



THIS BULLETIN IS FAA APPROVED FOR ENGINEERING DESIGN

SUBJECT: All Mooney Aircraft equipped with Garmin G1000 are eligible for the Non-WAAS or WAAS Optional Upgrade Packages.

MODELS/ SN AFFECTED: **M20M:** 27-0318, 27-0326 thru 27-0355
M20R: 29-0333 thru 29-0525
M20TN: 31-0001 thru 31-0143

TIME OF COMPLIANCE: **At Owners Discretion**

INTRODUCTION: Three optional packages with available subscription services are offered for Mooney Aircraft models equipped with G1000. **Option 1 - Non-WAAS** contains software only. **Option 2 & 3 - WAAS Upgrade** - Wide Area Augmentation System (WAAS) contains Option 1 software and additional features which provides GPS precision approach capability.

GFC700 AFCS equipped aircraft will be able to couple with the Automatic Flight Control System (AFCS) for precision guidance approaches.

STEC AFCS equipped aircraft will receive information to operate manual precision guidance approaches at this time. Mooney owners with STEC AFCS equipped, will receive an upgrade path for coupled flight in a subsequent Service Bulletin. STEC aircraft with -13 or prior software, must comply with Garmin boot block File Update found in Service Bulletin M20-306B or later FAA approved revision.

INSTRUCTIONS: **Read entire procedures before beginning work.**

OPTION 1: Software only (Non-WAAS) (Available at most authorized Mooney Service Centers)

1. ChartView** and FliteChart** Capability
Safe Taxi**
TAWS** enhancements and fast inhibit capability
An alternate transponder code entry method using FMS knob
Victor and jet airways support
Modified software upload page (further simplifies software loads)
System Setup Page in Configuration Mode
GDU boot block v2.03 (or later version) Note: This is required but is not on the loader card. It is available via the dealer resource section of the Garmin Website.
GRS 77 SW v2.11
GTX 33 SW v5.01
Additional minor software changes (all LRU's except GMU 44)
GDL69A: Weather information will be upgraded with new software that will greatly enhance operation

(** Does not include service subscriptions nor unlock cards required for certain features)

OPTION 2: WAAS (Available at most authorized Mooney Service Centers)

1. Includes Option 1 software enhancements
Garmin G1000 hardware upgrades enabling:
TSO-C145a/C146a Class 3 WAAS
Enroute/terminal VNAV (descent only)
LPV + LNAV/VNAV approaches
Two year Vendor Warranty on GIA 63W

■ **OPTION 3: WAAS with Enroute Coupled VNAV (Available at most authorized Mooney Service Centers)**

1. Includes Option 1 software and Option 2 hardware upgrades.
Garmin G1000 hardware upgrades enabling.
Coupled VNAV feature for Enroute operations.

Additional Available Services

■ **Garmin TAWS B**

Unlock Card - Cost required

■ **Garmin Safe Taxi**

Unlock Card – N/A

Cost is a one time update fee or annual subscription fee.

■ **Garmin FliteChart**

Unlock Card – N/A

Cost is a one time update fee or annual subscription fee.

■ **Garmin Obstacles and Airport Directory**

Unlock Card - N/A

Cost is a one time update fee or annual subscription fee.

■ **Jeppesen ChartView**

Unlock Card - Cost required

Contact Jeppesen for details on subscription cost.

WARRANTY: N/A

- REFERENCE DATA:
1. Garmin G1000 Cockpit Reference Guide 190-00450-05 Revision A or Later FAA approved revision.
 2. Garmin G1000 System Maintenance Manual P/N 190-00907-00 Revision A or Later approved revision.

■ PARTS LIST: Mooney International Corporation, Service Bulletin Parts Kit(s):

<u>Item</u>	<u>P/N</u>	<u>Description</u>	<u>Qty</u>
1.	940171-501	Option 1 - NON-WAAS Kit	1
2.	940171-503	Option 2 - WAAS Kit	1
3.	940171-505	Option 3 - WAAS With Enroute/VNAV Kit	1