# MAXCRAFT AVIONICS LTD

# TCCA STC SH12-43 Garmin G500H Flight Display System Eurocopter AS 355 E, F, F1, F2, N, NP

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#### Tanspot Canala Transpots Car Department of Transport Supplemental Type Certificate Number: SH12-43 This approval is issued to: Maxeraft Aviories Ltd. 250-18799 Airport Way May 23, 2012 British Coli May 23, 2012 anada V3Y 2B4 ircraft/Engine Type or Model: EUROCOPTER FRANCE AS 355 E. F. FL FZ, N. NP ate or Foulyalent of Type Design Change ation/Operating Data, ed Equipment and Limitations: must be in accorda ed May 18, 2012\*. with Mascraft Avience Ltd. Master Data List MDL-05-70-00 at be in accordance with Maximal Avionics Ltd. Flight Manual Suppl , dated May 18, 2012". tion is limited to VFR use only Chad J. Wordworth Canada

May 2012,

Maxcraft Avionics Ltd. has received Transport Canada STC SH12-43 for installation of the Garmin G500H Flight Display System for Eurocopter model

AS355() rotorcraft. The approval includes installation of interfaced systems including Garmin's Digital AHRS & ADC, 400W/500W Series Navigator, GTS 800 Traffic Alerting System, FreeFlight RA-4500 Radar Altimeter, GTX Transponder and can interface to on-board NTSC or PAL video systems. This installation provides significant safety enhancements at a practical cost.

# Garmin G500H

Installation of the G500H system replaces the traditional 6-pack of analog instruments with a single LRU PFD/MFD display.

The PFD display consolidates all primary situational information regarding position, speed, attitude, vertical rate, altitude and flight progress, as well as GPS active waypoint, distance to-waypoint, desired and actual track, and more directly in front of you.

The MFD provides detailed moving-map graphics of the aircraft position in relation to

G500H Cockpit Display - GDU620 PFD/MFD

ground features, as well as chart data, navaids, flight plan routings and more.

A simple-to-navigate interface is accessed by a familiar rotary knob for data entry and soft-keys for mode selection. The frontloading SD card slot makes it easy to add data and make updates.

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#### Garmin's 400W/500W Navigator

The GNS 400W and 500W Series units combine the best features of a moving-map multi-function display with take-off to touchdown navigation.

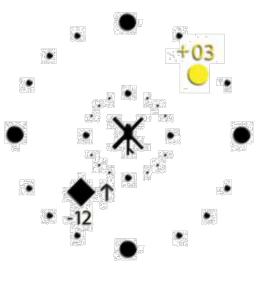
GPS400W/500W units come with built-in WAAS navigation capabilities. Approved to fly LPV "glideslope" approaches without



Garmin 400W Series Navigator

reference to ground-based navaids. Featuring an advanced 15-channel receiver capable of five position updates per second, GPS 400W meets the FAA's stringent TSO C146a standards for WAAS "sole means" navigation — providing vertical and lateral approach guidance into thousands of U.S. airports previously inaccessible in IFR conditions.

Garmin Navigators seamlessly integrate built-in terrain and navigation databases, providing a clear, concise picture of where you are and where you're heading. Huge Jeppesen® database, updated with front-loading data cards, contains location reference for all airports, VORs, NDBs, Intersections, Flight Service Stations, published approaches, SIDs/STARs, Special Use Airspace and geopolitical boundaries. A detailed basemap clearly shows airports, cities, highways, railroads, rivers, lakes, coastlines and more. Using information from the built-in terrain and U.S. obstacles databases, the Garmin Navigator displays colour coding to graphically alert you when proximity conflicts loom ahead.



GTS800 Traffic Pop-Up

Garmin GTS800 Traffic Alerting System

When flying in busy airspace, converging in sometimes less-than-ideal visibility conditions – pilots need every possible advantage to "see and avoid" traffic conflicts. Alertness and vigilance are essential. But for enhanced safety, nothing beats having an extra set of "electronic eyes" to help detect and display the position of any transponder- equipped aircraft approaching on a potential collision course.

The GTS800 provide performance suited to light helicopters, 40 watts of transmit power, a +/- 10,000foot vertical separation maximum, and a typical active interrogation range of 12 nm in the forward direction. Passive surveillance is provided with available 1090 MHz extended squitter ADS-B "In" capability.

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### FreeFlight RADAR Altimeter

The RA-4500 Radar Altimeter with its ARINC 429 output is coupled with the G500 PFD systems. Proven and precise, the RA-4500 improves situational awareness for a broad range of rotary wing operations where accuracy is needed from 2000 feet down to ground level.

Consisting of a remote unit and dual antennas for increased accuracy, the RA-4500 radar altimeter system is designed to be lightweight, easy to install, and flexible in aircraft placement.



FreeFlight RA-4500 Radar Altimeter System

# Garmin SL40 VHF COM

Installation of the SL40 provides a second lightweight 760 channel VHF-Com transceiver (118.000 – 136.976 MHz), active & standby frequencies, frequency memory and recall functions,



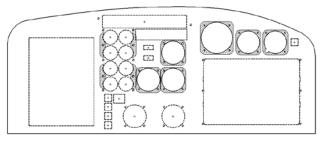
Garmin SL40 VHF-Com Transceiver

automatic display intensity, back-lit buttons, stuck mic time-out, and TX status indicator.

#### **Reliable Instrument Lighting**

Replacement of the OEM's original fibre-optic instrument panel lighting system (including lightbox

and panel light diffusers) with UMA instrument wedges and purpose built lighting modules for the AS355 engine instruments provides uniform, reliable and useful instrument lighting.



**Replacement Bezel Lighting** 

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# Standby Instruments

The G500H system is designed to replace the primary six round analog instruments, along with any external CDIs. A standby altimeter, airspeed and altimeter are required, re-locating existing primary instruments eliminate additional cost. The existing magnetic compass must be retained in its existing location.



AS355N with Garmin G500H, GNS430W, GTS800, RA-4500 & Customer Specified Avionics Package

# Future Developments

Options being added!

HSVT - Helicopter Synthetic Vision Technology

Garmin GTN-6XX/7XX Touch Screen Navigators Series

# What's Next?

Our Maxcraft Design Services department independently develops STC packages held by Maxcraft Avionics. Having the supporting engineering data directly available makes inclusion of additional data for other interfaced systems cost effective.

Talk to us today about your avionics requirements.