

CIVIL AVIATION AUTHORITY OF VIET NAM

ADVISORY CIRCULAR AC 14-002

ACCEPTABLE FLIGHT DISPATCHERS TRAINING AND APPROVAL

SECTION 1 GENERAL

1.1 PURPOSE

This Advisory Circular (AC) provides general guidance to the AOC holders and ATO organizations regarding the policies that apply to the Flight Dispatcher training manual that acceptable to CAAV.

1.2 STATUS OF THIS ADVISORY CIRCULAR

This is an original issuance of this AC.

1.3 BACKGROUND

The training and qualification of the AOC holders employees are critical to the safety of flight operations. Ensuring that the content of the flight dispatcher training program complies with the applicable regulations, relevant safety standards and the approved procedures is critical to these operations.

Dispatcher Training Program applies and is designed to be comprehensive in content, yet flexible in the presentation. This training program incorporates the regulatory requirements of VAR 07, VAR 14 to qualify individuals as AOC Holder's Flight Dispatcher and to maintain qualification in that position.

1.4 APPLICABILITY

This AC applies to both Vietnam AOC holders and the service providers they may use to administer their approved training.

1.5 RELATED REGULATIONS

The following regulations are directly applicable to the guidance contained in this advisory circular

- a) VAR Part 7, Aviation Personnel License
- b) VAR Part 14, AOC Personnel Qualification
- c) VAR Part 16, AOC Operation Control
- d) AC 07-018, Skill Test Standards: Flight Dispatcher

1.6 RELATED PUBLICATIONS

For further information on this topic, individuals, instructors and examiners are invited to consult the following publications

- 1) International Civil Aviation Organization (ICAO)
 - ICAO Annex 1- Personnel Licensing
 - ICAO Doc. 7192-Part D-3

- ICAO Annex 6- Operations of Aircraft, Parts 1 & 3 International Commercial Air Transport
- Document 8335, Manual for Operations Certification
- Document 9941, Competency Based Training Methodology
- Document 9995, Manual of Evidence-Based Training
- 2) Federation Aviation Administration (FAA)

FAA-S-8081-10D - AIRCRAFT DISPATCHER - Practical Test Standards – May 2013, Change 3 Aug 2018.

1.7 DEFINITIONS & ACRONYMS

A. The following definitions are used in this advisory circular

- 1) Approval.
- a) **Final Approval.** A CAAV letter without an expiration date that authorizes an operator to continue training in accordance with a specific curriculum or curriculum segment.
- b) **Interim Approval.** A CAAV letter that conditionally authorizes an operator to begin training under a specific curriculum or curriculum segment pending an evaluation of training effectiveness.
- 2) **Base Aircraft.** An aircraft identified by an AOC holder for use as a reference to compare differences with another aircraft.
- 3) **Categories of Training.** A classification of training based on the previous qualification of the flight dispatcher. The categories of training are:
 - a) Initial Training
 - Basic Knowledge
 - Applied Practical Training
 - b) Aircraft Type Training/Initial Equipment/Procedures
 - c) Aircraft Differences Training
 - d) Operator Specific Procedure Training
 - e) Recurrent
 - f) Requalification/Refresher Training
- 4) **Checking and Qualification Modules**. An integral part of a qualification curriculum segment, which contains checking and qualification requirements specified under Part 14.
 - a) For example, a qualification curriculum segment may contain a competency check module, a consolidation of knowledge and skills module.
 - 5) **Courseware.** Instructional material developed for each curriculum.
 - a) This is information in lesson plans, instructor guides, computer software programs, audiovisual programs, workbooks, aircraft operating manuals, and handouts.
 - b) Courseware must accurately reflect curriculum requirements, be effectively organized, and properly integrate with instructional delivery methods.
- 6) **Currency.** The experience necessary, within a specified period of time, for the safe operation of aircraft, equipment, and systems. Currency may include but is not limited to, recent experience.
- 7) **Curriculum.** A complete training agenda specific to an aircraft type, duty position and a category of training.
 - a) An example is an "FD Initial New Hire" curriculum.

- 8) **Curriculum Segment.** The largest subdivision of a curriculum containing broadly related training subjects and activities based on regulatory requirements.
 - a) Curriculum segments are logical subdivisions of a curriculum, which can be separately evaluated and individually approved.
 - b) Examples are a basic knowledge training segment and an applied practical training segment.
 - c) Each curriculum segment consists of one or more training modules.
 - 9) **Duty Position.** The functional or operating position of a flight dispatcher under Part 10, 12 or 23
- 10) **Element.** An integral, subject-oriented (not task-oriented) part of the training, checking, or qualification module.
 - a) For example, an electrical power ground training module may include such elements as a direct current (DC) power system, an alternating current (AC) power system, and circuit protection.
- 11) **Eligibility Period.** Three calendar-months (the calendar-month before the training/checking month, the training/checking month, and the calendar month after the training/ checking month).
 - a) During this period, a flight dispatcher must satisfactorily complete the required recurrent training, competency check to remain in qualified status.
 - b) Training or checking completed during the eligibility period is considered to be completed during the training/checking month.
- 12) **Event.** An integral, task-oriented part of the training, checking, or qualification module that requires the use of a specific procedure or procedures.
 - a) A training event provides a student with an opportunity for instruction, demonstration, and/or practice using specific procedures.
 - b) A checking or qualification event provides an evaluator the opportunity to evaluate student's stability to correctly accomplish a specific task without instruction or supervision.
- 13) **Initial Equipment/Procedures Training**. The training required for flight dispatchers when the operator is introducing new equipment or procedures as these are related to the particular variant of aircraft and the duty position of the employee.
 - 14) **Instructional Delivery Methods.** Methodology for conveying information to a student.
 - a) This may include lectures, demonstrations, audiovisual presentations, programmed and directed self-study workshops, and drills.
 - b) Ground training devices (GTD), flight simulation training devices (FSTD), aircraft, and computer workstations are also considered instructional delivery methods.
- 15) **Modular Training.** The concept of program development in which logical subdivisions of training programs are developed, reviewed, approved, and modified as individual units.
 - a) The same curriculum segments and modules may be used in multiple curricula.
 - b) The modular approach allows great flexibility in program development and reduces the administrative workload on both operators and instructors in the development and approval of these programs.
- 16) **New Hire.** This term is used to differentiate between the initial qualification curriculum requirements that will be required for a newly employed flight dispatcher. There are two general types of new hire employees.
 - a) New Hire: without Previous Aviation Experience
 - b) New Hire: with Previous Aviation Experience

- 17) **Programmed hours.** Each curriculum and curriculum segment must include the programmed hours that the AOC holder will apply to the training.
- 18) **Requalification Training**. The training required for crew members or flight dispatchers previously trained and qualified, but who have become unqualified due to not having met within the required period the applicable recurrent training requirements of Part 14, Subpart H or the proficiency or competency check requirements of Part 14, Subpart E.
- 19) **Specialized Operations Training**. The training required for flight dispatchers for operations identified by the CAAV as "specialized" related to the particular variant of aircraft and the duty position of the employee.
- 20) **Testing and Checking.** Methods for evaluating students as they demonstrate a required level of knowledge in a subject and, when appropriate, apply the knowledge and skills learned in instructional situations to practical situations.
- 21) **Training hours.** The total amount of time necessary to complete the training required by a curriculum segment. This must provide an opportunity for instruction, demonstration, practice, and testing (as appropriate).
 - a) This time must be specified in hours on the curriculum segment outline.
 - b) A training hour includes time for normal breaks, usually 10 minutes each hour. Lunch breaks are not included.
- 22) **Training Module.** A subpart of a curriculum segment that constitutes a logical, self-contained unit.

For example, a ground training curriculum segment could logically be divided into modules pertaining to aircraft systems (such as hydraulic, pneumatic, and electrical).

- 23) **Training Program.** A system of instruction that includes curricula, facilities, FSTDs, training equipment, instructors, and DFDEs, courseware, instructional delivery methods, and testing and checking procedures.
 - a) This system must satisfy the training program requirements of Part 12 and ensure that each person remains adequately trained for each aircraft, duty position, and kind of operation in which the person serves.
- 24) **Training/Checking Month (Base month)**. The calendar-month during which a flight dispatcher is due to receive
 - a) Required recurrent training,
 - b) A required competency check
- 25) **Type Certificate** (**TC**). An aircraft type includes all aircraft that are similar in design produced under a single TC issued by the State of Design

B. The following acronyms are used in this advisory circular

- 1) \mathbf{AC} = Advisory Circular
- 2) **AOC** = Air Operator Certificate
- 3) **ATO** = Approved Training Organization
- 4) **CAAV** = Civil Aviation Authority of Vietnam
- 5) DFDE = Designated Flight Dispatcher Examiner
- 6) **FD** = Flight Dispatcher/ Flight Operations Officer
- 7) **FSSD** = Flight Safety Standards Department
- 8) **PIC** = Pilot in Command
- 9) **SIC** = Second in Command (Co-Pilot)
- 10) **TOC** = Table of Contents

11) **VAR** = Vietnam Aviation Regulations

SECTION 2 REQUIREMENTS OF ISSUE OF APPROVAL FLIGHT DISPATCHERS LICENCE

2.1. GENERAL

No operator shall use any person nor shall any person serve as a flight dispatcher unless that person has been approved by the CAAV to act as Flight Dispatcher for the type of aircraft for the operator.

2.2. EDUCATIONAL QUALIFICATION

The applicant for Flight Dispatcher shall have passed class 12 of High school or an equivalent examination with Physics and Mathematics from a recognized Board/University.

2.3. AGE

The applicant shall be not less than 21 years of age.

2.4. KNOWLEDGE

The applicant shall have demonstrated a level of knowledge appropriate to the privileges granted to the holder of a flight dispatcher approval, in at least the following subjects:

Air law

a) Rules and regulations relevant to the holder of a flight dispatcher approval; appropriate air traffic services practices and procedures;

Aircraft General Knowledge

- b) Principles of operation of aircraft engines, systems and instruments;
- c) Operating limitations of aircrafts and engines;
- d) Minimum equipment list;

Flight performance calculation, planning procedures and loading

e) Effects of loading and mass distribution on aircraft performance and Flight characteristics; mass and balance calculations;

Operational flight planning; fuel consumption and endurance calculations; alternate aerodrome selection procedures; en-route cruise control; extended range operation;

- f) Preparation and filing of air traffic services flight plans;
- g) Basic principles of computer-assisted planning systems;

Human Factor

h) Human performance relevant to dispatch duties, including principles of threat and error management;

Note — Guidance material to design training programmers on human performance, including threat and error management, can be found in the Human Factors Training Manual (Doc 9683)

Meteorology

- i) Aeronautical meteorology; the movement of pressure systems; the structure of fronts, and the origin and characteristics of significant weather phenomena which affect takeoff, en-route and landing conditions;
- j) Interpretation and application of aeronautical meteorological reports, charts and forecasts; codes and abbreviations; use of, and procedures for obtaining meteorological information;

Navigation

k) Principles of air navigation with particular reference to instrument flight operational procedures;

Dispatcher Procedure

- 1) Use of aeronautical documentation;
- m) Operational procedures for the carriage of freight and dangerous goods;
- n) Procedures relating to aircraft accidents and incidents; emergency flight procedures;
- o) Procedures relating to unlawful interference and sabotage of aircraft;

Principles of flight

p) Principles of flight relating to the appropriate category of aircraft;

Communication

- q) Radio communication;
- r) Procedures for communicating with aircraft and relevant ground stations.

2.5. EXPERIENCE

The applicant shall have gained the following experience:

- a) A total of two years of service in any one or in any combination of the capacities specified in 1) to 4) inclusive, provided that in any combination of experience the period serviced in any capacity shall be at least one year:
 - 1) A flight crew member in air transportation; or
 - 2) A meteorologist in an organization dispatching aircraft in air transportation; or
 - 3) An air traffic controller; or a technical supervisor of flight operations officer or air transportation flight operation systems; or
 - 4) A Pilot holding a valid CPL/ATPL or pilot whose CPL/ATPL has not expired for more than three years on the date of application for approval as Dispatcher, shall only be required to qualify in Technical Specific Examination (including Performance) conducted by CAAV / CAAV Approved Training Organization /ATRP (Airlines having Approved Type Rating Program) on the Aircraft Type the candidate desires to obtain Flight Dispatcher's Approval;
 - b) Have satisfactorily completed a course of approved training; or
 - c) At least one year as an assistant in the dispatching of air transport;

The applicant shall have served under the supervision of a qualification flight dispatcher at least 90 working days within the six months immediately preceding the application.

2.6. SKILL

Skill Requirements. An applicant for a Flight Dispatcher License must pass a Flight Dispatcher Oral/Skill Test given by the CAAV (or his/her designee). The Flight Dispatcher Practical Test, AC 07-018 will be based on any one type of large aircraft used in air carrier operations. The oral/skill test will be based on the current edition of the Flight Dispatcher Practical Test Standards (PTS). The CAAV publishes the Flight Dispatcher PTS, which is based on the requirements of part 07 appendix 1 to 7.399.

The applicant shall have demonstrated the ability to:

a) Make an accurate and operationally acceptable weather analysis from a series of daily weather maps and weather reports; provide an operationally valid briefing on weather conditions prevailing in the general neighborhood of a specific air route; forecast weather trends pertinent to air transportation with particular reference to destination and alternates;

- b) Determine the optimum flight path for a given segment, and create accurate manual and/or computer-generated flight plans;
- c) Provide operating supervision and all other assistance to a flight in actual or simulated adverse weather conditions, as appropriate to the duties of the holder of a flight dispatcher approval; and
 - d) Recognize and manage threats and errors.

Note - Guidance material on the application of threat and error management is found in the Procedures for Air Navigation Services - Training (Doc 9868, PANS-TRG), Chapter 3, Attachment C, and in Part II, Chapter 2, of the Human Factors Training Manual (Doc 9683).

2.7. FLIGHT DISPATCHER QUALIFICATION

A flight operations officer/flight dispatcher shall not be assigned to duty unless that person has:

- a) Satisfactorily completed an operator-specific training course that addresses all the specific components of its approved method of control and supervision of flight operations;
- b) Carried out within the preceding 12 months, before that service, that person has observed, on the flight deck, the conduct a minimum of two complete flights over routes representative of those for which that person is authorized to exercise the privileges of a Flight Dispatcher;

Note - For the purpose of the observation flight, the flight operations officer/flight dispatcher must be able to monitor the flight crew intercommunication system and radio communications, and be able to observe the actions of the flight crew.

- c) Demonstrated to the operator knowledge of:
 - The contents of the operations manual;
 - The radio equipment in the aircraft used;
 - The navigation equipment in the aircraft used;
- d) Demonstrated to the operator a knowledge of the following details concerning operations for which the dispatcher is responsible and areas in which that individual is authorized to exercise flight supervision:
 - The seasonal meteorological conditions and the sources of meteorological information:
 - The effects of meteorological conditions on radio reception in the aircraft used;
 - The peculiarities and limitations of each navigation system issued by the operation; and
 - The aircraft loading instructions;
 - Demonstrated to the operator knowledge and skills related to human performance relevant to dispatch duties; and
 - Demonstrated to the operator the ability to perform the duties.

SECTION 3 FLIGHT DISPATCHER TRAINING PROGRAMME

3.1. THE TRAINING PROGRAM

The training program for Flight Dispatchers will be documented in Operations Manual Part D and approved by FSSD, CAAV and shall comprise of the following curriculum. The maximum training hours per day shall be 8 hours.

- a) Initial Training
 - Basic Knowledge
 - Applied Practical Training

- b) Aircraft Type Training/Initial Equipment/Procedures
- c) Aircraft Differences Training
- d) Operator Specific procedure training
- e) Recurrent
- f) Requalification/Refresher Training

Note: For assessment purposes, the pass percentage for all training shall be 75%. (Except DGR & Security Training is 80%)

3.2. TRAINING CURRICULUM

- a) Each training curriculum shall include a practical demonstration as applicable;
- b) Each training curriculum shall cover the differences between aircraft of the same type operated by the airline/operator to ensure that the Flight Dispatchers are adequately trained to perform their assigned duties on different aircraft being operated.

3.3. INITIAL TRAINING

Initial training shall consist of basic knowledge training and applied practical training. Initial training is required for the persons who have not been previously approved/carried out flight dispatch duties during the preceding 5 years. The goal of initial training is to ensure that each trainee acquires the competencies, knowledge and skills required to perform the duties and responsibilities related to a flight dispatcher. The training shall be conducted as per Appendix 1. Flight dispatchers holding current approval from an ICAO Contracting State with verification of training, approval and experience from the Contracting State may be given a credit of OJT for up to 8 weeks (Phase Two of Appendix 1) depending on the training undergone in the Contracting State.

3.4. AIRCRAFT TYPE TRAINING/INITIAL EQUIPMENT/PROCEDURES

Type training is required to gain qualification on the aircraft model and its variants that the flight dispatcher will be assigned on. However, for the addition of aircraft type to the flight dispatcher approval, as a minimum Appendix 3 will be conducted.

Initial Equipment/Procedures Training required for flight dispatchers when the operator is introducing new equipment or procedures as these are related to the particular variant of aircraft and the duty position of the employee.

3.5 AIRCRAFT DIFFERENCES TRAINING

The training required for dispatchers who have qualified and served on a particular type aircraft when the CAAV finds differences training is necessary before a dispatcher serves in the same capacity on a particular variation of that aircraft.

The duration of differences training shall depend upon the degree of differences between the different variants of aircraft of the same type used by the operator. Differences training for variants of a particular type of aircraft may be included in initial, transition, and recurrent training for the aircraft.

3.6. OPERATOR SPECIFIC PROCEDURE TRAINING

Training for flight dispatchers who are qualified on the aircraft type, but from a different operator. This will consist of operator indoctrination course with minimum duration of 32 hours covering the operations manual and human factors (DRM/CRM). Additionally, applicable recurrent training as per paragraph 3.7 below shall be carried out prior to application for flight dispatcher approval with the new operator.

3.7. RECURRENT TRAINING

Recurrent training is conducted annually to ensure the maintenance of competencies, knowledge and skills through a series of theoretical training, hands-on exercises, simulated exercises, written exams, etc. relevant to each aircraft type on which the flight dispatcher will be assigned duties. This shall be complied with VAR 14.125 and documented in Operations Manual Part D (FOTM).

3.8 ANNUALLY COMPENTENCY CHECK

No person may serve nor may any person use a person as a flight dispatcher unless, since the beginning of the 12th calendar month before that service, that person has passed the competency check, prescribed by the CAAV in Appendix 1 to 14.087, performing the flight preparation and subsequent duties appropriate to that person's assignment.

3.8. REFRESHER /REQUALIFICATION TRAINING

a) An operator shall ensure that each flight dispatcher who has not carried out any flight dispatch duties from 3 up to 24 months completes extended recurrent training and the minimum number of days of on-job-training (OJT) under an approved flight dispatcher followed by observation flights prior to exercising privileges of the approval as per the table below:

Gap period	Extended Recurrent Training	OJT	Observation Flight (Aircraft/simulator)
03-06 months	16 hours	01 day	NA
06-09 months	24 hours	02 days	NA
09-12 months	36 hours	03 days	One sector
12-24 months	72 hours *	30 days	Four sectors
More than 24 months		Complete Initial Flight Dispatcher Training	

^{*} Included initial aircraft type specific ground training

b) For re-qualification of a dispatcher on a type of aircraft after a gap of 12 months, if Flight dispatcher having multiple approvals on the different type of Aircraft but current on a specific types of Aircraft, would require to do type training only on aircraft having a gap and no other practical training required.

3.9. TRAINING FACILITIES

a) Facilities and equipment for classroom-based training

1) General.

Whenever the operator utilizes training facilities an approval from the CAAV shall be obtained for the facility and equipment utilized for training/maintenance before commencing the training. Training may include the use of, video presentations; computer-based training, e-learning and other types of training.

2) Classroom facilities

The space for each adult in a classroom will be from 1.4m2 to 6.7m2. Each trainee's workspace should include space to house trainee's work surface, any additional equipment, the chair, space for chair pushback and maneuverability.

3) The learning environment.

It will be ensured that the temperature should be comfortable, ventilation should be adequate, lighting should adequate and training equipment should be adequate.

4) Use of instructional aids.

Instructional aids may include the use of computer-based training (CBT), e-learning in which case, this should be supported by instructors.

b) Trainee to instructor ratio

The ratio of trainees per instructor is taken into account when planning the classroom size. In order to provide for sufficient supervision and control, a ratio of one instructor for every 15 trainees and 2 instructors for every 25 trainees is recommended.

c) Instructional personnel

Modules and topics concerning aircraft technical and performance shall be conducted by approved ground instructors. Human factors (CRM/DRM) shall be conducted by facilitators authorized by the CAAV. Topics concerning meteorology, legislation, may be conducted by subject matter experts (SMEs) authorized by the post-holder training. Flight dispatch functions shall be instructed by the approved Flight Dispatch Instructor. OJT may be conducted under an approved flight dispatcher authorized by the post-holder training.

3.10. EXAMINATION/TEST FOR FLIGHT DISPATCHERS

To demonstrate his competency, a Flight Dispatcher should undergo the following tests/examinations:

a) Knowledge Test/Examination

Each Flight Dispatcher trainee after having undergone the prescribed initial training (basic knowledge) shall appear in a written examination conducted by CAAV (FSSD Central Examination) / CAAV Approved Training Organization. The examination shall consist of:

- 1) General subjects, refer appendix 4 for Examination syllabus;
- 2) Specific on type of aircraft.

Note: General subject test are exempted for a pilot holding a valid CPL/ATPL or pilot's whose CPL/ATPL has not expired for more than three years on the date of application for approval as Dispatcher, shall only be required to qualify in Technical Specific Examination (including Performance) conducted by CAAV/ CAAV Approved ATO on the Aircraft Type the candidate desires to obtain Flight Dispatcher's Approval.

b) Skill/Oral Test

The flight dispatch trainee must complete the practical test within 24 months from the date of the declaration of result of the written examination.

Each Flight Dispatcher trainee after having undergone the prescribed applied practical training within six months shall appear in an oral/skill test to demonstrate their proficiency to a Board at FSSD - CAAV which shall include the post-holder training or his nominee who shall be a Flight Dispatcher on type with managerial responsibility and position or a Flight Dispatch Instructor.

c) In case of failure in Test as per b,

- 1) In the event of a failure in the first attempt, the candidate can re-appear for the same after a minimum period of 30 days.
- 2) In the event of a failure in the second attempt, the candidate can re-appear after a minimum period of three months.
- 3) Any subsequent failure, the candidate can re-appear after a minimum period of six months.

Note1: Operator to provide corrective training for failure.

Note 2: The period as in c) shall be counted from the date of the oral examination.

3.11 FLIGHT DISPATCH INSTRUCTOR REQUIREMENT

A. CAAV will issue of a flight dispatcher instructor qualification (e.g. certificate or authorization), all candidates should hold a flight dispatcher qualification, for which the privilege to instruct is being sought. Approval shall be issued for 3 years by the CAAV.

B. Operational Experience

- 1) Work Experience: Shall have at least 5 years of uninterrupted and active experience as a flight dispatcher.
- 2) Fleet Experience: Fleet Experience (type rating) of each aircraft or successfully complete an approved type course of each aircraft type for which the instructional privilege is sought.
- 3) Qualified and authorized instructors may be assigned to carry out the instruction to determine that all required performance standards have been satisfactorily achieved. The instructor qualifications should be in accordance with VAR 14.133 (d). Prior to an organization authorizing the provision of instruction within competency training environments, instructors should undergo a selection process designed to assess that the individual's knowledge, capability and competency are suitable for the instructor's role and to determine the person's motivation. In addition, the selection of an instructor should be based on criteria intended to define a proven capability in the subject for which he/she expects to instruct.

3.11 FLIGHT DISPATCH INSTRUCTOR TRAINING

The Training program for the instructor role should focus on the development of the competencies listed in Appendix 2. The competency framework consists of competency units, competency elements, and performance criteria. The competency framework for instructors of flight dispatcher should be based on the following competency units:

- 1) Manage the safety of the training environment;
- 2) Prepare the training environment;
- 3) Manage and support the trainee;
- 4) Conduct training;
- 5) Perform a trainee assessment;
- 6) Perform course evaluation; and
- 7) Continuously improve performance.

NOTE. - The operator or training organization may administer an online course evaluation, rather than tasking the instructor with performing it.

- Prior to the issue of an instructor qualification, all candidates should successfully complete a formal competency assessment in the role, during the conduct of practical training. The final assessment of instructor competence should be made against the competency framework contained in Appendix 2 to this chapter.
- All instructors should receive recurrent training/workshop annually, and be reassessed according to paragraph A in twenty-four months using a documented training and assessment process acceptable to the CAAV, implemented by the operator or training organization, or at intervals in accordance with national regulations.

Appendix 1 INITIAL TRAINING

Phase One - Basic Knowledge

Module	Subject Matter	Trainees without Previous Aviation Experience (duration in hours)	Trainees with Previous Aviation Experience (duration in hours)
1.	Civil air law and regulation	30	18
2.	Aviation indoctrination	12	6
3.	Aircraft mass (weight) and performance	27	15
4.	Navigation	24	12
5.	Air traffic management	39	21
6.	Meteorology	42	21
7.	Mass (weight) and balance control	27	15
8.	Transport of dangerous goods by air	9	9
9.	Flight planning	18	9
10.	Flight monitoring	16	16
11.	Communication – Radio	18	6
12.	Human factors	15	15
13.	Security (emergencies and abnormal situations)	16	12
	TOTAL	293	166

Phase Two – Applied Practical Training

Module	Subject Matter	Duration
1	Applied practical flight operations	25 hours
2.	Route familiarization (Actual Aircraft)	25 hours
3.	Flight dispatch practices (OJT)	13 weeks (90 days)
4.	Simulator LOFT observation.	4 hours

Note 1: Loft (Module 4) may be conducted on Aircraft itself, in the absence of Simulator.

Note 2: Refer ICAO Doc 7192 Training Manual Flight Operations Officer/Flight Dispatchers Part D3

Appendix 2

FLIGHT DISPATCH INSTRUCTOR COMPETENCY FRAMEWORK

Thom Distance	II INSTRUCTOR COME ETENCT FRAMEWORK
Competency unit: 1. Manage	safety of the training environment
The instructor must ensure a sa of trainees in his/her care.	fe training environment at all times. The instructor must ensure the safety
Competency element	Performance criteria
Competency element	1.1.1 Ensure that equipment meets safety requirements
1.1 Ensure a safe training	1.1.2 Communicate evacuation and occupational, health and safety
environment	procedures of the training facility
en vironinent	1.1.3 Create an appropriate safe learning environment (e.g. facilities,
	simulator, etc.)
	1.1.4 Identify hazards and manage them (e.g. slippery floor)
Competency unit: 2. Prepare	the training environment
	quate facilities for performing the required training and possess or agree
	at prior to conducting any training. The instructor should consider the
following sub-elements as esse	
Competency element	Performance criteria
	2.1.1 Ensure the facilities are scheduled and adequate to meet the
2.1 Ensure adequate facilities	learning outcomes objectives 2.1.2 Ensure that the physical environment is suitable for learning
and equipment	2.1.2 Ensure that the physical environment is suitable for learning 2.1.3 Ensure environment and conditions exist for the training
	objectives
	2.1.4 Ensure that the training equipment is available, accessible and
	functional
	2.1.5 Follow approved training syllabus or checklists
Competency unit: 3. Manage	and support the trainee
The instructor should ensure th	at training is communicated appropriately to meet the needs of the
trainee.	
Competency element	Performance criteria
	3.1.1 Identify and demonstrate awareness of trainee characteristics
3.1 Understand trainee	(experience, language, culture)
	3.1.2 Determine learning needs
	3.1.3 Demonstrate awareness of learning styles
3.2 Coach trainee	3.2.1 Recognize and be flexible and supportive of trainee's performance and needs
	3.2.2 Maintain appropriate interaction with the trainee
Competency unit: 4. Conduct	
Competency unit: 4. Conduct	t t anning
The instructor must perform a	variety of instructional methods as required for the training.
Competency element	Performance criteria
Competency element	4.1.1 Demonstrate an exemplary role model's behavior (meaning the
	behaviors expected in the technical role being trained, according to the
4.1 Establish and maintain	competencies and related knowledge and skills)
credibility	4.1.2 Demonstrate respect for organizational goals and requirements
creationity	(SOPs, dress code, appearance, acceptable personal conduct, etc.)
	4.1.3 Clear objectives and clarify roles for the training or evaluation
	being undertaken
	4.1.4 Establish and maintain an atmosphere of open communication and
	mutual respect
	4.2.1 Stimulate and sustain trainee's interest
	4.2.2 Sequence and pace instruction appropriately
4.2 Demonstrate effective	4.2.3 Use his/her voice effectively
presentation skills	4.2.4 Use eye contact effectively
	4.2.5 Use gestures, silence, movement and training aids effectively
	4.2.6 Demonstrate an effective variety of questioning skills4.3.1 Communicate effectively both verbally and non-verbally
	4.5.1 Communicate effectively both verbany and non-verbany

	4.3.2 Listen actively and read non-verbal cues correctly and clarify, if necessary
4.3 Demonstrate effective instruction and facilitation	4.3.3 Ask appropriate questions to encourage learning or to confirm understanding
instruction and facilitation	4.3.4 Answer questions, correctly and adequately
	4.3.5 Generate content by questioning, redirecting, balancing
	participation, etc.
	4.3.6 Provide structure by confirming understanding, paraphrasing, summarizing, etc.
	4.3.7 Maintain a realistic approach in the conduct of the scenario
	4.3.8 Monitor comprehension and ensure proficiency
	4.4.1 Allocate time appropriately on activities
4.4 Manage time	4.4.2 Adjust time spent on activities to ensure that objectives are met
	4.4.3 Implement contingency plans for situations in which activities
Competency unit: 5. Perform	must be eliminated, reduced or replaced
	e trainee during instruction prior to a formal assessment by the examiner.
Competency element	Performance criteria
5.1 Conduct general	5.1.1 Monitor trainee's performance during instruction
assessment	5.1.2 Make objective assessments on trainee's performance 5.1.3 Provide understandable and actionable feedback to the trainee
	5.2.1 Identify issues, difficulties and barriers faced by trainee
5.2 Report information on	5.2.2 Make recommendations to the training manager and/or examiner
outcomes	relating the performance of trainee prior to a formal assessment, if
	applicable
Competency unit: 6. Perform	course evaluation
The instructor should evaluate	the effectiveness of the training system.
The instructor should evaluate Competency element	Performance criteria
Competency element 6.1 Evaluate the effectiveness	Performance criteria 6.1.1 Evaluate trainee's feedback on the training process
Competency element 6.1 Evaluate the effectiveness of a course or phase of a	Performance criteria 6.1.1 Evaluate trainee's feedback on the training process 6.1.2 Evaluate trainee's mastery of end-of-course objectives
Competency element 6.1 Evaluate the effectiveness	Performance criteria 6.1.1 Evaluate trainee's feedback on the training process 6.1.2 Evaluate trainee's mastery of end-of-course objectives 6.1.3 Evaluate the effect of facilities, equipment and training materials
Competency element 6.1 Evaluate the effectiveness of a course or phase of a	Performance criteria 6.1.1 Evaluate trainee's feedback on the training process 6.1.2 Evaluate trainee's mastery of end-of-course objectives 6.1.3 Evaluate the effect of facilities, equipment and training materials on trainee's performance
Competency element 6.1 Evaluate the effectiveness of a course or phase of a course	Performance criteria 6.1.1 Evaluate trainee's feedback on the training process 6.1.2 Evaluate trainee's mastery of end-of-course objectives 6.1.3 Evaluate the effect of facilities, equipment and training materials on trainee's performance 6.2.1 Identify systemic safety issues, unexpected outcomes and barriers to the transfer of learning and strengths and/or weaknesses of the
Competency element 6.1 Evaluate the effectiveness of a course or phase of a	Performance criteria 6.1.1 Evaluate trainee's feedback on the training process 6.1.2 Evaluate trainee's mastery of end-of-course objectives 6.1.3 Evaluate the effect of facilities, equipment and training materials on trainee's performance 6.2.1 Identify systemic safety issues, unexpected outcomes and barriers to the transfer of learning and strengths and/or weaknesses of the training content
Competency element 6.1 Evaluate the effectiveness of a course or phase of a course 6.2 Report information on	Performance criteria 6.1.1 Evaluate trainee's feedback on the training process 6.1.2 Evaluate trainee's mastery of end-of-course objectives 6.1.3 Evaluate the effect of facilities, equipment and training materials on trainee's performance 6.2.1 Identify systemic safety issues, unexpected outcomes and barriers to the transfer of learning and strengths and/or weaknesses of the training content 6.2.2 Make recommendations to the training program developer for
Competency element 6.1 Evaluate the effectiveness of a course or phase of a course 6.2 Report information on	Performance criteria 6.1.1 Evaluate trainee's feedback on the training process 6.1.2 Evaluate trainee's mastery of end-of-course objectives 6.1.3 Evaluate the effect of facilities, equipment and training materials on trainee's performance 6.2.1 Identify systemic safety issues, unexpected outcomes and barriers to the transfer of learning and strengths and/or weaknesses of the training content 6.2.2 Make recommendations to the training program developer for improvements relating to course design, course
Competency element 6.1 Evaluate the effectiveness of a course or phase of a course 6.2 Report information on	Performance criteria 6.1.1 Evaluate trainee's feedback on the training process 6.1.2 Evaluate trainee's mastery of end-of-course objectives 6.1.3 Evaluate the effect of facilities, equipment and training materials on trainee's performance 6.2.1 Identify systemic safety issues, unexpected outcomes and barriers to the transfer of learning and strengths and/or weaknesses of the training content 6.2.2 Make recommendations to the training program developer for
Competency element 6.1 Evaluate the effectiveness of a course or phase of a course 6.2 Report information on	Performance criteria 6.1.1 Evaluate trainee's feedback on the training process 6.1.2 Evaluate trainee's mastery of end-of-course objectives 6.1.3 Evaluate the effect of facilities, equipment and training materials on trainee's performance 6.2.1 Identify systemic safety issues, unexpected outcomes and barriers to the transfer of learning and strengths and/or weaknesses of the training content 6.2.2 Make recommendations to the training program developer for improvements relating to course design, course documentation and training media and facilities 6.2.3 Share information with other instructors and management
Competency element 6.1 Evaluate the effectiveness of a course or phase of a course 6.2 Report information on course evaluation Competency unit: 7. Continu	Performance criteria 6.1.1 Evaluate trainee's feedback on the training process 6.1.2 Evaluate trainee's mastery of end-of-course objectives 6.1.3 Evaluate the effect of facilities, equipment and training materials on trainee's performance 6.2.1 Identify systemic safety issues, unexpected outcomes and barriers to the transfer of learning and strengths and/or weaknesses of the training content 6.2.2 Make recommendations to the training program developer for improvements relating to course design, course documentation and training media and facilities 6.2.3 Share information with other instructors and management
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Competency element 6.1 Evaluate the effectiveness of a course or phase of a course 6.2 Report information on course evaluation Competency unit: 7. Continu	Performance criteria 6.1.1 Evaluate trainee's feedback on the training process 6.1.2 Evaluate trainee's mastery of end-of-course objectives 6.1.3 Evaluate the effect of facilities, equipment and training materials on trainee's performance 6.2.1 Identify systemic safety issues, unexpected outcomes and barriers to the transfer of learning and strengths and/or weaknesses of the training content 6.2.2 Make recommendations to the training program developer for improvements relating to course design, course documentation and training media and facilities 6.2.3 Share information with other instructors and management ously improve performance his/her effectiveness and sustain personal development. Performance criteria 7.1.1 Evaluate his/her own performance as an instructor and learn from the results
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Competency element 6.1 Evaluate the effectiveness of a course or phase of a course 6.2 Report information on course evaluation Competency unit: 7. Continu The instructor should evaluate Competency element	Performance criteria 6.1.1 Evaluate trainee's feedback on the training process 6.1.2 Evaluate trainee's mastery of end-of-course objectives 6.1.3 Evaluate the effect of facilities, equipment and training materials on trainee's performance 6.2.1 Identify systemic safety issues, unexpected outcomes and barriers to the transfer of learning and strengths and/or weaknesses of the training content 6.2.2 Make recommendations to the training program developer for improvements relating to course design, course documentation and training media and facilities 6.2.3 Share information with other instructors and management ously improve performance his/her effectiveness and sustain personal development. Performance criteria 7.1.1 Evaluate his/her own performance as an instructor and learn from the results
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Competency element 6.1 Evaluate the effectiveness of a course or phase of a course 6.2 Report information on course evaluation Competency unit: 7. Continu The instructor should evaluate Competency element 7.1 Evaluate effectiveness	Performance criteria 6.1.1 Evaluate trainee's feedback on the training process 6.1.2 Evaluate trainee's mastery of end-of-course objectives 6.1.3 Evaluate the effect of facilities, equipment and training materials on trainee's performance 6.2.1 Identify systemic safety issues, unexpected outcomes and barriers to the transfer of learning and strengths and/or weaknesses of the training content 6.2.2 Make recommendations to the training program developer for improvements relating to course design, course documentation and training media and facilities 6.2.3 Share information with other instructors and management ously improve performance his/her effectiveness and sustain personal development. Performance criteria 7.1.1 Evaluate his/her own performance as an instructor and learn from the results 7.1.2 Seek feedback on the training course and his/her own performance from trainees and peers 7.1.3 Encourage and welcome feedback on his/her performance as an instructor 7.2.1 Maintain required qualifications
Competency element 6.1 Evaluate the effectiveness of a course or phase of a course 6.2 Report information on course evaluation Competency unit: 7. Continu The instructor should evaluate Competency element	Performance criteria 6.1.1 Evaluate trainee's feedback on the training process 6.1.2 Evaluate trainee's mastery of end-of-course objectives 6.1.3 Evaluate the effect of facilities, equipment and training materials on trainee's performance 6.2.1 Identify systemic safety issues, unexpected outcomes and barriers to the transfer of learning and strengths and/or weaknesses of the training content 6.2.2 Make recommendations to the training program developer for improvements relating to course design, course documentation and training media and facilities 6.2.3 Share information with other instructors and management ously improve performance his/her effectiveness and sustain personal development. Performance criteria 7.1.1 Evaluate his/her own performance as an instructor and learn from the results 7.1.2 Seek feedback on the training course and his/her own performance from trainees and peers 7.1.3 Encourage and welcome feedback on his/her performance as an instructor

Appendix 3

SYLLABUS FOR FLIGHT DISPATCHER'S COURSE

A. INITIAL TRAINING

1. Phase I: Basic Knowledge

1. Phase 1: Dasic Knowledge	Recommended duration (hours)		
	Trainees	Trainees	D
Subject	without	with	Degree
matter	previous	previous	of
	aviation	aviation	expertise
	experience	experience	
Module 1 - Civil air law and regulations	30	18	
Certification of operators			2
The Convention on International Civil Aviation			2
(The Chicago Convention)			2
International air transport issues addressed by			2
the Chicago Convention			2
The International Civil Aviation Organization (ICAO)			2
Responsibility for aircraft airworthiness			3
Regulatory provisions of the flight manual	1		3
The aircraft minimum equipment list (MEL)			3
The operations manual			3
Module 2 — Aviation indoctrination	12	6	
Regulatory			1
Aviation terminology and terms of reference			1
Theory of flight and flight operations			4
Aircraft propulsion systems			3
Aircraft systems			3
Module 3 — Aircraft mass (weight) and	27	15	
performance	27	15	
Basic principles for flight safety			3
Basic mass (weight) and speed limitations			3
Take-off runway requirements			3
Climb performance requirements			3
Landing runway requirements			3
Buffet boundary speed limitations			3
Module 4 — Navigation	24	12	
Position and distance; time			3
True, magnetic and compass direction; gyro			2
heading reference and grid direction			2
Introduction to chart projections: The			
gnomonic projection; the Mercator projection;			
great circles on Mercator charts; other			2
cylindrical projections; Lambert conformal			2
conic projection; the polar stereographic			
projection			
ICAO chart requirements			3
Charts used by a typical operator			3

			1
Measurement of airspeeds; track and ground speed			3
Use of slide-rules, computers and scientific			3
calculators Measurement of aircraft altitude			3
Point of no return; critical point; general			3
determination of aircraft position			3
Introduction to radio navigation; ground-			
based radar and direction-finding stations;			
relative bearings; VOR/DME- type radio			2
navigation; instrument landing systems			
Navigation procedures			3
ICAO CNS/ATM systems (an overview)			1
Module 5 — Air traffic management	39	21	1
Introduction to air traffic management	39	21	2
Controlled airspace			3
Flight rules			3
ATC clearance; ATC requirements for flight			3
plans; aircraft reports			3
Flight information service (FIS)			3
Alerting service and search and rescue			3
Communications services (mobile, fixed)			3
Aeronautical information service (AIS)			3
			3
Aerodrome and airport services Modulo 6 Metocrology	42	21	3
Module 6 — Meteorology Atmosphere; atmospheric temperature and	42		
humidity			2
Atmospheric pressure; pressure-wind			2
relationships Winds nogn the Earth's surfaces wind			
Winds near the Earth's surface; wind in the free atmosphere; turbulence			3
Vertical motion in the atmosphere; formation of			
clouds and precipitation			2
Thunderstorms; aircraft icing			3
Visibility and RVR; volcanic ash			3
Surface observations; upper-air observations;			2
station model			3
Air masses and fronts; frontal depressions			2
Weather at fronts and other parts of the frontal			2
depression; other types of pressure systems			
General climatology; weather in the tropics			1
Aeronautical meteorological reports; analysis			3
of surface and upper-air charts			
Prognostic charts; aeronautical forecasts			3
Meteorological service for international air navigation			4
Field trip to local meteorological office			2
Module 7 — Mass (weight) and balance			<u> </u>
control	27	15	
Introduction to mass and balance		•	3
_			

Load planning			3
Calculation of payload and load sheet			3
preparation			2
Aircraft balance and longitudinal stability			3
Moments and balance			3
The structural aspects of aircraft loading			3
Dangerous goods and other special cargo			3
Issuing loading instructions		1	3
Module 8 — Transport of dangerous goods by	9	9	
air	-		
Introduction			
Dangerous goods, emergency and abnormal situations			3
Source documents			3
Responsibilities			3
Emergency procedures			3
Module 9 — Flight planning	18	9	
Introduction to flight planning			2
Turbo-jet aircraft cruise control methods			3
Flight planning charts and tables for turbo- jet aircraft			3
Calculation of flight time and minimum fuel for turbo-jet aircraft			3
Route selection			3
Flight planning situations			3
Re clearance			3
The final phases			3
V 1			3
Documents to be carried on flights			
Flight planning exercises			3
Threats and hijacking			3
EDTO	4.6	1 42	2
Module 10 — Flight monitoring	16	16	
Position of aircraft			3
Effects of ATC reroutes			3
Flight equipment failures			3
En-route weather changes			3
Emergency situations			3
Flight monitoring resources			3
Position reports			3
Ground resource availability			3
Module 11 — Communications — Radio	18	6	
International aeronautical telecommunications			2
service			
Elementary radio theory			2
Aeronautical fixed service			2
Aeronautical mobile service			2
Radio navigation service			2
Automated aeronautical service			2
Module 12 — Human Factors	15	15	
The meaning of Human Factors			3

Dispatch resource management (DRM)			4
Awareness			3
Practice and feedback			3
Reinforcement			3
Module 13 — Security (emergencies and	16	12	
abnormal situations)	16	14	
Familiarity			3
Airport security			
Security measures taken by airlines, Airlines			3
Security program			3
Procedures for handling threats, bomb scares,			3
etc.			3
Emergency due to dangerous goods			3
Hijacking			3
Emergency procedures			3
Personal security for the FOO/FD			3

2. Phase 2: Applied Practical Training

a) Applied practical flight operation

Materials and publications required:

- specimen meteorological surface and upper-air charts; forecasts and meteorological folders:
- specimen NOTAM;
- flight manual, including cruise control charts and performance limitation tables (may be included in the operations manual);
- route guide and operations manual; and
- flight operation forms including flight plan and message forms.

In defining the operating conditions for the exercise, the instructor should include the following, as applicable for each case:

- the flight program showing scheduled departure and arrival times at terminals including the type of aircraft to be used;
- load available at each terminal; the destination of such loads;
- commercial considerations having any possible effect upon operational decisions, e.g. availability of passenger accommodation in the event of an enforced diversion;
- aircraft and flight crew routing if more than one flight is involved;
- meteorological charts and forecasts;
- in-flight reports from other flights;
- status of navigation aids (aeronautical information publication and NOTAM);
- status of aerodrome serviceability (aeronautical information publication and NOTAM);
- the ATC situation: and
- passenger and cargo-handling facilities at terminals and at alternates.

Exercises should be designed to give the trainees practice in the following:

• making decisions as to scheduled operation, delayed operation, re-routing or cancellation of flights;

Note. In this group of exercises, it will be necessary to give instruction on the application of the operator's procedures relevant to the FOO/FD's actions in cases of

delayed, cancelled or diverted flights, handling of passengers and freight, and repositioning of aircraft.

- flight crew briefing, including the preparation of briefs for the use of pilots-incommand, on changes in Regional Procedures, on States' Regulations or on subjects referred to in NOTAM and which may affect the planned flight;
- flight planning including selection of routes, tracks, altitudes, cruise procedures, and alternates and calculation of fuel requirements;
- compilation of ICAO and operator's operation messages;
- provision of flight plan information to ATC;
- provision of flight progress information to company offices;
- calculation of maximum permissible take-off and landing weights;
- calculation of payload;
- preparation of flight documents;
- information to flights en route;
- revisions to flight plans, including recalculation of fuel requirements en route;
- plotting of position reports and of flight progress;
- unreported flights;
- emergency situations. (Special emphasis should be given to the operator's emergency procedures, including the alerting of State, company and private agencies.); and any of the above using a hand-held digital computer and/or digital computer terminal if computerized flight planning is available in the operational control system used in the State.

b) Route familiarization (Actual Aircraft)

Route familiarization is considered an essential and integral part of the training of FOO/FDs since it supplements that part of the appreciation of pilot work which cannot be learned in a flight simulator. It also allows a realistic appreciation by the trainee of route characteristics in the selected area of operation, such as the differences in procedure and services available over different route sectors and at different aerodromes, of the effects of prevailing meteorological conditions and topographical features, and of the handling of inflight difficulties occasioned by environmental conditions. Such practical experience will assist the FOO/FD in the performance of his duties to the highest possible standards. For the trainee to derive the maximum benefit from each flight, the following should be observed:

- The co-operation of the pilot-in-command must be secured.
- Arrangements must be made with the pilot-in-command for the position(s) that the trainee is to occupy during the various stages of the flight to enable him to observe and monitor proceedings as far as is practicable. The planned workload of the trainee must be realistic and not overly demanding.
 - The trainee must participate with the crew through all the operational phases of preflight preparations
- The trainee should prepare a complete "dummy" dispatch for the flight. This "dummy" dispatch should be compared at some convenient time with the actual dispatch sequence adopted for the flight.
- At the end of the flight, the trainee must again accompany the crew in its ground activities until the flight is closed and the aircraft handed over, including all company procedures.

The contents of the trainee's plan for the flight will necessarily vary depending on the character of the flight. The following are points of primary interest and should be included if possible:

• pre-flight check-compliance with safety standards; loading, load distribution, carriage

- of dangerous goods, amount of fuel, aircraft instrumentation, operational equipment and rescue equipment, "go/no go" check-off system;
- pre-flight check-crew; composition, flight and duty time limitation, licenses and other documents, summary of NOTAM;
- pre-flight meteorological briefing; MET folder;
- flight briefing; flight plan, flight documents, flight kit, company orders;
- derivation of take-off data in the environmental runway conditions;
- ATC clearances;
- in-flight procedures, position reporting, weather reporting, altimeter setting changes, etc.;
- comparison of forecast to actual flight and weather conditions;
- communications with ATS along route and reason for such communication;
- performance of navigation aids and facilities;
- derivation of landing data in the environmental conditions;
- landing sequence, holding time, taxiing time;
- test flight arrival report, including snag reports; and
- intermediate stop, refueling, handling of passengers, reclearing the flight, meteorological briefing.

After the flight, a step-by-step analysis of the data collected should be made. This analysis should be carried out with a group of trainees to allow the widest use to be made of the flight information collected and to illustrate the practical application of the classroom subjects.

c) Flight dispatch functions (OJT)

- After the completion of the classroom training and the training on applied practical flight operations including LOFT training observation and synthetic (link) flight exercise, it is essential that the trainee be assigned to actual operational control duties under supervision. The provision of on-the-job training will enable the trainee to develop the necessary confidence to perform the duties and responsibilities of a full-fledged FOO/FD. In addition, on-the-job training will enable him to have first-hand experience on the exigencies of the profession as it is performed by experienced dispatchers under an actual operational environment.
- On-the-job training must be provided for at least 90 days (thirteen weeks) to allow the trainee a reasonable opportunity to acquire adequate experience and to comply with the requirements of 4.6.1.3 of Annex 1 Personnel Licensing.

d) Simulator LOFT observation

- When FOO/FDs have been recruited from one of the operational disciplines such as pilots, their background of active experience has proven invaluable in equipping them with an appreciation of the operational effect of their work as FOO/FDs. A large number of FOO/FD trainees, however, are recruited from other sources and may lack a factual appreciation of the duties and responsibilities of flight crew members in a commercial air transport aircraft under normal, abnormal and emergency operational situations.
- To enable FOO/FDs to gain an understanding and practical knowledge of the operational environment in the cockpit of a commercial air transport aircraft, it is essential that they spend some time observing a representative training session of flight crew members undertaken in an appropriate synthetic trainer. It is recommended that this training include participation in pre-simulator CRM briefing and observation of at least one full line-oriented flight training (LOFT) which includes simulated exercises under normal, abnormal and emergency flight conditions.
- If practicable, an effort must also be made to give a FOO/FD trainee practical synthetic (link) training to enable him to appreciate the "feel" of the time element involved in the handling of aircraft and to allow him to compare the difficulties of flying characteristic patterns using specific aids to navigation, and performing aerodrome procedures. Such exercises, if undertaken, should be conducted with the

aim of teaching an understanding of the procedures rather than their faultless execution.

B. AIRCRAFT TYPE TRAINING

Subjec	Time (hours)
Session #1 - Flight Operations Procedures	
Weight and Balance Computations	
Aircraft Performance - Dispatch Requ	irements
• Flight Planning	08
 Emergency Procedures and Notification 	
 Differences 	of Officials
 Review and Examination 	
Session #2 Aircraft Description - Aircraft	Flight Manual
• General	I nght Manuai
 Operating Characteristics 	
 Operating Characteristics Performance Characteristics 	
• Limitations	04
Navigation Equipment	
1. Instrument approach Equipment	
2. Communication Equipment	
3. Procedures	
4. Supplements	y a
Session #3 - Aircraft Description - Aircraft	t Systems
• Systems Overview:	
1. Air Conditioning	
2. Auto flight	
3. Communications	
4. Electrical	
5. Equipment and Furnishings	
6. Fire Protection	
7. Flight Controls	
8. Fuel	
9. Hydraulics	08
10. Hydraulics	
11. Ice and Rain Protection	
12. Instrumentation	
13. landing Gear	
14. Lights	
15. Oxygen	
16. Water and Waste	
17. Auxiliary Power	
18. Doors and Windows	
19. Propellers (if applicable)	
20. Engines	4
Session#4 - Weight and Balance Computa	nons
• Definitions	
 Load Manifest 	08
 General loading procedures 	
• Effects of aircraft loading on aircraft p	
Session #5 - Aircraft Performance - Dispa	tch Requirements 16
 Definitions 	10

Sessio	on #8 - Review and Examination	08
•	Emergency Telephone List	
•	Reports and Statements	
•	Emergency Authority	
•	Continuing Flight in Unsafe Conditions	0-7
•	Flight Locating Procedures	04
•	Sabotage (includes bomb threats)	
•	Hijack	
•	Aircraft Accidents and Incidents	
Sessi	ion#7 - Emergency Procedure and Notification of Officials	
•	Demonstration	
•	Use of flight planning forms Demonstration	
•	Time fuel analysis	<u>16</u>
•	Route and Altitude selection	
Session	on #6 - Flight Planning	
•	Demonstration (example film or use of aircraft simulator)	
•	Airport analysis system	
•	Manufactures aircraft performance charts	
•	Effects of contaminated runways	
•	Pre-flight performance	
•	Factors affecting aircraft performance	

C. Aircraft Dispatcher Competence Checks: Hours: 04

Before dispatchers can perform duties unsupervised in revenue service, they must have passed a competency check, administered by a Designated Flight Dispatcher Examiner (DFDE). Designated Flight Dispatcher Examiner will grade the areas to be evaluated utilizing the subjects found in VAR 14.087, Appendix 1. Each subject will receive a score of satisfactory, satisfactory with briefing or unsatisfactory based on the Dispatcher's understanding of the subject area. Any subject areas receiving a score of unsatisfactory will require a re-evaluation within (7) days. The competency check is not to be used as training for the candidate.

Appendix 4

A. WRITTEN TEST/EXAMINATION REQUIREMENTS

The written test/examinations are as follows:

Examination	Questions	Time Limit (hour)	Pass Mark
Aviation Regulations and Air Traffic Procedures	44	01:00	75%
Human Factors	48	01:30	75%
General Navigation	55	02:15	75%
Radio aids	66	01:30	75%
Communication	24	00:30	75%
Flight Planning and monitoring	42	02:00	75%
Aircraft Performance	45	02:00	75%
Weight and Balance	25	01:15	75%
Aircraft General and Aircraft system	40	01:00	75%
Meteorology	84	02:00	75%

B. ORAL/PRACTICAL TEST KNOWLEDGE REQUIREMENTS

Generic training consists of the common body of knowledge required by all flight dispatchers. In order for a flight dispatcher candidate to commence on-the-job training at the air operator of employment, he or she must have passed both CAAV generic examinations, one of which will test the meteorology-related subjects and the other the remaining subjects in this publication.

The proficiency levels used in this document are defined as follows:

- 1) Denotes a basic knowledge of the subject:
- The trainee will be involved in learning facts. Verbs such as list, recall, name etc. will be used to describe the student's performance.
- Example: list the conditions for the withdrawal of an Air Operator's Certification.
- 2) Denotes an understanding of the principle
- The trainee will be required to remember and explain principles.
- Verbs such as explain, define, write etc. will be used to describe the students' performance.
- Example: explain how a dispatcher uses the Air Almanac on the job.
- 3) Denotes knowledge of the subject and the ability to apply it practically:
- The trainee will show an understanding of the principle by explaining the procedure used to apply it. Words such as list the steps put in order, flow chart, will be used to describe the student's performance.
- Example: explain the dispatcher procedures for handling an aircraft experiencing icing.
- 4) Denotes a thorough knowledge of the subject and the ability to apply it with speed and accuracy:

The student will be able to apply procedures to a problem efficiently and accurately.

- Verbs such as select, distinguish, demonstrate, will be used to describe the student's performance.
- Example: Given a variety of conditions select an appropriate route of flight for a defined aircraft.

- 5) Denotes extensive knowledge of the subject and the ability to apply procedures derived from it with judgment in light of the circumstances. Given a problem with a variety of different solutions the trainee will select and apply the most efficient procedures to handle the problem.
- Verbs such as analyze, demonstrate, manipulate, assemble will be used to describe the student's performance.
- Example: Given an observed weather condition on an aircraft's performance the student will quickly and accurately amend the takeoff data for the aircraft.

Appendix 5

EXAMPLE OF FLIGHTG DISPATCHER FORMS

- 1) Flight Dispatcher Competency Check Report Form
- 2) Flight dispatch practices OJT Report Form 2A, 2B, 2C.
- 3) Route Familiarization Report

Form 2A - Weekly Experience Progress Check Phase 1

UNIT/DEPT : GROUND OPERATIONS

STATION : NAME OF CANDIDATE : INSTRUCTOR/CHECKER : AIRCRAFT TYPE :

DATE

NO	SUB	TOPICS	REMARK	SCHEDULE
01		GENERAL		
	1.1.	Rules and Regulations		W1
	1.2.	Company Regulations and Procedures		W1
	1.3.	Aviation Security Awareness		W1
	1.4.	Flight Safety Awareness/Airmanship		W1
	1.5.	Appearance and Behavior		W1
	1.6.	Initiative		W2
	1.7.	Leadership		W2
	1.8.	Coordination with Other staff		W2
	1.9.	Customer Orientation and satisfaction		W2
	1.10	CRM Application		W2

NO	SUB	TOPICS	REMARK	SCHEDULE
02		DEPARTURE CONTROL		
	2.1.	Aircraft Availability and Serviceability		W3
	2.2.	Aircraft Parking Position/Stand/Gate		W3
	2.3.	Documentation (C of A, C of R, Maintenance		W3
	2.3.	Release Passenger Manifest, Cargo Manifest, etc)		** 3
	2.4.	Movement Message		W3
	2.5.	Communication Handling Procedures		W3
	2.6.	Dangerous Goods Regulations		W3
	2.7.	Miscellaneous		W3

NO	SUB		REMARK	SCHEDULE
03		LOAD CONTROL		
	3.1.	Reservation of Passengers and Cargo		W6
	3.2.	Opening Flight Gate (DCS)		W6
	3.3.	Data Processing		W6
	3.4.	Load Specification		W6
	3.5.	Document and/or Manifest, Airway bill		W6
	3.6.	Load Planning		W6
	3.7.	Load Sheet		W6
	3.8.	Load Message		W6
	3.9.	Dangerous Goods Awareness		W6

NO	SUB	TOPICS	REMARK	SCHEDULE
04		RAMP SITE		
	4.1.	Ramp Site Situation, Planning		W4
	4.2.	Aircraft Serviceability		W4
	4.3.	Ground Support Preparation		W4
	4.4.	Aircraft Preparation, Fueling, Catering, Loading, etc.		W4
	4.5.	Documentation		W5
	4.6.	Communication Handling Procedures		W5
	4.7.	Passenger Boarding Monitoring		W5
	4.8.	Crew Briefing		W5
	4.9.	Irregularity Problem Solving		W5

01	EXPERIENCE CHECK	PASS/FAIL	REMA	RK S+ ; S ; S-	
02	PROGRESS CHECK	PASS/FAIL	REMARK S+; S; S-		
03	CANDIDATE	NAME		SIGN	
04	FD INSTRUCTOR	NAME		SIGN	Lic.Nr
05	MANAGER	NAME	S	SIGN	Lic.Nr/Position

PLACE, Date/Month/Year
FLIGHT OPERATIONS MANAGER/DIRECTOR

SIGNATURE

NAME

NOTE:

01. REMARK

It is actually hard to measure the standard achievement for the desired competency, but to clarity understanding of the desired accomplishment and/or competency:

- S-: Standard minus, range of 71% up to 80% achievement
- S: Standard, range of 81% up to 90% achievement
- S+: Standard plus, range of 91% up to 100% achievement

02. Reference:

- 1. VAR Part 7, Part 14, Part 16.
- 2. AC 07 018 Skill Test Standard: Flight Dispatcher
- 3. ICAO Training Manual Doc7192-AN/857 Part D-3 Flight Operations Officer / Flight Dispatchers Second Edition 1998.
- 4. FAA-S-8081-10D AIRCRAFT DISPATCHER Practical Test Standards May 2013, Change 3 Aug 2018.

Form 2B - Weekly Experience Progress Check Phase 2

UNIT/DEPT : FLIGHT OPERATIONS

STATION :

NAME OF CANDIDATE : INSTRUCTOR/CHECKER :

AIRCRAFT TYPE

DATE:

NO	SUB	TOPIS	REMARK	SCHEDULE
01		GENERAL		
	1.1.	Aviation Law		W6
	1.2.	Rules and Regulations		W6
	1.3.	Company Regulations and Procedures		W6
	1.4.	Aviation Knowledge		W6
	1.5.	Flight Operations Knowledge		W6
	1.6.	Flight Safety		W6
	1.7.	Appearance and Behavior		W6
	1.8.	Initiative		W7
	1.9.	Leadership		W7
	1.10	Coordination with Crew Member		W7
	1.11.	Coordination with Other staff		W7
	1.12.	Coordination with Other Unit		W7
	1.13.	Customer Orientation and satisfaction		W7
	1.14.	CRM/DRM Application		W7

NO	SUB	TOPICS	REMARK	
02		GENERAL DISPATCH		
	2.1.	Administration Preparation and Check	S+;S;S+	W8
	2.2.	Shift Briefing Hand-Over		W8
	2.3.	Document Check		W8
	2.4.	Aircraft Availability and Serviceability Check		W8
	2.5.	Aircraft Position and Rotation Check		W8
	2.6.	Ramp Evaluation		W8
	2.7.	Communications & Radio Telephone Procedures		W8
	2.8.	NOTAM System & Navigational Publication		W8
	2.9.	Load Planning Information Check		W8
	2.10.	Crew Reporting Check and Crew Rotation		W8
	2.11.	Meteorology Report and Forecast at DEP, DEST,		W9
	2.11.	ENR, ALT, Upper Air Reports, and Prognosis Chart		***
		Weather Analysis: Weather Interpretation, Winds,		
	2.12.	Temp., Terminal and Frontal Weather,		W9
	2.12.	Adverse Weather, Prevailing Weather		***
		Phenomena, International Weather.		
	2.13.	Geographic Area		W9
		Flight Planning: Organized Track Systems and		
	2.14.	Procedures, Flight Plan Information to ATC, RPL,		W9
		ADM.		
	2.15.	Joint Pilot-Dispatcher Responsibility		W9
	2.16.	PiC and Crew Briefing Preparation		W9
	2.17.	Flight Following, Airport, Terrain/Ground Aids,		W9
		Approaches		
	2.18.	Weather Phenomena		W9

NO	SUB	TOPICS	REMARK	SCHEDULE
03		AIRCRAFT		W10
	3.1.	General Characteristics		W10
	3.2.	Description of Each Type		W10
	3.3.	Operating and Performance Characteristics		W10
	3.4.	Navigation and Communication Equipment & Capability		W10
	3.5.	Emergency Equipment		W10
	3.6.	Use of Aircraft Operating Manual		W10
	3.7.	Use of Aircraft Flight Manual		W10
	3.8.	Differences		W10
	3.9.	Take-off Performance Limit and Calculations		W10
	3.10.	Destination Limits and Calculation		W10
	3.11.	Fuel Policy		W10
	3.12.	Flight Planning, Tracks, Fuel, Alternate		W10
	3.13.	MEL and CDL		W10
	3.14.	Weight and Balance		W10
	3.15.	Load Planning and Load sheet, Load Message		W10
	3.16.	C.G. Limit and Calculation		W10

NO	SUB	TOPICS	REMARK	SCHEDULE
04		OPERATION CONTROL PROCEDURES		W11 – W13
	4.1.	Operational Control Familiarization		W11 – W13
	4.2.	Operational Control Procedure		W11 - W13
	4.3.	ATM, ATC and Flow Control		W11 – W13
	4.4.	Flight Monitoring		W11 – W13
	4.5.	Flight Progress Information to Other Unit		W11 – W13
	4.6.	Irregularity Problem Solving and Decision (Delayed, Cancellation, Re-routing)		W11 – W13
	4.7.	Re-dispatch in Flight		W11 – W13
	4.8.	Abnormal and Emergency Handling, Procedures and Notification		W11 – W13
	4.9.	Adverse Weather Operations Handling and Procedures		W11 – W13
	4.10.	Special Airports		W11 – W13
	4.11.	Communication Handling Procedures	•	W11 – W13

01	EXPERIENCE CHECK	PASS/FAIL	REMARK S+ ; S ; S-		
02	PROGRESS CHECK	PASS/FAIL	REMARK S+; S; S-		
03	CANDIDATE	NAME	SIGN	REMARK S+;S;	
04	FD INSTRUCTOR	NAME	SIGN	Lic.Nr	
	MANAGER	NAME	SIGN	Lic.Nr/Position	
05	WANAGER	INAIME	SION	Lic.m/rosidoff	

PLACE, Date/Month/Year

FLIGHT OPERATIONS MANAGER/DIRECTOR

SIGNATURE

NAME

NOTE

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FORM 2C: DAILY LOG FORM (OJT)

I	Day	of 90
Name:		
Date:		
Location:		·•
Instructor by: □Experience		

No	Category	Activity	Route	Flight Number	ETD	ETA	Irregularities	Instructor Sign
1	Instructor Pre-Briefing							
2	Practical							
3	Instructor Post Briefing							