FAQ for Ship Security Alert System (SSAS)

1. Is the SSAS by Inmarsat-C/Mini-C allowed?

Yes!

SSAS with use of Inmarsat-C/Mini-C is allowed. We herewith remind all of you that:

FURUNO's **FELCOM 15 SSAS** version (based on Inmarsat-C) and **FELCOM 16 SSAS** version (based on Mini-C) **HAVE ALREADY BEEN TYPE-APPROVED** by Inmarsat. T/A certificate is attached.

---Shipment of FURUNO SSAS---

Shipment of FURUNO SSAS starts from April.

2. Is the WHEEL MARK needed?

No. Not needed right now.

3. How is the SSAS alert message routed?

If either Inmarsat-C, Mini-C or D+ is selected as SSAS solution, the Inmarsat's "messaging capability" is used for SSAS alert message routing.

These systems have "Routine Priority Messaging" function which allows delivering messages to any address. With use of this function, SSAS alert message can be delivered from the ship to the address specified by "Flag Administration". Using this function with Inmarsat-C and Mini-C has been confirmed and agreed in the IMO COMSAR8 meeting held on 16 to 20 February 2004.

With the FURUNO FELCOM 15 SSAS and FELCOM 16 SSAS, the SSAS alert message can be transferred to up to five user-defined recipients including the Flag Administration by using E-mail, FAX, Telex, PSDN, DNID or SPEC. The contents of SSAS alert message can be preset on menu, depending on the requirements of Flag Administrations.

4. What is CN137 (Change Notice 137)?

Someone says Inmarsat-C without CN137 compliance cannot be used for SSAS. This is NOT TURE. As mentioned in the above, SSAS with Inmarsat-C/Mini-C solution has been confirmed in the IMO COMSAR8 meeting. In addition, FURUNO FELCOM15 SSAS and FELCOM 16 SSAS have been type-approved by Inmarsat.

4.1. What is CN137?   What was agreed in the IMO COMSAR8 meeting?

Please see the attached announcement from Inmarsat.

4.2. What did FURUNO do upon the result of the COMSAR8 meeting?

FURUNO had prepared two versions each for FECLOM15 SSAS and FELCOM16 SSAS before Inmarsat T/A and COMSAR8 meeting. These were:
- CN137 compliant version
- Without CN137 version. Software that allows delivering SSAS alert message to Flag Administration by using Routine Priority Messaging function in FURUNO's proprietary way.

Both of the above versions have been type-approved by Inmarsat before COMSAR8 meeting but, FELCOM15 SSAS and FELCOM16 SSAS without CN137 will be shipped in accordance with the result of COMSAR8 meeting.

4.3. Will the CN137 be agreed by IMO in the future?

Maybe not. If something happens after implementing SSAS, this might be discussed again in the IMO meeting. FURUNO SSAS is ready for CN137 by updating software. If CN137 is agreed, the FELCOM15 SSAS and FELCOM16 SSAS can be quickly updated.

5. Upgrading the installed Inmarsat-C is possible?

Yes. With FURUNO FELCOM 12 (SSAS T/A not yet), and FELCOM 15, by just updating software and adding alert units, these systems can be upgraded to SSAS. However for FELCOM 10 and 11, upgrading to SSAS is not supported.

IMO clarifies Ship Security Alert System (SSAS) requirements

Following the recent COMSAR 8 meetings at the International Maritime Organisation (IMO) on 16th to 20th February 2004, it is now clear that several flag administrations will not permit non-flag Ship Security Alert System (SSAS) alerts to be received at their respective rescue co-ordination centres. This means that distress-priority SSAS alerting, known as Inmarsat CN137, will not now be implemented.

However, Inmarsat is pleased to advise that a full suite of Inmarsat SSAS solutions based on messaging capabilities is already available. All of these systems meet the requirements of IMO, as specified in Regulation 6 of SOLAS Chapter XI-2 and subsequently clarified by IMO COMSAR 8.

A wide choice of SSAS solutions is available through Inmarsat C, Inmarsat mini-C or Inmarsat D+. All of these approved Inmarsat systems use the same satellite network that is trusted to provide better than 99.9% availability for the Global Maritime Distress and Safety System (GMDSS).

Inmarsat C, mini-C and D+ offer routine priority messaging solutions that can send an SSAS alert to any address. Flag administrations can specify the address (or even multiple addresses) for delivery of the SSAS alert message from the ship. SSAS alert messages can delivered via telex, fax, email, &c.

The deadline for the fitting of SSAS equipment is fast approaching, and there is an Inmarsat solution that fulfils every known requirement for SSAS.

- ends -

Type Approval Particulars
Inmarsat-C MES

MES Model:	**Felcom 15**
Manufacturer:	**Furuno**
T.A.P. Number:	**TA-04-089-03**
Certificate Number:	**IT-04-089-01**
Issue Date:	**12th February 2004**

DCE Software Version Number:	1650159-03
DTE Software Version Number:	1650162-03
Additional DTE Software Version Number:	1650164-01

CATEGORY	ELEMENTS	STATUS

1 MES TYPE		
1a	Pre CN114 GMDSS Maritime MES Category 1	
1b	SOLAS SES with Distress calling	✓
1c	SOLAS SES without Distress calling	
1d	NON-SOLAS SES with Distress calling	
1e	NON-SOLAS SES without Distress calling	
1f	Land Mobile Earth Station (for installation on vehicle)	
1g	Land Portable Earth Station	
1h	SCADA (unattended operation)	
1i	Aero-C	
1j	Others	

2 MES CLASS		
2a	Class 0 (stand-alone EGC or add-on to Inmarsat-A, -B, -M, etc.)	
2b	Class 1 (no EGC capability)	
2c	Class 2 (Inmarsat-C and EGC)	✓
2d	Class 3 (simultaneous Inmarsat-C and EGC)	

This MES includes an integrated GPS receiver. The Inmarsat Type Approval certifies that the MES meets all Inmarsat-C technical requirements whilst the GPS receiver is in operation. The operation and performance of the GPS receiver is not included in Inmarsat's Type Approval tests and these Type Approval Particulars do not imply any approval of the GPS receiver.

This MES includes a manufacturer's proprietary SSAS messaging application. The Inmarsat Type Approval certifies that this SSAS messaging application does not impair any of the Inmarsat-C services supported by the MES as listed in these Type Approval Particulars. The operation and performance of the SSAS messaging application is not included in Inmarsat's Type Approval tests and these Type Approval Particulars do not imply any approval of the SSAS messaging application.

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3	ANTENNA TYPE	
3a	Omnidirectional	✓
3b	Optimised (usable elevation angles) G/T	
3c	Directional G/T	
3d	Others	

4	UNIT CONFIGURATION	
4a	Seperate antenna, combined DCE and DTE	✓
4b	Seperate antenna, DCE, DTE	
4c	Combined antenna and DCE, seperate DTE	
4d	Combined antenna, DCE and DTE	
4e	Integrated GPS	✓
4f	Maximum cable length between antenna and DCE	100m
4g	Remote distress button	Note 1
4h	Remote audible alarm	Note 2
4i	Character display (CRT, LCD, etc.)	LCD
4j	Others	

5	MESSAGE PROTOCOL	
5a	Store-and-forward	✓
5b	Prefixed store-and-forward	✓
5c	Multi-addressing	✓
5d	Network access: Telex	✓
5e	PSDN	✓
5f	PSTN	✓
5g	MHS (X.400)	✓
5h	Closed network	✓
5i	Special access code, 2 digits	✓
5j	Special access code, more than 2 digits	max 6 digits
5k	Presentation codes: IA5	✓
5l	ITA2	✓
5m	Data	✓
5n	Maximum transmit message length	32K bytes
5o	Message storage capability	32K bytes

6	DISTRESS ALERTING PROTOCOL	
6a	Maritime	✓
6b	Land Mobile	

7	DATA REPORTING PROTOCOL	
7a	DCE configuration I [sub-address ≡ physical port](no. of ports)	
7b	DCE configuration II [sub-address ≡ logical port]	
7c	DCE configuration I and II (no. of ports)	2 ports
7d	Unreserved	✓
7e	Program reserved	✓
7f	Program unreserved	✓
7g	Macro Encoded Messages	✓
7h	Data	✓
7i	Download/delete DNID	✓
7j	Position reporting	✓
7k	Sub-addressing	✓
7l	Support VMS	✓

8 POLLING PROTOCOL		
8a	Individual poll	✓
8b	Group poll	✓
8c	Area poll	✓
8d	Unreserved	✓
8e	Program reserved	✓
8f	Program unreserved	✓
8g	Macro Encoded Messages	✓
8h	Data	✓
8i	Download/delete DNID	✓
8j	Maximum no. of DNIDs stored/no. of characters	Max 64

9 EGC PROTOCOL		
9a	System EGC	✓
9b	SafetyNET	✓
9c	FleetNET	✓
9d	Presentation code IA5	✓
9e	ITA2	✓
9f	Data	✓
9g	Message storage capacity on EGC reception	32K bytes
9h	Maximum number of ENIDs stored/no. of characters	64
9i	FleetNET reception in restoration mode	✓
9j	Automatic identification of NAVAREA code from position	✓
9k	Automatic identification of WMO/IHO chart area from position	
9l	Simultaneous entry of NAVAREA codes	✓
9m	Simultaneous entry of NAVTEX codes	✓
9n	Simultaneous reception of EGC messages	✓

10 INTERFACES		
10a	DCE-DTE interface: RS232-C	✓
10b	RS-449	
10c	Others	
10d	Inmarsat recommended DCE-DTE interface control codes	✓
10e	Navigational interface: NMEA0183	✓
10f	Others	
10g	Printer interface (RS232/Centronix/others)	Centronix RS232C for PP505

11 POSITION UPDATING		
11a	Automatic	✓
11b	Manual	✓

12 SCANNING		
12a	NCS scanning on BBER: Automatic (Pre-CN114 Maritime only)	
12b	Manual	✓
12c	Others	

13 AS REQUIRED FOR SOLAS (GMDSS) COMPLIANCE Not applicable for Land Mobile Earth Stations*		
13a	DCE	✓
13b	DTE	✓
13c	Printer	✓
13d	Others	Remote button

13 PRE-CHANGE NOTE 114 GMDSS COMPLIANCE Not applicable for Land Mobile Earth Stations		
13i	DCE	
13ii	DTE	
13iii	Printer	
13iv	Others	

14 POWER SUPPLY		
14a	AC	
14b	DC	✓
14c	Built-in battery	

15 ENVIRONMENTAL CONDITIONS*		
15a	As required for SOLAS (GMDSS)	✓
15b	PRE-CN114 SOLAS (GMDSS)	
15c	for Inmarsat-C LMES	
15d	for Inmarsat-C LPES	
15e	for Aeronautical MES	
15f	Ice	✓
15g	Rain	✓
15h	Wind	✓
15i	Solar radiation	✓
15j	Mechanical shock	✓

16 EMC COMPLIANCE*	
16a	Details attached
	IEC 60945 certified by Labotech Report FLI 12-02-047

17 DTE	
17a	Models name and number
	DCE/DTE: IC 215
	IBM-PC compatible for additional port
	Printer PP510 (Seiko)
	PP505 (Furuno)

18 OEM	
18a	Models name and number

19 COMMENTS	
19a	Note 1: IC 305 – Remote Distress Alert Button
	DMC-5
	Note 2: IC 306 – MES Alarms & Incoming Messages

*   Note any national / international regulatory type authority documentation used for compliance.

Agreed on behalf of Inmarsat:

Date: 12th February 2004

Ian Cooper
Manager, Land Mobile & Leasing
Product Portfolio Management

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inmarsat

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Type Approval Particulars
Inmarsat Mini-C MES

MES Model:	**Felcom 16**
Manufacturer:	**Furuno**
T.A.P. Number:	**04**
Certificate Number:	**4FE088**
Issue Date:	**11th February 2004**

DCE Software Version Number: 1650160-03
DTE Software Version Number: 1650166-03

CATEGORY	ELEMENTS	STATUS

1 MES TYPE		
1a	Pre CN114 GMDSS Maritime MES Category 1	
1b	SOLAS SES with Distress calling	
1c	SOLAS SES without Distress calling	
1d	NON-SOLAS SES with Distress calling	
1e	NON-SOLAS SES without Distress calling	✓
1f	Land Mobile Earth Station (for installation on vehicle)	
1g	Land Portable Earth Station	
1h	SCADA (unattended operation)	
1i	Aero-C	
1j	Others	

2 MES CLASS		
2a	Class 0 (stand-alone EGC or add-on to Inmarsat-A, -B, -M, etc.)	
2b	Class 1 (no EGC capability)	
2c	Class 2 (Inmarsat-C and EGC)	✓
2d	Class 3 (simultaneous Inmarsat-C and EGC)	

This MES includes an integrated GPS receiver. The Inmarsat Type Approval certifies that the MES meets all Inmarsat-C technical requirements whilst the GPS receiver is in operation. The operation and performance of the GPS receiver is not included in Inmarsat's Type Approval tests and these Type Approval Particulars do not imply any approval of the GPS receiver.

This MES includes a manufacturer's proprietary SSAS messaging application. The Inmarsat Type Approval certifies that this SSAS messaging application does not impair any of the Inmarsat-C services supported by the MES as listed in these Type Approval Particulars. The operation and performance of the SSAS messaging application is not included in Inmarsat's Type Approval tests and these Type Approval Particulars do not imply any approval of the SSAS messaging application.

3	ANTENNA TYPE	
3a	Omnidirectional	✓
3b	Optimised (usable elevation angles) G/T	
3c	Directional G/T	
3d	Others	

4	UNIT CONFIGURATION	
4a	Separate antenna, combined DCE and DTE	
4b	Separate antenna, DCE, DTE	✓
4c	Combined antenna and DCE, separate DTE	
4d	Combined antenna, DCE and DTE	
4e	Integrated GPS	✓
4f	Maximum cable length between antenna and DCE	
4g	Remote distress button	
4h	Remote audible alarm	
4i	Character display (CRT, LCD, etc.)	
4j	Others	

5	MESSAGE PROTOCOL	
5a	Store-and-forward	✓
5b	Prefixed store-and-forward	✓
5c	Multi-addressing	✓
5d	Network access: Telex	✓
5e	PSDN	✓
5f	PSTN	✓
5g	MHS (X.400)	
5h	Closed network	✓
5i	Special access code, 2 digits	✓
5j	Special access code, more than 2 digits	✓
5k	Presentation codes: IA5	✓
5l	IA2	✓
5m	Data	✓
5n	Maximum transmit message length	32K bytes
5o	Message storage capability	32K bytes

6	DISTRESS ALERTING PROTOCOL	
6a	Maritime	
6b	Land Mobile	

7	DATA REPORTING PROTOCOL	
7a	DCE configuration I [sub-address ≡ physical port](no. of ports)	
7b	DCE configuration II [sub-address ≡ logical port]	
7c	DCE configuration I and II (no. of ports)	1 port
7d	Unreserved	✓
7e	Program reserved	✓
7f	Program unreserved	✓
7g	Macro Encoded Messages	✓
7h	Data	✓
7i	Download/delete DNID	✓
7j	Position reporting	✓
7k	Sub-addressing	✓
7l	Support VMS	✓

8	POLLING PROTOCOL	
8a	Individual poll	✓
8b	Group poll	✓
8c	Area poll	✓
8d	Unreserved	✓
8e	Program reserved	✓
8f	Program unreserved	✓
8g	Macro Encoded Messages	✓
8h	Data	✓
8i	Download/delete DNID	✓
8j	Maximum no. of DNIDs stored/no. of characters	Max 64

9	EGC PROTOCOL	
9a	System EGC	✓
9b	SafetyNET	✓
9c	FleetNET	✓
9d	Presentation code IA5	✓
9e	ITA2	✓
9f	Data	✓
9g	Message storage capacity on EGC reception	32K bytes
9h	Maximum number of ENIDs stored/no. of characters	64
9i	FleetNET reception in restoration mode	✓
9j	Automatic identification of NAVAREA code from position	✓
9k	Automatic identification of WMO/IHO chart area from position	
9l	Simultaneous entry of NAVAREA codes	✓
9m	Simultaneous entry of NAVTEX codes	✓
9n	Simultaneous reception of EGC messages	✓

10	INTERFACES		
10a	DCE-DTE interface:	RS232-C	✓
10b		RS-449	
10c		Others	
10d	Inmarsat recommended DCE-DTE interface control codes		✓
10e	Navigational interface:	NMEA0183	✓
10f		Others	
10g	Printer interface (RS232/Centronix/others)		RS232C for PP505

11	POSITION UPDATING	
11a	Automatic	✓
11b	Manual	✓

12	SCANNING		
12a	NCS scanning on BBER:	Automatic	✓
12b		Manual	✓
12c		Others	

13	AS REQUIRED FOR SOLAS (GMDSS) COMPLIANCE Not applicable for Land Mobile Earth Stations*	
13a	DCE	
13b	DTE	
13c	Printer	
13d	Others	

13	PRE-CHANGE NOTE 114 GMDSS COMPLIANCE Not applicable for Land Mobile Earth Stations	
13i	DCE	
13ii	DTE	
13iii	Printer	
13iv	Others	

14	POWER SUPPLY	
14a	AC	
14b	DC	✓
14c	Built-in battery	

15	ENVIRONMENTAL CONDITIONS*	
15a	As required for SOLAS (GMDSS)	
15b	PRE-CN114 SOLAS (GMDSS)	
15c	for Inmarsat-C LMES	
15d	for Inmarsat-C LPES	
15e	for Inmarsat-C SES	✓
15f	for Aeronautical MES	
15g	Ice	✓
15h	Rain	✓
15i	Wind	✓
15j	Solar radiation	✓
15k	Mechanical shock	✓

16 EMC COMPLIANCE*	
16a	Details attached EMC test out of IEC60945 certified by Labotech Report FLI 12-02-049

17	DTE
17a	Models name and number N/A

18	OEM
18a	Models name and number

19	COMMENTS
19a	

*   Note any national / international regulatory type authority documentation used for compliance.

Date: 11th February 2004

Agreed on behalf of Inmarsat:

Ian Cooper
Manager, Land Mobile & Leasing
Product Portfolio Management