**Introductory note for FCC submission (ID : KLS–82-501)**

This submission contains details of the 'G4' 406MHz GPS EPIRB. This is a new product, based upon the existing E3 EPIRB (FCC ID: KLS-82-001), manufactured by McMurdo Ltd at their Rodney Road facility in Portsmouth, England.
This new product utilises the E3 EPIRB mechanics and has the same strobe, 406MHz and 121MHz circuitry.

The differences include:-

1) The addition of a daughter board to accommodate the GPS module and its associated interface circuitry.
2) A different microprocessor has been selected to cope with the additional software coding for the Location Protocols.
3) A GPS band patch antenna and associated LNA has been added to the existing strobe board. This is mounted next to the strobe tube and is concealed under the sealing gasket.
4) A green LED has been mounted next to the existing red LED to provide indication of correct GPS receiver operation
5) Finally in compliance with Cospas-Sarsat requirements the EPIRB transmit frequency has been changed to 406.028 MHz instead of 406.025 MHz.
This change of frequency has been discussed with Mr Frank Coperich at the FCC Labs and we understand that agreement has been obtained to allow a waiver for this frequency, pending proposed FCC rule changes under a current NPRM.

As the EPIRB mechanics, strobe, 121.5 MHz and 406 MHz circuits are unchanged from the McMurdo E3 EPIRB (FCC ID: KLS-82-001) a reduced set of tests was agreed with the USCG –G-MSE-4 (Commandant R. Markle). An RTCM Test Report and USCG Approval letter are included in this submission.

Cospas-Sarsat testing to T-007 was undertaken and a complete Test Report is available if required. A copy of the Cospas-Sarsat Type Approval Certificate is included with this submission.

Finally EMC testing has been carried out and copies of the results are again included with this submission.

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