

Operating temperature range: -20°C to +55°C

Operating lifetime: 24 hours

Transmit frequency: 406.028 MHz

Battery details: battery pack of 4 (four) D-type cells:  
 - Lithium Sulphur Dioxide, SAFT LO26SXC or  
 - Lithium Manganese Dioxide, SAFT LM33600; or  
 - Lithium Manganese Dioxide, Ultralife U10014.

#### Beacon model features:

- 121.5/243 MHz auxiliary radio locating device (100 mW, homer duty cycle 40 %);
- Interface to external navigation device;
- Automatic activation via G-switch<sup>(1)</sup>;
- Self-test mode (one burst 520 ms or 440 ms, subject to format flag);
- ELT Remote Unit (P/N 450004) and Remote Audio Buzzer Monitor (P/N 451018)<sup>(1)</sup>;
- Approved for use with external aircraft antennae: blade (AK 451.017-3A), rod (AK 451.017-2A) and whip (AK 451.017-1B)<sup>(1)</sup>;
- Approved for use with detachable portable whip antenna, AK 451.017-4(S)<sup>(2)</sup>.

#### 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	Yes 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	Yes Standard Location: PLB with Serial Number <sup>(3)</sup>
Yes ELT with Serial Number	Yes ELT with Serial Number	No National Location: EPIRB
Yes ELT with Aircraft Operator and Serial Number	Yes ELT with Aircraft Operator and Serial Number	Yes National Location: ELT
Yes ELT with Aircraft 24-bit Address	Yes ELT with Aircraft 24-bit Address	Yes National Location: PLB <sup>(3)</sup>
Yes PLB with Serial Number <sup>(3)</sup>	Yes PLB with Serial Number <sup>(3)</sup>	
Yes National (Short Format Message)		
Yes National (Long Format Message)		

NOTES: <sup>(1)</sup> applicable only to models AK-451(AF) and AK-451(AP);

<sup>(2)</sup> applicable only to models AK-451(S) and AK-451-PLB;

<sup>(3)</sup> applicable only to model AK-451-PLB.



## TYPE APPROVAL CERTIFICATE

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

**Certificate Number: 179**

**Manufacturer:** Ameri-King Corporation, USA  
**Beacon Type:** ELT (AF)/(AP)/(S) and PLB  
**Beacon Model(s):** AK-451(AF), AK-451(AP), AK-451(S), AK-451-PLB  
**Test Laboratory:** Intespace, Toulouse, France  
**Dates of Test:** June – October 2006, June – July 2007

Details of the beacon features and battery type 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. 7, November 2005  
C/S T.007 Cospas-Sarsat 406 MHz Distress Beacon Type Approval Standard  
Issue 4 – Rev. 1, October 2006

**Date Originally Issued: 24 September 2007**

A handwritten signature in black ink, appearing to read "D. Levesque", written over a horizontal line.

D. Levesque  
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.

CS07/268/F510 (Ameri-King Corp)

16 October 2007

Mr. Keith Van  
Ameri-King Corporation  
17881 Sampson Lane  
Huntington Beach  
CA 92646  
USA

Dear Mr. Van

**Subject: Cospas-Sarsat Type Approval Certificate No 179 (English)**

I have pleasure of informing you that the subject Cospas-Sarsat Beacon Models: AK-451(AF), AK-451(AP), AK-451(S) and AK-451-PLB, have now been Cospas-Sarsat Type Approved.

In this respect please find enclosed the original Cospas-Sarsat Type Approval Certificate No. 179 for the above model in English together with three certified copies, and copies of the beacon model report that is published to the Cospas-Sarsat website.

Please let us know if you wish to receive the French and Russian versions of this certificate.

The Secretariat remains at your disposal for any further assistance you may require.

Yours sincerely



Andrey Zhitenov  
Technical Officer

Encls: Original certificate no 179 (English) plus three certified copies.

cc: The Cospas-Sarsat Parties (Canada, France, Russia and USA)  
Beacon Test Facility (Intespace, Toulouse, France).