Avidyne TAS600 Traffic Awareness System

FAA APPROVED

FLIGHT MANUAL SUPPLEMENT

For the

Diamond DA 42

Serial Number: 42.AC100

Registration Number: N510TS

with

AVIDYNE/RYAN TRAFFIC ADVISORY SYSTEM (TAS) MODEL TAS600

This document must be carried in the aircraft at all times. It describes the operating procedures for the Avidyne TAS600 Traffic Awareness System installed in accordance with the Avidyne Traffic Advisory Systems Installation Manual Part Number 32-2351, Revision 4, dated October 3, 2005 and FAA Form 337 dated April 23, 2007.

The information contained herein supplements or supersedes the basic Airplane Flight Manual only in those areas listed herein. For limitations, procedures, and performance information not contained in this document, consult the basic Airplane Flight Manual.

FAA APPROVED

Gary L. Justice

Avionics Inspector

Federal Aviation Administration Flight Standards District Office #19

Fort Lauderdale, Florida

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Palm Beach Avionics, Inc. FAA Repair Station MI4R363M 11250-3 Aviation Blvd. West Palm Beach, Florida 33412 Avidyne TAS600 Traffic Awareness System

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SECTION I GENERAL

- 1. The Avidyne TAS600 Traffic Advisory System (TAS) monitors the airspace surrounding your aircraft by interrogating the transponders of intruding aircraft. If the intruder is reporting Mode C altitude, the interrogation reply enables the TAS600 to compute range, relative bearing and relative altitude from your aircraft to the intruder. For non-Mode C reporting aircraft the TAS600 computes range and bearing only. The TAS600 does not detect aircraft without an operating transponder.
- 2. The TAS600 in this aircraft is interfaced to the Garmin G1000 system for display and control. The TAS600 is advisory only, and is a back up to the see and avoid concept, and the ATC radar environment.
- 3. The TAS600 uses voice, tones, and the G1000 display to communicate information to the flight crew. When a detected intruder meets the criteria for traffic advisory, the TAS600 generates an audible voice annunciation. The announced phrase is always preceded by a tone and then begins as "Traffic". The clock position of the alert is given, and then the relative altitude of the intruder and range is announced. If the intruder is more than 200 feet above or below the host aircraft, then the phrase "high" or "low" is added as appropriate. If the intruder's altitude is within 200 feet of the host altitude, the ending phrase is "same altitude". The G1000 system displays the intruder aircraft relative position.

Traffic Advisories and Proximity Traffic will be announced at displayed. See the

SECTION III
EMEDICANT PROCEDURES

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4. The TAS600 conforms to TSO-C147.

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SECTION II LIMITATIONS

- 1. The TAS600 Pilot's Operating Handbook, Part Number 32-2352, Revision 6 or later revision and the Garmin G1000 optional equipment addendum Part Number 190-00470-00 rev C or later revision should be referred to for operating instructions. These documents must be kept accessible to the flight crew at all times.
- 2. Altitude information provided by the TAS600 is advisory only and is not to be used for dispatch purposes.
- 3. 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 the TAS600 does NOT relieve the pilot in command of this responsibility.
- 4. Refer to the Pilot's Operating Handbook, Part Number 32-2352, Revision 6 or subsequent for the Avidyne TAS600 Series, for other appropriate limitations.
- 5. The TAS600 system is limited to:

Display range 7 nm

Vertical filter of displayed traffic +/- 3500 ft.

Maximum operating altitude 18,500 Feet

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 600 Series Pilot's Handbook for more information.

SECTION III EMERGENCY PROCEDURES

No Change.

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SECTION IV NORMAL PROCEDURES

- 1. The TAS600 Pilot's Operating Handbook, Part Number 32-2352, Revision 6 or later revision and the Garmin G1000 optional equipment addendum Part Number 190-00470-00 rev C or later revision should be referred to for operating instructions. These documents must be kept accessible to the flight crew at all times.
- 2. The built-in-test function permits the crew to perform a functional test of the system while in flight to confirm system performance. For instructions refer to the Pilot's Handbook.

SECTION V PERFORMANCE

No change.

SECTION VI WEIGHT AND BALANCE

See current weight and balance data.

SECTION VII AIRPLANE & SYSTEM DESCRIPTIONS

See Avidyne Pilot's Operating Handbook for a complete description of the TAS600 Series TAS system.

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