ENSTROM 480B OPERATOR'S MANUAL

AND

FAA APPROVED

ROTORCRAFT FLIGHT MANUAL

SUPPLEMENT

AVIDYNE TRAFFIC ADVISORY SYSTEM

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REPORT NO. 28-AC-027

HELICOPTER SERIAL NO._____

HELICOPTER REGISTRATION NO._____

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THIS SUPPLEMENT MUST BE CARRIED IN THE HELICOPTER AT ALL TIMES IF EQUIPPED WITH THE AVIDYNE TAS600 (TRAFFIC ADVISORY SYSTEM) INSTALLATION. CHAPTERS 1, 2, 3, AND 4 ARE FAA APPROVED.

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ROTORCRAFT FLIGHT MANUAL SUPPLEMENT

AVIDYNE TAS600 TRAFFIC ADVISORY SYSTEM

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INTRODUCTION

Intro-1. General

This supplement contains the operating instructions, procedures, and limitations for the Avidyne TAS600 Traffic Advisory System. The supplement is divided into two basic parts, the FAA approved RFM Supplement and Supplemental Data provided by the Enstrom Helicopter Corporation (Enstrom). Chapters 1, 2, 3, and 4 make up the FAA approved RFM Supplement. It is required by Federal Regulations that this supplement be carried in the helicopter at all times if the Avidyne TAS600 Traffic Advisory System is installed.

For additional information regarding the supplement format and text emphasis or definitions, refer to the Basic Flight Manual.

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CHAPTER 1. OPERATING LIMITATIONS

1-1. Purpose

1. This chapter includes operating limitations and restrictions that must be observed during ground and flight operations.

1-2. General

1. The operating limitations set forth in this chapter are the direct results of design analysis and flight tests. Compliance with these limitations will allow the pilot to derive maximum utility from the helicopter.

1-3. Operational Limitations

1. This RFM supplement is intended for use with the Avidyne TAS600 Traffic Advisory System.

2. The Pilot's Handbook for the Avidyne TAS, Part Number 32-2352, Revision 6, or subsequent, should be referred to for operating instructions. It must be kept accessible to the flight crew at all times.

3. Altitude information provided by the Avidyne TAS is advisory only and is not to be used for dispatch purposes.

4. Federal Regulations state that "When an ATC clearance has been obtained, no pilot in command may deviate from that clearance, except in an emergency, unless he obtains an amended clearance." Traffic information provided by Avidyne TAS does NOT relieve the pilot in command of this responsibility.

5. Refer to Pilot's Handbook, Part Number 32-2352, Revision 6, or subsequent, for other appropriate limitations.

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CHAPTER 2. NORMAL PROCEDURES

2-1. Engine Starting

1. After engine start: **TAS ON/OFF** Switch – **ON**. The TAS600 automatically performs a self-test upon start-up.

2. "Ground Mode" is normally annunciated upon start-up, indicating that the TAS600 is in the Ground Mode.

2-2. In-Flight Operation

1. Traffic information from the Avidyne TAS600 is displayed on the Chelton EFIS, the Garmin GMX200, or the Garmin GNS430W/530W systems. If the TAS is interfaced with the Chelton EFIS, audible traffic advisories and annunciator light output are provided by the EFIS MFD. If the TAS is interfaced with Garmin systems, audible traffic advisories are provided by the TAS system and the annunciator light output is produced by the Garmin system. There are three traffic advisory levels as shown in Table 2-1.

Table 2-1. TAS Advisory Levels

Level	Alert
Traffic Advisory (TA)	An audible announcement is generated if the TAS600 detects that the intruder could result in a near miss or collision. The TAS600 uses voice, tones, and an annunciator light (marked "Traffic" or "Traffic Alert") to communicate information to the flight crew.
Proximate Advisory (PA)	Displays traffic within the flight crew-defined display parameters.
Other Traffic	Identifies intruders that are neither TAs or PAs.

2. Refer to the appropriate publication listed in Table 2-1 for traffic mode operation for the system display interface installed.

Table 2-2. System Interface Publications

System Interface	Publication Guide
Chelton EFIS	Chelton Flight Systems FlightLogic EFIS Pilot's Operating Guide and Reference, Document No. 150-045240, Rev. K, or later revision
Garmin GMX200	Garmin GMX200 Pilot's Guide, P/N 190-06007-02, Rev. A, or later revision
Garmin GNS430W/530W	Garmin 400/500 Series Display Interfaces Pilot's Guide Addendum, P/N 190-00140-10, Rev. D, or later revision

2-3. Built-In Test and Fault Indications

1. In addition to the automatic self-test at start-up, the Built-In-Test Function permits the crew to perform a functional test of the system while in-flight to confirm system performance. This test is not an in-flight requirement. Perform the functional test in Table 2-3 using the TAS mute switch, located on the pilot's cyclic.

2. If the TAS600 fails to test or operate properly, the **TAS ON/OFF** switch located in the pedestal, should be set to the **OFF** position.

Table 2-3. Functional Test Procedure

Action	Positive Result	Negative Result
Double press the mute/update button	Either a TA or "No advisories" is announced.	No audible announcement, or a "TCAD Code" announcement. Discontinue use of the TAS600 Series System until the cause is identified and corrected.

3. If the Ground Mode is announced when flying, discontinue operation of the TAS600.

4. See the Avidyne TAS Pilot's Handbook for more information.

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CHAPTER 3. EMERGENCY PROCEDURES

3-1. Electrical System Failure

1. Refer to the basic RFM.

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CHAPTER 4. PERFORMANCE DATA

4-1. General

1. Refer to the basic RFM.

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CHAPTER 6. WEIGHT/BALANCE AND LOADING

6-1. General

1. This installation is included in the basic aircraft weight. Refer to the basic RFM.

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CHAPTER 7. SYSTEM DESCRIPTION AND OPERATION

7-1. System Description

1. The Avidyne Traffic Advisory System (TAS) is an Airborne Surveillance Radar system. The TAS600 uses transponder replies to compute bearing, relative altitude, and range from nearby Mode C- or Mode S-equipped aircraft. Non-Mode C aircraft provide range and bearing information only. The TAS600 Series System does not detect aircraft without operating transponders.

2. Power to the TAS600 is provided via the **TAS** circuit breaker (CB) (3 Amp) located on the left side of the center pedestal.

3. Table 7-1 shows the performance information of the TAS600. If the TAS is operated above Maximum Operating Altitude no traffic, including Traffic Advisories and Proximity Traffic will be announced or displayed. See the Avidyne TAS Pilot's Handbook for more information.

Table 7-1. Performance Information

Display Range	7 nm
Vertical Filter of Displayed Traffic	±3500 feet
Maximum Operating Altitude (Aircraft Altitude Limitation)	18,500 feet (13,000 feet)
Traffic Alert Limits	TSO-C147 specified warning times

7-2. Ground Mode

1. Ground Mode mutes advisory tones and halts the display of nearby traffic when the aircraft is on the ground. It is automatically enabled by the TAS WOW (Weight on Wheels) switch located in the collective control system. When the collective is moved to the full down position, the TAS600 automatically switches to Ground Mode. As the collective is raised, the WOW switch automatically enables the TAS to resume full traffic displays and advisory tones.

NOTE

If the collective is moved to full down in flight, for example during an autorotation, the TAS will revert to Ground Mode.