

**ENSTROM HELICOPTER CORPORATION
ROTORCRAFT FLIGHT MANUAL SUPPLEMENT
DOCUMENT NUMBER 28-AC-083**

**JCAB SUPPLEMENT NO. 74 FOR
ENSTROM MODEL 480B**

EFFECTIVITY: S/N 5043, 5045 AND SUBSEQUENT

Original Issue: August 12, 2020

This supplement is applicable to the following flight manual:

Doc. No.: 28-AC-023

Aircraft S/N: _____


Registration No.: _____

DOC. NO.: 28-AC-083

File the latest copy of the approval of the flight manual issued for JCAB following the cover page.

第 本 F-2020-072 号

飛行規程承認書

航 空 機	種 類	回転翼航空機		
	型 式 及 び 製 造 者	エンストロム式480B型 エンストロム・ヘリコプター・コーポレーション		
	国籍記号及び登録記号	JA	製造番号	
	型式証明書番号	第74号		
	耐空証明書番号 及び有効期間	令和 年 月 日から令和 年 月 日まで		
飛 行 規 程	作 成 管 理 者	エンストロム・ヘリコプター・コーポレーション		
	作成管理者による種類	<input checked="" type="checkbox"/> TC <input type="checkbox"/> 原 <input type="checkbox"/> 個別 <input type="checkbox"/> STC		
	構成による区分	<input type="checkbox"/> 基本 <input checked="" type="checkbox"/> 追加 (表題：JCAB Supplement Doc No. 28-AC-083 Rev. Org) 新規設定		
	承認事由	<input type="checkbox"/> 型式証明 <input checked="" type="checkbox"/> 型式設計変更 <input type="checkbox"/> 追加型式設計承認 <input type="checkbox"/> 追加型式設計変更承認 <input type="checkbox"/> 耐空証明 (新規) <input type="checkbox"/> 耐空証明 (更新) <input type="checkbox"/> 修理改造検査 <input type="checkbox"/> その他		
上記の航空機の飛行規程について承認する。				
航空局安全部 航空機安全課長				
				
承認年月日 令和2年 8月12日				

RECORD OF REVISIONS

Rev. No.	Approved Date	Pages	Revision Description
0	Aug 12/20	All	Initial Release

LIST OF EFFECTIVE PAGES

Page	Approved Date	Page	Approved Date
1 (Cover)	(N/A)	Chapter 5 Optional Equipment Supplements	
2 (Approval)	(N/A)	14	(N/A)
3 (Record of Revisions)	(N/A)	Chapter 6 Weight/Balance and Loading	
4 (List of Effective Pages)	(N/A)	14	(N/A)
5 (Contents)	(N/A)	Chapter 7 Systems Description and Operation	
Chapter 0 Introduction		14	(N/A)
6	Aug 12/20	Chapter 8 Handling, Servicing, and Maintenance	
7	Aug 12/20	14	(N/A)
Chapter 1 Operating Limitations		Chapter 9 Supplement Information	
8	Aug 12/20	14	(N/A)
9	Aug 12/20	Chapter 10 Abbreviated Checklist	
10	Aug 12/20	14	(N/A)
11	Aug 12/20	Appendix A	
Chapter 2 Normal Procedures		15	Aug 12/20
12	Aug 12/20	Appendix B	
Chapter 3 Emergency Procedures		16	(N/A)
12	Aug 12/20	17	(N/A)
Chapter 3A Abnormal Procedures		Appendix C	
12	Aug 12/20	18	(N/A)
Chapter 3B Advisory Procedures		Appendix D	
12	Aug 12/20	19	(N/A)
Chapter 4 Performance		20 (Blank)	(N/A)
12	Aug 12/20		
13	Aug 12/20		
14	Aug 12/20		

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CHAPTER 0. INTRODUCTION**NOTE**

Basic Enstrom 480B Rotorcraft Flight Manual, Doc. No. 28-AC-023, shall be applied except for matters revised or supplemented by this flight manual supplement.

Applicable Coverage

This rotorcraft flight manual supplement applies to Japanese Registered Aircraft which have the Japanese Type Certificate in accordance with Civil Aeronautics Act 12.

Make/Model	Enstrom 480B (エンストロム式 480B 型)
Basic Rotorcraft Flight Manual	Doc. No.: 28-AC-023

TC Holder and Helicopter Manufacturer

The Enstrom Helicopter Corporation
2209 22nd Street
Menominee, Michigan 49858-3515

(Refer to JCAB TCDS No. 74 for details.)

Kind and Class of Aircraft

Kind	Rotorcraft
Class	Single-Engine Turbine Land

Airworthiness Category

Rotorcraft Normal

Type and Number of Engine

Make/Manufacturer	Rolls-Royce
Model	250-C20W engine (1 engine)

Type and Number of Propeller

<u>Main Rotor</u> Fully Articulated, Three (3) Bladed Rotor System	P/N 4143000-103 Main Rotor Hub Assembly (1 assembly)
	P/N 28-14100-9 Main Rotor Blade (3 blades)
<u>Tail Rotor</u> Semi-Rigid Type, Two (2) Bladed Rotor System	P/N 28-150079-901 Tail Rotor Spindle Assembly (Including Hub) (1 assembly)
	Tail Rotor Blade and Grip Assembly P/N 28-150001-9 (1 assembly)

Dimensions

Length	9.2 m (30.1 ft)
Width	9.8 m (32.2 ft) (Main Rotor Diameter)
Height	3.0 m (9.7 ft)

(Refer to the Enstrom Model 480B Rotorcraft Flight Manual, Doc. No. 28-AC-023 for details.)

Weight and Center of Gravity

For maximum certified weight and center of gravity range, refer to JCAB-TCDS No. 74 and Enstrom Model 480B Rotorcraft Flight Manual, Doc. No. 28-AC-023 for details.

Fuel Tanks/Oil Tank Capacity

MAX Oil Level (FULL line)	6.0 quarts at (+153.0 in)
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(Refer also to JCAB-TCDS No. 74.)

JCAB Approved Flight Manual List

Refer to Appendix A, "JCAB Approved Flight Manual List for Enstrom Model 480B."

NOTE: JCAB Approved pages in Flight Manual / Flight Manual Supplements excluding this Supplement are same as FAA Approved pages.

CHAPTER 1. OPERATING LIMITATIONS

General

The limitations are the same as those in the basic FAA-approved rotorcraft flight manual except as follows.

Japanese Placards

Japanese placards which are listed in Enstrom Drawing 4220133 must be installed:

1. Near the door handles of the left/right door(s) (P/N 4220133-43):

非常口
ハンドルを上げてドアを開ける

Occupants Limits

1. Maximum Occupancy:
 - a. Single pilot (left cockpit) and four passengers (1 right cockpit and 3 cabin).
2. Refer also to the Enstrom Model 480B Rotorcraft Flight Manual, Doc. No. 28-AC-023 for details.

Operating Limitations

1. This aircraft may be operated in the following kinds of operations when appropriate equipment is installed.

NOTE

Refer to Appendix B, “Judgment Table for Operating Method Limitation.”

- a. Visual flight other than flight under instrumental navigation
- b. Night operations
- c. Day operations
- d. High altitude operations (above 3,000 meters of altitude).

NOTE

Appropriate operation methods are determined according to the Appendix B, "Judgment Table for Operating Method Limitation." Flight in icing weather conditions are prohibited.

Operational Capabilities

NOTE

The following capabilities do not constitute operational approval. The operator must be authorized by JCAB to conduct these operations.

1. Category I Operations
 - a. Not applicable
2. RVSM Operations
 - a. Not applicable

GPS (Operational Implementation Standards using GPS for VFR)

1. The installed GPS is limited to VFR.
2. The following placard (Japanese and English) must be installed in a position visible to the pilot. (Refer to Circular No. 5-006.)

- a. Placard on the panel and visible to the pilot (P/N 4220133-25):

<p>本GPS装置は有視界飛行方式での使用に限る</p> <p>GPS NOT APPROVED FOR IFR</p>
--

ADS-B (Automatic Dependent Surveillance-Broadcast) (If Equipped)

1. The installed ADS-B OUT complies with the equipment requirements described in JCAB Circular No. 5-019.
 - a. The installed ADS-B OUT system is compliant with 14 CFR 91.225 and 91.227, CS ACNS.ADSB (1090 MHz Extended Squitter ADS-B OUT), and CS ACNS.D.ELS/EHS (Mode S Elementary/Enhanced Surveillance).

MMEL/MEL

Instructions for “MMEL/MEL” in this flight manual can be followed only when the Master Equipment List (MEL) is specified in the Operation Manual and/or Maintenance Manual created by domestic air carriers and is approved by the Minister of Land, Infrastructure, Transport and Tourism.

White Strobe Lights for Rotorcraft

1. The flashing of the white strobe light may interfere with the pilot’s view and may cause dazzle to other aircraft. In the following cases, the switch of the white strobe light device must be turned off:
 - a. Taxiing, hovering near other aircraft
 - b. When flying through a haze or a cloud
 - c. During takeoff and landing at night

2. Also, the following placard (Japanese and English) must be installed in a position that the pilot can see it well: (Refer to Circular No. 1-026.)
 - a. On the left panel of the pilot (P/N 4220133-15):

<p>警告</p> <p>他の航空機の付近をタキシングする場合、又は雲中、霧中を飛行する場合はストロボライトを“OFF”にすること。夜間は常時、標準のポジションライトを“ON”にすること。</p> <p>WARNING</p> <p>TURN OFF STROBE LIGHTS WHEN TAXIING IN VICINITY OF OTHER AIRCRAFT, OR DURING FLIGHT THROUGH CLOUD, FOG OR HAZE. STANDARD POSITION LIGHTS TO BE ON FOR ALL NIGHT OPERATIONS.</p>

3. Limitations:

- a. During night flight, the reflections of the strobe lights device may dazzle the pilot. The **STRB LTS** switch must be turned **OFF** when taxiing near other aircraft, or when flying in clouds or fog.

4. Emergency Procedures:

- a. No change

5. Normal Procedures:

- a. Operated by the **STRB LTS** switch on the pedestal panel.

6. Performance:

- a. No change

7. Weight and Balance

- a. No change

CHAPTER 2. NORMAL PROCEDURES

No change

CHAPTER 3. EMERGENCY PROCEDURES

No change

CHAPTER 3A. ABNORMAL PROCEDURES

No change

CHAPTER 3B. ADVISORY PROCEDURES

No change

CHAPTER 4. PERFORMANCE

Noise Levels

This aircraft complies with the requirements of Civil Aeronautics Regulations, Annex 2, "Aircraft Noise Standard" and ICAO Annex 16, Volume I, Appendix 2, Amendment 7, Aircraft Noise, Chapter 4 (effective March 21, 2002).

In the United States and in Japan, Compliance to the Noise Requirement is certified as part of Airworthiness Certification. Noise Certificate is not issued and Noise Characteristics are described in the Rotorcraft Flight Manual. Therefore, Japan determined to incorporate this Noise Document into the Rotorcraft Flight Manual.

In respect of the Rotorcraft Flight Manual which is published and maintained by aircraft type, it may be a case that Item 4, "Nationality and Registration Marks" and Item 6, "Aircraft Serial Number" are blank.

Table 1. Noise Levels (ICAO Format)

1. State of Registry: Japan		3. Document Number: (if necessary)		
2. Noise Document				
4. Nationality and registration marks: (if necessary) JA 727E		5. Manufacturer and manufacturer's designation of aircraft: The Enstrom Helicopter Corp. Enstrom Model 480B		6. Aircraft serial numbers:
7. Engine: Rolls-Royce 250-C20W		8. Propeller:*\br/>Main Rotor Blade P/N 28-14100-9 Tail Rotor Blade P/N 28-150001-9		
9. Maximum take-off mass: 1361 kg (3000 lb)	10. Maximum landing mass:*\br/>1361 kg (3000 lb)		11. Noise certification standard: Chapter 11	
12. Additional modifications incorporated for the purpose of compliance with the applicable noise certifications standards: None				
13. Lateral/full power noise Level:*\br/>N/A	14. Approach noise level:*\br/>N/A	15. Flyover noise Level:*\br/>83.7 dBA	16. Overflight noise level:*\br/>N/A	17. Take-off noise level:*\br/>N/A
Remarks:				

* These boxes may be omitted depending on noise certification standard.

Engine Emissions

Fuel Venting: This aircraft complies with the requirements of Civil Aeronautics Regulations, Annex 3, Chapter 1.

NOTE

The fuel venting has been demonstrated under ICAO Annex 16, Volume II, Third Edition, Part II, Chapter 2.

CHAPTER 5. OPTIONAL EQUIPMENT SUPPLEMENTS

No change

CHAPTER 6. WEIGHT/BALANCE AND LOADING

No change

CHAPTER 7. HELICOPTER AND SYSTEMS DESCRIPTION AND OPERATION

No change

CHAPTER 8. HANDLING, SERVICING, AND MAINTENANCE

No change

CHAPTER 9. SUPPLEMENTAL INFORMATION

No change

CHAPTER 10. ABBREVIATED CHECKLIST

No change

APPENDIX A: JCAB APPROVED FLIGHT MANUAL LIST FOR ENSTROM MODEL 480B

Flight Manual (Basic) and Flight Manual Supplements approved by JCAB are as follows:

Table 2. JCAB Approved Flight Manual (Basic and Supplements)

FAA RFM/RFMS Document Number	Title	Certifying Authority Approved Date and Current Revision	JCAB Approved Date
28-AC-023	Rotorcraft Flight Manual (Basic)	May 2, 2019 Rev. 24	Aug 12, 2020
28-AC-023 Supplement 1	Cargo Hook	Jul 16, 2015 Rev. 22	Aug 12, 2020
28-AC-023 Supplement 3	External Fuel Filter	Feb 9, 2001 ORG	Aug 12, 2020
28-AC-023 Supplement 4	Baggage Box Extension	Jul 16, 2015 Rev. 22	Aug 12, 2020
28-AC-023 Supplement 5	Camera Door	Sep 5, 2007 Rev. 11	Aug 12, 2020
28-AC-023 Supplement 6	Emergency Floats	Apr 28, 2016 Rev. 23	Aug 12, 2020
28-AC-023 Supplement 7	Air Conditioning	Apr 16, 2010 Rev. 14	Aug 12, 2020
28-AC-023 Supplement 8	Nose Positioned Camera Mount	Apr 16, 2010 Rev. 14	Aug 12, 2020
28-AC-023 Supplement 9	Searchlight	May 2, 2019 Rev. 24	Aug 12, 2020
28-AC-023 Supplement 10	Chelton Flight Systems EFIS	Jan 25, 2011 Rev. 17	Aug 12, 2020
28-AC-049	Sandel 3500 EHSI	Dec 3, 2014 Rev. 1	Aug 12, 2020
28-AC-051	GMA 350H	Jul 2, 2014 ORG	Aug 12, 2020
28-AC-063	GNC 255A with MD200-306 CDI	Dec 3, 2014 ORG	Aug 12, 2020
28-AC-064	GTN 650/750	Jun 19, 2019 Rev. 2	Aug 12, 2020
28-AC-065	GTX 327	Dec 3, 2014 ORG	Aug 12, 2020

APPENDIX B: JUDGMENT TABLE FOR OPERATING METHOD LIMITATION

(REQUIRED EQUIPMENTS, ETC. ON EACH OPERATING METHOD)

Table 3. Judgment Table for Operating Method Limitation

Equipment, etc.	Minimum Quantity	Operating Method				
		C	D	E	F	H
Altitude indicator	1					○ (Note 4)
Ambient air temperature indicator	1	○				
Clock with second indication	1	○				
Direction finder, VOR receiver, Airborne TACAN receiver	1	○ (Note 2)				
Navigation lights				○		
Anti-collision light (Note 5)				○ (Note 3)		
Oxygen supply system (Note 1)						○

In addition to the equipment, etc. listed above, it shall be necessary to obey the requirements for equipment specified in the Civil Aeronautics regulations, etc.

Category of Operating Methods

- C Flight under instrumental navigation (flight over cloud or over water beyond the distance and time specified in Article 66 of the Regulations under visual meteorological condition)
- D Visual flight other than flight under instrument navigation
- E Night operations
- F Day operations
- H High altitude operations (above 3,000 meters of altitude)

Note 1: Oxygen supply system with the following capacity:

1. Aircraft without cabin pressurization system:
 - a. When flight is conducted at altitude between 3,000 and 4,000 meters, necessary oxygen quantity shall be as much as for all occupants to use for the flight time equal to flight time related to the said flight minus 30 minutes.
 - b. When flight is conducted at altitude beyond 4,000 meters, necessary oxygen quantity shall be as much as for all occupants to use for flight time related to the said flight.

Note 2: Either of direction finder, VOR receiver, onboard TACAN receiver be able to receive radio signals all through the flight from NDB, VOR or TACAN stations.

Note 3: Aircraft of which maximum takeoff weight is equal and more than 5,700 kg, and aircraft of which maximum takeoff gross weight is less than 5,700 kg and obtains initial airworthiness certification after January 17, 2003 must be equipped.

Note 4: Required for the flight at altitude of 16,000 ft or more under the Notice of the Director-General of Civil Aviation Bureau, KUUKOU No. 551 dated December 9 of 1971, "Specification of Altimeters."

Note 5: The anti-collision light equipped on this aircraft is "Navigation light red," and the white strobe light is an optional auxiliary light.

APPENDIX C: TABLE OF TCD INSERTION STATUS (TEMPLATE)

様式 I-2-8 (Form I-2-8)

TCD挿み込み状況表
Table of TCD Insertion Status

TCD番号 TCD number	挿み込み日 Date of insertion	担当者 Personnel in charge	除去日 Date of deletion	担当者 Personnel in charge	備考 Remarks (除去の理由等) Reason of deletion, etc.

**APPENDIX D: TABLE OF SUPPLEMENTAL MANUAL
(TEMPLATE)**

様式 I-2-5 (Form I-2-5)

			☆☆☆☆式○○○○型 (Name of manufacturer) (Name of type)
追加飛行規程一覽表 Table of Supplemental Flight Manual JA◇◇◇◇ Registration mark			
番号 No.	表 Title	裝着年月日 Date of installation	確認印 Signature

ENSTROM 480B RFM SUPPLEMENT

Approved: N/A

Date: Aug 12/20

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