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SERVICE INFORMATION LETTER

Subject: RGS-2000NG Firmware and Manual updates
P/N – Material number 113956

This Service Information Letter (SIL) is to inform current users of the RGS-2000NG, SAP material number 113956 that a new revision of software is available to be installed in their unit.

This service information letter provides the user with the issues addressed and an orderly sequence of steps to perform the firmware update in the RGS-2000NG. The released version of the software is v20.02.2701.

The RGS-2000NG Operations and Getting Started manuals have also been updated to reflect changes like changing to the Viavi name, the addition of the new Honeywell TPU OEM and TXD OEM options, and other improvements listed below.

The new revision of the software addresses the following issues,

- Changed image from Aeroflex to VIAVI.
- Added option query (*OPT?) remote command.
- Added information to the Transponder main menu showing which remote command emulator is installed.
- Added ADS-B parameters to TCAS scenario waypoints.
- Automatically switch to frequency measurement when receiving RGS2000 remote commands "?FC" or A"?FE".
- Added capability to enter octal data with softkey associated with Mode A code in Block Transmission.
- Added window for Transponder percent reply measurement to avoid counting of Mode S squitters.
- Added capability for factory calibration of Transponder pulse width and spacing.
- Added capability for factory calibration of 1030/1090 Receiver MTL for top and bottom receivers.
- Added RGS2000 remote command "BTC".
- Added Honeywell TPU OEM.
- Added Honeywell TXD OEM and calibration table.
- Added RGS remote command to change intruder bearing while a scenario is running.
- Added RGS remote command for phase reversal width.
- Modified RGS command "?RP" to automatically change to relative phase measurement (not requiring a MOD command).
- Allowed RGS remote commands "CAF", "CBF" and "CCF" to change frequency when a scenario is running.
- Added capability to measure X pulse and created associated remote command.
- Added remote commands for waypoint position and time parameters.

- Added verification of OEM settings with the product key.
- Added decode of ATCRBS replies with SPR and/or X Bit on the bottom of the Transponder menu screen.
- Corrected Transponder UF0 "BD" field to allow full 8-bit data.
- Fixed problem with unit including messages not associated with interrogation when calculating percent reply in Transponder menu.
- Corrected issue where P6 width was changing whenever the SPR spacing was adjusted.
- Corrected issue where some commands were ignored when a high volume of commands were being sent to the RGS-2000NG.
- Corrected % reply calculation problem in Interrogation Table.
- Corrected issue in Double Interrogation Mode. If a Mode S interrogation was previously defined and it was changed to an ATCRBS interrogation the data in the interrogation column would remain that of the Mode S interrogation.
- Corrected issue where Single Interrogation was being limited to low power mode after boot-up or reset.
- Changed Reply Delay and Jitter data display. If no reply is received dashes (-----) will be display in the data fields.
- Corrected reply delay and jitter measurements when in Alternating Mode A/Mode C test mode.
- Corrected issue in RTCA DO 260 Test, Overlapping-Pulse Mode. Pulse width can now be set as wide as 124 us. DO-260 requires a 120 +/-1 us overlapping pulse.
- Modified the sync output to be associated only with the sync message in Double Interrogation or Interrogation Table modes.
- Corrected issue with DF21 message count on bottom antenna in Transponder menu.
- Corrected issue with TCAS scenario waypoints where time changing track or velocity stopped updating latitude and longitude parameters in position squitter.
- Corrected Transponder Menu issue when in Alternating Mode A/Mode C mode the displayed altitude or Mode A code was incorrect if either interrogation had the SLS pulse enabled.
- Corrected issue with Transponder, Double Interrogation, reply, scope trigger not at correct location when the two interrogations are set to different PRFs.
- Corrected issue in Transponder, Double Interrogation test mode. When measuring frequency of the second reply, measurement of any reply pulse resulted in the display of an "Out of Range" message.
- Corrected issue of unit returning "?" when :RGS:RESET command was sent.
- Increased the valid reply decode window in Transponder mode. Transponders with out of spec reply delay will now be counted.
- Corrected Transponder menu issue where reply delay calculations were not being made to replies received on the bottom antenna.
- Corrected Transponder menu issue where unit failing to measure F2 pulse frequency of Mode A replies.
- Corrected Transponder menu issue where transmissions stopped when P3 width set to 0 for Mode A/C/S All Call interrogations.
- Added Interrogation Table (Transponder) status command capability for burst mode (:RGS:XPDR:ITABLE:BURST?).
- Corrected problem with % reply calculation in Interrogation Table burst mode.

- Added remote command :RGS:XPDR:REPLY:CLEAR to reset/clear reply calculations in Transponder mode.
- Increased maximum Burst Mode PRF range to 10,000.
- Increased maximum Burst Mode interrogation count to 10,000.
- Increased maximum PRF in Interrogation Table mode to 10,000Hz.
- Corrected issue where unit stopped transmitting after approximately 10 minutes running in Transmission Block continuous mode.
- Corrected PRF accuracy issue at high PRF rates in Transponder Interrogation Table mode.
- Corrected Transponder Block mode problem where the number of block transmissions was not working.
- Corrected P1-to-P1 spacing problem. Interrogations would be transmitted simultaneously (overlapping) if spacing changed from the touch screen while Double mode active (TX=ON).

Materials required for the firmware upgrade:
USB Drive with version 20.02.2701 on it. The software is available for download from the Viavi Solutions website under the software tab on the RGS-2000NG webpage.
https://www.viavisolutions.com/en-us/software-download/rgs-2000ng-software

The following is the procedure for updating the operating firmware inside of the RGS-2000NG:

1) Power up unit and let it initialize.
2) Connect USB drive with wanted software to USB port on unit.
3) Touch the Windows Explorer File Folder at the bottom of the screen to open up File Manager.
4) Locate the RGS-2000NG software executable on the USB drive and double click on it.
5) The unit will then proceed to shut down the RGS-2000NG application to start the installation process. As the new software installs, its progress can be followed on the Software update screen.
6) Once installation is complete, the unit will reboot to the normal RGS-2000NG screen.