

ประกาศสำนักงานการบินพลเรือนแห่งประเทศไทย

เรื่อง หลักเกณฑ์ วิธีการ และกำหนดเวลาในการบำรุงรักษาเพื่อคงความต่อเนื่องของความสมควร
เดินอากาศสำหรับอากาศยานที่มีใบรับรองแบบ (Thailand Civil Aviation Regulation - Airworthiness
Part Continuing Airworthiness (TCAR AIR Part - M and Part - ML))

พ.ศ. ๒๕๖๗

อาศัยอำนาจตามความในมาตรา ๔๑/๓๗ (๑) และวรรคสอง แห่งพระราชบัญญัติการเดินอากาศ
พ.ศ. ๒๔๙๗ ซึ่งแก้ไขเพิ่มเติมโดยพระราชบัญญัติการเดินอากาศ (ฉบับที่ ๑๑) พ.ศ. ๒๕๕๑
และพระราชกำหนดแก้ไขเพิ่มเติมพระราชบัญญัติการเดินอากาศ พ.ศ. ๒๔๙๗ พ.ศ. ๒๕๕๘
ประกอบข้อ ๗ (๑๐) ของข้อบังคับของสำนักงานการบินพลเรือนแห่งประเทศไทย ฉบับที่ ๒๗
ว่าด้วยการปฏิบัติการของผู้ได้รับใบรับรองผู้ดำเนินการเดินอากาศ ผู้อำนวยการสำนักงานการบินพลเรือน
แห่งประเทศไทย จึงออกประกาศเพื่อกำหนดหลักเกณฑ์ วิธีการ และกำหนดเวลาสำหรับ
การบำรุงรักษาอากาศยานเพื่อคงความต่อเนื่องของความสมควรเดินอากาศสำหรับอากาศยาน
ที่มีใบรับรองแบบไว้ ดังต่อไปนี้

ข้อ ๑ ประกาศนี้เรียกว่า “ประกาศสำนักงานการบินพลเรือนแห่งประเทศไทย เรื่อง หลักเกณฑ์
วิธีการ และกำหนดเวลาในการบำรุงรักษาเพื่อคงความต่อเนื่องของความสมควรเดินอากาศสำหรับ
อากาศยานที่มีใบรับรองแบบ (Thailand Civil Aviation Regulation - Airworthiness Part Continuing
Airworthiness (TCAR AIR Part - M and Part - ML)) พ.ศ. ๒๕๖๗”

ข้อ ๒ ประกาศนี้ให้ใช้บังคับตั้งแต่วันประกาศเป็นต้นไป

ข้อ ๓ ให้ยกเลิก

(๑) ประกาศกรมการขนส่งทางอากาศ เรื่อง การคงความต่อเนื่องของความสมควรเดินอากาศ
ของอากาศยาน ประกาศ ณ วันที่ ๓๐ เมษายน พ.ศ. ๒๕๕๑

(๒) ประกาศกรมการขนส่งทางอากาศ เรื่อง การบำรุงรักษา (Maintenance) การบำรุงรักษา
เชิงป้องกัน (Preventive Maintenance) การบูรณะ (Rebuilding) และการดัดแปลง (Alteration)
ประกาศ ณ วันที่ ๕ มกราคม พ.ศ. ๒๕๕๑

(๓) ประกาศสำนักงานการบินพลเรือนแห่งประเทศไทย เรื่อง แผนการบำรุงรักษาอากาศยาน
ของผู้ได้รับใบรับรองผู้ดำเนินการเดินอากาศ พ.ศ. ๒๕๖๐ ประกาศ ณ วันที่ ๑๑ กันยายน พ.ศ. ๒๕๖๐

ข้อ ๔ ในประกาศนี้

“การคงความต่อเนื่องของความสมควรเดินอากาศ” (Continuing Airworthiness) หมายความว่า การดำเนินการทั้งปวงเพื่อให้อากาศยานมีความสมควรเดินอากาศตามหลักเกณฑ์ ความสมควรเดินอากาศ (Airworthiness Requirements) และอยู่ในสภาพที่ใช้งานได้อย่างปลอดภัย เมื่อปฏิบัติการบิน แต่ไม่รวมถึงการซ่อมบำรุงอากาศยาน

“การซ่อมบำรุงอากาศยาน” หมายความว่า งานด้านการซ่อมบำรุงอากาศยานที่ต้องดำเนินการ โดยผู้ได้รับใบรับรองหน่วยซ่อมตามกฎหมายว่าด้วยการเดินอากาศ

“อากาศยาน” หมายความว่า อากาศยานที่มีใบรับรองแบบและได้รับใบสำคัญสมควรเดินอากาศตามกฎหมายว่าด้วยการเดินอากาศ

“อากาศยานที่มีความซับซ้อน” (Complex motor-powered Aircraft) หมายความว่า อากาศยานใด ๆ ที่มีลักษณะอย่างใดอย่างหนึ่ง ดังต่อไปนี้

(๑) เครื่องบินที่มีมวลรวมวิ่งขึ้นสูงสุดมากกว่าห้าพันเจ็ดร้อยกิโลกรัม หรือบรรทุกผู้โดยสารมากกว่าสิบเก้าที่นั่ง หรือปฏิบัติการบินโดยใช้นักบินไม่น้อยกว่าสองคน หรือใช้เครื่องยนต์กังหันก๊าซ (Turbojet) หนึ่งเครื่องยนต์หรือมากกว่า หรือเครื่องยนต์กังหันก๊าซใบพัด (Turboprop) มากกว่า หนึ่งเครื่องยนต์ขึ้นไป หรือ

(๒) เฮลิคอปเตอร์ที่มีมวลรวมวิ่งขึ้นสูงสุดมากกว่าสามพันหนึ่งร้อยเจ็ดสิบกิโลกรัม หรือบรรทุกผู้โดยสารมากกว่าเก้าที่นั่ง หรือปฏิบัติการบินโดยใช้นักบินตั้งแต่สองคนขึ้นไป

(๓) อากาศยานที่สามารถปฏิบัติการบินโดยขึ้นลงทางดิ่ง (Tilt Rotor Aircraft)

“อากาศยานเบา LA1” (LA1 Aircraft) หมายความว่า อากาศยานที่มีลักษณะอย่างใดอย่างหนึ่ง ดังต่อไปนี้

(๑) เครื่องบินที่มีมวลรวมวิ่งขึ้นสูงสุดไม่เกินหนึ่งพันสองร้อยกิโลกรัม และไม่ใช่อากาศยานที่มีความซับซ้อน (Complex motor-powered Aircraft)

(๒) เครื่องร่อนหรือเครื่องร่อนที่มีกำลังขับเคลื่อน ที่มีมวลรวมวิ่งขึ้นสูงสุดไม่เกินหนึ่งพันสองร้อยกิโลกรัม

(๓) บัลลูนที่ใช้แก๊สหรืออากาศร้อน ซึ่งมีปริมาตรสูงสุดไม่เกินสามพันสี่ร้อยลูกบาศก์เมตร (m^3) สำหรับบัลลูนที่ใช้อากาศร้อน (Hot-air Balloon) หรือหนึ่งพันห้าสิบลูกบาศก์เมตร (m^3) สำหรับบัลลูนที่ใช้แก๊ส (Gas Balloons) และสามร้อยลูกบาศก์เมตร (m^3) สำหรับบัลลูนล่าม (Tethered Gas Balloons)

(๔) นาวาอากาศ ที่มีที่นั่งไม่เกินสี่ที่นั่งและใช้แก๊สหรือความร้อนในการยกตัวขึ้น โดยมีขนาดไม่เกินสามพันสี่ร้อยลูกบาศก์เมตร (m^3) สำหรับนาวาอากาศที่ใช้อากาศร้อน (Hot Air Airships) และหนึ่งพันลูกบาศก์เมตร (m^3) สำหรับนาวาอากาศที่ใช้แก๊ส (Gas Airships)

“อากาศยานเบา LA2” (LA2 Aircraft) หมายความว่า อากาศยานที่มีลักษณะอย่างใดอย่างหนึ่งดังต่อไปนี้

(๑) เครื่องบินที่มีมวลรวมวิ่งขึ้นสูงสุดไม่เกินสองพันกิโลกรัม และไม่ใช่อากาศยานที่มีความซับซ้อน (Complex motor-powered Aircraft)

(๒) เครื่องร่อนหรือเครื่องร่อนที่มีกำลังขับเคลื่อน ซึ่งมีมวลรวมวิ่งขึ้นสูงสุดไม่เกินสองพันกิโลกรัม

(๓) บัลลูน

(๔) นาวาอากาศที่ใช้อากาศร้อน (Hot Air Airships)

(๕) นาวาอากาศที่ใช้แก๊ส (Gas Airships) ซึ่งมีลักษณะ ดังนี้

(ก) มีน้ำหนักคงที่สูงสุดร้อยละสาม (3% Maximum Static Heaviness)

(ข) แรงขับเคลื่อนไม่สามารถปรับทิศทางได้ (Non-vectoring Thrust) เว้นแต่มีระบบแรงขับเคลื่อนย้อนกลับ (Reverse Thrust)

(ค) มีโครงสร้างระบบการควบคุมและระบบของนาวาอากาศที่มีการออกแบบเรียบง่าย

(ง) ไม่มีระบบเสริมแรงในการควบคุมการบิน (Non-power Assisted Controls)

(๖) อากาศยานปีกหมุน (Very Light Rotorcraft)

“ใบรับรองให้ดำเนินงานด้านการคงความต่อเนื่องของความสมควรเดินอากาศ (CAMO)” หมายความว่า หนังสือสำคัญที่ออกให้สำหรับผู้ได้รับการรับรองให้ดำเนินงานด้านการคงความต่อเนื่องของความสมควรเดินอากาศ (Continue Airworthiness Management Organization: CAMO)

“ใบรับรองให้ดำเนินงานด้านการคงความต่อเนื่องของความสมควรเดินอากาศและการซ่อมบำรุงอากาศยาน (CAO)” หมายความว่า หนังสือสำคัญที่ออกให้สำหรับผู้ได้รับการรับรองให้ดำเนินงานด้านการคงความต่อเนื่องของความสมควรเดินอากาศและการซ่อมบำรุงอากาศยาน (Combined Airworthiness Organization: CAO)

“สำนักงาน” หมายความว่า สำนักงานการบินพลเรือนแห่งประเทศไทย

ข้อ ๕ อากาศยานดังต่อไปนี้ต้องได้รับการคงความต่อเนื่องของความสมควรเดินอากาศตามหลักเกณฑ์ วิธีการ และกำหนดเวลา ที่กำหนดไว้ใน Thailand Civil Aviation Regulation - Airworthiness Part Continuing Airworthiness (TCAR AIR Part - M) Issue 01 Revision ๐๐ Date 15 November 2024 แนบท้ายประกาศนี้

(๑) อากาศยานทุกประเภทที่ใช้ในการปฏิบัติการบินภายใต้ใบรับรองผู้ดำเนินการเดินอากาศ

(๒) อากาศยานที่มีความซับซ้อน (Complex motor-powered Aircraft)

(๓) เครื่องบินที่มีมวลวิ่งขึ้นสูงสุด (Maximum Take-off Mass) เกินกว่าสองพันเจ็ดร้อยสามสิบกิโลกรัม

(๔) อากาศยานปีกหมุน (Rotorcraft) ที่มีมวลวิ่งขึ้นสูงสุด (Maximum Take-off Mass) เกินกว่าหนึ่งพันสองร้อยกิโลกรัม หรือบรรทุกผู้โดยสารเกินกว่าสี่ที่นั่ง

การคงความต่อเนื่องของความสมควรเดินอากาศตามข้อนี้ ต้องดำเนินการโดยผู้ได้รับใบรับรองให้ดำเนินงานด้านการคงความต่อเนื่องของความสมควรเดินอากาศ (CAMO) เว้นแต่กรณีเป็นอากาศยานตาม (๓) และ (๔) ที่มีได้ปฏิบัติการบินภายใต้ใบรับรองผู้ดำเนินการเดินอากาศ และมีใช้อากาศยานที่มีความซับซ้อน ให้ผู้ได้รับใบรับรองให้ดำเนินงานด้านการคงความต่อเนื่องของความสมควรเดินอากาศ และการซ่อมบำรุงอากาศยาน (CAO) มีสิทธิดำเนินการได้

ข้อ ๖ อากาศยานดังต่อไปนี้ต้องได้รับการคงความต่อเนื่องของความสมควรเดินอากาศตามหลักเกณฑ์ วิธีการ และกำหนดเวลา ที่กำหนดไว้ใน Thailand Civil Aviation Regulation - Airworthiness Part Continuing Airworthiness (TCAR AIR Part - ML) Issue 01 Revision 00 Date 15 November 2024 แนบท้ายประกาศนี้

(๑) เครื่องบินที่มีมวลวิ่งขึ้นสูงสุด (Maximum Take-off Mass) ไม่เกินสองพันเจ็ดร้อยสามสิบกิโลกรัม

(๒) อากาศยานปีกหมุน (Rotorcraft) ที่มีมวลวิ่งขึ้นสูงสุด (Maximum Take-off Mass) ไม่เกินหนึ่งพันสองร้อยกิโลกรัม และบรรทุกผู้โดยสารไม่เกินสี่ที่นั่ง

(๓) อากาศยานเบา LA2

(๔) อากาศยานอื่นใดนอกเหนือจากที่กำหนดไว้ในข้อ ๕

การคงความต่อเนื่องของความสมควรเดินอากาศตามข้อนี้ ต้องดำเนินการโดยผู้ได้รับใบรับรองให้ดำเนินงานด้านการคงความต่อเนื่องของความสมควรเดินอากาศและการซ่อมบำรุงอากาศยาน (CAO) หรือใบรับรองให้ดำเนินงานด้านการคงความต่อเนื่องของความสมควรเดินอากาศ (CAMO) เว้นแต่อากาศยานซึ่งมิได้ปฏิบัติการบินขนส่งทางอากาศเพื่อการพาณิชย์ และมีได้ปฏิบัติการบินภายใต้ใบรับรองสถาบันฝึกอบรมด้านการบิน ให้ผู้จดทะเบียนอากาศยานมีสิทธิดำเนินการด้านการคงความต่อเนื่องของความสมควรเดินอากาศของอากาศยานนั้นได้

ข้อ ๗ ผู้ได้รับใบรับรองให้ดำเนินงานด้านการคงความต่อเนื่องของความสมควรเดินอากาศ (CAMO) และผู้ได้รับใบรับรองให้ดำเนินงานด้านการคงความต่อเนื่องของความสมควรเดินอากาศและการซ่อมบำรุงอากาศยาน (CAO) ที่ทำการคงความต่อเนื่องของความสมควรเดินอากาศให้แก่อากาศยานลำใด ต้องจัดทำรายงานการทบทวนความสมควรเดินอากาศ (Airworthiness Review Report) สำหรับอากาศยานลำนั้น และนำส่งสำเนารายงานดังกล่าวต่อสำนักงานภายในสิบวันนับแต่วันที่จัดทำรายงาน

รายงานการทบทวนความสมควรเดินอากาศตามวรรคหนึ่งให้มีอายุหนึ่งปีนับแต่วันที่จัดทำรายงาน

ผู้ได้รับใบรับรองให้ดำเนินงานด้านการคงความต่อเนื่องของความสมควรเดินอากาศ (CAMO) และผู้ได้รับใบรับรองให้ดำเนินงานด้านการคงความต่อเนื่องของความสมควรเดินอากาศและการซ่อมบำรุงอากาศยาน (CAO) ที่ทำการคงความต่อเนื่องของความสมควรเดินอากาศให้แก่อากาศยานลำใด ที่มีได้ทำรายงานการทบทวนความสมควรเดินอากาศให้แก่อากาศยานและมิได้นำส่งสำเนารายงานการทบทวนความสมควรเดินอากาศให้แก่สำนักงานตามวรรคหนึ่ง ให้ถือว่าอากาศยานนั้นมิได้รับการบำรุงรักษาเพื่อคงความต่อเนื่องของความสมควรเดินอากาศตามประกาศนี้

ข้อ ๘ ผู้ดำเนินการเดินอากาศหรือผู้จดทะเบียนอากาศยานที่ทำการบำรุงรักษาเพื่อคงความต่อเนื่องของความสมควรเดินอากาศให้แก่อากาศยานอยู่ก่อนวันที่ประกาศนี้ใช้บังคับและยังมิได้รับใบรับรองให้ดำเนินงานด้านการคงความต่อเนื่องของความสมควรเดินอากาศ (CAMO) และใบรับรองให้ดำเนินงานด้านการคงความต่อเนื่องของความสมควรเดินอากาศและการซ่อมบำรุงอากาศยาน (CAO) ให้ทำการบำรุงรักษาเพื่อคงความต่อเนื่องของความสมควรตามหลักเกณฑ์และวิธีการที่กำหนดไว้ดังต่อไปนี้

(๑) ประกาศกรมการขนส่งทางอากาศ เรื่อง การคงความต่อเนื่องของความสมควรเดินอากาศของอากาศยาน ประกาศ ณ วันที่ ๓๐ เมษายน พ.ศ. ๒๕๕๑

(๒) ประกาศกรมการขนส่งทางอากาศ เรื่อง การบำรุงรักษา (Maintenance) การบำรุงรักษาเชิงป้องกัน (Preventive Maintenance) การบูรณะ (Rebuilding) และการดัดแปลง (Alteration) ประกาศ ณ วันที่ ๕ มกราคม พ.ศ. ๒๕๕๑

(๓) ประกาศสำนักงานการบินพลเรือนแห่งประเทศไทย เรื่อง แผนการบำรุงรักษาอากาศยานของผู้ได้รับใบรับรองผู้ดำเนินการเดินอากาศ พ.ศ. ๒๕๖๐ ประกาศ ณ วันที่ ๑๑ กันยายน พ.ศ. ๒๕๖๐

ผู้ดำเนินการเดินอากาศให้ทำการบำรุงรักษาเพื่อคงความต่อเนื่องของความสมควรเดินอากาศตามวรรคหนึ่ง ได้จนถึงวันที่ ๒ ธันวาคม พ.ศ. ๒๕๖๘

ผู้จดทะเบียนอากาศยานที่มีผู้ดำเนินการเดินอากาศให้ทำการบำรุงรักษาเพื่อคงความต่อเนื่องของความสมควรเดินอากาศตามวรรคหนึ่งได้จนถึงวันที่ ๑๕ พฤศจิกายน พ.ศ. ๒๕๗๐

ประกาศ ณ วันที่ ๑๕ พฤศจิกายน พ.ศ. ๒๕๖๗

สุทธิพงษ์ คงพูล

ผู้อำนวยการสำนักงานการบินพลเรือนแห่งประเทศไทย



Thailand Civil Aviation Regulation – Airworthiness
Part Continuing Airworthiness
(TCAR AIR Part - M)

Issue: 01

Revision: 00

Date 15 November 2024

Approved by

Suttipong Kongpool

Director General

The Civil Aviation Authority of Thailand

THAILAND CIVIL AVIATION REGULATION (TCAR)

INTENTIONALLY LEFT BLANK

RECORD OF REVISIONS

| Revision No. | Date (DD-MMM-YYYY) | Subject | Insert By (Department) |
|--------------|-----------------------|---------------|---------------------------|
| 00 | 15 Nov 2024 | Initial Issue | AIR |
| | | | |

INTENTIONALLY LEFT BLANK

INTENTIONALLY LEFT BLANK

INTRODUCTION AND APPLICABILITY

This requirement establishes common technical requirements to ensure the continuing airworthiness of aircraft, including any component for installation thereto, which are registered in Kingdom of Thailand and have a standard certificate of airworthiness.

The continuing airworthiness of all following aircraft and components for installation thereon shall be ensured to be in accordance with the requirements of TCAR AIR Part-M

- a) aircraft listed in AOC in accordance with TCAR OPS
- b) complex motor-powered aircraft
- c) aeroplanes of maximum take-off mass more than 2,730 kg
- d) rotorcraft of maximum take-off mass more than 1,200 kg. or certified for a maximum of more than 4 occupants.

Aircraft other than a) to d), TCAR AIR Part-ML shall apply.

In this requirement the word 'shall' is used to indicate where the Director General expects the person or organisation to respond and adhere closely to the defined requirement.

DEFINITIONS

- (a) **“Complex motor-powered aircraft”** shall mean:
- (i) an aeroplane:
 - with a maximum certificated take-off mass exceeding 5,700 kg, or
 - certificated for a maximum passenger seating configuration of more than nineteen, or
 - certificated for operation with a minimum crew of at least two pilots, or
 - equipped with one or more turbojet engines or more than one turboprop engine
 - (ii) a helicopter certificated:
 - for a maximum take-off mass exceeding 3,175 kg, or
 - for a maximum passenger seating configuration of more than nine, or
 - for operation with a minimum crew of at least two pilots
 - (ii) a tilt rotor aircraft;
- (b) **‘LA1 aircraft’** shall mean the following manned Light Aircraft:
- (i) an aeroplane with a maximum take-off mass (MTOM) of 1,200 kg or less that is not classified as a Complex aircraft;
 - (ii) a sailplane or powered sailplane of 1,200 kg MTOM or less;
 - (iii) a balloon with a maximum design lifting gas or hot air volume of not more than 3,400 m³ for hot air balloons, 1,050 m³ for gas balloons, 300 m³ for tethered gas balloons;
 - (iv) an airship designed for not more than four occupants and a maximum design lifting gas or hot air volume of not more than 3,400 m³ for hot air airships and 1,000 m³ for gas airships;
- (c) **‘LA2 aircraft’** shall mean the following manned Light Aircraft:
- (i) an aeroplane with a Maximum Take-off Mass (MTOM) of 2,000 kg or less that is not classified as a Complex aircraft;
 - (ii) a sailplane or powered sailplane of 2,000 kg MTOM or less;
 - (iii) a balloon;
 - (iv) a hot airship;
 - (v) a gas airship complying with all of the following characteristics:
 - 3 % maximum static heaviness,
 - non-vector thrust (except reverse thrust),
 - conventional and simple design of structure, control system and ballonnet system,
 - non-power assisted controls.
- (d) - Reserved -
- (e) **‘limited operations’** means the operations of other-than-complex aircraft for:
- (i) cost-shared flights by private individuals, on the condition that the direct cost is shared by all the occupants of the aircraft, pilot included and the number of persons sharing the direct costs is limited to six;

- (ii) competition flights or flying displays, on the condition that the remuneration or any valuable consideration given for such flights is limited to recovery of direct costs and a proportionate contribution to annual costs;
- (iii) introductory flights, parachute dropping, sailplane towing or aerobatic flights performed either by a training organisation, or by an organisation created with the aim of promoting aerial sport or leisure aviation, on the condition that the aircraft is operated by the organisation on the basis of ownership or dry lease, that the flight does not generate profits distributed outside of the organisation, and that whenever non-members of the organisation are involved, such flights represent only a marginal activity of the organisation.

For the purpose of this Regulation, 'limited operations' are not considered as CAT operations or commercial specialised operations;

- (f) '**independent certifying staff**' means certifying staff who do not work on behalf of an approved maintenance organisation and who comply with the requirements of TCAR PEL Part-66;
- (g) '**maintenance organisation**' means an organisation holding an approval issued in accordance with, either:
 - (i) TCAR AIR Part-145; or
 - (ii) TCAR AIR Part-CAO.
- (h) '**owner**' means the person responsible for the continuing airworthiness of the aircraft, including:
 - (i) Thai registered owner of the aircraft;
 - (ii) the lessee in the case of a leasing contract;
 - (iii) the operator.
- (i) '**Airworthy**' means the status of an aircraft, engine, propeller or part when it conforms to its approved design and is in a condition for safe operation.
- (j) '**Continuing airworthiness**' means the set of processes by which all aircraft comply with the applicable airworthiness requirements and remain in a condition for safe operation throughout their operating life.

ABBREVIATION

| | |
|------|--|
| ALI | Airworthiness Limitation Items |
| AMP | Aircraft Maintenance Programme |
| AOC | Air Operator Certificate |
| ATO | Aircraft Training Organisation |
| CAAT | The Civil Aviation |
| CAMO | Continuing Airworthiness Management Organisation |
| CAO | Combined Airworthiness Management Organisation |
| MTOM | Maximum take-off mass |
| NDT | Non-Destructive Testing |
| PIC | Pilot in Command |
| TCAR | Thailand Civil Aviation Regulation |
| TSO | Technical Standard Order |

TABLE OF CONTENTS

| | |
|--|----|
| RECORD OF REVISIONS | 1 |
| LIST OF EFFECTIVE PAGES | 3 |
| INTRODUCTION AND APPLICABILITY | 5 |
| DEFINITIONS..... | 6 |
| ABBREVIATION | 8 |
| TABLE OF CONTENTS..... | 9 |
| TCAR AIR PART-M..... | 10 |
| SUBPART A — GENERAL..... | 10 |
| M.A.101 Scope..... | 10 |
| SUBPART B — ACCOUNTABILITY..... | 11 |
| M.A. 201 Responsibilities | 11 |
| M.A. 202 Occurrence reporting..... | 13 |
| SUBPART C — CONTINUING AIRWORTHINESS | 14 |
| M.A. 301 Continuing airworthiness tasks..... | 14 |
| M.A. 302 Aircraft Maintenance Programme | 14 |
| M.A. 303 Airworthiness Directive..... | 15 |
| M.A. 304 Data for modifications and repairs | 15 |
| M.A. 305 Aircraft continuing airworthiness record system | 15 |
| M.A. 306 Aircraft technical log system..... | 17 |
| M.A. 307 Transfer of aircraft continuing airworthiness records..... | 17 |
| SUBPART D — MAINTENANCE STANDARDS | 18 |
| M.A. 401 Maintenance data..... | 18 |
| M.A. 402 Performance of maintenance | 18 |
| M.A. 403 Aircraft defects | 19 |
| SUBPART E — COMPONENTS..... | 20 |
| M.A. 501 Installation | 20 |
| M.A. 502 Component maintenance | 20 |
| M.A. 503 Life-limited parts and time-controlled components..... | 21 |
| M.A. 504 Segregation of components..... | 21 |
| SUBPART H — CERTIFICATE OF RELEASE TO SERVICE — CRS | 22 |
| M.A. 801 Aircraft certificate of release to service..... | 22 |
| M.A. 802 Component certificate of release to service..... | 23 |
| M.A. 803 Pilot-owner authorisation..... | 23 |
| SUBPART I — AIRWORTHINESS REVIEW | 24 |
| M.A. 901 Aircraft airworthiness review | 24 |
| M.A. 902 Validity of the airworthiness review report..... | 25 |
| M.A. 903 -Reserved- | 26 |
| M.A. 904 Airworthiness review of aircraft imported into THAILAND | 26 |
| M.A. 905 Finding..... | 26 |
| APPENDICES TO TCAR AIR PART-M | 27 |
| Appendix I —Continuing airworthiness management contract..... | 27 |
| Appendix II — Authorized release certificate - CAAT Form 1..... | 30 |
| Appendix III — Airworthiness Review Report – CAAT Form 15A | 35 |
| Appendix IV — Complex Maintenance Tasks | 43 |
| Appendix V — Limited Pilot-owner maintenance | 45 |

TCAR AIR PART-M

SUBPART A — GENERAL

M.A.101 Scope

This part establishes the measures to be taken to ensure that the airworthiness of the aircraft is maintained, including its maintenance. It also specifies the conditions to be met by the persons or organisations involved in such activities.

SUBPART B — ACCOUNTABILITY

M.A. 201 Responsibilities

- (a) The owner is responsible for the continuing airworthiness of an aircraft and shall ensure that no flight takes place unless:
- (1) the aircraft is maintained in an airworthy condition, and;
 - (2) any operational and emergency equipment fitted is correctly installed and serviceable or clearly identified as unserviceable, and;
 - (3) the airworthiness certificate remains valid, and;
 - (4) the maintenance of aircraft is performed in accordance with the maintenance programme as specified in point M.A.302.
- (b) When the aircraft is leased, the responsibilities of the owner are transferred to the lessee if:
- (1) the lessee is specified on the registration document; or
 - (2) detailed in the leasing contract.

When reference is made in this Part to the 'owner', the term owner covers the owner or the lessee, as applicable.

- (c) Any person or organisation performing maintenance shall be responsible for the tasks performed.
- (d) The PIC or, in the case of an AOC holder in accordance with TCAR OPS, the operator shall be responsible for the satisfactory accomplishment of the pre-flight inspection. This inspection must be carried out by the pilot or another qualified person but not need to be carried out by an approved maintenance organisation or by TCAR PEL Part-66 certifying staff.
- (e) In the case of aircraft used by an AOC holder in accordance with TCAR OPS, the operator is responsible for the continuing airworthiness of the aircraft it operates and shall:
- (1) ensure that no flight takes place unless the conditions defined in point (a) are met;
 - (2) be approved, as part of its AOC, as a continuing airworthiness management organisation pursuant to TCAR AIR Part-CAMO for the aircraft it operates; and
 - (3) be approved in accordance with TCAR AIR Part-145 or establish a contract in accordance with CAMO.A.315(c) of TCAR AIR Part-CAMO with an organisation approved in accordance with TCAR AIR Part-145.
- (f) For complex motor-powered aircraft used for commercial specialised operations, the operator shall ensure that:
- (1) no flight takes place unless the conditions defined in paragraph (a) are met;
 - (2) the tasks associated with continuing airworthiness are performed by an approved CAMO. When the operator is not Part-CAMO approved itself then the operator shall establish a written contract in accordance with Appendix I with an organisation approved in accordance with TCAR AIR Part-CAMO;
 - (3) the CAMO referred to in (2) is approved in accordance with TCAR AIR Part-145 for the maintenance of the aircraft and components for installation thereon, or it has established a written contract in accordance with CAMO.A.315(c) with an organisation approved in accordance with TCAR AIR Part-145.
- (g) For complex motor-powered aircraft not included in point (e) or point (f), the owner shall ensure that:
- (1) no flight takes place unless the conditions defined in paragraph (a) are met;

- (2) the tasks associated with continuing airworthiness are performed by an approved CAMO. When the owner is not Part-CAMO approved itself then the owner shall establish a written contract in accordance with Appendix I with an organisation approved in accordance with TCAR AIR Part-CAMO;
 - (3) the CAMO referred to in (2) is approved in accordance with TCAR AIR Part-145 for the maintenance of the aircraft and components for installation thereon, or it has established a written contract in accordance with CAMO.A.315(c) with an organisation approved in accordance with TCAR AIR Part-145.
- (h) For non-complex motor-powered aircraft used for commercial specialised operations in accordance with TCAR OPS, the operator shall ensure that:
- (1) no flight takes place unless the conditions defined in point (a) are met;
 - (2) the tasks associated with continuing airworthiness are performed by an approved CAMO or CAO. When the operator is not TCAR AIR Part-CAMO or TCAR AIR Part-CAO approved itself then the operator shall establish a written contract in accordance with Appendix I with an organisation approved in accordance with TCAR AIR Part-CAMO or in accordance with TCAR AIR Part-CAO, and
 - (3) the CAMO or CAO referred to in point (2) is approved in accordance with Part-145 or as a CAO with maintenance privileges, or that CAMO has concluded a written contract in accordance with point CAMO.A.315(c) of TCAR AIR Part-CAMO with organisations approved in accordance with TCAR AIR Part-145 or in accordance with TCAR AIR Part-CAO with maintenance privileges.
- (i) For aircraft other than complex motor-powered aircraft not included in point (e) or (h), or used for 'limited operations', the owner is responsible for ensuring that no flight takes place unless the conditions defined in point (a) are met. To that end, the owner shall:
- (1) attribute the continuing airworthiness tasks referred to in point M.A.301 to a CAMO or CAO through a written contract concluded in accordance with Appendix I; or
 - (2) carry out those tasks by themselves; or
 - (3) carry out those tasks by themselves except the tasks of the development of and the processing of the approval of the AMP, only if those tasks are performed by a CAMO or CAO through a limited contract concluded in accordance with point M.A.302.
- (j) The owner/operator shall ensure that any person authorised by CAAT is granted access to any of its facilities, aircraft or documents related to its activities, including any subcontracted activities, to determine compliance with this Part.
- (k) -Reserved-

M.A. 202 Occurrence reporting

- (a) Without prejudice to the reporting requirements set out in TCAR AIR Part-145 and Part-CAMO, any person or organisation responsible in accordance with point M.A.201 shall report any identified condition of an aircraft or component which endangers flight safety to
 - (1) CAAT and state of operator, when the aircraft is operated under another authority.
 - (2) the organisation responsible for the type design or supplemental type design.
- (b) The reports referred to in point (a) shall be made in accordance with Reporting of Civil Aviation Occurrences (CAAT Requirement No.22) and shall contain all pertinent information about the condition known to the person or organisation making the report.
- (c) Where the maintenance or the airworthiness review of the aircraft is carried out on the basis of a written contract, the person or the organisation responsible for those activities shall also report any condition referred to in point (a) to the owner and the operator of the aircraft and, when different, to the CAMO or CAO concerned.
- (d) The person or organisation shall submit the reports referred to in points (a) and (c) as soon as possible, but no later than 72 hours from the moment when the person or organisation identified the condition to which the report relates, unless exceptional circumstances prevent this.
- (e) The person or organisation shall submit a follow-up report, providing details of actions which that person or organisation intends to take to prevent similar occurrences in the future, as soon as those actions have been identified. The follow-up report shall be submitted in accordance with Reporting of Civil Aviation Occurrences (CAAT Requirement No.22).

SUBPART C — CONTINUING AIRWORTHINESS

M.A. 301 Continuing airworthiness tasks

The aircraft continuing airworthiness and the serviceability of both operational and emergency equipment shall be ensured by:

- (a) the accomplishment of pre-flight inspections;
- (b) the rectification in accordance with data specified in point M.A.304 and point M.A.401, as applicable, of any defect and damage affecting safe operation taking into account the minimum equipment list (MEL) and configuration deviation list, when applicable;
- (c) the accomplishment of all maintenance, in accordance with the aircraft maintenance programme referred to in point M.A.302;
- (d) the release of all maintenance in accordance with TCAR AIR Part-M Subpart H;
- (e) for all complex motor-powered aircraft or aircraft used by an AOC holder in accordance with TCAR OPS, the analysis of the effectiveness of the aircraft maintenance programme referred to in point M.A.302;
- (f) the accomplishment of any applicable:
 - (1) Airworthiness Directives;
 - (2) operational directive with a continuing airworthiness impact;
 - (3) continued airworthiness requirement established by CAAT;
 - (4) measures mandated by CAAT in immediate reaction to a safety problem;
- (g) the accomplishment of modifications and repairs in accordance with point M.A.304;
- (h) delivering to the pilot-in-command, or to the operator in the case of an AOC holder in accordance with TCAR OPS, the mass and balance statement, which reflects the current configuration of the aircraft;
- (i) maintenance check flights when necessary.

M.A. 302 Aircraft Maintenance Programme

- (a) Maintenance of each aircraft shall be organised in accordance with an aircraft maintenance programme (AMP).
- (b) The AMP and any subsequent amendments shall be approved by CAAT.
- (c) When the continuing airworthiness of the aircraft is managed by a CAMO or CAO, or when there is a limited contract between the owner and this organisation in accordance with point M.A.201(i)(3), the AMP and its amendments may be approved through an indirect approval procedure.

In that case, the indirect approval procedure shall be established by the CAMO or CAO concerned as part of the continuing airworthiness management exposition ('CAME') referred to in point CAMO.A.300 of TCAR AIR Part-CAMO, or as part of the combined airworthiness exposition ('CAE') referred to in point CAO.A.025 of TCAR AIR Part-CAO and shall be approved by CAAT.

- (d) The AMP must establish compliance with:
 - (1) Instructions issued by CAAT;
 - (2) instructions for continuing airworthiness
 - (I) issued by the holders of the Type Certificate, restricted Type Certificate, Supplemental Type Certificate, major repair design approval, TSO authorisation or any other relevant

- approval acceptable to CAAT under TCAR AIR Part-21
- (II) included in the standard changes or repairs referred to in TCAR AIR Part-21, if applicable;
- (3) - reserved -
- (e) The owner or the organisation managing the continuing airworthiness of the aircraft may deviate from the instruction referred to in point (d)(2) and propose escalated intervals in the AMP, based on data obtained from sufficient reviews carried out in accordance with point (h). Indirect approval is not permitted for the escalation of safety-related tasks. The owner or the organisation managing the continuing airworthiness of the aircraft may also propose additional instructions in the AMP.
 - (f) The AMP shall contain details of all maintenance to be carried out, including frequency and any specific tasks linked to the type and specificity of operations.
 - (g) For complex motor-powered aircraft, when the AMP is based on maintenance steering group logic or on condition monitoring, the AMP shall include a reliability programme.
 - (h) The AMP shall be subject to periodic reviews and be amended accordingly when necessary. Those reviews shall ensure that the AMP continues to be up to date and valid in light of the operating experience and instructions from CAAT, while taking into account new or modified maintenance instructions issued by the Type Certificate and Supplemental Type Certificate holders and any other design organisation that publishes such data acceptable to CAAT under TCAR AIR Part-21

M.A. 303 Airworthiness Directive

Any applicable Airworthiness Directive must be carried out within the requirements of that Airworthiness Directive, unless otherwise specified by CAAT.

M.A. 304 Data for modifications and repairs

A person or organisation repairing an aircraft or a component shall assess any damage. Modifications and repairs shall be carried out using, as appropriate, the following data:

- (a) data approved by CAAT; or
- (b) data from a Type Certificate holder;
- (c) - reserved -

M.A. 305 Aircraft continuing airworthiness record system

- (a) At the completion of any maintenance, the aircraft certificate of release to service ('CRS') required by point M.A.801 or point 145.A.50, as applicable, shall be entered in the aircraft continuing airworthiness record system, as soon as practicable and no later than 30 days after the completion of any maintenance.
- (b) The aircraft continuing airworthiness record system shall contain the following:
 1. the date of the entry, the total in-service life accumulated in the applicable parameter for aircraft, engine(s) and/or propeller(s);
 2. the aircraft continuing airworthiness records described in points (c) and (d) below together with the supporting detailed maintenance records described in point (e) below;
 3. if required by point M.A.306, the aircraft technical log.
- (c) The aircraft continuing airworthiness records shall include the current mass and balance report and the current status of:
 1. Airworthiness Directives and measures mandated by CAAT in immediate reaction to a safety problem;

2. modifications and repairs;
 3. compliance with the AMP;
 4. deferred maintenance tasks and deferred defects rectification.
- (d) The aircraft continuing airworthiness records shall include the current status specific to components of:
1. life-limited parts, including the life accumulated by each affected part in relation to the applicable airworthiness limitation parameter; and
 2. time-controlled components, including the life accumulated by the affected components in the applicable parameter, since the last accomplishment of scheduled maintenance, as specified in the AMP.
- (e) The owner or operator shall establish a system to keep the following documents and data in a form acceptable to CAAT and for the periods specified below:
1. aircraft technical log system: the technical log or other data equivalent in scope and detail, covering the 36 months period prior to the last entry,
 2. the CRS and detailed maintenance records:
 - (i) demonstrating compliance with Airworthiness Directives and measures mandated by CAAT in immediate reaction to a safety problem applicable to the aircraft, engine(s), propeller(s) and components fitted thereto, as appropriate, until such time as the information contained therein is superseded by new information equivalent in scope and detail but covering a period not shorter than 36 months;
 - (ii) demonstrating compliance with the applicable data in accordance with point M.A.304 for current modifications and repairs to the aircraft, engine(s), propeller(s) and any component subject to airworthiness limitations; and
 - (iii) of all scheduled maintenance or other maintenance required for continuing airworthiness of aircraft, engine(s), propeller(s), as appropriate, until such time as the information contained therein is superseded by new information equivalent in scope and detail but covering a period not shorter than 36 months.
 3. data specific to certain components:
 - (i) an in-service history record for each life-limited part based on which the current status of compliance with airworthiness limitations is determined;
 - (ii) the CRS and detailed maintenance records for the last accomplishment of any scheduled maintenance and any subsequent unscheduled maintenance of all life-limited parts and time-controlled components until the scheduled maintenance has been superseded by another scheduled maintenance of equivalent scope and detail but covering a period not shorter than 36 months;
 - (iii) the CRS and owner's acceptance statement for any component that is fitted to an LA2 aircraft without a CAAT Form 1 in accordance with point M.A.502(d) of this part but covering a period not shorter than 36 months.
 4. Record-keeping periods when the aircraft is permanently withdrawn from service:
 - (i) the data required by point (b)(1) of point M.A.305 in respect of aircraft, engine(s), and propeller(s) which shall be retained for at least 12 months;
 - (ii) the last effective status and reports as identified under points (c) and (d) of point M.A.305 which shall be retained for at least 12 months; and
 - (iii) the most recent CRS(s) and detailed maintenance records as identified under points (e)(2)(ii) and (e)(3)(i) of point M.A.305 which shall be retained for at least 12 months.

- (f) The person or organisation responsible for the management of continuing airworthiness tasks pursuant to point M.A.201 shall comply with the requirements regarding the aircraft continuing airworthiness record system and present the records to CAAT upon request.
- (g) All entries made in the aircraft continuing airworthiness record system shall be clear and accurate. When it is necessary to correct an entry, the correction shall be made in a manner that clearly shows the original entry.

M.A. 306 Aircraft technical log system

- (a) In addition to the requirements of point M.A.305, for CAT, commercial specialised operations and ATO operation, the operator shall use a technical log system containing all the following information for each aircraft:
 - (1) information about each flight, necessary to ensure continued flight safety;
 - (2) the current aircraft certificate of release to service;
 - (3) the current maintenance statement giving the aircraft maintenance status of what scheduled and out of phase maintenance is next due except that CAAT may agree to the maintenance statement being kept elsewhere;
 - (4) all outstanding deferred defects rectifications that affect the operation of the aircraft;
 - (5) any necessary guidance instructions on maintenance support arrangements.
- (b) The initial issue of aircraft technical log system shall be approved by CAAT. Any subsequent amendment to that system shall be managed in accordance with point CAMO.A.300(c) of TCAR AIR Part-CAMO, or point CAO.A.025(c) of TCAR AIR Part-CAO.

M.A. 307 Transfer of aircraft continuing airworthiness records

- (a) The owner shall ensure when an aircraft is permanently transferred from one owner to another that the M.A.305 continuing airworthiness records and, if applicable, M.A.306 operator's technical logs are also transferred.
- (b) When the owner contracts the continuing airworthiness management tasks to a CAMO or CAO, the owner shall ensure that the continuing airworthiness records referred to in point M.A.305 are transferred to that contracted organisation.
- (c) The time periods prescribed for the retention of records shall continue to apply to the new owner, operator, CAMO or CAO.

SUBPART D — MAINTENANCE STANDARDS

M.A. 401 Maintenance data

- (a) The person or organisation maintaining an aircraft shall have access to and use only applicable current maintenance data in the performance of maintenance including modifications and repairs.
- (b) For the purposes of this Part, applicable maintenance data is any of the following:
 - (1) any applicable requirement, procedure, standard or information issued by CAAT;
 - (2) any applicable Airworthiness Directive;
 - (3) applicable instructions for continuing airworthiness, issued by Type Certificate holders, Supplemental Type Certificate holders and any other design organisation that publishes such data acceptable to CAAT;
 - (4) for components approved for installation by the design approval holder, the applicable maintenance instructions published by the component manufacturers and acceptable to the design approval holder;
 - (5) any applicable data issued in accordance with TCAR AIR Part-145 point 145.45(d).
- (c) The person or organisation maintaining an aircraft shall ensure that all applicable maintenance data is current and readily available for use when required. The person or organisation shall establish a work card or worksheet system to be used and shall either transcribe accurately the maintenance data onto such work cards or worksheets or make precise reference to the particular maintenance task or tasks contained in such maintenance data.

M.A. 402 Performance of maintenance

Except for maintenance performed by a maintenance organisation approved in accordance with TCAR AIR Part-145, any person or organisation performing maintenance shall:

- (a) be qualified for the tasks performed, as required by this part;
- (b) ensure that the area in which maintenance is carried out is well organised and clean in respect of dirt and contamination;
- (c) use the methods, techniques, standards and instructions specified in the M.A.401 maintenance data;
- (d) use the tools, equipment and material specified in the M.A.401 maintenance data. If necessary, tools and equipment shall be controlled and calibrated to an officially recognised standard;
- (e) ensure that maintenance is performed within any environmental limitations specified in the M.A.401 maintenance data;
- (f) ensure that proper facilities are used in case of inclement weather or lengthy maintenance;
- (g) ensure that the risk of multiple errors during maintenance and the risk of errors being repeated in identical maintenance tasks are minimised;
- (h) ensure that an error capturing method is implemented after the performance of any critical maintenance task; and
- (i) carry out a general verification after completion of maintenance to ensure the aircraft or component is clear of all tools, equipment and any extraneous parts or material, and that all access panels removed have been refitted.

M.A. 403 Aircraft defects

- (a) Any aircraft defect that creates a serious hazard to flight safety shall be rectified before further flight.
- (b) Only the certifying staff referred to in point M.A.801(b)(1) or in TCAR AIR Part-145 or in TCAR AIR Part-CAO, or the person authorised in accordance with point M.A.801(c) of this Part can decide, using M.A.401 maintenance data, whether an aircraft defect creates a serious hazard to flight safety and therefore decide when and which rectification action shall be taken before further flight and which defect rectification can be deferred. However, this does not apply when the MEL is used by the pilot or by the authorised certifying staff.
- (c) Any aircraft defect that would not create a serious hazard to flight safety shall be rectified as soon as practicable, after the date the aircraft defect was first identified and within any limits specified in the maintenance data or the MEL.
- (d) Any defect not rectified before flight shall be recorded in the aircraft continuing airworthiness record system referred to in point M.A.305 or, if applicable in the aircraft technical log system referred to in point M.A.306.

SUBPART E — COMPONENTS

M.A. 501 Installation

- (a) All components shall be classified into the following categories:
- (1) Components which are in a satisfactory condition, released on a CAAT Form 1 or equivalent and marked in accordance with the requirement of state of manufacture acceptable to CAAT under TCAR AIR Part-21 unless otherwise specified in this Part, or in TCAR AIR Part-CAO.
 - (2) Unserviceable components which shall be maintained in accordance with CAAT requirements.
 - (3) Components categorised as unsalvageable because they have reached their certified life limit or contain a non-repairable defect.
 - (4) Standard parts used on an aircraft, engine, propeller or other aircraft component when specified in the maintenance data and accompanied by evidence of conformity traceable to the applicable standard.
 - (5) Material both raw and consumable used in the course of maintenance when the organisation is satisfied that the material meets the required specification and has appropriate traceability. All materials must be accompanied by documentation clearly relating to the particular material and containing a conformity to specification statement plus both the manufacturing and supplier source.
- (b) Components, standard parts and material shall only be installed on an aircraft or a component when they are in a satisfactory condition, belong to one of the categories listed in point (a) and the applicable maintenance data specifies the particular component, standard part or material.

M.A. 502 Component maintenance

- (a) The maintenance of components shall be performed by maintenance organisations appropriately approved in accordance with TCAR AIR Part-145 or with TCAR AIR Part-CAO, as applicable.
- (b) Where a component is fitted to the aircraft, the maintenance of such a component may be performed by an aircraft maintenance organisation approved in accordance with TCAR AIR Part-145 or with TCAR AIR Part-CAO or by the certifying staff referred to in point (b)(1) of point M.A.801. Such maintenance shall be performed in accordance with the aircraft maintenance data or in accordance with the component maintenance data if agreed by CAAT. Such aircraft maintenance organisation or the certifying staff may temporarily remove the component for maintenance if this is necessary to improve access to the component, except where additional maintenance is required due to the removal. Component maintenance performed in accordance with this point shall not be eligible for the issuance of a CAAT Form 1 and shall be subject to the aircraft release requirements provided for in point M.A.801.
- (c) Where a component is fitted to the engine or the auxiliary power unit (APU), the maintenance of such component may be performed by an engine maintenance organisation approved in accordance with TCAR AIR Part-145, or with TCAR AIR Part-CAO. Such maintenance shall be performed in accordance with the engine or the APU maintenance data or in accordance with the component maintenance data if agreed by CAAT. Such B-rated organisation may temporarily remove the component for maintenance if this is necessary to improve access to the component, except where additional maintenance is required due to the removal.
- (d) In case of LA1 and LA2 aircraft, maintenance of components of a part or appliance, fitted to the aircraft or is temporarily removed to improve access, is not eligible for the issuance of a CAAT Form 1 and shall be subject to the following conditions :

- (1) The maintenance of part or appliance is performed under the aircraft release requirements provided for in point M.A.801 by an aircraft maintenance organisation approved in accordance with TCAR AIR Part-145 or TCAR AIR Part-CAO, as applicable, by certifying staff referred to in point M.A.801(b)(1) or by the pilot-owner referred to in point M.A.801(b)(2); and
- (2) a part or appliance is
 - (i) not life-limited, nor part of the primary structure, nor part of the flight controls;
 - (ii) manufactured in conformity to applicable design;
 - (iii) marked in accordance with state of manufacturer requirement;
 - (iv) identified for installation in the specific aircraft;
 - (v) to be installed in an aircraft for which the owner has verified compliance with the conditions 1 through 4 and has accepted responsibility for this compliance
- (e) The maintenance of components listed below:
 - (1) a part or appliance for which the consequences of a non-conformity with its approved design data has a negligible safety effect on the product and which is identified as such by the holder of the design approval in the instructions for continued airworthiness. In order to determine the safety effects of a non-conforming part or appliance, the design approval holder may establish in the instructions for continued airworthiness specific verification activities to be conducted by the installer of the part or appliance on the product;
 - (2) in the case of the embodiment of modifications and repairs in accordance with TCAR AIR Part-21, a part or appliance, for which the consequences of a non-conformity with its design data have a negligible safety effect on the product, and which is identified as such in the certification specifications for standard changes and standard repairs issued in accordance with TCAR AIR Part-21. In order to determine the safety effects of a non-conforming part or appliance, specific verification activities to be conducted by the person that installs the part or appliance on the product may be established in the certification specifications referred to above;
 - (3) a part or appliance that is an item of a higher assembly identified in points (d) and (e)(1) to (e)(3).

shall be performed by the organisation referred to in point (a), or performed by any person or organisation and released with a “declaration of maintenance accomplished” issued by the person or organisation that performed the maintenance. The “declaration of maintenance accomplished” shall contain at least basic details of the maintenance carried out, the date on which the maintenance was completed, and the identification of the organisation or person that issues it. It shall be considered a maintenance record and equivalent to a CAAT Form 1 in respect of the maintained component.

M.A. 503 Life-limited parts and time-controlled components

- (a) Installed life-limited parts and time-controlled components shall not exceed the approved limitation as specified in the AMP and Airworthiness Directives, except as provided for in point M.A.504(b).
- (b) When the approved limitation expires, the component shall be removed from the aircraft for maintenance, or for disposal in the case of life-limited parts.

M.A. 504 Segregation of components

- (a) Unserviceable and unsalvageable components shall be segregated from serviceable components, standards parts and materials.
- (b) Unsalvageable components shall not be permitted to re-enter the component supply system unless the mandatory life limitation has been extended or a repair solution has been approved in accordance with CAAT requirements or state of design requirements of such product acceptable to CAAT.

SUBPART H — CERTIFICATE OF RELEASE TO SERVICE — CRS

M.A. 801 Aircraft certificate of release to service

- (a) Except for aircraft released to service by a maintenance organisation approved in accordance with TCAR Part-145, the CRS shall be issued according to this Subpart;
- (b) No aircraft shall be released to service unless a CRS is issued when all maintenance tasks ordered have been properly carried out. The CRS shall be issued by an authorised certifying staff of the maintenance organisation approved in accordance with TCAR AIR Part-CAO, except for maintenance tasks other than complex maintenance tasks listed in Appendix IV to this Part where the CRS is issued, either by
 - (1) Independent certifying staff in compliance with the requirements laid down in TCAR PEL Part-66; or
 - (2) by the Pilot-owner in compliance with point M.A.803;
- (c) In the case of unforeseen situations, when an aircraft is grounded at a location where no approved maintenance organisation appropriately approved under TCAR Part-145 or Part-CAO and no independent certifying staff are available, the owner may authorise any person, with no less than 3 years of appropriate maintenance experience and holding the proper qualifications, to maintain according to the standards set out in TCAR AIR Part-M Subpart D and release the aircraft. In that case, the owner shall:
 - (1) obtain and keep in the aircraft records details of all the work carried out and of the qualifications held by that person issuing the CRS; and
 - (2) ensure that any such maintenance is rechecked and released by an appropriately authorised person referred to in point M.A.801(b) or an organisation approved in accordance with TCAR AIR Part-145 or TCAR AIR Part-CAO at the earliest opportunity but within a period not exceeding 7 days from the issuance of a CRS; and
 - (3) notify the organisation responsible for the continuing airworthiness management of the aircraft when contracted in accordance with point M.A.201(i), or CAAT in the absence of such a contract, within 7 days from the issuance of such authorisation.
- (d) In case of a release to service in accordance with point (b)(1), the certifying staff may be assisted in performing the maintenance tasks by one or more persons subject to their direct and continuous control.
- (e) A CRS shall contain as a minimum:
 - (1) basic details of the maintenance carried out;
 - (2) the date on which the maintenance was completed;
 - (3) the identity of the organisation or person issuing the CRS, including either:
 - (i) the approval reference of the maintenance organisation and the certifying staff issuing the CRS; or
 - (ii) in the case referred to in point (b)(2), the identity and, where applicable, the licence number of the certifying staff issuing the CRS;
 - (4) the limitations to airworthiness or operations, if any;
- (f) By derogation from point (b) and notwithstanding point (g), when the required maintenance cannot be completed, a CRS may be issued with the approved aircraft limitations. In that case, the certificate shall indicate that the maintenance could not be completed, as well as indicate any applicable airworthiness or operations limitations, as part of the information required by point (e)(4).
- (g) A CRS shall not be issued in the case of any known non-compliance which endangers flight safety.

M.A. 802 Component certificate of release to service

- (a) Except for components released to service by a maintenance organisation that is approved in accordance with TCAR AIR Part-145 and for the cases covered by point (e) of point M.A.502, a CRS shall be issued at the completion of any maintenance work carried out on an aircraft component in accordance with point M.A.502.
- (b) The authorised release certificate identified as CAAT Form 1 constitutes the component CRS, except when such maintenance on aircraft components has been performed in accordance with point (b) or (d) of point M.A.502 in which case the maintenance is subject to aircraft release procedures in accordance with point M.A.801.

M.A. 803 Pilot-owner authorisation

- (a) To qualify as a Pilot-owner, the person must:
 - (1) hold a valid pilot licence (or equivalent) issued or validated by CAAT for the aircraft type or class rating; and
 - (2) own the aircraft, either as sole or joint owner; that owner must be:
 - (i) one of the natural persons on the certificate of registration; or
 - (ii) a member of a non-profit recreational legal entity, where the legal entity is specified on the registration document as owner or operator, and that member is directly involved in the decision-making process of the legal entity and designated by that legal entity to carry out Pilot-owner maintenance.
- (b) - reserved -
- (c) The scope of the limited Pilot-owner maintenance shall be specified in the aircraft maintenance programme referred to in point M.A.302.
- (d) The CRS shall be entered in the aircraft continuing airworthiness record system and contain basic details of the maintenance carried out, the maintenance data used, the date on which that maintenance was completed, as well as the identity, the signature and pilot licence number of the pilot-owner issuing such a certificate.

SUBPART I — AIRWORTHINESS REVIEW

M.A. 901 Aircraft airworthiness review

To ensure the validity of the Certificate of Airworthiness, an airworthiness review of the aircraft and its continuing airworthiness records shall be carried out periodically.

- (a) An airworthiness review report is issued in accordance with Appendix III (CAAT Form 15A) to this Part upon completion of a airworthiness review. The airworthiness review report shall be valid for 1 year;
- (b) - reserved -
- (c) For all aircraft used by an AOC holder in accordance with TCAR OPS, and for aircraft above 2,730 kg MTOM, the organisation responsible for managing the continuing airworthiness of the aircraft may, in accordance with point CAMO.A.125(e) of TCAR AIR Part-CAMO, as applicable : issue an airworthiness review report in accordance with point M.A.901;
- (d) - reserved -
- (e) For aircraft of 2,730 kg MTOM and below not used by AOC holder in accordance with TCAR OPS, any CAMO or CAO chosen by the owner or operator may in accordance with CAMO.A.125(e) of TCAR AIR Part-CAMO or CAO.A.095(c) of TCAR AIR Part-CAO, as applicable : issue an airworthiness review report in accordance with point M.A.901;
- (f) - reserved -
- (g) Whenever circumstances reveal the existence of a potential risk to aviation safety, CAAT may carry out the airworthiness review and issue the airworthiness review report itself.
- (h) Without prejudice to point (g), CAAT may also carry out the airworthiness review itself for all non-complex aircraft of 2,730 kg MTOM and below, not used in commercial operations, if it is required by the owner. A processing fee would be applied in this case.
- (i) When CAAT carries out the airworthiness review itself accordance with (g) or (h), the owner or operator shall provide CAAT with:
 - (1) the documentation required by CAAT; and
 - (2) suitable accommodation at the appropriate location for its personnel; and
 - (3) when necessary, the support of personnel appropriately qualified in accordance with TCAR PEL Part-66
- (j) - reserved -
- (k) To satisfy the requirement for the airworthiness review of an aircraft, a full documented review of the aircraft records shall be carried out by the organisation in order to be satisfied that:
 - (1) airframe, engine and propeller flying hours and associated flight cycles have been properly recorded; and
 - (2) the flight manual is applicable to the aircraft configuration and reflects the latest revision status; and
 - (3) all the maintenance due on the aircraft according to the approved maintenance programme has been carried out; and
 - (4) all known defects have been corrected or, when applicable, carried forward in a controlled manner in accordance with M.A.403;
 - (5) all applicable Airworthiness Directives have been applied and properly registered; and
 - (6) all modifications and repairs applied to the aircraft have been registered and are in compliance with point M.A.304;

- (7) all life limited parts and time-controlled components installed on the aircraft are properly identified, registered and have not exceeded their approved service life limit; and
 - (8) all maintenance has been released in accordance with TCAR AIR Part-M; and
 - (9) the current mass and balance statement reflects the configuration of the aircraft and is valid; and
 - (10) the aircraft complies with the latest revision of its type design approved by CAAT; and
 - (11) if required, the aircraft holds a noise certificate corresponding to the current configuration of the aircraft in compliance with CAAT requirements.
- (l) The airworthiness review staff shall carry out a physical survey of the aircraft. For this survey, airworthiness review staff not appropriately qualified to TCAR PEL Part-66 shall be assisted by such qualified personnel.
- (m) Through the physical survey of the aircraft, the airworthiness review staff shall ensure that:
- (1) all required markings and placards are properly installed;
 - (2) the aircraft complies with its approved flight manual;
 - (3) the aircraft configuration complies with the approved documentation;
 - (4) no evident defect can be found that has not been addressed according to point M.A.403;
 - (5) no inconsistencies can be found between the aircraft and the documented review of records referred to in point (k).
- (n) The airworthiness review may be anticipated by a maximum period of 90 days without loss of continuity of the airworthiness review pattern, so as to allow for the physical review to take place during a maintenance check.
- (o) The airworthiness review report can only be issued:
- (1) by authorised airworthiness review staff on behalf of the approved organisation;
 - (2) if the airworthiness review has been completely carried out.
- (p) A copy of any airworthiness review report shall be sent to CAAT within 10 days.
- (q) Airworthiness review tasks shall not be sub-contracted.
- (r) Should the outcome of the airworthiness review be inconclusive, the organisation having carried out the review shall inform CAAT as soon as possible and in any case within 72 hours from the moment the organisation identifies the reason for which the airworthiness review is inconclusive.
- (s) - reserved -

M.A. 902 Validity of the airworthiness review report

- (a) An airworthiness review report becomes invalid if,
- (1) - reserved -
 - (2) the certificate of airworthiness is suspended or revoked;
 - (3) the aircraft is not in the aircraft register of Thailand;
 - (4) the Type Certificate under which the Certificate of Airworthiness was issued is suspended or revoked.
- (b) An aircraft shall not fly if the airworthiness review report is invalid or indicates the presence of finding that endanger flight safety or if any of the following circumstances are present:

- (1) the continuing airworthiness of the aircraft or any component fitted to the aircraft does not meet the requirements of this Part;
 - (2) the aircraft does not remain in conformity with the type design approved and/or validated by CAAT
 - (3) the aircraft has been operated beyond the limitations of the approved flight manual or certificate of airworthiness, without appropriate action being taken;
 - (4) the aircraft has been involved in an accident or incident that affects the airworthiness of the aircraft, without subsequent appropriate action to restore airworthiness;
 - (5) a modification or repair to the aircraft or any component fitted to the aircraft is not in compliance with point M.A.304.
- (c) - reserved -

M.A. 903 -Reserved-

M.A. 904 Airworthiness review of aircraft imported into THAILAND

- (a) When importing an aircraft onto the Thai register from another country, the applicant shall:
- (1) apply to CAAT for the issuance of a new Certificate of Airworthiness in accordance with TCAR AIR Part-21; and
 - (2) for aircraft other than new, have an airworthiness review carried out in accordance with point M.A.901; and
 - (3) have all maintenance carried out to comply with the AMP approved in accordance with point M.A.302.
- (b) When satisfied that the aircraft is in compliance with the relevant requirements, the organisation performing the airworthiness review, shall send a documented airworthiness review report for the issuance of a Certificate of Airworthiness to CAAT.
- (c) The owner shall allow access to the aircraft for inspection by CAAT.
- (d) A certificate of airworthiness will be issued by CAAT when it is satisfied the aircraft complies with requirements in TCAR AIR Part-21.

M.A. 905 Finding

- (a) A level 1 finding is any finding of significant non-compliance with the requirements of this Part, which lowers the safety standard and seriously endangers flight safety.
- (b) A level 2 finding is any finding of non-compliance with the requirements of this Part, which may lower the safety standard and may endanger flight safety.
- (c) In case of airworthiness review was carried out by CAAT in according with M.A.901(i), after receipt of notification of findings, the person or organisation accountable referred to in point M.A.201 shall define a corrective action plan and demonstrate corrective action to the satisfaction of CAAT within a period agreed including appropriate corrective action to prevent reoccurrence of the finding and its root cause.

APPENDICES TO TCAR AIR PART-M

Appendix I — Continuing airworthiness management contract

1. When an owner/operator contracts in accordance with M.A.201 a CAMO or CAO continuing airworthiness organisation approved pursuant to TCAR AIR Part-CAMO or Part-CAO to carry out continuing airworthiness management tasks, upon request by CAAT a copy of the contract shall be sent by the owner/operator to CAAT once it has been signed by both parties.
2. The contract shall be developed taking into account the requirements of this Part and shall define the obligations of the signatories in relation to continuing airworthiness of the aircraft.
3. It shall contain as a minimum the following information:
 - aircraft registration, type, serial number;
 - aircraft owner or registered lessee's name or company details including the address;
 - CAMO details including the address;
 - type of operation.
4. It shall state the following:

“The owner/operator entrusts to the CAMO or CAO the management of the continuing airworthiness of the aircraft, the development of a maintenance programme that shall be approved by CAAT and the organisation of the maintenance of the aircraft according to said maintenance programme.

According to the present contract, both signatories undertake to follow the respective obligations of this contract.

The owner/operator declares, to the best of its belief that all the information given to the CAMO or CAO concerning the continuing airworthiness of the aircraft is and will be accurate and that the aircraft will not be altered without prior approval of the CAMO or CAO.


In case of any non-conformity with this contract, by either of the signatories, the CAMO or CAO and the owner or operator shall assess if it impacts the continuation of the contract and shall inform CAAT. The assessment carried out by the organisations shall consider the safety significance of the non-conformity and if it is of repetitive nature. If either of the signatories concludes after this assessment that they cannot fulfil their responsibilities due to their own limitations or due to the failures of the signatory, the contract shall be cancelled and CAAT shall be informed immediately. In such a case, the owner or operator will retain full responsibility for every task linked to the continuing airworthiness of the aircraft, and the owner or operator will inform CAAT within 2 weeks about such non-conformity with the contract.

5. When an owner/operator contracts a CAMO or CAO in accordance with M.A.201, the obligations of each party shall be shared as follows:
 - 5.1. Obligations of the CAMO:
 1. have the aircraft type in the scope of its approval;
 2. respect the conditions listed below with regard to maintaining the continuing airworthiness of the aircraft:
 - (a) develop an AMP for the aircraft, including any reliability programme developed, if applicable;
 - (b) declare the maintenance tasks (in the AMP) that may be carried out by the pilot-owner in accordance with point (c) of point M.A.803;
 - (c) organise the approval of the AMP;

- (d) once it has been approved, provide the owner or operator with a copy of the AMP;
 - (e) establish and order the necessary maintenance to ensure an appropriate bridging with the former aircraft maintenance programme;
 - (f) organise for all maintenance to be carried out by an approved maintenance organisation;
 - (g) organise for all applicable Airworthiness Directives to be applied;
 - (h) organise for all defects discovered during scheduled maintenance, airworthiness reviews or reported by the owner to be rectified by an approved maintenance organisation;
 - (i) coordinate the accomplishment of scheduled maintenance, including inspection of components, replacement of life-limited parts and the accomplishment of any applicable AD, and ensure compliance with operational requirements having a continuing airworthiness impact, continuing airworthiness requirements established by the Agency and measures required by the competent authority in immediate reaction to a safety problem;
 - (j) inform the owner each time the aircraft shall be brought to an approved maintenance organisation;
 - (k) manage and archive the aircraft continuing airworthiness records;
 - (l) coordinate with the operator or owner on any request to the relevant CAAT for any deviation from the aircraft maintenance programme;
 - (m) support the operator or pilot-owner as regards the aircraft continuing airworthiness when they conduct maintenance check flights.
3. organise the approval of any modification to the aircraft in accordance with TCAR AIR Part-21 before it is embodied;
 4. organise the approval of any repair to the aircraft in accordance with TCAR AIR Part-21 before it is carried out;
 5. inform CAAT whenever the aircraft is not presented to the approved maintenance organisation by the owner as requested by the approved organisation;
 6. inform CAAT whenever the present contract has not been respected;
 7. ensure that the airworthiness review of the aircraft is carried out when necessary and ensure that the airworthiness review report is sent to CAAT;
 8. a copy of any airworthiness review report issued shall be available for CAAT upon request;
 9. carry out all occurrence reporting mandated by applicable regulations;
 10. inform CAAT whenever the present contract is denounced by either party.
- 5.2. Obligations of the owner/operator:
1. have a general understanding of the approved maintenance programme;
 2. have a general understanding of TCAR AIR Part-M;
 3. present the aircraft to the approved maintenance organisation agreed with the CAMO or CAO at the due time designated at the CAMO's or CAO's request;
 4. not modify the aircraft without first consulting the CAMO or CAO;
 5. inform the CAMO or CAO of all maintenance exceptionally carried out without the knowledge and control of the CAMO or CAO;

6. report all defects found during operations to the CAMO or CAO through the logbook;
 7. inform CAAT whenever the present contract is denounced by either party;
 8. inform the CAMO or CAO and CAAT whenever the aircraft is sold or any change of possession;
 9. carry out all occurrence reporting mandated by applicable regulations;
 10. inform on a regular basis the CAMO or CAO about the aircraft flying hours and any other utilisation data, as agreed with the CAMO or CAO;
 11. enter the CRS in the logbooks as mentioned in point (d) of point M.A.803 when performing pilot-owner maintenance without exceeding the limits of the maintenance tasks list as declared in the approved AMP as laid down in point (c) of point M.A.803;
 12. inform the CAMO or CAO not later than 30 days after completion of any pilot-owner maintenance task in accordance with point (a) of point M.A.305.
 13. ensure compliance with the approved maintenance programme and coordinate with the CAMO or CAO on any request to the relevant competent authority for any one-time extension to a maintenance programme interval;
 14. inform the CAMO or CAO of any non-compliance with operational requirements that may affect the continuing airworthiness of the aircraft;
 15. inform the CAMO or CAO of any operational requirement (e.g. specific approvals) necessary to be fulfilled in order to maintain the aircraft in the required configuration.
6. When an owner or operator contracts a CAMO or CAO in accordance with point M.A.201, the obligations of each party in respect of mandatory and voluntary occurrence reporting in accordance with Reporting of Civil Aviation Occurrences shall be clearly specified.
7. - reserved -

Appendix II — Authorized release certificate - CAAT Form 1

| | | | | | |
|--|----------------|--|---|------------------------------------|--------------------------------|
| 1. Approving Authority/Country  CAAT/THAILAND | | 2. AUTHORISED RELEASE CERTIFICATE CAAT FORM 1 | | | 3. Form Tracking Number |
| 4. Organisation Name and Address | | | | | 5. Work Order/Contract/Invoice |
| 6. Item | 7. Description | 8. Part Number | 9. Qty | 10. Serial Number | 11. Status/Work |
| 12. Remarks | | | | | |
| 13a. Certifies that the items identified above were manufactured in conformity to: <input type="checkbox"/> approved design data and are in a condition for safe operation <input type="checkbox"/> non-approved design data specified in block 12 | | | 14a. <input type="checkbox"/> Part 145.A.50 Release to Service <input type="checkbox"/> Other regulation specified in block 12 Certifies that unless otherwise specified in block 12, the work identified in block 11 and described in block 12, was accomplished in accordance with Part 145 and in respect to that work the items are considered ready for release to service. | | |
| 13b. Authorised Signature | | 13c. Approval Authorisation Number | | 14b. Authorised Signature | |
| 13d. Name | | 13e. Date | | 14c. Certificate/Approval Ref. No. | |
| 13d. Name | | 13e. Date | | 14d. Name | |
| 13d. Name | | 13e. Date | | 14e. Date | |
| <p>USER/INSTALLER RESPONSIBILITIES</p> <p>This certificate does not automatically constitute authority to install the item(s). Where the user/installer performs work in accordance with regulations of an airworthiness authority different than the airworthiness authority specified in block 1, it is essential that the user/installer ensures that his/her airworthiness authority accepts items from the airworthiness authority specified in block 1. Statements in blocks 13a. and 14a. do not constitute installation certification. In all cases aircraft maintenance records must contain an installation certification issued in accordance with the national regulations by the user/installer before the aircraft may be flown.</p> | | | | | |

These instructions relate only to the use of the CAAT Form 1 for maintenance purposes.

1. PURPOSE AND USE

- 1.1. The primary purpose of the Certificate is to declare the airworthiness of maintenance work undertaken on products, parts and appliances (hereafter referred to as 'item(s)').
- 1.2. Correlation must be established between the Certificate and the item(s). The originator must retain a Certificate in a form that allows verification of the original data.
- 1.3. - reserved-
- 1.4. The Certificate is not a delivery or shipping note.
- 1.5. Aircraft are not to be released using the Certificate.
- 1.6. The Certificate does not constitute approval to install the item on a particular aircraft, engine, or propeller but helps the end user determine its airworthiness approval status.
- 1.7. A mixture of production released and maintenance released items is not permitted on the same Certificate.

2. GENERAL FORMAT

- 2.1. The Certificate must comply with the format attached including block numbers and the location of each block. The size of each block may however be varied to suit the individual application, but not to the extent that would make the Certificate unrecognisable.
- 2.2. The Certificate must be in 'landscape' format but the overall size may be significantly increased or decreased so long as the Certificate remains recognisable and legible. If in doubt consult CAAT.

- 2.3. The User/Installer responsibility statement can be placed on either side of the form.
- 2.4. All printing must be clear and legible to permit easy reading.
- 2.5. The Certificate may either be pre-printed or computer generated but in either case the printing of lines and characters must be clear and legible and in accordance with the defined format.
- 2.6. The Certificate shall be in English.
- 2.7. The details to be entered on the Certificate may be either machine/computer printed or hand-written using block letters and must permit easy reading.
- 2.8. Limit the use of abbreviations to a minimum, to aid clarity.
- 2.9. The space remaining on the reverse side of the Certificate may be used by the originator for any additional information but must not include any certification statement. Any use of the reverse side of the Certificate must be referenced in the appropriate block on the front side of the Certificate

3. COPIES

- 3.1. There is no restriction in the number of copies of the Certificate sent to the customer, or retained by the originator.

4. ERROR(S) ON A CERTIFICATE

- 4.1. If an end-user finds an error(s) on a Certificate, they must identify it/them in writing to the originator. The originator may issue a new Certificate only if the error(s) can be verified and corrected.
- 4.2. The new Certificate must have a new tracking number, signature and date.
- 4.3. The request for a new Certificate may be honoured without re-verification of the item(s) condition. The new Certificate is not a statement of current condition and should refer to the previous Certificate in block 12 by the following statement; 'This Certificate corrects the error(s) in block(s) [enter block(s) corrected] of the Certificate [enter original tracking number] dated [enter original issuance date] and does not cover conformity/condition/release to service'. Both Certificates should be retained according to the retention period associated with the first.

5. COMPLETION OF THE CERTIFICATE BY THE ORIGINATOR

Block 1 Approving CAAT/Country

THAILAND

Block 2 CAAT Form 1 header

AUTHORIZED RELEASE CERTIFICATE CAAT Form 1

Block 3 Form Tracking Number

Enter the unique number established by the numbering system/procedure of the organisation identified in block 4; this may include alpha/numeric characters.

Block 4 Organisation Name and Address

Enter the full name and address of the approved organisation releasing the work covered by this Certificate. Logos, etc., are permitted if the logo can be contained within the block.

Block 5 Work Order/Contract/Invoice

To facilitate customer traceability of the item(s), enter the work order number, contract number, invoice number, or similar reference number.

Block 6 Item

Enter line item numbers when there is more than one line item. This block permits easy cross-referencing to the Remarks block 12.

Block 7 Description

Enter the name or description of the item. Preference should be given to the term used in the instructions for continued airworthiness or maintenance data (e.g., Illustrated Parts Catalogue, Aircraft Maintenance Manual, Service Bulletin, and Component Maintenance Manual).

Block 8 Part Number

Enter the part number as it appears on the item or tag/packaging. In case of an engine or propeller the type designation may be used.

Block 9 Quantity

State the quantity of items.

Block 10 Serial Number

If the item is required by regulations to be identified with a serial number, enter it here. Additionally, any other serial number not required by regulation may also be entered. If there is no serial number identified on the item, enter 'N/A'.

Block 11 Status/Work

The following describes the permissible entries for block 11. Enter only one of these terms — where more than one may be applicable, use the one that most accurately describes the majority of the work performed and/or the status of the article.

| | | |
|---|------------------|--|
| (i) | Overhauled | Means a process that ensures the item is in complete conformity with all the applicable service tolerances specified in the Type Certificate holders, or equipment manufacturer's, instructions for continued airworthiness, or in the data which is approved or accepted by the Authority. The item will be at least disassembled, cleaned, inspected, repaired as necessary, reassembled and tested in accordance with the above specified data. |
| (ii) | Repaired | Rectification of defect(s) using an applicable standard (1). |
| (iii) | Inspected/Tested | Examination, measurement, etc. in accordance with an applicable standard (1) (e.g., visual inspection, functional testing, bench testing etc.). |
| (iv) | Modified | Alteration of an item to conform to an applicable standard (1). |
| (1) Applicable standard means a manufacturing/design/maintenance/quality standard, method, technique or practice approved by or acceptable to CAAT. The applicable standard shall be described in block 12. | | |

Block 12 Remarks

Describe the work identified in Block 11, either directly or by reference to supporting documentation, necessary for the user or installer to determine the airworthiness of item(s) in relation to the work being certified. If necessary, a separate sheet may be used and referenced from the main CAAT Form 1. Each statement must clearly identify which item(s) in Block 6 it relates to.

Examples of information to be entered in block 12 are:

- (i) Maintenance data used, including the revision status and reference;
- (ii) Compliance with Airworthiness Directives or service bulletins;
- (iii) Repairs carried out;
- (iv) Modifications carried out;
- (v) Replacement parts installed;
- (vi) Life limited parts status;
- (vii) Deviations from the customer work order;
- (viii) Release statements to satisfy a foreign Civil Aviation Authority maintenance requirement;
- (ix) Information needed to support shipment with shortages or re-assembly after delivery;
- (x) For maintenance organisations approved in accordance with TCAR AIR Part-CAO, the component certificate of release to service statement referred to in point CAO.A.070:

“Certifies that, unless otherwise specified in this block, the work identified in block 11 and described in this block was accomplished in accordance with the requirements of TCAR AIR Part-CAO and in respect to that work the item is considered ready for release to service. THIS IS NOT A RELEASE UNDER TCAR AIR PART-145.

If printing the data from an electronic CAAT Form 1, any appropriate data not fit for other blocks should be entered in this block.

Block 13a-13e

General Requirements for blocks 13a-13e: Not used for maintenance release. Shade, darken, or otherwise mark to preclude inadvertent or unauthorized use.

Block 14a

Mark the appropriate box(es) indicating which regulations apply to the completed work. If the box ‘other regulations specified in block 12’ is marked, then the regulations of the other airworthiness authority(ies) must be identified in block 12. At least one box must be marked, or both boxes may be marked, as appropriate.

For all maintenance carried out by maintenance organisations approved in accordance with TCAR AIR Part-CAO, the box ‘other regulation specified in block 12’ shall be ticked and the certificate of release to service statement made in block 12. In that case, the certification statement ‘unless otherwise specified in this block’ is intended to address the following cases;

- (a) where the maintenance could not be completed;
- (b) where maintenance deviated from the standard required by TCAR AIR Part-M or TCAR AIR Part-CAO;
- (c) where maintenance was carried out in accordance with a requirement other than that specified in TCAR AIR Part-M or TCAR AIR Part-CAO; in this case, block 12 shall specify the particular national regulation.

For all maintenance carried out by maintenance organisations approved in accordance with TCAR AIR Part-145, the certification statement ‘unless otherwise specified in block 12’ is intended to address the following cases:

- (a) where the maintenance could not be completed;
- (b) where the maintenance deviated from the standard required by TCAR AIR Part-145;
- (c) where the maintenance was carried out in accordance with a requirement other than that specified in TCAR AIR Part-145. In this case block 12 shall specify the particular national regulation.

Block 14b Authorised Signature

This space shall be completed with the signature of the authorised person. Only persons specifically authorised under the rules and policies of CAAT are permitted to sign this block. To aid recognition, a unique number identifying the authorised person may be added.

Block 14c Certificate/Approval Number

Enter the Certificate/Approval number/reference. This number or reference is issued by CAAT.

Block 14d Name

Enter the name of the person signing block 14b in a legible form.

Block 14e Date

Enter the date on which block 14b is signed, the date must be in the format dd = 2 digit day, mmm = first 3 letters of the month, yyyy = 4 digit year

User/Installer Responsibilities

Place the following statement on the Certificate to notify end users that they are not relieved of their responsibilities concerning installation and use of any item accompanied by the form:

‘THIS CERTIFICATE DOES NOT AUTOMATICALLY CONSTITUTE AUTHORITY TO INSTALL.

WHERE THE USER/INSTALLER PERFORMS WORK IN ACCORDANCE WITH REGULATIONS OF AN AIRWORTHINESS AUTHORITY DIFFERENT THAN THE AIRWORTHINESS AUTHORITY SPECIFIED IN BLOCK 1, IT IS ESSENTIAL THAT THE USER/INSTALLER ENSURES THAT HIS/HER AIRWORTHINESS AUTHORITY ACCEPTS ITEMS FROM THE AIRWORTHINESS AUTHORITY SPECIFIED IN BLOCK 1.

STATEMENTS IN BLOCKS 13A AND 14A DO NOT CONSTITUTE INSTALLATION CERTIFICATION. IN ALL CASES AIRCRAFT MAINTENANCE RECORDS MUST CONTAIN AN INSTALLATION CERTIFICATION ISSUED IN ACCORDANCE WITH THE NATIONAL REGULATIONS BY THE USER/INSTALLER BEFORE THE AIRCRAFT MAY BE FLOWN.’

Appendix III — Airworthiness Review Report – CAAT Form 15A



**AIRWORTHINESS REVIEW REPORT for TCAR AIR PART-M
CAAT FORM 15A**

AIRWORTHINESS AND AIRCRAFT ENGINEERING DEPARTMENT

| | | | |
|---|--|----------------|--|
| CAMO/CAO Name | | | |
| CAMO/CAO Certificate No. | | | |
| Aircraft Operator Name | | AOC No. | |
| AR Staff Name | | | |
| AR Staff Authorized No. | | | |
| Aircraft available at place and period: <i>(In case aircraft physical survey by CAAT is required)</i> | | | |

Notes for use: also refer to the Explanatory Notes at the end of this report
Where an item is satisfactory, indicate 'Y' into the appropriate column.
If not applicable, indicate 'N/A'

Date next review due

One year after completed sign on Section 4 or 5

All aircraft defects will require maintenance action prior to further flight

Section 5 cannot be certified if there is evidence or indications that the aircraft is not airworthy

The Explanatory Notes' pages are not required to be kept with the completed certified report

Send the report form to airworthiness@caat.or.th

1. AIRCRAFT DETAILS

| Registration Mark <i>(Or reserved mark for imported Aircraft)</i> | Previous Registration <i>(Imported Aircraft)</i> | | | |
|--|--|------------------|---------------------|----------|
| | Airframe | Engine(s) | Propeller(s) | |
| Manufacturer | | | | |
| Type / Model | | | | |
| Serial No. | #1 #3 | #2 #4 | #1 #3 | #2 #4 |
| Date of Manufacture | #1 #3 | #2 #4 | #1 #3 | #2 #4 |
| Hours since new | #1 #3 | #2 #4 | #1 #3 | #2 #4 |
| Cycles sine new | #1 #3 | #2 #4 | #1 #3 | #2 #4 |
| State of Design | | | | |
| State of Manufacture | | | | |
| TCDS No. | Rev. | Rev. | Rev. | |
| TCDS No. for Noise and Emissions <i>(For imported aircraft only)</i> | | | Rev. | |
| Maximum Take-Off Weight | | | kg. | |

2. DOCUMENT REVIEW

| | | | |
|---|--|---|--|
| Date of Document Review | | | |
| Place of Document Review | | | |
| C of R Reference | | C of R Issue Date | |
| C of A Reference <i>(or Export C of A for imported aircraft)</i> | | C of A Expiry Date <i>(or Export C of A, as applicable)</i> | |
| The aircraft has been issued with a CAAT Type Acceptance Certificate? | | | |
| The aircraft conforms to the latest revision of its TCDS and acceptable design changes? | | | |
| The aircraft holds a noise certificate corresponding to the current aircraft configuration? | | | |
| Approved Flight Manual Reference | | Issue / Rev. | |
| Manufacturer Flight Manual Reference | | Issue / Rev. | |
| The approved flight manual and its supplements is applicable to the aircraft configuration and reflects the latest revision status? | | | |
| Approved Maintenance Program Reference <i>(or the proposed new program for imported aircraft)</i> | | Issue / Rev. | |
| Manufacturer Maintenance Program Reference | | Issue / Rev. | |
| All maintenance due according to the approved maintenance program has been carried out? | | | |
| The aircraft has been maintained for the previous 12 months by CAAT approved maintenance organizations <i>(Not applicable to imported aircraft)?</i> | | | |
| Weight and Balance Manual Reference | | Issue / Rev. | |
| Weight and Balance Report Reference | | Report Date | |
| Weigh and centre of gravity data are within limits and accurate? | | | |
| The current mass and balance statement reflect the current aircraft configuration and is valid? | | | |
| Approved Minimum Equipment List Reference | | Issue / Rev. | |
| Aircraft Technical Log Issue / Rev. | | | |
| The current Aircraft Technical Log system conforms to the approved procedure? | | | |
| Aircraft Technical Log (see Note 1) contains all required information? | | | |
| Airframe, engine and propeller flying hours and cycles have been properly recorded? | | | |
| All known defects and inoperative equipment / MEL items, CDL items, have been properly rectified or deferred/carried forward in a controlled manner? | | | |
| All maintenance, relevant work packages, and CRS have been carried out and properly released in accordance with approved procedure and maintenance data conforming TCAR AIR Part-M? | | | |

| | |
|---|--|
| All components installed onto the aircraft are in a satisfactory condition, released on an acceptable airworthiness approval tag? | |
| All applicable Airworthiness Directives (AD) have been assessed, incorporated, and recorded? | |
| All STCs, modifications, and repairs installed onto the aircraft and its components have been correctly approved or accepted by CAAT and appropriately recorded? | |
| All applicable Instruction for Continued Airworthiness (ICA) for all installed STCs has been incorporated into the approved maintenance program and properly complied? | |
| All time controlled and life limited components installed on the aircraft are properly identified, registered, and controlled in accordance with approved maintenance program, and have not exceeded their mandatory limit? | |
| List of organizations having carried out continuing airworthiness activities since the last review: | |
| | |
| List of organizations having carried out maintenance tasks on the aircraft and its components since the last review: | |
| | |

3. AIRCRAFT PHYSICAL SURVEY (see Note 2)

| | | | | | | | | | | | | | |
|--|-------------------|------------------|-------------------|---|-------------------|---------------------|-------------------|---|--|--|--|--|--|
| Date of Aircraft Physical Survey | | | | | | | | | | | | | |
| Place of Aircraft Physical Survey | | | | | | | | | | | | | |
| Name of Assisting TCAR PEL Part-66 Personnel (see Note 3) | | | | <input type="checkbox"/> The AR staff is also holding a valid licence <input type="checkbox"/> Assisting Name: _____ | | | | | | | | | |
| Assisting Personnel's Signature | | | | | | | | | | | | | |
| Licence No. | | | | Licence Valid Until | | | | | | | | | |
| Area | Satisfied? | Area | Satisfied? | Area | Satisfied? | Area | Satisfied? | | | | | | |
| Fuselage | | Control Surfaces | | Instrument Panel | | Power Plant | | | | | | | |
| Registration Marks | | Static Wicks | | Avionics | | Propellers / Rotors | | | | | | | |
| Wings | | Doors / Panels | | Electrics | | | | | | | | | |
| Empennage | | Cargo | | Safety Equipment | | Flight Recorders | | | | | | | |
| Landing Gears | | Cockpit / Cabin | | Systems | | | | | | | | | |
| Aircraft Identification and Placards | | | | Type Certification identification plate fitted? | | | | | | | | | |
| | | | | Aircraft registration markings and fireproof plate correct? | | | | | | | | | |
| | | | | Documents on Board | | | | The required documents are on board (see Note 4)? | | | | | |
| | | | | | | | | The weight and balance records are updated? | | | | | |
| | | | | | | | | The external damage marking records are updated? | | | | | |
| | | | | | | | | The third-party liability insurance certificate is valid? | | | | | |
| | | | | | | | | All onboard documentation is valid and correct? | | | | | |
| Inoperative Equipment Components | | | | Physical check that placarding is correct? | | | | | | | | | |
| | | | | Overhaul and limited life components verification, where practicable, of serial number's correct? | | | | | | | | | |
| | | | | Major components serial numbers are correct? | | | | | | | | | |
| Modifications and Repairs | | | | Recorded and accomplished as per requirements? | | | | | | | | | |
| General Condition Inspection | | | | Aircraft is in satisfactory condition? | | | | | | | | | |
| All required markings and placards (see Note 5) are properly installed and legible? | | | | | | | | | | | | | |
| The aircraft complies with its approved flight manual? | | | | | | | | | | | | | |
| The aircraft configuration complies with the approved documentation (TCDS, STC, etc.)? | | | | | | | | | | | | | |
| All defects have been correctly rectified or deferred/carried forward in a controlled manner (No evidence defect that has not been addressed is found)? | | | | | | | | | | | | | |
| All existing defects that affect or may affect the airworthiness and safe operation of the aircraft have been made known to the aircraft commander? | | | | | | | | | | | | | |
| The aircraft condition is consistent with the documented review of records in Section 2 of this report? | | | | | | | | | | | | | |

4. DEFECTS / FINDINGS OBSERVED (see Note 6)
 (All defects / findings must be cleared before certifying the review)

| Reference | Defects / Findings Description | Rectification / Actions |
|-----------|--------------------------------|-------------------------|
| | | |
| | | |
| | | |
| | | |
| | | |

Extra page(s) attached ? _____

| | |
|--|---|
| <p>If the defects / findings have not been rectified by the report issuance date, the Airworthiness Review Staff may sign off on the report in this section.</p> <p>However, if the unresolved defects / findings endanger flight safety, the aircraft must not be operated in accordance with M.A.902(b).</p> | <p>(_____)</p> <p>Report date: / /</p> |
|--|---|

5. CERTIFICATION (see Note 7)
 (The review cannot be certified with open defects / findings)

| Statement | |
|---|---|
| <p>I certify that all of the above records have been reviewed for the period plus a physical survey of the aircraft undertaken and the aircraft [HS -] is found to be fully in compliance with all of the applicable requirements.</p> <p>The aircraft in its current configuration complies with the following:</p> <ul style="list-style-type: none"> - Airworthiness directives up to the latest published issue - Type certificate datasheet - Maintenance programme - Limitation for life-limited parts and time-controlled components - The valid weight and center of gravity schedule reflecting the current configuration of the aircraft - All modifications and repairs requirements - The current flight manual including supplements - Operational requirements <p>In addition, all of the above items are properly entered and certified in the aircraft continuing airworthiness record system and/or in its technical log.</p> <p>At the time of the review, the aircraft is considered AIRWORTHY.</p> | |
| <p>Airworthiness Review Staff Signature</p> | <p>I confirm that information in this report is true and accurate</p> <p>(_____)</p> <p>Report completed date: / /</p> |

Explanatory notes for completing the Airworthiness Review Report

General, for all sections

- Enter a 'Y' in the appropriate column to indicate that the aircraft meets the applicable requirements
- Enter 'N/A' if the requirement is not applicable to the aircraft or operation

Note 1

M.A.306, AMC M.A.306(a), AMC M.A.306(b)

In addition to the requirements of point M.A.305, for the CAT, commercial specialised operations and ATO operation, the operator shall use a technical log system containing all the following information for each aircraft:

- Information about each flight, necessary to ensure continued flight safety:
 - o Details of the registered name and address of the operator
 - o The aircraft type
 - o The complete international registration marks of the aircraft
 - o The date and place of take-off and landing
 - o The times at which the aircraft took off and landed
 - o The running total of flying hours, such that the hours to the next schedule maintenance can be determined
 - o The quantity of fuel and oil uplifted and the quantity of fuel available in each tank, or combination of tanks, at the beginning and end of each flight
 - o The pre-flight inspection signature
 - o Details of any failure, defect or malfunction to the aircraft affecting airworthiness or safe operation of the aircraft including emergency systems, and any failure, defect or malfunctions in the cabin or galleys that affect the safe operation of the aircraft or the safety of its occupants that are known to the commander
- The current aircraft certificate of release to service:
 - o The current certificate of release to service (CRS), for the complete aircraft, issued normally at the end of the last maintenance check
- The current maintenance statement giving the aircraft maintenance status of what scheduled and out of phase maintenance is next due except that the CAAT may agree to the maintenance statement being kept elsewhere:
 - o Details of when the next scheduled maintenance is due, including, if relevant any out of phase component changes due before the next maintenance check
- All outstanding deferred defects rectifications that affect the operation of the aircraft:
 - o Details of all deferred defects that affect or may affect the safe operation of the aircraft and should therefore be known to the aircraft commander
 - o A cross-reference for each deferred defect such that the original defect can be identified
 - o The original date of occurrence of the defect deferred
 - o Brief details of the defect
 - o Details of the eventual rectification carried out and its CRS or a clear cross-reference back to the document that contains details of the eventual rectification
- Any necessary guidance instructions on maintenance support arrangements:
 - o Any necessary maintenance support information that the aircraft commander needs to know
 - o Data on how to contact maintenance if problems arise whilst operating the routes, etc.

The aircraft technical log system can be either a paper or computer system or any combination of both methods acceptable to the CAAT. In case of a computer system, it should contain programme safeguards against the ability of unauthorised personnel to alter the database.

Note 2

AMC M.A.901(l) and (m)

The physical survey could require actions categorised as maintenance (e.g. operational tests, tests of emergency equipment, visual inspections requiring panel opening, etc.). In this case, after the airworthiness review, a release to service should be issued. The physical survey may include verifications to be carried out during flight. To ensure compliance, the physical survey may include relevant sample checks of items.

Note 3

AMC M.A.901(l) and (m)

If the Airworthiness Review (AR) staff are qualified as TCAR PEL Part-66 personnel, fill in the licence number and validity.

When the AR staff are not appropriately qualified as TCAR PEL Part-66 personnel, in order to release any maintenance as recommended in Note 2, it is required them to be assisted by such qualified personnel. However, the function of such personnel is limited to performing and releasing the maintenance actions requested by the AR staff, it not being their function to perform the physical survey of the aircraft. This means that the AR staff who is going to sign the airworthiness review report should be the one performing both the documented review and the physical survey of the aircraft. It is not the intent of the rule to delegate the survey to TCAR PEL Part-66 personnel who are not AR staff.

Note 4

CAT.GEN.MPA.180, NCC.GEN.140, NCO.GEN.135, SPO.GEN.140

The following manuals and airworthiness information shall be carried on each flight:

- The aircraft flight manual (AFM), or equivalent document(s);
- The original certificate of registration (C of R);
- The original certificate of airworthiness (C of A);
- The noise certificate, for CAT aircraft, including an English translation, where one has been provided by the authority responsible for issuing the noise certificate;
- For CAT aircraft, a certified true copy of the air operator certificate (AOC), including an English translation when the AOC has been issued in another language;
- For CAT aircraft, the operations specifications relevant to the aircraft type, issued with the AOC, including an English translation when the operations specifications have been issued in another language;
- For NCC aircraft, the authorisation as specified in TCAR OPS Part ORO Subpart DEC
- For SPO aircraft, a copy of the declaration as specified in ORO.DEC.100, and, if applicable, a copy of the authorisation as specified in ORO.SPO.110;
- For NCC, NCO, and SPO aircraft, the list of specific approvals, if applicable
- The original aircraft radio licence, if applicable;
- The third-party liability insurance certificate(s);
- The journey log, or equivalent, for the aircraft;
- For CAT and SPO aircraft, the aircraft technical log in accordance with the applicable requirement for continuing airworthiness;
- The MEL and, as applicable, CDL;
- For CAT aircraft, mass and balance documentation;
- Any other documentation that may be pertinent to the flight or is required by the States concerned with the flight

Note 5

M.A.901(m)(1)

The markings and placards can be required by certification information in the TCDS, the AFM, manufacturer instructions (ATA Chapter 11), the STCs' ICA, ADs, or supplemental information from approved drawing or document.

Note 6

M.A.901(r)

New aircraft defects identified during the review must also be recorded in the technical log by appropriate TCAR PEL Part-66 personnel. All aircraft defects require a clearing maintenance action (correction or deferral) prior to further flight.

If the result of the full airworthiness review is unsatisfactory or inconclusive, then this report, along with all necessary supporting information must be sent to Airworthiness and Aircraft Engineering Department (AIR), the CAAT, within 72 hours from the moment the reason for which the review is inconclusive is found in order to satisfy the requirements of the review. Once all findings have been corrected and satisfactory, the report can be issued with certification statement in Section 5 of this report and resubmitted to the CAAT. The resubmission is not required if the aircraft is subject to the CAAT to issue the certification of this report (See Note 8).

Note 7

M.A.901(p)

THE REPORT CANNOT BE ISSUED WITH OPEN FINDINGS. Each finding requires a corrective action before the issue of the ARR. The corrective action should be adequate to the open finding and it should be carried out and verified by the AR staff before the issue of the ARR.

Once the report is completed and certified, it must be submitted to airworthiness@caat.or.th within 10 days.

The next review due date shall be calculated from the certification date in Section 5 of this report.

Appendix IV — Complex Maintenance Tasks

The following constitutes the complex maintenance tasks referred to in points M.A.801(b)2 and M.A.801(c):

1. The modification, repair or replacement by riveting, bonding, laminating, or welding of any of the following airframe parts:
 - (a) a box beam;
 - (b) a wing stringer or chord member;
 - (c) a spar;
 - (d) a spar flange;
 - (e) a member of a truss-type beam;
 - (f) the web of a beam;
 - (g) a keel or chine member of a flying boat hull or a float;
 - (h) a corrugated sheet compression member in a wing or tail surface;
 - (i) a wing main rib;
 - (j) a wing or tail surface brace strut;
 - (k) an engine mount;
 - (l) a fuselage longeron or frame;
 - (m) a member of a side truss, horizontal truss or bulkhead;
 - (n) a seat support brace or bracket;
 - (o) a seat rail replacement;
 - (p) a landing gear strut or brace strut;
 - (q) an axle;
 - (r) a wheel; and
 - (s) a ski or ski pedestal, excluding the replacement of a low-friction coating.
2. The modification or repair of any of the following parts:
 - (a) aircraft skin, or the skin of an aircraft float, if the work requires the use of a support, jig or fixture;
 - (b) aircraft skin that is subject to pressurisation loads, if the damage to the skin measures more than 15 cm (6 inches) in any direction;
 - (c) a load-bearing part of a control system, including a control column, pedal, shaft, quadrant, bell crank, torque tube, control horn and forged or cast bracket, but excluding
 - (i) the swaging of a repair splice or cable fitting, and
 - (ii) the replacement of a push-pull tube end fitting that is attached by riveting; and
 - (d) any other structure, not listed in (1), that a manufacturer has identified as primary structure in its maintenance manual, structural repair manual or instructions for continuing airworthiness.
3. The performance of the following maintenance on a piston engine:
 - (a) dismantling and subsequent reassembling of a piston engine other than (i) to obtain access to the piston/cylinder assemblies; or (ii) to remove the rear accessory cover to inspect and/or replace oil

-
- pump assemblies, where such work does not involve the removal and re-fitment of internal gears;
- (b) dismantling and subsequent reassembling of reduction gears;
 - (c) welding and brazing of joints, other than minor weld repairs to exhaust units carried out by a suitably approved or authorised welder but excluding component replacement;
 - (d) the disturbing of individual parts of units which are supplied as bench tested units, except for the replacement or adjustment of items normally replaceable or adjustable in service.
4. The balancing of a propeller, except:
- (a) for the certification of static balancing where required by the maintenance manual;
 - (b) dynamic balancing on installed propellers using electronic balancing equipment where permitted by the maintenance manual or other approved airworthiness data;
5. Any additional task that requires:
- (a) specialised tooling, equipment or facilities; or
 - (b) significant coordination procedures because of the extensive duration of the tasks and the involvement of several persons.

Appendix V — Limited Pilot-owner maintenance

In addition to the requirements laid down in TCAR AIR Part-M, the following basic principles are to be complied with before any maintenance task is carried out under the terms of Pilot-owner maintenance:

(a) Competence and responsibility

1. Pilot-owners are always responsible for any maintenance that they perform.
2. Before carrying out any Pilot-owner maintenance tasks, Pilot-owners must satisfy themselves that they are competent to do the task. It is the responsibility of Pilot-owners to familiarise themselves with the standard maintenance practices for their aircraft and with the aircraft maintenance programme. If the Pilot-owner is not competent for the task to be carried out, the task cannot be released by the Pilot-owner.
3. The Pilot-owner (or contracted CAMO or CAO) is responsible for identifying the Pilot-owner tasks according to these basic principles in the maintenance programme and for ensuring that the document is updated in a timely manner.
4. The approval of the maintenance programme has to be carried out in accordance with point M.A.302.

(b) Tasks

Pilot-owners may carry out simple visual inspections or operations to check for general condition and obvious damage and normal operation of the airframe, engines, systems and components.

Maintenance tasks shall not be carried out by Pilot-owners when the task:

1. is a critical maintenance task;
2. requires the removal of major components or major assembly and/or;
3. is carried out in compliance with an Airworthiness Directive or an Airworthiness Limitation Item, unless specifically allowed in the Airworthiness Directive or the ALI and/or;
4. requires the use of special tools, calibrated tools (except torque wrench and crimping tool) and/or;
5. requires the use of test equipment or special testing (e.g. NDT, system tests or operational checks for avionic equipment) and/or;
6. is composed of any unscheduled special inspections (e.g. heavy landing check) and/or;
7. is affecting systems essential for IFR operations and/or;
8. is listed in Appendix IV to this Part or is a component maintenance task in accordance with points M.A.502(a), (b), (c) or (d) and/or;

The criteria 1 to 8 cannot be overridden by less restrictive instructions issued in accordance with 'M.A.302(d) Maintenance Programme'.

Any task described in the aircraft flight manual as preparing the aircraft for flight (Example: assembling the glider wings or pre-flight), is considered to be a pilot task and is not considered a Pilot-owner maintenance task and therefore does not require a Certificate of Release to Service.

(c) Performance of the maintenance Pilot-owner tasks and records

The maintenance data as specified in point M.A.401 must be always available during the conduct of Pilot-owner maintenance and must be complied with. Details of the data referred to in the conduct of Pilot-owner maintenance must be included in the Certificate of Release to Service in accordance with point M.A.803(d).

The Pilot-owner must inform the approved continuing airworthiness management organisation responsible for the continuing airworthiness of the aircraft (if applicable) not later than 30 days after completion of the Pilot-owner maintenance task in accordance with point M.A.305(a)



Thailand Civil Aviation Regulation – Airworthiness
Part Continuing Airworthiness
(TCAR AIR Part - ML)

Issue: 01

Revision: 00

Date 15 November 2024

Approved by

Suttipong Kongpool

Director General

The Civil Aviation Authority of Thailand

THAILAND CIVIL AVIATION REGULATION (TCAR)

INTENTIONALLY LEFT BLANK

RECORD OF REVISIONS

| Revision No. | Date (DD-MMM-YYYY) | Subject | Insert By (Department) |
|--------------|-----------------------|---------------|---------------------------|
| 00 | 15 NOV 2024 | Initial Issue | AIR |
| | | | |

INTENTIONALLY LEFT BLANK

INTENTIONALLY LEFT BLANK

INTRODUCTION AND APPLICABILITY

This requirement establishes common technical requirements to ensure the continuing airworthiness of Type Certificate aircraft, including any component for installation thereto, which are registered in Kingdom of Thailand.

TCAR AIR Part-ML applies to the following:

- (a) aeroplanes of 2,730 kg maximum take-off mass or less;
- (b) rotorcraft of 1,200 kg maximum take-off mass or less, certified for a maximum of up to 4 occupants;
- (c) other LA2 aircraft.

All Complex motor-powered aircraft including those not listed in an air operator certificate in accordance with TCAR OPS must follow TCAR AIR Part-M.

In this requirement the word 'shall' is used to indicate where the Director General expects the person or organisation to respond and adhere closely to the defined requirement.

DEFINITIONS

- (a) **“Complex motor-powered aircraft”** shall mean:
- (i) an aeroplane:
 - with a maximum certificated take-off mass exceeding 5,700 kg, or
 - certificated for a maximum passenger seating configuration of more than nineteen, or
 - certificated for operation with a minimum crew of at least two pilots, or
 - equipped with one or more turbojet engines or more than one turboprop engine
 - (ii) a helicopter certificated:
 - for a maximum take-off mass exceeding 3,175 kg, or
 - for a maximum passenger seating configuration of more than nine, or
 - for operation with a minimum crew of at least two pilots
 - (ii) a tilt rotor aircraft;
- (b) **‘LA1 aircraft’** shall mean the following manned Light Aircraft:
- (i) an aeroplane with a maximum take-off mass (MTOM) of 1,200 kg or less that is not classified as a Complex aircraft;
 - (ii) a sailplane or powered sailplane of 1,200 kg MTOM or less;
 - (iii) a balloon with a maximum design lifting gas or hot air volume of not more than 3,400 m³ for hot air balloons, 1,050 m³ for gas balloons, 300 m³ for tethered gas balloons;
 - (iv) an airship designed for not more than four occupants and a maximum design lifting gas or hot air volume of not more than 3,400 m³ for hot air airships and 1,000 m³ for gas airships;
- (c) **‘LA2 aircraft’** shall mean the following manned Light Aircraft:
- (i) an aeroplane with a Maximum Take-off Mass (MTOM) of 2,000 kg or less that is not classified as a Complex aircraft;
 - (ii) a sailplane or powered sailplane of 2,000 kg MTOM or less;
 - (iii) a balloon;
 - (iv) a hot airship;
 - (v) a gas airship complying with all of the following characteristics:
 - 3 % maximum static heaviness,
 - non-vectored thrust (except reverse thrust),
 - conventional and simple design of structure, control system and ballonnet system,
 - non-power assisted controls.
- (d) - Reserved -
- (e) **‘limited operations’** means the operations of other-than-complex aircraft for:
- (i) cost-shared flights by private individuals, on the condition that the direct cost is shared by all the occupants of the aircraft, pilot included and the number of persons sharing the direct costs is limited to six;

- (ii) competition flights or flying displays, on the condition that the remuneration or any valuable consideration given for such flights is limited to recovery of direct costs and a proportionate contribution to annual costs,
- (iii) introductory flights, parachute dropping, sailplane towing or aerobatic flights performed either by a training organisation, or by an organisation created with the aim of promoting aerial sport or leisure aviation, on the condition that the aircraft is operated by the organisation on the basis of ownership or dry lease, that the flight does not generate profits distributed outside of the organisation, and that whenever non-members of the organisation are involved, such flights represent only a marginal activity of the organisation.

For the purpose of this Regulation, 'limited operations' are not considered as CAT operations or commercial specialised operations;

- (f) **'independent certifying staff'** means certifying staff who do not work on behalf of an approved maintenance organisation and who comply with the requirements of TCAR PEL Part-66;
- (g) **'maintenance organisation'** means an organisation holding an approval issued in accordance with, either:
 - (i) TCAR AIR Part-145; or
 - (ii) TCAR AIR Part-CAO.
- (h) **'owner'** means the person responsible for the continuing airworthiness of the aircraft, including:
 - (i) Thai registered owner of the aircraft;
 - (ii) the lessee in the case of a leasing contract;
 - (iii) the operator.
- (i) **'Airworthy'** means the status of an aircraft, engine, propeller or part when it conforms to its approved design and is in a condition for **safe operation**.
- (j) **'Continuing airworthiness'** means the set of processes by which all aircraft comply with the applicable **airworthiness requirements** and remain in a condition for safe operation throughout their operating life.

ABBREVIATION

| | |
|------|--|
| ALI | Airworthiness Limitation Items |
| AMP | Aircraft Maintenance Programme |
| AOC | Air Operator Certificate |
| ATO | Aircraft Training Organisation |
| CAAT | The Civil Aviation |
| CAMO | Continuing Airworthiness Management Organisation |
| CAO | Combined Airworthiness Management Organisation |
| DAH | Design Approval Holder |
| MIP | Minimum Inspection Programme |
| MTOW | Max Take of Weight |
| NDT | Non-Destructive Testing |
| PIC | Pilot in Command |
| TCAR | Thailand Civil Aviation Regulation |
| TSO | Technical Standard Order |

Table of Contents

| | |
|--|-----------|
| RECORD OF REVISIONS | 1 |
| LIST OF EFFECTIVE PAGES..... | 3 |
| INTRODUCTION AND APPLICABILITY | 5 |
| DEFINITIONS..... | 6 |
| ABBREVIATION | 8 |
| TCAR AIR PART-ML | 10 |
| SUBPART A — GENERAL | 10 |
| ML.A.101 Scope..... | 10 |
| SUBPART B — ACCOUNTABILITY | 11 |
| ML.A. 201 Responsibilities | 11 |
| ML.A. 202 Occurrence reporting..... | 12 |
| SUBPART-C — CONTINUING AIRWORTHINESS | 13 |
| ML.A. 301 Continuing airworthiness tasks..... | 13 |
| ML.A. 302 Aircraft Maintenance Programme | 13 |
| ML.A. 303 Airworthiness Directive..... | 16 |
| ML.A. 304 Data for modifications and repairs | 16 |
| ML.A. 305 Aircraft continuing airworthiness record system | 16 |
| ML.A. 307 Transfer of aircraft continuing airworthiness records..... | 17 |
| SUBPART D — MAINTENANCE STANDARDS..... | 18 |
| ML.A. 401 Maintenance data..... | 18 |
| ML.A. 402 Performance of maintenance | 18 |
| ML.A. 403 Aircraft defects..... | 19 |
| SUBPART E — COMPONENTS | 20 |
| ML.A. 501 Classification and installation | 20 |
| ML.A. 502 Component maintenance | 20 |
| ML.A. 503 Service-life-limited components..... | 22 |
| ML.A. 504 Control of unserviceable components..... | 23 |
| SUBPART H — CERTIFICATE OF RELEASE TO SERVICE (CRS)..... | 24 |
| ML.A. 801 Aircraft Certificate of release to service | 24 |
| ML.A. 802 Component certificate of release to service..... | 25 |
| ML.A. 803 Pilot-owner authorisation..... | 25 |
| SUBPART I — AIRWORTHINESS REVIEW..... | 26 |
| ML.A. 901 Aircraft airworthiness review | 26 |
| ML.A. 902 Validity of the airworthiness review report..... | 26 |
| ML.A. 903 Airworthiness review process..... | 27 |
| ML.A. 904 Qualification of airworthiness review staff..... | 28 |
| ML.A. 905 – Reserve –..... | 28 |
| ML.A. 906 Airworthiness review of aircraft imported into Thailand | 29 |
| ML.A. 907 Finding..... | 29 |
| APPENDICES TO TCAR AIR PART-ML..... | 30 |
| Appendix I —Continuing airworthiness management contract | 30 |
| Appendix II — Limited Pilot-owner maintenance | 32 |
| Appendix III — Complex maintenance tasks not to be released by the Pilot-owner | 33 |
| Appendix IV — Airworthiness Review Report (CAAT Form 15B) | 35 |

TCAR AIR PART-ML

SUBPART A — GENERAL

ML.A.101 Scope

This part establishes the measures to be taken to ensure that the airworthiness of the aircraft is airworthy. It also specifies the conditions to be met by the persons or organisations involved in continuing airworthiness and maintenance activities.

SUBPART B — ACCOUNTABILITY

ML.A. 201 Responsibilities

- (a) The owner is responsible for the continuing airworthiness of an aircraft and shall ensure that no flight takes place unless:
 - (1) the aircraft is maintained in an airworthy condition, and;
 - (2) any operational and emergency equipment fitted is correctly installed and serviceable or clearly identified as unserviceable, and;
 - (3) the airworthiness certificate remains valid, and;
 - (4) the maintenance of aircraft is performed in accordance with the maintenance programme as specified in point ML.A.302.
- (b) By derogation from point (a), where the aircraft is leased, the responsibilities set out in point (a) shall apply to the lessee, if the lessee is identified either in the registration document of the aircraft or in the leasing contract.
- (c) Any person or organisation performing maintenance of aircraft and components shall be responsible for the maintenance tasks being performed.
- (d) The pilot-in-command of the aircraft shall be responsible for the satisfactory accomplishment of the preflight inspection. That inspection shall be carried out by the pilot or another qualified person but need not be carried out by an approved maintenance organisation or by certifying staff.
- (e) For aircraft operated by an ATO or commercial aerial work or commercial balloon operations or commercial sailplane operations, the operator shall
 - (1) be approved as a CAMO or as a CAO for the management of the continuing airworthiness of its aircraft in accordance with TCAR AIR Part-CAMO or TCAR AIR Part-CAO, or contract such an organisation using the contract set out in Appendix I to this Part;
 - (2) ensure that all maintenance is performed by maintenance organisations approved in accordance with point (g) of DEFINITIONS;
 - (3) ensure that the requirements of point (a) are satisfied.
- (f) For aircraft not included in point (e), in order to satisfy the requirements of point (a), the owner of the aircraft may contract the tasks associated with continuing airworthiness management to an organisation approved as a CAMO or CAO in accordance with TCAR AIR Part-CAMO or TCAR AIR Part-CAO. In that case, the contracted organisation shall assume responsibility for the proper performance of those tasks and a written contract shall be concluded in accordance with Appendix I to TCAR AIR Part-ML. If the owner does not contract such an organisation, the owner is responsible for the proper performance of the tasks associated with the continuing airworthiness management.
- (g) The owner shall grant CAAT access to the aircraft and the aircraft records, in order for CAAT to determine whether the aircraft complies with the requirements of this Part.
- (h) In the case where an aircraft included in an air operator certificate is used for non-commercial or specialised operations under point ORO.GEN.310 of Part-ORO or point NCO.GEN.104 of Part-NCO to TCAR OPS, the operator shall ensure that the tasks associated with continuing airworthiness are performed by the CAMO approved in accordance with TCAR AIR Part-CAMO or CAO approved in accordance with TCAR AIR Part-CAO, whichever is applicable, of the air operator certificate holder.

ML.A. 202 Occurrence reporting

- (a) Without prejudice to the reporting requirements of TCAR AIR Part-145 and TCAR AIR Part-CAMO, any person or organisation responsible in accordance with point ML.A.201 shall report any identified condition of an aircraft or component which endangers flight safety to:
 - (1) CAAT and state of operator, when the aircraft is operated under another authority.
 - (2) the organisation responsible for the type design or supplemental type design.
- (b) The reports referred to in point (a) shall be made in accordance with Reporting of Civil Aviation Occurrences (CAAT Requirement No.22) and shall contain all pertinent information about the condition known to the person or organisation making the report.
- (c) Where the maintenance or the airworthiness review of the aircraft is carried out on the basis of a written contract, the person or the organisation responsible for those activities shall also report any condition referred to in point (a) to the owner of the aircraft and, when different, to the CAMO or CAO concerned.
- (d) The person or organisation shall submit the reports referred to in points (a) and (c) as soon as possible, but no later than 72 hours from the moment when the person or organisation identified the condition to which the report relates, unless exceptional circumstances prevent this.

SUBPART-C — CONTINUING AIRWORTHINESS

ML.A. 301 Continuing airworthiness tasks

The aircraft continuing airworthiness and the serviceability of both operational and emergency equipment shall be ensured by:

- (a) the accomplishment of pre-flight inspections;
- (b) the rectification of any defect and damage affecting safe operation in accordance with data specified in points ML.A.304 and ML.A.401, as applicable, while taking into account the minimum equipment list (MEL) and configuration deviation list, when they exist;
- (c) the accomplishment of all maintenance, in accordance with the AMP referred to in point ML.A.302;
- (d) the accomplishment of any applicable:
 - (1) airworthiness directive;
 - (2) operational directive with a continuing airworthiness impact;
 - (3) continued airworthiness requirement established by CAAT;
 - (4) measures mandated by CAAT in immediate reaction to a safety problem;
- (e) the accomplishment of modifications and repairs in accordance with point ML.A.304;
- (f) maintenance check flights when necessary.

ML.A. 302 Aircraft Maintenance Programme

- (a) Maintenance of each aircraft shall be organised in accordance with an aircraft maintenance programme (AMP).
- (b) The AMP and any subsequent amendments shall be,
 - (1) declared by the owner in accordance with point (c)(7) of point ML.A.302, where the continuing airworthiness of the aircraft is not managed by a CAMO or CAO; or
 - (2) approved by the CAMO or CAO responsible for managing the continuing airworthiness of the aircraft.

The owner declaring the AMP in accordance with point (b)(1) or the organisation approving the AMP in accordance with point (b)(2) shall keep the AMP updated.

- (c) The AMP:
 - (1) shall clearly identify the owner of the aircraft and the aircraft to which it relates, including any installed engine and propeller, as applicable;
 - (2) shall include,:
 - (a) the tasks or inspections contained in the applicable minimum inspection programme (MIP) referred to in point (d); or
 - (b) the instructions for continuing airworthiness (ICA) issued by the design approval holder (DAH);
 - (3) may include additional maintenance actions to those referred to in point (c)(2) or maintenance actions alternative to those referred to in point (c)(2)(b) at the proposal of the owner, CAMO or CAO, once approved or declared in accordance with point (b). Alternative maintenance actions to those referred to in point (c)(2)(b) shall not be less restrictive than those set out in the applicable MIP;
 - (4) shall include all the mandatory continuing airworthiness information, such as repetitive ADs, the airworthiness limitation section (ALS) of the ICAs, and specific maintenance requirements contained in the Type Certificate data sheet (TCDS);

- (5) shall identify any additional maintenance tasks to be performed because of the specific aircraft type, aircraft configuration and type and specificity of operation, whereas the following elements shall be taken into consideration as a minimum:
 - (a) specific installed equipment and modifications of the aircraft;
 - (b) repairs carried out in the aircraft;
 - (c) life-limited components and flight-safety-critical components;
 - (d) maintenance recommendations, such as time between overhaul (TBO) intervals, issued through service bulletins, service letters, and other non-mandatory service information;
 - (e) applicable operational directives or requirements related to the periodic inspection of certain equipment;
 - (f) special operational approvals;
 - (g) use of the aircraft and operational environment;
- (6) shall identify whether the Pilot-owners are authorised to perform maintenance;
- (7) when declared by the owner, shall contain a signed statement by which the owner declares that this is the AMP for the particular aircraft registration and that they are fully responsible for its content and, in particular, for any deviations from the DAH's recommendations;
- (8) when approved by the CAMO or CAO, shall be signed by this organisation, which shall retain records with the justification for any deviation introduced to the DAH's recommendations;
- (9) shall be reviewed at least annually in order to assess its effectiveness, and this review shall be performed, either:
 - (a) in conjunction with the airworthiness review of the aircraft by the person who performs such an airworthiness review; or
 - (b) by the CAMO or CAO managing the continuing airworthiness of the aircraft in those cases where the review of the AMP is not performed in conjunction with an airworthiness review.

If the review shows deficiencies of the aircraft linked with deficiencies in the content of the AMP, the AMP shall be amended accordingly. In this case the person performing the review shall inform CAAT if they do not agree with the measures amending the AMP taken by the owner, CAMO or CAO. CAAT will decide which amendments to the AMP are necessary, raising the corresponding findings and, if necessary, reacting.

- (d) An MIP:
 - (1) shall contain the following inspection intervals:
 - (a) for aeroplanes, touring motor gliders (TMGs) and balloons, every annual or 100-h interval, whichever comes first, to which a tolerance of 1 month or 10-h may be applied. The next interval shall be calculated as from the time the inspection takes place;
 - (b) for sailplanes and powered sailplanes other than TMG, every annual interval to which a tolerance of 1-month may be applied. The next interval shall be calculated as from the time the inspection takes place;
 - (2) shall contain the following, as applicable to the aircraft type:
 - (a) servicing tasks as required by the DAH's requirements;
 - (b) inspection of markings;
 - (c) review of weighing records and weighing in accordance with TCAR OPS
 - (d) operational test of transponder (if installed);

- (e) functional test of the pitot-static system;
- (f) in the case of aeroplanes:
 - (i) operational tests for power and revolutions per minute (rpm), magnetos, fuel and oil pressure, engine temperatures;
 - (ii) for engines equipped with automated engine control, the published run-up procedure;
 - (iii) for dry-sump engines, engines with turbochargers and liquid-cooled engines, an operational test for signs of disturbed fluid circulation;
- (g) inspection of the condition and attachment of the structural items, systems and components corresponding to the following areas:
 - (i) for aeroplanes:
 - airframe, cabin and cockpit, landing gear, wing and centre section, flight controls, empennage, avionics and electrics, power plant, clutches and gearboxes, propeller and miscellaneous systems, such as the ballistic rescue system;
 - (ii) for sailplanes and powered sailplanes:
 - airframe, cabin and cockpit, landing gear, wing and centre section, empennage, avionics and electrics, power plant (for powered sailplanes) and miscellaneous systems, such as removable ballast and/or drag chute and controls, as well as water ballast system;
 - (iii) for hot-air balloons:
 - envelope, burner, basket, fuel containers, equipment and instruments;
 - (iv) for gas balloons:
 - envelope, basket, equipment and instruments.

As long as this Part does not specify an MIP for airships and rotorcraft, their AMP shall be based on the ICA issued by the DAH, as referred to in point (c)(2)(b).

- (e) By derogation from points (b) and (c), a declaration by the owner or an approval by a CAMO or CAO is not required, and an AMP document is not required to be produced when the following conditions are met:
 - (1) all the ICA issued by the DAH are being followed without any deviations;
 - (2) all maintenance recommendations, such as TBO intervals, issued through service bulletins, service letters, and other non-mandatory service information, are being followed without any deviations;
 - (3) there are no additional maintenance tasks to be performed resulting from any of the following:
 - (a) specific installed equipment and modifications of the aircraft;
 - (b) repairs carried out in the aircraft;
 - (c) life-limited components and flight-safety-critical components;
 - (d) special operational approvals;
 - (e) use of the aircraft and operational environment.
 - (4) Pilot-owners are authorised to perform Pilot-owner maintenance.

This derogation is not applicable if the pilot-owner or, in case of jointly-owned aircraft, any of the pilot-owners is not authorised to perform Pilot-owner maintenance because this has to be specified in the declared or approved AMP.

- (f) If the conditions provided for in points (e)(1) to (e)(4) are met, the AMP applicable to the aircraft shall consist of the following:

- (1) the ICA issued by the DAH;
- (2) the maintenance recommendations, such as TBO intervals, issued through service bulletins, service letters, and other non-mandatory service information;
- (3) the mandatory continuing airworthiness information, such as repetitive ADs, the ALS of the ICA and specific maintenance requirements contained in the TCDS;
- (4) the tasks due to specific operational or airspace directives or requirements in relation to particular instruments and equipment.

ML.A. 303 Airworthiness Directive

Any applicable airworthiness directive must be carried out within the requirements of that airworthiness directive, unless otherwise specified by CAAT.

ML.A. 304 Data for modifications and repairs

A person or organisation repairing an aircraft or a component shall assess any damage. Modifications and repairs shall be carried out using, as appropriate, the following data:

- (a) data approved by CAAT; or
- (b) data from Type Certificate holder;
- (c) -reserved-

ML.A. 305 Aircraft continuing airworthiness record system

- (a) At the completion of any maintenance, the certificate of release to service required by point ML.A.801 shall be entered in the aircraft continuing airworthiness records system. Each entry shall be made as soon as practicable but not later than 30 days after the day of the completion of the maintenance task.
- (b) The aircraft continuing airworthiness records shall consist of an aircraft logbook, engine logbook(s) or engine module log cards, propeller logbook(s) and log cards, for any service-life-limited component, as appropriate.
- (c) The aircraft type and registration mark, the date, together with total flight time and/or flight cycles and/or landings, as appropriate, shall be entered in the aircraft logbooks.
- (d) The aircraft continuing airworthiness records shall contain the current:
 - (1) status of airworthiness directives and measures mandated by CAAT in immediate reaction to a safety problem;
 - (2) status of modifications, repairs and other DAH maintenance recommendations;
 - (3) status of compliance with maintenance programme;
 - (4) status of service life limited components;
 - (5) mass and balance report;
 - (6) list of deferred maintenance.
- (e) In addition to the authorised release document, CAAT Form 1 or equivalent, the following information relevant to any component installed (engine, propeller, engine module or service life-limited component) shall be entered in the appropriate engine or propeller logbook, engine module or service life limited component log card:
 - (1) identification of the component; and
 - (2) the type, serial number and registration, as appropriate, of the aircraft, engine, propeller, engine module or service life-limited component to which the particular component has been fitted, along with the reference to the installation and removal of the component; and

- (3) the date together with the component's accumulated total flight time and/or flight cycles and/or landings and/or calendar time, as appropriate; and
- (4) the current point (d) information applicable to the component.
- (f) The person or organisation responsible for the management of continuing airworthiness and tasks pursuant to point ML.A.201 shall control the records as detailed in this point and present the records to CAAT upon request.
- (g) All entries made in the aircraft continuing airworthiness records shall be clear and accurate. When it is necessary to correct an entry, the correction shall be made in a manner that clearly shows the original entry.
- (h) An owner or operator shall ensure that a system has been established to keep the following records for the periods specified:
 - (1) all detailed maintenance records in respect of the aircraft and any service life-limited component fitted thereto, until such time as the information contained therein is superseded by new information equivalent in scope and detail but not less than 36 months after the aircraft or component has been released to service; and
 - (2) the total time in service (hours, calendar time, cycles and landings) of the aircraft and all service life-limited components, at least 12 months after the aircraft or component has been permanently withdrawn from service; and
 - (3) the time in service (hours, calendar time, cycles and landings) as appropriate, since last scheduled maintenance of the component subjected to a service life limit, at least until the component scheduled maintenance has been superseded by another scheduled maintenance of equivalent work scope and detail; and
 - (4) the current status of compliance with maintenance programme such that compliance with the approved aircraft maintenance programme can be established, at least until the aircraft or component scheduled maintenance has been superseded by other scheduled maintenance of equivalent work scope and detail; and
 - (5) the current status of airworthiness directives applicable to the aircraft and components, at least 12 months after the aircraft or component has been permanently withdrawn from service; and
 - (6) details of current modifications and repairs to the aircraft, engine(s), propeller(s) and any other component vital to flight safety, at least 12 months after they have been permanently withdrawn from service.

ML.A. 307 Transfer of aircraft continuing airworthiness records

- (a) The owner shall ensure when an aircraft is permanently transferred from one owner to another that the ML.A.305 continuing airworthiness records are also transferred.
- (b) When the owner contracts the continuing airworthiness management tasks to a CAMO or CAO the owner shall ensure that the continuing airworthiness records referred to in point ML.A.305 are transferred to the contracted organisation.
- (c) The time periods for the retention of records set out in point (h) of point ML.A.305 shall continue to apply to the new owner, CAMO or CAO.

SUBPART D — MAINTENANCE STANDARDS

ML.A. 401 Maintenance data

- (a) The person or organisation maintaining an aircraft shall only use applicable maintenance data during the performance of maintenance.
- (b) For the purposes of this Part, applicable maintenance data means any of the following:
 - (1) any applicable requirement, procedure, standard or information issued by CAAT;
 - (2) any applicable airworthiness directive;
 - (3) the applicable instructions for continuing airworthiness and other maintenance instructions, issued by the Type Certificate holder, Supplementary Type Certificate holder and any other organisation that publishes such data acceptable to CAAT;
 - (4) for components approved for installation by the design approval holder, the applicable maintenance instructions published by the component manufacturers and acceptable to the design approval holder;
 - (5) any applicable data issued in accordance with point 145.45(d) of TCAR AIR Part-145.

ML.A. 402 Performance of maintenance

- (a) Maintenance performed by approved maintenance organisations shall be in accordance with TCAR AIR Part-145 or TCAR AIR Part-CAO, as applicable.
- (b) For maintenance not performed in accordance with point (a), the person performing maintenance shall:
 - (1) be qualified for the tasks performed, as required by this Part;
 - (2) ensure that the area in which maintenance is carried out is well organised and clean in respect of dirt and contamination;
 - (3) use the methods, techniques, standards and instructions specified in the maintenance data referred to in point ML.A.401;
 - (4) use the tools, equipment and material specified in the maintenance data referred to in point ML.A.401. If necessary, tools and equipment shall be controlled and calibrated to an officially recognised standard;
 - (5) ensure that maintenance is performed within any environmental limitations specified in the maintenance data referred to in point ML.A.401;
 - (6) ensure that proper facilities are used in case of inclement weather or lengthy maintenance;
 - (7) ensure that the risk of multiple errors during maintenance and the risk of errors being repeated in identical maintenance tasks are minimised;
 - (8) ensure that an error capturing method is implemented after the performance of any critical maintenance task; and
 - (9) perform a general verification after completion of maintenance to ensure the aircraft or component is clear of all tools, equipment and any extraneous parts or material, and that all access panels removed have been refitted.
 - (10) ensure that all maintenance performed is properly recorded and documented.

ML.A. 403 Aircraft defects

- (a) Any aircraft defect that hazards seriously the flight safety shall be rectified before further flight.
- (b) The following persons may decide that a defect does not seriously endanger flight safety, and may defer it accordingly;
 - (1) the pilot in respect of defects affecting non-required aircraft equipment;
 - (2) the pilot, when using the minimum equipment list, in respect of defects affecting required aircraft equipment — otherwise, these defects may only be deferred by authorised certifying staff;
 - (3) the pilot in respect of defects other than those referred to in points (b)(1) and (b)(2) if all the following conditions are met:
 - (i) the aircraft operated under TCAR OPS Part-NCO or, in the case of balloons or sailplanes, not operated under TCAR OPS Subpart-ADD of TCAR OPS Part-BOP or not following Subpart DEC of Part-SAO.
 - (ii) the pilot defers the defect with the agreement of the aircraft owner or, if applicable, of the contracted CAMO or CAO;
 - (4) the appropriately qualified certifying staff in respect of other defects than those referred to in points (b)(1) and (b)(2), where the conditions referred to in point 3(i) and (ii) are not met.
- (c) Any aircraft defect that does not seriously hazard flight safety shall be rectified as soon as practicable from the date on which the defect was first identified and within the limits specified in the maintenance data or MEL.
- (d) Any defect not rectified before flight shall be recorded in the aircraft continuing airworthiness record system referred to in point ML.A.305 and a record shall be available to the pilot.

SUBPART E — COMPONENTS

ML.A. 501 Classification and installation

- (a) Unless otherwise specified in TCAR AIR Part-145 or TCAR AIR Part-CAO or TCAR AIR Part-21, a component may be fitted only if all of the following conditions are met:
- (i) it is in a satisfactory condition;
 - (ii) has been appropriately released to service using an CAAT Form 1, or equivalent;
 - (iii) has been marked in accordance with TCAR AIR Part-21 or state of manufacturer requirement of such product.
- (b) Prior to the installation of a component on an aircraft, the person or approved maintenance organisation shall ensure that the particular component is eligible to be fitted if different modifications or Airworthiness Directive configurations are applicable.
- (c) Standard parts shall only be fitted to an aircraft or component when the maintenance data specifies those particular standard parts. Standard parts shall only be fitted when accompanied by evidence of conformity to the applicable standard and has appropriate traceability.
- (d) Raw or consumable material shall only be used on an aircraft or component provided that:
- (i) the aircraft or component manufacturer allows for the use of raw or consumable material in relevant maintenance data or as specified in TCAR AIR Part-145 or TCAR AIR Part-CAO;
 - (ii) such material meets the required material specification and has appropriate traceability;
 - (iii) such material is accompanied by documentation clearly relating to the particular material and containing a conformity-to-specification statement as well as the manufacturing and supplier source.
- (e) In case of balloons, where different combinations of baskets, burners and fuel cylinders are possible for a particular envelope, the person installing them shall ensure that:
- (i) the basket, burner and/or fuel cylinders are eligible for installation according to the TCDS or other documents referred to in the TCDS;
 - (ii) the basket, burner and/or fuel cylinders are in serviceable condition and have the appropriate maintenance records.

ML.A. 502 Component maintenance

- (a) In case of LA1 and LA2 aircraft, components that is:
- (i) not life limited, nor part of the primary structure, nor part of the flight controls;
 - (ii) manufactured in conformity to applicable design;
 - (iii) marked in accordance with state of manufacturer requirement;
 - (iv) identified for installation in the specific aircraft;
 - (v) to be installed in an aircraft whose owner has verified compliance with the applicable conditions in (i) and (iv), and has accepted responsibility for this compliance;
- shall be maintained by any person or organisation, subject to reacceptance by the owner. This maintenance is not eligible for the issuance of a CAAT Form 1, and shall be subject to the aircraft release requirements.
- (b) Components shall be released in accordance with the following table:

| | Released using a CAAT Form 1 (as set out in TCAR AIR Part-M) | Released at aircraft level per point ML.A.801 (not possible to issue a CAAT Form 1) |
|--|--|--|
| Components maintained in accordance with component maintenance data (data issued by the component manufacturer) | | |
| Maintenance other than overhaul | Engine-rated (for engine) or component-rated (for other components) maintenance organisations | (i) Aircraft-rated maintenance organisations; and/or (ii) Independent certifying staff |
| Overhaul of components other than engines and propellers | Component-rated maintenance organisations | Not possible |
| Overhaul of engine and propellers for very light aeroplane and sailplane | Engine-rated (for engine) or component-rated (for propellers) maintenance organisations | (iii) Aircraft-rated maintenance organisations; and/or (iv) Independent certifying staff |
| Overhaul of engine and propellers for other than very light aeroplane and sailplane | Engine-rated (for engine) or component-rated (for propellers) maintenance organisations | Not possible |
| Components maintained in accordance with aircraft maintenance data (data issued by the aircraft manufacturer) | | |
| All components and all types of maintenance | Engine-rated (for engine) or component-rated (for other components) maintenance organisations | – Aircraft-rated maintenance organisations; and/or – Independent certifying staff |

(c) The maintenance of components listed below;

- (1) a part or appliance for which the consequences of a non-conformity with its approved design data has a negligible safety effect on the product and which is identified as such by the holder of the design approval in the instructions for continued airworthiness. In order to determine the safety effects of a non-conforming part or appliance, the design approval holder may establish in the instructions for continued airworthiness specific verification activities to be conducted by the installer of the part or appliance on the product;
- (2) in the case of the embodiment of modifications and repairs in accordance with TCAR AIR Part- 21, a part or appliance, for which the consequences of a non-conformity with its design data have a negligible safety effect on the product, and which is identified as such in the certification specifications for standard changes and standard repairs issued in accordance with TCAR AIR Part-21. In order to determine the safety effects of a non-conforming part or appliance, specific verification activities to be conducted by the person that installs the part or appliance on the product may be established in the certification specifications referred to above;
- (3) a part or appliance that is an item of a standard part or a higher assembly identified in points (a) and (c)(1) to (c) (2).

may be maintained by any person or organisation. In such case, by way of derogation from point (b), the maintenance of those components shall be released with a “declaration of maintenance accomplished” issued by the person or organisation that performed the maintenance. The “declaration of maintenance accomplished” shall contain at least basic details of the maintenance carried out, the date on which the maintenance was completed, and the identification of the organisation or person that issues it.

It shall be considered a maintenance record and equivalent to an EASA Form 1 in respect of the maintained component.

ML.A. 503 Service-life-limited components

- (a) The term 'service life-limited components' contains the following components:
 - (1) components subject to a certified life limit after which the components should be retired, and;
 - (2) components subject to a service life limit after which the components shall undergo maintenance to restore their serviceability.
- (b) Installed service-life-limited components shall not exceed the approved service life limit as specified in the AMP and Airworthiness Directives, except as provided for in point ML.A.504(c).
- (c) The approved service life is expressed in calendar time, flight hours, landings or cycles, as appropriate.
- (d) At the end of the approved service life limit, the component must be removed from the aircraft for maintenance, or for disposal in the case of components with a certified life limit.

ML.A. 504 Control of unserviceable components

- (a) A component shall be considered unserviceable in any of the following circumstances:
 - (1) expiry of the component's service life limit as defined in the AMP;
 - (2) non-compliance with the applicable Airworthiness Directives and other continued-airworthiness requirement mandated by CAAT
 - (3) absence of the necessary information to determine the airworthiness status of the component or its eligibility for installation;
 - (4) evidence of component defects or malfunctions;
 - (5) component involvement in an incident or accident likely to affect its serviceability.
- (b) Unserviceable components shall be identified as one of the following:
 - (1) unserviceable and stored in a secure location under the control of an approved maintenance organisation or independent certifying staff until a decision is made on the future status of such components;
 - (2) unserviceable by the person or organisation that declared the component unserviceable, and its custody shall be transferred to the aircraft owner after documenting such transfer in aircraft maintenance record system referred to in point ML.A.305.
- (c) Components which have reached their certified life limit or contain a non-repairable defect or malfunction shall be classified as unsalvageable and shall not be permitted to re-enter the component supply system unless certified life limits have been extended or a repair solution has been approved in accordance with point ML.A.304.
- (d) Any person or organisation responsible pursuant to point ML.A.201 shall in the case of an unsalvageable component, as provided for in point (c), take one of the following actions:
 - (1) retain such component in a location referred to in point (b)(1);
 - (2) arrange for the component to be mutilated in a manner that ensures that it is beyond economic salvage or repair before relinquishing responsibility for such a component.
- (e) Notwithstanding point (d), a person or organisation responsible pursuant to point ML.A.201 may transfer responsibility of components classified as unsalvageable without mutilation to an organisation for training or research.

SUBPART H — CERTIFICATE OF RELEASE TO SERVICE (CRS)

ML.A. 801 Aircraft Certificate of release to service

- (a) A CRS shall be issued after the required maintenance has been carried out properly on an aircraft.
- (b) The CRS shall be issued, either by:
 - (1) appropriate certifying staff on behalf of the approved maintenance organisation, or;
 - (2) independent certifying staff, or;
 - (3) the pilot-owner in compliance with point ML.A.803.
- (c) By derogation from point (b), in the case of unforeseen circumstances, when an aircraft is grounded at a location where no appropriately approved maintenance organisation and no appropriate certifying staff are available, the owner may authorise any person, with no less than 3 years of appropriate maintenance experience and holding the proper qualifications, to maintain the aircraft according to the standards set out in Subpart D of this Part and release the aircraft. The owner shall in that case:
 - (1) obtain and keep in the aircraft records, details of all the work carried out and of the qualifications held by the person issuing the certification;
 - (2) ensure that any such maintenance is rechecked and released in accordance with point (b) of point ML.A.801 at the earliest opportunity and within a period not exceeding 7 days or, in the case of aircraft operated under TCAR OPS Part-NCO or in the case of balloon, not operated under Subpart-ADD of TCAR OPS Part-BOP or, in the case of sailplane, not following Subpart-DEC of Part-SAO, within a period not exceeding 30 days;
 - (3) notify the contracted CAMO or CAO, or CAAT in the absence of such a contract, within 7 days of the issuance of such authorisation.
- (d) In the case of a release to service in accordance with points (b)(1) or (b)(2), the certifying staff may be assisted in performing the maintenance tasks by one or more persons subject to their direct and continuous control;
- (e) A CRS shall contain at least:
 - (1) basic details of the maintenance carried out;
 - (2) the date on which the maintenance was completed;
 - (3) the identity of the organisation or person issuing the release to service, including:
 - (i) the approval reference of the maintenance organisation and certifying staff issuing the CRS; or
 - (ii) in the case of point (b)(2), the identity and, if applicable, the licence number of the independent certifying staff issuing the CRS;
 - (4) the limitations to airworthiness or operations, if any.
- (f) By derogation from point (a) and notwithstanding point (g), when the required maintenance cannot be completed, a CRS may be issued within the approved aircraft limitations. In that case, the CRS shall indicate that the maintenance could not be completed, as well as indicate any applicable airworthiness or operations limitations, as part of the information required in point (e)(4).
- (g) A CRS shall not be issued in the case of any known non-compliance with the requirements of this Part which endangers flight safety.

ML.A. 802 Component certificate of release to service

- (a) Except for the cases covered by point (c) of point ML.A.502, a component CRS shall be issued after the required maintenance work has been properly carried out on an aircraft component in accordance with point ML.A.502.
- (b) The authorised release certificate identified as CAAT Form 1, as set out Appendix II of Part-M, constitutes the component CRS, except when such maintenance is released at aircraft level, as indicated in point ML.A.502(b).

ML.A. 803 Pilot-owner authorisation

- (a) To qualify as a pilot-owner, the person must:
 - (1) hold a valid pilot licence or equivalent licence issued or validated by CAAT for the aircraft type or class rating;
 - (2) own the aircraft, either as a sole or joint owner; that owner must be, either:
 - (i) one of the natural persons on the registration form; or
 - (ii) a member of a non-profit recreational legal entity, where the legal entity is specified on the registration document as owner or operator; that member must be directly involved in the decision-making process of the legal entity and designated by that legal entity to carry out Pilot-owner maintenance.
- (b) For aircraft operated under TCAR OPS Part-NCO or, in the case of balloon, not operated under Subpart-ADD of TCAR OPS Part-BOP or, in the case of sailplane, not following Subpart-DEC of Part-SAO, the pilot-owner may issue a CRS after limited Pilot-owner maintenance as provided for in Appendix II to this Part.
- (c) The CRS shall be entered in the logbooks and contain basic details of the maintenance carried out, the maintenance data used, the date on which that maintenance was completed, as well as the identity, the signature and the pilot licence (or equivalent) number of the pilot-owner issuing such a certificate.

SUBPART I — AIRWORTHINESS REVIEW

ML.A. 901 Aircraft airworthiness review

To ensure the validity of the Certificate of Airworthiness (C of A), an airworthiness review of the aircraft and its continuing airworthiness records shall be carried out periodically.

- (a) An airworthiness review report is issued in accordance with Appendix IV (CAAT Form 15B) to this Part upon completion of a airworthiness review. The airworthiness review report shall be valid for 1 year;
- (b) The airworthiness review and the issuance of the Airworthiness review report shall be performed in accordance with point ML.A.903, either by:
 - (1) CAAT; or
 - (2) an appropriately approved CAMO or CAO; or
 - (3) TCAR AIR Part-145 maintenance organisation with approved procedure while performing the 100-h/annual inspection contained in the AMP; or
 - (4) – reserved –
- (c) – reserved –
- (d) – reserved –
- (e) When CAAT carries out the airworthiness review itself, the owner or operator shall provide CAAT with:
 - (1) the documentation required by CAAT; and
 - (2) suitable accommodation at the appropriate location for its personnel; and
 - (3) when necessary, the support of personnel appropriately qualified in accordance with TCAR PEL Part-66;

ML.A. 902 Validity of the airworthiness review report

- (a) An airworthiness review report becomes invalid if:
 - (1) - reserved -
 - (2) the airworthiness certificate is suspended or revoked;
 - (3) the aircraft is not in the aircraft register of Thailand;
 - (4) the Type Certificate under which the airworthiness certificate was issued is suspended or revoked
- (b) An aircraft shall not fly if the airworthiness review report is invalid or indicates the presence of finding that endanger flight safety or if any of the following circumstances are present:
 - (1) the continuing airworthiness of the aircraft or any component fitted to the aircraft does not meet the requirements of this Part;
 - (2) the aircraft does not remain in conformity with the type design approved and/or validated by CAAT
 - (3) the aircraft has been operated beyond the limitations of the approved flight manual or certificate of airworthiness, without appropriate action being taken;
 - (4) the aircraft has been involved in an accident or incident that affects the airworthiness of the aircraft, without subsequent appropriate action to restore airworthiness;
 - (5) a modification or repair to the aircraft or any component fitted to the aircraft is not in compliance with TCAR AIR Part-21.
- (c) - reserved -

ML.A. 903 Airworthiness review process

- (a) To satisfy the requirement for the airworthiness review of an aircraft referred to in point ML.A.901, the airworthiness review staff shall perform a documented review of the aircraft records to verify that:
- (1) airframe, engine and propeller flying hours and associated flight cycles have been properly recorded;
 - (2) the flight manual is applicable to the aircraft configuration and reflects the latest revision status;
 - (3) all the maintenance due on the aircraft according to the AMP has been carried out;
 - (4) all known defects have been corrected or deferred in a controlled manner;
 - (5) all applicable Airworthiness Directives have been applied and properly registered;
 - (6) all modifications and repairs made to the aircraft have been registered and are in compliance with TCAR AIR Part-21.
 - (7) all service-life-limited components installed on the aircraft are properly identified, registered and have not exceeded their approved service life limit;
 - (8) all maintenance has been certified in accordance with this Part;
 - (9) if required, the current mass-and-balance statement reflects the configuration of the aircraft and is valid;
 - (10) the aircraft complies with the latest revision of its type design approved or validated by CAAT;
 - (11) if required, the aircraft holds a noise certificate corresponding to the current configuration of the aircraft in compliance with CAAT requirements.
- (b) The airworthiness review staff referred to in point (a) shall carry out a physical survey of the aircraft. For this survey, airworthiness review staff not appropriately qualified under TCAR PEL Part-66 shall be assisted by such qualified personnel.
- (c) Through the physical survey of the aircraft, the airworthiness review staff shall ensure that:
- (1) all required markings and placards are properly installed;
 - (2) the aircraft complies with its approved flight manual;
 - (3) the aircraft configuration complies with the approved documentation;
 - (4) no evident defect can be found that has not been addressed according to point ML.A.403;
 - (5) no inconsistencies can be found between the aircraft and the documented review of records as referred to in point (a).
- (d) By derogation from point ML.A.901(a), the airworthiness review may be anticipated for a maximum period of 90 days, without loss of continuity of the airworthiness review pattern, so as to allow the physical review to take place during a maintenance check.
- (e) The Airworthiness review report (CAAT Form 15B) set out to in Appendix IV shall only be issued:
- (1) by appropriately authorised airworthiness review staff;
 - (2) when the airworthiness review has been completely carried out;
 - (3) - reserved -
- (f) A copy of any airworthiness review report shall be sent to CAAT within 10 days .
- (g) Airworthiness review tasks shall not be subcontracted.
- (h) The effectiveness of the AMP may be reviewed in conjunction with the airworthiness review in accordance with point (c)(9) of point ML.A.302. This review shall be completed by the person who performed the airworthiness review. If the review shows deficiencies of the aircraft linked with

deficiencies in the content of the AMP, the AMP shall be amended accordingly. The person performing the review shall inform CAAT if they do not agree with the measures amending the AMP taken by the owner, CAMO or CAO. In such case CAAT shall decide which amendments to the AMP are necessary, raising the corresponding findings and, if necessary, suspend or revoke the certificate of airworthiness.

ML.A. 904 Qualification of airworthiness review staff

- (a) Airworthiness review staff acting on behalf of CAAT shall be qualified in accordance with all of the following;
- (1) at least 3 years of experience in continuing airworthiness;
 - (2) an appropriate licence in compliance with TCAR PEL Part-66 or an aeronautical degree or equivalent;
 - (3) an appropriate aeronautical-maintenance training;

Notwithstanding points (1) to (3), the requirement of point ML.A.904(a)(2) may be replaced by 4 years of experience in continuing airworthiness, in addition to those already required by point ML.A.904(a)(1).

- (b) Airworthiness review staff acting on behalf of an organisation referred to in TCAR AIR Part-145, Part-CAMO or Part-CAO shall be qualified in accordance with TCAR AIR Part-145, Part-CAMO or Part-CAO, respectively.
- (c) – reserved –
- (d) The authorisation required under point (c)(2) shall be issued by CAAT when:
- (1) CAAT has assessed that the person has the knowledge of the parts of this Part relevant to continuing-airworthiness management, performance of airworthiness reviews and issuance of airworthiness review report;
 - (2) the person has satisfactorily performed an airworthiness review under the supervision of CAAT.

This authorisation shall remain valid for a duration of 5 years as long as the holder has performed at least 1 airworthiness review every 12-months. If this is not the case, a new airworthiness review shall be satisfactorily performed under the supervision of CAAT.

Upon expiration of its validity, the authorisation shall be renewed for another 5 years subject to a new compliance with points (d)(1) and (d)(2). There is no limit to the number of renewals.

The holder of the authorisation shall keep records of all the airworthiness reviews performed and shall make them available, upon request, to CAAT and to any aircraft owner for whom they are performing an airworthiness review.

This authorisation may be revoked by CAAT at any time if it is not satisfied with the use of such an authorisation.

ML.A. 905 – Reserve –

- reserved -

ML.A. 906 Airworthiness review of aircraft imported into Thailand

- (a) When importing an aircraft onto the Thai register from another country, the applicant shall:
 - (1) apply to CAAT for the issuance of a new Certificate of Airworthiness (C of A) in accordance with CAAT Requirement No. 43; and
 - (2) for aircraft other than new, have a maintenance review carried out satisfactorily in accordance with point ML.A.901; and
 - (3) have all maintenance carried out to comply with the approved or declared AMP.
- (b) When satisfied that the aircraft is in compliance with the relevant requirements, the CAMO or CAO, the maintenance organisation, as provided for in point (b) of point ML.A.901, shall send documents according to CAAT Requirement No. 43 together with an airworthiness review report for the issuance of a Certificate of Airworthiness (C of A), to CAAT.
- (c) The owner shall allow access to the aircraft for inspection by CAAT.
- (d) A certificate of airworthiness will be issued by CAAT when it is satisfied the aircraft complies with CAAT requirement.

ML.A. 907 Finding

- (a) Findings are categorised as follows:
 - (1) A level 1 finding is any finding of significant non-compliance with the requirements of this Part, which lowers the safety standard and seriously endangers flight safety.
 - (2) A level 2 finding is any finding of non-compliance with the requirements of this Part, which may lower the safety standard and may endanger the flight safety.
- (b) In case of airworthiness review was carried out by CAAT in according with ML.A.901(e), after receipt of notification of findings, the person or organisation accountable referred to in point ML.A.201 shall define a corrective action plan and demonstrate corrective action to the satisfaction of CAAT within a period agreed including appropriate corrective action to prevent reoccurrence of the finding and its root cause.

APPENDICES TO TCAR AIR PART-ML

Appendix I — Continuing airworthiness management contract

- (a) When an owner contracts in accordance with point ML.A.201 a CAMO or CAO to carry out continuing airworthiness management tasks, upon request by CAAT, a copy of the contract signed by both parties shall be sent by the owner to CAAT.
- (b) The contract shall be developed taking into account the requirements of this Part and shall define the obligations of the signatories in relation to the continuing airworthiness of the aircraft.
- (c) It shall contain, as a minimum the following information:
- (1) the aircraft registration, type and serial number;
 - (2) the aircraft owner's or registered lessee's name or company details including the address;
 - (3) details of the contracted CAMO or CAO, including the address;
 - (4) the type of operation
- (d) It shall state the following:
- ‘The owner entrusts the CAMO or CAO with the management of the continuing airworthiness of the aircraft, the development and approval of a maintenance programme, and the organisation of the maintenance of the aircraft according to said maintenance programme.
- According to the present contract, both signatories undertake to follow the respective obligations of this contract.
- The owner declares, to the best of its knowledge, that all the information given to the CAMO or CAO concerning the continuing airworthiness of the aircraft is and will be accurate, and that the aircraft will not be altered without prior approval of the CAMO or CAO.
- In case of any non-conformity with this contract, by either of the signatories, the contract will become null. In such a case, the owner will retain full responsibility for every task linked to the continuing airworthiness of the aircraft, and the owner will inform CAAT within 2 weeks about the termination of the contract.’
- (e) When an owner contracts a CAMO or CAO in accordance with point ML.A.201, the obligations of each party shall be assigned as follows:
- (1) Obligations of CAMO or CAO:**
- (i) have the aircraft type included in its terms of approval;
 - (ii) respect all the conditions listed below with regard to maintaining the continuing airworthiness of the aircraft:
 - (A) develop and approve the AMP for the aircraft;
 - (B) once it has been approved, provide the owner with a copy of the AMP, as well as a copy of the justifications for any deviations from the DAH's recommendations;
 - (C) organise a bridging inspection using the aircraft's prior AMP;
 - (D) organise that all maintenance is carried out by an approved maintenance organisation or, if permitted, by independent certifying staff;
 - (E) organise that all applicable Airworthiness Directives are applied;
 - (F) organise that all defects discovered during maintenance, airworthiness reviews or reported by the owner are corrected by an approved maintenance organisation or, if permitted, by independent certifying staff;

- (G) coordinate scheduled maintenance, the application of Airworthiness Directives, the replacement of service-life-limited parts, and component inspection requirements;
- (H) inform the owner each time the aircraft must be brought to an approved maintenance organisation or, if permitted, to independent certifying staff;
- (I) manage and archive all technical records;
- (iii) organise the approval of any modification to the aircraft in accordance with TCAR AIR Part-21 before this modification is embodied;
- (iv) organise the approval of any repair to the aircraft in accordance with TCAR AIR Part-21 before this repair is carried out;
- (v) inform CAAT whenever the aircraft is not presented by the owner for maintenance as requested by the contracted CAMO or CAO;
- (vi) inform CAAT whenever the present contract has not been respected;
- (vii) ensure that the airworthiness review of the aircraft is carried out, when necessary, and ensure that the Airworthiness Review Report is issued;
- (viii) a copy of any airworthiness review report issued shall be available for CAAT upon request;
- (ix) carry out all occurrence reporting mandated by applicable regulations;
- (x) inform CAAT whenever the present contract is denounced by either party.

(2) Obligations of the owner;

- (i) have a general understanding of the AMP;
- (ii) have a general understanding of TCAR AIR Part-ML;
- (iii) present the aircraft for maintenance as directed by the contracted CAMO or CAO;
- (iv) not modify the aircraft without first consulting the contracted CAMO or CAO;
- (v) inform the contracted CAMO or CAO of all maintenance exceptionally carried out without the knowledge and control of the contracted CAMO or CAO;
- (vi) report to the contracted CAMO or CAO through the logbook all defects found during operations;
- (vii) inform CAAT whenever the present contract is denounced by either party;
- (viii) inform CAAT and the contracted CAMO or CAO whenever the aircraft is sold;
- (ix) carry out all occurrence reporting mandated by applicable regulations;
- (x) inform on a regular basis the contracted CAMO or CAO about the aircraft flying-hours and any other utilisation data, as agreed with the contracted CAMO or CAO;
- (xi) enter the CRS in the logbooks, as mentioned in point ML.A.803(c), when performing pilot-owner maintenance;
- (xii) inform the contracted CAMO or CAO no later than 30 days after completion of any Pilot-owner maintenance task.

Appendix II — Limited Pilot-owner maintenance

In addition to the requirements laid down in this Part, the pilot-owner shall comply with the following basic principles before it carries out any maintenance task:

(a) Competence and responsibility

- (1) The pilot-owner shall always be responsible for any maintenance they perform.
- (2) The pilot-owner shall hold satisfactory level of competence to perform the task. It is the responsibility of a pilot-owner to become familiar with the standard maintenance practices for the aircraft and with the AMP.

(b) Tasks

The Pilot-owner may carry out simple visual inspections or operations to check the airframe, engines, systems and components for general condition, obvious damage and normal operation.

A maintenance task shall not be released by the pilot-owner if any of the following conditions occurs:

- (1) it is a critical maintenance task;
- (2) it requires the removal of major components or a major assembly;
- (3) it is carried out in compliance with an Airworthiness Directive or an airworthiness limitation item (ALI) unless specifically allowed in the Airworthiness Directive or the ALI;
- (4) it requires the use of special tools or calibrated tools (except for torque wrench and crimping tool);
- (5) it requires the use of test equipment or special testing (e.g., non-destructive testing (NDT), system tests or operational checks for avionics equipment);
- (6) it is composed of any unscheduled special inspections (e.g., heavy-landing check);
- (7) it affects systems essential for instrument flight rules (IFR) operations;
- (8) it is a complex maintenance task in accordance with Appendix III, or it is a component maintenance task in accordance with point (a) or (b) of point ML.A.502;
- (9) it is part of the 100-h/annual check (for those cases the maintenance task is combined with the airworthiness review performed by maintenance organisations).

The criteria referred to in points (1) to (9) cannot be overridden by less restrictive instructions issued in accordance with the AMP referred to in point ML.A.302.

Any task described in the aircraft flight manual (or other operational manuals), for example preparing the aircraft for flight (assembling the sailplane wings, or performing a pre-flight inspection, or assembling a basket, burner, fuel cylinders and an envelope combination for a balloon, etc.), is not considered a maintenance task and, therefore, does not require a CRS.

Nevertheless, the person assembling those parts is responsible for ensuring that those parts are eligible for installation and in a serviceable condition.

(c) Performance and records of the pilot-owner maintenance tasks

The maintenance data, as specified in point ML.A.401, must always be available during the conduct of pilot-owner maintenance and must be complied with. Details of the data referred to in the conduct of pilot-owner maintenance must be included in the CRS in accordance with point (d) of point ML.A.803.

The pilot-owner must inform the contracted CAMO or CAO (if such contract exists) about the completion of the pilot-owner maintenance tasks no later than 30 days after completion of these tasks in accordance with point (a) of point ML.A.305.

Appendix III — Complex maintenance tasks not to be released by the Pilot-owner

All of the following constitutes the complex maintenance tasks which, according to Appendix II, shall not be carried out by the pilot-owner. Those tasks shall be released either by an approved maintenance organisation or by independent certifying staff:

- (a) the modification, repair or replacement by riveting, bonding, laminating, or welding of any of the following airframe parts:
 - (1) a box beam;
 - (2) a wing stringer or chord member;
 - (3) a spar;
 - (4) a spar flange;
 - (5) a member of a truss type beam;
 - (6) the web of a beam;
 - (7) a keel or chine member of a flying boat hull or a float;
 - (8) a corrugated sheet compression member in a wing or tail surface;
 - (9) a wing main rib;
 - (10) a wing or tail surface brace strut;
 - (11) an engine mount;
 - (12) a fuselage longeron or frame;
 - (13) a member of a side truss, horizontal truss or bulkhead;
 - (14) a seat support brace or bracket;
 - (15) a seat rail replacement;
 - (16) a landing-gear strut or brace strut;
 - (17) an axle;
 - (18) a wheel; and
 - (19) a ski or ski pedestal, excluding the replacement of a low-friction coating;
- (b) the modification or repair of any of the following parts:
 - (1) aircraft skin or the skin of an aircraft float if the work requires the use of a support, jig or fixture;
 - (2) aircraft skin that is subject to pressurisation loads if the damage to the skin measures more than 15 cm (6 in.) in any direction;
 - (3) a load-bearing part of a control system, including a control column, pedal, shaft, quadrant, bell crank, torque tube, control horn and forged or cast bracket, but excluding:
 - (i) the swaging of a repair splice or cable fitting; and
 - (ii) the replacement of a push-pull tube end fitting that is attached by riveting;
 - (4) any other structure not listed in point (a) that a manufacturer has identified as primary structure in their maintenance manual, structural repair manual or instructions for continuing airworthiness;
- (c) the performance of all of the following maintenance on a piston engine:
 - (1) dismantling and subsequent reassembling of a piston engine other than:
 - (i) to obtain access to the piston/cylinder assemblies; or
 - (ii) to remove the rear accessory cover to inspect and/or replace oil pump assemblies, where such work does not involve the removal and refitment of internal gears;

- (2) dismantling and subsequent reassembling of reduction gears;
 - (3) welding and brazing of joints, other-than-minor weld repairs to exhaust units carried out by a suitably approved or authorised welder but excluding component replacement;
 - (4) the disturbing of individual parts of units which are supplied as bench-tested units except for the replacement or adjustment of items normally replaceable or adjustable in service;
- (d) the balancing of a propeller, except;
- (1) for the certification of static balancing where required by the maintenance manual; and
 - (2) dynamic balancing on installed propellers using electronic balancing equipment where permitted by the maintenance manual or other approved airworthiness data;
- (e) any additional task that requires:
- (1) specialised tooling, equipment or facilities; or
 - (2) significant coordination procedures because of the extensive duration of the tasks and the involvement of several persons.

Appendix IV — Airworthiness Review Report (CAAT Form 15B)



**AIRWORTHINESS REVIEW REPORT for TCAR AIR PART-ML
 CAAT FORM 15B**

AIRWORTHINESS AND AIRCRAFT ENGINEERING DEPARTMENT

| | | | |
|---|---|------------------------|--|
| AR Entity (see Note 1) | <input type="checkbox"/> CAMO <input type="checkbox"/> CAO <input type="checkbox"/> AMO <input type="checkbox"/> CAAT | | |
| AR Entity Name | | Certificate No. | |
| AR Staff Name | | | |
| AR Staff Authorized No. | | | |
| Aircraft Operator Name | | | |
| Aircraft available at place and period: <i>(In case aircraft physical survey by CAAT is required)</i> | | | |

Notes for use: also refer to the Explanatory Notes at the end of this report

- Where an item is satisfactory, indicate 'Y' into the appropriate column. If not applicable, indicate 'N/A'
- All aircraft defects will require maintenance action prior to further flight
- Section 5 cannot be certified if there is evidence or indications that the aircraft is not airworthy
- The Explanatory Notes' pages are not required to be kept with the completed certified report
- Send the report form to airworthiness@caat.or.th

Date next review due

One year after completed sign on Section 4 or 5

1. AIRCRAFT DETAILS

| Registration Mark <i>(Or reserved mark for imported Aircraft)</i> | | | Previous Registration <i>(Imported Aircraft)</i> | | | |
|--|-----------------|-------------------------------|--|---------------------|----|-------------|
| | Airframe | Engine(s) / Propulsion | | Propeller(s) | | |
| Manufacturer | | | | | | |
| Type / Model | | | | | | |
| Serial No. | | #1 | #2 | #1 | #2 | |
| Date of Manufacture | | #1 | #2 | #1 | #2 | |
| Hours since new | | #1 | #2 | #1 | #2 | |
| Cycles sine new | | #1 | #2 | #1 | #2 | |
| State of Design | | | | | | |
| State of Manufacture | | | | | | |
| TCDS No. | | Rev. | | Rev. | | Rev. |
| TCDS No. for Noise and Emissions <i>(For imported aircraft only)</i> | | | | | | Rev. |
| Maximum Take-Off Weight | | | | | | kg. |

2. DOCUMENT REVIEW

| | | | |
|--|--|---|--|
| Date of Document Review | | | |
| Place of Document Review | | | |
| C of R Reference | | C of R Issue Date | |
| C of A Reference <i>(or Export C of A for imported aircraft)</i> | | C of A Expiry Date <i>(or Export C of A, as applicable)</i> | |
| Airframe, engine and propeller flying hours and cycles have been properly recorded? | | | |
| The flight manual is applicable to the aircraft configuration and reflects the latest revision status? | | | |
| All maintenance due according to the approved/declared maintenance program has been carried out? | | | |
| All known defects have been corrected or deferred in a controlled manner? | | | |
| All applicable Airworthiness Directives (AD) have been applied and properly registered? | | | |
| All modifications, and repairs made to the aircraft have been registered, approved/accepted by CAAT, and in compliance with approved design? | | | |
| All time controlled and life limited components installed on the aircraft are properly identified, registered, and controlled in accordance with approved/declared maintenance program, and have not exceeded their mandatory limit? | | | |
| All maintenance has been certified in accordance with TCAR AIR Part-ML? | | | |
| The current mass and balance statement reflect the current aircraft configuration and is valid? | | | |
| The aircraft holds a noise certificate corresponding to the current aircraft configuration? | | | |
| The aircraft complies with the latest revision of its type designed approved or validated by CAAT? | | | |
| List of persons or organizations having carried out continuing airworthiness activities including maintenance tasks on the aircraft and its component since the last airworthiness review: | | | |
| | | | |

3. AIRCRAFT PHYSICAL SURVEY (see Note 2)

| | | | |
|--|--|---|--|
| Date of Aircraft Physical Survey | | | |
| Place of Aircraft Physical Survey | | | |
| Name of Assisting TCAR PEL Part-66 Personnel (see Note 3) | | <input type="checkbox"/> The AR staff is also holding a valid licence <input type="checkbox"/> Assisting Name: _____ | |
| Assisting TCAR PEL Part-66 Personnel's Signature | | | |
| Licence No. | | Licence Valid Until | |
| The required documents to be on board are present? | | | |
| All required markings and placards (see Note 4) are properly installed and legible? | | | |
| The aircraft complies with its approved/accepted flight manual? | | | |
| The aircraft configuration complies with the approved documentation (TCDS, STC, etc.)? | | | |
| All defects have been correctly rectified or deferred in a controlled manner (No evidence defect that has not been addressed is found)? | | | |
| The aircraft condition is consistent with the documented review of records in Section 2 of this report? | | | |

4. DEFECTS / FINDINGS OBSERVED (see Note 5)

(All defects / findings must be cleared before certifying the review)

| Reference | Defects / Findings Description | Rectification / Actions |
|-----------|--------------------------------|-------------------------|
| | | |
| | | |
| | | |
| | | |

Extra page(s) attached ? _____

| | |
|---|---|
| <p>If the defects / findings have not been rectified by the report issuance date, the Airworthiness Review Staff may sign off on the report in this section.</p> <p>However, if the unresolved defects / findings endanger flight safety, the aircraft must not be operated in accordance with ML.A.902(b).</p> | <p>(_____)</p> <p>Report date: / /</p> |
|---|---|

Explanatory notes for completing the Airworthiness Review Report

General, for all sections

- Enter a 'Y' in the appropriate column to indicate that the aircraft meets the applicable requirements
- Enter 'N/A' if the requirement is not applicable to the aircraft or operation

Note 1

ML.A.901, GM1 ML.A.901

The airworthiness review and the issuance of the Airworthiness review report shall be performed in accordance with point ML.A.903, either by:

- (1) CAAT; or
- (2) An appropriately approved CAMO or CAO; or
- (3) The approved maintenance organisation while performing the 100-h/annual inspection contained in the AMP; or
- (4) - reserved -

If a CAMO/CAO holding the AR privilege is contracted by the owner, this organisation does not have the obligation to carry out the AR itself. The owner may select another CAMO or CAO to carry out the AR, or request the maintenance organisation to carry it out and issue the ARC in conjunction with the annual inspection.

The list of the organisations or persons that are allowed to perform an AR does not presume that they have the obligation to accept a request to carry out an AR.

The "AR Entity Name" and "Certificate No." data fields only applicable to CAMO, CAO, or AMO. For TCAR PEL Part-66 Personnel, fulfilling "AR Staff", "AR Staff Authorized No.", and "Licence No." are sufficient.

Note 2

ML.A.903(c)

The physical survey could require actions categorised as maintenance (e.g. operational tests, tests of emergency equipment, visual inspections requiring panel opening, etc.). In this case, after the airworthiness review, a release to service should be issued. The physical survey may include verifications to be carried out during flight. To ensure compliance, the physical survey may include relevant sample checks of items.

Note 3

ML.A.903(b)

If the Airworthiness Review (AR) staff are qualified as TCAR PEL Part-66 personnel, fill in the licence number and validity.

When the AR staff are not appropriately qualified as TCAR PEL Part-66 personnel, in order to release any maintenance as recommended in Note 2, it is required them to be assisted by such qualified personnel. However, the function of such personnel is limited to performing and releasing the maintenance actions requested by the AR staff, it not being their function to perform the physical survey of the aircraft. This means that the AR staff who is going to sign the airworthiness review report should be the one performing both the documented review and the physical survey of the aircraft. It is not the intent of the rule to delegate the survey to TCAR PEL Part-66 personnel who are not AR staff.

Note 4

ML.A.903(c)(1)

The markings and placards can be required by certification information in the TCDS, the AFM, manufacturer instructions (ATA Chapter 11), the STCs' ICA, ADs, or supplemental information from approved drawing/document.

Note 5

ML.A.903(e)

New aircraft defects identified during the review must also be recorded in the technical log by appropriate TCAR PEL Part-66 personnel. All aircraft defects require a clearing maintenance action (correction or deferral) prior to further flight.

As applicable to aircraft operator/owner who is required to develop their own customized Aircraft Maintenance Programme (AMP), when the effectiveness of the AMP is reviewed in conjunction with the airworthiness review in accordance with point (c)(9) of point ML.A.302 by the AR staff, if the review shows deficiencies of the aircraft linked with deficiencies in the content of the AMP, the AMP shall be amended accordingly. The person performing the review shall inform CAAT (via airworthiness@caat.or.th) if they do not agree with the measures amending the AMP taken by the owner, CAMO or CAO. In such case CAAT will decide which amendments to the AMP are necessary, raising the corresponding findings and, if necessary, suspend or revoke the certificate of airworthiness.

In case of the defects / findings have not been rectified by the report issuance date, the next review due date shall be calculated from the completion date in Section 4 of this report.

Note 6

ML.A.903(f)

THE REPORT CANNOT BE CERTIFIED WITH OPEN FINDINGS. Each finding requires a corrective action before the certification of the ARR. The corrective action should be adequate to the open finding and it should be carried out and verified by the AR staff before the issue of the ARR.

Once the report is completed and certified, it should be kept along with the documents listed at the end of Section 2 of this report including all reviewed documents. The copy of airworthiness review must be available for CAAT upon request.

Once the report is completed and certified, it must be submitted to airworthiness@caat.or.th within 10 days.

The next review due date shall be calculated from the certification date in Section 5 of this report.