 requirements and approval procedures	
Topic	<ul style="list-style-type: none"> <li>a. Introduction of HKAR-183</li> <li>b. Relationship between HKAR-21 &amp; HKAR-183</li> <li>c. Privileges and limitation of HKAR-183 organisation</li> <li>d. Recommendation of C of A Issue</li> </ul>	

Subject No. 2F	<b>HKAR-183 Report for C of A Issue</b>	2 hours
Objective	Understand the purpose of HKAR183 aircraft report and the information contained in the report	
Topic	<ul style="list-style-type: none"> <li>a. Introduction to report</li> <li>b. Purpose of report</li> <li>c. Sections of the report</li> <li>d. Inspection report</li> <li>e. Process and administration of report</li> </ul>	

Subject No. 2G	<b>Issue of Certificate of Airworthiness (C of A)</b>	1 hour
Objective	Understand the legislations and procedures of issue of C of A	
Topic	<ul style="list-style-type: none"> <li>a. Legislations and requirements</li> <li>b. Procedures on issue of C of A</li> <li>c. Usual problems associated with C of A issue</li> </ul>	

Subject No. 2H	<b>Certification Arrangements with Other Authorities</b>	1 hour
Objective	Understand CAD policy on accepting/validating design approvals from other authorities	
Topic	<ul style="list-style-type: none"> <li>a. Joint Certification Management (JCM)</li> <li>b. Cooperative arrangements with CAAC/AACM</li> <li>c. Working Arrangements with EASA</li> <li>d. Working Procedures with FAA</li> <li>e. Technical Arrangement with CASA</li> </ul>	

### 3. Continuing Airworthiness

Subject No. 3A	<b>Renewal of Certificate of Airworthiness (C of A)</b>	1 hour
Objective	Understand the legislations and procedures of renewal of C of A	
Topic	<ul style="list-style-type: none"> <li>a. Legislations and requirements</li> <li>b. Procedures on the C of A renewal</li> <li>c. HKAR-181 - Approval of Organisations to Recommend Certificate of Airworthiness Renewal</li> <li>d. Usual problems associated with C of A renewal</li> </ul>	

Subject No. 3B	<b>Aircraft Maintenance Programme / Schedule</b>	3 hours
Objective	Understand the approval process of aircraft maintenance programme/schedule	
Topic	<ul style="list-style-type: none"> <li>a. Continued Airworthiness (CA)</li> <li>b. ICAO standards and recommended practices on CA</li> <li>c. Hong Kong airworthiness requirement</li> <li>d. Persons involved in CA and their responsibilities</li> <li>e. Basis for approval of approved maintenance schedule</li> <li>f. Evolution, development, optimisation and bridging of maintenance program</li> </ul>	

Subject No. 3C	<b>Maintenance and Reliability Reporting</b>	2 hours
Objective	Understand importance of a reliability programme and its development	
Topic	<ul style="list-style-type: none"> <li>a. Purpose of fleet reliability</li> <li>b. Applicability of the reliability programme</li> <li>c. Operator's responsibilities</li> <li>d. Programme control committee</li> </ul>	

	<ul style="list-style-type: none"> <li>e. Programme control document</li> <li>f. Type of information collected</li> <li>g. Display and reporting of information</li> <li>h. Analysis, interpretation of the information</li> <li>i. Corrective actions</li> <li>j. Quality management</li> <li>k. Maintenance and Reliability Summary exercise</li> </ul>	
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Subject No. 3D	<b>Engine Maintenance Programmes (EMP)</b>	1 hour
Objective	Understand the importance of EMP and its development	
Topic	<ul style="list-style-type: none"> <li>a. Objective of EMP</li> <li>b. Operational advantages</li> <li>c. Engine critical parts</li> <li>d. Critical part failure consequence</li> <li>e. Data collection, analysis and interpretation for EMP</li> <li>f. Corrective actions</li> <li>g. Operator's responsibilities</li> <li>h. Authority requirements on EMP</li> </ul>	

Subject No. 3E	<b>Airworthiness Directive (AD)</b>	2 hours
Objective	Understand AD	
Topic	<ul style="list-style-type: none"> <li>a. Responsibility for continued airworthiness</li> <li>b. Definition of AD</li> <li>c. Type of AD</li> <li>d. Applicability</li> <li>e. Compliance</li> <li>f. Alternative means of compliance</li> <li>g. Experience sharing on handling an AD</li> </ul>	

#### 4. HKAR-145 Approved Maintenance Organisation

Subject No. 4A	<b>HKAR-145 Approved Maintenance Organisation</b>	3 hours
Objective	Understand the requirements of HKAR-145	
Topic	<ul style="list-style-type: none"> <li>a. Approval and Class Rating of HKAR-145</li> <li>b. Application procedures</li> <li>c. Extent of Approval</li> <li>d. Privileges and Limitation of the HKAR-145 organisation</li> <li>e. HKAR-145 requirements</li> </ul>	

Subject No. 4B	<b>Quality Control and Assurance</b>	3 hours
Objective	Understand the quality control and quality assurance in maintenance organisation	
Topic	<ul style="list-style-type: none"> <li>a. Quality assurance (QA) in maintenance organisation</li> <li>b. Quality control and assurance in air operator maintenance support</li> <li>c. Audit findings in maintenance organisation</li> <li>d. Effective quality assurance in maintenance organisation</li> <li>e. QA supply chain</li> </ul>	

Subject No. 4C	<b>Joint Maintenance Management (JMM)/ Technical Arrangement (TA)</b>	1 hour
Objective	Understand JMM and current TA policy	
Topic	<ul style="list-style-type: none"> <li>a. Joint Maintenance Management</li> <li>b. Joint Maintenance Procedures</li> <li>c. Technical Arrangement with CAAS</li> <li>d. Technical Arrangement with TCCA</li> </ul>	

## 5. Maintenance Personnel Licensing

Subject No. 5A	<b>HKAR-66 Licensing of Maintenance Personnel</b>	3 hours
Objective	Understand the requirements of HKAR-66	
Topic	<ul style="list-style-type: none"> <li>a. Legal framework on licensing of maintenance personnel</li> <li>b. Categories and privileges</li> <li>c. Knowledge</li> <li>d. Experience</li> <li>e. Type ratings</li> <li>f. Roles in maintenance</li> </ul>	

Subject No. 5B	<b>HKAR-147 Approved Maintenance Training / Examination</b>	2 hours
Objective	Understand the requirements of HKAR-147	
Topic	<ul style="list-style-type: none"> <li>a. Interface among HKAR-66, HKAR-147 and HKAR-145</li> <li>b. HKAR-147 requirements</li> <li>c. Approved basic/type training</li> </ul>	



## 6. Operator Responsibility

Subject No. 6A	<b>Air Operator's Certificate (AOC), Maintenance Management Exposition (MME) and Airworthiness Control Procedures</b>	2 hours
Objective	Understanding CAD 360 Part TWO requirements	
Topic	<ul style="list-style-type: none"> <li>a. Legal requirement</li> <li>b. CAD 360 - AOC Requirements</li> <li>c. Key persons of AOC holders</li> <li>d. CAD 360 Part Two - Arrangement for maintenance support</li> <li>e. Chapters of CAD 360 Part Two</li> </ul>	

Subject No. 6B	<b>Maintenance Support Arrangement and Contracted-out Maintenance</b>	4 hours
Objective	Understand AOC requirements on maintenance support and contracting out maintenance	
Topic	<ul style="list-style-type: none"> <li>a. Different type of contracting out maintenance</li> <li>b. Maintenance agreement/contract</li> <li>c. Responsibility on contractor</li> <li>d. Schedule maintenance inspections</li> <li>e. Staff requirement</li> <li>f. Training requirement</li> <li>g. Temporary maintenance base</li> <li>h. Quality control and assurance on maintenance support</li> </ul>	

Subject No. 6C	<b>Specific Approval</b>	2 hours
Objective	Understand specific approvals and the application process	
Topic	<ul style="list-style-type: none"> <li>a. Type of specific approvals</li> <li>b. Process to obtain specific approvals on: <ul style="list-style-type: none"> <li>i. Reduced Vertical Separation Minima (RVSM)</li> <li>ii. RNAV and RNP approval (PBN)</li> <li>iii. Low Visibility Operations (LVO)</li> <li>iv. Extended Diversion Time Operations (EDTO)</li> </ul> </li> <li>c. Responsibilities of operator and examples of approvals granted</li> </ul>	

### 7. Occurrence and Accident Reporting

Subject No. 7	<b>Occurrence and Accident Reporting</b>	3 hours
Objective	Understand the legislations and procedures of occurrence and accident reporting	
Topic	<ul style="list-style-type: none"> <li>a. International requirements and Hong Kong legislations on occurrence reporting</li> <li>b. Discussion on common cases of occurrence</li> <li>c. Mandatory occurrence reporting (MOR) investigation and closure</li> <li>d. Occurrence reporting requirements in HKAR-145, HKAR-21 &amp; HKAR-183</li> <li>e. International requirements and Hong Kong legislations on accident reporting</li> <li>f. Accident reporting and lessons learnt from previous accidents</li> </ul>	

### 8. Human Factors and Safety Management

Subject No. 8A	<b>Human Factors (HF)</b>	2 hours
Objective	Understand Human Factors (HF) & Maintenance Error Management System (MEMS)	
Topic	<ul style="list-style-type: none"> <li>a. Abbreviated history</li> <li>b. Definitions</li> <li>c. Models of HF</li> <li>d. Basic element/components of MEMS</li> <li>e. Error chain</li> <li>f. Basic principles of error management</li> <li>g. Common features of organisational incidents/accidents</li> <li>h. Performance Influence Factors</li> <li>i. Hong Kong Airworthiness Notice No.71</li> <li>j. Relationships among company culture, data analysis, HF incident investigation, feedback and HF training</li> </ul>	

Subject No. 8B	<b>Safety Management System (SMS)</b>	2 hours
Objective	Understand SMS including knowledge, techniques and skills in developing and managing SMS	
Topic	<ul style="list-style-type: none"> <li>a. ICAO definition of Safety Management</li> <li>b. What is SMS</li> <li>c. Key features of SMS</li> <li>d. Policy statement</li> <li>e. Typical SMS management principles</li> </ul>	

	<ul style="list-style-type: none"> <li>f. Hazard identification</li> <li>g. Determination and analysis of risk</li> <li>h. Risk tolerability matrix</li> <li>i. Risk control action plan</li> <li>j. Document &amp; record</li> <li>k. Audit</li> <li>l. Performance standards</li> <li>m. Benefits of SMS</li> <li>n. Safety Culture</li> <li>o. AN(HK)O 1995 Article 102, AN78 and CAD 712</li> </ul>	
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### 9. Airworthiness Requirements of the European Union Aviation Safety Agency (EASA)

Subject No. 9	<b>European Union Aviation Safety Agency</b>	2 hours
Objective	Understand EASA regulation on maintenance and continuing airworthiness	
Topic	<ul style="list-style-type: none"> <li>a. European legislation</li> <li>b. Regulation structure of Part-M</li> <li>c. Regulation structure of Part-21</li> <li>d. Regulation structure of Part-145</li> <li>e. Regulation structure of Part-66</li> <li>f. Regulation structure of Part-147</li> </ul>	

### 10. Group Exercise

Subject No. 10	<b>Group Exercise</b>	4 hours
Objective	Provide an opportunity for participants to practice and refresh their knowledge learned during the course	
Topic	In form of group presentations or exercises in an interactive role, participants are requested to demonstrate the concept of Airworthiness.	

### 11. Panel Discussion

Subject No. 11	<b>Panel Discussion</b>	3 hours
Objective	Understand CAD interpretations and Industry Experience	
Topic	<ul style="list-style-type: none"> <li>a. View of Hong Kong Airworthiness from CAD officer</li> <li>b. Sharing of Experience in Hong Kong Airworthiness by industry partners</li> </ul>	

## SECTION 3

## Basic HKAR-21 Training Course

The minimum duration of the course is 14 hours with the following Subjects.

**Subjects:****1. Airworthiness Concept and Legal Framework**

Subject No. 1A	<b>Airworthiness Concept</b>	0.5 hr
Objective	Understand airworthiness and who is responsible for airworthiness	
Topic	<ul style="list-style-type: none"> <li>a. Initial airworthiness requirements</li> <li>b. Design and production</li> <li>c. Continuing airworthiness</li> <li>d. Air operator operations</li> <li>e. Human factors and safety management</li> </ul>	

Subject No. 1B	<b>International and Hong Kong Civil Aviation</b>	0.5 hr
Objective	Understand the International Civil Aviation Organisation (ICAO) and civil aviation legislation system of HKSAR	
Topic	<ul style="list-style-type: none"> <li>a. ICAO - history, annexes, safety oversight concept, safety oversight system</li> <li>b. HK legislation system - Basic Law of HKSAR, Civil Aviation Ordinance, Air Navigation (Hong Kong) Order 1995</li> </ul>	

Subject No. 1C	<b>Hong Kong Aviation Legislations &amp; Airworthiness Requirements</b>	1 hr
Objective	Understand Hong Kong aviation legislations & airworthiness requirements	
Topic	<ul style="list-style-type: none"> <li>a. Evolution of legislations for aviation in Hong Kong</li> <li>b. Aviation legislations, regulations and requirements</li> <li>c. Civil Aviation Ordinance and its subsidiary legislations</li> <li>d. Air Navigation (Hong Kong) Order 1995</li> <li>e. Air Operator's Certificates Requirements Document (CAD 360)</li> <li>f. Airworthiness procedures</li> <li>g. Mandatory requirements</li> <li>h. Organisation Approval</li> <li>i. Instruments in AN(HK)O 1995</li> </ul>	

## 2. HKAR-21 Requirements, AMC and GM

Subject No. 2A	<b>HKAR-21 Subpart A General Provisions</b>	0.5 hr
Objective	Understand HKAR-21 General Provisions, Layout, Regulations, AMC and GM and its relationship to EASA Regulations	
Topic	<ul style="list-style-type: none"> <li>a. EASA IR Part 21 Structures</li> <li>b. HKAR-21 Section 1 Requirements</li> <li>c. HKAR-21 Section 2 Acceptable Means of Compliance (AMC)</li> <li>d. HKAR-21 Section 3 Guidance Material (GM)</li> <li>e. HKAR-21 Appendices</li> </ul>	

Subject No. 2B	<b>HKAR-21 Subpart A General Provisions</b>	0.5 hr
Objective	Understand General Provisions applicable to all Approvals granted under HKAR-21	
Topic	<ul style="list-style-type: none"> <li>a. Scope</li> <li>b. Undertaking</li> <li>c. Failures, malfunctions and defects</li> <li>d. Airworthiness directives</li> <li>e. Coordination between design and production</li> <li>f. Charges</li> </ul>	

Subject No. 2C	<b>HKAR-21 Subpart B Type Certificates (TC)</b>	0.5 hr
Objective	Understand Hong Kong type certification process and its relationship to other Subparts	
Topic	<ul style="list-style-type: none"> <li>a. Validation of foreign type certificates</li> <li>b. Type certification basis</li> <li>c. Environmental protection requirements</li> <li>d. Issue of a type certificate</li> <li>e. Type design</li> <li>f. Type certificate</li> <li>g. Obligations of the holder</li> <li>h. Manuals</li> <li>i. Instructions for continued airworthiness (ICA)</li> <li>j. Form DCA 543</li> </ul>	

Subject No. 2D	<b>HKAR-21 Subpart D Changes to Type Certificates</b>	0.5 hr
Objective	Understand the concept of changes to type certificates	
Topic	<ul style="list-style-type: none"> <li>a. Classification of changes in type design</li> <li>b. Eligibility</li> <li>c. Application</li> <li>d. Minor changes</li> <li>e. Major changes</li> <li>f. Certification Basis</li> <li>g. ICA</li> <li>h. HPA Marking</li> <li>i. Form DCA 536</li> </ul>	

Subject No. 2E	<b>HKAR-21 Subpart E Supplemental Type Certificates (STC)</b>	0.5 hr
Objective	Understand STC approval process and validation of foreign STC	
Topic	<ul style="list-style-type: none"> <li>a. Scope</li> <li>b. Eligibility</li> <li>c. Demonstration of capability</li> <li>d. Application for a supplemental type certificate</li> <li>e. Showing of compliance</li> <li>f. Issue of a supplemental type certificate</li> <li>g. Changes to that part of a product covered by a STC</li> <li>h. Obligations and HPA marking</li> <li>i. Manuals</li> <li>j. ICA</li> <li>k. Validation of foreign STC (VSTC)</li> <li>l. Form DCA 534 &amp; 539</li> </ul>	

Subject No. 2F	<b>HKAR-21 Subpart G Production Organisation Approval</b>	0.5 hr
Objective	Understand POA approval process	
Topic	<ul style="list-style-type: none"> <li>a. Scope, eligibility &amp; application</li> <li>b. Quality System</li> <li>c. Exposition</li> <li>d. Approval requirements</li> <li>e. Changes to POA</li> <li>f. Transferability</li> <li>g. Terms of approval</li> <li>h. Changes to the terms of approval</li> <li>i. Investigations</li> <li>j. Findings</li> <li>k. Duration and continued validity</li> <li>l. Privileges</li> <li>m. Obligations of the holder</li> <li>n. Form DCA 533, 537, 553</li> </ul>	

Subject No. 2G	<b>HKAR-21 Subpart H Certificate of Airworthiness</b>	0.5 hr
Objective	Understand C of A issuance process	
Topic	<ul style="list-style-type: none"> <li>a. Scope, Eligibility</li> <li>b. Qualification</li> <li>c. Application</li> <li>d. Language</li> <li>e. Transferability and re-issuance within HKSAR</li> <li>f. Inspections</li> <li>g. Duration and continued validity</li> <li>h. Aircraft identification</li> <li>i. Form DCA 46D</li> </ul>	

Subject No. 2H	<b>HKAR-21 Subpart I Noise Certificate</b>	0.5 hr
Objective	Understand HKAR-21 on Noise Certificate issuance process	
Topic	<ul style="list-style-type: none"> <li>a. Scope, eligibility &amp; application</li> <li>b. Amendment or modification</li> <li>c. Inspection</li> <li>d. Duration and continued validity</li> <li>e. Form DCA 300</li> </ul>	

Subject No. 2I	<b>HKAR-21 Subpart J Design Organisation Approval</b>	1 hr
Objective	Understand HKAR-21 on DOA approval process	
Topic	<ul style="list-style-type: none"> <li>a. Scope, eligibility &amp; application</li> <li>b. Issue of DOA</li> <li>c. Design assurance system (DAS) and its changes</li> <li>d. Design Organisation Handbook (DOH)</li> <li>e. Approval requirements</li> <li>f. Changes in DAS</li> <li>g. Transferability</li> <li>h. Terms of approval and its changes</li> <li>i. Investigations</li> <li>j. Findings</li> <li>k. Duration and continued validity</li> <li>l. Privileges</li> <li>m. Obligations of the holder</li> <li>n. Form DCA 531, 538, 552</li> </ul>	

Subject No. 2J	<b>HKAR-21 Subpart K Materials, Parts, Process and Appliances</b>	1 hr
Objective	Understand HKAR-21 on HPMA parts approval process	
Topic	<ul style="list-style-type: none"> <li>a. FAA Order 8110.42D</li> <li>b. Scope</li> <li>c. Compliance with applicable requirements</li> <li>d. Hong Kong Parts Manufacturer Approval (HPMA)</li> <li>e. Approval of materials, parts, processes and appliances</li> <li>f. Release of materials, parts and appliances for installation</li> <li>g. Form DCA 532, 554</li> </ul>	

Subject No. 2K	<b>HKAR-21 Subpart M Repairs</b>	1 hr
Objective	Understand HKAR-21 on repair design approval process	
Topic	<ul style="list-style-type: none"> <li>a. Eligibility</li> <li>b. Repair design</li> <li>c. Classification of repairs</li> <li>d. Issue of a repair design approval</li> <li>e. Production of repair parts</li> <li>f. Repair embodiment</li> <li>g. Limitations</li> <li>h. Unrepaired damage</li> <li>i. Record keeping</li> <li>j. ICA</li> <li>k. Obligations and HPA marking</li> <li>l. Form DCA 535, 536</li> </ul>	



Subject No. 2L	<b>HKAR-21 Subpart O Hong Kong Technical Standard Order (HTSO)</b>	0.5 hr
Objective	Understand HKAR-21 on HTSO approval process	
Topic	<ul style="list-style-type: none"> <li>a. Scope, eligibility &amp; application</li> <li>b. Data requirements</li> <li>c. HTSO authorisation</li> <li>d. HTSO authorisation privileges</li> <li>e. Declaration of Design and Performance (DDP)</li> <li>f. Obligations of holders of HTSO authorisations</li> <li>g. Approval for deviation</li> <li>h. Design changes</li> <li>i. Record keeping</li> <li>j. Inspection by the Director-General</li> <li>k. Duration and continued validity</li> <li>l. Transferability</li> <li>m. Form DCA 540</li> </ul>	

Subject No. 2M	<b>HKAR-21 Subpart Q Identification of Products, Parts and Appliances</b>	0.5 hr
Objective	Understand HKAR-21 on HPA marking requirements	
Topic	<ul style="list-style-type: none"> <li>a. Identification of products</li> <li>b. Handling of identification data</li> <li>c. Identification of parts and appliances</li> <li>d. Identification of critical parts</li> <li>e. Identification of HTSO articles</li> </ul>	

### 3. CAD Procedures

Subject No. 3A	<b>Validation of Type Certificates</b>	1 hr
Objective	Understand the validation process of Type Certification	
Topic	<ul style="list-style-type: none"> <li>a. Initial airworthiness requirements</li> <li>b. Responsibilities of CAD, State of Design and applicant</li> <li>c. Application Procedures</li> <li>d. Presentation by applicant</li> <li>e. Presentation scope and documentation</li> <li>f. Basis of Certification</li> <li>g. Compliance Reports</li> <li>h. Approvals</li> <li>i. Schedule of Event/Milestone</li> </ul>	

Subject No. 3B	<b>Modification and Repair</b>	1 hr
Objective	Understand HKAR-21 approval procedures on modification and repair	
Topic	<ul style="list-style-type: none"> <li>a. Legal framework</li> <li>b. Criteria for classification of modification</li> <li>c. STC</li> <li>d. VSTC</li> <li>e. Minor modification approval</li> <li>f. Minor repair approval</li> </ul>	

Subject No. 3C	<b>Certification Arrangements with other Authorities</b>	1 hr
Objective	Understand CAD acceptance/validation of foreign products on HK registered aircraft	
Topic	<ul style="list-style-type: none"> <li>a. JCM (CAAC &amp; AACM)</li> <li>b. EASA</li> <li>c. FAA</li> <li>d. CASA</li> </ul>	

#### 4. Panel Discussion

Subject No. 4	<b>Panel Discussion</b>	1 hr
Objective	Understand CAD interpretations and Industry Experience	
Topic	<ul style="list-style-type: none"> <li>a. Views of HKAR-21 from CAD certification officer</li> <li>b. Sharing of Experience in HKAR-21 by industry partners</li> </ul>	

## SECTION 4

## DOA (HKAR-21) Training Course

The minimum duration of the course is 14 hours with the following Subjects.

**Subjects:****1. DOA Concept and Legal Framework**

Subject No. 1A	<b>Legal Framework</b>	0.5 hr
Objective	Understand Hong Kong legal framework in design aspects	
Topic	a. AN(HK)O 1995 b. HKAR-21 c. Airworthiness Notices	

Subject No. 1B	<b>Evolution of DOA</b>	0.5 hr
Objective	Understand the development of HKCAD DOA	
Topic	a. UKCAA BCAR & E2 b. EASA IR Part-21 & DOA c. HKCAD HKAR-1 E2 & HKAR-21 DOA	

Subject No. 1C	<b>Structures of DOA Requirements</b>	1.0 hr
Objective	Understand the DOA requirements, structures and related subparts	
Topic	a. Interrelationships among Subparts A, B, D, E, G, J, M & Q b. Sections 1, 2 & 3 of HKAR-21 c. GM to Section A of EASA IR Part-21	

**2. HKAR-21 DOA Requirements, AMC and GM**

Subject No. 2A	<b>Essential Elements of DOA</b>	3 hr
Objective	Understand the DOA Elements of Approval	
Topic	a. Scope, Eligibility, Application & Issue b. Design Assurance System (DAS) c. Design Organisation Handbook (DOH) d. Technical Staff e. Audits	

Subject No. 2B	<b>Design Assurance System</b>	2 hr
Objective	Understand the Design Assurance System	
Topic	<ul style="list-style-type: none"> <li>a. Overview of DAS</li> <li>b. Compliance with Certification Basis</li> <li>c. Discharging Responsibilities</li> <li>d. Independent Monitoring System</li> <li>e. Independent Checking Function</li> <li>f. Partners &amp; Subcontractor</li> </ul>	

### 3. CAD Procedures

Subject No. 3A	<b>Design Organisation Handbook</b>	2.5 hr
Objective	Understand DO Handbook (Generic)	
Topic	<ul style="list-style-type: none"> <li>a. Tasks and scope</li> <li>b. Organisation</li> <li>c. Responsibilities</li> <li>d. Procedures</li> <li>e. Continuing airworthiness of product it designs</li> <li>f. Resources</li> <li>g. Control system</li> <li>h. Record system</li> <li>i. Reporting system</li> <li>j. Office of airworthiness</li> <li>k. System monitoring system</li> </ul>	

Subject No. 3B	<b>HKAR-21 Subpart J Design Organisation Handbook</b>	1.5 hr
Objective	Understand DO Handbook (Industry Case)	
Topic	<ul style="list-style-type: none"> <li>a. Experience sharing in DOH by industry</li> </ul>	

Subject No. 3C	<b>HKAR-21 Subpart J Design Organisation Approval Procedures</b>	2 hr
Objective	Understand HKAR-21 DOA application procedures	
Topic	<ul style="list-style-type: none"> <li>a. DOA issue, variation and renewal process</li> </ul>	

**4. Panel Discussion**

Subject No. 4	<b>Panel Discussion</b>	1 hr
Objective	Understand CAD interpretations and Industry Experience	
Topic	a. Views of DOA from CAD certification officer b. Sharing of Experience in CAD DOA by industry partners	

## SECTION 5

## POA (HKAR-21) Training Course

The minimum duration of the course is 14 hours with the following Subjects.

**Subjects:****1. POA Concept and Legal Framework**

Subject No. 1A	<b>Legal Framework</b>	0.5 hr
Objective	Understand Hong Kong legal framework in production aspects	
Topic	a. AN(HK)O 1995 b. HKAR-21 c. Airworthiness Notices	

Subject No. 1B	<b>Evolution of POA</b>	0.5 hr
Objective	Understand the development of HKCAD DOA	
Topic	a. UKCAA BCAR & A2 b. EASA IR Part-21 & POA c. HKCAD HKAR-1 A2 & HKAR-21 POA	

Subject No. 1C	<b>Structures of POA Requirements</b>	1.0 hr
Objective	Understand the POA requirements, structures and related subparts	
Topic	a. Interrelationships among Subparts A, E, G, J, O & Q b. Sections 1, 2 & 3 of HKAR-21 c. GM to Section A of EASA IR-Part 21	

**2. HKAR-21 POA Requirements, AMC and GM**

Subject No. 2A	<b>HKAR-21 Subpart G Production Organisation Approval</b>	2 hr
Objective	Understand the POA Elements of Approval	
Topic	a. Scope b. Eligibility c. Application d. Issue	

Subject No. 2B	<b>Quality System</b>	3 hr
Objective	Understand the POA Quality System	
Topic	<ul style="list-style-type: none"> <li>a. Overview of quality system</li> <li>b. Control procedures</li> <li>c. Independent quality assurance</li> </ul>	

### 3. CAD Procedures

Subject No. 3A	<b>Production Organisation Exposition (POE)</b>	3 hr
Objective	Understand POE (Generic)	
Topic	<ul style="list-style-type: none"> <li>a. POE elements</li> <li>b. Amendment of POE</li> </ul>	

Subject No. 3B	<b>POE Sample – Industry Case</b>	1.5 hr
Objective	Understand POE by examples	
Topic	<ul style="list-style-type: none"> <li>a. Experience sharing in POE by industry</li> </ul>	

Subject No. 3C	<b>Production Organisation Approval Procedures</b>	1.5 hr
Objective	Understand POA application procedures and CAD approval procedures	
Topic	<ul style="list-style-type: none"> <li>a. POA issue, variation and renewal process</li> </ul>	

### 4. Panel Discussion

Subject No. 4	<b>Panel Discussion</b>	1 hr
Objective	Understand CAD interpretations and Industry Experience	
Topic	<ul style="list-style-type: none"> <li>a. Views of POA from CAD certification officer</li> <li>b. Sharing of Experience in CAD POA by industry partners</li> </ul>	

## SECTION 6

## HKAR-183 Training Course

The minimum duration of the course is 21 hours with the following Subjects.

**Subjects:****1. HKAR-183 Concept and Legal Framework**

Subject No. 1A	<b>Hong Kong Aviation Legislations &amp; Airworthiness Overview</b>	1.5 hr
Objective	Understand Hong Kong aviation legislations & airworthiness requirements	
Topic	<ul style="list-style-type: none"> <li>a. Evolution of legislations for aviation in Hong Kong</li> <li>b. Aviation legislations, regulations and requirements</li> <li>c. Civil Aviation Ordinance and its subsidiary legislations</li> <li>d. Air Navigation (Hong Kong) Order 1995</li> <li>e. Air Operator's Certificates Requirements Document (CAD 360)</li> <li>f. Airworthiness procedures</li> <li>g. Mandatory requirements</li> <li>h. Organisation Approval</li> <li>i. Instruments in AN(HK)O 1995</li> </ul>	

Subject No. 1B	<b>Evolution of HKAR-183</b>	2 hr
Objective	Understand the development of HKAR-183	
Topic	<ul style="list-style-type: none"> <li>a. Development of HKAR-183</li> <li>b. Introduction of HKAR-183</li> <li>c. HKAR-183 &amp; C of A application</li> </ul>	



## 2. HKAR-183 Requirements, AMC and GM

Subject No. 2A	<b>HKAR-183 Subpart A General</b>	1 hr
Objective	Understand HKAR-183 Purpose, Scope, Layout, Requirements, AMC & GM and its relationship to AN(HK)O 1995	
Topic	<ul style="list-style-type: none"> <li>a. Purpose</li> <li>b. Basis</li> <li>c. Scope</li> <li>d. Definition</li> <li>e. HKAR-183 Section 1 - Requirements</li> <li>f. HKAR-183 Section 2 - Acceptable Means of Compliance (AMC)</li> <li>g. HKAR-183 Section 3 - Guidance Material (GM)</li> <li>h. HKAR-183 Appendices</li> </ul>	
Subject No. 2B	<b>HKAR-183 Subpart D Organisation Designation Approval (ODA)</b>	1 hr
Objective	Understand ODA application, qualification & privileges	
Topic	<ul style="list-style-type: none"> <li>a. ODA application</li> <li>b. Issuance of ODA Certificate of Designation</li> <li>c. Qualifications</li> <li>d. Privileges</li> <li>e. CAD Form 183-1 (DCA 544)</li> </ul>	
Subject No. 2C	<b>HKAR-183 Subpart D Organisation Designation Approval (ODA)</b>	2 hr
Objective	Understand ODA unit personnel, responsibilities & limitations and how the ODA unit & approved activities are documented	
Topic	<ul style="list-style-type: none"> <li>a. ODA Unit personnel</li> <li>b. Procedures manual</li> <li>c. Limitations</li> <li>d. Responsibilities</li> <li>e. Inspection</li> <li>f. Records and reports</li> <li>g. Continuing requirements</li> <li>h. Transferability and duration</li> <li>i. Findings</li> <li>j. CAD Form 183-2 &amp; -4 (DCA 555 &amp; 557)</li> </ul>	

## 3. CAD Procedures

Subject No. 3A	<b>HKAR-183 Appendix 1 – Procedures Manual</b>	1.5 hr
Objective	Understand the content of ODA Procedures Manual	
Topic	a. Sample of ODA Procedures Manual	

Subject No. 3B	<b>HKAR-183 Appendix 2 – Aircraft Report</b>	2.5 hr
Objective	Understand the content and arrangement of an aircraft report	
Topic	a. Sample Aircraft Report	

Subject No. 3C	<b>HKAR-183 Appendix 3 – CAD Form 183-3</b>	0.5 hr
Objective	Understand the recommendation for C of A Issuance	
Topic	a. Purpose and scope of the Recommendation Form b. Sample of Recommendation Form c. CAD Form 183-3 (DCA 556)	

Subject No. 3D	<b>ODA Unit Staff Qualification &amp; Assessment</b>	3 hr
Objective	Understand the qualification & assessment for the unit staff	
Topic	a. Accountable manager b. Administrator c. Quality assurance manager d. Unit member e. Associated unit member f. Quality assurance auditor g. Use of Form Four (DCA 192) h. CAD Form 183-5 (DCA 563)	

## 4. HKAR-183 Case Study

Subject No. 4	<b>Case study on HKAR-183 activities</b>	5 hr
Objective	Understand some core HKAR-183 activities and other common forms	
Topic	a. Audit, inspection, records & reports b. Modification & repair acceptance under HKAR-21 c. Used aircraft d. Helicopter (optional) e. Application for C of A (DCA 46D) f. Application for Approval of Aircraft Radio Installation (DCA141A) g. Application for Noise Certificate (DCA 300)	

**5. Panel Discussion**

Subject No. 5	<b>Panel Discussion</b>	1 hr
Objective	Understand CAD interpretations and Industry Experience	
Topic	a. Views of HKAR-183 from CAD officer b. Sharing of experience by industry partners	

## SECTION 7

## HKAR-145 Training Course

The minimum duration of the course is 21 hours with the following Subjects.

**Subjects:****1. HKAR-145 Concept and Legal Framework**

Subject No. 1	<b>Hong Kong Aviation Legislations &amp; Airworthiness Overview</b>	0.5 hr
Objective	Understand Hong Kong aviation legislations & airworthiness requirements	
Topic	<ul style="list-style-type: none"> <li>a. Evolution of legislations for aviation in Hong Kong</li> <li>b. Aviation legislations, regulations and requirements</li> <li>c. Civil Aviation Ordinance and its subsidiary legislations</li> <li>d. Air Navigation (Hong Kong) Order 1995</li> <li>e. Airworthiness Notices</li> <li>f. Hong Kong Aviation Requirements</li> </ul>	

**2. HKAR-145 Requirements, AMC and GM**

Subject No. 2	HKAR-145 Requirements	1 hr
Objective	Understand HKAR-145 legal framework, development and structure from Regulator perspective	
Topic	<ul style="list-style-type: none"> <li>a. Legal framework and development</li> <li>b. Overview of HKAR-145- background, layouts and subparts</li> </ul> <p><b>Section 1 Requirements :</b></p> <ul style="list-style-type: none"> <li>- HKAR 145.1 General</li> <li>- HKAR 145.3 Effectivity</li> <li>- HKAR 145.5 Definitions</li> <li>- HKAR 145.10 Scope and Applicability</li> <li>- HKAR 145.15 Application and Issue</li> <li>- HKAR 145.20 Terms of Approval</li> <li>- HKAR 145.25 Facility Requirements</li> <li>- HKAR 145.30 Personnel Requirements</li> <li>- HKAR145.35 Certifying Staff and Support Staff</li> <li>- HKAR 145.40 Equipment, Tools and Material</li> <li>- HKAR 145.42 Acceptance of Components</li> <li>- HKAR 145.45 Maintenance Data</li> </ul>	

	<ul style="list-style-type: none"> <li>- HKAR 145.47 Production Planning</li> <li>- HKAR-145.48 Performance of Maintenance</li> <li>- HKAR 145.50 Certification of Maintenance</li> <li>- HKAR 145.55 Maintenance Records</li> <li>- HKAR 145.60 Occurrence Reporting</li> <li>- HKAR 145.65 Safety and Quality Policy, Maintenance Procedures and Quality System</li> <li>- HKAR 145.70 Maintenance Organisation Exposition</li> <li>- HKAR 145.75 Privileges of the HKAR-145 Approved Maintenance</li> <li>- HKAR 145.80 Limitations on the HKAR-145 Approval Maintenance Organisation</li> <li>- HKAR 145.85 Changes to the HKAR-145 Approved Maintenance Organisation</li> <li>- HKAR 145.90 Continued Validity of Approval</li> <li>- HKAR 145.95 Findings</li> <li>- HKAR 145.97 Equivalent Safety Case</li> <li>- HKAR 145.100 Revocation, Suspension, Limitation or Refusal to Renew the Approval Certificate</li> </ul> <p><b>Section 2 Acceptable Means of Compliance (AMC)</b></p> <p><b>Section 3 Guidance Material (GM)</b></p> <p><b>Section 4 Appendices</b></p>	
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### 3. Maintenance Organisation

Subject No. 3A	<b>Approved Maintenance Organisation (AMO)</b>	0.5 hr
Objective	Understand the principles and objectives of HKAR-145 from MRO perspective	
Topic	a. Understand the fundamental requirements in HKAR145 and the purpose of such approval.	

Subject No. 3B	<b>HKAR-145 Approved Maintenance Organisation</b>	0.5 hr
Objective	Understand the HKAR-145 requirements and the associated AMC and GM from MRO perspective	
Topic	a. Overview the technical requirements and administrative procedures for ensuring continuing airworthiness of aircraft and component.	

Subject No. 3C	<b>Privileges and Limitation of HKAR-145 Approved Maintenance Organisation</b>	1 hr
Objective	The applicant shall apply for the relevant approval to support their organisation such as but not limited to the following: maintenance and operation of aeronautical products, parts and appliances, as well as personnel involved in the operation of aircraft.	
Topic	<ul style="list-style-type: none"> <li>a. HKAR 145.1 General</li> <li>b. HKAR 145.3 Effectivity</li> <li>c. HKAR 145.5 Definitions</li> <li>d. HKAR 145.10 Scope and Applicability</li> <li>e. HKAR 145.15 Application and Issue</li> <li>f. HKAR 145.20 Terms of Approval</li> <li>g. HKAR 145.75 Privileges of the HKAR-145 Approved Maintenance</li> <li>h. HKAR 145.80 Limitations on the HKAR-145 Approval Maintenance Organisation</li> <li>i. HKAR-145 Section 4 Appendix 2.</li> </ul>	

#### 4. Coordination with Other Approved Organisation

Subject No. 4	<b>HKAR-145 Approved Maintenance Organisation</b>	2 hr
Objective	Understand the relationship and coordination with the other approved organisations holding different rating. Overview the key function under individual approval.	
Topic	<ul style="list-style-type: none"> <li>a. Review the relevant sections in AOC CAD 360 Part TWO, HKAR-1, HKAR-2, HKAR-21, HKAR-66 and HKAR-147.</li> </ul>	

#### 5. Approval Application

Subject No. 5	<b>HKAR-145 Approved Maintenance Organisation</b>	2 hr
Objective	Explain, in details, the HKAR-145 requirements in practical way. Know “how to” fulfill the Regulatory requirements and “know what” needs to be implemented.	
Topic	<ul style="list-style-type: none"> <li>a. Application procedures and preparation of Exposition. (Reference to HKAR-2 Chapter 6, 7, 8, 9 20, 24 and HKAR-145)</li> </ul>	

## 6. Key 145 Elements

Subject No. 6A	<b>HKAR-145 Approval – Key Elements (Post Holder Roles and Responsibilities)</b>	1 hr
Objective	Understand the responsibilities of key post holders within an approved maintenance organisation.	
Topic	a. The role and responsibilities of Accountable Manager, Base Maintenance Manager, Line Maintenance Manager, Workshop Manager, Safety Manager and Quality manager.	

Subject No. 6B	<b>HKAR-145 Approval – Key Elements (Production Perspective)</b>	2 hr
Objective	Overview the requirements in HKAR-145 Approved Maintenance Organisation and the necessity of facilities and personnel, demonstrate the coverage and continuing airworthiness. Sustainability and continual improvement to secure Aviation safety through risk assessment approach.	
Topic	<ul style="list-style-type: none"> <li>a. HKAR 145.25 Facility Requirements</li> <li>b. HKAR 145.30 Personnel Requirements</li> <li>c. HKAR145.35 Certifying Staff and Support Staff</li> <li>d. HKAR 145.40 Equipment, Tools and Material</li> <li>e. HKAR 145.42 Acceptance of Components</li> <li>f. HKAR 145.45 Maintenance Data</li> <li>g. HKAR-145.48 Performance of Maintenance</li> <li>h. HKAR 145.50 Certification of Maintenance</li> </ul>	

Subject No. 6C	<b>HKAR-145 Approval – Key Elements (Production Planning Perspective)</b>	1.5 hr
Objective	Overview the requirements in HKAR-145 Approved Maintenance Organisation and the necessity of planning and maintenance records, demonstrate the coverage and continuing airworthiness. Sustainability and continual improvement to secure Aviation safety through risk assessment approach.	
Topic	<ul style="list-style-type: none"> <li>a. HKAR 145.47 Production Planning</li> <li>b. HKAR 145.55 Maintenance Records</li> </ul>	

Subject No. 6D	<b>HKAR-145 Approval – Key Elements (Quality Assurance Perspective)</b>	1.5 hr
Objective	Overview the audit requirements in HKAR-145 Approved Maintenance Organisation and the necessity of an audit plan, demonstrate the coverage and continuing airworthiness. Sustainability and continual improvement to secure Aviation safety through risk assessment approach.	
Topic	<ul style="list-style-type: none"> <li>a. HKAR 145.60 Occurrence Reporting</li> <li>b. HKAR 145.65 Safety and Quality Policy, Maintenance Procedures and Quality System</li> <li>c. HKAR 145.70 Maintenance Organisation Exposition</li> <li>d. HKAR 145.75 Privileges of the HKAR-145 approved maintenance organisation</li> <li>e. HKAR 145.85 Changes to the HKAR-145 approved maintenance organisation</li> <li>f. HKAR 145.90 Continued validity of approvalHKAR 145.95 Findings</li> </ul>	

Subject No. 6E	<b>Airworthiness Notices</b>	2 hr
Objective	Overview Airworthiness Notices related to HKAR-145 Approved Maintenance Organisation.	
Topic	<ul style="list-style-type: none"> <li>a. AN3</li> <li>b. AN10 Appendix 1</li> <li>c. AN14, Appendix 5</li> <li>d. AN15</li> <li>e. AN 16</li> <li>f. AN17, Appendix 1 and Appendix 2</li> <li>g. AN 17A</li> <li>h. AN19</li> <li>i. AN 52</li> <li>j. AN 71</li> <li>k. AN 94</li> <li>l. AN 96</li> <li>m. AN 97</li> </ul>	



## 7. HKAR-145 Case Study

Subject No. 7	<b>MRO Real Life Samples</b>	1.5 hr
Objective	The candidates are requested to highlight what they have observed and share with the team.	
Topic	a. In form of group discussion of cases, including non-conformance to the HKAR-145 requirements.	

## 8. Group Exercise

Subject No. 8	<b>4 Group Exercise</b>	3 hr
Objective	Provide an opportunity for participants to practice and refresh their knowledge learned during the course.	
Topic	a. In form of group presentations or exercises in an interactive role, participants are requested to demonstrate the understanding of HKAR-145. <ul style="list-style-type: none"> <li>- Production Group</li> <li>- Production Planning Group</li> <li>- Safety Management System and MOR Group</li> <li>- Quality Audit Group</li> </ul>	

## 9. Panel Discussion

Subject No. 9	<b>Panel Discussion</b>	1 hr
Objective	Provide an opportunity for candidates, CAD officer and Industry Partner to share of practice and refresh their knowledge learned during the course.	
Topic	a. In form of group discussion in an interactive role, candidates are requested to share of experiences.	

## SECTION 8

**Hong Kong Airworthiness Course for Aviation Executive**

The minimum duration of the course is 21 hours with the following Subjects.

**Subjects:****1. Airworthiness Concept and Legal Framework**

Subject No. 1	<b>Air Operator Certificate and Airworthiness Concept</b>	0.5 hr
Objective	Understand airworthiness and the responsibility for airworthiness	
Topic	<ul style="list-style-type: none"> <li>a. Initial airworthiness requirements</li> <li>b. Design and production</li> <li>c. Continuing airworthiness</li> <li>d. Air operator operations</li> <li>e. Human factors and safety management</li> </ul>	

**2. Initial Airworthiness**

Subject No. 2A	<b>HKAR-21 Type Certification</b>	1 hour
Objective	Understand the validation process of Type Certification	
Topic	<ul style="list-style-type: none"> <li>a. Initial Airworthiness Requirements</li> <li>b. Responsibilities of CAD, State of Design and applicant</li> <li>c. Application procedures</li> <li>d. Presentation by applicant</li> <li>e. Presentation scope and documentation</li> <li>f. Basis of Certification</li> <li>g. Compliance Reports</li> <li>h. Approvals</li> <li>i. Schedule of event/milestone</li> </ul>	

Subject No. 2B	<b>HKAR-21 Design and Production</b>	1 hour
Objective	Understand HKAR-21 Design and Production Approval	
Topic	<ul style="list-style-type: none"> <li>a. Legal framework</li> <li>b. Overview of HKAR-21- background, layouts and subparts</li> <li>c. Design Organisation Approval (DOA)</li> <li>d. Production Organisation Approval (POA)</li> <li>e. Hong Kong Parts Manufacturer Approval (HPMA)</li> </ul>	

Subject No. 2C	<b>HKAR-21 Modification and Repair</b>	1 hour
Objective	Understand HKAR-21 aviation requirements and approval procedures on modification and repair	
Topic	<ul style="list-style-type: none"> <li>a. Legal framework</li> <li>b. Criteria for classification of modification</li> <li>c. STC</li> <li>d. VSTC</li> <li>e. Minor Mod Approval</li> <li>f. Minor Repair Approval</li> </ul>	

Subject No. 2D	<b>HKAR-1 and Other Approvals in Sub-section 1.8</b>	0.5 hour
Objective	Understand HKAR-1 and other approvals in the HKAR-1 Sub-section 1.8	
Topic	<ul style="list-style-type: none"> <li>a. Overview of HKAR-1</li> <li>b. Other 1.8 Approvals - Group B4</li> <li>c. Organisation Approvals <ul style="list-style-type: none"> <li>1. 1.8-9 Organisation Approval for flight under 'B' Conditions</li> <li>2. 1.8-10 Approval of Welders</li> <li>3. 1.8-11 Approval of Organisation concerned with radiographic inspection of aircraft</li> <li>4. 1.8-12 Approval of Organisation concerned with ultrasonic inspection of aircraft</li> <li>5. 1.8-13 Aircraft and Aircraft Component Maintenance Organisation</li> <li>6. 1.8-14 Approval of Organisations to recommend CoA renewal of aircraft above 2730 kg MTWA</li> <li>7. 1.8-15 Aircraft not exceeding 2730 kg – Maintenance Organisations Group M3</li> </ul> </li> </ul>	

Subject No. 2E	<b>HKAR-183 Representatives of the Director-General</b>	1 hour
Objective	Understand HKAR-183 requirements and approval procedures	
Topic	<ul style="list-style-type: none"> <li>a. Introduction of HKAR-183</li> <li>b. Relationship between HKAR-21 &amp; HKAR-183</li> <li>c. Privileges and limitation of the Approval HKAR-183 Organisation</li> <li>d. Recommendation of C of A issue</li> </ul>	

Subject No. 2F	<b>HKAR-183 Report for C of A Issue</b>	1 hour
Objective	Understand the purpose of HKAR183 aircraft report and the information contained in the report	
Topic	<ul style="list-style-type: none"> <li>a. Introduction to report</li> <li>b. Purpose of report</li> <li>c. Sections of the report</li> <li>d. Inspection report</li> <li>e. Process and administration of report</li> </ul>	

Subject No. 2G	<b>Issue of Certificate of Airworthiness (C of A)</b>	0.5 hour
Objective	Understand the legislations and procedures of issue of C of A	
Topic	<ul style="list-style-type: none"> <li>a. Legislations and requirements</li> <li>b. Procedures on issue of C of A</li> <li>c. Usual problems associated with C of A issue</li> </ul>	

Subject No. 2H	<b>Certification Arrangements with Other Authorities</b>	0.5 hour
Objective	Understand CAD policy on accepting/validating design approvals from other authorities	
Topic	<ul style="list-style-type: none"> <li>a. Joint Certification Management (JCM)</li> <li>b. Cooperative arrangements with CAAC/AACM</li> <li>c. Working Arrangements with EASA</li> <li>d. Working Procedures with FAA</li> <li>e. Technical Arrangement with CASA</li> </ul>	

### 3. Continuing Airworthiness

Subject No. 3A	<b>Renewal of Certificate of Airworthiness (C of A)</b>	0.5 hour
Objective	Understand the legislations and procedures of renewal of C of A	
Topic	<ul style="list-style-type: none"> <li>a. Legislations and requirements</li> <li>b. Procedures on the C of A renewal</li> <li>c. HKAR-181 - Approval of Organisations to Recommend Certificate of Airworthiness Renewal</li> <li>d. Usual problems associated with C of A renewal</li> </ul>	

Subject No. 3B	<b>Aircraft Maintenance Programme / Schedule</b>	1 hour
Objective	Understand the approval process of aircraft maintenance programme/schedule	
Topic	<ul style="list-style-type: none"> <li>a. Continued Airworthiness (CA)</li> <li>b. ICAO standards and recommended practices on CA</li> <li>c. Hong Kong airworthiness requirement</li> </ul>	

	<ul style="list-style-type: none"> <li>d. Persons involved in CA and their responsibilities</li> <li>e. Basis for approval of approved maintenance schedule</li> <li>f. Evolution, development, optimisation and bridging of maintenance program</li> </ul>	
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Subject No. 3C	<b>Maintenance and Reliability Reporting</b>	1 hour
Objective	Understand importance of a reliability programme and its development	
Topic	<ul style="list-style-type: none"> <li>a. Purpose of fleet reliability</li> <li>b. Applicability of the reliability programme</li> <li>c. Operator's responsibilities</li> <li>d. Programme control committee</li> <li>e. Programme control document</li> <li>f. Type of information collected</li> <li>g. Display and reporting of information</li> <li>h. Analysis, interpretation of the information</li> <li>i. Corrective actions</li> <li>j. Quality management</li> <li>k. Maintenance and Reliability Summary exercise</li> </ul>	

Subject No. 3D	<b>Engine Maintenance Programmes (EMP)</b>	0.5 hour
Objective	Understand the importance of EMP and its development	
Topic	<ul style="list-style-type: none"> <li>a. Objective of EMP</li> <li>b. Operational advantages</li> <li>c. Engine critical parts</li> <li>d. Critical part failure consequence</li> <li>e. Data collection, analysis and interpretation for EMP</li> <li>f. Corrective actions</li> <li>g. Operator's responsibilities</li> <li>h. Authority requirements on EMP</li> </ul>	

Subject No. 3E	<b>Airworthiness Directive (AD)</b>	0.5 hour
Objective	Understand AD	
Topic	<ul style="list-style-type: none"> <li>a. Responsibility for continued airworthiness</li> <li>b. Definition of AD</li> <li>c. Type of AD</li> <li>d. Applicability</li> <li>e. Compliance</li> <li>f. Alternative means of compliance</li> <li>g. Experience sharing on handling an AD</li> </ul>	

## 4. HKAR-145 Approved Maintenance Organisation

Subject No. 4A	<b>HKAR-145 Approved Maintenance Organisation</b>	1 hour
Objective	Understand the requirements of HKAR-145	
Topic	<ul style="list-style-type: none"> <li>a. Approval and Class Rating of HKAR-145</li> <li>b. Application procedures</li> <li>c. Extent of Approval</li> <li>d. Privileges and Limitation of the HKAR-145 organisation</li> <li>e. HKAR-145 requirements</li> </ul>	

Subject No. 4B	<b>Quality Control and Assurance</b>	1 hour
Objective	Understand the quality control and quality assurance in maintenance organisation	
Topic	<ul style="list-style-type: none"> <li>a. Quality assurance (QA) in maintenance organisation</li> <li>b. Quality control and assurance in air operator maintenance support</li> <li>c. Audit findings in maintenance organisation</li> <li>d. Ineffective quality assurance in maintenance organisation</li> <li>e. QA supply chain</li> </ul>	

Subject No. 4C	<b>Joint Maintenance Management (JMM) / Technical Arrangement (TA)</b>	0.5 hour
Objective	Understand JMM and current TA policy	
Topic	<ul style="list-style-type: none"> <li>a. Cooperative arrangement</li> <li>b. Joint maintenance management</li> <li>c. Joint maintenance procedures</li> <li>d. Benefits</li> <li>e. Safety oversight</li> </ul>	

## 5. Maintenance Personnel Licensing

Subject No. 5A	<b>HKAR-66 Licensing of Maintenance Personnel</b>	0.5 hour
Objective	Understand the requirements of HKAR-66	
Topic	<ul style="list-style-type: none"> <li>a. Legal framework on licensing of maintenance personnel</li> <li>b. Categories and privileges</li> <li>c. Knowledge</li> <li>d. Experience</li> <li>e. Type ratings</li> <li>f. Roles in maintenance</li> </ul>	

Subject No. 5B	<b>HKAR-147 Approved Maintenance Training / Examination</b>	0.5 hour
Objective	Understand the requirements of HKAR-147	
Topic	a. Interface among HKAR-66, HKAR-147 and HKAR-145 b. HKAR-147 requirements c. Approved basic/type training	

## 6. Operator Responsibility

Subject No. 6A	<b>Air Operator's Certificate (AOC), Maintenance Management Exposition (MME) and Airworthiness Control Procedures</b>	1 hour
Objective	Understanding CAD 360 Part II requirements	
Topic	a. Legal requirement b. CAD 360 - AOC Requirements c. Key persons of AOC holders d. CAD 360 Part Two - Arrangement for maintenance support e. Chapters of CAD 360 Part Two	

Subject No. 6B	<b>Maintenance Support Arrangement and Contracted-out Maintenance</b>	1 hour
Objective	Understand AOC requirements on maintenance support and contracting out maintenance	
Topic	a. Different type of contracting out maintenance b. Maintenance agreement/contract c. Responsibility on contractor d. Schedule maintenance inspections e. Staff requirement f. Training requirement g. Temporary maintenance base h. Quality control and assurance on maintenance support	

Subject No. 6C	<b>Specific Approval</b>	1 hour
Objective	Understand specific approvals and the application process	
Topic	a. Type of specific approvals b. Process to obtain specific approvals on: i. Reduced Vertical Separation Minima (RVSM) ii. RNAV and RNP approval (PBN) iii. Low Visibility Operations (LVO) iv. Extended Diversion Time Operations (EDTO) c. Responsibilities of operator and examples of approvals granted	

**7. Occurrence and Accident Reporting**

Subject No. 7	<b>Occurrence and Accident Reporting</b>	1 hour
Objective	Understand the legislations and procedures of occurrence and accident reporting	
Topic	<ul style="list-style-type: none"> <li>a. International requirements and Hong Kong legislations on occurrence reporting</li> <li>b. Discussion on common cases of occurrence</li> <li>c. Mandatory occurrence reporting (MOR) investigation and closure</li> <li>d. Occurrence reporting requirements in HKAR-21 &amp; HKAR-183</li> <li>e. International requirements and Hong Kong legislations on accident reporting</li> <li>f. Accident reporting and lessons learnt from previous accidents</li> </ul>	

**8. Group Exercise Human Factors and Safety Management**

Subject No. 8A	<b>Human Factors (HF)</b>	1 hour
Objective	Understand Human Factors (HF) & Maintenance Error Management System (MEMS)	
Topic	<ul style="list-style-type: none"> <li>a. Abbreviated history</li> <li>b. Definitions</li> <li>c. Models of HF</li> <li>d. Basic element/components of MEMS</li> <li>e. Error chain</li> <li>f. Basic principles of error management</li> <li>g. Common features of organisational incidents/accidents</li> <li>h. Performance Influence Factors</li> <li>i. Hong Kong Airworthiness Notice No.71</li> <li>j. Relationships among company culture, data analysis, HF incident investigation, feedback and HF training</li> </ul>	



Subject No. 8B	<b>Safety Management System (SMS)</b>	1 hour
Objective	Understand SMS including knowledge, techniques and skills in developing and managing SMS	
Topic	<ul style="list-style-type: none"> <li>a. ICAO definition of Safety Management</li> <li>b. What is SMS</li> <li>c. Key features of SMS</li> <li>d. Policy statement</li> <li>e. Typical SMS management principles</li> <li>f. Hazard identification</li> <li>g. Determination and analysis of risk</li> <li>h. Risk tolerability matrix</li> <li>i. Risk control action plan</li> <li>j. Document &amp; record</li> <li>k. Audit</li> <li>l. Performance standards</li> <li>m. Benefits of SMS</li> <li>n. Safety Culture</li> <li>o. AN(HK)O 1995 Article 102, AN78 and CAD 712</li> </ul>	

## 9. Panel Discussion

Subject No. 9	<b>Panel Discussion</b>	1 hour
Objective	Provide an opportunity for candidates, CAD officer and Industry Partner to share of practice and refresh their knowledge learned during the course.	
Topic	In form of group discussion in an interactive role, candidates are requested to share of experiences.	