TYPE APPROVAL CERTIFICATE

For a 406 Megahertz Distress Beacon for use with the Cospas-Sarsat Satellite System

Certificate Number: 252

Manufacturer: ACR Electronics, USA

Beacon Type: ELT (AF)

Beacon Model(s): C406-N, C406-N HM

Additional Names:

Test Laboratory: TUV PS, Fareham, UK

Dates of Test: April 2003, April 2005 – November 2006

Details of the beacon features and beacon battery are provided overleaf.

The Cospas-Sarsat Council hereby certifies that the 406 MHz Distress Beacon Model identified above is compatible with the Cospas-Sarsat System as defined in documents:

C/S T.001 Specification for Cospas-Sarsat 406 MHz Distress Beacon
Issue 3 – Rev. 6, October 2004

C/S T.007 Cospas-Sarsat 406 MHz Distress Beacon Type Approval Standard
Issue 3 – Rev. 11, October 2004

TAC 135 originally issued to Artex Aircraft Supplies Inc.: **28 April 2003**
Certificate TAC 135 amended: **19 August 2003 and 19 January 2007**
TAC 135 re-issued in the name of Wulfsberg Electronics: **1 June 2010**
TAC 135 re-issued in the name of ACR Electronics: **31 December 2011**
Additional TAC 252 issued**: 12 May 2014**

Steven W. Lett
Head of Cospas-Sarsat Secretariat

NOTE, HOWEVER:

1. This certificate does not authorize the operation or sale of any 406 MHz distress beacon. Such authorization may require type acceptance by national administrations in countries where the beacon will be distributed, and may also be subject to national licensing requirements.

2. This certificate is intended only as a formal notification to the above identified manufacturer that the Cospas-Sarsat Council has determined, on the basis of test data of a beacon submitted by the manufacturer, that 406 MHz distress beacons of the type identified herein meet the standards for use with the Cospas-Sarsat System.

3. Although the manufacturer has formally stated that all beacons identified with the above model name(s) will meet the Cospas-Sarsat specification referenced above, this certificate is not a warranty and Cospas-Sarsat hereby expressly disclaims any and all liability arising out of or in connection with the issuance, use or misuse of the certificate.

4. This certificate is subject to revocation by the Cospas-Sarsat Council should the beacon type for which it is issued cease to meet the Cospas-Sarsat specification. A new certificate may be issued after satisfactory corrective action has been taken and correct performance demonstrated in accordance with the Cospas-Sarsat Type Approval Standard.

5. Cospas-Sarsat type approval testing requirements only address the electrical performance of the beacon at 406 MHz. Conformance of the beacon to operational and environmental requirements is the responsibility of national administrations.

Certificate Number: 252 **Dated: 12 May 2014**

Beacon Model(s): C406-N, C406-N HM

Operating temperature range: -20°C to +55°C (Class-2)

Operating Lifetime: 24 hours

Transmit Frequency: 406.028 MHz

Battery Details: battery pack of 4 (four) Lithium-Manganese Dioxide D-type cells:
- Blue Star LM-3455, replaced by Eagle Pitcher LM-3355 (from 2002)
- Ultralife U3360H (UK cells)
- Ultralife U10016, U10015, U10014, U10013 (US cells)

Beacon Model Features:

- 121.5/243 MHz auxiliary radio locating device (100 mW, continuous duty cycle with 1 sec pause during every 406 MHz burst);
- External navigation device;
- Automatic activation via G-switch;
- Self-test mode (one burst of 440 ms or 520 ms, subject to format flag bit);
- Program adapter to code aircraft 24-bit address and tail number identification;
- Approved with Sorep module (P/N 452-0124) or Atlantic RF module (P/N 452-0124);
- Approved for use with external aircraft antennae: rod (P/N 110-338), blade (110-340 and 110-341) and whip (P/N 110-343).

Approved Beacon Message Protocols: Beacon is approved for encoding with the message protocols indicated with "Yes" and black text below:

USER PROTOCOLS		USER-LOCATION PROTOCOLS		LOCATION PROTOCOLS	
No	Maritime with MMSI	No	Maritime with MMSI	No	Standard Location: EPIRB with MMSI
No	Maritime with Radio Call Sign	No	Maritime with Radio Call Sign	No	Standard Location: EPIRB with Serial Number
No	EPIRB Float Free with Serial Number	No	EPIRB Float Free with Serial Number	**Yes**	**Standard Location: ELT with 24-bit Address**
No	EPIRB Non Float Free with Serial Number	No	EPIRB Non Float Free with Serial Number	No	Standard Location: ELT with Aircraft Operator Designator
No	Radio Call Sign	No	Radio Call Sign	**Yes**	**Standard Location: ELT with Serial Number**
Yes	**Aviation**	**Yes**	**Aviation**	No	Standard Location: PLB with Serial Number
Yes	**ELT with Serial Number**	No	ELT with Serial Number	No	National Location: EPIRB
No	ELT with Aircraft Operator and Serial Number	No	ELT with Aircraft Operator and Serial Number	**Yes**	**National Location: ELT**
Yes	**ELT with Aircraft 24-bit Address**	No	ELT with Aircraft 24-bit Address	No	National Location: PLB
No	PLB with Serial Number	No	PLB with Serial Number		
No	National (Short Format Message)				
No	National (Long Format Message)				