
AIC

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OPERATIONS ON MORE THAN ONE TYPE OR VARIANT (HELICOPTER)

1. INTRODUCTION

- 1.1 This AIC is issued in the exercise of the powers conferred under Section 24o of the Civil Aviation Act 1969.
- 1.2 This AIC sets forth a means that would be acceptable to DCA Malaysia for the purpose of complying with Regulation 41 of the Civil Aviation Regulations (CAR) 1996.

2. BACKGROUND

- 2.1 There has been an increase in number of helicopters introduced into Malaysia register of the same type but with significant variants. In order to avoid ambiguity with regard to technical examination and flight test requirement to the flight crew, listed below are the guidelines to be adopted for type rating endorsement and this requirement has to be reflected in the company's Operations Manual.
- 2.2 A flight crew member may not operate more than one type or a significantly different variant of a type unless the operator is satisfied that the flight crew member is competent to do so and has established procedures for such multi type/variant operations to the satisfaction of the Department of Civil Aviation.

3. TYPE GROUPING

- 3.1 Attachment A (Table 1) provides the list of most helicopter types currently operating in Malaysia. The helicopter types is divided into two major groups which delineates the operating system employed in each group; one group being **analog** and the other being **digital** based instrumentation. The differentiation is also made to the engine fitted to the helicopter namely **Single** or **Multi-Engine** and **Piston** or **Turbine**.
- 3.2 All helicopters under the same group are considered variants of equivalent type, thus they will be labeled as **similar variant**. On the other hand, the variants in the other group are considered **significant difference variant** due to significant changes made onto the systems namely the cockpit (analog or digital etc.) as well the engine (single or twin etc.).

4. LICENSE ENDORSEMENT

- 4.1 To streamline and standardize the practice, the pilot after having completed his type conversion course and endorsement flight test, his license will be endorsed with all the **similar variants** in that group even though his type conversion is only on one variant in the same group.
- 4.2 In order to exercise the privileges of flying the other helicopters in **similar variant** group, the pilot shall have to go through a differences conversion course of comparable standard to manufacturers or other approved operators. A syllabus shall have to be forwarded to the DCA Malaysia for approval before this training may take place and the company's Operations Manual to be amended accordingly. A copy of the flight test report is to be forwarded to the DCA Malaysia after completion of the training.
- 4.3 In order to exercise the privileges of flying the other **significant difference variant** group, the pilot shall have to go through a **full type rating** course at a manufacturer organization or other approved Type Rating Training Organizations (TRTO). Type technical examination for this conversion shall be done by the DCA Malaysia. In case where the conversion is done by overseas manufacturer or TRTO, all reports are to be forwarded to the DCA Malaysia. A new endorsement flight test by the DCA Malaysia shall be required before the list of these variants be included in the pilot license.

5. CERTIFICATE OF TEST

- 5.1 A pilot whose license has been endorsed with the relevant types or variants is allowed to exercise his privileges as stipulated in Regulation 41 and 8th Schedule of CAR 1996 as long as he is competent or qualified on that type or variant.
- 5.2 If a pilot is qualified on more than one variant either **similar variant** or **significant difference variant** or **a combination of both**, he shall be considered competent on those helicopters if he completes a Certificate of Test (C of T) in any one of those helicopters. However, the C of T shall be done alternately between those helicopters that he is qualified.
- 5.3 An operational acceptance check or line check shall also be done alternately between those qualified variant helicopters to renew pilot's qualification on those said helicopters.

6. ABSOLUTE LIMIT

- 6.1 The maximum number of ratings a pilot can hold simultaneously shall be limited to **THREE (3)** at any period of time, unless a special clearance in writing is granted by the DCA Malaysia.

7. CONCLUSION

- 7.1 This AIC supercedes AIC 09/1997 dated 28 July 1997.

DATO' AZHARUDIN ABDUL RAHMAN

Director General

Department of Civil Aviation

Malaysia

ATTACHMENT A

TABLE 1

NO	V TYPE (MANUFACTURER)	W CERTIFICATION	X	Y	Z LICENSE ENDORSEMENT	
1	AGUSTA					
	SET	A	A119 Koala		A119	
	MET	A	A109A A109A II A109C	D1	D2	A109A/C
		B	A109E A109S	D1		A109E/S
	SEP	A	Bell 47D Bell 47G Series Bell 47H Series Bell 47J Series	D1	D2	B47
	SET	A	Bell 47T Bell 47TA	D1		B47T
			Bell 204	D1	B204	
			Bell 205A-1			
			UH-1D			
			Bell 206A Bell 206B Bell 206B2 Bell 206B3	D1	D2	B206B Series
			Bell 206L Bell 206L-1 Bell 206L-3 Bell 206L-4	D1		B206L Series
	Bell 214B Bell 214B1	D1		B214		
	B	Bell 407		B407		
	MET	A	Bell 206LT Twin Ranger			B206LT
			Bell 212	D1	D2	B212/B412
			Bell 412 Bell 412SP Bell 412HP Bell 412EP			
			Bell 214ST		B214ST	
Bell 222 Bell 222A Bell 222B Bell 222UT Bell 222SP			D1	B222 Series		
B			Bell 230 Bell 430	D1	B230/B430	
A	Bell 427	D1	B427			

2	EH INDUSTRIES					
	MET	B	EH101			EH101
3	EUROCOPTER					
	SET	A	AS 350B AS 350B1 AS 350B2 AS 350D AS 350BA AS 350BB AS 350B3	D1		AS350/AS350B3
			EC 130B4			EC130B4
			EC 120			EC120
	MET	A	AS 332C AS 332C1 AS 332L AS 332L1	D1	D2	AS332
		B	AS 332L2			AS332L2
			EC 225LP			EC225
		A	AS 355E AS 355F AS 355F1 AS 355F2	D1	D2	AS355E/F
			AS 355N			AS355N
		A	BO 105A BO 105C BO 105D BO 105LS A-1 BO 105LS A-3 BO 105S BO 105CBS	D1		BO105 Series
		B	EC 135T1 CDS EC 135P1 CDS	D1	D2	EC135 CDS
			EC 135T1 CPDS EC 135P1 CPDS EC 135T2 CPDS EC 135P2 CPDS	D1		EC135 CPDS
		A	SA 330F SA 330G SA 330J	D1		SA330
		A	SA 365 SA 365C1 SA 365C2 SA 365C3	D1	D2	SA365
			SA 365N SA 365N1 AS 365N2			
		B	AS 365N3			AS365N
			EC 155B/B1			EC155

4	HUGHES-SCHWEIZER					
	SEP	A	269A 269B 269C 300CB	D1	D2	HU269
	SET	A	330SP			SC330
5	ROBINSON					
	SEP	A	R 22 R 22A R 22B R 44	D1		R22
						R44
6	SIKORSKY					
	SEP	A	S 55			SK55
			S 58			SK58
	MET	A	S 58T			SK58T
		A	S 76A S 76A+ S 76A++ S 76C	D1	D2	S76A/C
			S 76B			S76B
		B	S 76C+ S 76C++	D1		S76C+/C++
		A	S 61N			S61N
B		S 92			S92	

Legend:

SEP – Single Engine Piston

SET – Single Engine Turbine

MET – Multi Engine Turbine

A – Analog Based Cockpit

B – Digital Based Cockpit

D1 – Small Differences: a Short In-House Conversion Course is allowed (Differences Course)

D2 – Significant Differences: a Manufacturer or TRTO Conversion Course is required (Full Type Rating Course)

Note:

1. All helicopters in the same box in column W signify variants of the same (small differences) type. Thus D1 represents the requirements to convert from one variant to another in the same box.
2. Helicopters from neighboring box within the outer double line signify variants of different (significant differences) type. Thus D2 represents the requirement to convert from one variant to another of different box.