

**SUPPLEMENT  
REVISION**

**CESSNA MODEL 182T  
NAV III AVIONICS OPTION - KAP 140 AUTOPILOT**

Serials 18281228 and  
18281318 thru 18281868  
and  
18281870 thru 18281875

**PILOTS OPERATING HANDBOOK  
AND  
FAA APPROVED AIRPLANE FLIGHT MANUAL**

**REVISION 1  
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**INSERT THE FOLLOWING PAGES INTO  
THE SUPPLEMENT SECTION OF THE PILOT'S  
OPERATING HANDBOOK**



# Pilot's Operating Handbook And FAA Approved Airplane Flight Manual **SKYLANE**

## **CESSNA MODEL 182T NAV III AVIONICS OPTION - KAP 140 AUTOPILOT**

**Serials 18281228 and  
18281318 thru 18281868  
and  
18281870 thru 18281875**

### **SUPPLEMENT 4 L3 COMMUNICATIONS WX-500 STORMSCOPE**

SERIAL NO. \_\_\_\_\_

REGISTRATION NO. \_\_\_\_\_

This supplement must be inserted into Section 9 of the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual when the L3 Communications WX-500 Stormscope is installed.

#### **APPROVED BY**

FAA APPROVED UNDER FAR 21 SUBPART J  
The Cessna Aircraft Co.  
Delegation Option Authorization DOA-100129-CE



Executive Engineer  




Member of GAMA

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## SUPPLEMENT 4

### L3 COMMUNICATIONS WX-500 STORMSCOPE

Use the Log of Effective Pages to determine the current status of this supplement.

Pages affected by the current revision are indicated by an asterisk (\*) preceding the page number.

<u>Supplement Status</u>	<u>Date</u>
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* S4-1 thru S4-6	Revised	1
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Asst. DOA Administrator

RLS

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**SERVICE BULLETIN CONFIGURATION LIST**

The following is a list of Service Bulletins that are applicable to the operation of the airplane, and have been incorporated into this supplement. This list contains only those Service Bulletins that are currently active.

<u>Number</u>	<u>Title</u>	<u>Airplane Serial</u> <u>Effectivity</u>	<u>Revision</u> <u>Incorporated</u>	<u>Incorporated</u> <u>in Airplane</u>
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## **L3 COMMUNICATIONS WX-500 STORMSCOPE**

### **GENERAL**

The L3 Communications WX-500 Stormscope Series II Weather Mapping Sensor is a "black-box" type weather sensor/processor that uses an external controller/display unit for control input and output display functions. In this airplane, the WX-500 is integrated with the Garmin G1000 Integrated Cockpit System Multifunction Display (MFD) for the control and display of all Stormscope functions. Refer to the Garmin G1000 Cockpit Reference Guide (CRG) for more information regarding operation of the G1000 MFD.

### **CAUTION**

THE L3 COMMUNICATIONS WX-500 STORMSCOPE IS APPROVED FOR USE ONLY IN AVOIDING HAZARDOUS WEATHER (THUNDERSTORMS). USE OF THE WX-500 TO PENETRATE HAZARDOUS WEATHER IS PROHIBITED.

The L3 Communications WX-500 Stormscope sensor detects electrical discharge (lightning) activity through a dedicated antenna mounted on the bottom of the airplane. The Stormscope processor continuously acquires electrical discharge data and performs self-test functions to ensure that the data presented to the pilot is always current and reliable when displayed. The system is heading-stabilized, so that the proper orientation of displayed data relative to the airplane position during maneuvering is maintained.

The Stormscope maps electrical discharge activity at ranges up to 200 nautical miles (nm) and displays that activity map to the flight crew, either centered on the airplane position (360° view) or ahead of the airplane position through 60° on either side of the airplane heading (120° view).

(Continued Next Page)

## **GENERAL** (Continued)

No dedicated external power control for the WX-500 Stormscope is provided. The WX-500 is powered through the AVIONICS BUS 1 switch and is current-protected by the STORM SCOPE circuit breaker. At startup, the WX-500 will perform self-tests and provide error messages, if necessary, through the G1000 Primary Flight Display (PFD) ALERTS window and MFD MAP-WEATHER MAP page. Refer to the WX-500 Stormscope User's Guide for recommended actions if an error message appears.

WX-500 weather data can be displayed on the MFD MAP-WEATHER MAP page or may be displayed (overlaid) on the MAP-NAVIGATION MAP page and/or the PFD INSET MAP display. From the MFD MAP-WEATHER MAP page, the user may select the desired view (360° or 120°) by pressing the VIEW softkey. The range (25 to 200 nautical miles) may be set by rotating the RNG control knob on the MFD bezel. The user may also choose between Strike or Cell display modes using the MODE softkey. Refer to the WX-500 Stormscope User's Guide for information regarding Strike and Cell mode display differences.

To overlay weather data on the MFD MAP-NAVIGATION MAP page, select the MAP softkey, then select the LTNG softkey and finally select the BACK softkey to return to the map. Availability will be shown by a lightning bolt icon in the lower right corner of the map page (grouped with icons for TRAFFIC, TOPO and TERRAIN, if selected ON). Lightning strikes will be depicted on the Map Mode display as yellow lightning bolts. The Stormscope display mode (Strike or Cell) will be as selected on the MAP-WEATHER MAP page. The view setting will be 120° ARC and the range setting will match the NAVIGATION MAP range selection to 200 nm.

### **NOTE**

In evaluating lightning strike data, it may be useful to clear the accumulated strike points on the display from time to time and then monitoring the reappearance of strike activity on the cleared display.

## **OPERATING LIMITATIONS**

The L3 Communications WX-500 Stormscope is approved only as an aid to hazardous weather (thunderstorm) avoidance. Use for hazardous weather penetration is prohibited.

The L3 Communications WX-500 Stormscope Series II Weather Mapping Sensor User's Guide must be available to the flight crew when operating the WX-500 Stormscope.

## **EMERGENCY PROCEDURES**

There is no change to the airplane emergency procedures when the L3 Communications WX-500 Stormscope is installed.

## **NORMAL PROCEDURES**

Static discharge from the static wicks on the tail may cause false indications of lightning strikes at the 6 o'clock position with the 200 nm range selected.

Refer to the WX-500 Stormscope User's Guide, Chapter 3, Error Message, Figure 3-1, Recommended Action, for discontinuing use of the Stormscope if a error message appears.

## **PERFORMANCE**

There is no change to the airplane performance when the L3 Communications WX-500 Stormscope is installed.