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**FAA-APPROVED
AIRPLANE FLIGHT MANUAL SUPPLEMENT
for the
uAvionix skyBeacon
as installed in**

Airplane Make and Model per AML

Registration Number: _____

Serial Number: _____

This supplement must be attached to the FAA-approved Airplane Flight Manual when the skyBeacon is installed in accordance with Approved Model List Supplemental Type Certificate SA04362CH.

The information contained herein supplements the basic manual only in those areas listed. For limitations, procedures, performance and loading information not contained in this supplement, consult the FAA-approved Airplane Flight Manual, markings, or placards.

FAA Approved By: _____
For Monica Merritt

Manager, Southwest Flight Test Section, AIR-713
Federal Aviation Administration
Ft. Worth, TX

Date: SEP 14 2020

Log of Revisions

Revision No.	Pages Affected	Description	FAA Approved	Date
A	All	Initial release.	11/3/2018	11/3/2018
B	All	Reformat. Transponder monitor description update, remove Mode S references.		

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1 GENERAL

1.1 skyBeacon

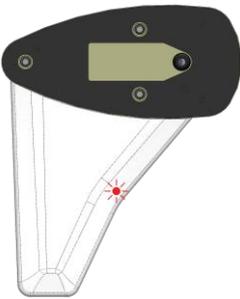
skyBeacon is a wing-tip mounted unit that contains a 978 MHz transmitter, powerline transponder monitor, GPS/SBAS receiver, LED navigation light and LED anti-collision light. This device transmits ownship Automatic Dependent Surveillance-Broadcast (ADS-B) data through the UAT data link.

skyBeacon performs the following functions:

- Position determination
 - An internal GPS/SBAS receiver allows the unit to function as its own position source.
- Transmission of ADS-B Out data on 978MHz UAT
 - Integration of data from internal and external sources to transmit data in compliance with 14 CFR 91.227.
- Transponder monitoring
 - The integrated Power Transponder ensures proper synchronization of data elements between Secondary Surveillance Radar (SSR) replies and ADS-B transmissions. These elements include Mode A squawk code, Mode C altitude, and IDENT status. In remote areas where you may not be interrogated by SSR, aircraft Mode A squawk code may be broadcast as 0000 or the last known transponder reply code.
- Altitude encoder with Continuous Calibration™
 - The integrated altitude encoder provides pressure altitude information and is continuously adjusted for correspondence with the transponder's altitude encoder.
- "Anonymous" mode
 - "Anonymous" mode transmits a temporary randomized address instead of the aircraft's FAA assigned ICAO address, and "VFR" instead of the aircraft's call sign. When this option is configured during installation, it may be enabled by selecting a squawk code of "1200" on the installed transponder. The temporary address

and Call Sign are disabled if the operator selects a non-1200 squawk code on the transponder.

- When enabled, the operator will be unable to operate on an IFR flight plan, unable to receive IFR or VFR separation services, and may experience other effects such as potential loss of enhanced search and rescue benefits.
- Annunciator LED
 - A red annunciator LED is located on the pilot facing side of the fin, indicating the operating status of the skyBeacon. This indicator may or may not be visible in flight, depending on the geometry of the aircraft and mounting location, and is advisory in nature only.



Red LED	Status	Meaning
On (Steady)	Failed	Internal self-test failure, Invalid ICAO configured
Blinking On/Off (each second)	Failed	No GPS fix, ADS-B broadcast failure
Off	Normal	No Failure **

- Note: ** It is possible that the OFF indication could be a rare failure of the LED annunciator. To confirm proper LED operation, illumination may be observed immediately after navigation lights being powered on.
- Red forward position light and anti-collision strobe
 - A TSO-C30c Type I (red) LED position/navigation light and TSO-C96a Class II LED anti-collision light replace or supplement existing lighting.
 - Note: Power must be enabled to both the position light and anti-collision light circuits for the anti-collision light to function.

1.2 Required Equipment

The skyBeacon must have the following system interfaced equipment fully functional to be compliant with the requirements for 14 CFR 91.227 ADS-B Out operations:

Interfaced Equipment	Number Installed	Number Required
Mode A/C Transponder	1	1

In remote areas where you may not be interrogated by Secondary Surveillance Radar, aircraft Mode A squawk code may be broadcast as unavailable (0000).

1.3 Capabilities

The skyBeacon as installed on this aircraft has been shown to meet the equipment performance requirements of 14 CFR 91.227, when operating in accordance with this supplement.

2 LIMITATIONS

2.1 Navigation Lights

The navigation lights must remain on at all times that ADS-B Out operation is required. The following placard should be installed:

NAVIGATION LIGHTS MUST REMAIN ON FOR ADS-B OUT

2.2 Maximum ADS-B Operating Altitude

In accordance with 14 CFR 91.225, operation of skyBeacon ADS-B Out UAT on 978 MHz is prohibited at altitudes of 18,000 feet MSL and above.

3 EMERGENCY PROCEDURES

No Change.

4 ABNORMAL PROCEDURES

4.1 ADS-B Transmission Incomplete

When GPS position information is unavailable or the transmitter is experiencing broadcast failures, the annunciator LED will blink. skyBeacon will continue attempting to transmit, but the ADS-B messages will be incomplete and non-compliant.

skyBeacon Location **ENSURE CLEAR VIEW OF SKY, NOTE INITIAL
FIX COULD TAKE UP TO 20 MINUTES**

4.2 Device Failure

When the device experiences a self-test failure or has not been properly configured, the annunciator LED will be constantly illuminated. Resolving may require a maintenance action, but the pilot may attempt cycling the power once to resolve.

Navigation Lights **CYCLE POWER ONCE**

4.3 Loss of Aircraft Electrical Power Generation

In the event of the electrical charging system becoming inoperative, attention must be paid to aircraft battery power. skyBeacon uses minimal electrical power, considerably less than a traditional incandescent navigation light, but the pilot should be familiar with electrical load-shedding methods and equipment requirements for various phases of flight. If an electrical emergency exists, the pilot should consider turning off the skyBeacon to preserve the operation of essential avionics.

Subject to aircraft equipment electrical load-shedding priorities,

Navigation Lights Circuit Breaker Position **CONSIDER**

6 PERFORMANCE

No change.

7 WEIGHT AND BALANCE

No change.

8 RELATED DOCUMENTATION

The uAvionix skyBeacon documents, part numbers, and revisions listed below contain additional information regarding skyBeacon system description and function.

Part Number	Revision	Title
UAV-1001421-001	H (or subsequent)	skyBeacon TSO User and Installation Guide
UAV-1002305-001	H (or subsequent)	skyBeacon STC Installation Manual
UAV-1002112-001	C (or subsequent)	skyBeacon STC Instructions for Continued Airworthiness and Maintenance Manual