

# SGS

Certificate AU97/0906

The management system of

## Standard Communications Pty Ltd

6 Frank Street, Gladesville, NSW 2111  
Australia



has been assessed and certified as meeting the requirements of

## AS/NZS ISO 9001:2000

For the following activities

**The manufacture of electronic communications equipment.**

This certificate is valid from 02/05/2006 until 02/05/2009  
Issue 4. Certified since April 1997

Authorised by

A handwritten signature in black ink, appearing to read "Neil Wilby".

JAS-ANZ



Accredited by the  
Joint Accreditation System of  
Australia and New Zealand  
Acc. No. 0137079AS (QMS)  
01530196AS (EMS)  
01731087AS (HACCP)  
0180299AS (OHS)  
22030103AS (Product)

Page 1 of 1



SGS Systems & Services Certification Pty Ltd  
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t +61 3 97903400 f +61 3 9701 0588 www.au.sgs.com

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**MARINE DIVISION**  
17 Bis Place des Reflets - La Défense 2  
92400 Courbevoie - France  
Tel. 33 1 42 91 53 48  
Fax 33 1 42 91 28 94



Certificate number

SMS.W.I.CE.D/22643/A.3



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## QUALITY SYSTEM APPROVAL

**This is to certify that the Quality System of :**

**Standard Communications Pty Ltd**

**is approved according to the European Council Directive 96/98 EC on Marine  
Equipment, as amended  
for Module D  
Production Quality Assurance**

**Works address :**

Gladesville - Australia

**Item designation(s)** (as detailed in the attached Schedule of Approval) :

406 MHZ EPIRB ( COSPAS- SARTS ) (A1506)

This Approval will remain valid provided that the periodical audits and inspections are carried out by Bureau Veritas as stated in the mutual Agreement.

**The Approval is valid until : 12/05/2008**

For BUREAU VERITAS

Florin Zaharia

On : 21/08/2006

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This certificate is delivered within the scope of the General Conditions of BUREAU VERITAS Marine Division. Any Person not a party to the contract pursuant which this document is delivered may not assert a claim against BUREAU VERITAS for any liability arising out of errors or omissions which may be contained in said document, or for errors of judgment, fault or negligence committed by personnel of the Society or of its Agents in establishment or issuance of this document, and in connection with any activities for which it may provide.

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BV Mod. Ad.E 618 - (07/04)

## BEACON QUALITY ASSURANCE PLAN

We, manufacturer of Cospas-Sarsat 406 MHz beacons (Manufacturer name and address)

**STANDARD COMMUNICATIONS PTY LTD**

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**6 Frank St. Gladesville, NSW Australia**

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confirm that ALL PRODUCTION UNITS of the following beacon model(s),

**MT403, Part Number MT403**

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(model, part number)

will meet the Cospas-Sarsat specification and technical requirements in a similar manner to the units subjected for type approval testing: HW P/N MT403, FW P/N & Ver OS0012.1.03. To this effect all production units will be subjected to following tests at ambient temperature:

- Digital message
- Bit rate
- Rise and fall times of the modulation waveform
- Modulation Index (positive/negative)
- Output power
- Frequency stability (short, medium)\*

Note\*: Beacon manufacturer shall provide technical data on the beacon frequency generation to demonstrate that the frequency stability tests at ambient temperature are sufficient for ensuring that each production beacon will exhibit frequency stability performance similar to the beacon submitted for type approval over the complete operating temperature range. If such assurance of adequate performance over the complete operating temperature range cannot be deduced from the technical data provided and the frequency stability test results at ambient temperature, a thermal gradient test shall be performed on all production units.

- Other tests:

***Full circuit level performance test of card assembly using Bed-of-Nails to assess voltage, current, frequency etc, as relevant, to all critical test nodes.***

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***Alignment and verification using a complete thermal gradient cycle with maximum and minimum temperature extremes which are in excess of those specified for Class 2 operation.***

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We confirm that the above tests will be performed as appropriate to ensure that the complete beacon satisfies Cospas-Sarsat requirements, as demonstrated by the test unit submitted for type approval.

We agree to keep the test result sheet of every production beacon for inspection by Cospas-Sarsat, if required, for a minimum of 10 years.

We confirm that Cospas-Sarsat representative(s) have the right to visit our premises to witness the production and testing process of the above-mentioned beacons. We understand that the cost related to the visit is to be borne by Cospas-Sarsat.

We also accept that, upon official notification of Cospas-Sarsat, we may be required to re-submit a unit of the above beacon model selected by Cospas-Sarsat for the testing of parameters chosen at Cospas-Sarsat discretion at a Cospas-Sarsat accepted test facility selected by the Cospas-Sarsat. We understand that the cost of the testing shall be borne by Cospas-Sarsat.

We understand that the Cospas-Sarsat Type Approval Certificate is subject to revocation should the beacon type for which it was issued, or its modifications, cease to meet the Cospas-Sarsat specifications, or Cospas-Sarsat has determined that this quality assurance plan is not implemented in a satisfactory manner.



**20th December 2007**

Dated:.....

**CRAIG DUNCAN, Project Engineering Manager**

Signed:.....

(Name, Position and Signature of Beacon Manufacturer Representative)

## BEACON QUALITY ASSURANCE PLAN

We, manufacturer of Cospas-Sarsat 406 MHz beacons (Manufacturer name and address)

**STANDARD COMMUNICATIONS PTY LTD**

---

**6 Frank St. Gladesville, NSW Australia**

---

confirm that ALL PRODUCTION UNITS of the following beacon model(s),

**MT403G, Part number MT403G**

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(model, part number)

will meet the Cospas-Sarsat specification and technical requirements in a similar manner to the units subjected for type approval testing: HW P/N MT403G, FW P/N & Ver OS0012.1.03. To this effect all production units will be subjected to following tests at ambient temperature:

- Digital message
- Bit rate
- Rise and fall times of the modulation waveform
- Modulation Index (positive/negative)
- Output power
- Frequency stability (short, medium)\*

Note\*: Beacon manufacturer shall provide technical data on the beacon frequency generation to demonstrate that the frequency stability tests at ambient temperature are sufficient for ensuring that each production beacon will exhibit frequency stability performance similar to the beacon submitted for type approval over the complete operating temperature range. If such assurance of adequate performance over the complete operating temperature range cannot be deduced from the technical data provided and the frequency stability test results at ambient temperature, a thermal gradient test shall be performed on all production units.

- Other tests:

***Full circuit level performance test of card assembly using Bed-of-Nails to assess voltage, current, frequency etc, as relevant, to all critical test nodes.***

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***Alignment and verification using a complete thermal gradient cycle with maximum and minimum temperature extremes which are in excess of those specified for Class 2 operation.***

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***GPS receiver signal acquisition using satellite simulator.***

---

We confirm that the above tests will be performed as appropriate to ensure that the complete beacon satisfies Cospas-Sarsat requirements, as demonstrated by the test unit submitted for type approval.

We agree to keep the test result sheet of every production beacon for inspection by Cospas-Sarsat, if required, for a minimum of 10 years.

We confirm that Cospas-Sarsat representative(s) have the right to visit our premises to witness the production and testing process of the above-mentioned beacons. We understand that the cost related to the visit is to be borne by Cospas-Sarsat.

We also accept that, upon official notification of Cospas-Sarsat, we may be required to re-submit a unit of the above beacon model selected by Cospas-Sarsat for the testing of parameters chosen at Cospas-Sarsat discretion at a Cospas-Sarsat accepted test facility selected by the Cospas-Sarsat. We understand that the cost of the testing shall be borne by Cospas-Sarsat.

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**20th December 2007**

**CRAIG DUNCAN, Project Engineering Manager**

Dated:.....

Signed:.....

(Name, Position and Signature of Beacon Manufacturer Representative)

## BEACON QUALITY ASSURANCE PLAN

We, manufacturer of Cospas-Sarsat 406 MHz beacons (Manufacturer name and address)

**STANDARD COMMUNICATIONS PTY LTD**

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**6 Frank St. Gladesville, NSW Australia**

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confirm that ALL PRODUCTION UNITS of the following beacon model(s),

**MT403FF, Part Number MT403FF**

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(model, part number)

will meet the Cospas-Sarsat specification and technical requirements in a similar manner to the units subjected for type approval testing: HW P/N MT403FF, FW P/N & Ver OS0012.1.03. To this effect all production units will be subjected to following tests at ambient temperature:

- Digital message
- Bit rate
- Rise and fall times of the modulation waveform
- Modulation Index (positive/negative)
- Output power
- Frequency stability (short, medium)\*

Note\*: Beacon manufacturer shall provide technical data on the beacon frequency generation to demonstrate that the frequency stability tests at ambient temperature are sufficient for ensuring that each production beacon will exhibit frequency stability performance similar to the beacon submitted for type approval over the complete operating temperature range. If such assurance of adequate performance over the complete operating temperature range cannot be deduced from the technical data provided and the frequency stability test results at ambient temperature, a thermal gradient test shall be performed on all production units.

- Other tests:

***Full circuit level performance test of card assembly using Bed-of-Nails to assess voltage, current, frequency etc, as relevant, to all critical test nodes.***

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***Alignment and verification using a complete thermal gradient cycle with maximum and minimum temperature extremes which are in excess of those specified for Class 2 operation.***

---

We confirm that the above tests will be performed as appropriate to ensure that the complete beacon satisfies Cospas-Sarsat requirements, as demonstrated by the test unit submitted for type approval.

We agree to keep the test result sheet of every production beacon for inspection by Cospas-Sarsat, if required, for a minimum of 10 years.

We confirm that Cospas-Sarsat representative(s) have the right to visit our premises to witness the production and testing process of the above-mentioned beacons. We understand that the cost related to the visit is to be borne by Cospas-Sarsat.

We also accept that, upon official notification of Cospas-Sarsat, we may be required to re-submit a unit of the above beacon model selected by Cospas-Sarsat for the testing of parameters chosen at Cospas-Sarsat discretion at a Cospas-Sarsat accepted test facility selected by the Cospas-Sarsat. We understand that the cost of the testing shall be borne by Cospas-Sarsat.

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**20th December 2007**

**CRAIG DUNCAN, Project Engineering Manager**

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Signed:.....

(Name, Position and Signature of Beacon Manufacturer Representative)



## BEACON QUALITY ASSURANCE PLAN

We, manufacturer of Cospas-Sarsat 406 MHz beacons (Manufacturer name and address)

**STANDARD COMMUNICATIONS PTY LTD**

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**6 Frank St. Gladesville, NSW Australia**

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confirm that ALL PRODUCTION UNITS of the following beacon model(s),

**MT403FG, Part Number MT403FG**

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(model, part number)

will meet the Cospas-Sarsat specification and technical requirements in a similar manner to the units subjected for type approval testing: HW P/N MT403FG, FW P/N & Ver OS0012.1.03. To this effect all production units will be subjected to following tests at ambient temperature:

- Digital message
- Bit rate
- Rise and fall times of the modulation waveform
- Modulation Index (positive/negative)
- Output power
- Frequency stability (short, medium)\*

Note\*: Beacon manufacturer shall provide technical data on the beacon frequency generation to demonstrate that the frequency stability tests at ambient temperature are sufficient for ensuring that each production beacon will exhibit frequency stability performance similar to the beacon submitted for type approval over the complete operating temperature range. If such assurance of adequate performance over the complete operating temperature range cannot be deduced from the technical data provided and the frequency stability test results at ambient temperature, a thermal gradient test shall be performed on all production units.

- Other tests:

***Full circuit level performance test of card assembly using Bed-of-Nails to assess voltage, current, frequency etc, as relevant, to all critical test nodes.***

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***Alignment and verification using a complete thermal gradient cycle with maximum and minimum temperature extremes which are in excess of those specified for Class 2 operation.***

---

***GPS receiver signal acquisition using satellite simulator.***

---

We confirm that the above tests will be performed as appropriate to ensure that the complete beacon satisfies Cospas-Sarsat requirements, as demonstrated by the test unit submitted for type approval.

We agree to keep the test result sheet of every production beacon for inspection by Cospas-Sarsat, if required, for a minimum of 10 years.

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