

# **DRAGONAIR**

## **OPERATIONS MANUAL**


  

### **PART D**

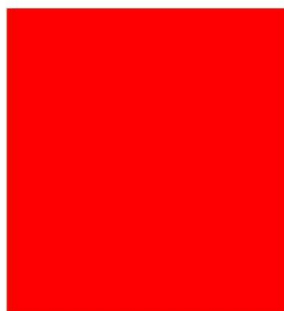
### **TRAINING**

This volume forms part of the Operations Manual. It is issued by the Operations Department and is authorised by the General Manager (Operations).

Signed :   
Peter SANDERSON  
General Manager Operations

Revision

The holder of this Volume is responsible for its revision.



## 安全、質量及保安政策

安全、質量及保安是港龍航空的核心價值。藉著各員工絕不妥協地致力推行各種持續提升質量、保安及安全管理系統計劃，我們務求在這些方面均達到最高的水平。

港龍航空一直以來均十分重視及鼓勵任何有關運作安全及保安事件的報告。我們有既定政策，鼓勵每一位員工向公司匯報任何可能影響航班及地勤營運安全及保安的情況及資料，並積極推動這種文化。我們更製訂了一套程序，適用於航空安全報告、機艙安全報告、地勤安全報告、品質審計報告及保安審查報告所收集紀錄及發放的資訊，確保溝通可以在不受拘束的情況下進行。

我們亦確立機制，以量度及訂立在所有有關安全、質量及保安方面的主要表現水平，並以嚴謹的風險評審，按其重要性訂定改善措施的優先次序。

為建立互信關係，港龍航空推行公平文化的政策，決不會紀律處分任何匯報有關航班安全事件的員工。但如果有關資訊是來自其他來源，或員工刻意漠視既定的政策及程序，此項政策則不適用。我們希望從錯誤中學習，以不斷提升水平。

作為行政總裁，我自然責無旁貸，除致力履行承諾提供安全的運作及工作環境，我務請大家積極負責，讓港龍航空繼續在安全、品質及保安方面均達致最高的水平，讓顧客、員工及商業夥伴均受惠，並保持公司在這方面的業界領導地位。

行政總裁 楊偉添

二〇一一年八月

## SAFETY, QUALITY AND SECURITY POLICY

Safety, quality and security are core values of Dragonair. We are dedicated to achieving the highest standards in these disciplines by the uncompromising efforts and vigilance of every employee in implementing continuous quality improvement, security and safety management system programmes that are in place in Dragonair.

It is imperative that we have uninhibited reporting of all incidents and occurrences which compromise the safe and secure conduct of our operations. We have a policy of an open reporting culture where every employee is encouraged to communicate any information that may affect the integrity of flight and ground safety and security. Such communication is free of reprisal. Our method of collecting, recording and disseminating information obtained from Air Safety Reports, Cabin Safety Reports, Ground Safety Reports, Quality Audits and Security Inspections has been developed to achieve this aim.

We have established methods to measure and set key performance standards in all the safety, quality and security disciplines coupled with a rigorous process of risk assessment in order to prioritise the deployment of corrective actions in a timely and efficient manner.

To engender mutual trust, Dragonair has a just culture policy where it will not take disciplinary action against any employee who discloses an incident or occurrence involving safety. This policy shall not apply to information received by the company from a source other than the employee, or when the employee knowingly disregards established policies and procedures. We constantly improve our standards by learning from our own mistakes and errors as well as those made by others.

As the Chief Executive Officer I am ultimately accountable and fully committed to providing a safe operational and working environment. However I require you all to take responsibility to ensure Dragonair maintain its industry position as a leader in providing our customers, employees and business partners with the highest level of safety, quality and security.

Patrick Yeung  
Chief Executive Officer  
August 2011



## POLICY STATEMENTS

### COMMANDER/PILOT IN COMMAND/PIC

The term "Commander" throughout the Operations manuals is synonymous with "Pilot in Command (PIC)"

### CREW RESOURCE MANAGEMENT (CRM)

Dragonair is committed to the application of modern Crew Resource Management principles in Flight Operations. CRM principles of today are considered by Hong Kong Dragon Airlines to provide the most proven methods of achieving effective leadership and communication, aimed at the promotion of safe and efficient flight. While traditional high standards of technical excellence remain the cornerstone of the airline, it is recognised that effective team management is essential. This must involve the promotion of a comfortable and understanding working environment, especially in multi-cultural crew situations, through clear and unambiguous communication and task sharing. It is Company Policy that CRM principles will be promoted and adopted by all persons in Flight Operations.

### AUTOMATION

It is Dragonair policy to regard Automation as a tool to be used, but not blindly relied upon. At all times, flight crew must be aware of what automation is doing, and if not understood, or not requested, reversion to basic modes of operation must be made immediately without analysis or delay. Trainers must ensure that all flight crew are taught with emphasis how to quickly revert to basic modes when necessary. In the man-machine interface, man is still in charge.

### QUALITY MANAGEMENT

Dragonair is committed to the application of a Quality Management System in Flight Operations. To this end the management system is defined in OM Part A and shall be complied with for all future policy and procedural development.

### GENDER

Masculine terms in all the operations manuals, such as he, him or his also imply the female gender.

### ELECTRONIC MANUALS

Electronic manuals are an established means of communicating information and data in support of a wide range of FOP activities. Access to electronic manuals is available to all approved users via Dragonet. All FOP staff are encouraged to utilise electronic manuals on a routine and ongoing basis. Electronic manuals posted on Dragonet represent the latest revised versions and, where differences exist with physical documentation, are considered to be the master source. In some cases manuals can be downloaded directly onto storage devices for offline use. Persons utilising information and data in this manner must be careful to ensure that it represents the latest in-use version available on Dragonet.

### STANDARD OPERATING PROCEDURES

Airbus customized FCOM chapters and QRH as well as Dragonair customized FCOM and QRH chapters are accepted as the Standard operating Procedures for Dragonair. Where there is a difference between Airbus and Dragonair customized material, the latter is the overriding authority.

### DESIGNATED COMMON LANGUAGE

It is Dragonair Policy that English shall be the designated common language for Flight Operations. All communications pertaining to Flight Operations, whether oral or written will be conducted in English. This includes all oral communications between Flight Crew within the Cockpit, and between the Flight Crew and all other staff (includes the Cabin Crew, Ground Handling Personnel, Passengers, Air Traffic Control and any other ground station or aircraft). All operational documentation including training materials shall be written in English. All Flight Crew and Cabin Crew training activities and evaluations shall be conducted in English.

Signed: \_\_\_\_\_

General Manager Operations

**REVISION RECORD SHEET**

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01	16 Nov 11	<b>INCORPORATED</b>	
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## 0. INTRODUCTION

### GENERAL

In accordance with CAD and ICAO requirements, regarding the structure of the Operations Manual, Operations Manual Part D has replaced Volume 10 Flight Crew Training Manual.

Any reference to any part (or the whole) of Volume 10 Flight Crew Training Manual shall mean a reference to the appropriate part of Operations Manual Part D.

All references in the manual to the ANO are to be taken to refer to the AN(HK)O1995 or later editions of this document.

Where no specific training requirements exist or are implied, all references to 'Airbus' will include all Airbus types operated by Dragonair. All references to A320 will include A321. Where specific training requirements do exist, the A320, A321 and A330 will be referred to separately.

All references to Training Captain (TC) will mean a TC of any designation. Where a specific minimum designation is required then the required minimum designation will be listed e.g. Senior Training Capt (STC) infers Simulator Base Training Capt (SBTC) etc.

Reference to Co-pilot will mean SO, JFO and FO.

All references to "he" may be taken to mean either "he" or "she".

### OPERATIONS MANUAL LAYOUT

Refer to Part A, 0.1.1 'OPERATIONS MANUAL'

### ELECTRONIC MANUAL

Refer to Part A, 0.1.2 'ELECTRONIC MANUALS'

### ABBREVIATIONS AND DEFINITIONS

Refer to Part A, 0.1.5 'ABBREVIATIONS' and  
Part A, 0.1.6 'DEFINITIONS'

### SYSTEM OF AMENDMENT AND REVISION

Refer to Part A 0.2 'SYSTEM OF AMENDMENT AND REVISION'

### MANUAL OWNERSHIP AND CONTENT

Refer to Part A, 0.2.2 'MANUAL OWNERSHIP AND CONTENT'

### RECORD OF REVISIONS

When receiving a revision, insert the reversion date and incorporated by/date in the table below.

Remark: The revision dates indicated hereafter are the issue date of this manual.



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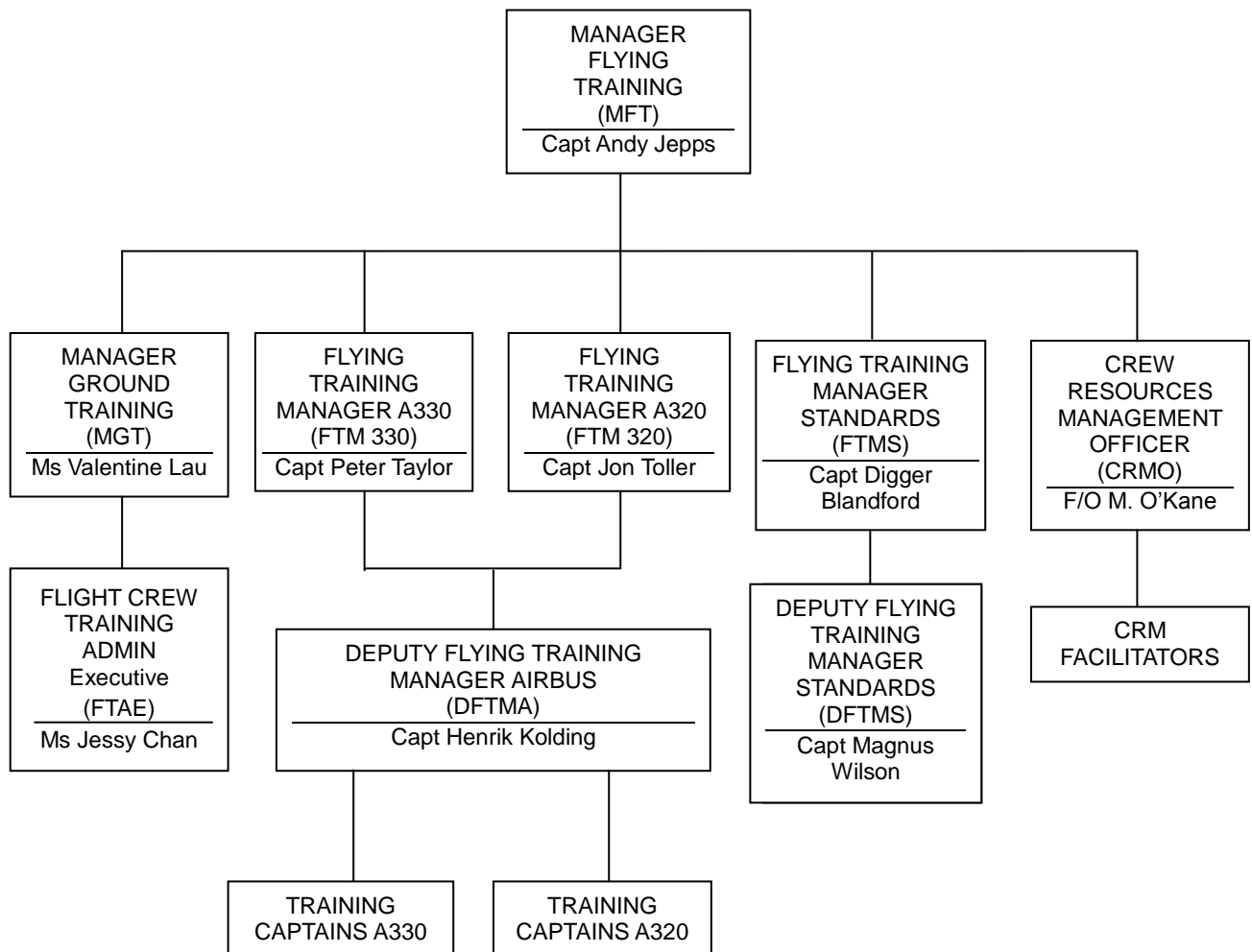
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## 1. GENERAL

### 1.1 ORGANIZATION

#### 1.1.1 TRAINING OFFICE ORGANISATION CHART





## 1.2 ADMINISTRATION

### 1.2.1 COMPANY POLICY

#### 1.2.1.1 TRAINING POLICY

It is Dragonair Flight Crew Training Department training policy that all training and checking staff are able to conduct their duties without inappropriate interference from management, external organizations or individuals.

#### 1.2.1.2 COMPLIANCE

This manual complies with the AN(HK)O and the AOC conditions and the corresponding operations specifications. All Training Personnel shall comply with the requirements in this manual.

#### 1.2.1.3 TEMPORARY FLYING STAFF

In exceptional circumstances, the company may employ pilots on short-term contracts. In this event special procedures for checking such crew will be established after consultation with the CAD.

#### 1.2.1.4 TEMPORARY TRAINING STAFF

Occasionally temporary instructors may be required to fly with Dragonair. Authorisation to fly and operate in an instructional capacity will be arranged by the MFT with the CAD. A list of approved persons will be held by the MFT.

#### 1.2.1.5 ENGLISH LANGUAGE PROFICIENCY

English is the common company language for Dragonair and the International Aviation language.

Adequate proficiency in the English language is essential for effective comprehension & communication and plays a key role in the prevention of accidents and incidents.

Formal evaluation is required for all flight deck crew-members.

It is Company policy that all flight deck crew-members meet the minimum skills level in English language proficiency. This level of proficiency will be measured using the ICAO language proficiency rating scale. The rating scale rates language proficiency using ICAO holistic descriptors (See tables following) on a 6-point scale that ranges from Pre-elementary (Level 1), to Expert (Level 6).

For Dragonair line operations, flight deck crew-members must demonstrate Level 4 or above in language proficiency. Retesting for those rated at Level 4 will be every 3 years and for Level 5 every 6 years. Once Level 6 is achieved, recurrent formal assessment is not required.

Demonstration of proficiency at the Expert Level is easily determined on the basis of observation during interview. The observation will be based on the person's ability to clearly and fluently comprehend and communicate with others as well as checking the recipients understanding of the written and verbal communication. The observation will also include a direct test segment whereby the crew-member will be engaged in continuous dialogue for a period of two minutes.

Formal assessment is required for crew-members who demonstrate language proficiency below Expert Level. Further assessment with an Aviation Language Specialist using a formal ICAO compliant English language test will then be required.

New joining flight deck crew-members will undergo a language proficiency test during the interview process whilst Cadet Pilots will undergo the same test during their selection process.



### ICAO LANGUAGE PROFICIENCY RATING SCALE WITH EXAMPLES

ICAO publishes the following Proficiency Ratings. Audio samples may be accessed via the following website: [http://www.ulc.gov.pl/download/ICAO\\_LPR/ratingscale.html](http://www.ulc.gov.pl/download/ICAO_LPR/ratingscale.html) and clicking on the [Listen to samples](#) link.






	Level 6 Expert	Level 5 Extended	Level 4 Operational	Level 3 Pre-operational	Level 2 Elementary
Pronunciation (Assumes a dialect and/or accent intelligible to the aeronautical community.)	Pronunciation, stress, rhythm, and intonation, though possibly influenced by the first language or regional variation, almost never interfere with ease of understanding.	Pronunciation, stress, rhythm, and intonation, though influenced by the first language or regional variation, rarely interfere with ease of understanding. <a href="#">Listen to samples</a>	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation but only sometimes interfere with ease of understanding. <a href="#">Listen to samples</a>	Pronunciation, stress, rhythm, and intonation are influenced by the first language or regional variation and frequently interfere with ease of understanding. <a href="#">Listen to samples</a>	Pronunciation, stress, rhythm, and intonation are heavily influenced by the first language or regional variation and usually interfere with ease of understanding.
	Level 6	Level 5	Level 4	Level 3	Level 2
Structure (Relevant grammatical structures and sentence patterns are determined by language functions appropriate to the task.)	Both basic and complex grammatical structures and sentence patterns are consistently well controlled.	Basic grammatical structures and sentence patterns are consistently well controlled. Complex structures are attempted but with errors which sometimes interfere with meaning. <a href="#">Listen to samples</a>	Basic grammatical structures and sentence patterns are used creatively and are usually well controlled. Errors may occur, particularly in unusual or unexpected circumstances, but rarely interfere with meaning. <a href="#">Listen to samples</a>	Basic grammatical structures and sentence patterns associated with predictable situations are not always well controlled. Errors frequently interfere with meaning. <a href="#">Listen to samples</a>	Shows only limited control of a few simple memorized grammatical structures and sentence patterns.



	Level 6 Expert	Level 5 Extended	Level 4 Operational	Level 3 Pre-operational	Level 2 Elementary
Vocabulary	Vocabulary range and accuracy are sufficient to communicate effectively on a wide variety of familiar and unfamiliar topics. Vocabulary is idiomatic, nuanced, and sensitive to register.	Vocabulary range and accuracy are sufficient to communicate effectively on common, concrete, and work related topics. Paraphrases consistently and successfully. Vocabulary is sometimes idiomatic. Listen to samples	Vocabulary range and accuracy are usually sufficient to communicate effectively on common, concrete, and work related topics. Can often paraphrase successfully when lacking vocabulary in unusual or unexpected circumstances. Listen to samples	Vocabulary range and accuracy are often sufficient to communicate on common, concrete, or work related topics but range is limited and the word choice often inappropriate. Is often unable to paraphrase successfully when lacking vocabulary. Listen to samples	Limited vocabulary range consisting only of isolated words and memorized phrases.
	Level 6	Level 5	Level 4	Level 3	Level 2
Fluency	Able to speak at length with a natural, effortless flow. Varies speech flow for stylistic effect, e.g. to emphasize a point. Uses appropriate discourse markers and connectors spontaneously.	Able to speak at length with relative ease on familiar topics, but may not vary speech flow as a stylistic device. Can make use of appropriate discourse markers or connectors. Listen to samples	Produces stretches of language at an appropriate tempo. There may be occasional loss of fluency on transition from rehearsed or formulaic speech to spontaneous interaction, but this does not prevent effective communication. Can make limited use of discourse markers or connectors. Fillers are not distracting. Listen to samples	Produces stretches of language, but phrasing and pausing are often inappropriate. Hesitations or slowness in language processing may prevent effective communication. Fillers are sometimes distracting. Listen to samples	Can produce very short, isolated, memorized utterances with frequent pausing and a distracting use of fillers to search for expressions and to articulate less familiar words.





	Level 6 Expert	Level 5 Extended	Level 4 Operational	Level 3 Pre-operational	Level 2 Elementary
<b>Comprehension</b>	Comprehension is consistently accurate in nearly all contexts and includes comprehension of linguistic and cultural subtleties.	Comprehension is accurate on common, concrete, and work related topics and mostly accurate when the speaker is confronted with a linguistic or situational complication or an unexpected turn of events. Is able to comprehend a range of speech varieties (dialect and/or accent) or registers.	Comprehension is mostly accurate on common, concrete, and work related topics when the accent or variety used is sufficiently intelligible for an international community of users. When the speaker is confronted with a linguistic or situational complication or an unexpected turn of events, comprehension may be slower or require clarification strategies.   <a href="#">Listen to samples</a>	Comprehension is often accurate on common, concrete, and work related topics when the accent or variety used is sufficiently intelligible for an international community of users. May fail to understand a linguistic or situational complication or an unexpected turn of events.   <a href="#">Listen to samples</a>	Comprehension is limited to isolated, memorized phrases when they are carefully and slowly articulated.
	Level 6	Level 5	Level 4	Level 3	Level 2
<b>Interactions</b>	Interacts with ease in nearly all situations. Is sensitive to verbal and non-verbal cues, and responds to them appropriately.	Responses are immediate, appropriate, and informative. Manages the speaker/listener relationship effectively.   <a href="#">Listen to samples</a>	Responses are usually immediate, appropriate, and informative. Initiates and maintains exchanges even when dealing with an unexpected turn of events. Deals adequately with apparent misunderstandings by checking, confirming, or clarifying.   <a href="#">Listen to samples</a>	Responses are sometimes immediate, appropriate, and informative. Can initiate and maintain exchanges with reasonable ease on familiar topics and in predictable situations. Generally inadequate when dealing with an unexpected turn of events.   <a href="#">Listen to samples</a>	Response time is slow, and often inappropriate. Interaction is limited to simple routine exchanges.



#### 1.2.1.6 APPROVED FULL FLIGHT SIMULATORS & TRAINING DEVICES

Simulators & Training devices approved by the HKCAD for use by Dragonair are:

<b><u>A320</u></b>	HDA01	HKG
	OAA HK04	HKG
	OAA HK05	HKG
	IPT (MFTD)	HKG

<b><u>A330</u></b>	CPA10	HKG
	CPA13	HKG
	OAA HK02	HKG
	HDA02 (RR)	HKG
	IPT (MFTD)	HKG

#### 1.2.1.7 TRAINING MANAGEMENT MEETING (TMM)

The Flight Crew Training department management team will meet periodically, at intervals of not greater than two months, to discuss and review existing training policy and its implementation with regards the introduction of new projects, new aircraft types, or modifications and upgrades to existing types.

Proposed new policy or procedures, new aircraft types, or modifications and upgrades to existing types as recommended by Line Operations or Operations Division management, will also be reviewed, and individual managers mandated with implementing policy and procedures as required.

Progress on current projects will be reviewed and new training department appointments will also be considered when appropriate.

The minimum quorum for a TMM will consist of MFT or FTMS and two other FTMs or DFTMs.

Standard agenda is to include:

- Previous minutes open items
- Review of training and checking duties since the previous meeting and forecast workload in proceeding months
- Tracking of SO→JFO and JFO→FO upgrade training requirements
- Review of all open Remedial Action Forms
- Analyses of trends of numerical scoring and pass rates of all assessed courses with a view to continuous improvement of training and training processes.
- Introduction of new policy or procedures and their relevance to current regulatory approvals and documentation.

MFT will chair the meetings, or his assigned deputy as required. Minutes will be kept of items discussed and decisions made. Minutes will be stored on the E-Library under R:\TRAINING\ADMINI\MEETINGS\TMM.

#### 1.2.1.8 CHECK AND TRAINING MEETING (CTM)

A meeting of respective fleet Training Captains and associated training personnel will normally be rostered quarterly. MFT may call an extraordinary CTM at any time and will attend all meetings whenever possible. Training Captains will be rostered to attend a CTM at least once a year.



Airbus CTM meetings will consist of Training Captains from both the A330 and A320/1 fleets.

The CTMs will be chaired by a Flying Training Manager and all available TCs will be rostered to attend. The Chief Pilot, and CX Airbus Simulator Training Manager (CX STM) will also be invited to attend.

Minutes of all CTMs will be taken and stored in the e-Library for auditing and record purposes in R:\TRAINING\ADMINI\MEETINGS\TCM. The terms of reference for the meeting are that it will be a forum for Training Management to inform TCs of:

- Fleet training issues and training system performance.
- Changes in operating policy or procedures and other standardisation issues.
- Engineering and technical changes or upgrades that are planned or imminent.
- Administrative issues.

This list is not exhaustive.

In addition the CTM will also be a forum for TCs to raise any training or operational issues with Training Management and to enable them to provide feedback on perceived standards and weaknesses in these areas.

Minutes and relevant presentations will be circulated electronically to all TCs, CPA and CX STM.

A standard agenda will consist of, but not limited to:

- Previous minutes' open items.
- Review of recent training history and planned workload.
- Standardisation Points
- Any other business.

#### 1.2.1.9 GROUP TRAINING CO-ORDINATION MEETING (GTM)

A Group Training Co-ordination Meeting will be held once a month on the third Tuesday in the calendar month, as long as this is not a public holiday when a suitable alternate will be decided amongst the participants.

The normal quorum for the meeting from the Dragonair side will be:

- Manager Flying Training
- Flying Training Manager Standards

If either of these managers are not available then a substitute FTM will be briefed and rostered to attend. This substitute will be selected from the same fleet as the manager unable to attend.

The Cathay Pacific members of the meeting will include:

- Manager Flying Training
- Training Development Manager
- Airbus Simulator Training Manager.

The meeting will focus on the co-ordination aspects of the training conducted in the CX FTC and will also address the standardisation issues arising between the training differences of the two airlines.

Meeting minutes and agenda will be published and retained in the e-Library for reference and audit here:

R:\TRAINING\ADMINI\MEETINGS\GTM.



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#### 1.2.1.10 TRAINING REVIEW BOARD

##### COMPOSITION

The composition of the Training Review Board will consist of a minimum of three members. Normal composition will be MFT and at least two other Flying Managers, one of whom must be a Flying Training Manager or his Deputy. In the absence of MFT then his nominated deputy will complete the quorum for the Review Board. When considering training failures the Board may be supplemented by the instructor involved with the training under consideration.

##### WHEN CONVENED

The Board will be convened by MFT or his deputy to consider the following:

- Flight Crew Training Department appointments
- Command Training, Pre-Command Assessment or Conversion Course failures
- Other serious training-related issues.

MFT may, at his discretion, convene the Board for any training-related issues.

##### BOARD'S FINDINGS

The Board findings will be recorded in the form of TRB Minutes and stored in the e-library, location R:\TRAINING\ADMIN\MEETINGS\TRB. They shall normally be confidential, but MFT may, at his discretion, publish or make interested parties aware of the Board findings.

#### 1.2.1.11 INTERVIEW NOTES

Following any interview called for as part of a remedial process, a brief summary will be added to the Remedial Report under "Result of Remedial Action Taken".

Non-remedial process interview notes will be kept confidential and stored in the e-library, location tbd.



## 1.2.2 CAD APPROVED TRAINING

### 1.2.2.1 CATHAY PACIFIC FLIGHT TRAINING CENTRE (CXFTC)

The CXFTC is approved by the HKCAD to conduct Training Courses for Dragonair in accordance with the Service Level Agreement.

Manager Flying Training maintains the control of all Training requirements for Dragonair Crew.

### 1.2.2.2 TRAINING COURSES

A list of current HKCAD Approved Courses is held in the e-Library at:  
R:\TRAINING\ADMIN\HK CAD\APPROVALS\01-COURSES\00-AOC

### 1.2.2.3 DISTANCE LEARNING

Distance Learning is approved by the HKCAD using the following media for self-study purposes:

Computer Based Training modules supplied on CD

Intranet based Training modules

Learners World

Learners World is an Intranet-based Learning Management System and is approved for the following:

Completion and recording of specified training modules

Completion and recording of non-regulatory quizzes and tests

Completion and recording of the annual technical quiz for all pilots

Quiet and appropriately equipped facilities will also be provided in both Dragonair House and the Cathay Pacific FTC for pilot's self study purposes.

### 1.2.2.4 CAD LINE OBSERVATION FLIGHTS

Periodically a HKCAD Flight Operations Inspector will conduct Line Observations Audits during regular line flights. The Inspector's name will be included in the General Declaration and he will be part of the crew for administrative purposes.

The Inspector's brief is to audit a standard line operation within both the flight deck and also in the cabin. He is of course required to inspect crew and aircraft documentation to check for validity.

Carriage of the HKCAD FOI is as per Part A 2.5.1 and he should produce appropriate identification, if required by the Commander.



### 1.2.3 STANDARDISATION AND QUALITY SYSTEM

#### 1.2.3.1 POLICY

FCT Quality System is an integral part of the Flight Operations Quality Audit system and is defined within the OPDQA PPM.

- All training will be as standard as possible.
- All trainees will receive the same quality of training.
- All training will be conducted to appropriate and prescribed syllabi.
- All training will be conducted by approved Training Staff.
- All students and examinees have the right to see their training report and to be debriefed on any examination or check.
- All Training Staff will be observed at a minimum once a year conducting training or instruction.
- All new Training Staff will be given suitable induction training to enable them to instruct to the company standard.
- All instructors will be free to train and check without management interference.

#### 1.2.3.2 ORGANISATION AND ADMINISTRATION

The Manager Flying Training (MFT) is responsible for Training Standardisation and Quality Assurance of the Dragonair Flight Crew Training Department.

Flying Training Manager Standards (FTMS) is the delegated post holder to ensure standardisation of all training staff employed by Dragonair or external training providers.

FTMS is the delegated post holder to ensure Quality Assurance of all examinations and training within the FCT department. Flight Crew Training Department audits are an integral part of the overall Flight Operations Quality Audit system and an annual audit schedule specifying dates for FCTD audits will be published annually as per the FOPQA PPM.

Flight Operations Manager Standards and Quality is responsible for conducting the quality audits of the FCT Department. Audits will also be conducted on external training providers. Quality Audit records will be retained for a period of five years. The AQD system will be used to manage and publish audit reports, findings and checklists.

Individual FTMs will propose to a TMM names of STCs to assist with the standardisation of the fleet instructors. Appointed examiners are titled Flight Standards Examiners (FSEs). This number should be kept to the minimum to ensure quality of standardisation.

FTMS will induct the selected FSEs by conducting an interview with them. The syllabus of discussion items is detailed in Part D 2.1.1.3 'STANDARDISATION AND QUALITY OBSERVATIONS'.

The FSE observation will be made in each area of the instructor's authority, (e.g. ground instruction, simulator instruction, synthetic device instruction, aircraft instruction).

Reports will be made on the appropriate electronic form within TRS.

FTMS will be responsible for coordinating standardisation feedback to MFT. Individual trainers should contact their FTM with queries on standardisation issues, they may however, contact MFT directly on matters of training or standardisation should they feel it necessary. Wherever possible, such communication should be made through FTMS. MGT will liaise directly with MFT on matters of standardisation within the



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Safety Training School.

### 1.2.3.3 QUALITY ASSESSMENTS

#### POLICY AND ADMINISTRATION

FTMS is the responsible person for conducting Flight Crew Training Quality Assessments. Quality reports will be presented to MFT in the first instance and reviewed at the Training Management Meeting. FTMS will be responsible for ensuring that any recommended corrective action is implemented.

- a. Scores and passing grades for each training detail and/or exam are detailed in Part D 2.1.2.2 'TRAINING COURSE PASS MARKS'.
- b. Should the marks attained in examinations over a 6 monthly period consistently achieve a score greater than 95% or over the same period, should the number of candidates failing an exam exceed 5%, then this will be highlighted at the Training Management Meeting.
- c. FTMS will also conduct checks on an annual basis of all Fleet Standardisation Examiners. Reports for these checks will be filed in the instructor's TRS 'Crew Profile'.
- d. FTMS is responsible for collating scores from all internal and HKCAD exams. In addition scores from all PCs, simulator tests and courses will be collected.
- e. Results from each exam, course and test carried out by the FCT Department will be recorded and analysed using the COGNOS system. These statistics will be retained within the Flight Crew Training Database and will be used for trend analysis. Individual pilots may ask to access their individual data by application to the FTM/MFT. Administration and record updating will be performed automatically within the TRS system.



## 1.3 TRAINING PERSONNEL

### 1.3.1 GENERAL

The Flight Crew Training Manual details the way in which Dragonair is required to meet its obligations under the AN(HK)O and AOC Requirements Document (CAD 360). All training personnel have a personal responsibility for ensuring that the records they are required to submit are both accurate and complete so that the company can meet these obligations.

The Company, however, does not seek merely to satisfy the law. The intention is to train flight crew to a higher standard than the law strictly requires. To this end the company training system is progressive and detailed. Each item of training has an objective and a standard that must be achieved. All training staff must fully understand these objectives and the standards required.

This manual states the objectives and the means by which these objectives are achieved. It is the responsibility of all training staff to maintain the standards set by the Company and at the same time to adhere strictly to the system of record keeping.

The appointment and subsequent career path for pilots in the training and examining fields should be as follows:

1. **Line Training Captain – LTC**
2. **Type Rating Instructor (Simulator) - TRI (SIM)** (not mandatory)
3. **Type Rating Examiner/Instrument Rating Examiner (Simulator) - Senior Training Captain (STC)**
4. **Type Rating Examiner/Instrument Rating Examiner (Simulator Base Training) - Simulator Base Training Captain (SBTC)**
5. **Type Rating Examiner/Instrument Rating Examiner (Aircraft and Simulator) - Base Training Captain (BTC)**

LTCs and TRI (SIM) undertake duties required by Schedule 11 (Public Transport) of the AN(HK)O and will be appointed by Dragonair.

STCs/SBTCs/BTCs also undertake duties required by Schedule 9 (Licensing) of the AN(HK)O and are appointed by the CAD.





## 1.3.2 QUALIFICATION & RESPONSIBILITIES

### 1.3.2.1 LINE TRAINING CAPTAIN (LTC)

A LTC is responsible for standardisation of operating procedures and for sound Flight Deck Management of line operations. Specific responsibilities may include training of new pilots following Type conversion, Annual Line Checks and renewal of Commander's 35 day recency.

Prior to appointment, LTCs will complete training as specified in Part D 2.1.1.1 'LINE TRAINING CAPTAIN'.

Minimum qualifications for appointment as a LTC are as follows:

- Be in possession of a valid Air Transport Pilots Licence,
- Have a minimum of 2000hrs flight time as pilot of multi-engined aeroplanes,
- Have a minimum 500hrs Pilot-in-Command experience on multi-engined aeroplanes
- Type-specific experience of 200hrs (may be reduced to 50hrs when transferring from the A330 to A320/1 or vice versa)

When considering pilots for selection to LTC, the Training Review Board will review recent check performances. In general scores in all areas of 4s and above will indicate suitability for upgrade to a training role.

### 1.3.2.2 TYPE RATING INSTRUCTOR - SIMULATOR

The duties of a Type Rating Instructor - Simulator include the conduct of simulator training exercises during initial type conversion including low visibility operations (LVO). They may also include Schedule 11 six-monthly competency and instrument approach to land (including LVO) tests and renewal of three months recency in simulators approved for that purpose.

A TRI – Sim must complete an approved course in instructional techniques and also induction training in his duties. He will be rostered to attend a Training Captain's Workshop at the earliest opportunity. He will be observed by a Flight Operations Inspector undertaking Schedule 11 test items prior to appointment as an Approved Person.

Once approved, he will undertake regular supernumerary flights in company aircraft to maintain currency with the operational environment.

### 1.3.2.3 SENIOR TRAINING CAPTAIN (STC)

A Senior Training Captain (STC) holds a Type Rating Examiner/Instrument Rating Examiner – Simulator Only (Exclude SBT) approval issued by the HKCAD.

In addition to the responsibilities of a LTC and TRI (SIM), an STC will also conduct simulator approved DCA528 items, Instrument Rating Renewals, Initial Proficiency Checks during type conversion, Recurrent Proficiency Checks and renewal of Aircraft Rating and Instrument Rating Certificates of Test thereafter.

A prospective STC must complete an approved course in instructional and examining techniques and induction training in his responsibilities as specified in Part D 2.1.1.1 'SENIOR TRAINING CAPTAIN' before being observed by a Flight Operations Inspector undertaking tests for the initial issue or renewal of Aircraft and Instrument Ratings. Upon successful completion of this observation the candidate will be appointed as an Authorised Examiner (SIM).

Minimum qualifications for appointment as a STC are as follows:

- Be in possession of a valid Air Transport Pilots Licence,
- Have a minimum of 2000hrs flight time as pilot of multi-engined aeroplanes,



- Have a minimum 500hrs Pilot-in-Command experience on multi-engined aeroplanes.
- Have a minimum of 250hrs experience as a LTC.
- Type-specific experience of 300hrs (may be reduced to 50hrs when transferring from the A330 to A320/1 or vice versa).

#### 1.3.2.4 SIMULATOR BASE TRAINING CAPTAIN (SBTC)

A Simulator Base Training Captain (SBTC) holds a Type Rating Examiner/Instrument Rating Examiner – Simulator Only (Include SBT) approval issued by the HKCAD.

In addition to the responsibilities of a STC, a SBTC will also be authorised to complete Simulator Base Training.

A person nominated to be a SBTC will complete further training as given in Part D 2.1.1.1 'SIMULATOR BASE TRAINING CAPTAIN' before being observed by a Flight Operations Inspector conducting Base Training in the Simulator. The Flight Operations Inspector will observe the SBTC operating from both control seats.

Minimum qualifications for appointment as a SBTC are as follows:

- Be in possession of a valid Air Transport Pilots Licence,
- Have a minimum of 2000hrs flight time as pilot of multi-engined aeroplanes,
- Have a minimum 500hrs Pilot-in-Command experience on multi-engined aeroplanes
- Have a minimum of 250hrs experience as a LTC
- Type-specific experience of 300hrs

#### 1.3.2.5 BASE TRAINING CAPTAIN (BTC)

A Base Training Captain (BTC) holds a Type Rating Examiner/Instrument Rating Examiner – Aircraft and Simulator approval issued by the HKCAD.

In addition to the responsibilities of a STC, a BTC will also be authorised to complete DCA 528 aircraft items during type conversion and renewal of 3 months recency in an aircraft.

A person nominated to be a BTC will complete further training as given in Part D 2.1.1.1 'BASE TRAINING CAPTAIN' before being observed by a Flight Operations Inspector undertaking tests for the issue of an Aircraft Rating prior to being appointed as an Authorised Examiner (Aircraft).

The Flight Operations Inspector will observe the BTC operating from both control seats. A BTC transferring between the A320 / A330 fleets may be checked from either control seat.

Minimum qualifications for appointment as a BTC are as follows:

- Be in possession of a valid Air Transport Pilots Licence,
- Have a minimum of 2000hrs flight time as pilot of multi-engined aeroplanes,
- Have a minimum 500hrs Pilot-in-Command experience on multi-engined aeroplanes
- Have a minimum of 250hrs experience as a LTC
- Type-specific experience of 300hrs

#### 1.3.2.6 CRM OFFICER AND FACILITATORS

CRMO is responsible for the selection, training and course organization of CRM facilitators and CRM courses. CRM Facilitators will run company and group CRM



courses. Initial and recurrent training will be organized by CRMO.

### 1.3.2.7 SUMMARY OF QUALIFICATIONS

#### AIRCRAFT

INITIAL AIRCRAFT RATING DCA528	BTC
AIRCRAFT RATING RENEWAL CERTIFICATE OF TEST (PILOT)	BTC
INSTRUMENT RATING RENEWAL CERTIFICATE OF TEST	BTC
LINE CHECK (PILOT)	BTC / SBTC / STC / LTC (ALC Only)

#### SIMULATOR

INITIAL AIRCRAFT RATING DCA528 / 528 CCQ/528 SCVT	BTC / SBTC / STC
ZFT SIM SESSION	STC / SBTC / BTC (according to LR requirement)
AIRCRAFT RATING RENEWAL CERTIFICATE OF TEST (PILOT)	BTC / SBTC / STC
INSTRUMENT RATING RENEWAL CERTIFICATE OF TEST	BTC / SBTC / STC
INSTRUMENT APPROACH TO LAND	BTC / SBTC / STC / TRI - SIM
LOW WEATHER MINIMA OPERATION	BTC / SBTC / STC / TRI - SIM

All examiners must operate within the limits of their authorised approval.

All ratings and tests conducted in a simulator must be in accordance with the individual simulator approval.

### 1.3.2.8 VALIDITY OF AUTHORISATION AND REGENCY OF AUTHORISED EXAMINERS

Authorised Examiners, BTC, SBTC, STC, and Approved Persons will normally be appointed by the HKCAD for a maximum of 3 years but may be subject to review at more frequent intervals.

For CAD recency requirements Authorised Examiners must, during initial and subsequent 12 month periods from date of appointment, conduct a minimum number of tests according to the table below.

	Annual Recency Requirements
BTC	Minimum of 2 Base Training sessions (1 can be replaced by a ZFT simulator session) <u>plus</u> a minimum of 2 separate simulator sessions conducting IRR/ARR or AR tests.
SBTC	Minimum of 2 ZFT simulator sessions <u>plus</u> a minimum of 2 sessions conducting IRR/ARR or AR tests.
STC	Minimum 4 separate simulator sessions, which include IRR/ARR or AR tests during each session.

For the purposes of the above requirements, a training duty with one or more candidates will be considered as one 'simulator session' or one 'Aircraft Base Training session', regardless of the number of candidates participating in each duty.

In complying with the requirements above it is possible for long periods to elapse between aircraft base training details, with a subsequent loss of familiarity with the procedures involved. To ensure currency, the following company procedure shall apply:



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A BTC shall not conduct base training in the Aircraft unless he has completed within the previous three months:

- A base training detail in the aircraft, or
- A ZFT base training session in the simulator, or
- Base training practice in the simulator, where the BTC occupies the PM seat.

Aircraft base training recency requirements are not seat-specific.

In the event that the BTC cannot maintain recency MFT/FTM will contact the relevant CAD FOI to determine any requirements for regaining recency.

Dragonair's Authorised Examiners are responsible for monitoring their own validity of authorisation. If it is suspected that the requirements for validity will not, or have not been met, MFT/FTM must be notified as soon as possible. An examiner who has not met the minimum requirements must also report the circumstances to the Flight Operations Inspectorate so that the continued validity of the appointment can be considered. Failure to make such a report may invalidate subsequent tests.



### 1.3.3 THE INSTRUCTOR

The success of a flying training organisation depends largely upon two things; the quality of the training personnel and the value of the procedures used in training. Training staff are carefully selected and trained, but it is incumbent upon each instructor to ensure that the information he imparts is correct and properly understood. He must make absolutely clear what is a Standard Operating Procedure and therefore a must and what is his personal recommendation. This means that any trainee who has to change his instructor does not discover that he also has to change his technique.

It does not mean that each instructor should not have a personal approach to the job of teaching. In fact it is true to say that every trainee is different and needs to be treated as an individual. Whilst the method of teaching may vary it is essential that the information received assists the individual to reach the standard required. The relationship between the instructor and the trainee is a privileged one. The instructor must be prepared to help the trainee in every way he can. The instructor should at all times clearly explain what is a Standard Operating Procedure, a normal convention applied within the fleet, or his personal preference. In addition he should at all times promote the Airbus 'Golden Rules' and the policy of 'Aviate, Navigate, Communicate'.

He should be prepared to be proved wrong and he must be prepared to seek the advice of others, if the need arises. In return he may expect, and indeed must insist, that the trainee is doing his best to achieve the standard required. When assessing a trainee's progress, he should bear in mind his general experience. He should consider the stage that the conversion has reached and the rate of progress being made against the final high standard to be achieved. He should make his progress report after each detail when the events of the day are still clear in his mind.

At any stage of a candidate's training (and especially in Command Training) the mis-setting or incorrect positioning of any flight deck control or switch is forbidden. Such an action can give rise to negative training and has the potential to cause serious incidents if not corrected. There will be ample opportunity during a course for a candidate to demonstrate adequate monitoring skills.

Where the rate of progress seems unsatisfactory the matter should be discussed with the relevant FTM or MFT. It may be in everybody's interest to change the instructor, not only to obtain a second opinion, but to give the trainee every opportunity to show an improvement.

Flying training, both in the aircraft and in the simulator will be conducted in accordance with the procedures laid down in the Airbus FCOM and the Flight Crew Training Manual. Supplementary guidance may also be provided in approved material by the Training Department. The use of unauthorised training material at any stage of training is prohibited. Approved training material includes all current published company documentation, in both hard and soft copy. Use of electronic devices to demonstrate a manual reference is not permitted until a fully operational Electronic Flight Bag is installed in the aircraft. It is important that a student learns to locate, and thus benefits from, the demonstration of how to access information within a hardcopy manual whilst these are the operational standard.

Every pilot must from time to time demonstrate competency. Although a check can provide the opportunity to practice procedures and drills which are rarely encountered in normal operations and may therefore be generally regarded as a form of continuation training, it is a statutory requirement that the pilot or flight engineer shall be tested and their competency verified and certified.

Dragonair competency checks, which embody the maneuvers and tests required by law, must ensure that a very high standard has been achieved and maintained in all areas.



### 1.3.4 CURRENT TRAINING PERSONNEL

The following Dragonair personnel hold the specified training appointments.

1. A320/1

A320/1 Base Training Captains				
No	Name	Initial TIRE Approval on A320/1	Initial TIRE Approval	
		Date	Date	Fleet
1	Bruce Barnfather	21-Dec-00	21-Dec-00	A320/1
2	Craig Phillis	19-Mar-04	19-Mar-04	A320/1
3	Grant Colman	19-Oct-06	19-Oct-06	A320/1

A320/1 Senior Training Captains				
No	Name	Initial TIRE Approval on A320/1	Initial TIRE Approval	
		Date	Date	Fleet
1	Andy Jepps	19-Feb-01	19-Feb-01	A320/1
2	Ben Stockert	28-Jan-04	28-Jan-04	A320/1
3	Matthias Schwarze	15-Nov-05	15-Nov-05	A320/1
4	Jonathan Toller	14-Feb-06	14-Feb-06	A320/1
5	Geoff Bower	25-Feb-06	25-Feb-06	A320/1
6	Roy Bouch	10-Jul-09	05-Jul-06	B747
7	Gregory Toole	20-Oct-06	20-Oct-06	A320/1
8	Peter Buffon	13-Feb-07	13-Feb-07	A320/1
9	Andrew Nolan	01-Mar-07	01-Mar-07	A320/1
10	Stephen Burnard	03-Mar-07	03-Mar-07	A320/1
11	Matt Gunton	31-Jul-07	31-Jul-07	A320/1
12	Ross Parker	21-Feb-08	21-Feb-08	A320/1
13	Henrik Kolding	07-Nov-08	07-Nov-08	A320/1
14	Paul Walsh	16-Nov-10	16 Nov 10	A320/1
15	Rowan Cavanough	10-Feb-12	10-Feb-12	A320/1

A320/1 Approved Line Training Captains	
No	Name
1	Peter Dahl
2	James Ledger
3	Karl Roe
4	Stephen Lief
5	Stephen Reynolds
6	Dean Cassady
7	Lee Russell
8	Jason Farley
9	Tony Clark
10	Sam Manifold
11	Andrew Nettleton



## 2. A330

A330 Base Training Captain				
No	Name	Initial TIRE Approval on A330	Initial TIRE Approval	
		Date	Date	Fleet
1	Ross Taylor	05-Feb-01	22-Apr-97	A320
2	Steve McNulty	29-Jun-03	20-Feb-00	A320
3	Peter Taylor	29-Oct-08	30-May-01	A320/1

A330 Senior Training Captain				
No	Name	Initial TIRE Approval on A330	Initial TIRE Approval	
		Date	Date	Fleet
1	Richard Stanley	26-Jan-96	17-Aug-90	B737
2	Jeff Wicks	18-Jul-95	18-Jul-95	A330
3	Mike Murphy	03-Nov-01	14-Oct-96	A320/1
4	Peter Sanderson	10-Nov-01	12-Feb-98	A320/1
5	Peter Healey	20-Sep-02	12-Nov-99	A320/1
6	Harry Pontikis	23-Jun-05	02-Nov-01	A320/1
7	Steve Wallace	12-Sep-05	09-Nov-01	A320/1
8	Lars Pettersson	24-Jan-06	25-Jan-02	A320/1
9	Digger Blandford	02-Jun-06	11-Apr-02	A320/1
10	Chris Jordan	25-Jul-06	09-Jun-03	A320/1
11	Rene Huber	13-Jan-07	24-May-04	A320/1
12	Magnus Wilson	16-Apr-07	02-Dec-04	A320/1
13	Andrew Henderson	26-Sep-09	17-Feb-05	A320/1
14	Tomas Huml	09-Jul-07	08-Jul-05	A320/1
15	Sean Lonergan	12-Oct-11	12-Jun-06	A320/1
16	Connell Weston	12 Jan 12	18-Aug-06	A320/1
17	Jon Rebbeck	30-May-11	30-May-11	A330
18	Tim Boyd	02-Jun-11	02-Jun-11	A330



## **1.4 TRAINING APPARATUS**

### **1.4.1 TRAINING APPARATUS**

Dragonair is equipped with various HKCAD-approved training apparatus to facilitate the safety training of cockpit crew and cabin crew, and the training apparatus are all controlled by HKCAD-approved training personnel.

Dragonair is also approved to use the safety training facilities of Cathay Pacific.

#### **1.4.1.1 SAFETY MOCK-UP**

The safety mock-ups in the CX Flight Training Center (CX FTC) consist of A330 and A320 cabin mockups. A control room monitored by trained personnel can produce different visual and aural effects similar to reality, for instance, smoke, fire, decompression and evacuation situations.

The A330 mock-up can also be utilized to perform smoke drills so that crew can experience moving and searching in the smoke-filled cabin with the help of the protective breathing equipment and torches.

#### **1.4.1.2 DOOR TRAINER**

In addition to Type A and Type I doors installed in the mock-ups, there is a separate door trainer in which a crewmember can perform Type C and Type III emergency door/exit operation. Different effects can be simulated so as to test the crewmembers' ability to react to different emergency scenario.

#### **1.4.1.3 FIRE TRAINER**

The fire trainer simulates class A and B fire. There are 3 spots in the fire trainer where fire can be created. Crewmembers have the opportunity to deal with fires originating from different locations.

#### **1.4.1.4 SWIMMING POOL**

The 25-meter long swimming pool in the Dragonair House can be used for water survival training. Lifejackets and a raft are available. The raft is equipped with items to be used during ditching, e.g. heaving ring, sea anchor.





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## 2. TRAINING SYLLABI AND CHECKING PROGRAMMES

### 2.1 FLIGHT CREW

#### 2.1.1 TRAINING PERSONNEL

##### 2.1.1.1 TRAINING OF INSTRUCTORS

###### SELECTION

Training personnel are generally selected from flight crew who demonstrate professional maturity and who have, by their skill and example, earned the respect of their colleagues.

They are also required to have a sense of dedication to the profession. Their duties call upon them to have technical and operational knowledge above the average and to be able to demonstrate all flying requirements with skill and precision. Most importantly they must have a personal discipline which dominates their teaching function in that they will teach the company methods and have no private idiosyncrasies.

Training Captains need to display a high level of empathy with their students and possess an open and generally friendly personality that encourages communication. A closed or narrow-minded attitude and/or personality, sometimes evidenced by very fixed views, will often not engender a responsive attitude from the trainee and should be carefully considered by any selection process.

Responsibility for selection of training personnel rests with the MFT.

When a shortage of Pilot training personnel is identified by Flight Crew Planning, MFT will convene a Training Management Meeting. The FTMs will review applications made in writing to MFT. If insufficient appropriate applications have been received, MFT may at his discretion submit a Flight Crew Notice inviting applications, or directly approach Captains considered appropriate.

The meeting will consider the candidates grading history, experience, aptitude, ability and other training records along with any personal recommendations from management staff.

Appointments will be made after consultation with AGMF/GM(O). Appointment to these posts will be without regard to seniority.

###### Selection and Training Process for LTC

STEP	ACTION
1.	MFT convenes TMM to review and select a list of potential candidates.
2.	List of potential candidates forwarded to GMO/AGMF for consultation and approval.
3.	List of candidates finalized.
4.	Informed in writing of their provisional appointment.
5.	Issued with Ops Manual Part D (soft copy), key for Training Captain's office.
6.	MGT updates Company E-mail address lists.
7.	Attend TCW.
8.	Commence TC training programme as per Part D 2.1.1.1 'LINE TRAINING CAPT'
9.	On completion of a LHS Line Check, formal letter of appointment as a Line Training Captain.
10.	FTMS updates Part D 1.3.4 'CURRENT TRAINING PERSONNEL'.



## APPOINTMENT

Responsibility for selection of training personnel rests with the MFT. Appointments will be made after consultation with AGMF/GM(O). Appointment to these posts will be based upon experience and aptitude without regard to seniority, subject to the experience and qualifications laid down in this Chapter. Appointment as a LTC will be effective from the day after the completion of the LHS Line Check. Appointment as a STC, SBTC or BTC will be effective from the day after the completion of the appropriate simulator or aircraft CAD observation.

## TRAINING

### Line Training Captain (LTC)

A trainee will undergo the following prior to appointment as an LTC:

Background familiarisation with the relevant legislation. This information will be acquired through self study and will include the following:

AN(HK)O  
AOC Requirements Document (CAD 360)  
H.K. AIP  
H.K. Information Circulars  
Ops Manual Part D

The trainee will attend a Training Captains Workshop. This course will provide the pre-requisite training skills necessary to develop into an effective Training Captain. The integrated Flight Training Workshop and Flight Simulator Session(s) are designed to assist in instructional technique and will ensure that proper standardisation and adequate flight safety margins are developed. The requirement to attend this course may be waived at the discretion of Dragonair.

An Aircraft Rating Renewal (ARR), LVO Renewal and RTO will be conducted in the RHS in the simulator.

Aircraft line training will include both LHS and RHS flying, conducted by a STC. During this phase the trainee will receive detailed briefings covering all aspects of the training and checking requirements specific to Dragonair. A LHS and RHS Line Check to confirm standardisation will be conducted by an FSE during this line flying phase.

The trainee will then be required to conduct a minimum of four sectors, with a trainee pilot in an operating seat, and conduct his first Line Check under the supervision of a qualified FSE.

List of qualified LTCs is then updated in Part D 1.3.4 'CURRENT TRAINING PERSONNEL'

### Senior Training Captain (STC)

Selection for the position of STC will be based on past performance and demonstrated ability as a LTC. Normally 18 months of experience will be required as a LTC, however this may be reduced at MFT's discretion.

A trainee will undergo the following prior to appointment as a STC:

Attend an approved CAD Authorised Examiners Course. This course will provide the pre-requisite knowledge in order to become an Authorised Examiner.

The requirement to attend this course may be waived at the discretion of the CAD if the new candidate has previously attended a similar course and has previous training and checking experience.

Training will include instruction on the operation of the simulator.

The trainee will be required to conduct a number of simulator sessions under the supervision of an experienced STC instructor. This training will include at least 6





simulator sessions. An exception to this will be A320 or A330 qualified STCs to the other Airbus type, who will complete at least 4 simulator sessions. Exposure to a combination of initial and recurrent proficiency checks during the training is desirable.

The trainee will be required to undertake an observation check conducted by the CAD in order to be qualified as an Authorised Examiner (Sim).

List of qualified STCs is then updated in Part D 1.3.4 'CURRENT TRAINING PERSONNEL'.

### **Simulator Base Training Captain (SBTC)**

Advancement to SBTC will be at the discretion of the MFT.

A trainee will undergo the following prior to appointment as a SBTC:

Training will include an advanced simulator training course. This course will provide the pre-requisite skills commensurate with undertaking actual aircraft base training. This course will include practice in conducting simulator base training details in both LHS and RHS.

The trainee will be required to undertake an observation check conducted by the CAD in order to be qualified as an Authorised Examiner (Sim & SBT). The trainee shall be observed conducting simulator base training in both LHS and RHS. This will normally consist of a simulator base training detail conducted from one seat, and a minimum of one touch and go landing conducted from the other seat.

List of qualified SBTCs is then updated in Part D 1.3.4 'CURRENT TRAINING PERSONNEL'.

### **Base Training Captain (BTC)**

Advancement to BTC will be at the discretion of the MFT.

A trainee will undergo the following prior to appointment as a BTC:

Training will include an advanced simulator training course. This course will provide the pre-requisite skills in order to undertake actual aircraft base training. This course will include practice in conducting base training details in both LHS and RHS.

Aircraft training will include a minimum of 2 base training details conducted under the supervision of an experienced BTC.

The trainee will be required to undertake an observation check conducted by the CAD in order to be qualified as an Authorised Examiner (A/C). The trainee shall be observed conducting base training in both LHS and RHS. This will normally consist of a base training detail conducted from one seat, and a minimum of one touch and go landing conducted from the other seat.

List of qualified BTCs is then updated in Part D 1.3.4 'CURRENT TRAINING PERSONNEL'.

### **Simulator Instructor**

A trainee will undergo the following prior to appointment as a Simulator Instructor:

Background familiarization with the relevant legislation. This information will be acquired through self study and will include the following:

AN(HK)O  
CAD AOC Requirements Document (CAD 360)  
HK AIP  
HK Information Circulars  
Dragonair Flight Crew Training Manual



Complete a full Conversion course as detailed in Part D 2.1.2 'TRAINING PROGRAMMES'

Complete at least one type related supernumerary flight for observation purposes

Conduct training (dependant on previous experience) under supervision

CAD observation for the issue of an Approved Persons Certificate.

#### **CRM Facilitator**

All presenters will complete training in the following areas and observe one CRM course prior to being qualified as a CRM course facilitator:

Instructional Techniques

Introduction and basic concepts of CRM / TEM

Human performance and human factors principles

#### **TRAINING CAPTAINS WORKSHOP (TCW)**

The TCW will comprise of 3 days ground training and 3 simulator sessions for each pair of new TCs.

The ground training syllabus includes:

- Principles of learning
- Basic Instructional Technique
- Training Objectives
- Responsibilities of a Training Captain
- Briefing / Debriefing Techniques
- Training program management
- Human Performance / Difficult trainees
- Handling problems in Line Training
- Numerical Assessment System
- Simulating system failures in-flight
- Safety considerations
- Documentation
- Report Writing and use of Training Records System (TRS)
- E-Library
- Ops Manual Part D policies and procedures

The syllabus for simulator training will include:

- Briefing and Debriefing techniques
- 'New Trainee' LOFT
- 'Final Line Check' LOFT
- RHS Aircraft rating & FAR training

#### **AUTHORISED EXAMINERS COURSE (AEX)**

- Responsibilities & Scope of an AE
- Legislative requirements



- Principles of examining
- Examining techniques
- Note taking
- Schedule 9 & 11 requirements
- Aircraft / Instrument rating requirements
- Proficiency Check requirements
- Briefing / debriefing – CAD Requirements
- Evaluation / numerical grading
- Retest requirements
- Failure cases
- Lesson plans
- Documentation
- Simulator MEL

#### DOCUMENTATION

A cover sheet listing the documentation requirements will be placed in the Trainee's training folder.

#### Line Training Captain (LHS / RHS Training)

##### Contents:

- a. AT 05 Training Report (one copy)
- b. AT 17 Instructor Pilot Training syllabus

##### Documentation:

The RHS simulator training may be conducted with the trainee's recurrent proficiency check.

If the Line Check is conducted over two days, the date that the Line Check commenced is controlling.

AT 17 Tick off completed items

AT 05 Record any relevant training points.

Return completed folder to FCT office immediately after completing the training.

#### FURTHER TRAINING

Flight training personnel will be required to attend periodic training meetings.

Flight training personnel may be required to carry out additional duties as specified by the MFT.

Flight training personnel may be required to attend additional courses which may include Human Factors, Classroom Techniques and Airline Management.

Flight training personnel may be required to represent Dragonair at:

Flight Safety Seminars  
Flight Training Seminars  
Third Party Training Establishments

#### SUPERVISION OF EXAMINERS

The procedures to be followed, and standards to be applied, by Authorised Examiners



are published in the CAD Publication (CAD170) Authorised Examiners Handbook. The conduct of tests by Authorised Examiners, and flight crew training conducted by Dragonair will be observed by CAD Flight Operations Inspectors during the currency of the Air Operators Certificate. The purpose of these inspections is to ensure that training and testing is in compliance with the Dragonair Flight Crew Training Manual and within the terms and conditions of the appointment of CAD Authorised Examiners.

### **2.1.1.2 AUTHORISED EXAMINER COURSE (AEX)**

#### **GENERAL**

##### **Course Type**

There are two types of AEX Course :-

Single Course – two candidates with two Course Facilitators

Paired Course – four candidates with two Course Facilitators

##### **Authority**

The Authorised Examiners Course (AEX) is an approved course of the Hong Kong Civil Aviation Department. Dragonair Instructors and Flight Operations Inspectors from the HK CAD jointly facilitate this course.

Changes to the content or structure of this course must be in consultation and with the approval of the HK CAD.

##### **Administration**

The point of contact for all administration relating to the AEX course will be the Manager Ground Training (MGT). Process flow diagrams for booking and control of AEC courses are in FCTD PPM.

#### **PROMULGATION OF COURSES**

Prior to the 1<sup>st</sup> December of each calendar year Dragonair will advise the CAD of its estimated course requirements for the following year. Course dates will then be coordinated with the CAD and promulgated by AIC.

#### **COURSE FACILITATORS (CF) / SIMULATOR INSTRUCTORS (SI)**

##### **Qualification**

Pilots selected to be Course Facilitators must hold a current TRE/IRE approval and have completed an AEX CF training course.

Simulator Instructors must hold TRI approval and have completed an AEX SI training course.

In the event of temporary unavailability of an Authorised AEX SI, any Dragonair STC, as listed in Part D 1.3.4 'CURRENT TRAINING PERSONNEL', may conduct the duties of the SI for the purposes of facilitating the AEX course, subject to the training requirements as listed below being completed.

##### **Training**

A new AEX CF will complete the training program as outlined in Part D 3.2.11.3 'COURSE FACILITATORS' prior to being authorized to conduct these courses.

A new AEX SI will complete the training program as outlined in PART D 3.2.11.4 i 'SIMULATOR INSTRUCTORS' prior to being authorized to conduct these courses.

A Dragonair STC conducting the duties of the SI will complete the training programme as outlined in 3.2.11.4 'SIMULATOR INSTRUCTORS' prior to being authorized to



conduct these courses.

#### Authorised Personnel

##### COURSE FACILITATORS

B Barnfather  
S.McNulty  
B Stockert

##### SIMULATOR INSTRUCTORS

J.Sunderland  
G Sutherland  
A. Hay

#### ROSTERING

##### Pre-Course Preparation

- a. If less than 6 months since the last course conducted by the CF:  
One office day including 1 x 3 hour simulator session in the week prior to the course. The simulator will be crewed by two CFs, or as agreed with the CFs.
- b. If more than 6 months since the last course conducted by the CF:  
One office day including 1 x 5 hour simulator session in the week prior to the course. The simulator will be crewed by two CFs, or as agreed with the CFs.
- c. If the CF is not type rated on the simulator to be used:  
An additional 2-hour simulator session with another CF to be rostered along with the requirements in a) above. A single 5 hr session will suffice in this case.
- d. A CF under training will be rostered for 3 x 2 hour preparatory simulator sessions in the week prior to the AEX course, conducted under supervision of an authorised CF.

##### Course Program

- a. Courses should be planned to commence on a Monday, provided there is no conflict with statutory holidays.
- b. Courses will run for 5 consecutive days.
- c. Rostered duty times will be from 0800-1800L for Days One to Five.
- d. For the "Single" course, either the A320 or A330 simulator may be used, however the same simulator must be used for the whole course.
- e. For the "Paired" course, both the A320 and A330 simulators must be used.
- f. Simulator type must be finalized and MGT must be advised a minimum of 6 weeks prior to the commencement of the AEX course.
- g. Simulator bookings:  
Day 1 - Day 4: 1300L – 1700L  
Day 5: 0900L – 1300L
- h. CX FTC Briefing Room 4.10 shall be reserved:  
from 0800L – 1800L on Days 1 - 5.
- i. For the PAIRED course, CX FTC Briefing Room 4.5c shall also be reserved:  
Days 1 - 4: 1200 - 1800L  
Day 5: 0800 - 1600L

##### Course Facilitators

- a. Two CFs will be rostered for Single and Paired courses
- b. Course Facilitators and Dragonair candidates will be rostered for two consecutive guaranteed days off immediately prior to and after each course.



### Third Party Candidates

- a. Candidates from external operators shall have the opportunity to attend a 1 hour familiarization session in the simulator to be used for the course. This familiarization session is to be rostered on the CF pre-course preparation day and will be in addition to the sessions stipulated in 4.1a and 4.1d, but included in the 5-hour session stipulated in 4.1b and 4.1c.

In the event of a Paired course, both the A320 and A330 simulators shall be booked for the 1 hour familiarization session.

- b. Candidates from Flight Training Adelaide shall attend the course as observers only. They shall be paired to a CF and observe all simulator sessions with that CF. Following the sessions, a short debrief shall be given by the candidate to the CF summarizing the result, major fail points and retest requirements. The CAD observation on Day 5 shall follow the same format, with the CAD FOI debriefed appropriately.

### 2.1.1.3 STANDARDISATION AND QUALITY OBSERVATIONS

- a. Instructors will be rostered for standardisation and quality observations. Observations will not be conducted at 'no notice'.
- b. Observations may be conducted on any type of instructional duty relevant to the position held.
- c. Flying Instructors will be scored in all the following areas, while Ground Instructors will be scored for the first three:
  - Preparation for the task
  - Communication Skills
  - Instructional Technique
  - Monitoring
  - Documentation
- d. An instructor scoring 2s in more than two areas will be considered for further training and follow up observation. A TRS Remedial training report will be raised by the relevant manager to track the course of this remedial training.
- e. New FSEs will be inducted by FTMS. An interview will be rostered and the syllabus of discussion items will be:
  - Purpose of the programme.
  - Standardisation word pictures.
  - Common instructional or examination errors.
  - Emphasis on upgrading skills rather than pure evaluation and criticism.
  - Reporting methodology.
- f. Word pictures for use by FSEs are detailed below:



## FLYING INSTRUCTOR ASSESSMENT WORD PICTURES

Preparation for Task	
1.	Had not prepared for the detail, with frequent errors of presentation, explanation, conduct or execution of training. Had not determined the knowledge, experience level or previous training received by the student. Little or no planning and had no knowledge of the syllabus for the relevant detail or flight.
2.	Poor preparation for the detail with some errors of omission or presentation and substandard explanation, conduct or execution of the detail. Poor awareness of the student's level of knowledge or experience. Minimal planning for the detail and some misunderstanding of the syllabus or training requirements.
3.	Sound preparation with a good grasp of the subject and the student's prior training and abilities. A good awareness of the student's knowledge and experience level and a good understanding of the syllabus and what level of training was possible from the detail.
4.	Good preparation with a sound understanding of the subject and the student's needs, experience level and abilities. Sound planning leading to a good training detail with above average learning opportunities for the student. A clear understanding of all the factors that affect the detail.
5.	Excellent preparation leading to marvellous learning opportunities and training for the student. Complete awareness of the student's needs, abilities and experience leading to an outstanding training detail. Exceptional awareness of the possibilities and limitations inherent in the execution of the training, with fast adaptation to the emerging situation.
Communication Skills	
1.	Very poor verbal and physical communication with little eye contact and no recognition of student's ability to receive the information. Poorly paced communication with minimal regard paid to the student's language abilities and no simplification of complex issues. Little or no gestures or hand movements made to assist in communications and a very defensive attitude that impedes any form of communications from the student. No listening skills evident.
2.	Poor communications, but with some regard to the students ability to accept and assimilate information. Listens occasionally but does not generally encourage questioning from the student. Appears uncomfortable communicating to large groups with minimal eye contact and monotone expression.
3.	Sound communication skills with good use of verbal and physical gestures to put across the information in a clear and logical well paced manner. Good eye contact and manner that encourages student participation in the assimilation of the knowledge with an open and encouraging attitude.
4.	Very good verbal and physical communication skills evident with above average ability to pace and adjust the interaction with the student to achieve the goals in a logical way. Uses a very welcoming style and excellent listening skills that greatly assists the student in feeling comfortable in questioning when unsure of the information.
5.	Exceptional ability to communicate effectively in a logical, finely paced manner using all possible means to put across the information. Uses excellent listening skills to check whether information has been understood and always ready to accept questions.





Instructional Technique	
1.	Very poor technique with minimal demonstration or explanation of concepts or information and pitches the knowledge or skill level at an entirely inappropriate point with regard to the student's experience or ability. Has very little knowledge of the subject being taught with frequent errors or omissions. Instruction badly paced or made at completely inappropriate times with no regard whatsoever to the overall situation. Inappropriate use of teaching aids. No briefing or debriefing given.
2.	Little demonstration of skills or explanation of concepts with below average assessment of student's level of skill or knowledge. Minimal use of teaching aids and not very good timing of instruction. Some gaps in knowledge of subject. Minimal briefings conducted leaving the student unsure as to the objectives or goals of the session or unaware of the outcome of the detail.
3.	Average technique maintained with the correct level and timing of all teaching or demonstration. Sound knowledge of the subject covered with good use of all available teaching aids. Well-paced demonstration of skills required and good assessment of the student's ability to assimilate information. Briefings concise and well structured with all points covered and leaving the student with a good understanding of the goals and what was achieved from the detail.
4.	Very good instructional technique demonstrated with excellent knowledge of the subject. Excellent use of teaching aids and the instruction correctly pitched and paced at the student's level. Very good briefings with the student aware of any shortcoming that they have demonstrated, but left feeling positive about the outcome of the detail.
5.	Exceptional technique with excellent briefing and debriefing and fine use of all available aids to explain complex concepts in a logical and simple way. Timing of the teaching perfectly judged to allow the maximum to be gained by the student from the session, with exceptional knowledge and demonstration skills to the fore.
Monitoring	
1.	Completely unaware of student errors or mistakes and unaware of overall threats and errors with consequential lack of TEM. Safety never considered and student's attitude or demeanour disregarded in total. Allowed the aircraft to enter a UAS. Completely non-empathic with student needs.
2.	Aware of some student errors or mistakes and is aware of external threats but does not manage them well. Minimal regard to student needs and attitude. Little consideration to safety evident. Only goes through the motions of being empathic.
3.	Sound TEM skills with good student monitoring and safety management. Only minor lapses of monitoring evident. Always conscious of student needs, attitude and demeanour and has an empathic attitude towards the student.
4.	Very good monitoring with all mistakes noticed. Uses excellent TEM skills to manage threats and errors both internal and external. Does not consciously allow safety to be compromised and is always very aware of student's needs and attitude. Completely empathic with the student.
5.	Always aware of mistakes or errors and consequentially manages them very well. Completely aware of external threats and manages the safety of the operation exceptionally well. Never allows the student to put the aircraft into any undesired states and is always totally conscious of student attitude and performance.





Documentation	
1.	Frequently uses personal documentation for training purposes and does not understand the company training documentation system. Does not file reports at all and/or never within a reasonable time frame. Never allows the student to see his/her reports.
2.	Minor use of personal training documentation and misuses company documentation system with incorrect scoring or grading of reports and/or incorrect file names. Does not communicate or allow student sight of report. Minor misunderstandings of the company training documentation system and takes more time than normal to file reports. Poor detail (when needed) in report writing.
3.	Good use of training documentation with daily notes made where appropriate. Files reports on time, correctly labeled, and with the correct addressees. No use noted of personal documentation. Sufficient detail in reports for the management and student to gain a clear assessment of the session.
4.	Very good report writing and grading (when necessary) with appropriate comments and in precise detail. All completion of electronic and written forms correct and filed promptly and to the correct addressees. Very good knowledge of the company training documentation system.
5.	Superb report writing that is concise and to the point but with enough detail so that managers and students alike can assess the effectiveness of the session. Completed reports, written and electronic, correct and sent the same day as the training was completed. Always allows the student access to their report and maintains an exceptional knowledge of the document system.



## GROUND INSTRUCTOR ASSESSMENTS WORD PICTURES

Preparation For Task	
1.	Had not prepared for the session, with frequent errors of presentation, explanation, conduct or execution of training. Had not determined the knowledge, experience level or previous training received by the students. Little or no planning and had no knowledge of the syllabus for the relevant detail.
2.	Poor preparation for the session with some errors of omission or presentation and substandard explanation, conduct or execution of the detail. Poor awareness of the student's level of knowledge or experience. Minimal planning for the detail and some misunderstanding of the syllabus or training requirements.
3.	Sound preparation with a good grasp of the subject and the student's prior training and abilities. A good awareness of the student's knowledge and experience level and a good understanding of the syllabus and what level of training was possible from the session.
4.	Good preparation with a sound understanding of the subject and the student's needs, experience level and abilities. Sound planning leading to a good training detail with above average learning opportunities for the students. A clear understanding of all the factors that affect the detail.
5.	Excellent preparation leading to marvellous learning opportunities and training for the students. Complete awareness of the student's needs, abilities and experience leading to an outstanding training detail. Exceptional awareness of the possibilities and limitations inherent in the execution of the training, with fast adaptation to a changing situation.
Communication Skills	
1.	Very poor verbal and physical communication with little eye contact and no recognition of student's ability to receive the information. Poorly paced communication with minimal regard paid to the student's language abilities and no simplification of complex issues. Little or no gestures or hand movements made to assist in communications and a very defensive attitude that impedes any form of communications from the students. No listening skills evident.
2.	Poor communications, but with some regard to the students ability to accept and assimilate information. Listens occasionally but does not generally encourage questioning from the students. Appears uncomfortable communicating to large groups with minimal eye contact and monotone expression.
3.	Sound communication skills with good use of verbal and physical gestures to put across the information in a clear and logical well paced manner. Good eye contact and manner that encourages student participation in the assimilation of the knowledge with an open and encouraging attitude.
4.	Very good verbal and physical communication skills evident with above average ability to pace and adjust the interaction with the students to achieve the goals in a logical way. Uses a very welcoming style and excellent listening skills that greatly assists the students in feeling comfortable in questioning when unsure of the information.
5.	Exceptional ability to communicate effectively in a logical, finely paced manner using all possible means to put across the information. Uses excellent listening skills to check whether information has been understood and always ready to accept questions.



Instructional Technique	
1.	Very poor technique with minimal demonstration or explanation of concepts or information and pitches the knowledge or skill level at an entirely inappropriate point with regard to the student's experience or ability. Has very little knowledge of the subject being taught with frequent errors or omissions. Instruction badly paced or made at completely inappropriate times with no regard whatsoever to the overall situation. Inappropriate use of teaching aids and no discernable classroom management skills.
2.	Little demonstration of skills or explanation of concepts with below average assessment of student's level of skill or knowledge. Minimal use of teaching aids and not very good timing of instruction. Some gaps in knowledge of subject. Minimal briefings conducted leaving the student unsure as to the objectives or goals of the session or unaware of the outcome of the detail. Poorly executed classroom management skills.
3.	Average technique maintained with the correct level and timing of all teaching or demonstration. Sound knowledge of the subject covered with good use of all available teaching aids. Well-paced demonstration of skills required and good assessment of the student's ability to assimilate information. Briefings concise and well structured with all points covered and leaving the student with a good understanding of the goals and what was achieved from the detail. Good classroom management skills demonstrated with good control of the class.
4.	Very good instructional technique demonstrated with excellent knowledge of the subject. Excellent use of teaching aids and the instruction correctly pitched and paced at the student's level. Very good classroom management skills demonstrated with all students left feeling positive about the outcome of the session and good classroom control exercises at all times.
5.	Exceptional technique with excellent briefing and debriefing and fine use of all available aids to explain complex concepts in a logical and simple way. Timing of the teaching perfectly judged to allow the maximum to be gained by the whole class, with exceptional knowledge and demonstration of classroom management skills to the fore.



## 2.1.2 TRAINING PROGRAMMES

### 2.1.2.1 INTRODUCTION

#### GENERAL

The training programmes for various categories of pilots and levels of experience are summarised in Part D 2.1.2.3 'TRAINING SUMMARY'.

Cathay Pacific Flight Training Centre (CXFTC) holds CAD approval to conduct the following courses for Dragonair pilots: -

- A320 and A330 Conversion Courses
- A320 to A330 and A330 to A320 CCQ Courses
- A340 to A330 and A340 to A320 CCQ Courses
- A320 & A330 Revalidation Courses
- A320 & A330 Refresher Courses

All other Type Courses are contracted to an approved training supplier whose syllabus will be approved by the CAD.

Conversion, CCQ, Revalidation and Refresher training course syllabi will be agreed with the CAD. Detailed Course syllabi are stored in the following e-library folder:

R:\TRAINING\DELIVERY

Access to the course syllabi is provided to all FTMs and instructional staff including the HKCAD and Cathay Pacific FTC or the approved training supplier. Course syllabi are detailed in the e-library.

Prior to commencing any training all new flight crew will be required to obtain a validation of their existing licence by the CAD by submitting CAD Form DCA634. If the current licence is acceptable they will be permitted to carry out all training up to and including aircraft base training. The CAD will issue a Hong Kong licence upon successful completion of the appropriate training programme and after submission of the correctly completed application forms - DCA528, and DCA80 for pilots. These forms must be submitted together with the logbook and current licence.

#### CREW TRAINING

Since crewmembers are bound to work together, the crew is considered a unit as far as training in procedures and aircraft handling is concerned. Where possible a full crew (Captain/FO) will train together throughout each phase of the course.

#### CHANGE OF AIRCRAFT TYPE

A pilot will be considered as having changed to a new type from the date of commencement of the conversion course for the new type.

After this date a pilot will not return to the previous type without completing an Aircraft Rating Certificate of Test.

#### TRAINING RECORDS & CERTIFICATION

A full and detailed report of all training is to be kept for each crewmember under training. The completed training syllabus together with the completed forms for checks and tests listed in this manual enable the Manager Flying Training to assure himself that all training requirements have been satisfactorily completed before certifying that the trainee is competent to act either under supervision or in the designated capacity on public transport flights.

At the completion of each phase of training the TC must indicate that the trainee is



recommended to proceed to the next phase of training by selecting the 'Pass' button on the TRS electronic report. If a pass cannot be awarded then the 'Review' or 'Fail' selection should be used to indicate to the FTM that the training must be reviewed before the student can progress. Whenever possible, Training Captains should attempt to contact the FTM in the case of a 'Review' or 'Fail' button being selected.

### 2.1.2.2 CHECK & TRAINING GUIDELINES

#### NUMERICAL ASSESSMENT

Following a sequence of training and/or checking, a numerical assessment may be required to be made of a crewmember's performance. This will allow: -

- The crewmember to be rated against an objective Company standard. This will not only indicate whether the crewmember's performance was satisfactory or unsatisfactory but also the margin by which the result was obtained.
- Check and Training staff to build a complete picture of the crewmember's performance. This will not only mean a picture 'on the day' or for a particular sequence but will also mean a complete picture of the crew member's performance throughout their tenure with the Company as it will be possible to assess and monitor trends in their performance.
- A comparison in performance against an objective benchmark, thus assisting with a constructive debrief.

The numerical assessment may take the form of a grading system, highlighted below, or a score from an exam. In some cases (for example practical tests) the examiner will indicate pass or fail. The 'Training Course Pass Marks' Table details the pass mark for each exam or test conducted by the Flight Crew Training Department.

All results from tests and checks will be recorded on the appropriate report and within the trainee's training record. In addition all results will be recorded and used for statistical analysis for quality assurance and feedback to Training Management.

Written comments are encouraged regardless of the score awarded. The following lists the minimum requirements for making written comments:

Grading of 1-3: requires a written comment supporting the assessment that reflects the word picture for that score. However it would be expected and appropriate that comments providing guidance on how to raise the pilot's standard to the next level would be provided.

Grading of 4: does not require a mandatory comment, but where comments are made, they should reflect the word picture. 'Satisfactory' is not correct here.

Grading of 5: comments on the excellent performance optional.

#### NUMERICAL GRADING SYSTEM FOR PILOTS

The Pilot numerical grading system 1 to 5 standard criteria is defined as follows: -

- |                     |   |
|---------------------|---|
| 1. Unsatisfactory   | Failure to achieve the minimum Company standard, irrespective of whether the minimum legal requirements were met. Relevant Training Manager to be informed. Crewmember would be removed from flying duties until additional training and/or retest is conducted.        |
| 2. Minimum Standard | Minimum standard to conduct line operations as a Co-pilot. During a simulator detail retest of one or more items required in conjunction with further training. Improvement required in one or more areas in order for a Co-pilot to achieve the desirable standard for |



command.

- |                     |   |
|---------------------|---|
| 3. Command Standard | Has a margin over minimum standard. A retest of a particular item is acceptable provided no further training is required. The minimum acceptable standard for a Commander. No apparent weaknesses. Debrief would essentially give guidance on areas where improvement would result in a higher grading. |
| 4. Good             | A comfortable margin over Command standard. Debrief would be minimal.   |
| 5. Excellent        | Polished standard. Not necessarily error free. As good as can be expected under the prevailing conditions.  |

The 'word pictures' format definitions for PC, PCA and Command assessments are as follows:-

Score	Handling Skills
1.	Poor manipulative skills/incorrect technique with frequent or sustained deviations outside allowable tolerances. Lack of positive aircraft control.
2.	Occasionally exceeding tolerances. Slow to recognise and correct deviations approaching limits. Observed weakness in basic handling technique.
3.	Some deviation from target parameters, rare tolerance exceedance, quickly recovered. Clear understanding of correct technique.
4.	Accurate manipulation, minor variation from target parameters, quickly corrected. Correct technique with good anticipation of changes.
5.	Virtually no deviation from target parameters. Mastery of techniques. As accurate as can be expected under prevailing conditions.
<b>Use of Automated Systems</b>	
1.	Frequent mistakes in selecting appropriate AP/FD modes. Lack of understanding of basic modes.
2.	Basic selection of automatic systems carried out correctly but errors occur due to lack of monitoring and/or understanding of flight modes or interaction with other systems.
3.	Generally appropriate use of automated systems and correct interpretation of flight modes. Errors, which occur, are corrected.
4.	Almost all tasks carried out correctly. Understands underlying principles.
5.	Complete understanding and appropriate use of automated systems at all times.
<b>Systems Knowledge</b>	
1.	Unable to recall broad information; unable to use aircraft systems due lack of technical knowledge. Limitations not known.
2.	Difficulty recalling/using some aircraft systems due lack of technical knowledge. Not aware of some limits.
3.	Correct use of systems with only isolated errors. Basic understanding with background knowledge not always evident. Limitations known.
4.	Easily uses aircraft systems and recalls limits. Good understanding of systems evident.
5.	In-depth understanding, correct use of systems with a high level of background knowledge.



	<b>Execution of Procedures (Standard Operating/Abnormal/Emergency)</b>
1.	Procedures not known, major deficiencies in application of procedures, fundamental errors in SOPs. Critical errors with regard to abnormal/emergency procedures. Unable to carry out a procedure within a reasonable time.
2.	Some incorrect application of non-critical procedures or errors. Difficulty in using/selecting/recalling the correct procedure(s). Abnormal or emergency procedures performed incorrectly or with lack of familiarity of procedural steps.
3.	Uses correct procedures with only isolated errors. Uncertainty or a lack of understanding when executing a procedure is only an isolated event.
4.	Correct procedures easily recalled/identified and performed with certainty.
5.	All procedures performed correctly and integrated with other flight management requirements.
<b>Score</b>	<b>Command &amp; Decision Making</b>
1.	Unable to make command decisions or lack of methodology in the decision making process which compromises the safety of the aircraft.
2.	Decision making awkward or difficult. Common sense and/or appropriate safeguards lacking so that, depending on subsequent events, the potential to jeopardise safety exists. Requires guidance from other crew. Not confident in command.
3.	Command & decision making process sound. Emphasises safety. Tasks dealt with are appropriately prioritised in a systemic manner with minimal guidance from other crew. Less obvious factors not always considered.
4.	All factors considered in a sound and systemic manner without guidance. Follows correct procedures and allows for contingencies. Abnormal/emergencies resolved to a good outcome.
5.	Uses best possible options at the relevant time. Abnormal/emergencies resolved, resulting in the optimum outcome.
	<b>Situational Awareness, Capacity, Flexibility &amp; Airmanship</b>
1.	Lack of awareness, which places or is likely to place the aircraft's safety in jeopardy. Insufficient capacity to conduct basic tasks.
2.	Level of awareness such that situations are only reacted to with difficulty and/or not anticipated. Working to full or over capacity at times of moderate workload. Lack of flexibility, airmanship and/or common sense often displayed.
3.	Aware of essential factors but may be unaware of some less obvious factors. Working to capacity during high workload. Shows flexibility as situations develop.
4.	Aware of all significant factors and regularly updates this awareness using instruments, ATC and other crew. Not working to capacity during high workload. Flexible to all situations.
5.	Aware of even subtle factors, excess capacity and flexibility of a level that allows consideration of these subtle factors to be integrated into flight management.





	CRM (Communication & Workload Management)
1.	Vital information not relayed to other crew. No prioritisation of tasks.
2.	Attempts are made to relay information to other crew but are not always tested for correct reception or interpretation. Poor prioritisation of tasks such that only essential items are completed in the time available. Little sharing of workload.
3.	Effort made to communicate with other crew. Attempts made to clarify/verify misunderstandings and use input from other crew. High priority items correctly prioritised and dealt with in an orderly and timely manner. Appropriate attempts to share workload.
4.	Clear and concise communication with other crew, whereby use of crew resources and inputs improve overall crew operating performance. Correct prioritisation of tasks results in efficient flight management.
5.	Communication and workload management so well integrated that challenging aspects of flight management appear easy, optimising crew performance.

#### EXAMINATION POLICY AND CONDUCT

Flight Crew Training examination policy is:

- Examinations will be conducted in a quiet area where candidates can focus on completing the exam to the best of their ability
- Exams will be conducted in rooms that provide sufficient control of heat and light to enable the candidate to feel comfortable and not under undue stress.
- All documentation required to complete the exam will be provided.
- The sole Operations Manual reference source for any open-book exam shall be the paper manuals provided.
- Conduct of the exam will be clearly explained to the individual before commencement.
- Results will be available within five working days.
- Candidates will be able, upon application, to view their result papers.
- Candidates will be debriefed, if they wish, as to the errors that they made during the exam.
- Any candidate may, upon application to MFT, ask for the results of an exam to be reviewed.
- Any person found cheating or involved with dishonest behaviour in relation to exams or tests will face disciplinary action.





## Training Course Pass Marks

COURSE, EXAM, or DUTY	GRADING, SCORE, PASS/FAIL	PASS MARK	COMMENTS
DCA 528	P/F	P	Used during conversion and CCQ New Joining Pilots. CCQ for Dragonair Pilots numerically assessed as per PC
DCA 80	P/F	P	Instrument rating for new joining pilots
ZFT flying	P/F	P	Initial flying assessment following CCQ or conversion
Proficiency Check	Grading	Capt 3, F/O 2.	Refer to Part D 2.1.2.2 'NUMERICAL GRADING SYSTEM FOR PILOTS', for more detailed definitions.
LOFT	Not assessed	--	Not assessed for proficiency but used to highlight TEM principles.
Revalidation	Grading	Capt 3, F/O 2	As for PC
Refresher	P/F	P	New joining pilots with valid type rating not assessed.
CT1	Grading	3	Initial training phase of command training with an assessment during LHS PC.
CT2, CT2A	Not assessed	--	Training phase only
CT3 or CT3A	Grading	3	Minimum score for advancement to CT 4
CT4 or CT4A	Grading	3	Minimum score for advancement to CT 5
CT5	Grading	3	Minimum score for advancement
CT6	P/F	P	Final command check.
Base Training	P/F	P	Must achieve pass for advancement to LFUS
Pre - BT Simulator	P/F	P	Must achieve pass to advance to A/C B.T.
APC	P/F	P	Category C Airfield simulator. Pass required before operating to airfield concerned.
FAR	P/F	P	Captains Flare and Approach recovery simulator training.
AEP	Score	80%	Aircraft Emergency Procedures Training
DG	Score	80%	Dangerous Goods training
Smoke/Fire	P/F	P	Practical Smoke and fire test
Wet Drill	P/F	P	
CFDS	P/F	P	Centralised Fault Display Training. Quiz and Practical test.
321 Differences	Score	80%	
CTE 1	Score	90%	A score of less than 90% after FTM review shall result in a failure of PCA
CTE 2	Score	80%	A score of less than 80% after FTM review shall result in a failure of PCA
PCA Flying	Grading	3	
PCA Sim	Grading	3	
Annual Technical quiz	Score	80%	Conducted in Learner's World, score less than 80% requires exam re-sit with FTM oversight.



## REMEDIAL TRAINING PROCESS

The FCTD PPM will expand upon the general procedures and policies laid out below.

A failure of a candidate to demonstrate competence during a check, assessment or exam will be, in the first instance, communicated to the relevant FTM or DFTM.

The FTM or DFTM will review the failure and consider the previous training history of the candidate and if there have been any relevant prior failures.

For significant failures (e.g. 529 issued, failure at CT3A onwards) FTM or DFTM will bring the failure to the attention of MFT.

MFT may convene a Training Review Board to consider the failure and to discuss a remedial process. He must keep minutes of the TRBs but may keep them confidential at his discretion.

The FTM will interview the candidate and explain the remedial training process before a further check is conducted.

When the remedial process has been handled solely by the FTM, a subsequent failure will always be notified to MFT.

MFT may publish pre-determined remedial training allowance for the Cathay Pacific Flight Training Centre or other contracted agencies.

Following a significant failure, a minimum of a PC and / or Line Check will be rostered before returning the pilot to Line Operations.

## Training Feedback and Student Reporting Process

Training feedback is acquired through the TRS at the end of a block of ground training or flying training. Students are encouraged to submit their feedback questionnaires to improve the training processes. If however, a student has a particular problem during training he/she can at any time call upon the relevant FTM to help facilitate a solution. Should the problem be of a personal or an instructional issue, the student can approach the FTMS or DFTMS to help to resolve the situation. In this event the FTMS or DFTMS must not reveal the student's name to anyone in the Training Department if so requested by the student.



## 2.1.2.3 TRAINING SUMMARY

## AIRBUS TRAINING SUMMARY

New Employees					
		Cadet / S/O	No Previous Airline/Jet Experience	With Previous Airline/Jet Experience	
TYPE RATED		N/A	N/A	Rated on any KA Airbus type ?	
				NO	YES
Familiarisation Flights		Prior to Commencing course			
CAD Air Law / HPL Examinations		Pilots NOT holding HKG Pilot's Licence			
CAD Performance (Transport)		√	√	√	√
Course Type	Full Conversion	√	√	CAD	CAD
	CCQ	x	x		
	Refresher	x	x		
Phase 1	Tech Course	√	√	√	√
	Type Technical Exam	√	√	√	√
Phase 2	Normal Procedure	√	√	√	(d)
	Abnormal Pro Simulator	√	√	√	(d)
Phase 3	LOFT	√	√	√	√
	IRR	√	√	√	√
	DCA 528	√	√	√	√
Phase 4	Pre A/C BT Simulator	√	(a)	x	x
	Aircraft BT	√	√	√	√
	ZFT Training	x	x	x	x
Pre-Line Flying Briefings	FLI/FLF/FLN	√	√	√	√
	AEP	√	√	√	√
	Dangerous Goods	√	√	√	√
	Security	√	√	√	√
	CRM	√	√	√	√
CAD Exam	Type Technical	√	√	√	√
	Performance (Type)	√	√	√	√
LFUS	LFUS Sectors	66	48 / 26 (c)	18	14
	Basic/Advanced	30/36	20/28-16/10	10/8	6/8
	Supernumerary	6	6	4	4
	Sectors with Safety Pilot	20	8	8	4
	A321 Sectors (A320 only)	4	4	2	2
	A330 ETOPS	2	2	2	2
	Line Check	4	4	4	4

(a) At discretion of MFT/FTM

(b) Included with Line Training Induction Brief

(c) 48 required for pilots without BOTH airline and Jet experience

(d) Abbreviated syllabus



Dragonair Pilots			
		Rated on other KA Airbus type (CCQ)	Revalidation of KA Airbus type
CAD Air Law Examinations		X	X
CAD Performance (Transport)		X	X
Course Type	Revalidation	X	√
	CCQ	√	X
	Full Conversion	X	X
Phase 1	Tech Course	√	(d)
	Course Tech Exam	√	X
Phase 2	Normal Procedure	√	(d)
	Abnormal Pro Simulator	√	(d)
Phase 3	IRR	√	√
	DCA 528 CCQ	√(a)	Current PC Cycle
	DCA 528	(c)	
Phase 4	Pre A/C BT Simulator	X	X
	Aircraft BT	X	X
	ZFT Training	√	√
Pre-Line Flying Briefings	Line Training Induction	X	X
	Performance	√	X
	AEP	√	If Required
	Dangerous Goods	√	If Required
CAD Exam	Type Technical	√	X
	Performance (Type)	CAD	X
LFUS	LFUS Sectors	12	10
	Basic/ Advanced	6/6	4/6
	Supernumerary	X	X
	Sectors with Safety Pilot	4(b)	
	A321 Sectors	2 (330→320)	X
	Line Check	2	2

(a) Pilot must meet experience requirements on DCA 528 CCQ

(b) 4 sectors required unless the pilot has 300 flying hours on Airbus type(s) with Dragonair.

(c) If pilot does not meet experience requirements on DCA 528 CCQ

(d) Abbreviated syllabus

**AIRBUS COURSE ALLOCATION**

Training Courses will be allocated in accordance with the following criteria. Any course allocated that is in variance to these criteria must be approved by MFT.

**Entry Level Training (ELT)**

COURSE NAME: BT – Cadet Training

COURSE TYPE: Entry Level Training module for Pilots without previous Jet experience and who have less than 500hrs on a multi-crew turboprop aircraft. This course is scheduled prior to and in conjunction with a conversion course.

ELIGIBILITY: No minimum requirements

LANDING RECENCY: Not applicable

COURSE NAME: ADJ – Non Jet Qualified

COURSE TYPE: Entry Level Training module for Pilots without previous Jet experience but who have experience on a multi-crew turboprop aircraft operating in an airline environment. This course is scheduled prior to and in conjunction with a conversion course.

ELIGIBILITY: Minimum of 500 hours flying experience on a multi-crew turboprop aircraft in an airline environment.

LANDING RECENCY: Not applicable

**Conversion Training**

COURSE NAME: STD – Jet Qualified Pilot

COURSE TYPE: Full conversion course for pilots who have previous Jet / Multi-Crew turboprop experience or have completed an ELT course.

ELIGIBILITY: Before commencing a Conversion Course a pilot must have previous Jet aircraft experience or more than 500 hours flying experience on a multi-crew turboprop operating in an airline environment or have completed ELT

LANDING RECENCY: Refer Part D 2.1.2.4 'TRAINING COURSES'  
New Joining Pilots: Normally Aircraft Base Training  
Dragonair Pilots: Normally ZFT

**Cross Crew Qualification (CCQ)**

COURSE NAME: CCQ – Dragonair Pilot

COURSE TYPE: An abbreviated conversion course for pilots transferring between Airbus FBW aircraft types. Dragonair holds approval for the following CCQ courses:  
A320 → A330  
A330 → A320

ELIGIBILITY: Before commencing a CCQ course from Type A to Type B, Dragonair flight crewmembers must have completed four months, 200 hours and 20 sectors flying on Type A.



LANDING REGENCY:	Refer Part D 2.1.2.4 'TRAINING COURSES' Normally ZFT
COURSE NAME:	<u>CCQ – New Joining Pilot</u>
COURSE TYPE:	An abbreviated conversion course for new joining pilots transferring between Airbus FBW aircraft types. Dragonair holds approval for the following CCQ courses: A320 → A330 A330 → A320 A340 → A320 A340 → A330
ELIGIBILITY:	A newly employed pilot who holds an Airbus A320, A330 or A340 rating from another licencing authority may complete a CCQ course provided that the following flying experience and recency can be satisfied:  <ul style="list-style-type: none"><li>a. Minimum Flying Experience: 1500 hours or 400 sectors</li><li>b. Minimum A320/321 or A330: 1000 hours or 300 sectors or A340 experience</li><li>c. Take offs / Landings: 3 of each on the qualifying type within the last 12 months</li><li>d. Proof of an Airbus course attendance and qualification.</li><li>e. Appropriate items of DCA Form 528 must be completed.</li><li>f. 4 take offs and landings in a ZFT approved simulator during the CCQ course.</li></ul> Note: 'A320' refers to the group: A318/A319/A320/A321
LANDING REGENCY:	Refer Part D 2.1.2.4 'TRAINING COURSES' Normally Aircraft Base Training

**Revalidation Course (REV)**

COURSE NAME:	Revalidation Course – Current on A320 or A330
COURSE TYPE:	An abbreviated course of training to revalidate a Dragonair pilot on the A320 or A330 after having spent a period of time on the other Airbus type.
ELIGIBILITY:	The pilot's current aircraft type is either the A320 or A330 and his Certificate of Test on the Revalidating Airbus Type has not expired for five years or more.
LANDING REGENCY:	Refer Part D 2.1.2.4 'TRAINING COURSES' Normally ZFT

**Refresher Course (REF)**

COURSE NAME:	Refresher Course
COURSE TYPE:	An abbreviated course of training for a new joining pilot who is Type Rated on the A320 or A330 and is joining on the same aircraft type.
ELIGIBILITY:	The pilot's last aircraft type flown prior to joining Dragonair must be either the A320 or A330; any variation to this requirement will require the approval of MFT. The type rating must be acceptable to the HKCAD for inclusion on a HKG Licence.  Note: 'A320' refers to the group: A318/A319/A320/A321
LANDING REGENCY:	Refer Part D 2.1.2.4 'TRAINING COURSES' Normally Aircraft Base Training



**CAD AVIATION LAW EXAMINATION & CAD HUMAN PERFORMANCE AND LIMITATIONS  
EXAMINATION & CAD PERFORMANCE (TRANSPORT) EXAMINATION**

The issue of a Hong Kong pilot licence is dependent upon passing these examinations unless otherwise stated by the CAD following the Pilot's Licence assessment. MCR will arrange for new employees to take the examinations during their company induction course. Unless exceptional circumstances dictate otherwise, these examinations are to be taken prior to the commencement of the type technical course.

The company will conduct a pre-examination ground school lecture to prepare pilots for the Hong Kong Air Law examination.

**FAMILIARISATION FLIGHTS (OBS)**

Before commencing Conversion training, cadet pilots / second officers will complete a series of familiarisation flights sitting on the observer's seat. These series of flights will comprise 8 sectors.

For all other trainees, before commencing Conversion training, 4 familiarisation sectors sitting on the observer's seat will be completed.

Familiarisation flights for current Dragonair flight crew who are changing aircraft type are desirable but not mandatory.

**SPECIFIC TRAINING FOR LOW EXPERIENCE PILOTS**

An Entry Level Training (ELT) course will be rostered for a low experience pilot prior to undertaking a full Conversion course. The ELT consists of two days ground school and eight full flight simulator sessions. At the completion of this ELT course, the student should;

- a. Appreciate the different handling characteristics of jet aircraft.
- b. Be conversant with the concepts of multi crew operations and checklist procedures.
- c. Be capable of flying a SID, short airways sector and procedural instrument approach to IRR tolerances.
- d. Be capable of controlling track and speed following an engine failure at or after V1 up to and including acceleration height.
- e. Be able to control the aircraft during a one engine inoperative go around.

Experience has shown that there are specific areas which cause low experience pilots particular difficulties during line training and thus require emphasis from the TC as follows:

- a. Intermediate approach - aircraft configuration.
- b. NDB tracking.
- c. Adjusting flight path on final approach.
- d. Control inputs in cross wind.
- e. Selection of reverse thrust, braking and taxiing.
- f. Monitoring descent profiles and making adjustments.
- g. RT phraseology and comprehension.

Lack of satisfactory progress in any phase of LFUS, particularly aircraft handling, should be brought to the attention of MFT or FTM to determine whether there is a remedial course of action.



#### 2.1.2.4 TRAINING COURSES

##### GENERAL

Training courses completed by flight crew will normally fall into one of the following categories:

- a. Conversion
- b. CCQ
- c. Refresher
- d. Revalidation

A description of the relevant phases of these courses is contained in the following paragraphs.

##### Documentation

A training folder will be issued to each trainee and will contain a checklist of the items to be completed during the groundschool and simulator phase of the Conversion course. A separate booklet will be issued to the trainee containing the complete LFUS syllabus.

##### PHASE 1 - TECHNICAL COURSE

For Non Rated flight crew a full type technical course will be required. This course will consist of a full description of all aircraft systems. For flight crew completing CCQ, the technical course will consist of a description of system differences between CCQ types.

For Type Rated flight crew a refresher technical course will be required. This course will consist of a review of aircraft system differences and limitations. It will also include a review of standard / emergency / abnormal and alternate operating procedures.

The content and presentation methods will be as agreed with the CAD for either the Cathay Pacific FTC or any other contracted and approved training supplier.

On completion of a Conversion, CCQ or Refresher course where an additional aircraft rating is being added to the Hong Kong Flight Crew Licence, passes will be required in the CAD Aircraft Technical examination and Performance (Type) examination. For CCQ, the Performance (Type) examination may be required. The Performance (Type) exam is normally taken immediately following the Aircraft Technical exam. CX Technical Training School is responsible for the booking of the Aircraft Technical and Performance (Type) examinations. On successful completion of these courses CX TTS will issue appropriate certificates to HKCAD.

##### PHASE 2 - NORMAL AND ABNORMAL PROCEDURES

For Conversion and CCQ courses, a mixture of Integrated Procedures Trainer (IPT), fixed-base and full-flight simulator sessions will be programmed. Revalidation and Refresher training will normally consist of a series of full-flight simulator sessions.

The exact content of each session will vary by aircraft type and the nature of each course.

Flight crew members will receive training and will be required to demonstrate competence in both normal and abnormal procedures and manoeuvres to include, but not limited to:-

- PF/PM and other flight crew duties (task sharing and active monitoring as PM)
- Positive transfer of control
- Consistent checklist philosophy





- Proper use of all levels of flight automation
- Emphasis on an “aviate, navigate, communicate” priority
- Proper crew response and coordination to systems malfunctions, to include the use of dual confirmation prior to deactivation of critical systems.
- Emergency and Abnormal procedures caused by powerplant, airframe or systems malfunctions, fire or other abnormalities

Course details will be recorded in training manuals held by the MFT and the CAD.

LVO training may be conducted during this phase of the course and will include low visibility takeoff procedures and Category II approach procedures.

Later Conversion course sessions (F7 and F8) and CCQ course sessions will be conducted under LOFT principles with a strong emphasis on CRM and TEM.

### PHASE 3 - EVALUATION

The evaluation phase will be required for all courses and will consist of a series of full-flight simulator sessions.

These sessions are used for trainee proficiency evaluation as both PF/PM and to complete those licensing and AOC items for which the simulator is approved.

The trainee must have demonstrated his proficiency to fulfill the DCA Form 528 requirements.

These sessions must be conducted by persons approved to do so by the CAD.

These sessions will include the following:

- a. Initial Proficiency Check
- b. DCA528/528z
- c. Instrument Rating Renewal Test

A LOFT session may be programmed for new employees to provide an overview of normal Dragonair operations. LVO Training and Evaluation may also be incorporated if required.

### Documentation

A cover sheet listing the documentation requirements will be placed in the trainee's training folder.

### CONVERSION / CCQ / REFRESHER

**Title: SIMULATOR TRAINING – CONVERSION / CCQ / REFRESHER**

For inclusion of A320 / A330 aircraft rating on HK Professional Licence.

#### **Contents:**

- a. DCA 80 New Joiner to Airbus full Conversion only.
- b. DCA 528 or (A320 or A330)  
DCA 528 CCQ (A320 or A330)
- c. AT 16-1, 2 - Two Candidates,  
AT 16-8, 9 - One Candidate,  
AT 16-5  
AT 15, 15a
- d. FTC Training Feedback Report

#### **Documentation:**

DCA 528 Complete and sign in accordance with the CAD approval. DO NOT SIGN 4.10.1 and 4.30.1. These items will be completed during the



	Pre-Base Training simulator and Aircraft Base Training.
DCA 528 CCQ	Complete and sign in accordance with the CAD approval. DO NOT SIGN 4.10.1, 4.10.2 and 4.10.3. These items will be completed during Simulator Circuit Training.
DCA 80	Complete and sign.  DCA 80 must be completed for the issue of the Initial Instrument Rating Renewal on a Hong Kong licence. The CAD will issue the Initial Instrument Rating page for a pilot license.  The STC may sign for the IR renewal in the licence of pilots holding a valid HK licence and who have held, within the preceding 5 years, the type-specific or generic IR that is applicable to the aircraft type under training. In this case DCA80 is not required. For periods exceeding 5 years the CAD is to be contacted via MFT to determine actual requirements.
TRS Report	Complete and submit.
AT 15	Sign the Sim Eval Completed section.
AT 15a	STC conducting the 528 session will complete the simulator record on the LVO renewal certificate
Pilot Licence	Sign Instrument Rating Certificate of Test only if the pilot holds a valid HK licence and has held, within the preceding 5 years, the type-specific or generic IR that is applicable to the aircraft type under training.  The initial Aircraft Type Rating will be issued by the CAD licensing section at the time of licence issue or endorsement. DO NOT SIGN Aircraft Rating Certificate of Test.

**REVALIDATION****Title: SIMULATOR TRAINING – REVALIDATION****Contents:**

- |    |          |                          |
|----|----------|--------------------------|
| a. | AT 15    | LVO Licence Certificate  |
| b. | AT 15a   | LVO Licence Record Sheet |
| c. | AT 16-11 |                          |
| d. | AT 16-5  |                          |

**Documentation:**

AT 15	STC conducting PC complete and sign the 'Sim Training Completed' section. (This certificate is not required if the trainee is in possession of previous same type certificate.)
AT 15a	Sign LVO renewal certificate.
Pilot Licence	Sign Instrument Rating Certificate of Test. Sign Aircraft Rating Certificate of Test.
TRS Report	Complete and submit.

**PHASE 4 - AIRCRAFT TRAINING****Objectives**

- To confirm the "transfer of knowledge" from Phases 1, 2 and 3 to the aircraft.



- To provide the trainee with the opportunity to experience the “real” aircraft, particularly during ground operations and visual flight in order to gain competence prior to the commencement of Line Flying Under Supervision (LFUS).
- To complete the Type Rating Test (DCA528) requirements.
- To revalidate 3-month take-off and landing recency.

### Requirements For Aircraft Base Training – Licencing

Applicants fulfilling any of the following conditions will require Aircraft Base Training (ABT).

- a. The initial application for a Hong Kong Pilot's Licence
- b. P2X upgrade to P1
- c. Application for an additional P1 aircraft rating in a Hong Kong Professional Pilot's Licence; and
  - i. The aircraft type from which he is transferring (“the previous type”) and the aircraft type being applied for are not of a “similar type”, or
  - ii. When the aircraft are of a similar type but:
    - The said pilot has less than 500 hours or less than 100 sectors on the previous type; and/or
    - The said pilot has not retained recency in any Hong Kong registered multi-engine turbojet aircraft for a period of 24 months or more.
- d. Any Pilot who has not maintained Take-off and Landing Recency for a period of 24 months or more.

For the purposes of this paragraph the following aircraft types are approved by the HKCAD as being ‘Similar’: A320, A321, A330

Pilots eligible for CCQ do not require ABT.

### ZERO FLIGHT TIME TRAINING

#### General

Dragonair holds CAD approval to conduct Zero Flight Time (ZFT) training on Airbus A320/1 and A330 series aircraft for Dragonair pilots transferring from a similar aircraft type.

ZFT training may only be conducted for suitably qualified pilots and will be conducted on a CAD approved Level D simulator.

All ZFT simulator and aircraft training must be conducted with the trainee occupying his normal operating seat.

For Pilots completing A320/1 ZFT training, the initial four sectors of line training after the ZFT simulator training shall be conducted on the A320. Subsequent line training sectors may be flown on the A321 provided that the pilot has successfully completed the CAD approved A321 Differences Course.

Notwithstanding the above requirements, an STC conducting A320 ZFT LFUS may feel that additional sectors on the A320 are required prior to commencing operations on the A321. In this case, the STC is authorised to approve such additional sectors.

#### Pilot Qualifications For ZFT Training

##### CCQ (DCA 528 CCQ): A320/1 to A330 or A330 to A320/1

- a. A minimum of 4 months operating the qualifying type
- b. 200 hours and 20 sectors on the qualifying type



- c. 3 Month landing recency on the qualifying type is either current or has expired for a period of less than 24 months prior to the first Public Transport Flight (PTF) on the new Type.
- d. Successful completion of the CAD approved Conversion / CCQ course.

#### **Simulator Training & Testing Program**

- a. ZFT simulator training and testing shall be conducted on a CAD approved Level D simulator.
- b. ZFT simulator training will be conducted by:
  - i. CCQ  
A SBTC occupying the non-operating pilot's seat.
  - ii. Revalidation when the pilot's 3 month recency on the qualifying type is current or has expired by 6 months or less prior to the first PTF on the new Type:  
An STC occupying the non-operating pilot's seat.
  - iii. Revalidation when the pilot's 3 month recency on the qualifying type has expired for more than 6 months prior to the first PTF on the new Type:  
A SBTC occupying the non-operating pilot's seat.
- c. Successful completion of a specific ZFT simulator session shall include a minimum of six take-offs and six manual landings, a selection of which shall be performed in crosswind and tailwind conditions.
- d. Specific instruction shall be given on the correct techniques for:
  - i. Take off rotation.
  - ii. Crosswind takeoff.
  - iii. Approach to land.
  - iv. Crosswind and tailwind landings.
  - v. Landing flare.
  - vi. Go-arounds.
  - vii. Thrust reduction and application of reverse thrust
  - viii. Braking.

#### **Zero Flight Time Aircraft Training**

##### **CCQ**

- a. If the pilot's 3 month recency on the qualifying type has NOT expired by 12 months or more prior to the first LFUS sector:  
An STC shall conduct the initial four sectors of LFUS
- b. If the pilot's 3 month recency on the qualifying type has EXPIRED by 12 months or more prior to the first LFUS sector:  
A SBTC shall conduct the initial four sectors of LFUS

##### **ZFT LFUS Requirements**

- a. The trainee shall operate the first sector as PM and the remaining 3 sectors as PF.
- b. The first 2 sectors must be completed within 21 days and the first 4 sectors must be completed within 35 days following the ZFT simulator training.
- c. The first four sectors line training should preferably include day landings.



- d. In the event of an unsatisfactory take-off or landing:
  - i. The pilot shall revert to PM duties only, until the aircraft returns to Hong Kong
  - ii. Complete a minimum of six satisfactory take offs and manual landings in an approved simulator with a BTC or a minimum of three satisfactory take offs and manual landings in ABT.
  - iii. A BTC must be seated at the flying controls for the purpose of LFUS for a minimum of the first 4 sectors. The trainee shall operate the first sector as PM and the remaining 3 sectors as PF which must include 3 take offs and 3 manual landings.
  - iv. The three take offs and landings must be completed within three months of the completion of the simulator or ABT.

**REVALIDATION OF REGENCY OF ONE DRAGONAIR AIRCRAFT TYPE (TYPE A) BY PILOTS CURRENT ON A SIMILAR AIRCRAFT TYPE (TYPE B)**

This section is applicable to the following CAD approved similar aircraft types; A320/1, A330. The A320 & A321 are considered to be the same type.

There will be occasions when pilots who were previously current on Type A will revalidate Type A following a period on Type B.

In this instance the pilot may revalidate his recency on Type A in an aircraft or in a simulator approved for the purpose. The following conditions shall apply:

**3 Month Recency On Type B: Current Or Expired By 6 Months Or Less**

- a. The pilot licence must include a valid and appropriate Aircraft Rating Certificate of Test for Type A
- b. The pilot must complete an approved Revalidation Course
- c. Complete ZFT Simulator Training with a SBTC in accordance with paragraph 2.1.2.4 'Simulator Training & Testing Program'
- d. Complete ZFT Aircraft Training (LFUS) with an STC in accordance with the requirements of paragraph 2.1.2.4 'Zero Flight Time Aircraft Training'

**3 Month Recency On Type B: Expired For A Period Exceeding 6 Months But Less Than 12 Months**

- a. The pilots licence must include a valid and appropriate Aircraft Rating Certificate of Test for Type A
- b. The pilot must complete an approved Revalidation Course
- c. Complete ZFT Simulator Training with a SBTC in accordance with paragraph 2.1.2.4 'Simulator Training & Testing Program'
- d. Complete ZFT Aircraft Training (LFUS) with an STC in accordance with the requirements of paragraph 2.1.2.4 'Zero Flight Time Aircraft Training'

**3 Month Recency On Type B: Expired For A Period Of 12 Months But Less Than 24 Months**

- a. The pilots licence must include a valid and appropriate Aircraft Rating Certificate of Test for Type A
- b. The pilot must complete an approved Revalidation Course
- c. Complete ZFT Simulator Training with a SBTC in accordance with paragraph 2.1.2.4 'Simulator Training & Testing Program'
- d. Complete ZFT Aircraft Training (LFUS) with a BTC in accordance with the requirements of paragraph 2.1.2.4 'Zero Flight Time Aircraft Training'

**Recency On Type B: Expired For A Period Of 24 Months Or More**

- a. The pilots licence must include a valid and appropriate Aircraft Rating Certificate of Test for Type A
- b. Complete 3 satisfactory take offs and 3 manual landings in ABT.

**Documentation On Completion Of Aircraft Or Zero Flight Time Training**

A cover sheet listing the documentation requirements will be placed in the Aircraft Training/ZFT chapter of the trainee's simulator training folder.

**PRE-BASE TRAINING / ZFT TRAINING**

For inclusion of A320 / A330 aircraft rating on HK Professional Licence.

**Contents:**

- a. DCA Form 528                      From Simulator Training Section  
DCA Form 528CCQ
- b. AT 16-5                          Simulator Circuits Syllabus

**Documentation:**

Following the Simulator Circuits training and testing programme (AT16-5), complete the following:

- |            |  |
|------------|--|
| DCA 528    | Complete and sign 4.30.1 <u>ONLY</u>         |
| DCA 528CCQ | Completed and sign 4.10.1, 4.10.2 and 4.10.3 |
| TRS Report | Complete and submit.                         |

DCA 528CCQ - Inform Candidate(s) to report to FTMs, MFT, AGMF or GMO with completed 528 form in order to have the form officially signed prior to submission to the CAD for Licence processing.

Following the ZFT initial aircraft training sectors conducted by an STC complete the following:

- |            |                     |
|------------|---------------------|
| TRS Report | Complete and submit |
|------------|---------------------|

**Title:     Aircraft Base Training**

For inclusion of A320 / A330 aircraft rating on HK Professional Licence.

**Contents:**

- a. DCAForm528                      From Simulator Training Section
- b. AT 16-5                          Simulator Circuits Syllabus
- c. AT 09                              Aircraft Training Record (Form 528)

**Documentation:     Aircraft Training**

Prior to commencing aircraft training, the BTC will check the following:

- |       |  |
|-------|--|
| AT 11 | Check *items 1-7 and if required, item 8, have been completed. |
|-------|--|

Following the Aircraft Base Training complete the following:

- |            |   |
|------------|---|
| DCA 528    | Complete and sign the remaining section 4.10.1.   |
| AT 09      | Complete aircraft training record   |
| TRS Report | Complete and submit.  |
| CAR Report | Annotate the CAR with the following information as conducted at the base training aerodrome |



Go Arounds....  
Touch and Go's....  
Full Stop Landings....

Inform Candidate(s) to report to FTMs, MFT, AGMF or GMO with completed 528 form in order to have the form officially signed prior to submission to the CAD for Licence processing.

#### ISSUE OF AIRCRAFT TYPE ENDORSEMENT

On the successful completion of the aircraft or zero flight time training, the individual pilot is responsible for obtaining the A320/1 or A330 endorsement onto their licence. This requires the pilot to present his log book, licence, Form DCA528/528CCQ and DCA80 (if applicable) to the CAD.

Because of likely delays this must not be done by post. It is essential that the conversion time, both in the simulator and on the aircraft, recorded in the individual's log book agrees with that on the Forms DCA528.

#### 2.1.2.5 SUPPLEMENTARY TRAINING

##### GENERAL

Throughout all conversion courses pilots will be given a series of lectures on various aspects of Dragonair's Operations. These training courses are integral to the conversion course and will be included in the course footprint.

Training Captains are authorised to conduct ground training according to the Training authorisation stored in the e-library, R:\TRAINING\ADMIN\TRAINING GENERAL\Training Authorisation. Flight Simulator Instructors are authorised to conduct ground training as designated by MFT/FTM. Other ground training instructors are authorised by the CAD for training in emergency equipment and procedures (AEP).

Substantial self study is required. A reading list is shown in this chapter. Although not comprehensive, it will provide a basis for commencing line training.

##### REQUIRED READING LIST

##### OPS MANUAL PART A

Flight Procedures  
Aerodrome Operating Minima  
Navigation  
Engineering  
Approved flight time Limitation Scheme  
Pre departure requirements  
Approach ban regulations  
Company Fuel Policy  
Standard Communications  
LVO Procedures  
RVSM Procedures  
Metric Altimetry Procedures  
Windshear  
Co pilots landings  
Visual/Circling approaches



Cold Weather Operation

**VOLUME 5**

Port Page information

SIDs / STAR / Approach Plates / Enroute Charts

China and Hong Kong / Japan / Mid East ATC Rules

Communication failure China

Level change in an emergency in China

Communication failure HKG

**FCOM 2 AND VOLUME 9**

Description of Takeoff Performance Calculations

ACARS RTOW

Take-Off Performance

Landing Performance

ACARS Procedures

Simplified RTOW charts

**LINE TRAINING INDUCTION WORKSHOP (AIRBUS)**

The Line Training Induction Workshop (FLI) will be conducted over 3 days for all Airbus crew and will be run by a TC nominated by MFT/FTM

The FLI syllabus will include the following:

**FLI**

- Operations Manual Structure
- Jeppesen (radio aids, meteorology, ATC, entry requirements, airport directory)
- Search and Rescue
- MEL/DDG/CDL/ADDs
- Computer flight plans (Basic)
- Refuel record form
- Computer and manual loadsheet and balance table
- Performance (ACARS/Engine Inoperative Procedures)
- Aerodrome Operating Minima (AOM)
- Planning General (destination & alternate weather)

**FLF / FLN**

- Flight preparation (Crew check in/CAR)
- Fuel planning (with student examples)
- Commanders and Co-Pilots responsibilities and duties
- Aircraft Maintenance Log
- Fuel Policy (Advanced)
- Computer Flight Plans (Advanced)
- Performance (ACARS/Alternate/Simplified RTOW, V Speeds, OPT/MAX Alts)
- Cold weather ops, cold weather corrections





- Taxi and runway management
- RVSM
- RNP
- Hong Kong weather
- Hot weather/typhoon/turbulence
- Groundspeed mini
- Windshear and windshear systems
- Thunderstorm avoidance and use of weather radar
- ALARS Tool Kit (CFIT)
- Depressurised cruise
- Enroute diversion
- In flight fire/failure
- Minimum Safe Altitudes
- Volcanic ash

#### **SAFETY MANAGEMENT SYSTEM**

All pilots will receive training on the Dragonair Safety Management System (SMS). This training is the responsibility of the Corporate Safety and Quality Department.

SMS training will include ASR/MOR and Confidential Human Factors Reporting as well as a briefing on the Flight Data Analysis Program.

#### **PERFORMANCE BRIEFING**

The Performance lecture will include a complete description of the usage of the Company Operations Manual in determining the performance of the individual aircraft type. This forms the basis of the syllabus of the CAD Performance (Type) examination, and this lecture must therefore be rostered prior to the candidate taking the Performance (Type) exam.

The Performance lecture syllabus will consist of:

- V speeds and relationships
- ACARS performance
  1. Description
  2. Data Input
  3. Data Output
  4. Contaminated runway codes
  5. MEL/CDL Codes (Input, Effect and Output)
  6. Simplified TO performance charts
  7. SMS
  8. WEB/FAX backup
  9. Alternate Send
- EOSID
  1. Description
  2. Policies



3. Close In Obstacles
  4. Far Obstacles
- Cost Index
  - Climb performance
  - En-Route Performance
  - Engine Failure Strategies
  - Cruise Fuel Burn Calculations
  - Single Engine Cruise Performance
  - Depressurised Flight
  - Approach Climb Limits
  - Required and Actual Landing Distance

#### PRE-FLIGHT CHECK TRAINING

Pre-Flight Check (PFC) training is covered during the groundschool phase of the Conversion course. A full pre-flight check sequence is to be completed as early as possible during the Basic Phase of LFUS.

#### INITIAL AIRCRAFT EMERGENCY PROCEDURES (AEP) TRAINING

Initial AEP training is to be carried out prior to commencing LFUS.

The syllabus to be covered on initial AEP training is in accordance with Part D 2.1.7 'SAFETY AND EMERGENCY PROCEDURES TRAINING'. Trainees are required to pass an examination. Successful completion of initial AEP training will result in completion of the Initial Survival Test.

Training will also be provided as follows:

- a. First Aid.
- b. Food Poisoning and prevention.
- c. Aviation Fuel / Hydraulic Fluid - Hazards to skin and eyes.
- d. Hypoxia / Hyperventilation- Symptoms, dangers and avoidance.
- e. Communication and use of ground based emergency facilities.

#### SECURITY TRAINING

Initial Security training is to be completed prior to commencing LFUS.

The syllabus will be in accordance with Part D 2.1.7 'SAFETY AND EMERGENCY PROCEDURES TRAINING'

#### CARRIAGE OF DANGEROUS GOODS

Dragonair holds a Dangerous Goods certificate. All flight crew will complete a Dangerous Goods training programme. This will be followed by a test in Dangerous Goods procedures. This training will be conducted by the Emergency Procedures Supervisors.

All crew members will also be issued with a booklet - Dangerous Goods Training Programme / Book 2. They will be required to sign as having received and studied this material.

Information on Dangerous Goods is also contained in Part A Chap 9 and details of initial and recurrent programs are in Volume 7.6.3.



### **SPECIAL EQUIPMENT TRAINING FMGC/FMS/WEATHER RADAR/EGPWS/TCAS/FANS/GPS/RNP APPROACHES**

Special equipment training will be incorporated into the ground school and simulator training phases of the Conversion, CCQ and Refresher Training Courses. Where appropriate special equipment training will be incorporated into the recurrent training programme.

For FMGC/FMS training an interactive training device will also be used for pilots not familiar with this equipment.

GPWS/EGPWS training consists of a video presentation and simulator training including flight crew responses to 'hard' warnings.

ACAS (TCAS) training will include both academic knowledge and simulator manoeuvre training. Training shall include the crew's response to a range of available simulated ACAS scenarios, including the correct operation of the aircraft controls, phraseology and CRM aspects.

FANS training will consist of a VACBI module.

GPS approach/RNP training will include a briefing on GPS/RNP procedures followed by simulator training including loss of the GPS signal during approach.

Weather Radar training includes a video presentation and briefing on thunderstorm avoidance. This presentation is available under Dragonet best practice.

### **JET UPSET RECOVERY TRAINING**

Jet upset recovery training will be conducted during the ground school phase of all Conversion, CCQ and Refresher Courses. This training will comprise of video presentations produced jointly by Airbus and Boeing.

### **WINDSHEAR TRAINING**

Windshear training will be conducted during the simulator training phases of the Conversion, CCQ and Refresher Training Courses. Self study comprising a video presentation may also be required. Training will emphasise flight crew responses following severe low level windshear encounters, particularly the positive actions required to minimise the effect of windshear during take-off or landing. Training in the avoidance of the windshear phenomena, including use of the Predictive Windshear System, will also be conducted.

### **ETOPS**

Current HKCAD ETOPS Approval is for Airbus A330 aircraft only.

Initial ETOPS training will consist of: -

- a. An ETOPS self-briefing package consisting of study notes and a VACBI module covering:
  - i. Regulations
  - ii. Definitions
  - iii. Fuel & Weather requirements
  - iv. Dispatch requirements
  - v. Crew procedures
- b. Simulator training to include Single Engine Operation depressurized diversion and descent strategies (Standard, Obstacle and Fixed Speed strategies).
- c. Line Training, including a simulated or actual ETOPS dispatch on a scheduled Dragonair sector. For training purposes, simulated flights may operate on routes such as DAC or PEK.



If a simulated flight is used, then a parallel set of documents will be issued for simulated ETOPS dispatch and operation under ETOPS rules. This would utilize one or two en-route alternates where the diversion time is greater than 60 minutes and allow crew to review ETOPS dispatch and associated enroute crew procedures.

#### INITIAL CRM COURSE

The primary objective of CRM/TEM training is to contribute to incident and accident prevention. CRM/TEM is widely implemented in the aviation community as a training countermeasure to human error.

All new Flight Crew will be required to attend a 2 Day Initial CRM course, before commencing Flying Operations with Dragonair.

The initial course will entail participants joining the recurrent JCRM and TEM modules.

The course should be presented by two accredited CRM Facilitators when there are greater than five participants. It is acceptable for one facilitator to present when there are less than five participants.

The course shall include, but not be limited to the following topics:

- Teamwork
- Leadership
- Problem Solving
- Communication
- Assertion Training
- Risk Management
- Decision Making
- Safety Management Systems
- Stress Management
- Human Information Processing
- Situational Awareness
- Threat and Error Management (TEM)
- Monitoring
- Automation Complacency
- Drugs, Alcohol and Fatigue
- Company Behavioural Markers

#### A320/1 DIFFERENCES / CFDS COURSE (A320 RATED PILOTS ONLY)

All pilots undergoing either Conversion, CCQ, Refresher or Revalidation training courses onto the A320 will be required to complete the A320/1 Differences and CFDS course prior to a joint A320/A321 aircraft rating being added to their license.

The content of the courses will include: -

A320/1 Differences:

- a. Systems and Technical differences
- b. Limitations
- c. Performance
- d. Aircraft Emergency Procedures differences



e. Quiz

CFDS Training:

Initial training on CFDS will be carried out as follows:

- a. A Learners World based training module and quiz will be included in the conversion course footprint.
- b. Virtual Maintenance Training Device (VMTD) training session conducted by Cathay Pacific Technical Training School instructors. Four failure modes will be covered which incorporate scenarios with 'dispatch' and 'no dispatch' situations.
- c. Final qualification will be carried out during the final line check.
- d. Self certification by the trainee in the TRS is required at completion of the VMTD session.
- e. On completion of the A321 Differences/CFDS Course, CX Technical Training School will issue a certificate indicating that he has successfully completed the course.

#### 2.1.2.6 LINE FLYING UNDER SUPERVISION (LFUS)

##### OBJECTIVES

To ensure that all the elements of training are linked together to produce a proficient operating pilot.

To produce a confident and competent crew member who conforms in every respect to the company Standard Operating Procedures, both as PF and PM.

To provide supervised practice on a variety of routes and airfields for a rated pilot during normal revenue operations.

To ensure that aircraft handling is safe and smooth.

To achieve the standard of operation required to complete the Line Check.

##### DISCUSSION

Details of discussion items and practice sequences for pilots to be covered during the Basic and Advance Phase are contained in the LFUS booklet.

A comprehensive briefing must be given prior to each flight.

The value of a comprehensive debriefing at the end of each flight cannot be over-emphasised. A thorough analysis of the whole operation should be conducted from pre-flight planning to post flight documentation.

Pilots will complete sectors as PF and PM. Guidelines as to the appropriate PF:PM sector ratio are detailed in Part D 3.2 'ROSTERING FOR TRAINING AND CHECKING'.

##### TRAINING OF CAPTAINS

LFUS will be carried out by a Training Captain.

As soon as a satisfactory standard has been reached after the minimum sectors have been completed the Final Line Check should be completed.

##### TRAINING OF CO-PILOTS

LFUS will be carried out by a Training Captain.

During the Basic Phase initial attention should be paid to basic aircraft handling and operation, as well as the normal PM duties. The PF sectors should include a variety of destinations and both day and night sectors.

The Advanced Phase will focus on the operation as a whole, considering non-normal situations and more complex operational scenarios.



As soon as a satisfactory standard has been reached in the Advanced Phase and following completion of the minimum LFUS sector numbers the Final Line Check should be completed.

### **SUPERNUMERARY FLYING**

The purpose of supernumerary flying is to introduce trainees to normal line operations. As supernumerary the trainee will occupy the observer seat and actively participate in conducting the flight, without operating the flight controls. These flights are to be conducted by Training Captains.

Sector requirements are listed as follows:

Part D 2.1.2.3 'AIRBUS TRAINING SUMMARY'.

Supernumerary sectors are to be conducted prior to LFUS

Trainees will have completed the FLI/FLN/FLF acquainting them with flight documentation and radio communication procedures. The task of the TC is to conduct the conversion from classroom to aircraft. The TC is to ensure that the trainee is able to:

- a. Satisfactorily complete the following items where relevant to the aircraft type; Computer Flight Plan, Technical Log, Takeoff and Landing Data and Fuel Order Form.
- b. Understand company standard operating procedures.
- c. Understand VHF, HF, ACARS communication procedures.

Although a specific number of sectors are nominated for supernumerary flying, trainees should not be released for LFUS until they have reached a reasonable standard in the above. This can be judged on the basis that the trainee is sufficiently at ease with the above tasks so that he is able to gain maximum benefit from instruction at the start of line training.

### **SAFETY PILOTS**

For new joiners a qualified pilot will act initially as Safety Pilot ("Shot-gun") and will occupy the observer seat as follows:

Sector requirements are listed as follows:

Part D 2.1.2.3 'AIRBUS TRAINING SUMMARY'.

The safety pilot will be automatically removed after the specified sectors. If the TC deems the safety pilot cannot be dispensed with after these sectors then MFT/FTM is to be contacted to authorise further sectors. In addition, for Cadets and S/Os, the incapacitation exercise during the Basic phase simulator consolidation session must be satisfactorily completed.

A safety pilot must be qualified on type and in current practice on the type on which the training is being conducted. If a pilot is occupying a pilot's seat he must be fully trained and qualified for all the duties to be performed in that seat. This means that he must have completed a Conversion, CCQ or Refresher course and all relevant tests and checks. The statutory requirements relating to the minimum crew are not met by carrying as a pilot a person who will not occupy a pilot's seat.

Safety pilots are not required if the pilot has previous experience on A320/A330 and consent is given by the FTM or MFT after assessing the trainee's experience.

### **SECTOR REQUIREMENTS**

During LFUS each pilot must operate a minimum number of sectors. A sector is deemed as:

"A flight including all normal operating modes and procedures from flight planning to shut down including a period of cruise".



The minimum Line Flying Under Supervision sector requirements are listed as follows:

Part D 2.1.2.3 'AIRBUS TRAINING SUMMARY'.

Line Check sectors are additional to those specified above.

#### TRAINING CAPTAIN PROFICIENCY

During LFUS, Training Captains must ensure that their own handling proficiency is maintained. It is desirable that they operate as PF once in every 4 sectors and mandatory that they are to be PF once in every 6 sectors.

#### DOCUMENTATION

A LFUS booklet containing all the required documentation will be issued to the trainee prior to commencing LFUS.

#### Line Flying Under Supervision Booklet

##### Contents:

- a. LFUS Introduction
- b. Basic Phase
- c. Advanced Phase
- d. Final Line Check

##### Documentation:

Training Captains are required to:

- a. Complete and sign-off all required discussion items and Topic Blocks in the LFUS booklet
- b. Record any relevant training points during the sectors flown.
- c. Check sector record is kept up to date.
- d. Sign-off the Basic/Advance Phase if they are the TC completing that phase.
- e. Sign off the Final Line Check

TRS Reports Complete and submit.

#### 2.1.2.7 LVO TRAINING

##### LVO TRAINING - INITIAL

Initial LVO training will be incorporated in all Conversion, New Joiner CCQ and Refresher Courses.

Training will comprise of the LVO CBT module followed by simulator training in accordance with the Airbus Flight Crew Training Program.

Following completion of the above, each crewmember shall complete one practice LVO approach with Autoland in CAT 1 conditions or better (Capt as PF, FO as PM) under the supervision of a Line Training Captain prior to receiving approval to conduct LVO operations.

##### LVO TRAINING - DURING LHS CONVERSION

Pilots who are LVO qualified in the RHS will be required to complete the LVO evaluation programme during Command Training. The LVO CBT module and syllabus detailed is incorporated into CT 1.

Upon completion of the LVO evaluation program in CT 1 the pilot must then complete 1 practice LVO approach with Autoland in the LHS during line training.



Pilots who were not LVO qualified in the RHS will be required to complete the Initial LVO training as described in para 1.

#### LVO TRAINING – CCQ/REVALIDATION COURSE

Dragonair Airbus Pilots who were LVO qualified on the previous Airbus type will complete an LVO renewal during the CCQ or Revalidation course. If the CCQ / Revalidation is conducted in conjunction with the LHS conversion then the requirements of para 2 will apply.

Following completion of the above, each crewmember shall complete one practice LVO approach with Autoland in CAT 1 conditions or better (Capt as PF, F/O as PM) under the supervision of a Line Training Captain prior to receiving approval to conduct LVO operations.

#### RIGHT HAND SEAT RATED CAPTAINS

To validate a RHS Captain for LVO the following requirements apply:

- a. Meet recency requirements for LVO in the LHS.
- b. Complete an LVO renewal in the RHS.

RHS Captains are not required to complete an LVO approach in the RHS during a Proficiency Check. A RHS Captain may operate in the RHS on the basis of being current for LVO approaches in the LHS.

#### Airbus

##### Title: LVO TRAINING (INITIAL)

##### Contents:

- a. AT 15 LVO Licence Certificate
- b. AT15a LVO Licence Record Sheet

##### Documentation:

- AT 15 Complete and Sign the 'Sim Training Completed' section.
- AT 15a Complete and Sign the Simulator record, including A/C type and operating capacity.

Pass certificate to the trainee for recording of the practice approach. The pilot must then complete 1 practice LVO approach with autoland under the supervision of a Line Training Captain to complete qualification.

#### 2.1.2.8 CATEGORY C AIRFIELD SIMULATOR TRAINING

When conducting operations to Category C airfields the company will introduce a simulator familiarisation and training session to qualify crews to operate to such airfields.

Training Managers will design this training and assessment session with input from the respective Fleet Office and Line Operations departments to ensure fulfillment of all necessary training requirements.

Line Operations may place restrictions on crew experience to operate to Category C destinations. These restrictions will be detailed in Part A 8.1.2.2 'USE OF CATEGORY C AIRPORTS'

##### Documentation:

- AT 21 Training syllabus for Kathmandu.
- AT 22 Training syllabus for Busan
- TRS Report Complete and submit.





## 2.1.2.9 A321 DIFFERENCES

Pilots currently rated on the A320 automatically receive a type rating on the A321 on completion of the A321 Differences Course. Specific check flights on the A321 aircraft are not required.

For the purposes of rating renewal, a proficiency check is performed at regular intervals in the simulator. As the simulator can only simulate an A320 aircraft, there is a requirement, concurrent with the Proficiency Check, to review the differences between the A320 and A321.

The A321 differences review will include a review of the technical differences and systems description. This review will normally be in the form of either a written or oral quiz. AEP differences will normally be reviewed during AEP training.

The A320/A321 technical and AEP differences to be reviewed are listed below by ATA chapter.

## A321 DIFFERENCES

Limitations:

<b><u>Weights (kg)</u></b>	<b><u>A320</u></b>	<b><u>A321</u></b>
Max Taxi	75900	89400
Max Take-off	75500	89000
Max Landing	64500	75500
Max Zero Fuel	61000	71500
Minimum	37230	47500

<b><u>Min Ctl Speeds (MSL) (kts)</u></b>	<b><u>A320</u></b>	<b><u>A321</u></b>
Vmca	111.5	114
Vmcg Conf 1+F	112.5	112
Vmcg Conf 2	110.5	112
Vmcg Conf 3	110.0	110

<b><u>Max EGT Limits (°C)</u></b>	<b><u>A320</u></b>	<b><u>A321</u></b>
Take-off/Go around 5 min	635	650
Engine failure 10 min	635	650
MCT Unlimited	610	610
Starting	635	635

<b><u>Max Flap/Slat Speeds (kts)</u></b>	<b><u>A320</u></b>	<b><u>A321</u></b>
Conf 1	230	230
Conf 1 + F	215	215
Conf 2	200	215
Conf 3	185	195
Conf Full	177	190

## TECHNICAL DIFFERENCES

**ATA 21 Air Conditioning**

- Pack flow selector replaced by Econ Flow P/B. ON selected with less than 140 pax and gives 80% flow.
- Aft Cargo Compartment is ventilated with cabin air. Isolation valve installed.

**ATA 23 Communications**

- The cockpit Calls panel has call buttons: FWD (Door 1); MID (Door 2); EXIT (Door 3); AFT (Door 4) and ALL

**ATA 24 Electrical**

- New RAT installed capable of supplying the emergency generator down to 125kts. At 100kts, electrical supply reverts to battery only.
- No FLT ON BAT PWR ONLY checklist, and no yellow capped circuit breakers.
- Emergency electrical config calls for APU to be started.
- Identical system installed on later model A320s.

**ATA26 Fire Protection**

- Fwd and Aft cargo holds fitted with dual loop smoke detectors.
- Fwd and Aft cargo compartments fitted with fire extinguisher system- one bottle supplies both compartments through a dual discharge head.

**ATA 27 Flight Controls**

- A321 has two double slotted flap surfaces which give different flap positions for a given config. Main difference is Flap Full A320: 40°; A321: 25°.
- Speedbrakes inhibited in Flap 3 and Flap Full
- Full speedbrake extension available with A/P engaged. (Equivalent to half speedbrake on A320).

**ATA 28 Fuel System**

- Single wing tank replaces inner and outer fuel tanks on the A320.
- Jet pumps transfer fuel from center tank to wing tanks. Wing tanks only feed engines.
- An Additional Center Tank (ACT) located in hold 3 holds 2200kgs of fuel which is transferred pneumatically or by stby electric pump into the Center Tank. This tank has been temporarily removed from all KA A321s.
- Refuelling Control Panel contains additional controls for the ACT.

**ATA 34 Navigation**

- Predictive Windshear (PWS) is fitted. PWS uses existing radar installation but is independent of the radar operation.
- PWS is to be switched on during taxi and switched off after landing.
- PWS is installed on later model A320s.

**ATA 70 Engines**

	<b>A320</b>	<b>A321</b>
Type	V2527-A5	V2533-A5
Thrust	26500lbs	33000lbs
Flat rating	ISA + 31°	ISA + 15°
T. Max Flex	ISA + 55°	ISA + 42°

**AEP DIFFERENCES**

- Passenger configuration** : 172 (24C + 148Y)
- Number of cabin crew** : Minimum 4, normally 6 or 7 depending on passenger load. Total 9 cabin crew seats.
- Emergency Exits** : Total 8;  
4 Type 1 (L1, R1, L4, R4) - same as doors on A320  
4 Type C (L2, R2, L3, R3)



**Features of TYPE C exit :**

- Very similar to type 1 exit except:-
- Type C exit is for emergency use only.
- There is a safety cover over the door control handle
- The red manual inflation handle is located at the upper right hand side of the exit frame.
- The white release handle is under a flap at the aircraft end of the slide.
- Single lane escape slide is installed underneath the exit.
- Slide inflation cylinder location:
  - L2/R2 - inside a concealed compartment above the exit, accessible by push-button latches
  - L3/R3 - inside the over-head locker above the exit
- Pre-flight check of the slide is to check the pressure gauge pointer of the slide inflation cylinder is in the green zone.

**2.1.2.10 SIMULATOR DIFFERENCES**

**A330-300 / -200 DIFFERENCES**

Pilots currently rated on the A330-300 will be required from time to time to perform recurrent training and Proficiency Check items on an A330-200 simulator.

Whilst Dragonair does not operate A330-200 aircraft, the regulatory authorities accept that a common type rating covers the A330-300 and -200 aircraft, in part due to the minor differences between the two variants.

Pilots who have been rostered for recurrent training in an A330-200 simulator are required to review the listed differences, to familiarize themselves with the –200 variant prior to attending the simulator. Any differences in cockpit layout or operating procedures will be re-briefed prior to the simulator session.



## A330-200 DIFFERENCES

DESIGN	DIFFERENCES
<b>GENERAL</b>	The A330-200 is a shortened version of the A330-300 subsonic medium long range civil transport aircraft.
<b>DIMENSIONS</b>	
<b>A330-300</b>	Length = 63.7m / height = 16.8m
<b>A330-200</b>	Length = 59.4m / height = 17.8m
<b>CABIN</b>	A330-300: max passenger cap. = 440 A330-200: max passenger cap. = 293
<b>LIMITATIONS</b>	
<b>Weight</b>	<ul style="list-style-type: none"> <li>- Max take off weight: A330-300 = 212.0T A330-200 = 230.0T</li> <li>- Max landing weight: A330-300 = 177T A330-200 = 174T</li> </ul>
<b>C of G</b>	A330-300 = 14% to 42% A330-200 = 17% to 41%
<b>Min Ctl Speeds – Vmca</b>	A330-300 = 117kt A330-200 = 106kt
<b>Min Clt speeds – Vmcg</b>	A330-300 = 118kt A330-200 = 107kt

SYSTEMS	DIFFERENCES
<b>28 - FUEL</b>  <b>28 - FUEL</b>	<ul style="list-style-type: none"> <li>- A centre tank has been added</li> <li>- Centre to Wing tank transfer is carried out by 2 transfer pumps and 2 transfer valves.</li> <li>- Centre to Wing tank manual transfer</li> <li>- AFT and FWD transfer from and to Centre tank.</li> <li>- Centre tank is available (15T unusable)</li> <li>- Control Panel: Similar but additional push buttons for CTR tank fuel pumps and transfer mode: L/XFR/R</li> <li>- ECAM: same philosophy; design modifications reflected in fuel system page.</li> <li>- Refuelling control panel: addition of CTR tank</li> </ul>

MANEUVERS	DIFFERENCES
<b>SURFACE OPERATION</b>	<ul style="list-style-type: none"> <li>- Decreased distance between nose wheel and main gear</li> <li>- Taxi technique identical</li> </ul>
<b>ALL OTHER MANOEUVERS</b>	<ul style="list-style-type: none"> <li>- Identical</li> </ul>



### TYPE SPECIFIC SIMULATOR DIFFERENCES

Each Dragonair Simulator will be referenced to a specific airframe in the Dragonair Fleet. Simulator FCOMs and MEL will be specific to that airframe.

The following is a list of simulator / reference airframe differences for HDA owned and operated simulators.

#### HDA01 A320-232

Reference Airframe: B-HSO (MSN 4023)

Simulator Differences compared to B-HSO

- Cargo Heating installed.
- Cargo Smoke and Fire Detection is a single bottle system.
- No ADF selection on the DDRMI.
- No INTMT wiper selection.
- No ALL pushbutton on the CALLS panel.
- GND HF Datalink pushbutton on the overhead panel.
- No AUTO selection for the Seat Belt sign switch.
- Rain Repellent - Simulator Freeze button.
- CDSS - Not fitted.

#### OAA A320 SIM (OAA HK04)

Reference Airframe B-HSG (MSN 812)

Simulator Differences compared to B-HSG:

- Ground Cooling Pushbutton on Ventilation Panel
- Cargo Smoke and Fire Detection is a single bottle system
- Expedite pushbutton on the FCU
- Cargo Heating installed
- No Standby Metric altimeter
- Non-standard Weather Radar control panel
- NWS DISC memo not available until pushback is started
- FWC Standard 1.2

#### OAA A320 Simulator (OAA HK 05)

Reference Airframe B-HSG (MSN 812)

Simulator Differences compared to B-HSG:

- Cargo Smoke & Fire Detection
- Cargo Heating
- No ACARS
- Different Wx Radar box
- Expedite Pushbutton
- Rudder pedal adjustment
- Rain Repellant – Simulator Freeze

**HDA02 (RR) A330-200**

Reference Airframe: B-HWK (MSN 786)

Simulator Differences compared to B-HWK:

- Simulator is A330-200 (refer paragraph 2 above).
- Rain Repellent - Simulator Freeze button.
- Collins Multi Scan Wx Radar
- RNP Pushbutton
- CDSS - Not fitted.

**CPA 10 And CPA 13 A330 - 300**

Reference A/C: B-HYI (MSN 479)

- Ice Detection System
- No Metric Altimeter
- Cabin Ready T/O & Land Memo
- Thrust required to taxi.
- AutoCallouts – (same except below 100RA)

KA	Simulator
100	100
50	40
40	20
30	
20	
10	

**OAA HK02 A330 - 200**

Reference A/C B-HYI (MSN 479)

- Max ZFW 169 T.
- Control P/B's on O/head panel for Center Fuel Tank
- Fuel systems page indicates Center Tanks- Empty for KA.
- Tyre Pressures on WHEEL Page
- Predictive Windshear (on Radar) installed
- Ice Detection System (NO ICE DETECTED)
- ACARS fitted.

**IPT (MFTD)**

Reference Airframe: A320 B-HSO (MSN 4023)

- Brake Fans – Not fitted
- Standby metric altimeter – not fitted
- No ACARS



Reference Airframe: A330 B-HWK (MSN 786)

- Simulator is A330-200 (refer paragraph 2 above).
- Brake Fans - Not fitted.
- Standby Metric Altimeter - Not fitted.
- No ACARS

## **SIMULATOR MINIMUM EQUIPMENT LIST (MEL)**

### **Introduction**

The application of the aircraft MEL (Vol 6) in relation to simulator defects may be inappropriate due to unnecessarily restrictive requirements or inadequate systems availability for a specific detail. Simulator visual and motion systems also need to be considered.

The Dragonair Simulator MEL provides guidance for the major system defects likely to affect the conduct of a simulator training or Regulatory detail.

For the purposes of the Simulator MEL, Regulatory details will include:

- Proficiency Checks
- CAD528 sessions
- Skill tests
- ZFT Training
- Pre-Base Training practice

If in any doubt, an instructor should consult with the MFT or appropriate FTM for clarification of simulator serviceability for a specific detail.

The MFT will be the final authority in assessing simulator serviceability or restrictions of its use.

### **Airbus A320 and A330 Full Flight Simulators**

#### **Contents:**

Motion Systems

Flight Surface Control Loading

Visual System

Instructors Operating Systems (IOS)

Safety Equipment

Electronic Indicating Systems

Flight Instruments

Autoflight Systems

Navigation Systems

Flight Controls (A320: ELAC, SEC, FAC A330: PRIM and SEC)

Engine Types

### **Motion Systems**

- a. For regulatory exercises:
  - i. Motion is required.
- b. For non-regulatory exercise:



- ii. Motion is not required.

**NOTE:** Instructors should give due consideration to the effectiveness of the training detail under consideration and use their judgment accordingly.

### Flight Surface Control Loading

Simulator Flight Control Loading provides simulated aerodynamic load feedback on the rudder pedals and trim wheels.

Flight Surface Control Loading:

- a. Must be available.

**NB:** In the event the failure is caused by loss of hydraulic pressure the system can be powered from the motion hydraulics temporarily.

### Visual System

The visual system consists of three projectors that create the visual image in front of the pilots. The visual system will therefore be considered as left, centre and right images.

- a. Centre Image Not available:
  - i. For regulatory exercises:
    - If a visual segment is required, ie Take-Off and Landing, Centre image must be serviceable.
  - ii. For non-regulatory exercises:
    - Centre image may be unserviceable.
- b. Left Image Not available:
  - i. For regulatory exercises:
    - Left Image may be unserviceable, provided Centre Image is available.
  - ii. For non-regulatory exercises:
    - Left Image may be unserviceable.
  - iii. For Pre Base Training and ZFT exercises:
    - Left Image must be operative if flying LH circuits otherwise may be inoperative.
- c. Right Image Not available:
  - i. For regulatory exercises:
    - Right Image may be un-serviceable, provided Centre image is available.
  - ii. For non-regulatory exercises:
    - Right Image may be un-serviceable.
  - iii. For Pre Base Training and ZFT exercises:
    - Right Image must be operative if flying RH circuits otherwise may be inoperative.

**NB:** If a visual segment becomes unserviceable during a session then cycling the visual system control (after freezing the simulator if appropriate) can re-activate the individual visual segment.

### Instructors Operating System (IOS)

The IOS may consist of one or more interfaces.





For all exercises:

Adequate control from the instructor's position must be available to operate all functions required for the detail. Simulators equipped with two interchangeable IOS displays may have one display inoperative.

### Safety Equipment

Safety equipment consists of:

Hydraulic cut-off, Total Hydraulic and Electrical cut-off, Fire extinguishers, Escape ladders, Emergency kick-out hatch in flight deck door, escape ropes, external phone communications and Smoke Hoods.

For all exercises all safety systems must be operative with the following exceptions:

- a. One escape rope may be inoperative.
- b. Hydraulic cut-off may be inoperative for fixed base sessions not using motion.
- c. External phone/intercom communications may be inoperative providing an alternative method of communication is available. i.e. a mobile phone.

### Electronic Indicating Systems (EIS)

The EIS consists of six Display Units and their corresponding control panels:

- a. Primary Flight Display
  - i. For regulatory exercises:
    - Must be available for pilot flying.
  - ii. For non-regulatory exercises:
    - May be unserviceable if the detail is not predicated on its use.
- b. Navigation Display
  - i. For regulatory exercises:
    - Must be available for pilot flying.
  - ii. For non-regulatory exercises:
    - May be unserviceable if the detail is not predicated on its use.

EIS Control Panel:

- a. Range Control
  - i. For regulatory exercises:
    - Onside unit must be serviceable for pilot flying.
  - ii. For non-regulatory exercises:
    - May be unserviceable if the detail is not predicated on its use.
- b. FD/ILS/VOR/ADF pushbuttons or selectors
  - i. For regulatory exercises:
    - Onside controls must be serviceable. Push button lights may be unserviceable.
  - ii. For non-regulatory exercises:
    - May be unserviceable as long as suitable displays are available.
  - iii. For ZFT and pre-BT sessions:
    - May be unserviceable.



- c. Upper ECAM (E/WD) (Whole display)
  - i. For regulatory exercises:
    - Must be available (except ZFT and pre-BT).
  - ii. For non-regulatory exercises:
    - May be unserviceable as long as the information can be presented on the Lower ECAM.
- d. Lower ECAM (S/D) (Whole display)
  - i. For regulatory exercises:
    - Must be serviceable (except ZFT and pre-BT).
  - ii. For non-regulatory exercises:
    - May be unserviceable as long as information can be presented on the Upper ECAM. However the instructor must consider if the exercise is heavily dependent on its use then the simulator may be considered unfit for the exercise.

#### ECAM Control Panel:

- a. For Regulatory Exercises:
  - i. System page manual call pushbutton: Any may be inoperative.
  - ii. All pushbutton: Must be operative if any individual call pushbutton is inoperative.
  - iii. Recall pushbutton: Must be operative.
  - iv. Status pushbutton: Must be operative.
  - v. Clear pushbutton: One must be operative.
  - vi. Emergency Cancel pushbutton: May be inoperative.
  - vii. T/O Config. pushbutton: Must be operative.
- b. For Non-regulatory exercises:
  - i. Any of the pushbuttons:
    - May be unserviceable as long as the exercise is not predicated on its use.
- c. Information on any EIS Display:
  - i. For regulatory exercises:
    - All PFD and ND data relevant to the exercise must be available for the pilot under test. ECAM information may be unserviceable as long as the exercise is not predicated on its use.
  - ii. For non-regulatory exercises:
    - Any data may be unavailable as long as its loss has no detrimental effect on the conduct or training value of the session.

#### Flight Instruments

See EIS for details on PFD and ND and NAV for WX radar, DDRMI and TCAS.

Standby ADI & ASI:

- a. For regulatory exercises:



- May be unserviceable as long as full PFD information is available to the pilot under test at all times.
- b. For non-regulatory exercises:
  - May be unserviceable.

### Autoflight Systems

#### FMGS:

- a. For regulatory exercises:
  - One must be serviceable.
- b. For non-regulatory exercises:
  - Both may be unserviceable as long as the training value of the detail is not compromised.

#### FCU:

- a. For regulatory exercises:
  - One channel must be serviceable.
- b. For non-regulatory exercises:
  - May be unserviceable as long as the detail does not involve the use of FDs and training value is not compromised.

#### MCDUs:

- a. For regulatory exercises:
  - One must be serviceable. For A330 this can be MCDU#3.
- b. For non-regulatory exercises:
  - All may be unserviceable as long as the session is not predicated on its use and the training value will not be compromised.

#### ATHR:

- a. For regulatory exercises:
  - Must be serviceable.
- b. For non-regulatory exercises:
  - May be unserviceable as long as the value of the detail will not be reduced by the increased workload induced by the failure.

#### FACs:

See Flight Controls.

### Navigation Systems (NAV)

#### ADIRU:

- a. For regulatory exercises:
  - #1 must be serviceable if TCAS is part of the test scenario. #2 or #3 may be unserviceable as long as full PFD and ND information is available to the pilot under test.
- b. For non-regulatory exercises:
  - Two systems may be unserviceable but consideration must be given to the training value derived with Flight Control Law limitations and possible gear retraction prevented.



DDRMI:

- a. For regulatory exercises:
  - May be unserviceable if full ND information is available to the pilot under test.
- b. For non-regulatory exercises:
  - May be unserviceable.

WX Radar information (or WX radar image generation by IOS):

- a. For all details: may be unserviceable as long as the testing or training value is not predicated on its use.

TCAS:

- a. For regulatory exercises:
  - Must be serviceable if the test is predicated on its use.
- b. For non-regulatory exercises:
  - May be unserviceable as long as the training value of the session is not compromised.

Navigation Database:

- a. For regulatory exercises:
  - May be out of date providing the validity of any managed approach required as part of the testing detail is not adversely affected.
- b. For non-regulatory exercises:
  - May be out of date as long as any discrepancies or differences are highlighted to the crew during the detail.

Terrain Database:

- a. May be unserviceable provided EGPWS is turned off and the crew is made aware of the deficiency.

**Flight Controls (A320: ELAC, SEC, FAC A330: PRIM AND SEC)**

A320 Flight Control Computers:

- a. For regulatory exercises:
  - i. One ELAC may be inoperative.
  - ii. One SEC may be inoperative.
  - iii. One FAC may be inoperative.
- b. For non-regulatory exercises:
  - i. May be unserviceable as long as the training value of the session is not compromised.

A330 Flight Control Computers:

- a. For regulatory exercises:
  - i. One PRIM may be inoperative.
  - ii. One SEC may be inoperative.
- b. For non-regulatory exercises:
  - i. May be unserviceable as long as the training value of the session is not compromised.

All other controls and indications may be unserviceable providing the flying



characteristics of the a/c are not compromised, the crew is briefed accordingly and the exercise is not predicated on the use of the item under consideration.

### Engine Type

- a. For regulatory exercises:
  - i. CAD authorisation is required before using a simulator with a non-KA engine type.
- b. For non-regulatory exercises:
  - i. Non-KA engine types are acceptable as long as the crew is made aware of the differences both in the presentation and in the handling.

## 2.1.2.11 MIXED FLEET FLYING (MFF) – A320/1 AND A330

### GENERAL

**Note: CAD MFF exemptions have lapsed. The following requirements are subject to CAD approval.**

Pilots qualified for Mixed Fleet Flying will operate two types of aircraft. The A320/1 is classified as one type and the A330 as the second type. Where one MFF Type is referred to as Type A, the other will be referred to as Type B.

### ELIGIBILITY

The minimum experience level for a pilot to be eligible for MFF is:

- a. 3000 hours total time.
- b. Minimum of 500 hours with Dragonair on Type A or Type B.
- c. Completed a total of three Proficiency Checks on Type A or Type B or a combination of both.
- d. Minimum experience on each MFF Type:
  - i. 75 hours and
  - ii. 30 sectors

### Newly Promoted Captains

Newly promoted Captains must complete the following consolidation as a Commander before becoming eligible for MFF:

- a. Minimum of 500 hours in Command with Dragonair on MFF Types and
- b. Completed a total of two Proficiency Checks on MFF Types. (The Proficiency Checks completed during Command Training shall not be included in this requirement.)

### PILOT QUALIFICATIONS FOR MFF

To qualify for MFF a pilot must hold a valid Aircraft Rating and Line Check on Type A at the time he completes the Aircraft Rating and Line Check on Type B.

### RECURRENT TRAINING

#### Aircraft Rating (AR)

- a. After the CCQ or revalidation process and within 6 months of the last AR on Type A, the initial AR must be completed on Type B.
- b. Subsequent ARs must alternate between the two types. There must never be more than 13 months between same type ARs and not less than 4 months between alternate Type ARs.



- c. Should two different ARs be conducted within 4 months of each other, the first of these two must be renewed no later than 6 months after the date of the second AR renewal.
- d. Should either Type AR expire, then both Type ARs are deemed to have expired and both must be renewed before MFF qualification is restored. Once the first AR has been renewed the pilot may then operate that Type only until the AR for the other Type has been renewed. After both ARs have been renewed, subsequent renewals must be in accordance with sub paragraphs b. and c. above.

### **Instrument Rating**

IR validity will be in accordance with Schedule 9 requirements. An IR conducted on either type will be valid for both aircraft types.

### **Proficiency Check**

Proficiency Checks will alternate between the two Aircraft Types.

#### **LVO**

LVO recency and renewal may be conducted on either Type.

### **Line Check**

- a. After completing a Line Check on Type B following CCQ or revalidation a Line Check on Type A must be completed no later than 13 months after the Line Check on Type B.
- b. Subsequent Line Checks must alternate between the two Types. There must never be more than 13 months between different Type LCs and never more than 25 months between same Type LCs.
- c. Should either Type LC expire then both LCs are deemed to have expired and both must be renewed before MFF qualification is restored. Once the first LC has been renewed the pilot may operate that Type only until the Line Check for the other Type has been renewed. After both have been renewed subsequent renewals must be in accordance with sub paragraph b. above.

### **CFDS**

MFF qualified Pilots will complete CFDS recurrent training on alternate Line Checks when conducted on A320/A321 aircraft.

### **Aircraft Emergency Procedures**

Annual AEP will be conducted on both Aircraft types. The recurrent training for both types will normally be conducted on the same day.

## **MFF RECENCY REQUIREMENTS**

### **35 Day Recency**

A pilot may not fly as a MFF Commander unless he has carried out at least one Take-Off and one Landing in either Type A or B during the previous 35 day period.

### **35 DAY RECENCY REVALIDATION**

- a. Revalidation may be completed on a revenue flight on either Type. The flight will be completed under the supervision of a Training Captain who will be the Commander and will include one manual take off and landing.
- b. Revalidation may also be carried out with one manual take off and landing in a simulator approved for this purpose. The assigned FOI shall be consulted before using a simulator for this purpose.



### 3 Months Recency

A Commander or Co-Pilot must complete a minimum of two take offs and two landings in either Type A or Type B and a minimum of one take-off and landing in the other Type within the previous 3 month period.

### 3 MONTH RECENCY REVALIDATION

- a. If a pilot does not meet the 3 month recency requirement on Type A but has completed three take offs and three landings on Type B in the previous 3 months, then revalidation of Type A will be in accordance with Part A 5.2.12.
- b. If a pilot does not meet the 3 month recency requirement on both Types then revalidation shall be conducted on each Type in accordance with Part A 5.2.12.

## TRAINING CAPTAINS

### MFF Line Training Captains

MFF qualified Training Captains may conduct Training Duties on both types.

### MFF STC

A MFF qualified STC may exercise the privileges of a Line Training Captain.

He may exercise the privileges of a STC on Type A and Type B irrespective of which Type he was granted Authorised Examiner status.

NOTE: A STC may not continue to exercise the privileges of his approval on Type A while he completes the training and consolidation period on Type B. After completion of the consolidation period on Type B he may apply for STC approval on both MFF Types.

An observation on Type B will not normally be required by the CAD, provided the STC approval on Type A remains valid.

### MFF BTC

A MFF qualified BTC may exercise the privileges of a MFF STC.

He may only exercise the privileges of a BTC on the Type for which he was granted Authorised Examiner status. He will however be able to conduct the initial line training sectors following ZFT training or Revalidation training on either Type.

## ROSTERING

MFF qualified pilots may operate both Types within the same flight duty period.



## 2.1.3 COMMAND TRAINING AND CHECKING

### 2.1.3.1 REQUIREMENTS FOR PROMOTION

#### MINIMUM REQUIREMENTS

Satisfy the minimum flying experience criteria as detailed in Part A Chapter 5.2.3.1.

Completion of a minimum of 12 sectors in command under supervision, of which not less than 3 sectors are at night.

Completion of Command Line and Proficiency Checks including LOFT.

#### POLICY

The command training as detailed above will only be used as a minimum requirement in exceptional circumstances and at the discretion of the GMO, MFT and AGMF. It is company policy to indulge in formal command training as detailed in the following paragraphs.

### 2.1.3.2 COMMAND COURSE

#### OBJECTIVES

- a. To confirm the First Officer's command potential.
- b. To convert the pilot to the LHS.
- c. To provide scope for a First Officer to make command decisions and to practice the command function.
- d. To allow the pilot to demonstrate his ability as a Commander.

#### SELECTION

Selection of Command Course candidates will be made by AGMF in consultation with MFT. MCR will maintain records of command selection criteria for all pilots.

The following factors will be taken into account:

- a. Seniority as a First Officer.
- b. Standard of experience - The minimum hours requirement will be applied to the individual's planned date of promotion.
- c. Be assessed as '*Ready for Pre-Command Assessment*' at the most recent Proficiency Check and Line Check prior to Pre-Command Assessment.
- d. Successful completion of the Pre-Command Assessment (PCA).
- e. Be assessed as '*Ready for Pre-Command Assessment*' at all subsequent Proficiency Checks.

#### READY FOR PRE-COMMAND ASSESSMENT

After a Proficiency Check, Skills Test (DCA528) or Line Check, an assessment will be made of a FO/JFO/SO's readiness for PCA.

#### Proficiency Check or Skills Test (528)

When assessing a FO/JFO/SO as '*Ready for PCA*', the STC will numerically grade the candidate in accordance with Part D 2.1.2.2 'NUMERICAL GRADING SYSTEM FOR PILOTS'.

A '*Ready for PCA*' assessment confirms that there are no significant weaknesses in any area of the operation. Therefore, should a grade of 3 or better be awarded in all of the assessment areas then a '*Ready for PCA*' assessment will be given.





Failure to achieve a grade of 3 or better in any area will therefore result in an assessment of 'Not Ready for PCA'. Additional training may be required in order to eliminate a deficiency before a further 'Ready/Not Ready for PCA' assessment can be made.

If a FO/JFO/SO has failed to achieve the minimum standard required in a Proficiency Check or Skills Test (ie a score of 1 in any area) any subsequent retest should be graded according to the actual performance, however a 'Ready for PCA' will not be awarded regardless of the grades achieved.

Safety is an integral component of all assessment areas. Any major debrief point where safety is compromised will result in awarding a grade of less than 3 for that particular area and therefore a 'Not Ready for PCA' assessment will be given.

### Line Checks

When assessing a FO/JFO/SO as 'Ready for PCA', the TC will numerically grade the candidate in accordance with Part D 2.1.6.6 'LINE CHECK GRADING AND ASSESMENT'

A 'Ready for PCA' assessment confirms that there are no significant weaknesses in any area of the operation. Considering the number of assessed areas during the Line Check, two grades of 2 are acceptable for a 'Ready for PCA' assessment.

More than two areas assessed as grade 2, or any area assessed as grade 1, will result in an assessment of 'Not Ready for PCA'.

If a FO/JFO/SO fails to achieve the minimum standard required in a Line Check (ie a score of 1 in any area), any subsequent retest should be graded according to the actual performance, however a 'Ready for PCA' will not be awarded regardless of the grades achieved.

### PRE-COMMAND ASSESSMENT

**The aim of PCA** is to provide training and assessment of the candidate's readiness for command. It will also be used to highlight potential weak areas, which can then be corrected prior to the Command Course itself. PCA will comprise the following:

- a. Command Training Examination
- b. A flying element
- c. Simulator LOFT
- d. PCA debrief by fleet FTM

The Command Training Examination, (CTE) consists of 2 papers.

CTE1 is a closed-book, multiple choice paper focusing on knowledge that should be easily recalled by a Command candidate.

CTE2 is an open-book, multiple choice paper covering the wider operation.

Both papers contain questions on the following subjects:

- a. Weather minima
- b. Flight Planning
- c. Technical knowledge
- d. Limitations
- e. Performance
- f. Dragonair normal and abnormal procedures
- g. Operational policy

**The flying element of PCA** (PCA 1) will consist of 12 sectors flown in the RHS with



the same Training Captain. This is initially considered a training phase and is used to improve the candidate's level of knowledge and operational skill. As this phase progresses the emphasis will move towards assessment.

The candidate should expect to be given considerable freedom as to the manner in which he wishes to operate the sectors. PM sectors are to be kept to a minimum. In addition, the candidate should expect to fly non-precision and visual approaches (if the opportunity arises), and to fly the aircraft manually without the use of the flight director and ATHR systems.

A numerical assessment of the candidate's performance is to be made at the end of the series of flights. The TC will use the 'word picture' criteria described in Part D 2.1.2.2 'NUMERICAL GRADING SYSTEM FOR PILOTS', using a minimum score of 3 as a guide to the required standard.

**The simulator LOFT** (PCA 2) will consist of a 3 hour session flown from the RHS with another co-pilot occupying the LHS to act as PM. This will be an assessment phase with the candidate acting "In Command" from the RHS. Emphasis will be placed on Command & Decision making, Situational Awareness, Capacity and Execution of Procedures. The flying element and simulator LOFT must be conducted by different TCs. The LOFT is to be designed such that it presents the candidate with a higher degree of difficulty than that experienced at the Proficiency Check.

**If use of the simulator is not possible**, the LOFT will be replaced by 4 sectors of line flying. This will be an assessment phase with the candidate acting 'In Command' from the RHS.

To determine whether a weakness exists, the candidate's performance will be numerically assessed using the criteria described in Part D 2.1.2.2 'NUMERICAL GRADING SYSTEM FOR PILOTS'. A grade of 3 or better must be awarded in all of the assessment areas for a 'Pass' to be given. Failure to achieve a grade of 3 or better in any area will therefore result in the candidate being assessed as unsuccessful. The TC is to debrief the candidate accordingly and contact the MFT/FTM.

If the candidate has less than 5000 hours no result is to be given to the candidate. The reports from both TCs will be considered by the MFT who will make a final recommendation. The candidate will then be debriefed by the MFT or his deputy.

A Command Course will not be awarded until successful completion of PCA.

**A post-PCA Debrief** will be conducted by the fleet FTM, reviewing the result, areas of strength and weakness highlighted and strategies to assist in moving forward with a Command Course or retake of PCA.

### Documentation

A cover sheet listing the documentation requirements will be placed in the trainee's training folder. TCs conducting PCA should familiarise themselves with the student's prior performance by consulting the report history in the TRS 'Crew Profile'.

### Unsuccessful Completion Of PCA

In the event that a Candidate does not complete PCA successfully, the relevant freeze period as published by Crew Resources shall be applied before a further PCA is rostered.

### AIRBUS

**Title:** PRE-COMMAND ASSESSMENT

#### Contents:

- |    |        |                                   |
|----|--------|-----------------------------------|
| a. | AT 05  | Training Report (Two copies)      |
| b. | AT 06  | Pilot Line Training Sector Record |
| c. | AT 07P | LCT/PCA Discussion Items          |



**Documentation:**

- |        |   |
|--------|---|
| AT 05  | Record any relevant training points.        |
| AT 06  | Maintain sector record up to date.          |
| AT 07P | Complete all Discussion and Practice items. |

**COMMAND COURSE STRUCTURE**

**Command CRM Course**

The Command CRM Course is included in the Pre-Command Workshop.

**Command Ground School (CGS)**

Pilots will be rostered to attend the CGS prior to commencement of the Command Course. In exceptional circumstances pilots may be rostered for the CGS after CT1 and prior to commencement of CT2.

The format of the CGS is of an open forum or workshop that will involve discussion and questions of operational, technical, planning and organisational aspects of a simulated line flight.

The CGS will include, subject to the requirements of the specific aircraft type, the following subjects:

- a. Commander's responsibilities
- b. Aircraft paperwork
- c. Basic aviation law
- d. CRM aspects of command
- e. Technical aspects of command
- f. Flight planning and performance
- g. Aerodrome operation minima
- h. Review of company instructions
- i. Review of route manual (Vol 5)
- j. Cabin service

**Flying and Simulator**

Flying and simulator training and evaluation during the Command Course comprises of 6 individual phases, CT1-CT6.

Desirable rostering sequences are shown in Part D 3.2.8.2 'FLYING/SIMULATOR'. This allows for maximum exposure to a variety of routes, commencing with the longer and 'least difficult', to allow the candidate time to settle into his new role and provide time to cover discussion items en-route. Individual training phases will be annotated in the notes section of both the TC's and the trainee's rosters.

TCs involved in CT2 are reminded that this is a coaching phase, whereas CT3 and 4 require an element of assessment. The candidate's knowledge of academic items will have been exercised in ground school. This knowledge may be further explored but more time should be devoted to encouraging the trainee to practice his command thinking, to make decisions and to take command of the whole operation. TCs must be aware of the fact that this will often be difficult for an individual who may be training for his first command.

TCs personal whims must be avoided. Standard Operating Procedures must be adhered to, but where possible the candidate should develop his own priorities around them. It may be necessary for TCs to assist in this area without necessarily making a



blueprint of his own methods. ***The need for a candidate to adjust from phase to phase to suit individual TCs methods must be avoided.***

CT5 and 6 are primarily checking phases. The candidate must clearly display a high standard of handling skills, command and control, situational awareness and technical knowledge. There must be no doubt in his ability to operate as a Dragonair Commander.

#### ASSESSMENT

For every phase of the Command Course a recommendation to proceed to the next phase shall be made by the TC. Submission of the TRS report with a 'Pass' assessment complies with this requirement.

Each assessable phase shall be numerically scored using the criteria as per Part D 2.1.2.2 'NUMERICAL GRADING SYSTEM FOR PILOTS' and a grade of 3 or better must be awarded in all of the assessment areas for a 'Pass' to be given. If a grade of less than 3 is awarded in any area then the TC is to advise the candidate that he is unable to give the 'Pass' recommendation and that the matter will be referred to MFT/FTM for review.

#### DOCUMENTATION

**Training Folder** A folder containing all necessary forms will be given to the candidate. The candidate should be given his training folder at the end of each phase to pass to the next TC. Each new TC must be informed of any particular problem areas by the previous TC or via the FTM.

**TRS Report** Complete and submit.

#### PHASE 1 - LHS CONVERSION AND PROFICIENCY CHECK (CT1)

This will be completed in the LHS in the simulator. The syllabus for CT1 is detailed in Part D 4.2 'FORMS AT10'. A Proficiency Check and an Instrument Rating Renewal will be completed. LVO training and/or evaluation will be completed subject to specific aircraft fleet requirements.

This phase will familiarise the First Officer with handling the aircraft from the LHS. On completion of this phase, the STC must be satisfied that all safety aspects associated with the duties of the pilot in the LHS are adequately covered. Candidates should be given some leeway in order to familiarise themselves with the LHS. This is not the final LHS Proficiency Check. The STC may review extra items such as maximum crosswind take-offs and landings, windshear procedures, EGPWS procedures and go-arounds as required.

#### Assessment

By the completion of CT1 all mandatory Proficiency Check items must be completed to Command standard.

#### Documentation

A cover sheet listing the documentation requirements will be placed in the Simulator Training chapter of the trainee's training folder.

#### CT1 CURRENT TYPE / CT1 WITH REVALIDATION

**Title:** COMMAND TRAINING - CT1 SIMULATOR LHS CONVERSION

#### Contents:

- a. AT 10-1, 2, 3, 4, 5 LHS Conversion Simulator syllabus (2 Candidates)
- b. AT 10-6, 7, 8 LHS Conversion Simulator syllabus (1 Candidate)
- c. AT 15 LVO Licence Certificate



- d. AT 15a LVO Licence Record Sheet
- e. AT 16-5 Simulator circuits syllabus for Reval candidates

**Documentation:**

- AT 10-1, 2, 3, 4, 5 or AT 10-6, 7, 8 Complete the WHOLE conversion syllabus.
- AT 15 Complete and Sign the 'Sim Training Completed' section.
- AT 15a Complete and Sign the Simulator record, including A/C type and operating capacity.
- AT 16-5 Complete syllabus for Reval candidates.
- Pilot Licence Sign Aircraft Rating Certificate of Test.
- Sign Instrument Rating Certificate of Test
- TRS Report Complete and submit.

**CT1 WITH CCQ****Title: COMMAND TRAINING - CT1 SIMULATOR LHS CONVERSION WITH CCQ**

For inclusion of A320 / A330 aircraft rating on HK Professional Licence.

**Contents:**

- a. DCA 528 CCQ A320 or A330
- b. AT 10-1, 2, 3, 4, 5 LHS Conversion Simulator syllabus (2 Candidates)
- c. AT 10-6, 7, 8 LHS Conversion Simulator syllabus (1 Candidate)
- d. AT 15 LVO Licence Certificate
- e. AT 15a LVO Licence Record Sheet
- f. AT 16-5 Simulator Circuits.

**Documentation:**

CCQ requirements are stated in AT 16 (1-9 as appropriate). The CT1 syllabus laid down in AT 10 will cover all required CCQ items (AT16).

- AT 10-1, 2, 3, 4, 5 or AT 10-6, 7, 8 Complete the WHOLE conversion syllabus.
- DCA528 CCQ Complete and sign in accordance with the CAD approval.
- AT 15 Complete and Sign the 'Sim Training Completed' section.
- AT 15a Complete and Sign the Simulator record, including A/C type and operating capacity.
- AT 16-5 Complete the syllabus for Simulator Circuits.
- Pilot Licence DO NOT SIGN Aircraft Rating Certificate of Test. Sign Instrument Rating Certificate of Test. The STC may sign for the IR renewal in the licence of pilots holding a valid HK licence and who have held, within the preceding 5 years, the type-specific or generic IR that is applicable to the aircraft type under training.
- TRS Report Complete and submit.



## PHASE 2, 3 AND 4 – COMMAND LINE TRAINING

### CX

For pilots not current on type, additional sectors will be programmed between CT1 and CT2. These sectors should be conducted and assessed as described for CT2.

The trainee should complete one practice LVO approach during this phase.

### CT2

This is a period of line coaching with a TC over a minimum of 12 sectors.

The trainee should complete one practice LVO approach during this phase, if not completed during CX.

This is a pure training phase and as much assistance and guidance should be given to the trainee as possible. Any problems that arise should be discussed in depth.

During this phase, the trainee should be given every opportunity to experience, identify and learn from his errors. To facilitate this, the TC should avoid making immediate training injects when errors are made, but rather consolidate the lesson to be learnt in subsequent discussion. This does not imply that the TC should permit gross errors that could compromise safety and passenger comfort. This is an area where common sense and sound instructional technique must prevail.

At the end of this phase of coaching, the trainee must have shown that he can fly the aircraft safely at all times from the left hand seat. His flying should have reached an acceptable standard of accuracy and he should have begun to handle most aspects of different situations with minimum reference to the TC.

The importance of a thorough and detailed de-briefing after each session of command coaching cannot be over-emphasised as it forms one of the most vital aspects of training.

### ASSESSMENT

As CT2 is a pure training phase there is no formal assessment and the candidate would normally expect to proceed to CT3. In the unlikely event that a TC is not able to recommend the candidate proceed to CT3, it would be expected that a significant issue such as major SOP violations, gross deficiencies in handling or knowledge that affect the safety of the operation would have occurred.

### CT2A

2 x 3 hour, simulator sessions will be normally rostered at the completion of CT2. These sessions will normally be conducted by FTC instructors.

They are rostered to provide the candidate the opportunity to develop command and decision making skills in real time using LOFT scenarios.

A line JFO or SO will be rostered for the RHS.

These sessions may be structured to address any identified weaknesses observed during CT1 and CT2.

### ASSESSMENT

These are training sessions and will be un-assessed

### DOCUMENTATION

On completion the instructor will file TRS report indicating the systems studied and the failures that have been introduced. Debrief points will not be included. This information will be passed to the TC conducting CT5.



### CT3

This is a second period of line training with a different TC over 12 sectors.

On completion of this phase the candidate must have shown that he can fly a standard operation safely and accurately. He should be able to control the overall situation with no reference to the TC. He must also demonstrate that he has the capacity to monitor the other crewmembers for obvious errors and correct accordingly.

The trainee should complete one practice LVO approach during this phase, if not completed during CX or CT2.

#### ASSESSMENT

If a 'Pass' assessment cannot be given by the TC, unless gross deficiencies exist that affect the safety of the operation, MFT/FTM will normally grant an additional 8 sectors of Command LFUS (CT3A) prior to proceeding to CT4.

It is preferable to allocate these extra sectors at this stage in the candidate's training, rather than allow him to continue and hope that problems will be fixed during subsequent phases.

It must be stressed to the candidate that any extra sectors required do not preclude successful completion of the course.

### CT4

This is a third period of line training with a different TC over a minimum of 8 sectors.

This is a consolidation phase and the trainee should, in addition to achieving the proficiency described in CT3, putting the final polish on his performance. On completion of this phase, the candidate must have reached the required standard of competency for command.

A practice LVO approach must be completed if not completed during CX, CT2 or CT3.

#### ASSESSMENT

If a 'Pass' assessment cannot be given by the TC, unless gross deficiencies exist that affect the safety of the operation, MFT/FTM will normally grant an additional 8 sectors of Command LFUS (CT4A) prior to proceeding to CT 5.

The additional sectors will not normally be granted if additional sectors have been granted at CT 3A.

### Documentation

A cover sheet listing the documentation requirements will be placed in the Line Training chapter of the trainee's training folder.

#### CT 2, CT 3, CT 4 COMMAND LINE TRAINING

##### Contents:

- a. AT 05 Training Report (Six copies)
- b. AT 06 Pilot Line Training Sector Record
- c. AT 07C Command Training Discussion Items

##### Documentation:

- AT 05 Record any relevant training points.
- AT 06 Maintain sector record up to date. Annotate LVO approach against the relevant sector under Approach Type
- AT 07C Complete all Discussion and Practice items as listed for CT 2/3/4
- AT15 Sign and date Practice LVO approach Completed. (Pilot is now





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	approved for LVO approaches with Autoland)
AT 15a	Record LVO Practice approach on the Record Sheet
TRS Report	Complete and submit.

#### PHASE 5 - COMMAND PROFICIENCY CHECK AND LOFT ASSESSMENT (CT5)

This is a checking phase and will be conducted by a TC nominated by the MFT/FTM and completed over 2 x 4 hour simulator sessions. At the completion of these sessions the trainee must have displayed a high standard in all assessment areas with emphasis on handling skills, command and control, situational awareness and technical knowledge.

During CT5 the candidate can expect to be exposed to a high workload environment and scenarios of a higher degree of difficulty than he would have normally previously experienced.

- NDB and VOR approaches
- LVO renewal
- circling approach
- evacuation

These items must be completed to Command standard. Some of the requirements may be used as the basis for a LOFT to allow the candidate to deal with an overall scenario in a real time environment.

Command LOFTs are designed to provide a realistic yet high workload environment. STCs should be careful not to deliberately inject compound problems and failures which might create a totally unrealistic situation. A high workload environment preferably with a time pressure element needs to be created in order to test the candidate's command and decision making and prioritisation skills. The assessment of how the candidate deals with the LOFT exercises is of great importance in judging his readiness to deal with abnormal situations on the line. The LOFT exercise must be completed to confirm flight deck management and decision making skills are displayed to full Command standard.

Assuming the candidate achieves the required standard then any time remaining on Day 2 may be used to review a range of other items such as complex failure situations, rejected take-offs and adverse weather for example, to prepare the candidate for line operations.

#### ASSESSMENT

All Proficiency Check items covered and the Command LOFT must be conducted to Command standard. There must be no doubt at the end of CT5 of the candidate's ability to operate as a Dragonair Commander.

#### Documentation

A cover sheet listing the documentation requirements will be placed in the LOFT chapter of the trainee's training folder.

#### CT 5 - Command Proficiency Check and LOFT

##### Documentation:

Pilot Licence	Sign Aircraft Rating Certificate of Test
TRS Report	Complete and submit.

The trainee is now fully qualified to operate as Commander in the LHS subject to the final Line Check on CT 6.





## PHASE 6 - FINAL ASSESSMENT

This is a checking phase and is the final phase prior to promotion to Probationary Captain. It is to be flown over a minimum of 8 sectors with a TC nominated by the MFT or FTM. The TC is not to be the same one who completed the candidate's CT5.

The first 2 sectors comprise the Command Line Check. After successful completion of the Command Line Check the candidate is authorised to fly as Commander and to sign all the paperwork associated with conducting a line flight and is then permitted to operate with a line Co-pilot in the RHS.

The final sectors are to be flown with a line Co-pilot in the RHS with the TC observing from the jump seat. The trainee will be the legal Commander of the flight. Unless it is a matter of paramount safety consideration, the TC may not assume command except at the end of a sector. On these remaining sectors the TC must observe the candidate conducting normal line operations without the requirement for any input from the TC. The TC must be satisfied that there is no doubt that the candidate is both safe and standard in his operation.

### ASSESSMENT

There must be no doubt at the end of CT6 of the candidate's ability to operate as a Dragonair Commander.

No debriefing is to be given on individual flights or sectors until the end of the final assessment phase. Numerical assessment is **not** required. Should any doubt arise as to the safety, standard or operational aspects of the flights concerned, then the candidate will be deemed to have been unsuccessful at the command course. The TC will debrief the candidate accordingly and advise the MFT/FTM.

### Documentation

A cover sheet listing the documentation requirements will be placed in the Line Check chapter of the trainee's training folder.

### CT6 - Final Command Line Check And Assessment

#### Documentation:

The trainee is now qualified as a Commander in the LHS.

TRS Report      Complete and submit.

Remind crew to complete and submit the relevant self certified TRS forms.

Following the conclusion of the Command Course, inform MFT/FTM of the result as soon as possible. Additionally an automatic e-mail will be generated from the CT6 TRS report 'Pass' selection informing all necessary parties of the outcome of the course.

Return completed folder to MFT office immediately after completion of CT6.

## FLARE AND APPROACH RECOVERY TRAINING

A F.A.R.T simulator session will be rostered as soon as possible after completion of CT6 and prior to the pilot completing 10 sectors.

This session will be conducted with a STC occupying the RHS and concentrate on recovery techniques and manoeuvres during destabilized approaches and landings.

## REQUALIFICATION FOR CAT C AIRFIELDS

Following a successful command course the new Captain must re-establish competency in relevant Cat C airfields before operating to these ports.

## SUPPLEMENTARY TRAINING

At regular intervals the content of the Command Course will be reviewed and where



appropriate supplementary training will be provided to candidates.

Supplementary training is discretionary only and may be varied as appropriate by MFT or FTMs.

**PROGRESSION TO COMMAND FOR PILOTS NOT TYPE CURRENT OR RATED**

The progression to Command will be as follows:

- a. PCA on the current aircraft type.
- b. Type Conversion/CCQ/Refresher/Revalidation course conducted in the left hand seat.
- c. Aircraft/ZFT training if required.
- d. Command Course as published. Depending on course requirements and subject to MFT/FTM approval, CT1 may not be required. Alternatively, if CT1 is to be completed then some elements of the Conversion/CCQ/Refresher/Revalidation course may be deleted.



## 2.1.4 LINE ORIENTATED FLIGHT TRAINING

### 2.1.4.1 GENERAL

Line Orientated Flight Training (LOFT) is a training concept designed with the accent on crew co-ordination, decision making, judgment and cockpit management. Flight crew are required to use all available resources to ensure a successful outcome to situations which might be encountered in normal line flying operations.

LOFT will include the following concepts:

- a. Takes place in a simulated line operational environment.
- b. Uses a complete crew with participation by all.
- c. Real world incidents unfolding in real time.
- d. Scenarios which run uninterrupted.
- e. Scenarios tailored to Dragonair's learning objectives.
- f. Incorporates CRM principles
- g. A critique of individual and crew performance.

#### OBJECTIVE

The overall objective of LOFT is to improve total flight crew performance, thereby preventing incidents during operational flying.

#### LINE ORIENTATED

The intention is to operate in a realistic line environment rather than just in the circuit which is the standard proficiency check schedule. The LOFT exercise is carried out in real time to a conclusion with no interruptions from the instructor. The crew acts as they would on a line flight, i.e. together as a team rather than as individuals under check. All aircraft systems will normally be serviceable at departure, however any unservicabilities will be in accordance with the MEL. Carriage of passengers and cabin crew is to be assumed if applicable. Public address announcements are to be given covering routine and emergency matters as required.

#### FLIGHT TRAINING

The detail is primarily a learning experience where errors may be made. It is not a checking programme where some errors are not acceptable. Malfunctions fed into the programme are to be dealt with as they would be on a line flight. It needs to be emphasised that frequently there is no single correct answer to a problem and that several options may well be available to the crew. The crew's decisions determine the course of action taken and how they handle the situation provides the flight training benefit.

#### FIRST OFFICER TRAINING

STCs are encouraged to allow the First Officer to 'Command' the LOFT exercises. Such an exercise will allow the FOs to develop their Command abilities prior to a Command course. However STCs must assess whether the experience levels of the trainees warrants allowing the FO this responsibility. For example a FO who is new to the company will probably gain most benefit on his first PC by completing these without the added burden of 'Command'. Similarly newly promoted Captains would also benefit from extra command practice to consolidate their skills in the left hand seat.

#### CRM

LOFT exercises, by nature, contain a common thread of CRM principles. The value of various CRM concepts is reinforced whenever crews act in accordance with these



principles. CRM principles should be integrated into all LOFT exercises.

#### 2.1.4.2 ROLE OF THE INSTRUCTOR

The instructor is to act purely as an observer and simulator operator once LOFT has commenced. It is important that he simulates a realistic ATC operating environment. He is not available for advice and will not interfere during the exercise. He is not to add to or alter a pre-determined LOFT scenario and will not use simulator 'tricks' such as advance on track or position freeze except as mentioned in the Pre-LOFT Briefing. The instructor is to act as other agencies e.g. operations, engineering etc, in the normal way.

#### 2.1.4.3 LOFT SCENARIOS

Scenarios should be constructed to reflect any training requirements or objectives. For example, if Dragonair is experiencing an unusual frequency of an operational problem then scenarios should be designed to reflect exposure to that particular problem.

Scenarios should be constructed to reflect the trainee's stage of training. A LOFT scenario conducted at CT5 would expect to be more complex than that conducted at CT1.

In any case, care must be taken to make exercises as realistic as possible without unnecessary overloading as this is likely to decrease crew confidence and undermine the LOFT concept.

#### PROFICIENCY CHECKS

It is not possible to use LOFT for all aspects of the proficiency check schedule as it is not allowable in certain check circumstances. For some items the LOFT concept can be used very effectively e.g. emergency evacuation, however it is important to brief the crews accordingly.

During recurrent proficiency checks a LOFT exercise will be conducted, this may be a separate detail or an integrated element of the recurrent training day. This LOFT exercise will include items specified in the cyclic training programme. Details of the various scenarios will be held by each TC. Confidentiality is required otherwise a major benefit of the exercise, the surprise element, is lost. It is important that the scenarios are not added to by individual TCs as care has been taken to make the exercises as realistic as possible without overloading the crews.

#### 2.1.4.4 LOFT PHASES

LOFT will contain the following phases: briefing, pre-flight planning, flight segment and debriefing.

#### BRIEFING

A good briefing is essential prior to commencement of the detail. Crews may have become accustomed over the years to a certain style of brief and may find it difficult to adjust to the freedom of action offered by LOFT. Experience has shown that LOFT is a successful and relatively popular training concept. Crews should be encouraged to get involved in order to make the exercise as real as possible. Those who put most into it get the most out of it.

Briefings should include:

- a. Any training objectives.
- b. Role of the instructor.
- c. Advice on simulator differences and any simulator deficiencies.
- d. Method of passing weather information to the aircraft.



- e. Format of the detail including any essential background information and the flight schedule.
- f. The role of the flight crew, e.g. If the FO is to be 'in command', what restrictions, if any, will apply.
- g. Explain that the exercise will operate in real time. There may exist the occasional requirement to reposition to save time. This is always to be done in the cruise and the simulator is not to be released until the crew is fully settled and orientated. Fuel will be reduced by the correct amount.
- h. The need to brief passengers and cabin crew as appropriate.
- i. Invite questions from the crew.

#### PRE - FLIGHT PLANNING

Documents should be prepared with the particular training objectives in mind.

Proceed as follows:

- a. Handover paperwork including the expected load.
- b. Advise crew the instructor is only available as Operations/Briefing etc.
- c. Explain where the simulator will be positioned and if a push back is necessary.
- d. Do not leave the room. Important points, requiring discussion later, may be missed.
- e. Proceed to simulator at a time determined by the crew to meet scheduled departure time.
- f. Pass final loadsheet for approval 10 minutes prior to ETD.

#### FLIGHT SEGMENT

Includes from cockpit preparation through to parking and post flight duties. It is important to create a realistic ATC operating environment and to provide communication as 'other agencies'.

#### DE-BRIEFING

The de-briefing session is a very important facet of LOFT. With a little encouragement crews frequently handle most of the de-brief themselves and it is important that crewmembers be given the opportunity to analyse their own performance. Comments in areas where the crew performed well should be highlighted as well as areas which require improvement. A critique of individual performances and of the crew as a team should be given.

A suggested format is outlined below:

- a. Make a general statement about detail.
- b. Invite discussion on detail. Self analysis is an important part of LOFT.
- c. Referring to notes, make sure all aspects of flight are covered.
- d. Give individual and crew performance critique.
- e. Mention possible alternatives, but be careful not to imply that these are 'right' or 'wrong'. Many problems don't have a 'right' answer.
- f. Generate discussion by using question technique (i.e. "What if . . . . .")
- g. Finally, summarise.



## 2.1.4.5 LINE OPERATIONAL EVALUATIONS

### LINE OPERATIONAL EVALUATIONS GENERAL

Line Operational Evaluations (LOEs) are an evaluation and training concept that are designed to focus on aspects of airline operations where data has proven to be, or has been, causing significant operational impact or creating problems for crews to manage or handle. They are not prescriptive, annualized regimes for assessing specific technical failures or problems, but a proactive method of assessing if crews have the necessary capabilities to cope with real world situations and, if not, to train them to competence.

The data that will drive such evaluations will typically come from in-house sources, but might be generated from industry experience. Sources of data inside the airline will be :-

- Flight Safety Department (MORs, ASRs, FDAP analysis etc)
- Fleet Office (incident investigations, industry experience, FOBNs, Standard Operating Procedure changes, new equipment, documentation changes)
- Line Operations (new operating routes, airports, techniques, ground support changes, etc)
- New regulations brought about from changes to operating policy.
- Issues highlighted in previous LOEs or training events.

### LOE DESIGN

LOEs will be designed to incorporate the issues mentioned above but, unlike LOFT, do not need to commence or conclude with a take-off or landing. The set-up for each LOE will ensure that the crew-members are ready to commence the flight segment and are fully briefed and prepared for the scenario to be evaluated and/or trained.

Training staff, normally STCs, will conduct training in the assessment of LOEs and the methodology for this assessment will be explained.

Crews will be evaluated as if conducting normal line operations and no restrictions will be placed on their communications or interaction. Full use will be allowed of CRM and TEM principles to be applied to all scenarios and indeed this will be a focus of any training inputs to be made by the instructors. In this way LOE is no different to LOFT.

### LOE ASSESSMENT CRITERIA

LOE assessments will be made considering the Knowledge, Skills and Attitudes (KSAs) deemed necessary by the procedure designers for the particular scenario being run. KSAs will be defined by the designers and laid out in a logical format for instructors to record. All KSA elements will be freely available to crew to enable them to study and prepare for the evaluation.

A master spreadsheet will be developed for designers to create the KSA listings to be evaluated. Feedback from LOE reports will be used to refine the master spreadsheet by analyzing the poorly executed LOE elements in previous simulator exercises. In this way a continuous improvement and updating process will be established for the existing KSA databank.

### LOE ASSESSMENT RECORDING

LOE KSAs will be communicated to crew along with the scenario layouts. The listings will clearly indicate if the subject area is knowledge, a skill or an attitude that is being assessed. It will also indicate if the student can expect to be questioned about the particular KSA in the briefing office prior to the simulator session. Instructors will note down any KSA that the crew did not complete well or one that might require further



study or attention. STCs will transfer this data to the Training Records System (TRS) form that will be setup for each LOE simulator cycle.

Crewmembers will be able to access the reports for their LOEs on-line in the TRS in the normal way.

Instructors will have wide latitude to ensure that all students, once evaluated and debriefed on their performance, will be able to use excess simulator time to re-train any crew that did not perform any particular LOE element to the required Line standard. If this cannot be accomplished instructors can request, using the LOE training records, for further simulator training to be made available. By design some time 'buffer' will be built into all LOE programs to enable sufficient training of incomplete or poorly executed scenarios. Furthermore instructors will ensure that unless debriefed, no adverse comments will be recorded against each student.

#### **LOE RECORDS ANALYSIS**

At the completion of the LOE cycle LOE TRS records will be analyzed to detect operational knowledge, skills or attitudes that need to be the focus of further training. These analyses will be presented initially to all FTMs at a scheduled TMM and will be used by LOE designers for subsequent LOEs.



## 2.1.5 AIRCRAFT TRAINING

### 2.1.5.1 INTRODUCTION

#### GENERAL

It is not possible to lay down limiting weather and runway conditions for all types of training due to the varied conditions experienced and differences in the ability and experience of the trainee and the type of training being carried out. Base Training Captains (BTC) must exercise sound judgement whilst considering both safety and economic factors in deciding if weather and runway conditions are suitable for the exercises to be completed and whether or not to discontinue training if conditions deteriorate.

The BTC must always be in a position to immediately correct a trainee's potentially dangerous action and to recover fully from the results of that action. For example, before simulating an engine failure the BTC must have his feet on the rudder pedals and know beforehand which direction of rudder travel will be required to correct for the proposed 'failure'. He can thereby prevent the application of rudder in the wrong direction. He must also be prepared for the trainee who may attempt to rotate the aircraft well before VR.

It should be emphasised that during all emergency and abnormal procedures the BTC should ensure that the drills are carried out in a deliberate fashion, and that undue haste can compound the condition and may possibly lead to an irreversible situation.

The following manoeuvres are not to be simulated in an aircraft at any time:

- Windshear avoidance and recovery
- Response to GPWS alerts and warnings and the avoidance of controlled flight into terrain (CFIT).
- Response to TCAS/ACAS alerts.
- Failure of flight control computers
- Engine failure on take-off or touch and go

A Base Training Safety First Officer is required for all base training details and will occupy the centre jump seat to enable use of the communications equipment.

#### CONVERSION TRAINING

Aircraft Base Training is used to bridge the gap between simulator training and LFUS. The CAD requirements for Aircraft Base Training are listed in Part D 2.1.2.4 'TRAINING COURSES'.

By the end of Aircraft Base Training the trainee must have demonstrated his proficiency in the following:

All engine operations by day.

All engine operations at night (if not completed in the simulator).

After the Aircraft Base Training the BTC must ensure that all DCA 528 items have been completed. In addition the initial Instrument Rating Renewal items must be completed if they were not completed in the simulator.

#### LICENCING

Trainee pilots undergoing Aircraft Base Training must be appropriately licenced. The trainee must hold either a valid Hong Kong CPL/ATPL with a valid medical certificate or a foreign Flight Crew Licence with a Certificate of Validation issued by the HKCAD.

A Certificate of Validation will be issued by the HKCAD after a review of the trainee's





qualifications/experience and after having successfully completed a medical examination by a Hong Kong AME. A medical certificate is not issued with the Certificate of Validation.

Prior to conducting an aircraft base training session the BTC must check the following:

**Hong Kong Licence Holders:**

- Validity of Licence.
- Validity of the medical certificate.

**Foreign Licence Holders:**

- Foreign Licence is carried.
- A Certificate of Validation is carried.
- Period of validity of the Certificate of Validation.
- A/C Type specified on the Certificate of Validation is the same Type that training is to be conducted on.

**DCA 528 COMPLETION**

Aircraft Base Training DCA 528 items must be completed within 28 days of the completion date of the simulator-approved DCA 528 boxed items.

**2.1.5.2 TRAINING WEATHER MINIMA**

When conducting aircraft training the actual weather must not be less than normal operating minima and an alternate airfield must be available within one hour's flying time. The actual and forecast weather conditions at the alternate must meet the company Alternate Aerodrome for Landing criteria (see Part A Chapter 8).

**2.1.5.3 FLIGHT TRAINING BRIEFING**

**GENERAL**

All BTCs have undergone training in their instructional duties and are aware of the philosophy and methods employed. However, it may be appropriate to underline the salient points, particularly those which may affect flight safety.

Always check the airfield state and the aids. Do not assume, because one has flown from the same base constantly in the past few days, that nothing has changed. Be aware of any special rules and noise requirements.

Use the Safety Pilot and the second trainee to monitor the drills and configurations and to maintain a listening watch on the R/T and a visual lookout. He will also keep the Aircraft Base Training record, form AT09 updated.

Brief on the special terminology of training, what is meant by "***I have control***", "***You have control***", and in particular touch and go landings and the calls to be used.

IMC will be simulated by the use of an approved Instrument Flying screen. On take off the screen must not be used before the aircraft is safely established on climb out. On final approach the screen must be removed before the aircraft descends below decision altitude for the type of approach being flown.

Runway length required under training conditions for a touch and go landing will vary principally with aircraft weight. Ambient conditions, terrain and obstacles must also be taken into account. The BTC must satisfy himself, at the point of initiating the touch and go that adequate runway length remains for this manoeuvre. In practice a reference mark on the airfield must be chosen which should leave approximately the balanced field distance required for a normal take-off at this weight. The actual safety requirements for a particular flight must be the responsibility of the individual BTC. It is unlikely that a runway of less than 3000m in length will provide adequate margin.



Faults are not to be simulated by pulling circuit breakers.

### FLIGHT TRAINING SYLLABUS AND POLICY

The required syllabus will depend on the trainee's status, background, experience and the DCA 528 requirements. It is essential that the DCA 528 standards are met before the form is signed. Note the phraseology employed by the HKCAD:

'Satisfactorily' means that the applicant is in full control of the airplane at all times and that the successful outcome of a manoeuvre is never in doubt.

'Unassisted' means without verbal prompting or physical assistance with the flying controls.

Cadet and new joiner SOs will be rostered for 3 base training sessions in quick succession. Experience shows that whilst they may appear to quickly achieve an acceptable standard, there is likely to be some inconsistency. For this reason such students must show an acceptable standard over two sessions of base training before being signed off and released for LFUS.

Other candidates will be rostered for 1 session. In this case, if progress is not satisfactory and the required standard is not quickly met, training should be suspended. It may well be that training could continue later, once the pilot has had a chance to observe a colleague under training. Otherwise he should be returned for further simulator training rather than destroying morale and wasting expensive aircraft time. All the items in the training syllabus should be completed and repeated if necessary until proficiency is achieved.

### Aircraft Unservicabilities

An aircraft with any of the following unservicabilities should not be used for aircraft training.

- Thrust reversers
- Brakes
- Ground spoilers

### A321

The A321 is not to be used for aircraft training unless prior approval is obtained from the MFT/FTM.

### Engine Failure Simulation

Normally DCA 528 Engine Inoperative requirements shall be completed in an approved full flight simulator. No engine shut down is allowed for training purposes. Engine failures shall only be simulated by slowly and smoothly retarding the thrust lever to the idle stop. Engine failure on take-off or touch and go is not to be simulated at any time. Engine failure simulation initiation will normally be conducted during the downwind leg of the circuit pattern.

Engine fuel control and fire switch movement are to be simulated by touch drills only and BTCs must guard these controls to prevent the trainee from actually shutting down the engine(s). After simulator flight training it should not be necessary to practice engine fires in the aircraft. In any case they should not be practiced below 1,000ft above the ground.

Whilst the BTC should have his feet lightly on the rudder pedals during all flying training, it is essential during simulated engine failures.

The BTC must ensure that all thrust levers are retarded to the fully closed position during the landing flare.



### ENGINE FAILURE SIMULATION TERMINOLOGY

For engine failure simulation the following terminology is to be used:

- Instructor calls “***Simulated engine failure # \_ engine***”
- Trainee calls “***Simulated engine failure # \_ engine, I have control, ECAM actions***”
- Instructor calls “***ECAM actions complete***”.

### Check Lists

Full checklists will be performed for the initial departure, descent and landing.

Prior to any further take-offs, the After Start and Before Take-Off checklists will be completed.

During the training detail the trainee will call for the appropriate checklists at the appropriate times. The BTC will silently complete the checklists with reference to the following and call that the relevant checklist is complete:

1. After Take-Off Checklist – Gear Up, Flaps in the desired position, STS reviewed.
2. Descent Checklist (downwind) – STS reviewed, fuel balance considered.
3. Landing Checklist – ECAM LDG Memo no blue, passing 750ft RA.

The normal checklist and procedures should be used for the departure from the training airfield and arrival back into Hong Kong.

### Accelerate/Stop

Normally, Rejected Take-Off training is not conducted in the aircraft, but if it is then stopping must be initiated before 60kts. The decision to reject a take off during an Aircraft Base Training flight is made exclusively by the BTC, who will immediately take control of the aircraft.

A briefing in this regard will be made prior to the flight and reinforced during the take-off briefing.

### Touch And Go Landings

Touch and go landings are utilised to reduce the amount of training time wasted taxiing the aircraft back to the holding point and awaiting take off clearance. In order to maintain a high level of safety they must be conducted in a properly disciplined manner. This should be discussed during pre-flight briefing.

The following technique is to be used:

Prior to EVERY touch and go the instructor will confirm with the trainee that:

- a. Reverse thrust will not be used
- b. Brakes (auto or manual) will not be used



THE TRAINEE WILL:	THE INSTRUCTOR WILL:
<ul style="list-style-type: none"> <li>Land the nosewheel after main gear touchdown. (which allows pitch trim reset)</li> <li>Track the runway centreline using rudder pedal inputs only.</li> <li>Advance the thrust levers approx. 5cm (2") forward to prevent engines reducing to ground idle.</li> </ul>	
	<ul style="list-style-type: none"> <li>Disarm spoilers.</li> <li>Move the flap handle to the position 2 detent and confirm the flaps are running.</li> <li>Call "<b><i>Stand them up</i></b>"</li> <li>Ensure Thrust levers are advanced by approx. 5cm (2").</li> <li>Reset the rudder trim to Zero.</li> <li>Monitor the forward movement of the pitch trim into Green Band.</li> <li>Call "<b><u>GO</u></b>".</li> </ul>
<ul style="list-style-type: none"> <li>Advance the thrust levers to the <b><u>TOGA</u></b> detent.</li> <li>Maintain the runway centreline.</li> </ul>	
	<ul style="list-style-type: none"> <li>Monitor engine acceleration.</li> <li>Confirm TOGA Thrust applied.</li> <li>Check FMA TOGA/SRS/GA TRK.</li> <li>At Vapp, call "<b><u>Rotate</u></b>".</li> </ul>
<ul style="list-style-type: none"> <li><b><u>Rotate</u></b> the aircraft to the pitch attitude commanded by the SRS or 17.5° if no FD is available.</li> <li><b><i>Exercise Caution due to pitch up effects from TOGA Thrust.</i></b></li> <li>Following gear retraction, move the thrust levers to the <b><u>CLB detent</u></b>.</li> </ul>	
	<ul style="list-style-type: none"> <li>Select <b>Flap 1</b> when F speed is reached, at the acceleration altitude or ALT*.</li> <li>Activate the approach phase.</li> </ul>

NOTE: If reverse thrust is applied after touchdown, complete a full stop landing.



### Emergencies

If the BTC wishes to reject the touch and go landing he will call **“STOP”**, simultaneously taking control of the aircraft and bringing it to a halt using maximum braking and reverse.

Once the aircraft has stopped he will call for any appropriate ECAM / QRH actions. The decision to discontinue a touch and go after the application of TOGA must only be taken if the BTC is certain that the aircraft cannot safely fly. Remember there is no V1 on a touch and go.

Note that the take-off configuration warning may sound if the application of TOGA is made while the flaps or pitch trim are outside the take-off range.

### Radio Communications/External Lookout

The BTC is responsible for all radio communications and maintaining a visual lookout for conflicting air traffic. The trainees, especially the Safety Pilot in the jump seat, should be encouraged to back up the BTC in this regard and to immediately inform him of any potential conflict.

### Next Exercise

The BTC will inform the trainee of the next exercise to be performed during the downwind leg, and he will confirm the trainee's understanding of this exercise. During each approach, the BTC will remind the trainee whether a full stop, a touch and go, or a go around will be performed. One engine inoperative approaches will be followed by either a full stop landing or a go around. Landing data will be updated downwind when required.

### Instructor Takeover Inflight

#### A320/A330

On the Airbus, there is no intermediate step for corrections between voice recommendations (oral guidance) and total take-over by pressing the push-button on the side stick.

This is the reason why the BTC must remind the trainees that they must not be concerned if he takes over. Because of the nature of the 'fly by wire' system, additive control inputs by the BTC may be of negative value for instruction purposes and can generate confusion in the handling of the trajectory. This should be emphasised and reviewed with the trainees during the preflight briefing.

If take-over becomes necessary during the flight, the BTC will clearly call **“I have control”** and press the side stick priority push button. The trainee will acknowledge by calling **“You have control”**, release the side stick and observe the red arrow on the side stick priority panel on the glareshield. The BTC will keep his side stick priority P/B depressed as long as the green light of the priority panel is illuminated on the glareshield.

However there may be cases where it is necessary to apply back stick without warning in case of a very late flare; it must be emphasised that a take-over is a very rare occurrence.

### Instructor Takeover On The Ground

#### A320/A330

It should be emphasized that the nosewheel steering tiller should NOT be used at high speeds (GS >30 Knots) because of the danger of over controlling. Steering inputs from both tillers are additive, and corrective inputs by the BTC can be confusing and potentially dangerous. Should a take-over be necessary, the BTC will immediately call out **“I have control”**, and if necessary, be prepared to use differential braking to



regain control or bring the aircraft to a stop.

#### FUEL MANAGEMENT

For Flight training, the A320 requires 2500kg/hr + reserves.

For Flight training, the A330 requires 5500kg/hr + reserves.

#### TAXY

Little if any power above idle thrust will be required to get the aircraft moving at training weights. Thrust should be used symmetrically. Avoid high thrust settings at low ground speeds due to the risk of ingestion (FOD).

The wing mounted engines are close to the ground. This is a particular point to note for flight crew that may not have had experience on this type of aircraft before. Avoid placing engines over unconsolidated or unprepared ground e.g. over the edge of taxiways.

The normal maximum taxi speed should be 30kts in a straight line and 10kts for a sharp turn. As pilot eye height is higher than in many other aircraft, monitor groundspeed displays to help assess taxi speed. Do not 'ride' the brakes. As 30kts is reached, smoothly apply brakes and decelerate to 15kts, release the brakes and allow the aircraft to accelerate again.

#### TAKE OFF

Half forward sidestick is used at the commencement of the take off run. Care should be taken, if into-wind aileron is used, to avoid using an excessive application, to avoid causing unnecessary spoiler deployment.

A two stage power application to TOGA or FLEX is made and the aircraft is kept straight by use of the rudder.

At 130kts on the A320 and 100kts for the A330 the connection between the nosewheel steering and the rudder pedals is removed (the nosewheel now castors) hence in strong crosswinds more rudder input will be required at this point to prevent the aircraft turning into wind.

At 80kts the forward sidestick input is gently removed. Complete by 100kts. Rotation at VR is made at the normal rate of 3°/sec (in the event of no FD select 15° pitch with 2 engines or 12.5° in the event of an engine failure).

#### INITIAL CLIMB

Having confirmed a positive rate of climb by increase of the radio altimeters, the gear is retracted and the aircraft climbed away following the FD commands. Care should be taken to restrict control inputs to those necessary to change or correct the flight path only i.e. avoid over controlling. At thrust Reduction Altitude 'CLB' will flash on the upper left portion (ATHR) of the PFD. Move the thrust levers to the CLB detent (two 'clicks' from TOGA or one 'click' from FLEX). Do not do this too slowly or there is a danger that the ATHR may disconnect. The autothrust is now active. If the acceleration altitude was coincident with the thrust reduction altitude, then the speed target will have changed to the ECON climb IAS or the climb phase preset speed, if acceleration altitude is higher the same speed changes will occur when it is reached.

Retract the flaps on schedule at F and S speed.

When the final configuration for the exercise has been achieved (normally Flap 1 for circuit training) activate approach and ensure that managed speed is active.

#### CIRCUIT HANDLING

Remember that in pitch the sidestick is demanding 'g' and that in roll it is demanding roll rate and care is needed to avoid over-controlling.



Use of FDs for visual approaches is not permitted. It is therefore normal to switch both FDs off and select TRK/FPA mode turning downwind. With FDs off, limit bank angle to 25°.

Flap 2 is selected abeam the threshold and the chrono started to time 45 secs (+/- wind). Continue to configure Gear Down and Flap 3, turning base after the appropriate timing. At the visual descent point for a 3° profile, select Flap Full and commence descent.

### FINAL APPROACH

ILS guidance may be used if available, however trainees are required to demonstrate their ability to fly a visual approach without ILS or glideslope guidance. As has already been stated the FDs are not to be used for visual approaches. The FPV symbol is the most useful aid to establishing the correct approach path. Autothrust is normally used, again however, trainees must demonstrate their ability to fly the approach using both manual and automatic thrust.

The speed trend arrow is particularly useful for achieving timely and correct thrust response. Care should be exercised to avoid descent through the correct approach path with idle thrust. Late recognition of this situation without prompt thrust increase may lead to considerable speed decay and altitude loss. Have the aircraft stabilised by 1,000 AGL, that is, on the correct approach path at Vapp (GS mini) with the appropriate thrust applied. Additionally, the aircraft shall be established on the extended runway centreline with wings level by 300ft RA. If stabilisation is not achieved a go-around shall be made.

Avoid any tendency to 'duck under' in the latter stages of the approach. One dot fly up at 50ft is 7ft below the ideal glide path, 2 dots is 14ft. When the glideslope antenna is at 50ft the main gear is at 34ft AGL (A320) or 28ft AGL (A330).

In any event, avoid destabilisation of the approach in the last 100ft to give the best chance of achieving a good touch down at the required position.

### FLARE AND LANDING TECHNIQUE

The pilot's view from the cockpit of the Airbus during approach and landing is particularly good. The cockpit cut off angle is 20° which gives a superb view of the runway close to the aircraft. Students must make sure that they look well ahead during the flare and landing to enhance their ability to judge the position of the aircraft relative to the ground.

#### A320

At 20ft the auto-call out of '**Retard**' will be heard. Reduce the thrust levers promptly to idle. Commence a gentle progressive flare and allow the aircraft to touch down without prolonged float. Do not attempt to hold the aircraft off, as considerable float may be followed by a harsh touchdown.

#### A330

At 30ft commence a gentle progressive flare and reduction of thrust levers as "**20**" is called, allowing the aircraft to touch down without prolonged float.

On landing, the rear main wheels touchdown first. The aft side stick input applied for the flare should then be relaxed towards the neutral position. The aircraft will then de-rotate naturally until front main gear contact.

After main gear touchdown, fly the nose down conventionally and without delay, to ensure a smooth nosewheel touchdown. If auto brake is used, up to full back stick may be required to control the nose-down pitching moment and prevent a heavy touchdown.



**CROSSWIND LANDINGS**

The preferred technique is the decrab method. Allow the aircraft to point into wind during the approach and then straighten with gentle use of rudder during the flare. If the decrab angle is gentle, little into-wind aileron will be required. For rapid decrab using large or fast rudder inputs, the aircraft will roll and a lateral aileron input will be required.

In addition to the above, REMEMBER the sidestick demands roll rate, once the wings are level, centre the sidestick.

**TAILSTRIKE**

Avoid flaring high and prolonged 'hold offs'. If any doubt exists as to the safety of the flare or landing an immediate go around shall be executed.

**A320**

A tailstrike will occur if the pitch attitude exceeds 13.5° (11.7° with the oleos compressed). A wingtip or engine scrape occurs if the roll angle exceeds 20° (16° with the oleos compressed). It should also be remembered that there is a pitch up tendency with ground spoiler extension.

**A321**

A tailstrike will occur if the pitch attitude exceeds 11.2° (9.7° with the oleos compressed). A wingtip or engine scrape occurs if the roll angle exceeds 18.1° (16.2° with the oleos compressed). It should also be remembered that there is a pitch up tendency with ground spoiler extension.

**A330**

A tailstrike will occur if the pitch attitude exceeds 14.4° (10.1° with the oleos compressed). A wingtip or engine scrape occurs if the roll angle exceeds 22.0° (12.8° with oleos compressed).

**BRAKE COOLING**

When initially cool the aircraft wheel brakes will accept the heat generated in absorbing the kinetic energy after stopping the aircraft at maximum take-off weight and at the associated high decision speed. The heat generated in the brakes is dissipated through the wheel units raising the temperature of the tyres which may subsequently deflate. The rate of dissipation is slow and is a factor which must be borne in mind when carrying out successive landings during training as the cumulative heating effect, even after the use of only light braking, can be insidious.

Time is the essential element in providing adequate cooling. Partial alleviation can be obtained by leaving the gear extended during the circuit after any exercise where the brakes have been used.

**WAKE TURBULENCE**

BTCs must ensure that minimum separation standards are strictly observed. It is prudent to increase the separation for manoeuvres that are already operating at less than optimum aircraft performance such as engine-out or flight control malfunction. Exact limits are impossible to define. Good airmanship will be required in deciding what is acceptable bearing in mind especially that the trainee may have no reason to expect a wake turbulence encounter unless properly briefed.

**2.1.5.4 DOCUMENTATION****CAR REPORT**

At the completion of the training detail ensure the CAR Report is annotated with the





number of go-arounds, touch & gos, and full stop landings.

#### 2.1.5.5 MACAU TRAINING

##### SPECIAL CONDITIONS FOR MACAU

Base Training has been approved at Macau during off-peak periods. Peak times are from 1100 – 1400L daily. It will be used as a short notice back-up for Zhuhai which will remain the primary base training destination. However Macau can be requested at short notice if weather conditions are more favourable.

Macau has a single runway linked to the mainland by two causeways. Runway orientation is 16/34 and if Rwy 16 is in use then the BTC may request, at his discretion, an alternative training airport. This should be co-ordinated through IOC if required.

Outbound from HKG expect the Bream or Tunna departures climbing to 5000ft. Arrival planning should be to route to PAPA for ILS 34. Expect a descent to 3000ft en-route to PAPA. Once established on the localizer for RWY 34 expect transfer to Tower frequency.

On first contact with Tower advise intentions e.g. “*Touch-and-Go for circuits at 1,500ft.*” Runway 34 is 3360m long and 45m wide with a displaced threshold of approximately 1400ft. A seawall to the east of the runway can generate a ‘rotor-like’ effect if the winds are at strength from the northeast. Initiate the downwind turn no later than a 1000ft ensuring that the turn does not cross the Jiuzhou (ZAO) 230° Radial. Traffic is generally light but numerous helicopter arrivals and departures occur but they are well controlled. At approximately 12nm on downwind (RWY 34) there is an island spot height of 1460ft. This may trigger a GPWS alert, so expect a climb to 2500ft when extended downwind due arrivals traffic. Runway 34 is the preferred runway even with tailwind on the final approach up to 30kts at 500ft has been observed. While RWY 16 may be available, it is not preferred due circuits at 1000ft to avoid over-flying Macau city. When stopping for a crew change or DCA 528 requirement, follow ATC instructions. Exit via G and right turn onto H is sometimes available for a departure from RWY 16. Otherwise expect to taxi via H / apron / C1 for a departure from RWY 34. See notes below on apron usage and fee charges.

##### Return to HKG:

Give a minimum of 15 mins notice of intention to return to HKG. Expect to give the total number and type of landings. Departure is generally via a TL # SID to 6000ft. Airborne, contact ZUH Approach. At LKC expect to be transferred to HKG ATC. Give transponder code and expect to be given vectors for arrival.

##### Traffic Form:

A ‘Traffic Form’ will be included in your documentation by the Pilot’s Briefing Office and will be partially completed by them. On completion of the detail fill in items:

1.1 Actual Arrival Time and Actual Departure Time

3.4 Number of Arrivals, Departures and Touch and Goes (n.b. Missed App. counts as T&G)

The Ground Handling Contract has been signed with Menzies Operations (130.55) but note that any request, even pax steps etc., will incur a ground handling fee of US\$800 so should be avoided. To this end BTCs should avoid stopping on the parking apron as this will also incur parking fee charges and so preferably should request to stop on TWY G through ATC if necessary.

**2.1.5.6 ZHUHAI TRAINING****SPECIAL CONDITIONS FOR ZHUHAI**

CAAC Beijing has approved training flights at Zhuhai. An agreement has been signed between Dragonair and Zhuhai Airport Corporation and ATC Zhuhai.

The airport has a single, 4000m long runway (RWY 05/23) and is built on the south side of a small island. The South China Sea lies to the Southeast. Circling is prohibited to the Northwest of the airfield due to high terrain immediately to the north, with a spot height of 975ft. There are two additional small islands, one each on the extended centreline of both runways at a distance of approx 8nm. The spot heights on these two islands are 1500ft to the Northeast, and 1400ft to the Southwest.

The ZHUHAI (ZUH/ZGSD) PORT PAGE contains important and relevant information on the arrival and departure procedures for Zhuhai airport. Due to the short flight time between HKG and ZUH, the Pilot-in-command should be thoroughly familiar with these procedures before departure from Hong Kong.

For base training purposes, the favoured runway is RWY 05 with right hand circuits. For training on RWY 05, if visual, take off and turn right within DME 5.2 IMA, then intercept RWY 05 within DME 5.2 IUJ or join the holding pattern to make another approach. If IFR, expect radar vectors downwind at 900m or above to intercept the RWY 05 ILS at approx DME 15 IUJ. Note that there are some small islands at 6nm from the threshold with a max height of 350ft that may trigger a Mode 2A GPWS warning if not in the landing configuration.

For training on RWY 23, if visual, take off and turn left within DME 5.2 IUJ then intercept RWY 23 within DME 5.2 IMA. If IFR, expect vectors downwind, climbing to 900m or above, to join the RWY 23 ILS at approx DME 15 IMA.

Zhuhai tower should be notified at least a half an hour prior to departure for Hong Kong with the expected time overhead the Foxtrot waypoint. (FOXTT), so that clearance can be coordinated. Flight Despatch will submit the return ATC Flt Plan in Hong Kong on behalf of the crew.

All ground support requests should be raised through Tower Control.

Zhuhai is a domestic airport, and so there are no CIQ facilities. The Airport authority will provide a rest area for crew within the airport if required.

Upon completion of a training flight the pilot-in-command shall verify the number of touch and goes, go-arounds and full stops performed at Zhuhai with the ATC Controller of Zhuhai Airport and record it on the CAR. The figures, having been verified, shall be used for the calculation of landing charges on credit basis. If a missed approach is in compliance with an ATC instruction it will not be chargeable.



## 2.1.6 RECURRENT TRAINING AND CHECKING

### 2.1.6.1 GROUND TRAINING

All ground training courses will be carried out by Dragonair or by an external training provider as authorised by the CAD.

These courses will be so arranged as to have crews fully trained, checked and available in order to meet planned operations.

#### AIRCRAFT EMERGENCY PROCEDURES TRAINING

All crew will be rostered annually for refresher training on the carriage of Dangerous Goods. This training will be conducted by the STS. A test will be completed at the end of this training. This training will normally be conducted with refresher AEP training. Details of the recurrent DG course content are located in Volume 7.6.3.

Every two years this refresher training will include for each crewmember, complete practical training in smoke and fire drills and the operation of the aircraft doors.

Successful completion of this training will result in the completion of the Recurrent Survival Test.

#### Documentation

The STS will complete the electronic report in the TRS.

#### CARRIAGE OF DANGEROUS GOODS

All crew will be rostered annually for refresher training on the carriage of Dangerous Goods. This training will be conducted by the STS. A test will be completed at the end of this training. This training will normally be conducted with refresher AEP training.

#### SECURITY TRAINING

All crew will be rostered annually for refresher training on Security procedures. This training will be conducted by the STS in accordance with Part D 2.1.7 'SAFETY AND EMERGENCY PROCEDURES TRAINING'. This training will normally be conducted with refresher AEP training. Details of the recurrent DG course are located in Volume 7.6.3.

#### RECURRENT CRM COURSE

All Cockpit crew will attend a Recurrent CRM course each calendar year.

The Recurrent CRM will comprise two parts. The first part will include Threat and Error Management (TEM) concepts and techniques for Flight Crew, followed by a Joint Pilot and Cabin Crew CRM program. The JCRM program will focus on Effective Communication during normal and abnormal scenarios. Other topics will include Role Understanding and Task Sharing. An Open Forum will be promoted throughout the program to foster improved teamwork.

The CRM Recurrent program will cycle as per the table below:

Year One		Year Two		Year Three		Year Four	
TEM 1	TEM 2	TEM 3	TEM 4	TEM 3	TEM 4	TEM 1	TEM 2
JOINT CRM 1				JOINT CRM 2			

The major elements of a full length CRM course will be covered over the four year recurrent training cycle.

Cabin Crew will take 2 years to complete the JCRM cycle. Pilots will attend JCRM



annually.

#### ETOPS

Questions relating to ETOPS operations will be included in the Annual Technical Quiz. Single Engine Operations, depressurization and descent strategies will be covered over the 3-year Proficiency Check cycle.

### 2.1.6.2 CONTINUATION TRAINING

#### GENERAL

Continuation training will be carried out:

- a. After a significant failure of a periodic competency or emergency check.
- b. After any major modification of aircraft or its equipment.
- c. Semi-annually as required by licencing requirements and this will normally be carried out in a simulator.
- d. After a prolonged period off flying due to sickness etc.
- e. For low experienced pilots in order to increase their level of skill.
- f. To provide training to competency for SOs up to JFO take-off and landing weather limits, as well as expose SOs to landings up to FO weather limits.
- g. Any time at the discretion of the MFT or FTM.

#### Documentation

A cover sheet listing the documentation requirements will be placed in the trainee's training folder.

#### Title: LINE CONTINUATION TRAINING

##### Contents:

- a. AT 05 Training Report (Two copies)
- b. AT 06 Pilot Line Training Sector Record
- c. AT 07P LCT/PCA Discussion Items

##### Documentation:

- AT 05 Record any relevant training points during the sectors flown.
- AT 06 Check sector record is maintained up to date.
- AT 07P Complete all Discussion and Practice items.
- TRS Form Complete and Submit.

Return completed folder to MFT's office immediately after completing the training.

#### Title: SO SIMULATOR CONTINUATION TRAINING – D2 SESSION

##### Syllabi and objectives:

The simulator consolidation session should be tailored to concentrate on any perceived weaknesses detected during the Basic Phase and shall include an assessed simulated incapacitation exercise, required for LFUS Safety Pilot release. For single candidate sessions, crew up preference should be given to SOs and JFOs.

##### Documentation:

- TRS Form Complete and Submit.



**Title: SO SIMULATOR CONTINUATION TRAINING – D3 SESSION**

**Syllabi and objectives:**

- a. Syllabus as per current PC Cycle Day 1
- b. To prepare the SO for his first recurrent proficiency check.

**Documentation:**

TRS Form Complete and Submit.

**Title: SO SIMULATOR CONTINUATION TRAINING – D4 SESSION**

**Syllabi and objectives:**

- a. AT25 D4 Simulator Session
- b. As per AT25

**Documentation:**

TRS Form Complete and Submit.

**Title: SO TO JFO UPGRADE ASSESSMENT**

**Syllabi and objectives:**

- a. AT24 SO/JFO Operational Limit Upgrade
- b. To ensure operational competency to JFO operational weather limits.

**Documentation:**

TRS Form Complete and Submit.

**Title: JFO TO FO UPGRADE ASSESSMENT**

**Syllabi and objectives:**

- a. AT24 SO/JFO Operational Limit Upgrade
- b. 4 sector Final Line Check
- b. To ensure operational competency to FO operational weather limits and standards.

**Documentation:**

TRS Form Complete and Submit.

Remind crew to complete and submit 'Self-Certified' TRS Recurrent Line Briefing for Area A & B.

**2.1.6.3 INSTRUMENT RATING**

**OBJECTIVE**

To comply with the AN(HK)O and CAD AOC Requirements Document for Instrument Rating Renewal Tests.

To qualify the pilot for either a type-specific instrument rating or a generic instrument rating.

**POLICY**

Except in exceptional circumstances, all Instrument Rating Renewal (IRR) Tests will be conducted in an approved simulator.



When carrying out an IRR in an aircraft only the approved screens will be used. No other method of simulating IMC is approved. Section 3, the EN-ROUTE section, may be carried out on a revenue flight. Screening is not required for Section 3 nor is it permitted when passengers are carried.

The conduct, method to be used and tolerances to be applied when assessing flight tests for the IRR are laid down in the CAD 'Authorised Examiners Handbook' CAD170.

### **INSTRUMENT RATING TEST**

Candidates must conduct the flight/detail in accordance with all valid ATC clearances and instructions and in accordance with standard company operating procedures.

CAD Form DCA 80 details the test and should be used as a checklist to ensure all items are completed.

The flight should be conducted in weather that is simulated to be close to the required takeoff and landing minima. Icing conditions should be simulated from ground level to above the cruising level. When the test is conducted in the simulator it is clearly impractical to carry out an external check on the aircraft to determine its fitness to fly in icing conditions. This will be covered orally and lack of knowledge in this area is to be construed as a failure of Section 1 of Form DCA 80.

The successful completion of an IRR will qualify the candidate for a Type-specific rating to the A320/330/340 family of aircraft.

The candidate is expected to:

- a. Check the validity of the initial set up and subsequent programming of the FMS.
- b. Check the flight instruments.
- c. Complete a take-off, SID and airways route following the FD programmed through the FMGS and/or FCU.
- d. Complete a holding pattern following the FD backed up by timing and raw data selected on the ND.
- e. Demonstrate his ability to identify navigation aids.
- f. Complete an ILS to DA, go-around and missed approach procedure, following the FD through the FMGS and/or FCU.

The IRR will be flown using all available equipment including FMS, autopilot and auto thrust. The candidate will be required to demonstrate his proficiency in using these systems.

### **DOCUMENTATION**

For an initial test, refer to Part D 2.1.2.4 'TRAINING COURSES'. This will include DCA 80 and Pilot Licence completion requirements.

The DCA 80 only requires completion for the initial test or when a candidate is converting from one type-specific aircraft to another.

For a renewal test (IRR) completed with the recurrent Proficiency Check, refer to Part D 2.1.6.5 'DOCUMENTATION'.

## **2.1.6.4 PROFICIENCY CHECK**

### **OBJECTIVE**

To meet the requirements of the AN(HK)O Schedule 9 & 11 and CAD 360 AOC Requirements Document.

To practice emergency drills and procedures which rarely arise in normal operations.

To ensure that the standards required by Dragonair are maintained and that Standard Operating Procedures are adhered to.



## POLICY

Except in exceptional circumstances, all proficiency checks will be conducted in an approved simulator.

The conduct, method to be used and tolerances to be applied when assessing flight tests for company Proficiency Checks are laid down in the CAD 'Authorised Examiners Handbook' CAD 170.

It is Dragonair policy that all pilots will be checked to P1 standard.

### Controlled Flight into Terrain (CFIT)

The avoidance of CFIT including the additional threats imposed by non-precision approaches must be briefed and considered throughout each Proficiency Check.

The crew's situational awareness and recognition of their responsibility for terrain clearance despite conflicting ATC instructions must be emphasized during both the departure and arrival phases of the flight.

CFIT considerations are an integral element of the Dragonair CTWO+ departure and Arrival briefings and must be monitored by the Examiner during each Proficiency Check.

Additional instructional / briefing material in the form of a handout or presentation will normally be provided at each Proficiency Check.

### Use of Aircraft

In exceptional circumstances and after consultation with the CAD an aircraft may be used to conduct a Proficiency Check.

Instrument flight conditions may not be simulated on any flight for the purpose of public transport of passengers, nor may any emergency manoeuvres or procedures be simulated on such a flight. These prohibited procedures include windshear avoidance manoeuvres, GPWS events (including CFIT simulation) and responses to TCAS alerts.

Rejected takeoffs will not normally be practised in the aircraft. It is company policy that this exercise should be covered by a touch drill with the aircraft stationary. However, if the exercise is practised the reject must be initiated before reaching a groundspeed of 60 knots.

Instrument or equipment failures will not normally be simulated. Failure of a navigation receiver may be provided by off-tuning the frequency.

For instrument flying exercises blind flying screens, approved by the CAD will be used.

### Use of The Simulator

The exercises to be covered are set down in a chronological order but this does not mean that a STC may not exercise judgment in his interpretation of the detail as a whole. It is important that all of the mandatory items scheduled for the Proficiency Check are completed. STCs will need to structure the simulator sessions to take account of the experience and ability levels of the trainees.

Instructors are to monitor the serviceability and performance of the simulator to ensure that it is suitable for the training being undertaken. Even minor defects can affect the fidelity of the simulator if they are too numerous. Reference should be made to the simulator MEL Part D 2.1.2.10 'SIMULATOR MINIMUM EQUIPMENT LIST'.

The current simulator approval requires the visual and the motion systems to be serviceable and utilised for all Proficiency Checks and Instrument Rating Tests carried out by Dragonair. If any of these items become unserviceable during a detail please notify the MFT/FTM as soon as possible to determine a course of action.



**SIMULATOR PROFICIENCY CHECKS - SCOPE**

The Proficiency Check, in addition to testing competency, provides an opportunity for the practice of emergency, abnormal and alternate procedures which rarely arise in normal operations and can generally be regarded as continuation training.

The Initial Proficiency check is conducted at the end of the evaluation phase of the Conversion, CCQ, Refresher courses and during CT1.

The Recurrent Proficiency Check is conducted for a Revalidation course and semi-annually. The scope of the semi-annual Recurrent Proficiency Check can be divided into three categories:

- a. Emergency manoeuvres in IMC (encompassing the Aircraft Rating Renewal)
- b. Selection of emergency procedures and recurrent training items covering the major aircraft systems over a three years cycle.
- c. A supplementary technical questionnaire.

All mandatory items and cyclic recurrent sequences are detailed on Form AT13. A complete cycle is a three year period.

**SCHEDULE AND SYLLABUS**

The Initial Proficiency Check is completed with the particular course of training.

The semi-annual Recurrent Proficiency Check will normally be rostered with a normal crew complement (Capt, Co-pilot) and will be rostered over 2 days.

Day 1: A 4 hour FFS sessions covering Proficiency Check items. This session will be conducted by a STC.

Day 2: A 4 hour FFS sessions including a LOFT, recurrent training items and any unfinished items from day 1. This session will be conducted by a STC.

A 2½ hour VACBI session to review the systems covered by the current cycle described on the form AT13 will be rostered during the month prior to the Proficiency Check.

**Mandatory Items and Emergency Manoeuvres**

The following items must be completed:

- a. Takeoff with an engine failure between V1 and V2.  
When the check is completed in an aircraft, instrument flight conditions should be simulated as soon as possible after becoming airborne.
- b. ILS approach in IMC to decision altitude with one engine inoperative followed by a missed approach.
- c. Landing with one engine inoperative.
  - a. Instrument Approach to Land.
  - e. Abnormal/Non-Normal or Emergency Procedure as per AT13.
  - f. Rejected takeoff.
- g. Scripted manual flying exercise.

Use of the aircraft Auto Pilot and ATHR systems for items a. and b. are governed by Form AT13A.

Item c. must be demonstrated without the use of the Auto Pilot.

Completion of items a., b. and c. meet the requirements for the Aircraft Rating Renewal.

Item g may be built into an LOE scenario or conducted as a stand-alone exercise.





An assessment in his ability to communicate and integrate with the other crewmembers will also be conducted.

It is a requirement that both normal and emergency procedures required as PM be tested at each Proficiency Check. This requirement will be met providing each pilot has acted as PM for a minimum of an engine failure and shutdown.

### Emergency Procedures

Selected items from the following list should be covered on each check, ensuring that all items are covered and recorded within a three year period.

- a. Rejected take-off
- b. Engine Fire
- c. Engine Overspeed
- d. Fuselage fire (pilot operated extinguishing system)
- e. Emergency/Alternate operation of landing gear and flap
- f. Pressurisation failure
- g. Low fuel contents
- h. Engine relight/start
- i. Hydraulic Failures
- j. Electrical failures
- k. Engine and engine control malfunction
- l. Action following EGPWS and TCAS warnings
- m. Action following predictive and reactive windshear warnings
- n. Pilot incapacitation – to be carried out annually
- o. Approach and landing with flying control or flight director system inoperative

Satisfactory completion of the above drills may be achieved either by touch drills on the aircraft, in a simulator or by discussion using a Cockpit Procedures Trainer or wall panel diagrams.

### Recurrent Training Items

The object of the recurrent training programme is to expose crewmembers to:

1. All significant emergency/abnormal/alternate procedures on a regular and repetitive basis
2. Items that do not fall into the category of an emergency but are matters on which a Pilot should be tested at regular intervals. Such items are technical matters, standard operating procedures, the recognition and diagnosis of
  - aircraft system faults for which there are no set drills e.g. recovery from jet upsets, radio failure procedures, instructions to flying staff, amendments to manuals and additional precautions to be taken for winter operations.
  - PF/PM and other flight crew duties (task sharing and active monitoring as PM)
  - Positive transfer of control
  - Consistent checklist philosophy
  - Proper use of all levels of flight automation
  - Emphasis on an “aviate, navigate, communicate” priority



- Proper crew response and coordination to systems malfunctions, to include the use of dual confirmation prior to deactivation of critical systems.
- Emergency and Abnormal procedures caused by powerplant, airframe or systems malfunctions, fire or other abnormalities

Recurrent training cyclic items to be covered are detailed in form AT13, which covers a cyclic program in which a complete list of items is covered during the course of six successive checks i.e. over a three year cyclic period. Other items will be covered in the annual technical questionnaire.

### **Instrument Flight and General Procedures**

Sections of the Proficiency Check which require instrument flying, irrespective of whether an Instrument Rating Renewal is also being conducted, will be assessed by Instrument Rating Renewal standards. Pilot performance will also be assessed on the general conduct of the flight or detail and in particular the adherence to Standard Operating Procedures and Flight Deck Management.

### **Instrument Approach to Land Procedures**

It is a requirement that a non-precision approach be conducted during each Proficiency Check. The type of approach should vary between VOR, NDB, GPS and Localizer only approaches. An NDB approach may be substituted with a VOR approach using a 'needles-only' presentation.

It is acceptable for the aircraft to go-around and still meet the Approach to Land requirement. In this case the go-around must be initiated not above 100 ft agl and the aircraft must be stabilized, aligned with the runway and on the correct descent profile.

When conducted in a simulator, the non-precision approach should be carried out using a crosswind component of at least 15 knots.

For the Initial Proficiency Check the Approach to Land requirement will be fulfilled by an RNAV(GNSS) approach. NDB, VOR and LOC-only approaches will be conducted during the competency-based simulator training.

### **LVO Procedures**

On completion of initial training, approval to conduct LVO approaches remains valid until the next Proficiency Check. Thereafter LVO approval will be renewed during each Proficiency Check.

All pilots should complete one actual or practice LVO approach with autoland in the aircraft in each period between Proficiency Checks. An autoland in CAT 1 or better conditions will count as a practice LVO approach, provided it is briefed as such and the standard LVO calls are used. In this case the minima set shall be the Cat 1 minima.

Pilots shall complete a minimum of 1 LVO approach and landing during each Proficiency Check. If a pilot has not carried out at least one practice or actual LVO approach in the aircraft, a minimum of 2 approaches must be conducted in the simulator.

### **Captains**

In addition to the approach requirements specified above, all Captains shall complete the following during each Proficiency Check

- a. Low visibility (RVR at the Port Page-stipulated LVO minima, considering runway lighting) rejected takeoff with an engine failure prior to V1, on a runway approved for LVO takeoff.
- b. Low visibility (RVR at the Port Page-stipulated LVO minima, considering runway lighting) takeoff with an engine failure between V1 and V2, on a runway



approved for LVO takeoff.

### ACAS (TCAS) Procedures

ACAS recurrent training will be conducted during each Proficiency Check/LOFT.

Training should include both academic knowledge and a range of scenarios as appropriate to the functionality of each simulator's IOS.

Instructors should ensure that the crew responds with the correct manoeuvre including operation of the aircraft controls, phraseology and CRM aspects.

### Annual Technical Questionnaire

Each pilot will complete an annual quiz on Learners World covering both technical and operational areas. The quiz will include a minimum of 60 questions.

Mandatory and general items to be covered include:

A321 differences

- 10 Questions Mandatory (A320/1 pilots only)

RVSM

- 1 Question Mandatory

ETOPS (A330 pilots only)

- 2 Questions Mandatory

Safe altitudes, definitions and/or requirements

- 1 Question Mandatory

Aircraft Limitations (including crosswind/wind limitations)

- 2 Questions Mandatory

Aircraft Performance

- 2 Questions Mandatory

Operational Requirements (Fuel Policy, Approach Bans, Weather Requirements, etc)

- 2 Questions Mandatory

Operational Requirements (Approved approaches, Ceiling and visibility requirements, minima due to inoperative ground equipment)

- 3 Questions Mandatory

Precautions for winter operations, anti-icing procedures and operations from contaminated runways.

- 2 Questions Mandatory

ACAS

- 2 Questions Mandatory

Runway Incursion Prevention (taxiway signage, taxiway holding point identification, SOP, Aerodrome lighting, taxiway markings)

- 2 Questions Mandatory

Aircraft Systems

- 10 Questions recommended on current syllabus

Recognition and diagnosis of aircraft system faults for which there are no set drills.

Radio failure procedures.

Use of operations manuals, including route guides.

Familiarity with the latest operations manual amendments, Operations and Flight Crew Notices.

Loading instructions.

Knowledge of internal and external check lists.



Aircraft equipment such as FMS, navigation systems, flight directors, weather radar etc.

Noise abatement procedures.

Engine failure during stages of flight other than on take-off, especially critical phases such as noise abatement, a SID or over high ground or on approach.

Wind shear recognition and avoidance.

### Structured Proficiency Check

The Structured Proficiency Check combines the following into a structured sequence of exercises:

- a. Aircraft Rating Renewal
- b. Instrument Rating Renewal
- c. LWMO

In addition to the above, Instrument Approach to Land, other Schedule 11 and recurrent training items may be incorporated. Any items not incorporated will be completed as teaching exercises or as an element of the LOFT.

Both the Aircraft Rating and Instrument Rating Certificate of Tests will be signed at each check.

The Structured Proficiency Check will follow the three-year cyclic program with six different Proficiency Check details. Various levels of automation, varying aircraft weights and weather conditions will be programmed throughout the 3 year cycle.

It is a requirement for all Proficiency Checks that the candidate's knowledge of cold weather procedures is assessed. This may form part of the simulator exercise or a verbal test at the briefing stage.

As various levels of automation will be used throughout the six different Proficiency Check details the following will apply:-

- a. For the Aircraft Rating Renewal the flight test requirements as laid down in DCA Form 528 "boxed" items will be conducted with varying levels of automation as described in each Proficiency Check detail.
- b. The entire Proficiency Check detail will be assessed by Instrument Rating Renewal standards irrespective of the level of automation and systems available.

The syllabus for each check is detailed in form AT13.

The Structured Proficiency Check is subject to CAD approval and is currently only applicable to Airbus aircraft.

### CAPTAIN

Although the Proficiency Check can generally be regarded as continuation training, the statutory requirement however is that pilots shall be tested, and their competency must be verified and certified.

The MANDATORY ITEMS must be completed to a high standard.

### Right Hand Seat Rated Captains – Aircraft Rating

Captains who are required to act as an operating pilot from the right hand seat shall complete a), b) and c) of the MANDATORY ITEMS. This then completes a RHS Aircraft Rating Renewal.

### Right Hand Seat Rated Captains – LVO

To validate a RHS Captain for LVO, the following requirements apply:



- a. Meet recency requirements for LVO in the LHS.
- b. Complete an LVO renewal in the RHS.

RHS Captains are not required to complete an LVO approach in the RHS during a Proficiency Check. A RHS Captain may operate in the RHS on the basis of being current for LVO approaches in the LHS.

#### CO-PILOTS

The content of the check is the same for all ranks of pilots, although there will be some difference in emphasis.

Co-pilots must demonstrate all Mandatory Items to the required P1 standard.

New co-pilots may lack experience and judgment and Instructors will need to keep this in mind when subjecting them to additional abnormal or emergency procedures. The experience, judgment and command ability required of an aircraft Commander is acquired gradually over a long period of time, but there is no valid reason why Co-Pilots should not rapidly acquire a handling skill comparable in average flying conditions with that of the Captain.

An assessment in his ability to communicate and integrate with the other crewmembers will also be conducted.

#### NUMERICAL GRADING

After a Proficiency Check, each Pilot will be awarded a numerical grade for each assessment area. The grading will be as described in Part D 2.1.2.2 'NUMERICAL GRADING SYSTEM FOR PILOTS'.

#### DOCUMENTATION

For the Initial Proficiency Check refer to Part D 2.1.2.4 'DOCUMENTATION'.

The following refers to the Recurrent Proficiency Check.

AT 15	Sign LVO revalidation certificate
Pilot Licence	Sign Aircraft Rating and Instrument Rating Certificate of Test
TRS Report	Complete and submit.

#### 2.1.6.5 LINE CHECK

##### OBJECTIVES

To meet the requirements of the AN(HK)O and AOC Requirements Document.

To ensure that all pilots and flight engineers conform in every respect with the Standard Operating Procedures of Dragonair including Crew Resource and Flight Deck Management.

##### DISCUSSION

The Proficiency Check, because of its emphasis on abnormal, alternate and emergency procedures, does not provide the company with a qualitative check on the day-to-day operation of the airline. The Line Check is designed to assess a pilot's ability to satisfactorily complete a line flight from start to finish including pre-flight and post-flight duties.

The training aspect of the Line Check is a function of the de-briefing, which should be thorough and cover every aspect of the operation from the pre-flight preparation to post-flight documentation. Pilots are required to be line checked as operating pilot in the seat they occupy for line operation and each pilot is to complete at least one sector as PF and one sector as PM.

It is a requirement that the TC conducting the Line Check is fully qualified to operate in



any seat that he may act in an examining capacity.

The preferred method of conducting an Annual Line Check is for the TC to occupy the jump seat and witness a Captain and First Officer operating as a crew. This allows the crew to be assessed in Crew Resource Management techniques, including command decision making.

#### LINE CHECK CATEGORIES

Line Checks fall into two categories:

##### **Final Line Check:**

Following completion of line training associated with a Conversion, CCQ, Revalidation, Refresher course or Command upgrade.

Where 4 sectors are required the sectors will be 2 x PF and 2 x PM and where 2 sectors are required the sectors will be 1 x PF and 1 x PM. This Line Check will be flown with the TC as Pilot-In-Command in an operating seat.

##### **Annual Line Check:**

This will comprise of 2 sectors (1 PF, 1 PM). The TC will normally occupy the jump seat and run a concurrent check on both operating crew. In exceptional circumstances he may occupy an operating seat and fly as Pilot-In-Command.

#### **Right Hand Seat Rated Captains**

Captains who are required to operate from the right hand seat shall complete a Line Check in both operating seats.

For initial qualification in the right hand seat the Line Check must be two sectors (1 PF & 1 PM).

Annual Line Checks should normally be rostered for 4 sectors (2 left & 2 Right), however this may be reduced to 3 sectors due to roster constraints or disruption.

A 3 sector Annual Line Check must include one sector as PF in each seat and one sector as PM in either seat.

TCs will normally be rostered for a 4 sector line check (2 left, 2 right) with the Check Pilot occupying the other operating seat. This provides an opportunity for mutual standardisation within the Training Department.

#### LINE CHECK GUIDELINES

The line check is intended to ensure the crew member's ability to operate efficiently as PF and PM under normal circumstances. It is also used to assess and enhance the pilot's technical and operational knowledge i.e. to give an overall assessment of the crew member's duties as specified in the Operations Manuals.

All flight crew members should be assessed on their CRM and TEM skills, and the Commander should also demonstrate his ability to 'manage' the operation and make appropriate command decisions.

Line Checks give the Company an indication of the usefulness of training methods and policy, and are therefore considered to be an important factor in the development, maintenance and refinement of high operating standards.

#### **Requirements**

Before conducting any checking detail a check of the validity of each crewmember's Licence including Certificate of Test(s) and Medical Certificate is to be conducted by the TC, preferably prior to the commencement of the pre-flight preparation. The TC must be aware of the check format, in terms of any specific or special requirements and the minimum number of PF/PM sectors.

The role of the TC will vary depending on whether he is rostered as operating or non-operating crew.



As operating crew, the TC will have to perform normal duties as well as assessing the crew member's performance. In this role, he should not lead, but allow the pilot being checked to make the required decisions and manage the appropriate aspects of his operation.

As non-operating crew, he should act as observer only, while remaining in a position to assess the pilot's performance throughout.

### **Note Taking**

Note taking is essential for a comprehensive debrief, especially with a multi-sector check conducted over a number of days. However, the act of writing notes, especially if done just after the candidate has made an error, may add to his anxiety.

Explain to the candidate(s) ahead of time that it is necessary to record information for debriefing and for the report, and that good points will be recorded, not just the errors. At all times with note taking, be discreet. Clearly this is less difficult from the jump seat than from an operating seat. However, when acting as an operating crewmember, taking notes may be done in conjunction with other paperwork, for example filling in the CFP.

### **Flight Dispatch**

Make an effort to put the candidate at ease. The objective is to see a 'line flight under normal conditions'.

This may not be achieved if the candidate feels unduly pressurised. After a brief introduction, inform the candidate(s) of the check requirements (e.g. PF/PM sectors required; any specific requirements; that it is a normal operation)

As operating crew, give some thought to which sector the candidate will operate as PF. In some cases it can be beneficial if the Checking Captain operates the first sector to allow the candidate to settle in.

Perform all normal duties, while encouraging the candidate to summarise the briefing material and to make appropriate decisions.

As non-operating crew, allow the operating crew to decide which sectors they wish to operate as PF/PM within the PF/PM requirements, unless there are exceptional overriding considerations. The checker can review the briefing documents once the operating crew has finished with their briefing at dispatch: it may also be done on the aircraft, during a quiet period.

### **Aircraft Pre Departure Set-Up**

The TC should monitor flow patterns, all FM programming, use of checklists and paperwork. However, do not give the impression of closely scrutinising the crew.

All aspects of this portion of the operation should be observed, including walk-arounds (where practicable), briefings, PAs, OTP, taxiing and workload management.

### **Flying**

With the prevalence of automated flight, manual flying portions must be closely monitored to ensure correct techniques are being applied, with rotation rates and landing techniques being especially critical.

From the jump seat, the TC should only intervene in the aircraft operation to prevent an unsafe situation developing or to prevent a limitation exceedence, such an intervention would normally constitute a fail.

It is important for the checker to listen out on the radio to assess the standard of R/T and radio monitoring by the pilot under check. It will also add to the safety of the flight by helping to prevent any potential clearance violations.

During longer cruise segments however, it is not essential to closely monitor all events





but the TC must be alert for key elements such as briefings, PAs, interaction with other crew and re-clearances.

As operating crew, the TC should competently carry out all duties. However, it is sometimes desirable to act in a passively rather than actively helpful role to enable the candidate to make decisions unaided.

In either capacity, there must be no intentional misleading or deliberate downgrading of any part of the aircraft systems that causes an abnormal procedure to be applied.

Remember that the purpose of the check is to assess an operation under normal conditions. There must be no attempt to mislead the candidate(s). It is normally inappropriate for the checker to add challenges or request to see any particular area of operation that the circumstances on the day do not require.

It should be noted however, that a manually flown approach and landing is expected, unless weather conditions preclude it.

Be aware of the effect of referring to an Operational Manual during the check — the candidate will assume that he has just done something wrong, unless advised to the contrary. It is important therefore, to articulate the reason for consulting an Operations Manual during the check flight.

Listen out to PAs — these should be timely, informative, effective and delivered in a personal style.

At the end of a sector, it is permissible to debrief minor items so that the same small errors are not repeated.

Finally, the use of a blank line check report can be a beneficial aide-memoir with regard to key areas requiring assessment. See the individual items under the main headings of:

- Handling Skills
- Procedures / Technical
- Situational Awareness / Decision Making / Airmanship
- CRM / Team Management / Crew Communications

### **CRM**

The use of proper CRM techniques is an important part of normal operations. Knowledge of the CRM word pictures in the line check report is required, so that the TC can make a proper detailed assessment in this key area.

As non-operating crew, it is relatively easy for the TC to assess the effectiveness of CRM. However, as operating crew, the TC must ensure that his actions or demeanour do not compromise CRM or add to the anxiety or pressure. Being a friendly and helpful crewmember will go a long way in this area.

Be particularly aware of all briefings and take special note of how they are both delivered and received. Consider how well the crew member has explained the essential and specific aspects for the arrival or departure. In other words, has the briefing been efficient, relevant, and professional?

### **TEM**

Threat and Error Management (TEM) is an essential element of a normal flight.

Crews should take appropriate measures and use strategies to avoid threats and to resist and resolve errors. Error recovery can often give an indication of a crewmember's professionalism, maturity, knowledge and overall capability.

If such an event occurs during a line check, the report should clearly indicate how the pilot(s) handled the threat and/or error, and how it affected the remainder of the flight. In particular, an error that was detected and resolved can give confidence to the





checker regarding a pilot's overall operation.

### Questioning

An assessment of technical and operational knowledge is an important part of the line check.

This will require questioning of the candidate — an accurate assessment of the required depth and spectrum of knowledge cannot be made just by observation. However, the time to ask questions should be carefully considered.

Questioning the crewmember(s) must never interfere with the normal operation of the aircraft.

On a short 2-sector check, this could mean that some questioning would have to be left until after the final sector, but before the debrief.

It is best not to question a Captain and a FO simultaneously as the TC may not obtain an accurate assessment of an individual's level of knowledge.

When asking questions, it may be good to start off with some straightforward items such as flight planning, weather requirements, aircraft limitations, cockpit emergency equipment location, recall item checklists, etc.

Crew should also be questioned to ensure a good understanding of recent changes to SOPs, Operations Notices or OEBs.

If time permits and during an appropriate time on the ground or in the cruise, the crew should be asked to complete a take-off data calculation, using an alternative method such as SMS or simplified charts.

The candidate(s) must know limitations and memory items without error and have a thorough understanding of fuel policy, adverse weather and performance related subjects.

As a minimum there should be a good basic understanding of technical subjects, including overhead panels and systems pages. Furthermore, the candidate(s) should display a high level of familiarity with the operations manuals, especially the QRH, FCOMs and Part A Chapter 8.

Presenting a scenario that will test a candidate's applied knowledge is often better than asking a direct question. Taken to their logical conclusion, scenarios can cover a lot of technical and related aspects and represent a softer method of inquiry than direct, close-ended questions.

For example, pose the scenario of getting below CFP Cont/Mand fuel and ask the candidate to explain his options. This may be better than the direct question: "What is the policy for In-flight Reduction of Normal Fuel Required?"

Always make questions practical and relevant, and only ask enough questions to make an assessment of the candidate's knowledge.

Do not turn a period of questioning into an interrogation — it should be the goal of the checker to mix a significant amount of training into the line check process and to provide additional information, thus imparting some knowledge and softening any perception of a cross-examination.

### Debriefing

A debrief is essential, even if the check is passed to a high standard. It is unlikely that there will be no points arising and part of the aim of the line check is to enhance operational competence and knowledge, and to emphasise appropriate behavioural markers.

It is important to establish what was done well, what could have been done better and what, if anything, needs significant improvement. This may require the TC to ascertain not only what went wrong, but why it went wrong and how this can be addressed in the



future.

Take this opportunity to discuss the threats and errors and how they were managed by the candidate(s).

Ensure that the debrief is conducted in an appropriate place. Keep the debrief short (usually 30 minutes or less). The candidate(s) should walk away remembering the most important points.

With a straightforward pass, it is appropriate to advise the crew member(s) of this result on completion of post flight duties. However, sometimes the checker may need some time to get his thoughts in order.

Sometimes the check is failed, and in that case, it is probably better to make no comment until ready to debrief.

It is good to begin a debrief on a positive note by highlighting the areas that went well — “catch him doing something right!” Was there good preparation, disciplined monitoring, proper decision making, application of NPs etc.?

For a marginal candidate or in the case of an outright fail, it may be appropriate to ask the candidate(s) how they thought the check went — most candidates are aware of their own performance and they will often recognise the deficiencies in their operation.

Be aware that just because the crew member did something different to the way the TC might do it, does not necessarily make it wrong.

Clarify any areas of confusion before making an assessment. Keep in mind the three levels of operation:

**NORMAL PROCEDURES:**

In normal circumstances, it should be done this way, as written in FCOMs / Operations Manuals.

**CONVENTION:**

This is the way that most crews achieve operational tasks. These have been acquired over time, and incorporate good and efficient practices. However it does not represent the only way of operating the aircraft.

**OPINION:**

Personal preference and technique, within the boundaries of established NPs.

**Unsuccessful or Expired Line Check Guidance**

Should a pilot fail a Line Check or his Line Check expire, the pilot may only operate a public transport flight ‘under supervision’ until a successful Line Check is completed. All such supervised flying, and the line check required for requalification requires a Training Captain to occupy an operating seat.

Should a pilot’s Line Check be unsuccessful, then the TC shall do the following:

Debrief the candidate and advise him that he cannot exercise the privileges of his license until further training takes place and another line check is completed to a satisfactory standard.

Notify the MFT or FTM immediately.

Inform Crew Control that the pilot is not available for normal line operations.

In a failure case the TC should clearly state the reasons and emphasise the major fail points and the way forward. This may not be the time for a lengthy, detailed debrief — use discretion.

The TC in conjunction with the MFT or FTM will decide on any appropriate training (if any) to be given prior to another Line Check. This subsequent Line Check may be conducted by the same TC. In the case of a Final Line Check, this subsequent Line Check will be conducted by the MFT, FTM or a TC nominated by the MFT or FTM.



## CFDS

Initial CFDS qualification will be completed during the Final Line Check. For CFDS qualified crew, recurrent training and assessment will be performed as part of the Annual Line Check. The TC will nominate a procedure to be conducted and will observe the correct performance of this procedure.

## Conclusion

The line check is a flight conducted under normal circumstances and is used to ascertain that the crew member operates efficiently as PF and PM. It is also an opportunity to enhance the pilot's overall performance through training input. In addition, the line check should give the Company an indication of the usefulness of its training methods and policy.

Every aspect of the operation should be observed, and if necessary highlighted during debriefing. In that sense, it is a very wide-ranging assessment. For example, many of the markers relate to applied knowledge, CRM and sensible use of equipment. These may be viewed subjectively, while some other aspects observed will be of an objective nature (landing distance, speed compliance, knowledge of NPs, limitations etc.).

That is not to say that the TC judges arbitrarily. Rather that as an experienced, professional and disciplined aviator, the TC looks at another pilot's operation and assesses its maturity.

A TC acting in the role of skilled observer will therefore have much to look at and comment upon. For example, he should consider and assess what risks were taken in making certain decisions;

- did the crewmember base his judgement on sound operational knowledge?
- were errors noted and properly managed?
- were NPs properly adhered to (not just the words)?
- where did the pilot look during confirmations and x-checking?
- was workload management appropriate to the phase of flight etc?

When these and other aspects are observed and addressed through debriefing, the true value of a line check will become apparent.

The Line Check is an essential part of the whole training programme, used properly it can therefore be of great benefit to both the individual pilot and the Training Department

## LINE CHECK GRADING AND ASSESMENT

Following all Line Checks a numerical assessment of the crew member's performance is to be made.

The Line Check numerical grading system 1 to 5 standard criteria is defined as follows: -

1.	Unsatisfactory	Failure to achieve the minimum Company standard, irrespective of whether the minimum legal requirements were met. The relevant Training Manager and Crew Control must be informed. Crewmember must be removed from flying duties until additional training and/or retest is conducted. Extensive comments and debrief required.
2.	Minimum Standard	Minimum standard to conduct line operations as a Co-pilot. Improvement required in one or more areas in order for a Co-pilot to achieve the desirable standard for command. Some comment and debrief required.



3.	Command Standard	Has a margin over minimum standard. The minimum acceptable standard for a Commander. No apparent weaknesses. Debrief and comments would essentially give guidance on areas where improvement would result in a higher grading.
4.	Good	A comfortable margin over Command standard. Debrief and comments would be minimal.
5.	Excellent	Polished standard. Not necessarily error free. A performance as good as can be expected under the prevailing conditions. Minimal debrief and comment required.

### Comments

The numerical assessment system provides an objective record of a crew member's performance. However it should be noted that written comments can provide a detailed training aid for both the crew member and Training Management to review, highlighting both the strengths and weaknesses.

Written comments are encouraged regardless of the score awarded. The following lists the minimum requirements for making written comments:

Grading of 1 - 3: requires a written comment supporting the assessment

Grading of 4: if multiple 4s are awarded within one area written comments are desirable

Grading of 5: comments optional

### Challenges

External influences can affect the degree of difficulty encountered by a crew during a Line Check. By recording the significance of these influences or challenges an additional perspective is added when interpreting a Line Check report.

The following word pictures are designed to assist TCs to provide an overall background to the challenges the pilot faced during the assessed sectors. It is not an exhaustive list but is provided for guidance in interpreting the main report objectively.

OPERATIONAL	
Significant	Multiple operational factors encountered which required significant additional planning and/or management. For example, but not limited to, Excessive ATC delays, Multiple runway/arrival/departure changes, Ground staff liaison, Ground handling difficulties, Dangerous Goods, Incorrect paperwork, Communications difficulties (inc ACARS), Passenger events, Medical emergencies.
Average	One or two events or factors that required input, management or consideration. For example, but not limited to, planning or documentation issues, passenger delays or offloads, simple changes during taxiing, departure or arrival, ATC or communication problems.
Low	Operational factors had little, if any, impact on the conduct of the flight.



WEATHER	
Significant	Significant weather encountered which required additional planning and/or display of flying skills not normally required. For example, but not limited to, ceiling or visibility approaching the limits of the pilots qualification, Microbursts, actual sig windshear, crosswind approaching the pilot's qualification, severe turbulence, severe icing, contaminated runways, sig wake turbulence on dep/arr etc.
Average	Low cloud ceiling and/or visibility, mod turbulence, thunderstorm activity on approach and departure, mod icing, wet runways, crosswinds greater than 15kt etc.
Low	Weather not a factor. Dry/Damp runways.
TECHNICAL	
Significant	Significant technical problems encountered which required additional planning or display of flying skills not normally required. For example, but not limited to, Flight Control Law downgrades, diversions due system/equip failure, dispatch/in-flight failures requiring additives to Required/Actual Landing Distances, Article 11 dispatch, Master Warnings caused by a system failure or emergency.
Average	Technical problems encountered which required some additional planning or display of flying skills not normally encountered but considered to be within the skill of the pilot's qualification. For example, but not limited to; PADD/CFDS dispatch, Master Cautions caused by a system failure or abnormal.
Low	Any technical difficulties encountered had little, if any, impact on the flight.
OTHER CREW	
Significant	The other crew member presented significant challenges not normally encountered. For example, but not limited to, non-adherence to SOPs (whether intentional or not) which led to an abnormally high workload for the assessed pilot, lack of expected knowledge or skill according to the other pilot's qualification, take-over required, significant abnormal cockpit gradient, CRM issues difficult to resolve leading to an undesirable cockpit/crew environment.
Average	The other crew member presented challenges not normally encountered which required an increased awareness/monitoring by the assessed pilot. For example, but not limited to, non-adherence to SOPs leading to a moderate to high workload for the assessed pilot, misunderstanding/misinterpreting procedures due lack of aviation/type experience, mistakes/omissions made by the other pilot which required corrective action/explanation by the assessed pilot, prompting required by assessed pilot, abnormal cockpit gradient observed. Some CRM issues evident that can be easily resolved.
Low	The other crew member operated generally within the SOPs and operated the aircraft as would be expected of the pilot's qualification. Normal cockpit gradient. No abnormal CRM issues evident.



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## DOCUMENTATION

Where appropriate a cover sheet listing the documentation requirements will be placed in the trainee's training folder.

### Airbus

**Title:** LINE CHECK

**Documentation:**

The Final Line Check is completed following a Conversion, CCQ, Refresher, Revalidation course or Command upgrade (CT6). The Annual Line Check is completed in all other instances.

**Documentation:**

TRS report      Complete and submit.

Remind crew to complete and submit 'Self-Certified' TRS Recurrent Line Briefing for Area A & B.

Area A & B qualification requirements are met by physical entry and will remain valid for 13 months.



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## **2.1.7 SAFETY AND EMERGENCY PROCEDURES TRAINING**

### **2.1.7.1 INITIAL TRAINING A320/1 OR A330 AIRCRAFT EMERGENCY PROCEDURES**

All new-joining flight crew are to attend a one-day initial training course. Flight crew under Conversion, Refresher, CCQ or Revalidation training are also required to attend the same course.

The training syllabus is as follows:

- Introduction to aircraft type (with hands-on training)
- Practical training exercises in all emergency and safety equipment
- Security and miscellaneous subjects
  - Handicapped passenger
  - Fuelling regulations
  - Handling of security items
  - Hi-jack
  - Bomb threat
  - Use of radios, electronic equipment inflight
- Dangerous goods (in accordance with IATA – DGR table 1.5A)
  - General philosophy
  - Limitations
  - List of dangerous goods
  - Labeling and marking
  - Recognition of undeclared dangerous goods
  - Storage and loading procedures
  - Pilot's NOTOC
  - Provision for passengers and crew
  - Emergency procedure
  - Prohibited goods and exceptions
- Escape System - locations, description, normal & emergency operations (Doors, Door slides, over wing exits, ramp slides, flight deck windows and escape ropes)
- Emergency lighting system
- Emergency evacuation signalling system
- Emergency call system
- Toilet smoke alarm system
- Emergency Procedures
  - Prepared evacuation
  - Unprepared evacuation
  - Cabin preparation
- Decompression / Oxygen Equipment - description and procedures for decompression
- Fire Fighting - with practical session on the operations of fire extinguisher, its



duration and precaution

- Pilot Incapacitation
- Ditching - wet drill (only for new joiners without such experience before)
- Sliding exercise (only for new joiners)

#### 2.1.7.2 TESTS

Flight crew are required to pass both the initial Aircraft Emergency Procedures Training written test and Dangerous Goods written test, with the pass mark of 80%.

#### 2.1.7.3 RECURRENT TRAINING

Annual Emergency Procedures Training is provided to all Flight Crew. The training syllabus is as follows:

- Introduction to aircraft type
- Practical training exercises in all emergency and safety equipment
- Security and miscellaneous subjects
  - Fuelling regulations
  - Handling of security items
  - Hi-jack
  - Bomb threat
  - Use of radios, electronic equipment inflight
- Dangerous goods (in accordance with IATA – DGR table 1.5A)
  - General philosophy
  - Limitations
  - List of dangerous goods
  - Labeling and marking
  - Recognition of undeclared dangerous goods
  - Storage and loading procedures
  - Pilot's NOTOC
  - Provision for passengers and crew
  - Emergency procedure
  - Prohibited goods and exceptions
- Escape System - locations, description, normal & emergency operations (Doors, Door slides, over wing exits, ramp slides, flight deck windows and escape ropes)
- Emergency lighting system
- Emergency evacuation signalling system
- Emergency call system
- Toilet smoke alarm system
- Emergency Procedures
  - Prepared evacuation
  - Unprepared evacuation





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- Cabin preparation

- Decompression / Oxygen Equipment - description and procedures for decompression
- Fire Fighting
- Pilot Incapacitation

They are required to pass the Annual Survival Test and Dangerous Goods Test, the pass mark of which is 80%. Once every three years, Flight Crew are to operate the emergency exits and complete the smoke and fire drill. Further, dangerous goods training is required every 2 years.



## **2.1.8 PERIODS OF VALIDITY**

### **2.1.8.1 PROFICIENCY CHECK**

The validity period for all pilots is 6 months, or 13 months from the penultimate Certificate of Test provided the two checks are separated by a period of not less than 4 months.

### **2.1.8.2 INSTRUMENT APPROACH TO LAND**

The validity period for pilots is 6 months, or 13 months from the penultimate Certificate of Test provided the two checks are separated by a period of not less than 4 months.

A non-precision approach when conducted in a simulator should be carried out using a crosswind component of at least 15 knots. In order to place an aircraft type onto a Hong Kong licence both VOR and NDB approaches are required in addition to the ILS. Thereafter only one non-precision approach in addition to the ILS is required.

### **2.1.8.3 INSTRUMENT RATING RENEWAL**

The validity period is 13 months for pilots. This test will normally be completed with the Proficiency Check.

### **2.1.8.4 INITIAL SURVIVAL TEST**

This test must be completed by all pilots before flying in a new type of aircraft. The validity period is 13 months and will be completed as part of the pilot's Initial Aircraft Emergency Procedures training.

### **2.1.8.5 ANNUAL SURVIVAL TEST**

The validity period is 13 months and will be completed as part of the pilot's Aircraft Emergency Procedures training.

### **2.1.8.6 ANNUAL LINE CHECK**

The validity period is 13 months for all pilots.

### **2.1.8.7 LVO QUALIFICATION**

This qualification has the same validity as the pilot's Proficiency Check.

### **2.1.8.8 RECURRENT CRM**

The period of validity for CRM refresher training is 24 months for pilots.



## 2.1.9 REVALIDATION OF TAKE OFF AND LANDING REGENCY

### 2.1.9.1 GENERAL

This section refers to the revalidation of take-off and landing recency in the same aircraft type.

All references to 'simulator' or 'aircraft' or 'Simulator Base Training (SBT)' or 'Aircraft Base Training (ABT)' refer to the same type to be used on the next Public Transport Flight (PTF).

For a pilot transferring between aircraft types (including revalidation of a type previously operated) refer to 2.1.2.4 'TRAINING COURSES' for landing recency requirements.

When a simulator is used for landing recency, all take offs and landings must be completed as a real time exercise.

If a pilot's 3 month Landing Recency and Proficiency Check have both expired, the 3 month landing recency must be revalidated as a separate session with SBT or ABT, prior to the Proficiency Check.

### 2.1.9.2 COMMANDER'S 35 DAY LANDING REGENCY

When a Captain has not flown one takeoff and one landing in a 35 day period but has met the 3-month recency requirements as specified in the ANO, a 35 day take off and landing check shall be the minimum requirement. This will be completed under the supervision of a Training Captain, who will be the Commander, on a normal line flight which should include one take off and one manual landing.

A Commander's 35 day take off and landing recency may also be renewed in an Approved Flight Simulator by completing a minimum of 1 take off and 1 manual landing, providing that a simulator is not used for consecutive 35 day take off and landing renewals.

### 2.1.9.3 THREE MONTH TAKE OFF AND LANDING REGENCY

When a pilot has not completed a minimum of 3 take offs and 3 manual landings in the aircraft of the type to be used, within the 3 month period immediately preceding the commencement of a PTF, the following conditions shall apply:

### 2.1.9.4 3 MONTH REGENCY: EXPIRED FOR A PERIOD OF 6 MONTHS OR LESS

Complete a minimum of 3 satisfactory take offs and 3 manual landings in an Approved Simulator with an Approved Person (TRI)/STC or in ABT.

A LTC must be seated at the flying controls for the purpose of LFUS for the first take off and landing of the PTF. In the event of an unsatisfactory take-off or landing refer to 2.1.2.4 'TRAINING COURSES' Item 6.

Complete a minimum of three take offs and three landings in the aircraft on line flying within three months of the completion of the SBT or ABT.

### 2.1.9.5 3 MONTH REGENCY: EXPIRED FOR A PERIOD EXCEEDING 6 MONTHS BUT LESS THAN 12 MONTHS

Minimum of one SCT session in a simulator

Complete a Proficiency Check in accordance with the current cycle

Complete the Recurrent Training / LOFT in accordance with the current cycle

Complete a minimum of 6 satisfactory take offs and 6 manual landings in an Approved simulator with a SBTC or a minimum of 3 satisfactory take offs and manual landings in ABT with a BTC.



An LTC must be seated at the flying controls for the purpose of LFUS for a minimum of the first 4 sectors. The trainee shall operate the first sector as PM and the remaining 3 sectors as PF which must include 3 take offs and 3 manual landings. In the event of an unsatisfactory take-off or landing refer to 2.1.2.4 'TRAINING COURSES' Item 6.

The three take offs and 3 manual landings must be completed within 3 months of the completion of the SBT or ABT.

Minimum of 8 sectors LFUS

**2.1.9.6 3 MONTH REGENCY: EXPIRED FOR A PERIOD OF 12 MONTHS BUT LESS THAN 24 MONTHS**

Minimum of one SCT session in a simulator

Sufficient simulator sessions to ensure that the pilot will complete all of the Emergency Procedures required in 2.1.6.5 iv 'SCHEDULE AND SYLLABUS' within the 3 year cyclic programme. Refer to FTM.

Complete a Proficiency Check in accordance with the current cycle

Complete the Recurrent Training / LOFT in accordance with the current cycle

Complete a minimum of 6 satisfactory take offs and 6 manual landings in an Approved Simulator with a SBTC or a minimum of 3 satisfactory take offs and 3 manual landings in ABT with a BTC.

A SBTC must be seated at the flying controls for the purpose of LFUS for a minimum of the first 4 sectors. The trainee shall operate the first sector as PM and the remaining 3 sectors as PF which must include 3 take offs and 3 manual landings. In the event of an unsatisfactory takeoff or landing refer to 2.1.2.4 'TRAINING COURSES' Item 6.

The three take offs and landings must be completed within three months of the completion of the SBT or ABT.

Minimum of 12 sectors LFUS

Annual Line Check

**2.1.9.7 3 MONTH REGENCY: EXPIRED FOR A PERIOD OF 24 MONTHS OR MORE**

Minimum of one familiarization session in a simulator

Sufficient simulator sessions to ensure that the pilot will complete all of the Emergency Procedures required in 2.1.6.5 iv 'SCHEDULE AND SYLLABUS' within the 3 year cyclic programme. Refer to FTM.

Complete a Proficiency Check in accordance with the current cycle

Complete the Recurrent Training / LOFT in accordance with the current cycle

Complete a minimum of three satisfactory take offs and manual landings in ABT within the period of three months which immediately precedes the commencement of the PTF.

A SBTC must be seated at the flying controls for the purpose of LFUS for a minimum of the first 4 sectors. The trainee shall operate the first sector as PM and the remaining 3 sectors as PF which must include 3 take offs and 3 manual landings. In the event of an unsatisfactory takeoff or landing refer to 2.1.2.4 'TRAINING COURSES' Item 6.

Minimum of 12 sectors LFUS

Annual Line Check



#### 2.1.9.8 UNSATISFACTORY LANDING DURING INITIAL LFUS SECTORS

The pilot shall revert to PM duties only until the aircraft returns to Hong Kong

Complete a minimum of six satisfactory take offs and manual landings in an approved simulator with a SBTC, or a minimum of three satisfactory take offs and manual landings in ABT with a BTC.

A SBTC must be seated at the flying controls for the purpose of LFUS for a minimum of the first 4 sectors. The trainee shall operate the first sector as PM and the remaining 3 sectors as PF which must include 3 take offs and 3 manual landings.

The three take offs and landings must be completed within three months of the completion of the simulator or ABT.

#### 2.1.9.9 FAILURE TO COMPLETE REVALIDATION PROGRAM

If a pilot fails to complete a revalidation program to the point of completing three take-offs and landings in the aircraft within 3 months of the simulator session, the subsequent revalidation program shall be based on the original 3 Month Recency expiry date.



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## **2.2 CABIN CREW**

### **2.2.1 SAFETY AND EMERGENCY PROCEDURES TRAINING**

#### **2.2.1.1 A330 OR A320/1 INDUCTION TRAINING**

Newly joined trainee flight attendants will have to attend a 2-week induction course. The induction course is conducted by CAD approved instructors in a contracted school approved by CAD.

The training syllabus is as follows:

- Aviation First Aid
  - Introduction and general rules of first aid
  - Basic care of casualty and personal safety of first aider
  - Introduction of Medlink and various first aid equipments
  - Theory and practical sessions of CPR (including recovery position, artificial ventilation, usage of different equipments, e.g. oxygen bottle, AMBU bag, Pocket Mask and Gloves Kit for CPR purposes)
  - Recognition and treatment of different common aviation illnesses
    - Disorder of airway and breathing (choking for adult, child and infant, hyperventilation, hypoxia, asthma)
    - Disorder of circulation (fainting and shock)
    - Disorder of the heart (angina pectoris, heart attack and cardiac arrest)
    - Wounds and bleeding (nosebleeding, internal bleeding and external bleeding)
    - Burns
    - Disorder of consciousness (unconsciousness, head injuries, epilepsy, stroke, diabetes)
    - Bone, joint and muscle injuries (fracture, joint dislocation, bruises, strain, sprain, back and neck injury)
    - Miscellaneous conditions (airsickness, alcoholic intoxication, hiccups, hysteria, poisoning, allergic reaction)
    - Emergency child birth
  - Practice of using different types of bandages
- Security and miscellaneous subjects
  - Handicapped passenger
  - Fuelling regulations
  - Handling of security items
  - Hi-jack
  - Bomb threat
  - Use of radios, electronic equipment inflight
- Dangerous goods (in accordance with IATA – DGR table 1.5A)
  - General philosophy
  - Limitation



- Labeling and marking
- Recognition of undeclared dangerous goods
- Provisions for passengers and crew
- Emergency procedure
- Introduction to aircraft type
- Crew stations - locations, description, use of seat belt and harness.
- Escape System - locations, description, normal & emergency operations (Doors, Door slides, over wing exits, ramp slides, flight deck windows and escape ropes).
- Pre-flight passenger briefing - safety demonstration using demonstration pack.
- Practical training exercises in all emergency and safety equipment.
- Emergency lighting system - locations, description, operations and controls.
- Emergency evacuation signalling system - location, description and controls.
- Emergency call system - description, operations and controls.
- Toilet smoke alarm system - locations, description, operations and procedures to handle passenger smoking in toilet.
- Emergency Procedures
  - Prepared evacuation
  - Unprepared evacuation
  - Cabin preparation
  - Crowd control
- Practical evacuation drills
- Decompression / Oxygen Equipment - description and procedures for decompression
- Fire Fighting - with practical session on the operations of fire extinguisher, its duration and precaution
- Pilot Incapacitation - practical drills
- Ditching - wet drill
- Hands-on training - emergency equipment location.
- Sliding exercise

**2.2.1.2 A330 OR A320/1 CONVERSION TRAINING**

Experienced cabin crew on an aircraft type can be converted to a second aircraft type. They have to attend a conversion course and pass a test. Conversion is conducted by CAD approved instructors in a contracted school approved by CAD.

The conversion training is a 2-day course and the training syllabus is as follows :

- Introduction to type.
- Crew stations-locations, description, use of seat belts and harness.
- Escape System - locations, description, normal & emergency operations (Doors, Door slides, over wing exits, ramp slides, flight deck windows and escape ropes).
- Emergency lighting system-locations, description, operations and controls.
- Emergency evacuation signalling-locations, description and controls.



- Toilet smoke alarm-locations, description and controls.
- Practical training exercises in all emergency and safety equipment-description, locations, operations, and precautions.
- Pilot incapacitation-use of the flight crew seat controls.
- Emergency Evacuation-prepared and unprepared evacuation.
- Abnormal aircraft attitude on land.

#### 2.2.1.3 SUPERNUMERARY FLIGHTS

After completion of the induction or conversion training, cabin crew are to operate 4 sectors of flight on that aircraft type as supernumerary.

#### 2.2.1.4 RECURRENT TRAINING

The cabin crew 2-day annual emergency procedures training (AEP) is conducted by CAD approved instructors in a contracted school approved by CAD.

The training syllabus is as follows:

- Aviation First Aid
- Security and miscellaneous subjects
  - Handicapped passenger
  - Fuelling regulations
  - Handling of security items
  - Hi-jack
  - Bomb threat
  - Use of radios, electronic equipment inflight
- Dangerous goods (in accordance with IATA – DGR table 1.5A)
  - General philosophy
  - Limitation
  - Labeling and marking
  - Recognition of undeclared dangerous goods
  - Provisions for passengers and crew
  - Emergency procedure
- Introduction to different aircraft types
- Crew stations - locations, description, use of seat belt and harness.
- Escape System - locations, description, normal & emergency operations (Doors, Door slides, over wing exits, ramp slides, flight deck windows and escape ropes).
- Pre-flight passenger briefing - safety demonstration using demonstration pack.
- Practical training exercises in all emergency and safety equipment.
- Emergency lighting system - locations, description, operations and controls.
- Emergency evacuation signalling system - location, description and controls.
- Emergency call system - description, operations and controls.
- Toilet smoke alarm system - locations, description, operations and procedures to handle passenger smoking in toilet.





- Emergency Procedures
  - Prepared evacuation
  - Unprepared evacuation
  - Cabin preparation
  - Crowd control
- Practical evacuation drills
- Decompression / Oxygen Equipment - description and procedures for decompression
- Fire Fighting

An AEP test is valid for 13 months. Dangerous goods training is required once every 2 years while the validity of practical fire and smoke training is 3 years. Crew should not be rostered for flying duties when practice and tests are overdue. They should report to their respective department if their test and practice validity are in doubt.

#### 2.2.1.5 RECENT TYPE EXPERIENCE

Any cabin crew who has not operated on a type or variant for 180 days or more (regardless of reasons) are required to attend safety training before undertaking duties on that type. The off line period is calculated from the day following cabin crew's last operating flight to the date of his/her rostered flying duty as an operating crew. The revalidation programmes are as follows:

<u>Off line period</u>	<u>Revalidation Safety training</u>
1. 180 days or more but not exceeding 18 months	Complete 2-day AEP
2. 18 months or more	Complete 4-day safety training (including 2-day AEP)

The revalidation training will cover the aircraft type(s) in which cabin crew qualified.

Upon satisfactory completion of the training, it is a CAD requirement to complete supernumerary flights on each aircraft type.

#### 2.2.1.6 TESTS

All cabin crew must pass all tests before they are qualified to operate the type of aircraft. The pass mark for all tests is 90%.

All test failure cases will be brought to the attention of Manager Cabin Crew (or deputies). A second sitting is normally given if a cabin crew/trainee fails at the first test. The re-sit will be 2 days after the first test. Should there be failure on the second attempt, the Flight Crew Training Department will provide Inflight Services Department information on the performance of the cabin crew with regard to Safety and Emergency Procedures. Manager Cabin Crew (or deputies) will advise the Flight Crew Training Department of intention.

During training courses the Certificate of Competency (COC) of a cabin crew is treated as expired and will be retained by the Flight Crew Training Department. When cabin crew has passed all tests and completed all practical training as laid down by the company, the card will be signed and returned.

#### 2.2.1.7 TEST RECORDS

Tests papers and cabin crew Certificates of Competency will be kept in the Operations Department. Whilst a copy of this Certificate of Competency (the card) is kept by cabin crew and it must be carried when on flight duties. The Flight Operations Department also keeps a file on the expiry dates of all cabin crew's Certificates of Competency.



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**2.2.1.8 ASSESSMENTS**

Probationary flight attendants will be assessed before passing probation. Periodic assessments will also be made on all on line cabin crew. These reports are kept in Flight Operations.

Qualified instructors will travel on flights and attend pre-flight briefings in order to check on the performance of operating crew.

**2.2.1.9 CREW RESOURCE MANAGEMENT (CRM)**

All cabin crew are to attend CRM training. The Initial CRM is a 1 day course for new joiners to introduce them to the concepts of CRM.

The recurrent CRM is also a 1 day course and each crew will be required to attend every 2 years. This course is aimed at improving communication between crew and promoting effective teamwork to facilitate a safe and efficient operation especially in emergency or abnormal situations.

The Initial Course syllabus will include:

- Relevance of CRM to flight safety and the efficient operation of an aircraft
- Definition of CRM
- Theory of human error
- The CRM development process
- Evaluation of CRM
- CRM language & jargon
- Human information processing
- Behaviors & their differences – Four styles of communication
- Visual & aural limitations – Factors affecting communication / importance of body language
- Seniority hierarchy; hindering two-way communication;
- Cultural difference – Importance of check back procedure
- Definition of “A Team” in-flight
- Self awareness – Cabin Crew are pilot’s eyes and ears
- How team develop – Briefing sets the tone of the whole flight
- Motivation – Team problem solving
- Importance / role of leadership & team membership – Initiative to be a functional leader
- Problem solving processes
- Awareness of alcohol & drugs abuse

Activities during the initial course will include:

- Presentations
- Analysis of incidents & accidents by case study & showing video
- Experiential learning exercises (recreating situations & experiences, using feelings to log on learning, experimenting in safe environments with cause & effect behavior exercises)
- Discussion groups



- 
- Self-disclosure
  - Role-play

Recurrent CRM will include topical items from the initial CRM course syllabus.

Joint Cabin Crew/ Cockpit Crew recurrent CRM sessions will be rostered every 2 years.

The joint CRM program will focus on effective communication during normal and abnormal scenarios. Other topics will include role understanding and task sharing. An open forum will be promoted throughout the program to foster improved teamwork.



## 2.3 OPERATIONS PERSONNEL CONCERNED

### 2.3.1 SECURITY TRAINING

With the support from Manager Security, CX Safety Training School is responsible to conduct Initial and Recurrent Security Training. Security training will be conducted in accordance with the Dragonair Security Manual and may be contracted to third party organizations.

#### 2.3.1.1 INITIAL TRAINING

All Cockpit Crew and Cabin Crew will receive an initial Security course. Cabin Crew will complete a one-day course while the Cockpit Crew course is 2 hours.

The Initial Course syllabus will include eight modules:

- Module 1: The threat to Civil Aviation:  
Unlawful interference, Hijack, Sabotage
- Module 2: Aircrew Security In-Flight
- Module 3: Passenger types, behavioural analysis and terrorist behaviours
- Module 4: Disruptive/unruly passengers and threat evaluation
- Module 5: Passenger restraint and practical exercise
- Module 6: Stages of a hijack
- Module 7: Bomb threat management, aircraft search and least risk bomb locations
- Module 8: Aircrew personal security

#### 2.3.1.2 RECURRENT TRAINING

Annual Security Training will be provided to all Cockpit and Cabin Crew. For Cabin Crew, this will involve a minimum of 2 hours instruction, whereas for Cockpit Crew, the course will last for 1 hour. Recurrent Training will include:

Review of Company Security procedures including communication and actions in response to an act of unlawful interference.

Changes/revisions to Security procedures.

Review of recent incidents and lessons learnt.

Current threat assessment of Dragonair.



## 2.3.2 SAFETY AND EMERGENCY PROCEDURES TRAINING

### 2.3.2.1 GROUND STAFF TRAINING

#### AEP FOR GROUND STAFF

The introduction of ground staff AEP is to facilitate ground staff from various departments such as ISD and CSQ to carry out supernumerary flights. The following are the category of people who are justified the issuance of ground staff Certificate of Competency (COC).

- a. Ground staff with flying crew background will attend one-day initial AEP course to acquire the ground staff coc and revalidate by joining ground staff recurrent AEP on an annual basis.
- b. Ground staff who do not have flying crew background will attend a full cabin crew induction safety training for 2 weeks in order to acquire the ground staff COC and revalidate on an annual basis by joining the ground staff recurrent AEP.
- c. Ground staff who transfer from cabin crew section. A ground staff COC will be issued automatically so long as the concerned crew COC is still valid and not absent from flying for more than 6 months. If not, the concerned crew has to attend a one-day initial ground staff AEP course.

#### GROUND STAFF INITIAL TRAINING

All ground staff who are justified the issuance of ground staff coc will attend a one-day AEP training course. The training syllabus is as follows:

Security and miscellaneous subjects

- Dangerous goods
- Hi-Jack
- Bomb threat
- Use of radios, electronic equipment in-flight

Introduction to aircraft type

Crew stations- locations, description, normal & emergency operations (Doors, Door slides, over wing exits, ramp slides, flight deck windows and escape rope)

Emergency equipment

Emergency lighting system – locations, operations and controls

Toilet smoke alarm system – locations, description, operations and procedures to handle passenger smoking in toilet

Emergency Procedures

- Prepared evacuation
- Unprepared evacuation
- Cabin preparation
- Crowd control

Decompression / Oxygen Equipment – description and procedures for decompression

Fire fighting –with practical session on the operations of fire extinguisher, its duration and precaution

Pilots Incapacitation



### RECURRENT TRAINING

Annual emergency procedures training is provided to all qualified ground staff and is a one-day course. The training includes classroom lectures on emergency procedures, dangerous goods, and practical use of equipment. Operations of the emergency exits, and smoke and fire drill are also included in the recurrent training.

### TESTS

Ground staff is required to pass the Survival test, the pass mark of which is 80%. A second sitting is normally given if a ground staff fails at the first test. Should there be failure on the second attempt, the ground staff COC will not be issued.

### TEST RECORDS

Tests results and the COC will be kept by the Flight Crew Training Department. The ground staff keeps a letter of approval and it must be carried when on supernumerary flight duties.

### 2.3.2.3 TRAINING PERSONNEL

#### CATHAY PACIFIC FLIGHT TRAINING CENTRE (CX FTC)

The CX FTC is approved by the HKCAD to conduct Training Courses for Dragonair in accordance with the Service Level Agreement.

Manager Ground Training maintains the control of all IFSEP Training requirements for Dragonair Crew.

The Safety Training Specialist (STS) is the training personnel to provide instruction, supervise practice and conduct tests for all safety and emergency procedures training. Their duties also include attending preflight briefing and carry out observation flights to ensure crew's safety performance is up to the required standard.

The initial training program for training a STS takes approximately 6 months and it involves:

- On the job training – sit in every type of safety training
- Attend external first aid training and become a qualified first aider
- Attend internal/external initial Dangerous Goods training course

When the STS under training has the knowledge, ability and experience to conduct safety training, the training carried out by the STS will be observed by a CAD Inspector. Once approved by the CAD, the STS will become a qualified instructor/examiner to conduct safety training.

The approved persons will normally be appointed by the HKCAD for a maximum of 3 years but may be subject to review at more frequent intervals. They are required to complete at least 3 observation flights within 36 months.

The STS's performance in conducting training will be observed by Manager Ground Training (MGT) once per annum to ensure their competency. A feedback form will be completed on each observation of the STS. MGT will ensure the cabin crew induction / conversion training is evenly distributed among the STS team.

The recurrent training program for a STS includes the following:

- Sit in the joint CRM training once a year
- Attend Dangerous Goods refresher training every 2 years
- To conduct a minimum of one Cabin Crew and Cockpit Crew AEP every month



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## **3. PROCEDURES**

### **3.1 ADMINISTRATION**

#### **3.1.1 MANDATORY CHECKS**

Suitably qualified Training Staff will be rostered to conduct all mandatory checks.

It is Company policy that no check or test is allowed to lapse unless there are exceptional circumstances.

The Proficiency Check will include the Aircraft Rating Certificate of Test items, Instrument Approach to Land proficiency and Emergency Maneuvers and Procedures.

Proficiency Checks and Instrument Rating Renewal tests will normally be carried out in an approved simulator. They may also be carried out during scheduled positioning flights or on flights specially detailed for the purpose. Where such checks or tests include asymmetric power, missed approach procedures or the use of instrument flying screens, passengers are not to be carried.

All checks or tests will be conducted in accordance with the laid down syllabus and published profile.

When the check or test is being conducted on a scheduled or positioning flight preceding a flight on which the trainee would be required to operate arrangements must always be made to cover the possibility of failure by the examinee.

Since instrument flying conditions may not be simulated on a public transport flight for the purpose of carrying passengers, the only elements of mandatory checking which can be carried out in an aircraft during such a flight is Section 3 (en-route) of the Instrument Rating Renewal.

All other mandatory checks will normally be conducted in an approved full flight simulator for all pilots.

Initial mandatory checks for pilots are described in Forms DCA528. "Boxed items" are those required for the Certificate of Test. Items which may be carried out in a flight simulator will be subject to the relevant Flight Simulator Approval. If approval for an item is not given then it must be completed in an aircraft.



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### 3.1.2 FLIGHT DECK MANAGEMENT AND OPERATING TECHNIQUES

All training is carried out in accordance with the principles established in the Flight Crew Training Manual. For all technical information, flight techniques, power settings, speeds and emergency procedures pilots should refer to the relevant Operations Manual Volume.



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### 3.1.3 MANOEUVRE TOLERANCES

The manoeuvre tolerances to be used by STCs when conducting tests in the aircraft or in the simulator, are those published in the Authorised Examiners Handbook (CAD 170).

Each manoeuvre may be repeated up to a maximum of three times.

Following an unsatisfactory attempt of any required manoeuvre, training input must be provided prior to any further attempt.

Training input shall be tailored to the individual and may comprise of a debrief, practice exercise or a dedicated remedial training programme as required.

Failure to achieve the required standard on the third attempt or as detailed in the CAD 170 must result in a fail being recorded.



### **3.1.4 SIMULATOR TRAINING**

When simulator training is conducted outside Hong Kong each STC is authorised to give additional simulator training of up to 3 hours to pilots on Recurrent or Conversion training without seeking approval from MFT. This approval is to allow the STC additional time only in the case where the Trainee will not achieve a satisfactory standard in the allotted time. If used, MFT/FTM is to be notified as soon as possible of the reasons for and the results of the extra training.

Any extra simulator time should be organised through the local simulator Customer Service Manager.

Except in exceptional circumstances, no pilot should return to HKG or his domicile without having successfully completed the Proficiency Check and IRR (if needed).

When simulator training is conducted in Hong Kong any additional simulator training should be organised through the relevant FTM.

Additional simulator training should only be used where absolutely necessary. If it is anticipated that a pilot may have problems, then it may be well to start with easy non-test exercises to 'ease' into the session. If problems do manifest themselves he will not at this stage have failed a test item and he can be given extra training prior to undergoing mandatory items.

It is imperative that Simulator Engineering have a history of all defects, no matter how insignificant they may appear to the instructor. Defects are to be recorded in the maintenance log by the instructor after each simulator detail.

Any and every defect encountered must be written in the Simulator Maintenance Log by the instructor regardless of whether the defect was rectified quickly and without lost training time.

If the defect clears or even if it is rectified by the Simulator engineering staff, record the defect in the Maintenance Log as a 'For Info' entry.

Use a fresh page for the first entry of each session and use one item block for each defect.

When using a Cathay Pacific FTC based simulator, remove the blue edged 'STATION COPY' sheet and place in the Company Mail Out box next to the Sim Daily Record Sheets.



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### 3.1.5 CONSECUTIVE TRAINING AND CHECKING DETAILS

Where a block of training is followed immediately by a checking detail, the check detail shall not be carried out by the same Training Captain who conducted the previous block of training.

During longer training programmes such as Line Flying Under Supervision (LFUS) /Command Training it is allowable for the same Training Captain to conduct more than one section of training and checking provided they are not consecutive.



## 3.2 ROSTERING FOR TRAINING AND CHECKING

The rostering requirements for all types of training courses are detailed in this chapter. These requirements are mandatory. Any variation to these requirements must be approved by the MFT/FTM.

Rostering 'hard' and 'soft' rules are established to give guidance to rostering staff. These rules are reviewed and updated at Training Rostering Meetings. Hard rules can only be disregarded by rostering staff with the agreement of an FTM. Soft rules may be disregarded as long as an FTM is informed.

These rules are recorded in the e-Library at:

R:\TRAINING\ADMIN\ROSTER CODES\Rostering Rules

### 3.2.1 TRAINING ROSTERING MEETINGS (TRM)

A Training Rostering Meeting will be conducted once every month to permit the exchange of information between the FTMs and rostering staff. The minimum attendees from FCT are to be MFT or delegate and an FTM or DFTM from each fleet. Minutes will be taken and circulated. Minutes will be retained in the FCTD e-Library.

Presentation will be made at the TRM of the training roster for the next month to enable initial FTM oversight. Other rostering matters highlighted from TMMs or raised through internal communications within FCT will be discussed at TRM.



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**3.2.2 CHECK AND TRAINING MEETINGS (CTM)**

Check and Training Meetings will be rostered bi-monthly with as many TCs rostered to attend. MFT and as many FTMs as possible will also be rostered for the meeting.

Training Captains will be rostered to attend at least one CTM a year.

CX Crew Scheduling will be responsible for monitoring the number of times individual TCs are rostered for CTMs and to maintain an updated record for Training Management to monitor.



### 3.2.3 CONVERSION TRAINING

#### 3.2.3.1 CONVERSION TRAINING – CADET PILOTS / SECOND OFFICER

##### GROUND SCHOOL

- i. Type Conversion Course. This will include the Entry Level Training (ELT) course. The CAD Type Technical and Type Performance exam will be programmed as an integral part of the course.  
  
For completion of DCA 528/IR requirements the following simulator sessions are required with an STC:  
  
2 x 4 hour sessions for 2 candidates  
2 x 3 hour sessions for 1 candidate
- ii. Line Flying Induction Workshop – 3 x 8 hours  
  
Conducted by TCs nominated by MFT/FTM.
- iii. Initial AEP Training – 8 hours.
- iv. Initial Security Training – 2 hours

##### FLYING TRAINING

##### i. Aircraft Base Training

Aircraft Base Training DCA 528 items must be completed within 28 days of the completion date of the simulator approved DCA 528 boxed items.

Prior to aircraft base training, Cadet Pilots / SOs will be rostered for a practice base training simulator session with a BTC occupying the left hand seat. The session will be 1 x 4 hr for 2 candidates and 1 x 2 hr for 1 candidate. A simulator support pilot is not required. Preferably this session should be conducted by the same BTC who conducts the actual aircraft base training.

- ii. Aircraft base training, for 2 candidates, will be rostered for 3 sessions with the aircraft available for use for 4 hours. These 3 sessions should not be planned over more than 1 week (i.e. the first and third sessions should not be more than 1 week apart). If this rostering requirement cannot be fulfilled consultation and approval from MFT/FTM is required. For 1 candidate, 2 sessions will be required with the aircraft available for use for 4 hours. Aircraft base training will be conducted by a BTC. A safety pilot of at least FO rank is required.

For aircraft base training, report time should not be before 0630LT and should be 1 hour and 30 minutes prior to planned STD for all crew members.

Base Training is not to be rostered on the A321 aircraft without approval of MFT / FTM.

##### iii. LFUS / Line Check

The supernumerary, LFUS, safety pilot (shot gun) and line check sector requirements are given in Part D 2.1.2.3 'AIRBUS TRAINING SUMMARY'.

Notes: 1. Each sequence is to be with one TC. Where a sequence includes both SNY and LFUS, a different TC may be used for the SNY and LFUS only if necessary.

2. Each sequence of LFUS is to be with a different TC.

3. For the A320/1, the A321 is not to be rostered for the Basic Phase. A minimum of 4 sectors on the A321 must be completed prior to the Final Line Check.

The rostering sequences are as detailed below:





1. **Basic Phase – 30 Sectors (3:1 PF:PM)**

1.1 1.1 Safety Pilot required for first 20 sectors of LFUS. All Basic Phase sectors are to be daylight sectors.

6 x SNY and 8 x LFUS sectors (1<sup>st</sup> sector to be PM). The 8 x LFUS sectors are to exclude the following destinations:  
BKI, CAN, CNX, CRK, CSX, FOC, HAN, HKT, KHH, KMG, KWL, MNL, RMQ, SYX, TPE, XIY, XMN

TC is to be a SBTC or STC nominated by MFT / FTM.

1.2 12 LFUS sectors with any TC excluding the following destinations:  
CAN, KMG

1.3 10 LFUS sectors with any TC excluding the following destinations:  
CAN

2. **Simulator Continuation Training Session with an FTC Instructor – D2**

To be rostered after 20 sectors of the Basic Phase.

For 2 candidates a 1 x 4 hr session, for 1 candidate a 1 x 2 hr session. For single candidate sessions, crew up preference should be given to SOs and JFOs. The simulator continuation training session should be tailored to concentrate on any perceived weaknesses detected during the Basic Phase to date and shall include an assessed simulated incapacitation exercise, required for LFUS Safety Pilot release.

3. **Advanced Phase – 36 Sectors (3:1 PF: PM)**

3.1 12 x LFUS sectors with at least four sectors of 2 hours duration minimum. (A320 to include 2 x A321 sectors)

3.2 12 x LFUS sectors with at least four sectors of 2 hours duration minimum. (A320 to include 2 x A321 sectors) (A330 to include 2 x ETOPS sectors)

3.3 12 x LFUS sectors with at least four sectors of 2 hours duration minimum

4. **4 sectors Line Check.** TC is to be an STC.

**CONTINUATION TRAINING**

**D3 session:**

One month prior to a SO's first Proficiency Check, Simulator Continuation Training will be rostered. This will be a 1 x 3 hr session for each SO, with an STC and preferably another SO as sit-in, and will be in the format of a full PC with IRR. It will not be assessed for licencing purposes and shall be treated as a training session.

**D4 session:**

Three months after a SO's first Proficiency Check, simulator continuation training will be rostered. This will be a 1 x 3 hr session with a STC and preferably another SO as sit-in, and will be used to practice Proficiency Check items.

**Line Continuation Training**

Nine months after a SO's Final Line Check, a 10-sector block, or as decided by MFT/FTM, of Line Continuation Training shall be rostered. The focus of this block of training is the maintenance and development of operational standards.

**3.2.3.2 CONVERSION TRAINING – DIRECT ENTRY FIRST OFFICER**

**GROUND SCHOOL**

- i. Type Conversion Course. The CAD Type Technical and Type Performance



exam will be programmed as an integral part of the course.

OR

CCQ Course. New Pilots who are eligible for CCQ may complete this course. The CAD Type Technical and Type Performance exam will be programmed as an integral part of the course.

OR

Type Rated Pilots who will be joining Dragonair on that type, will complete refresher training as detailed in Part D 2.1.2.3 'TRAINING SUMMARY'. The CAD Type Technical and Type Performance exam will need to be programmed.

In all cases, for completion of DCA 528/IR requirements the following simulator sessions are required with a STC:

2 x 4 hour sessions for 2 candidates

2 x 3 hour sessions for 1 candidate

- ii. Line Training Induction Workshop – 3 x 8 hours  
Conducted by TCs nominated by MFT/FTM.
- iii. Initial AEP Training – 8 hours.
- iv. Initial Security Training – 2 hours

#### FLYING TRAINING

- i. **Aircraft Base Training**

Aircraft Base Training DCA 528 items must be completed within 28 days of the completion date of the simulator approved DCA 528 boxed items.

Prior to aircraft base training, candidates will be rostered for a practice base training simulator session with a BTC occupying the left hand seat. The session will be 1 x 4 hr for 2 candidates and 1 x 2 hr for 1 candidate. A simulator support pilot is not required. Preferably this session should be conducted by the same BTC who conducts the actual aircraft base training.

Aircraft base training, for 2 candidates, will be rostered for 1 session with the aircraft available for use for 4 hours. For 1 candidate, the aircraft available for use time is reduced to 3 hours. Aircraft base training will be conducted by a BTC. A safety pilot of at least FO rank is required.

For aircraft base training, report time should not be before 0630LT and should be 1 hour and 30 minutes prior to planned STD for all crew members.

Base Training is not to be rostered on the A321 aircraft without approval of MFT/FTM.

- ii. **LFUS /Line Check**

For A320 Only:

The first four sectors of the first block of LFUS are not to be rostered on the A321.

The supernumerary, line training, safety pilot (shot gun) and line check sector requirements are given in Part D 2.1.2.3 'AIRBUS TRAINING SUMMARY'.

- Notes:
- 1. Each sequence is to be with one TC. Where a sequence includes both SNY and LFUS, a different TC may be used for the SNY and LFUS only if necessary.
  - 2. Each sequence of LFUS is to be with a different TC.
  - 3. Pilots transitioning to the A320/1 aircraft are not to be rostered to operate the A321 in the Basic Phase. All pilots must have completed



a minimum of 4 sectors on the A321 prior to the Final Line Check. For Pilots who fall into the Experienced category this may be reduced to 2 sectors.

The rostering sequences are as detailed below:

**A. No Previous Airline and No Jet Experience**

**1. Basic Phase – 20 Sectors (3:1 PF: PM)**

1.1 Safety Pilot required for first 8 sectors of LFUS.

1.2 6 x SNY and 8 x LFUS sectors (1<sup>st</sup> sector to be PM). TC is to be a STC.

The 8 LFUS sectors should be daylight sectors excluding the following destinations:

BKI, CAN, CNX, CRK, CSX, FOC, HAN, HKT, KHH, KMG, KWL, MNL, RMQ, SYX, TPE, XIY, XMN

1.3 12 x LFUS sectors with any TC excluding the following destinations: CAN, KMG

**2. Advanced Phase – 28 Sectors (3:1 PF:PM)**

2.1 10 x LFUS sectors with at least four sectors of 2 hours duration minimum. (A320 to include 2 x A321 sectors)

2.2 10 x LFUS sectors with at least four sectors of 2 hours duration minimum. (A320 to include 2 x A321 sectors) [A330 to include 2 x ETOPS sectors]

2.3 8 x LFUS sectors with any TC with at least four sectors of 2 hours duration minimum.

3. **4 sectors Line Check.** TC is to be a STC

**B. Previous Airline or Jet Experience**

**1. Basic Phase – 16 Sectors**

1.1 Safety pilot required for first 8 sectors of LFUS

1.2 6 x SNY and 8 x LFUS sectors (2 x PM then 3:1 PF:PM) with a STC, excluding the following destinations:  
CAN, CRK, CSX, FOC, HAN, KHH, KMG, KWL, MNL, RMQ, SYX, TPE, XMN

1.3 8 X LFUS sectors (3:1 PF:PM) with any TC excluding the following destinations: CAN

**2. Advanced Phase – 10 Sectors**

2.1 10 X LFUS sectors (3:1 PF:PM) with at least six sectors of 2 hours duration minimum. (A320 to include 2 x A321 sectors) [A330 to include 2 x ETOPS sectors]

2.2 **4 sectors Line Check.** TC is to be a STC

**C. Previous Airline and Jet Experience - Not Type Rated**

**1. Basic Phase – 10 Sectors**

1.1 Safety pilot required for first 8 sectors of LFUS

1.2 4 x SNY and 10 x LFUS sectors (2 x PM then 3:1 PF:PM) with any TC with six of the ten sectors excluding the following destinations:

CAN, CRK, CSX, FOC, HAN, KHH, KMG, KWL, MNL, RMQ, SYX, TPE, XMN

2. **Advanced Phase – 8 Sectors**

- 2.1 8 x LFUS sectors (3:1 PF:PM) with six sectors of 2 hours duration minimum. (A320 to include 2 x A321 sectors) (A330 to include 2 x ETOPS sectors)

3. **4 sectors Line Check.** TC is to be a STC

D. **Experienced - Previous Airline and Jet Experience – Type Rated or CCQ Eligible**1. **Basic Phase – 6 Sectors**

- 1.1 Safety Pilot required for first 4 sectors of LFUS

- 1.2 4 x SNY and 6 x LFUS sectors (2 x PM then 3:1 PF:PM) with any TC excluding the following destinations:  
CAN, CRK, CSX, FOC, HAN, KHH, KMG, KWL, MNL, RMQ, SYX, TPE, XMN

2. **Advanced Phase - 8 Sectors**

- 2.1 8 x LFUS sectors (3:1 PF:PM) to include six sectors of 2 hours minimum duration. (A320 to include 2 x A321 sectors) (A330 to include 2 x ETOPS sectors)

3. **4 sectors Line Check.** TC is to be a STC

3.2.3.3 **CCQ TRAINING – DRAGONAIR PILOTS****GROUNDSCHOOL**

- i. CCQ Type Conversion Course. The CAD Type Technical and Type Performance exam will be programmed as an integral part of the course.

For completion of DCA 528 CCQ Requirements the following simulator sessions are required with a STC:

2 x 4 hour sessions for 2 candidates

2 x 3 hour sessions for 1 candidate

- ii. Initial AEP Training – 8 hours.

**FLYING TRAINING**

- i. **Aircraft Base Training or Zero Flight Time**

Aircraft Base Training DCA 528 items must be completed within 28 days of the completion date of the simulator approved DCA 528 boxed items.

Prior to aircraft base training, candidates will be rostered for a practice base training simulator session with a BTC occupying the left hand seat. The session will be 1 x 4 hr for 2 candidates and 1 x 2 hr for 1 candidate. A simulator support pilot is not required. Preferably this session should be conducted by the same BTC who conducts the actual aircraft base training.

Aircraft base training, for 2 candidates, will be rostered for 1 session with the aircraft available for use for 4 hours. For 1 candidate, the aircraft available for use time is reduced to 3 hours. Aircraft base training will be conducted by a BTC. A safety pilot of at least FO rank is required.

For aircraft base training, report time should not be before 0630LT and should be 1 hour and 30 minutes prior to planned STD for all crew members.

Base Training is not to be rostered on the A321 aircraft without approval of MFT/FTM.

For Zero Flight Time, complete the following:



1. For 2 candidates, a 1 x 4 hour ZFT simulator session. For 1 candidate, a 1 x 3 hour session. A simulator support pilot is not required. This session will be rostered with a SBTC.
2. The initial 4 sectors of LFUS will be with a STC. These 4 sectors should preferably include daytime sectors.

The first 2 sectors must be completed within 21 days after the ZFT simulator session and all 4 sectors must be completed within 35 days of the ZFT simulator session.

An A321 must not be used for these first 4 sectors.

#### ii. LFUS/Line Check

The supernumerary, LFUS, safety pilot (shot gun) and line check sector requirements are given in Part D 2.1.2.3 'AIRBUS TRAINING SUMMARY'.

- Notes:
1. Where a sequence includes both SNY and LFUS, a different TC may be used for the SNY and LFUS if necessary.
  2. Pilots transitioning to the A320/1 aircraft must have completed a minimum of 2 sectors on the A321 prior to the Line Check.
  3. For ZFT, check requirements detailed in 'FLYING TRAINING – Base Training or Zero Flight Time' above.
  4. A330 2 x ETOPS sectors

The rostering sequences are as detailed below:

#### 1. Basic Phase – 6 Sectors

- 1.1 Safety Pilot required for first 4 sectors of LFUS unless pilot has 300 hours flying on Airbus types with Dragonair.
- 1.2 6 x LFUS. First 4 sectors are to be with a STC. Minimum 1 PF sector within 21 days of ZFT simulator, to complete landing recency. All remaining sectors 3:1 PF:PM, excluding the following destinations: CAN

#### 2. Advanced Phase

- 2.1 6 x LFUS with any TC to include four sectors of 2 hours duration minimum. (A320 to include 2 x A321 sectors) [A330 to include 2 x ETOPS sectors]
- 2.2 **2 sectors Line Check.** TC is to be an STC.

#### 3.2.3.4 REFRESHER TRAINING

Type Rated Pilots who will be joining Dragonair on that type, will complete Refresher training. The CAD Type Technical and Type Performance exam will need to be programmed.

For completion of DCA 528/IR requirements, the following simulator sessions are required with a STC:

2 x 4 hour sessions for 2 candidates

2 x 3 hour sessions for 1 candidate

For the remainder of training refer to Part D 3.2.3 'CONVERSION TRAINING'.

#### 3.2.3.5 REVALIDATION TRAINING

Dragonair Airbus Pilots returning to a previous Dragonair Airbus type, with a valid Aircraft and Instrument Rating on the previous type, will complete revalidation training.

#### GROUND SCHOOL

For completion of the Proficiency Check, the following simulator sessions are required



with an STC:

2 x 4 hour sessions for 2 candidates

2 x 3 hour sessions for 1 candidate

i. AEP Training – 8 hours.

#### FLYING TRAINING

##### i. Zero Flight Time

1. For 2 candidates, a 1 x 4 hour ZFT simulator session. For 1 candidate, a 1 x 3 hour session. A simulator support pilot is not required. This session will be rostered with a STC nominated by MFT/FTM.

Note: The nominated STC shall either have previous ABT experience or have been specifically trained for the ZFT session.

2. The initial 4 sectors of LFUS will be with a STC. These 4 sectors should preferably include daytime sectors.

The first 2 sectors must be completed within 21 days after the ZFT simulator session and all 4 sectors must be completed within 35 days of the ZFT simulator session.

An A321 must not be used for these first 4 sectors.

Note: If the pilot's 3 month recency on the previous aircraft type has expired by more than 6 months refer to Part A 5.2.12 for requirements.

##### ii. LFUS / Line Check

The supernumerary, LFUS, safety pilot (shot gun) and line check sector requirements are given in Part D 2.1.2.3 'Airbus Training Summary'.

The rostering sequences are as detailed below:

##### 1. Basic Phase – 4 Sectors

- 1.1 Safety Pilot required for first 4 sectors of LFUS unless pilot has 300 hours flying on Airbus types with Dragonair.

##### 1.2 4 x LFUS

First 4 sectors are to be with a STC. Minimum 1 PF sector within 21 days of ZFT simulator to complete landing recency. All remaining sectors 3:1 PF/PM.

Note: Normally a pilot completing a Revalidation will complete landing recency as described above. If the pilot's 3 month recency on the previous aircraft type has expired by more than 6 months, refer to Part A 5.2.12 for requirements.

For A320/1 revalidation, a minimum of 2 sectors on the A321 is required during LFUS.

##### 2. Advanced Phase – 6 Sectors

- 2.1 6 x LFUS sectors to include 4 sectors of 2 hours duration minimum. For A330 revalidation, one ETOPS sector is required during LFUS. For A320 revalidation two A321 sectors are required.

3. 2 sectors Line Check. TC is to be a STC.

#### 3.2.3.6 CATEGORY C AIRFIELD SIMULATOR TRAINING

Simulator training for specific airfields will be rostered before all crew operate to such airfields.



Kathmandu:

1 x 3 hour simulator session per crew.

RHS will be FO or JFO.

SO not to be rostered for this training.

Busan:

1 x 2 hour simulator session per crew.

RHS will be FO or JFO.

SO not to be rostered for this training.

For a Crew member changing fleets and/or seats (i.e. for CT or CT-CCQ) competency must be re-established in the new operating capacity

### 3.2.3.7 SO TO JFO UPGRADE ASSESSMENT

Simulator evaluation to ensure operational competency to JFO operational weather limits.

For 1 pilot – 1 x 2 hour simulator session with an STC.

For 2 pilots – 1 x 4 hour simulator session with an STC.

To be rostered 11 months after Date of Joining.

### 3.2.3.8 JFO TO FO UPGRADE ASSESSMENT

1. Simulator evaluation to ensure operational competency to FO operational weather limits.

For 1 Pilot – 1 x 2 hr simulator session with a STC

For 2 Pilots – 1 x 4 hr simulator session with a STC

2. 4 Sector Line Check

Assessment package is to be rostered 35 months after Date of Joining.

**3.2.4 LINE CONTINUATION TRAINING****3.2.4.1 GOUNDSCHOOL**

There is no groundschool requirement

**3.2.4.2 FLYING**

Sector number as required by the FTM and to be flown with the same TC.

To ensure adequate training time, the ratio of long to short sectors should be rostered as 2:1.

**3.2.4.3 SIMULATOR**

Subject to approval from MFT/FTM. Specific to individual requirement.



**3.2.5 PRE-COMMAND WORKSHOP (PCW)**

The PCW will be rostered over 2 days.

Trainees must be rostered in pairs. Preferably roster 2 x A320 and 2 x A330.

**3.2.5.1 2 x A320 AND 2 x A330 TRAINEES****DAY 1 AND 2**

3 1/2 hour classroom day 1, 3 hour classroom day 2, with a STC.

Note: STC can be either A320 or A330 and will be nominated by MFT/FTM.

4 hour simulator session with 1 hour briefing and 45 minute debriefing, for each pair.

Notes: 1. STC who conducts classroom session will also conduct a simulator session.

2. For second pair of trainees, another STC will be required for the simulator session. Check that one STC is A320 and the other is A330.

3. No break is required between classroom and simulator briefing.

**3.2.5.2 2 x A320 OR 2 x A330 TRAINEES****DAY 1 AND 2**

3 1/2 hour classroom day 1, 3 hour classroom day 2, with a STC.

Note: STC is to be same fleet as trainees and will be nominated by MFT/FTM.

4 hour simulator session with 1 hour briefing and 45 minute debriefing, for each pair.

Notes: 1. STC who conducts classroom session will also conduct the simulator session.

2. No break is required between classroom and simulator briefing.



### 3.2.6 PROFICIENCY CHECK

#### 3.2.6.1 GENERAL

Day 1 : 1x 4hr simulator session with a STC.

Day 2 : 1x 4hr simulator session with a STC.

1 x 2 1/2 hr VACBI Session will be rostered during the month prior to the PC.

VACBI (or re-rostering following disruption) may be combined with another half-day activity, which may include either a single sector flight or a short two-sector duty (TPE return for example). It is not acceptable to roster VACBI following a three-sector day.

If a PC has to be rostered for a single candidate then roster 2 x 3 hour sessions with a LVO qualified Capt or Co-pilot as appropriate as 'sit-in'.

Consecutive PCs for each pilot to be with a different STC.

- a. PCs are to be rostered with a normal crew complement. ie Capt & SO/JFO/FO.
- b. Avoid consecutive PCs in the same cycle. The cycles are APRIL – SEPTEMBER and OCTOBER – MARCH.
- c. The Structured PC requires each pilot to complete each cycle, except as follows:-
  - Long term sickness
  - The pilot has completed one of the following courses of training: - CCQ, Revalidation or Command Course.

#### 3.2.6.2 NEW PROFICIENCY CHECK PREPARATION

Prior to the start of each PC cycle the LOFT and Teaching exercises will be prepared by DFTMA in consultation with the FTMs. This process will begin three months before the start of the PC cycles which begin in April and October.

- a. RT/LOFT Preparation. (Code 1S rostered in January and July.)

Roster DFTMA plus at least 1 FTM 2 days of rostered office time.

At the end of day 1 roster a 2 hour simulator session in either HDA01 or HDA02.

At the beginning of day 2, roster the other simulator for a 2 hour session.
- b. New PC Run-through. (Code 2S rostered in February and August.)

Roster a STC plus a Line FO (can be JFO or SO) plus any FTM or DFTMA. Note this (S2) session needs to run only for one fleet, NOT both.

Roster a 1 hour briefing session followed by a 4 hour simulator session. No debrief is required but if it is easier to programme with this included then that is acceptable.
- c. FMGS Programming Session. (Code 3S rostered in March and September.)

Roster D/FTM and Simulator engineer for a 2 hr sim session for both HDA01 and HDA02 as part of an office duty. No brief or debrief is required.



### 3.2.7 PRE-COMMAND ASSESSMENT

#### 3.2.7.1 PCA EXAMINATION

Written examination to be rostered for 8 hours

#### 3.2.7.2 FLYING (PCA1)

12 x LFUS sectors with the same TC

To any ports with emphasis on PRC and to include at least one night flight

#### 3.2.7.3 SIMULATOR LOFT SESSION (PCA2)

1 x 3 hr session with a different TC who will be a STC nominated by MFT. A JFO or SO who has completed his first PC is to be rostered as 'crew-up' and will be approved by a FTM. A FO may be used on a standby basis if no other support is available.

An O day shall be rostered between PCA1 and PCA2, if conducted as part of a consecutive duty block.

#### 3.2.7.4 POST-PCA FTM DEBRIEF

1 hour meeting with fleet FTM to be rostered 1 week after PCA sim, or as arranged with fleet FTM.



### 3.2.8 COMMAND TRAINING

#### 3.2.8.1 GROUND SCHOOL

Command Ground School (CGS) – 2 classroom days including visits.

Notes: 1. The Command Groundschool will be run by nominated TCs. Names will be advised to the Rostering Supervisor by MFT/FTM.

2. Command Groundschool is to be completed prior to CT1. In exceptional circumstances only, and with the permission of MFT/FTM, the Groundschool may be completed after CT1, but must be completed before CT2 commences.

**CCQ** - For candidates completing a CCQ, initial AEP is required.

**REVALIDATION** - For candidates completing revalidation with CT, initial AEP is required.

#### 3.2.8.2 FLYING/SIMULATOR

CT1 The following sessions are valid for a pilot converting to the LHS on the same type, converting to the LHS with a revalidation or converting to the LHS in conjunction with a CCQ course.

For CCQ, either LHS or RHS, these sessions will include DCA 528 completion, therefore do not roster sessions listed in Part D 3.2.3.3 'GROUNDSCHOOL'.

LVO CBT: One hour CBT session should be rostered within one week before the start of CT1. (This session is included in the CCQ Course footprint)

**1 x Candidate** : 2 x 4hr, 1 x 3hr simulator sessions

**2 x Candidates** : 4 x 4hr and 1 x 3hr simulator sessions

**1 x Candidate and simulator partner completing RHS CCQ only:**

2 x 4hr, 1 x 3hr, 1x 4hr simulator sessions

Note: The above simulator sessions **do not** include a ZFT simulator session. If CT1 includes ZFT then there can be up to 6 simulator sessions. The maximum number that can be rostered consecutively is 5 sessions, following which a G day is mandatory.

CT1 combined with a CCQ course, complete either **Base Training or Zero Flight Time Training**:

##### a. Base Training

Aircraft Base Training DCA 528 items must be completed within 28 days of the completion date of the simulator approved DCA 528 boxed items.

Aircraft base training, for 2 candidates; will be rostered for 1 session with the aircraft available for use for 4 hours. For 1 candidate, the aircraft available for use time is 3 hours. Aircraft base training will be conducted by a BTC. A safety pilot of at least FO rank is required.

For aircraft base training, report time should not be before 0630LT and should be 1 hour and 30 minutes prior to planned STD for all crew members.

Base Training is not to be rostered on the A321 aircraft without approval of MFT/FTM.

##### b. Zero Flight Time

- For 2 candidates, a 1 x 4hr ZFT simulator session. For 1 candidate, a 1 x 3hr session. A simulator support pilot is not required. This session will be rostered with a SBTC.



2. The initial 4 sectors of LFUS will be with a STC. These 4 sectors should preferably include daytime sectors.

The first 2 sectors must be completed within 21 days after the ZFT simulator session and all 4 sectors must be completed within 35 days of the ZFT simulator session. An A321 must not be used for these first 4 sectors.

CX For candidates who have been operating another type prior to the Command Course, 12 x LFUS sectors.

These sectors may include the ZFT initial aircraft training sectors i.e. 4 sectors ZFT followed by 8 x LFUS sectors. A different TC may be used for the 8 x LFUS sectors in this case.

For a candidate completing CT with a revalidation, first 4 sectors of CX is to be with a BTC. Min 2 PF to complete landing recency.

CT2 12 x LFUS sectors

Long sectors – greater than 2 hours

For a 3 day pattern max number of sectors is 8.

CT2A/B 2 x 3hr simulator sessions with FTC Instructor. A JFO or SO is to be rostered as support.

CT3 12 x LFUS sectors

Mix of long and short sectors

For a 3 day pattern max number of sectors is 8.

CT4 8 x LFUS sectors

To as many remaining destinations as possible.

CT5 2 x 4hr simulator sessions for PC and Command LOFT Check. A JFO or SO who has completed his first PC is to be rostered as 'support'. A FO may be used on a standby basis if no other support is available.

CT6 2 sectors Line Check. Day return only, not to be sequenced with an overnight.  
6 sectors - Final Command Assessment. A FO, JFO or SO is to be rostered in the RHS and the TC on the observers seat.

- Notes:
1. Command training will be conducted by TCs nominated by MFT/FTM.
  2. Each sequence is to be with the same TC.
  3. CT2, CT3 and CT4 are to be with different TCs.
  4. 'Support' JFO or SOs to be approved by MFT/FTM.
  5. CT5 and CT6 are to be conducted by STCs specified by MFT/FTM.
  6. CT5 and CT6 are to be rostered with different STCs.

### Flare and Approach Recovery Training (FART)

A FART simulator session will be rostered as soon as possible after completion of CT6 and prior to the pilot completing 10 sectors.

This session will be 1 hr per pilot with a maximum of 4 pilots per session.

This session will be rostered with a STC.

**3.2.9 LINE CHECK****3.2.9.1 ANNUAL LINE CHECK**

An Annual Line Check for line pilots is to be rostered over two sectors.

Normal practice is to conduct line checks on both pilots (Capt and FO) simultaneously.

The Training Captain is to be rostered to occupy the observer's seat.

MFT/ FTM must approve a Line Check if the TC is to occupy an operating seat.

Note: Sectors over 3 hours should not normally be rostered where the Training Captain is required to occupy the observer's seat.

**PILOTS QUALIFIED IN BOTH SEATS**

Captains who are required to operate from the right hand seat shall complete a Line Check in both operating seats.

For initial qualification in the right hand seat the Line Check must be two sectors (1 PF & 1 PM).

Annual Line Checks should normally be rostered for 4 sectors (2 left & 2 right), however this may be reduced to 3 sectors due to roster constraints or disruption.

A 3 sector Annual Line Check must include one sector as PF in each seat and one sector as PM in either seat.

Training Captains will normally be rostered for a 4 sector line check (2 left, 2 right) with the Check Pilot occupying the other operating seat.

If other than a TC, he should be rostered for the first two sectors LHS with a line FO/JFO/SO occupying the RHS and the TC on the jumpseat. The RHS sector(s) shall be flown with the TC occupying the LHS.

Other than stated above, MFT/FTM must approve a Line Check if the TC is to occupy an operating seat.

**3.2.9.2 FINAL LINE CHECK**

A Final Line Check is rostered over 2 or 4 sectors.

The TC must occupy an operating seat on all sectors.

**3.2.9.3 LINE CHECK DISRUPTION**

All sectors of an Annual or Final Line Check must be completed by one TC. If the same TC is unable to complete all sectors of the planned Line Check due to sickness or disruption then the entire Line Check must be rescheduled with a new TC.

**3.2.10 LINE TRAINING CAPTAIN****3.2.10.1 TRAINING CAPTAINS WORKSHOP (TCW)**

The TCW will be rostered over 5 days.

Day 1: Ground School 0830 - 1730L

Instructor(s) provided by FTC and / or FCT Dept - MFT will advise.

Day 2: Ground School 0830 - 1730L

Instructor(s) provided by FTC and / or FCT Dept - MFT will advise.

Day 3: Ground School 0900 – 1700L

The instructor is to be either FTMS, FTM 330, FTM 320 or MFT.

Day 4: Simulator - 2 x 2hr simulator sessions for each pair of candidates.

Type specific simulators should be used for each candidate. In exceptional circumstances and with MFT/FTM approval Airbus pilots may be rostered in either the A320 or A330 simulator.

Each simulator session requires a 1 hr brief and 1 hr de-brief.

Two instructors required for each session, one FSI from the FTC and one STC. Appropriate STCs will be nominated by MFT/FTM.

Day 5: Simulator 1 x 2hr session for each candidate.

Instructor to be a STC.

Simulator session will include RHS aircraft rating, RHS LVO renewal, RHS RTO and LHS Flare & Approach Recovery training.

**3.2.10.2 FLYING TRAINING**

- a. i. 8 sectors of LFUS (4 LHS & 4 RHS) will be rostered with a Senior STC.

Appropriate STCs will be nominated by MFT/FTM

- ii. 4 sector Line Check (2 LHS & 2 RHS) with a FSE

- iii. 4 sectors conducting LFUS under the supervision of a FSE

The new TC is then authorised to conduct LFUS.

- b. i. Conduct 2 line checks under the supervision of a FSE. This will normally be fulfilled by completing one annual line check on 2 crew.

The new TC is then authorised to conduct Line Checks.



### 3.2.11 AUTHORISED EXAMINERS COURSE (AEX) - SINGLE AND PAIRED COURSES

#### 3.2.11.1 PRE-COURSE PREPARATION

- a. If less than 6 months since the last course conducted by the CF:  
One office day including 1 x 3 hour simulator session in the week prior to the course (1 x 5 hour simulator session if either CF is not type-rated on the simulator to be used). The simulator will be crewed by two CFs, or as agreed with the CFs.
- b. If more than 6 months since the last course conducted by the CF:  
One office day including 1 x 5 hour simulator session in the week prior to the course. The simulator will be crewed by two CFs, or as agreed with the CFs.
- c. A CF under training will be rostered for 3 x 2 hour preparatory simulator sessions in the week prior to the AEX course, conducted under supervision of an authorised CF. Two of these simulator sessions may be rostered on the same day, provided the sessions are separated by not less than 2 hours.

#### 3.2.11.2 COURSE PROGRAM

- a. Courses should be planned to commence on a Monday, provided there is no conflict with statutory holidays, subject to CAD FOI availability.
- b. Courses will run for 5 consecutive days.
- c. Rostered duty times will be from 0800-1800L for Days One to Five.
- d. Course facilitators and candidates shall be rostered for two G days prior to and two G days after each AEX course.
- e. For the SINGLE course, either the A320 or A330 simulator may be used, however the same simulator must be used for the whole course.
- f. For the PAIRED course, both the A320 and A330 simulators must be used.
- g. Simulator type must be finalized and MGT must be advised a minimum of 6 weeks prior to the commencement of the AEX course.
- h. Simulator Bookings:  
Day 1 - 4: 1300 - 1700L  
Day 5: 0900 - 1300L
- i. CX FTC Briefing Room 4.10 shall be reserved:  
from 0800 - 1800L on Days 1 - 5.
- j. For the PAIRED course, CX FTC Briefing Room 4.5c shall also be reserved:  
Days 1 - 4: 1200 - 1800L  
Day 5: 0800 - 1600L

#### 3.2.11.3 COURSE FACILITATORS

Two CFs will be rostered for each course.

A new AEX CF will complete the following training program prior to being authorized to conduct these courses.

- a. Thorough knowledge of AEX Course Manuals, Volume 1-3 (self study)
- b. Observe one AEX Course
- c. 3 x 2 hour preparatory simulator sessions in the week prior to the AEX course conducted under supervision (item d). These simulator sessions will be used to





practice the simulator set up and manoeuvres required as the PF during the course detail.

- d. Facilitate one AEX Course under the supervision of an authorised CF

#### 3.2.11.4 SIMULATOR INSTRUCTORS

One AEX SI will be rostered for a "Single" course.

Two AEX SIs will be rostered for a "Paired" course.

- I. A new AEX SI will complete the following training program prior to being authorized to conduct these courses.
  - a. Thorough knowledge of AEX Course simulator scenarios as listed in Volume 1 (Chapter 7 & 9), Volume 2 and Volume 3 (self study)
  - b. Observe one AEX Course (simulator sessions only). An experienced SI may fulfil this requirement by performing the duties of the SI during the three preparatory simulator sessions (item 3.2.11.3 c. above).
- II. A Dragonair STC conducting the duties of the SI will complete the following training programme:
  - a. If the STC is also authorised to facilitate AEX courses, then no training programme is required.
  - b. If the STC is rated on the aircraft type equivalent to the simulator to be operated, a training programme consisting of :
    - i. Thorough knowledge of AEX Course simulator scenarios as listed in AEX Volume 3.
    - ii. Perform the duties of the SI during the AEX facilitator's preparatory simulator session (minimum 1 x 3 hours).
  - c. If the STC is not rated on the aircraft type equivalent to the simulator to be operated, a training programme consisting of :
    - i. Thorough knowledge of AEX Course simulator scenarios as listed in AEX Volume 3.
    - ii. Perform the duties of the SI during the AEX facilitator's preparatory simulator session (minimum 1 x 5 hours).

#### 3.2.11.5 STC WORKSHOP (Dragonair Candidates)

A 4 hour groundschool shall be rostered after completion of the AEX course and before commencement of the first type specific simulator familiarisation.

The instructor shall be either FTMS, FTM(A330), FTM(A320), DFTMA, DFTMS or MFT.

#### 3.2.11.6 SIMULATOR FAMILIARISATION – INITIAL STC (Dragonair Candidates)

- a. 2 hour simulator operating panel familiarisation session with a FTC Instructor / STC
  - b.
    - i. Observe 1 Proficiency Check (Day 1 & 2) with a STC
    - ii. Conduct 1 Proficiency Check (Day 1 & 2) under the supervision of a STC
    - iii. Conduct 1 Proficiency Check (Day 1 & 2) under the supervision of a FSE/AEX Facilitator
- STC for the above training will be nominated by the MFT/FTM
- iv. CAD observation conducting a Proficiency Check



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**3.2.11.7 SIMULATOR FAMILIARISATION – STC CHANGING FLEETS**

- a. i. Conduct 2 separate Proficiency Check details under the supervision of a STC
  - ii. CAD observation conducting a Proficiency Check
- STC for the above training will be nominated by MFT/FTM



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**3.2.12 AUTHORISED EXAMINER (AIRCRAFT)**

A STC must complete the following training prior to approval as a BTC:

- a. 1 x 2hr simulator session with a BTC – Support pilot is not required.
- b. 2 separate aircraft base training details (ie. on two separate days) under the supervision of an experienced BTC.
- c. CAD observation conducting an aircraft base training detail.

**3.2.13 CRM TRAINING****3.2.13.1 INITIAL COURSES**

Cockpit Crew new-joiners **MUST** receive the two day Initial CRM/TEM course prior to commencing line training.

Cabin Crew will be rostered for Initial CRM as an induction group.

**3.2.13.2 RECURRENT COURSES**

Recurrent training class size should be approximately 20 (max 25) participants, of which 15 are Cabin Crew and 5 Cockpit Crew (Cockpit Crew min of 5 and max 15).

Cabin Crew will be rostered for a whole day (morning: CRM cabin crew only, afternoon: Joint CRM session).

Cockpit Crew may be rostered for other half day duties in the morning (e.g. AEP, Recurrent Security training, VACBI, etc.) followed by Joint CRM in the afternoon.

It will be unacceptable to have a disproportionate number of crew requiring the training in the last few months of the two year cycle. The records must be periodically checked to ensure the program is on track.

**3.2.13.3 RECORDS**

Records will be kept of the dates all crew received training. The aim is to ensure all Cabin Crew attend JCRM training within each two year cycle and all Cockpit Crew attend annual JCRM/TEM.



### 3.2.14 ROSTERING FLIGHT STANDARDISATION OBSERVATION

#### 3.2.14.1 ALLOCATION OF CHECKS FOR FSE:

Standardisation observations are conducted by approved Flight Standardisation Examiners (FSEs).

Initial checks of newly-trained LTCs and STCs will be conducted by FSEs. See appropriate sections of this chapter for details of those approval checks.

FTMs and FSEs will conduct observations on all Instructors, LTCs, FSIs and STCs within their individual fleet or department on an annual basis. However to facilitate a more even 'spread' of fleet checks and to reduce FSEs workload per month, it is acceptable to move FSE observations by bringing forward the next observation by up to six months. When this is done the subsequent check must be completed within 12 months. Note that a HKCAD STC renewal does not substitute for an FSE check.

Wherever possible the following schedule of checks should be followed:

Instructor / Time	Check 1	Check 2	Check 3
LTC	Flight Instruction	Flight Instruction	Flight Instruction
FSI	Simulator	Ground Instruction	Flight Training Device
STC	Simulator	Flight Training /Checking Observation	Simulator
EPS Instructor	Ground Instruction	CEET or Fire Trainer	Ground Instruction

#### 3.2.14.2 INDUCTION TRAINING FOR NEW FSEs

Prior to commencing FSE duties a one hour session with FTMS will be rostered to explain the processes and procedures for conducting FSE observations.



### 3.2.15 GENERAL NOTES FOR ROSTERING OF TRAINING

#### 3.2.15.1 GENERAL

1. Initial Training Briefing ('meet and greet') of 1 hour conducted by the relevant FTM or MFT is required for all new joining flight crew.
2. Unless authorised by MFT/FTM there are to be no 4 sector days or consecutive 3 sector days rostered.
3. Where a block of training is followed immediately by a checking detail, the check detail must be conducted by a different TC.
4. During longer training programmes such as Initial LFUS / Command Training it is allowable for the same TC to conduct more than one section of LFUS and checking provided they are not consecutive.
5. Rostering of ground lectures must ensure sufficient free time is available e.g. 2 days, for crewmembers to study for the HK CAD examinations immediately prior to the examination date.
6. For ETOPS qualification, a minimum of one DAC / BLR flight must be rostered for all A330 Conversion, Refresher, Revalidation, CCQ and Command Courses. For SO LFUS one DAC and one BLR flight must be rostered, these will be conducted no earlier than the Advanced phase.
7. All training duties are to be rostered in accordance with the fleet-specific Training Authorization as published by FCT.
8. Rostering of simulator duties should be evenly distributed amongst the STC group.
9. Rosters for TCs should normally be planned with 25% non-training days (prorated for leave, G day requests, etc). These non-training days may subsequently be used for training details following roster disruption or additional training requirements if required.

#### 3.2.15.2 CONSOLIDATION FLYING

At the completion of training, when released to line operations, consolidation flying is required and the following roster constraints will be applied.

##### a. NEW CAPTAINS

First 40 sectors Will not be rostered with a new FO or SO  
Will not be rostered for a standby duty or vacation period for first 20 sectors after completion of Command Course

First 6 months Will not be rostered into any Cat C airfield

Note: A 'New' Captain is one who has completed fewer than 30 sectors or 100hrs, whichever occurs sooner, after successful completion of Command training.

##### b. NEW FOs or SOs

First 40 sectors Will not be rostered with a new Captain  
Will not be rostered for a standby duty or vacation period for first 20 sectors after completion of training

Note: For FOs or SOs the 40 sectors is to be counted from successful completion of the Final Line Check at the end of Initial LFUS.

##### c. CAPTAIN POST CCQ or REVALIDATION

First 6 sectors Will not be rostered with a new FO  
Will not be rostered for a standby duty or vacation period.



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d. **FO POST CCQ or REVALIDATION**

First 6 sectors Will not be rostered for a standby duty or vacation period

**FAILURE TO COMPLETE CONSOLIDATION FLYING PERIOD**

If required consolidation sectors / hours are not completed (eg due to sickness or pre-arranged leave) then a further 4 sector LC will be rostered immediately on return to flying duties. The consolidation requirement will then re-commence.



### 3.3 ACTIONS IN THE EVENT OF AN UNSUCCESSFUL CHECK

#### 3.3.1 GUIDANCE TO COMPANY EXAMINERS

##### 3.3.1.1 GENERAL

When a fail point has been registered during a test, the STC must exercise good judgment on how to deal with the matter. He has four choices:

- a. To continue the test, and after post flight de-briefing, carry out a retest of the failed section.
- b. To discontinue the test, discuss the point in flight and re-commence the test after discussion.
- c. To discontinue the test and re-commence the test from the beginning.
- d. To terminate the test. The candidate may then take a retest after a suitable period of rest.

It is not possible to lay down any formula by which the STC can make this assessment. For example, if a candidate is making a succession of gross errors it is clearly impractical to proceed and the test should be terminated. For instance, failing to comply with an ATC clearance would demand a retest, probably on the same day, but re-commencing the test of that part from the beginning. However, in the case of a go-around from the ILS being carried out incorrectly it seems reasonable to discuss the errors whilst still in flight and to allow the candidate to carry out a second attempt at the go-around procedure. When discussing a point in flight it is essential that the Training Captain takes control of the aircraft - or in the case of the simulator selects 'freeze' - to allow the candidate to relax and obtain full benefit from the de-brief before re-commencing the test.

Generally, the preferred option where possible, is to continue the test to the end of the detail. This will allow the examiner to:

- I. Assess the candidate's performance in all sections/items of the detail and debrief accordingly.
- II. Recommend or conduct any additional training for the candidate. Liaise with MFT/FTM if appropriate.
- III. Determine the retest detail.



**3.3.2 INSTRUMENT RATING****3.3.2.1 ACTION AFTER AN UNSUCCESSFUL TEST**

Where a retest of the failed section(s) only is permitted in accordance with CAD 170, then a retest of those sections should be completed on the same day. The section(s) retested is to be recorded on the electronic report.

In the event of a confirmed failure the STC should inform the candidate that he has failed. He should also ensure that the failure is recorded on the electronic report.

Complete the 'Notice of Failure' form DCA 529 and distribute the copies as instructed on the form. The second copy should be passed to FCT. Advise the candidate he is not entitled to fly in the capacity for which the test would have qualified him.

Notify Crew Control that the crew member is no longer available for public transport duties. Inform MFT/FTM of the failure.

If a complete re-test of the failed rating is completed successfully within the same simulator detail, then a further electronic PC report will be needed and can be generated by contacting the FTAO.

**3.3.2.2 STRUCTURED PROFICIENCY CHECK**

As the Structured Proficiency Check consists of planned exercises, the preferred option when a fail point has been registered is to continue the test to the end of the exercises. The examiner can then proceed as per Part D 3.3.1.1 'GENERAL' i - iii above.



### 3.3.3 PROFICIENCY CHECK

#### 3.3.3.1 ACTION AFTER AN UNSUCCESSFUL TEST

Where a retest of the failed item(s) is considered appropriate by the Examiner, the retest should be completed after the necessary briefing and training (if any) has been completed. If possible complete on the same day. The items retested are to be recorded on the electronic report.

For Schedule 9 partial failures, if a successful retest was completed during the simulator session or extended simulator session that day, completion of the 'Notice of Failure' form DCA 529 is not required.

In the event of a confirmed failure the STC should inform the candidate that he has failed. He should also ensure that the electronic report indicates the items failed and the reason for the failure.

For Schedule 9 failures complete the 'Notice of Failure' form DCA 529 and distribute the copies as instructed on the form. The second copy should be sent to FCT. Advise the candidate he is not entitled to fly in the capacity for which the test would have qualified him.

Notify rostering that the crewmember is no longer available for public transport duties. Inform MFT/FTM of the failure.

**3.3.4 LINE CHECK****3.3.4.1 UNSUCCESSFUL OR EXPIRED LINE CHECK GUIDANCE**

Should a pilot fail a Line Check or his Line Check expire, the pilot may only operate a public transport flight 'under supervision' until a successful Line Check is completed. All such supervised flying, and the line check required for requalification requires a Training Captain to occupy an operating seat.

Should a pilot's Line Check be unsuccessful, then the TC shall do the following:

Debrief the candidate and advise him that he cannot exercise the privileges of his license until further training takes place and another line check is completed to a satisfactory standard.

Notify MFT/FTM immediately.

Inform Crew Control that the pilot is not available for normal line operations.

In a failure case the TC should clearly state the reasons and emphasise the major fail points and the way forward. This may not be the time for a lengthy, detailed debrief - use discretion.

The TC in conjunction with MFT/FTM will decide on any appropriate training (if any) to be given prior to another Line Check. This subsequent Line Check may be conducted by the same TC. In the case of a Final Line Check, this subsequent Line Check will be conducted by MFT, FTM or a TC nominated by MFT/FTM.



### 3.3.5 COMMAND COURSE

#### 3.3.5.1 UNSUCCESSFUL COMPLETION OF COMMAND COURSE

In the event that a candidate does not complete the Command Course he will be required to be revalidated in the RHS. This revalidation will include a RHS Proficiency Check, including LVO renewal and 4 sectors LFUS followed by a 2 sector Line Check. If the candidate has a valid RHS Proficiency Check then at the discretion of MFT/FTM, the RHS Proficiency Check may be dispensed with and only the LFUS sectors and Line Check will be conducted.

#### DOCUMENTATION

A cover sheet listing the documentation requirements will be placed in the trainee's training folder.

#### RHS REVALIDATION

##### Contents:

- a. AT 05 Training Report (One Copy)
- b. AT 06 Line Training Sector Record

##### Documentation:

- AT 15a Complete LVO Record sheet with P2
- Pilot Licence Sign Aircraft Rating and Instrument Rating (if completed) Certificate of Test

Return completed folder to MFT office immediately after completion.



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## **4. DOCUMENTS**

### **4.1 ADMINISTRATION**

#### **4.1.1 CHECK & TRAINING RECORDS**

##### **4.1.1.1 GENERAL**

The Crew Planning Department are to keep a record of the expiry dates of all checks.

##### **4.1.1.2 DOCUMENTATION**

Dragonair maintains an electronic Training Records System (TRS) for filing and maintaining the required records of training events for each pilot.

Records of all pilot Recurrent Training, Testing and Courses that commenced after the 1<sup>st</sup> May, 2009 are contained in the TRS function in Crew Direct.

Records of all pilot Recurrent Training, Testing and Courses that commenced prior to the 1<sup>st</sup> May, 2009 are contained in paper files (regulatory requirements) and Electronic Reporting (descriptive reports) in the e-library.

Records of all pilot Recurrent Training, Testing and Courses that commenced prior to 1998 are contained in paper files.

The (TRS) is a computer database system which is backed up daily and stores all training records. The Dragonair Crew Control System generates duty codes which are used by TRS to generate appropriate training reports to the individual trainees 'Personal Training Profile'. This profile will store all previous reports and show which reports are scheduled.

Each Training Captain has a training 'To-Do List'. This shows which reports he must complete. Approved persons also may access reports and complete them. When a Training Captain or approved person submits a training report, Training Management has the right to sign-off or revoke the report. If the report is revoked it will be placed back into the 'To-Do List' for re-submission. During the submission and sign-off process the state of the report can be seen by the trainee in his training profile, but it will be only become accessible once it has been signed-off.

Some training reports are 'Self Certified' and will be placed in the trainee's training profile for completion.

Reports generated prior to TRS activation will be accessible through a button on the personal training profile page.

A hard copy of appropriate CAD documentation will be retained. All training records are to be held for at least two years.

Appropriate electronic records will show that MFT/FTM have certified that the trainee is competent to act either under supervision or in the designated capacity on public transport flights.

In the event of an unsuccessful training or checking activity that requires remedial training, a Remedial Report will be raised in TRS by the Flight Training Administration Executive (FTAE). This report details the actions required to retrain or reassess the candidate and tracks the progress of this remedial process. The report will be circulated to all fleet FTMs and MFT and will be retained in an 'Open' status until all remedial actions have been completed. The relevant fleet FTM is responsible for updating the report as actions are completed and for the rostering of remedial training. Once 'Closed' the report will be retained on the candidate's training record in TRS.

##### **4.1.1.3 FORMS AND HANDBOOKS**

Descriptions of all hard copy forms and handbooks are contained in Part D 4.2.2.2



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‘TRAINING AND CHECK DOCUMENTATION’.

Any amendments made to hardcopy forms after they are completed and returned to Administration must be ‘chopped’ and countersigned by MFT/FTM in the appropriate area to verify correct certification.





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## 4.2 TRAINING AND CHECK DOCUMENTATION

### 4.2.1 INTRODUCTION

#### 4.2.1.1 GENERAL

Dragonair maintains an electronic Training Records System (TRS) for Check and Training forms.

Hard copy paper forms are also used for training syllabi and short term record keeping purposes. ie Command Training discussion items and sector records.

Forms will be colour-coded green for the A330 and yellow for the A320. CAD forms are not aircraft type-specifically colour-coded.

Forms will be prefixed with AT and numerically numbered from 01 onwards e.g. AT 04. Where more than one form is required for a particular sequence it will be further numbered from '-1' onwards e.g. AT 14-1, AT 14-2.

Forms and Handbooks are available on Dragonet/Manuals/Part D/List of Forms

#### 4.2.1.2 COMPLETION OF FORMS

For DCA 528 and DCA 528 CCQ, each box will require completion in full. The STC is required to repeat his signature, licence number and date etc in each box with his full name in one box. Ditto marks are not acceptable.



## 4.2.2 DESCRIPTION

### 4.2.2.1 HKCAD FORMS

#### INSTRUMENT RATING RENEWAL – DCA 80

A CAD form used for the issue of an Instrument Rating Certificate of Test. The form is used for the initial issue of a Hong Kong Licence or for the initial issue of an A320/A330 Type Specific Instrument Rating.

#### INITIAL AIRCRAFT RATING – DCA 528

A CAD form used for the initial aircraft rating. Most items are completed in an approved simulator and the remainder in the aircraft. The individual simulator approval will determine which items can be completed in the simulator. Certain flying hour requirements may need to be met by trainees. A copy of the simulator approval document is held at each simulator for reference by the STC. The STC should check the guidance on completion of Form DCA 528 published on the Dragonet or with the MFT or relevant FTM if any doubt exists.

#### INITIAL AIRCRAFT RATING – DCA 528 CCQ

A CAD form used for the initial aircraft rating for pilots who are eligible for CCQ. All items are completed in the simulator.

#### CAD NOTICE OF FAILURE – DCA 529

This form is to be completed in the event that a candidate fails a Schedule 9 test. Copies of the form will be held at each simulator used by Dragonair or issued to STCs. The instructions for completion are given on the form.

### 4.2.2.2 DRAGONAIR FORMS AND COURSE HANDBOOKS

#### FORMS

##### AT 05 Training Report

This form is used to record the day to day progress of all LFUS. It is used to record the details of the current training phase in order to allow the next TC to assess the progress of the trainee.

##### AT 06 LFUS Sector Record

This record is to be completed for any period of LFUS for pilots.

##### AT 07L/P/C/CL Line/Command Training Checklist

These forms are to be used during all phases of Line/Command Training not covered by a LFUS booklet, as a guide to the TC of topics to be discussed and practiced.

##### AT 09 Aircraft Base Training Record

The form is used to record details of training conducted in an aircraft. It is to be completed by the Safety Pilot during base training.

##### AT 10 LHS Conversion Syllabus

These forms detail the required syllabus for LHS conversion training and evaluation.

##### AT 11/11a Trainee Check List

This form is used as an administrative reference for all pilots completing a type-training course. Once the annual line check is completed it is filed on the individuals open training file.



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**AT 13/13a Recurrent Training**

This form details the syllabus for Proficiency Checks and Recurrent Training, including all mandatory and recommend items to be completed over the 3 year cycle.

**AT 15 Aircraft LVO Rating**

This form is used to record the completion of the LVO training and evaluation session in the simulator. Thereafter it is used to record completion of recurrent LVO training and to record practice or actual LVO approaches in the aircraft.

**AT 16 Simulator Evaluation (DCA 528/IR/PC)**

These forms detail the syllabus for simulator evaluation and training for the completion of the simulator-approved DCA 528 items or all DCA 528 CCQ items, initial PC and Instrument Rating following a full Conversion, CCQ or Refresher training course. They also detail the syllabus for the simulator PC requirements following a Revalidation course.

**AT 17 Instructor Pilot Training**

This form details the syllabus for the training of Training Captains.

**AT 19 Flare And Approach Recovery Training**

This form details the syllabus for the training of Flare and Approach Recovery for new Captains.

**AT 20 TRI/IRE Record Of Base Training Details**

This form is used as a record for BTCs to self monitor Aircraft Base Training / ZFT recency.

**AT 21 KATHMANDU Simulator Programme**

This form details the syllabus for Category C airport training for Kathmandu Airport.

**AT 22 BUSAN Simulator Programme**

This form details the syllabus for Category C airport training for Busan Airport.

**AT 23 Basic JET Handling Course Syllabus**

This form details the syllabus for the Basic Jet Handling Course.

**AT 24 SO/JFO Upgrade Simulator Programme**

This form is used when upgrading SOs and JFOs to the next higher rank. The training focuses on crosswind handling for limit upgrades.

**AT 25 D4 Simulator Programme**

This form details the programme to be followed for the D4 simulator which occurs prior to a new pilot's second PC.

**COURSE HANDBOOKS**

Dragonair course handbooks will be issued to a candidate prior to the start of a training course. The handbook contains all relevant documentation, including AT forms, for the specified course.

**A330 – A320 CCQ HANDBOOK**

**A320 – A330 CCQ HANDBOOK**

**COMMAND HANDBOOK**

To be issued



A330-A320 COMMAND CCQ HANDBOOK

A320-A330 COMMAND CCQ HANDBOOK

To be issued

COMMAND REVALIDATION HANDBOOK

To be issued

S/O CONVERSION HANDBOOK

CAPTAIN / FO CONVERSION HANDBOOK

REVALIDATION HANDBOOK

To be issued

REFRESHER HANDBOOK

To be issued



#### 4.2.3 DOCUMENTATION VALIDITY

FORMS			
DCA80	Feb 96	AT11	Jan 09
DCA528-A320	Jan 12	AT11a	Aug 10
DCA528 SCVT-A320	Jan 12	AT13	Mar 09
DCA528 CCQ-A320	Jan 12	AT13A	Nov 07
DCA528-A330	Jan 12	AT15	Dec 09
DCA528 SCVT-A330	Jan 12	AT15a	Mar 07
DCA528 CCQ-A330	Jan 12	AT16-1	Jul 11
DCA529	Aug 94	AT16-2	Jul 11
AT05	Nov 10	AT16-5	Feb 12
AT06	Nov 10	AT16-8	Jul 11
AT07L	Nov 10	AT16-9	Jul 11
AT07P	Nov 10	AT16-11	May 10
AT07C	May 10	AT17	May 10
AT07CL	Nov 10	AT19	May 10
AT09	Sep 08 (rev02)	AT20	May 07
AT10-1	May 10	AT21	Jul 11
AT10-2	Oct 07	AT22	Mar 12
AT10-3	May 10	AT23-1	Dec 09
AT10-4	May 10	AT23-2	Dec 09
AT10-5	Dec 10	AT24A	Nov 10
AT10-6	Nov 10	AT24B	Nov 10
AT10-7	May 10	AT25	Nov 10
AT10-8	May 10		

COURSE HANDBOOKS			
A330 – A320 CCQ	Oct 11 (rev03)		
A320 – A330 CCQ	Oct 11 (rev04)	COMMAND REVALIDATION	tbd
A320 COMMAND	tbd		
A330 COMMAND	tbd		
A330 - A320 COMMAND CCQ	Jan 12 (rev02)	CAPTAIN / FO CONVERSION	Mar 12 (rev04)
A320 - A330 COMMAND CCQ	tbd	REVALIDATION	tbd
S/O CONVERSION	Oct 11 (rev03)	REFRESHER	tbd



## 4.3 E - LIBRARY

### 4.3.1 POLICY & PROCEDURES

#### 4.3.1.1 DESCRIPTION

The Flight Crew Training Department (FCTD) E-Library consists of an electronic document repository with controlled access, located in Cathay City.

All data is backed up daily on the Corporate Oracle Server, the backup copies are held for 42 days.

#### 4.3.1.2 CONTENTS, OVERSIGHT, UPDATES, AND AUDITS

##### Contents

The E-Library contains all business-critical FCTD folders and data, including training course syllabi, footprints, examinations, records, trend analysis, and other essential training administration Information.

##### Oversight and Updates

MFT or Deputy is responsible for management oversight of the E-Library, and updating process.

##### Audits

The DELIVERY and EXAMS Folders (under ACTIVE) contains the CAD-approved data, and is subject to regular CAD Audit.

#### 4.3.1.3 SUB-LIBRARIES AND FOLDERS

##### Sub-Libraries

The E-Library consists of four logically separated Folders listed below, which are housed in two separate sub-libraries; ACTIVE and DEVELOPMENT.

##### Folders

Access to each of the following four Folders is controlled by password, which determines user's credentials and access level:

##### DEVELOPMENT FOLDER

###### a. MAIN DEVEL & EXAM DEVEL Folders

Prohibited for normal training operations, the MAIN DEVEL and EXAM DEVEL folders are used by approved persons to add and accumulate updates to training media and courses for approval by CAD.

For continuity of approvals and training delivery, course footprints and syllabi should remain as consistent as possible throughout an AOC audit year. Once sufficient amendments have accumulated on the MAIN DEVEL Folder, or EXAM DEVEL Folder, or if any major reductions or changes to course or recurrent syllabi occur, CAD Approval must be sought before updating changes to ACTIVE / DELIVERY or EXAMS Folders. Any changes ready for submission to CAD must be first approved by MFT or Deputy for onward transmission to CAD.

###### b. ACTIVE FOLDER

i. **ADMIN:** Accessed by authorised persons. This Folder contains two sub-folders, CONFIDENTIAL ADMIN, and OPERATING ADMIN, containing administrative and historical data such as pilot reports, trend analysis, forms, and licensing records, and is subject to special 42 day back-up off-site daily.

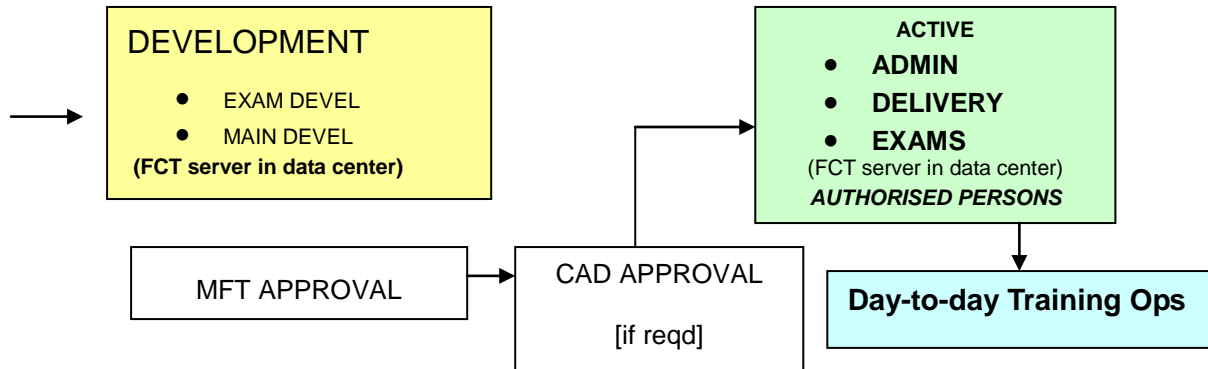
ii. **DELIVERY:** Accessed by authorized persons, (including Hong Kong Civil Aviation Department as Read only on VPN). This Folder contains the day-to-day data required for Training, including AOC approved course footprints,



syllabi, examination materials, and lesson plans updated from the DEVELOPMENT / MAIN DEVEL.

- iii. **EXAMS:** Accessed by authorized persons, (including Hong Kong Civil Aviation Department as Read only on VPN). This Folder contains AOC approved Examinations updated from the DEVELOPMENT / EXAM DEVEL.

#### 4.3.1.4 PROCESS FLOW DIAGRAM



#### 4.3.1.5 E-LIBRARY ACCESS AND PERMISSIONS

Hard copy

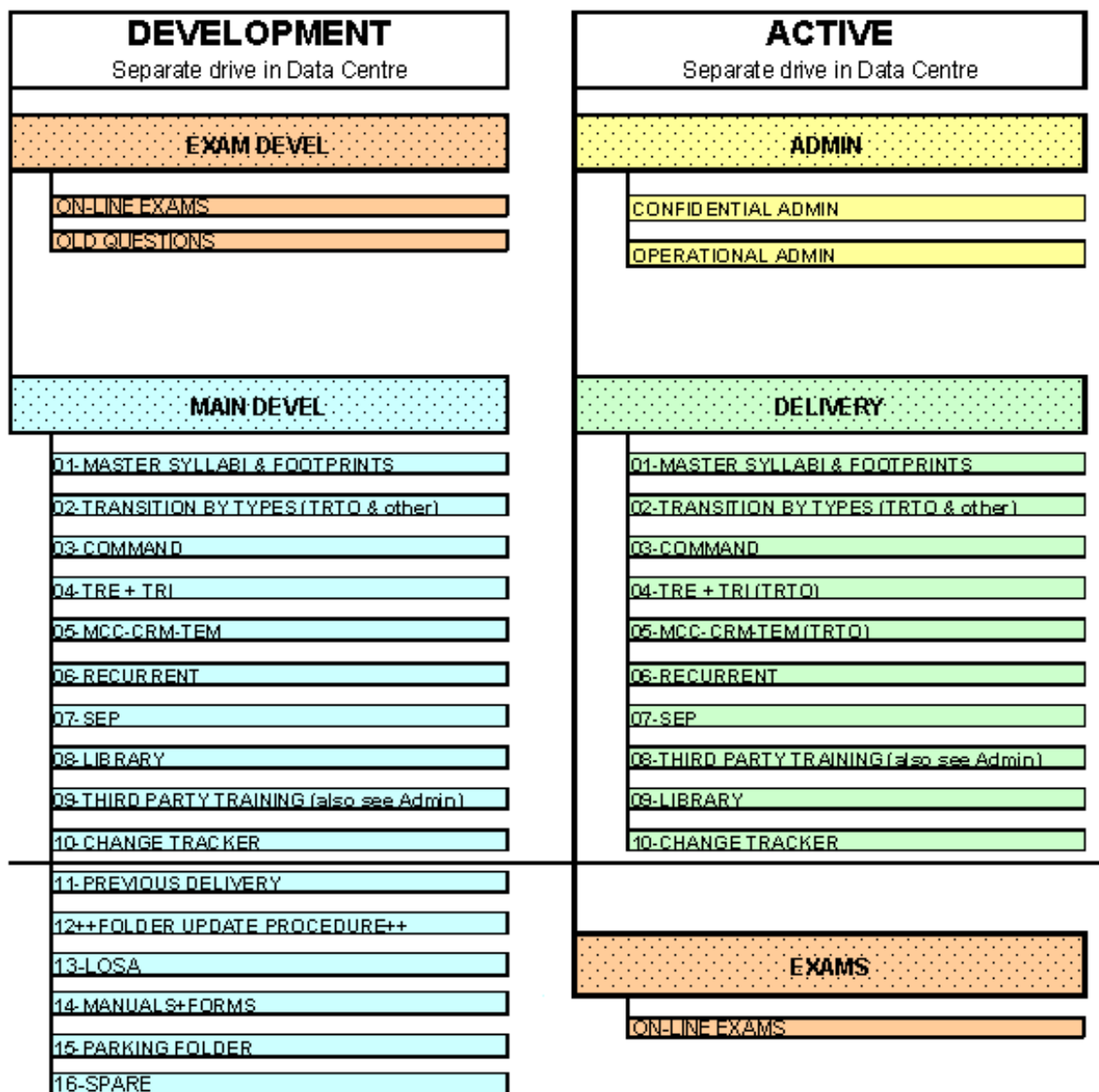
Approved users may obtain print-outs of course data from the ACTIVE FOLDER.

Examination Data

Examination Delivery data is located only in the ACTIVE / EXAMS Folders. As part of the ACTIVE Folder, this data is backed up to archive off-site. When required for examinations, this data may only be accessed from the EXAMS folder only by Authorised Persons with MFT or Deputy approval.



#### 4.3.1.6 TRAINING DEPARTMENT E-LIBRARY FOLDER STRUCTURE







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#### 4.3.1.7 CONTROL AND BACK UP

##### **Control**

Manager Ground Training is nominated as responsible for access control and user administration of the E-Library. Approval is required from MFT or Deputy, before submission of changes to IMD.

##### **Back-up schedule**

Both DEVELOPMENT and ACTIVE Folders are protected from disk failure by RAID technology. The contents of the E-Library are backed up as follows:

- a. DEVELOPMENT - backed up daily onto a local backup tape sent to and stored in a secure location off-site.
- b. ACTIVE - backed up onto a backup / archive tape sent to and stored in a secure location off-site. The Archive Back-up is long term, (5 years) and will be completed whenever the ACTIVE Folder is updated. Additionally, the ADMINISTRATIVE Folder only is backed up daily for a rolling data retention period of 42 days.

#### 4.3.1.8 USER GROUPS

Access and Permissions to the E-Library data are regularly updated, and held by the Administration Team, under the oversight of MFT, in the E-Library Administration Folder.



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