#### **Notification of the Department of Civil Aviation**

Re: Co-Pilot and Instructor Pilot Training Courses

#### B.E. 2553

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By virtue of Clause 3, 3.3 (4), 3.7 (2) and Clause 6 of Regulation of the Civil Aviation Board, Issue number 74, announced on 5 November B.E. 2550 regarding the qualifications of individual applying for flight crew license which prescribes that Co-Pilot and Instructor Pilot must have expertise and obtained education qualification certified by the Director-General, the Director-General of the Department of Civil Aviation hereby issued the Notification Re: Co-Pilot and Instructor Pilot Courses as follows:

#### Clause 1. In this notification

"Director-General" means the Director-General of the Department of Civil Aviation

"Student Pilot" means the person that is in the stage of attending a training course under the control of Instructor Pilot, according to the Co-Pilot course

"Instructor Pilot" means the person that instructs Co-Pilot courses to Student Pilot at the Aviation Institution

"Flight Trainer" means basic instrument flight trainer, flight procedures trainer and flight simulation

"Institution" means the Aviation Institution that is certified by the Director-General

Clause 2. The Institution conducting training to Student Pilot shall provide the following training courses:

- (1) Theory training courses, which consists of the followings:
  - (a) General knowledge that equivalent to Crew in the position of Commercial Pilot, which is certified by the Department of Civil Aviation at least 550 hours and contains the following subjects:
    - 1) Air law -40 hours
    - 2) Aircraft general knowledge for aeroplane 80 hours

- 3) Flight performance, planning and loading 90 hours
- 4) Human performance 50 hours
- 5) Meteorological 60 hours
- 6) Navigation 150 hours
- 7) Operational procedures 20 hours
- 8) Principles of flight 30 hours and
- 9) Radiotelephony 30 hours
- (b) Training courses of special knowledge relating to an aircraft having a master warrant that requires two or more pilots for at least 200 hours, except if particular type of aeroplanes requires less than 200 hours. There must be Multi Crew Cooperation (MCC) training for at least 25 hours that covers the Flight Crew Member Training Program Aeroplane.
- (c) The training courses referred to in (a) and (b) shall use medium, documents, and , equipment which consists of Classroom, Computer base training (CBT), Elearning and Part Task Trainers.
- (2) Flight training courses must be done in compliance with the 4 procedures as indicated below, accumulating at least 240 hours in total excluding flight operations check procedures to issue flight crew license:
  - (a) Procedure 1 : Core Flying Skills Specific basic single pilot training for at least 50 hours, including the following flight operations:
    - 1) Crew Resource Management (CRM)
    - 2) VFR Cross Country
    - 3) Solo flight
    - 4) Basic instrument flight
    - 5) Principles of flight
    - 6) Cockpit Procedures and
    - 7) Integrated Threat and Error Management Principles

By operating with single or multiple – engine aeroplanes as well as Flight Simulation Training Device (ICAO FSTD) type I (E – Training and part tasking devices) or equivalent with at least 40 flying hours and flying hours with Flight Simulation Type I, equivalent or above with at least 10 hours.

- (b) Procedure 2: Basic training of Co-Pilot aeroplane by applying Basic introduction of multi – crew operations and instrument flight for at least 70 hours, including the following flight operations:
  - 1) Crew Resource Management (CRM)
  - 2) PF/PNF complement
  - 3) IFR Cross country
  - 4) Upset recovery
  - 5) Night flight
  - 6) Instrument flight and
  - 7) Integrated Threat and Error Management Principles

By operating with single or multiple – engine aeroplanes as well as Flight Simulation Training Device (ICAO FSTD) type IV (Type IV – Generic turbine powered aeroplane) or equivalent. For Pilot Flying (PF)/ Pilot not Flying (PNF), it must have accumulated real flying hours for at least 50 hours of which with multi engine aeroplane for at least 20 hours and Flight Simulation ICAO FSTD Type IV, equivalent or above for at least 20 hours.

- (c) Procedure 3: Intermediate training of Co-Pilot-aeroplane with Multi-crew operations in a high performance multi-engine turbine aeroplane with at least 60 hours, including the following flight operations:
  - 1) Crew Resource Management (CRM)
  - 2) Line Oriented Flight Training (LOFT)
  - 3) Normal / Abnormal procedures
  - 4) Multi Crew Cooperations
  - 5) Instrument flight and
  - 6) Integrated Threat and Error Management Principles

By operating with Flight Simulation Training Device (ICAO FSTD) type IV (Multi-engine turbine powered aeroplane: Certification for a minimum crew of 2 pilots, Enhanced daylight visual system, Autopilot or equivalent) and Pilot Flying (PF)/ Pilot not Flying (PNF) with at least ICAO FSTD type VI or equivalent with at least 60 hours.

- (d) Procedure 4: Final training by operating with Type Rating training within an airline oriented environment for at least 60 hours, including the following flight operations:
  - 1) Crew Resource Management (CRM)
  - 2) Line Oriented Flight Training (LOFT)
  - 3) Landing training
  - 4) All Weather scenarios
  - 5) Normal / Abnormal procedures and
  - 6) Integrated Threat and Error Management Principles

By operating with Aeroplane Turbine Multi – engine & Multi – crew certified and Flight Simulation Training Device (ICAO FSTD) type VII (Fully equivalent to Level D Flight Simulator with enhanced daylight visual system or equivalent). For Pilot Flying (PF)/ Pilot not Flying (PNF) training, the Flight Simulation must be at least ICAO FSTD type VII or equivalent for at least 60 hours and with real flying flights of 6 take – offs and landings of Pilot Flying (PF); operating with at least Aeroplane Turbine Multiengine & Multi-crew certified.

Clause 3. An Institution wishing to get its training course as referred to in Clause 2 certified shall submit a certification request form to the Director-General in accordance with the procedures announced by the Department of Civil Aviation.

Claus 4. Institution that provides Co-Pilot training courses to Student Pilot referred to in Clause 2 must acquire certification of Flight Trainer training courses. Flight Trainer must have experience and pass the Flight Trainer training courses as stated in Section 1 of the Appendix attached to this notification.

Clause 5 Flight Trainer as per this notification can be distinguished into 2 types as follows:

(1) Ground Instructor means the person certified by the Department of Civil to conduct Theory training courses to Student Pilot of Co-Pilot training courses as in Clause 2 (1), together with aircraft structure, aircraft engine, pneumatic system and aviation constraints, operations in both normal and abnormal environment as well as emergency. This also includes demonstrations of operating systems, methods in using equipment during emergency and other auxiliary equipment that relates to safety in aircraft operations as certified by the Department of Civil Aviation such as

Doors training, Mock up trainer etc. The courses can also be separated into particular subjects.

- (2) Flight Instructor can be distinguished into 2 types as follows:
  - (a) Flight Instructor for aircraft certified for single pilot operation, which must have Flight Instructor Rating
  - (b) Flight Instructor for Aircraft required to be operated with co-pilot, which must have Multi-Crew Pilot Instructor Rating

Clause 6. Flight Instructor referred to in Clause 5 (2) for both types is able to train with Flight Simulation or real aeroplane to Student Pilot under the Co-Pilot training course and rating recorded in the Flight Crew license of the Flight Instructor, which must have the 4 Flight Instructor qualifications as follows:

- (1) Procedure 1 according to Clause 2 (2) (a) involves:
  - (a) Hold Flight Crew license at least Commercial Pilot license
  - (b) Obtain Flight Instructor Rating and Flight Simulation rating of ICAO FSTD type I or equivalent and with real aeroplane that have Aircraft certified for single pilot operation. In the case of having Instructor Rating for aeroplane with Multi-Crew Pilot Instructor Rating, training can be conducted with Flight Simulation ICAO FSTD type I or equivalent only.
  - (c) Obtain Flight Rating of Multi-engine (in the event of real aircraft operation)
  - (d) Hold the first level medical certificate (in the event of real aircraft operation)
  - (e) Have real experience and Flight Rating in the type of aeroplane to be used for the training (in the event of real aircraft operation) and
  - (f) Have passed general Multi Crew Cooperation
- (2) Procedure 2 according to Clause 2 (2) (b)
  - (a) Hold Flight Crew license at least Commercial Pilot license
  - (b) Obtain Flight Instructor Rating and Flight Simulation rating of ICAO FSTD type I or equivalent and instructing by using real aeroplane that have Aircraft certified for single pilot operation. In case of having the Flight Instructor Rating for aeroplane with Multi-Crew Pilot Instructor Rating, training can be conducted with Flight Simulation ICAO FSTD type IV or equivalent only.

- (c) Obtain Flight Rating of Multi-engine (in the event of real aircraft operation)
- (d) Hold the first level medical certificate (in the event of real aircraft operation)
- (e) Have real experience and Flight Rating in the type of aeroplane to be used for the training (in the event of real aircraft operation) and
- (f) Have passed general Multi Crew Cooperation (MCC) for at least 25 hours
- (3) Procedure 3 according to Clause 2 (2) (c)
  - (a) Hold Flight Crew license at least Commercial Pilot license with accumulated flying hours of Multi-Crew Pilot aeroplane for at least 500 hours
  - (b) Obtain Flight Instructor Rating, Flight Simulation rating, Multi-Engine

    Operating rating or have Multi-Crew Pilot Instructor Rating, can conduct training
    with Flight Simulation ICAO FSTD type VI or equivalent only.
  - (c) Have passed the training courses in Section 1 (2. Specific Knowledge in 2.2) of the Appendix as attached in this Notification and
  - (d) Have refresh training and attending an observation in real routes for at least 3 flying routes of aeroplane type that is used to conduct training or Line Oriented Flight Training: LOFT in total of 2 sessions; at least 2 hours from 2 different airports. This also includes Pre-flight planning and Debriefing within 12 months
- (4) Procedure 4 according to Clause 2 (2) (d)
  - (a) Hold Flight Crew license at least Airlines Transport Pilot
  - (b) Have real experience and Flight Instructor Rating in Multi-Crew Pilot Instructor for Aircraft type rating and
- (c) Hold the first level medical certificate (in the event of real aircraft operation)

  Clause 7 his notification shall come into force on the day of announcement.

Announced on 22 January B.E. 2553

(Mr.Wuthichai Singha-Manee)

Director-General, the Department of Civil Aviation

#### **Appendix**

#### Instructor Pilot Training Course and Qualifications to Apply Flight Instructor Rating

## **In Co-Pilot Training Course**

### Section 1 Instructor Pilot Training Course for Conducting Co-Pilot Training Course

Training details and evaluation of Instructor Pilot to conduct Co-Pilot training course contains the following subjects:

#### 1. Basic Knowledge

- 1.1 Instructor pilot that will conduct theory training for Co-Pilot according to Clause 5 (1) of this Notification must have expertise by passing the training course of Basic knowledge with at least 35 hours as follows:
  - a. Basic Knowledge for Flight Instructors
    - Flight Training Documentations
    - Fundamental of Psychology
    - Crew resource management (CRM) concepts and vocabulary
    - Control of Human Behavior
    - Human Needs
    - Defense Mechanisms
    - The Flight Instructor as a Practical Psychologist
    - Human Behavior and Stress Management
    - Counseling Techniques
    - Flying Safety and Flight Safety Instruction
  - b. Instruction and Learning Processes
    - Instructor's Roles and Responsibility
    - Learning Principle and Learning Processes
    - Learning Theory
    - Definition of Learning
    - Characteristics of Learning
    - Principles of Learning

- Levels of Learning
- Learning Physical Skills
- Memory
- Transfer of Learning
- Element of effective Teaching
- Teaching Preparation
- Teaching Presentation
- Teaching Application
- Teaching review and Evaluation
- Organizing Material
- Lecture Method
- Cooperative or Group Learning Method
- Guided Discussion Method
- Computer Based Training Method
- Technique of applied instruction
- Lesson Planning
- Use of Training aids
- Student pilot Measurement and Evaluation
- Micro Teaching Practices & Testing
- Training Program Development
- 1.2 Instructor pilot that will conduct theory training for Co-Pilot as in Clause 5 (2) must have expertise by passing the training course of Basic knowledge according to 1.1 as follows:
  - a. Airborne Instructional Techniques
    - Flight Instructor & Student Pilot Relationship and behavior
    - The importance of Airborne Instructional Techniques
    - Briefing room Management
    - Critiquing Technique
    - Flight Instructional Processes
    - Situation Awareness in flying Training

- Threat and Error Management
- Philosophy of Multi-crew operations
- Demonstration Technique
- Directing Techniques
- Monitoring Technique and Error Analysis
- Appropriate corrective actions for unsatisfactory performance in training or evaluation
- Aeronautical Decision Making (ADM)
- The consequences of improper or untimely safety measures
- Assessment of Student pilot performance
- Airborne instructional practicing (Simulator Teaching Demonstration and Practice)
- b. The operator's policies and procedures : Depends on Training Manual of operator and use of operator specific SOPs
- c. Methods, procedures, and techniques for conduction required checks
- d. Seat dependent tasks for the specific aircraft
- e. Analysis of airmen performance including identification of improper or insufficient training and
- f. Multi-Crew flight check system

#### 2. Specific Knowledge

- 2.1 **Ground Instructor** must pass the training course of Specific knowledge as follows:
  - a. Aircraft structure, aircraft engine, control system and aviation constraints
  - b. Equipment in the case of emergency

Also, shall pass the evaluation and observation as follows:

- 1. Pass the theory test as in 1.2 with at least 80%
- 2. Pass the teaching techniques in classroom as in 1.1 with at least 70%
- 2.2 **Flight Instructor** must pass the training course as follows:

- a. Flight simulation training in operations in both normal and abnormal environment as well as emergency with Flight Instructor. For certified pilots on left and right seat with at least 3 hours.
- b. Pass the observation in flight instructor teaching in real aircraft operation at least 2 flights
- c. Able to summarise and describe techniques or teaching methods relating to normal / abnormal aircraft operations and emergency
- d. Teach Student Pilot with Flight Simulation Training Device or Flight Trainer under the control and monitor of Flight Simulation Instructor, certified by the Department of Civil Aviation at least 3 hours

Which must pass the evaluation from authorized officers who is to investigate control panel methods of Instructor Pilot and teaching methods following the control panel manual.

#### Section 2 Qualifications of Flight Instructor Rating to conduct Co-Pilot Training Course

#### 1. Principles

The person who requests to acquire Flight Instructor Rating for Multi-crew operations must have the following qualifications:

- (1) Have passed knowledge test as in 1. Basic Knowledge under Section 1 and 2. Specific knowledge in 2.2 Flight Instructor under section 1.
- (2) Hold Airlines Transport Instructor and
- (3) Obtain Flight Instructor Rating of specific type of aeroplane that will be used to conduct training and flying hours as a control pilot of specific type of aeroplane that will be used to conduct training at least 500 hours and
- (4) Must operate at least 30 flights as a pilot in command within 12 months prior to request for the Fight Instructor Rating. Flight simulation flying hours can be accumulated no more than 15 flights and
- (5) Have passed teaching test as well as evaluation by officers
- (6) Have passed the multi-crew operations test from Flight Simulation ICAO FSTD type VII or Level D or equivalent

#### 2. Exemptions

The person who requests to acquire Flight Instructor Rating for Multi-crew operations need not to have qualification referred to in 1. Principles (1) in the event of the followings:

- (1) Being a holder Instructor Pilot license from aircraft operator of the aeroplane that will be used to conduct training
- (2) Used to hold Instructor Pilot license from aircraft operator or training institution of the aeroplane that will used to conduct training and is in duty as an Instructor pilot of other types of aeroplane during the time submitting the request

#### Remark

- The certified training institution wishing to nominate individual to obtain a Co-Pilot license
  of Flight Instructor Rating shall submit a request to the Civil Aviation Authority, the
  Department of Civil Aviation together with the following documents:
  - (1) Proof of examination passing result according to 1. Basic Knowledge under section 1 and 2. Specific Knowledge under 2.2 Flight Instructor under section 1
  - (2) Medical Certificate (only for a holder of valid Flight Crew license)
  - (3) Instructor Pilot Certificate of original affiliation
  - (4) Copy of Flight Crew license
- 2. For individual that has Multi-Crew Pilot License but does not have Private Pilot License, he or she cannot operate aeroplane with single pilot operation, which his or her Flight Crew license will indicate "Not valid for single pilot operations" on the license.

## DEPARTMENT OF CIVIL AVIATION

## APPLICATION FOR MULTI-CREW PILOT LICENSE AND MULTI-CREW PILOT INSTRUCTOR

1.	Full name of Applicant:
2.	License No.:
3.	Nationality:
4.	Employed by:
5.	Crew Position / Aircraft Type :
6.	Type of requested :
	☐ Multi-Crew Pilot Instructor Rating
7.	Enclosed herewith:
	7.1 Documents of applicant's background, qualification experiences and training required by Thai DCA Regulation and must include previous supervisory experiences.
	7.2 Medical Certificate.
	7.3 Letter of approval for an applicant Multi-Crew Pilot License will be approved by organization. (Student Pilot)
	7.4 Letter of approval for an applicant Multi-Crew Pilot Instructor Rating will be approved by organization. (Flight Instructor)
	7.5 Photograph: A 1 inch x 1 inch photo with a white background, taken within the last six month and the subject must face the camera directly without hat and sunglasses
	(2 photographs for Student Pilot Only)
	Date of Application Applicant's Signature



# MULTI-CREW PILOT LICENSE AND MULTI-CREW PILOT INSTRUCTOR APPLICATION QUALIFICATION LIST

Pilot Licence Catergor	y:	Lice	nce No.	
ype of License:	Student Pilot	☐ CPL	☐ ATPL	
otal Flight Time		Tota	I PIC Flight Time	
. Airplane Type	Hrs	1. A	irplane Type (PIC)	Hrs
2. Airplane Type	Hrs	2. A	irplane Type (PIC)	Hrs
3. Airplane Type	Hrs	3. A	irplane Type (PIC)	Hrs
Date of Last Proficien	cy Check			
Type of Requested :	□ MPL □ M	MPI		
Training (Hrs.) :				
Ground Training		Hrs.		
Simulator Training		., Hrs.		
Flight Training		Hrs.		
	80			
Applicant's Signature				
Date				
Approved by		Titl	e	
Date	***************************************			
Accepted by		DC	A Inspector	
Date		NED VISION		



# Department of Civil Aviation Multi-Crew Pilot Instructor Qualification Check

Name of Airman:	Employed by:			Date of Ch	ieck:
DCA Inspector:	Aircraft Type:		Location:	Block Tim	e:
U-Unsatisfacto	ry; S-Satisfactory	; I-Inform	nation; E-Excee	ds; N-Not Obse	rved
Descr	iption	Grade	Descr	iption	Grade
1. Usage of Trainin	g Manuals		9. Facilitate Lea	arning	
2. Comply DCA A	pproved Manual				
3. Demonstrate kno Competency Bas to Training			10. Assess Trai Performance		
4. Prepare Resource	es		11.Monitor and Progress	Review	
<ol><li>Create a climate to learning</li></ol>	conducive		12. Evaluate Tr	aining sessions	
6. Present knowled	ge		13. Report Outo	come	
7. Integrate Threat Management (Th			14.Apply Airbo Instructional		
8. Manage Time to achieve Training objectives			15. Instructor C And Respon	haracteristics	
				fety Instruction	
	nce: FACTORY TISFACTORY		DCA Inspector	r Signature:	
DCA/OPS-MPL INS			Eff. Date	22 JANUARY 2010	0



# DEPARTMENT OF CIVIL AVIATION

# CHECK RIDE FOR MULTI-CREW PILOT LICENSE

Name o	of Alrman:	Licence No.	Date of Check:	
	yed By:	Location: Aircraft Type / Simulator:		
	tor's Name/ No:	Type of Check:	Block Time:	
		tisfactory ; SB= Satisfactory with briefing; U =	Unsatisfactory :N = Not Observed; NA	= Not Applicable)
		A. PRE-FLIGHT	SIMULATOR	AIRCRAFT
1.	Equipment Examination/Performance	and Limitation (Oral or written)		
2.	Preflight Inspection			
3.	Taxing			
4.	Powerplant Checks (Engine start / after	er start)		
		B. TAKEOFFS	SIMULATOR	AIRCRAFT
5.	Normal Takeoff			
6.	Instrument (Low visibility takeoff in Sir	nulator RVR <400M)		
7.	Crosswind / Wind Shear			
8.	Takeoff or Touch and Go with Simular	ed Powerplant Failure at V2		
9.	Reject Takeoff (Simulator only)			
	C. INSTI	UMENT PROCEDURES	SIMULATOR	AIRCRAFT
10.	Area Departure			
11.	Holding			
12.	Area Artival			
13.	Precision Approaches (ILS/ with or wi			
14.	Non precision Approaches & Landing			
15.	Circling Approaches			
16.	Missed Approaches (GA all engines /			
17.	Use of Auto Pilot, Flight Director			
	D. INI	LIGHT MANEUVERS	SIMULATOR	AIRCRAFT
18.	Steep Turns			
19.	Approaches to Stalls and Recovery			
20.	Specific Flight Characteristics/ (TCAS	/ ACAS)		
21.	Powerplant Failure			
		E. LANDINGS	SIMULATOR	AIRCRAFT
22.	Visual circuit /Touch and Go (All Eng			
23.	From Precision and Non precision Ap	proach (1-eng inop. / with or without FD / GA)		
24.	Crosswind / Wind Shear			
25.	With Simulated Powerplant(s) Failure			
26.	Rejected Landing			
27.	From Circling Approach			
28.	ILS Approach CAT I, II, IIIA. IIB, IIIC			
		F. OTHERS	SIMULATOR	AIRCRAFT
29.	Normal and Ab-normal Procedures (F	INP / P-RNAV / RVSM / ETOPS)		
30.	Emergency Procedures			

REMARKS OR COMMENTS	3:		
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	SATISFACTORY	FLIGHT OPERATIONS INSPECTOR/ DESIGNATED CHECK PILOT:	



# DEPARTMENT OF CIVIL AVIATION

# MINISTRY OF TRANSPORT THAILAND

## AIRMAN INITIAL OPERATING EXPERIENCE CHECK

NAME OF AIRMAN	DATE OF CHECK					
EMPLOYED BY			AIRCRAFT TYPE			
INSTRUCTOR PILOT INSPECTOR NAME			ROUTE BLOCK TIME			
I PREFLIGHT - FLIGHT PLANNING, - METEOROLOGY - DEPARTURE AIRPORT - CLEARANCES - FLIGHT RELEASE - DOCUMENTS  II AIRCRAFT HANDLING - CHECKS - TAXIING - TAKE OFF - CLIMB - SID COMPLANCE - ALTITUDE AWARENESS - DESCENT & CHECK - LANDING  REMARKS/COMMENTS:-			III EN-ROUTE  - CLEARANCES - NAV, & FACILITIES - COMMUNICATION - METEOROLOGY - MEA, - A/C ALTITUDE  IV APPROACH & LANDING - COM/NAV (LANDING AIRPORT) - CLEARANCE TO DESCENT - USE OF STAR - USE OF APP. CHART - ILS. APPROACH - VOR, ADF - HOLDING - NORMAL - CROSS WIND			
RESULT OF CHECK SATISF			NSPECTOR SIGNATURE			