

### Contact:

Aircraft Services

Clarke Paterson 604-465-3080 ext. 227

[clarke@maxcraft.ca](mailto:clarke@maxcraft.ca)

Design Services

Dave Motyka 604-465-3080 ext. 225

[dave@maxcraft.ca](mailto:dave@maxcraft.ca)

June 2012,

A revision to our Master Data List has enabled Garmin HVST as an option for all installation of the G500H under Maxcraft STC SH12-43.

April 2013,

We have added significantly to STC SH12-43, and with issue 2 now in hand the Garmin G500H Flight Display System now includes the following Eurocopter Rotorcraft; Astar AS350B, B1, B2, B3, BA & D (Astar), Twin Star AS355 E, F, F1, F2, N & NP (Twin Star), EC120 B (Colibri), and the EC130 B4.

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-Series Transponders 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,

Maxcraft Avionics Ltd.  
Transport Canada AMO 33-90  
[www.maxcraft.ca](http://www.maxcraft.ca)

Transport Canada / Transport Canada  
Department of Transport  
**Supplemental Type Certificate**

This approval is issued to: Maxcraft Avionics Ltd.  
250-18799 Airport Way  
Pitt Meadows, British Columbia  
Canada V3Y 2B4

Number: SH12-43  
Issue No.: 2  
Approval Date: May 23, 2012  
Issue Date: April 03, 2013

Responsible Office: Pacific  
Aircraft/Engine Type or Model: See Eligibility List (on Continuation Sheet)  
Canadian Type Certificate or Equivalent: See Eligibility List (on Continuation Sheet)  
Description of Type Design Change: Installation of Garmin G500H Flight Display System

Installation/Operating Data, Required Equipment and Limitations:  
Installation must be in accordance with Maxcraft Avionics Ltd. Master Data List MDL-05-70-00-053 Rev. C, dated February 8, 2013\*.

Operation must be in accordance with Maxcraft Avionics Ltd. Flight Manual Supplement as follows:

Model	Flight Manual Supplement No.
AS 350 B, B1, B2, B3, BA, D	FMS-34-23-06-016-(01) Rev. C, dated July 24, 2012*
AS 355 E, F, F1, F2, N, NP	FMS-34-23-06-016-(02) Rev. C, dated July 24, 2012*
EC 130 B4	FMS-34-23-06-016-(03) Rev. C, dated July 24, 2012*
EC 120 B	FMS-34-23-06-016-(04) Rev. C, dated July 24, 2012*

— See Continuation Sheet —



Conditions: This approval is only applicable to the type/model of aeronautical product specified therein. Prior to incorporating this modification, the installer shall establish that the interrelationship between this change and any other modification(s) incorporated will not adversely affect the airworthiness of the modified product.

*Chad J. Woodworth*  
Chad Woodworth  
For Minister of Transport

Canada



G500H Cockpit Display - GDU620 PFD/MFD

250-18799 Airport Way  
Pitt Meadows, BC  
Canada V3Y 2B4

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 ground features, as well as chart data, nav aids, 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.

## HSVT™ Synthetic Vision

For enhanced visual orientation, Garmin HSVT™ Helicopter Synthetic Vision Technology is also available as an optional upgrade to the G500H. Using sophisticated computer modeling to recreate a virtual topographic landscape from the system's terrain alerting database, HSVT gives helicopter pilots a clear depiction of ground and water features, airports, obstacles, traffic and more – all shown in 3-D perspective view on the primary flight display.

Garmin HSVT graphics look so real, it's almost like having a clear-day “out-the-window” view of your flight situation – even in the darkest nighttime VFR or other low-visibility conditions. Although synthetic vision is not intended to replace traditional

attitude and directional cues as a primary flight reference, it does augment the pilot's view of this data by providing a realistic visual frame of reference. For example, when flying in areas where rising terrain may pose a hazard, Garmin HSVT uses its database to “paint” the landscape with amber or red overlays showing where potential CFIT risks exist. Towers or obstacles that may encroach upon one's flight path are also colour-highlighted with hazard-appropriate symbology.



## 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 reference to ground-based nav aids. 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.



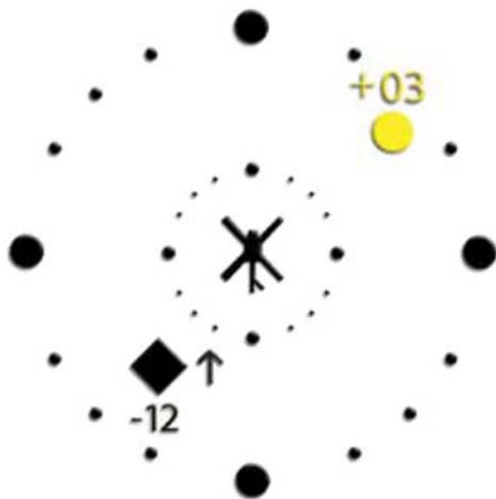
Garmin 400W Series Navigator

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.

## 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 +/- 10,000-foot 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.



GTS800 Traffic Pop-Up

## 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

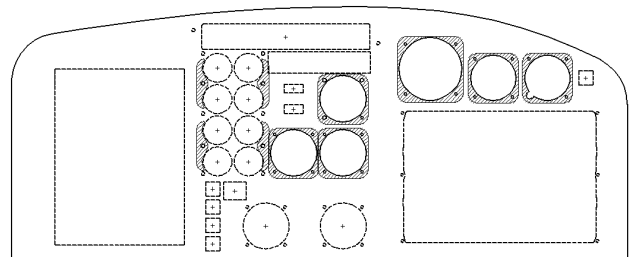
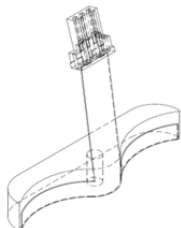
Installation of the SL40 provides a second lightweight 760 channel VHF-Com transceiver (118.000 – 136.976 MHz), active & standby frequencies, frequency memory and recall functions, automatic display intensity, back-lit buttons, stuck mic time-out, and TX status indicator.



Garmin SL40 VHF-Com Transceiver

## 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

## 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



EC130B4 with Garmin G500H, GNS430W, GTS800, RA-4500 & Customer Specified Avionics Package including GTN750

## Additional kits available

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

*Composite Video inputs (Tailboom %/or Cockpit Cameras)*

## Future Developments

*Garmin GRA 5500 Radar Altimeter*

## What's Next?

Our Maxcraft Design Services department independently develop STC packages. 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.