

Model FELCOM 15/16/18/19/70

## Migration to Inmarsat I-4 Satellite

For the Inmarsat I-3 satellite that is used for the Inmarsat C/F services,  
migration to Inmarsat I-4 satellite will be performed from April 2018 sequentially.

The latest information is provided by Inmarsat at the following URL.

<https://www.inmarsat.com/support/i-3-to-i-4-services-migration/>

### 1. Current migration schedule is as follows:

Table 1 Migration schedule to I-4 satellite

Step	Date (UTC)	Service	Before change	After change
1 <sup>st</sup> step	May 9, 2018 14:00	Inmarsat C	*AORW (54° W)	AMER (98.4° W)
	April 30, 2018 17:30	Inmarsat F	*AORW (54° W)	AMER (98.4° W)
2 <sup>nd</sup> step	June 2018	Inmarsat C/F	POR (178° E)	APAC (143.5° E)
3 <sup>rd</sup> step	September 2018	Inmarsat C/F	AORE (15.5° W)	*AORE (54° W)
4 <sup>th</sup> step	December 2018	Inmarsat C/F	IOR (64° E)	EMEA (25° E)

\* The satellite of AORW (54° W) will be operated as a satellite of AORE (54° W) from the 3<sup>rd</sup> step. The satellite name of AORE will be changed from "Inmarsat-3, F2" to "Inmarsat-3, F5".

2. The satellite coverage after the 4<sup>th</sup> step is completed is shown in

Fig.1.

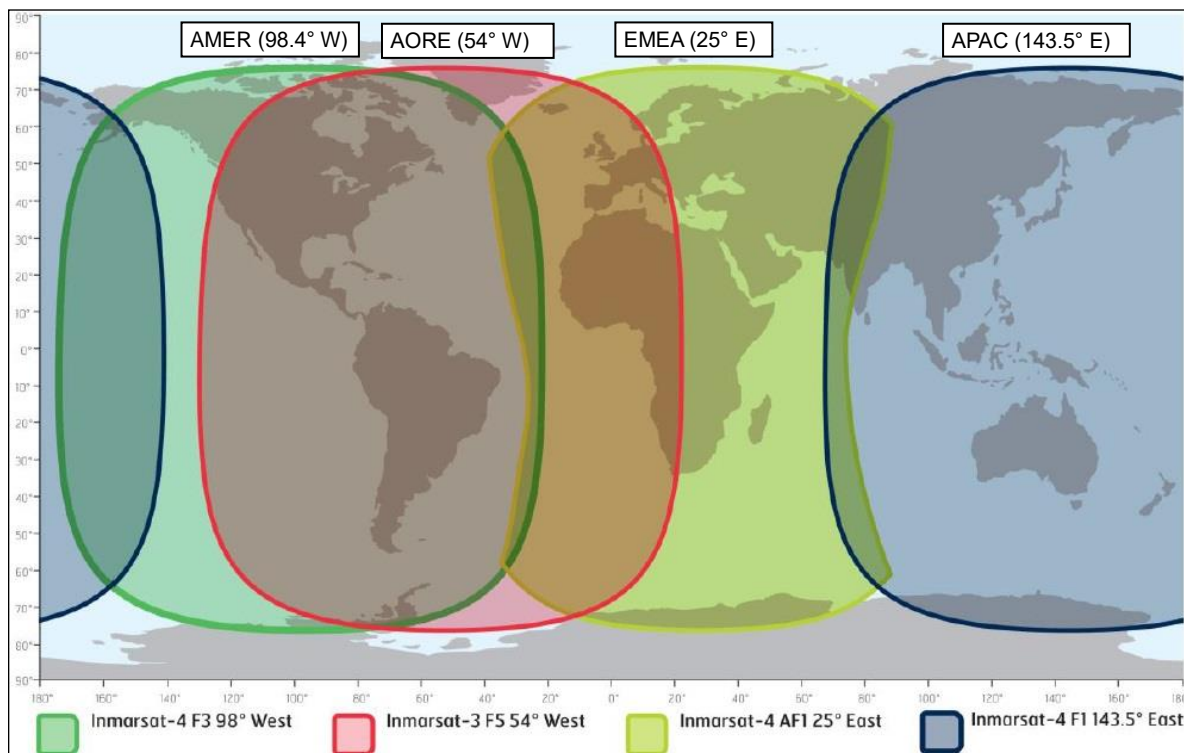


Fig. 1 Satellite coverage after 4<sup>th</sup> step

3. The vessel may be excluded from the coverage of the satellite that is routinely used depending on the vessel position due to the change of the satellite coverage based on this migration, and then “Synchronization loss” may occur.

If it occurs, manually select an appropriate ocean region of the Ocean Region setting because the FELCOM 15/18, which are GMDSS equipment, cannot switch satellites automatically.

Reference) The FELCOM 16/19/70, which are not GMDSS equipment, can switch satellite automatically.



Fig. 2 Synchronization loss

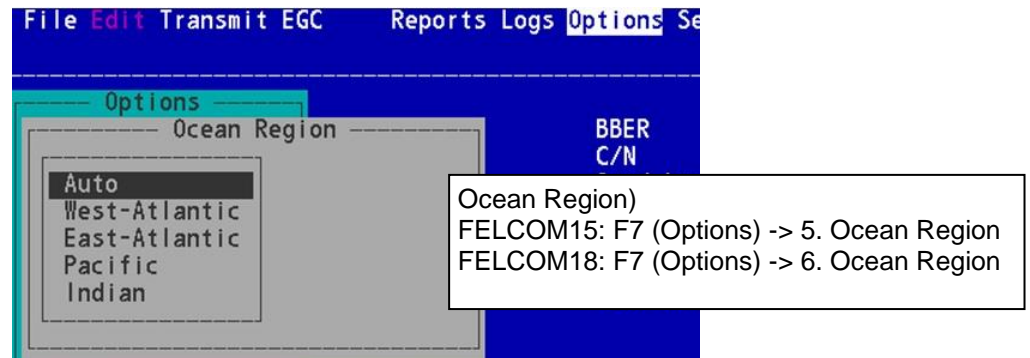


Fig. 3 Ocean Region setting

4. Operations of a distress alarm and a SSAS report in the condition of “Synchronization loss”

-The satellite is automatically switched by pressing the DISTRESS BUTTON in the FELCOM 15/18, and then a distress alarm is transmitted.

-The satellite is automatically switched by pressing the SSAS alert button in the FELCOM 15/16/18/19, and then an SSAS report is transmitted.

Note: The services of Distress Alert and SSAS will be continuously operated in all areas even after the satellite migration.

5. For the FELCOM 15/16/18/19/70, any essential hardware is not changed due to the migration. However, some setting changes and operations are required depending on the equipment model. (See the [Remedies] shown below.)

For the FELCOM18/19, upgraded software that shows the changed satellite name “I-4 satellite” on the screen is going to be

released in July 2018. (The FURUNO Information will be released soon.)

6. Due to the migration to I-4 satellite, the Inmarsat C service is changed as follows:

6-1) an LES (Land Earth Station) facility plays a role of a satellite link, but after the migration, an NCS (Net Control Station) facility, which is FleetBroadband, will take over the role.

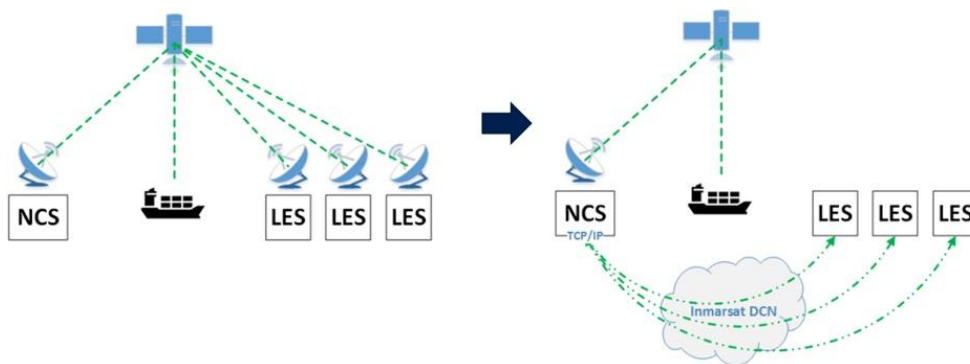


Fig. 4 Change of Satellite link facility

6-2) Reorganization of LES ID

-A new ID number is assigned to Telecom Italia: AMER/APAC, and "IOR/335" will be changed to "EMEA/305".

(Note: "305" is shown as OTE that is the former provider name.)

-"VSNL: IOR/306" will be abolished.

-"VISHPEL: IOR/330" will be changed to "APAC/230"

Note) the reorganized LES names due to the migration are not shown correctly on the screen, but they have no impact on operation.

Users need to compile the LES List for convenience as needed.

Meanwhile, the providers set in the LES Email List and SMS Service List do not need to be compiled because the all providers will be utilized continuously.

## Reorganization of LES ID

Provider	Country	Before or After migration							
		Before	After	Before	After	Before	After	Before	After
		AORW	AMER	POR	APAC	AORE 15.5 W	AORE 54 W	IOR	EMEA
Stratos Global (Burum)	Netherlands	012		212		112		312	
Stratos Global (Burum-2)	Netherlands	002		-		102		302	
Stratos Global (Auckland)	New Zealand	-		202		-		-	
Vizada	USA	001		201		101		301	
Vizada	France	021		221		121		321	
Vizada	Norway	004		204		104		304	
KDDI	Japan	003		203		103		303	
Beijing MCN	China	-		211		-		311	
Morsviazspudnik	Russia	-		217		-		317	
Telecom Italia	Italia	-	005	-	205	105		335	305
VSNL	India	-		-		-		306	abolished
VISHPEL	Vietnam	-		-		230		330	-

6-3) Ocean Region change for EGC broadcast EGC broadcast will be operated continuously, and reception of MSI (Maritime Safety Information) will not be affected. However, the satellites covering NAVAREA/METAREA will be changed as shown in Fig. 5.

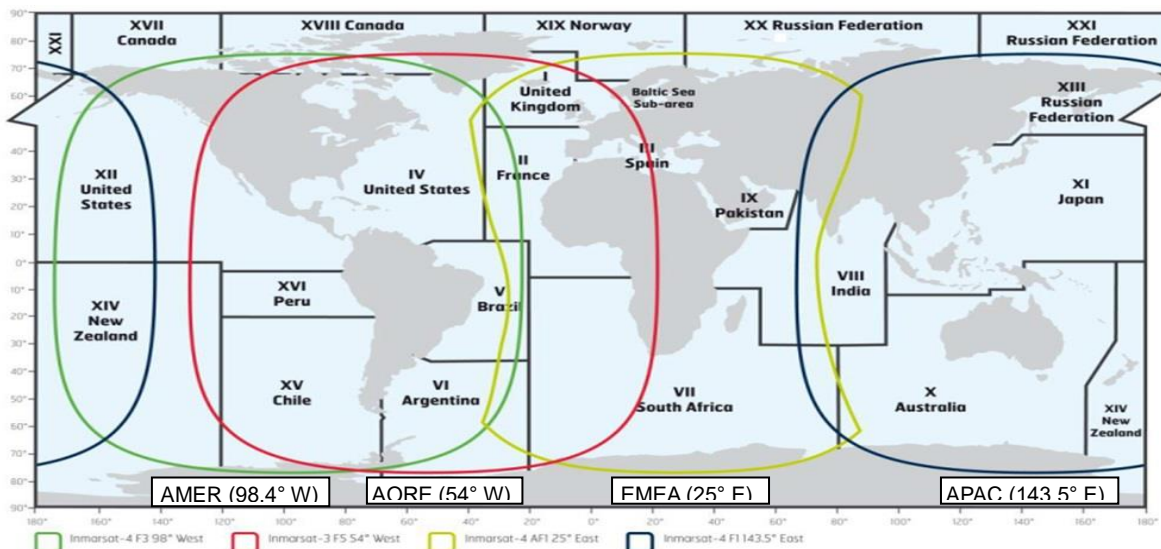


Fig. 5 Satellite coverage and Contrast between NAVAREA/METAREA after Completed migration

**6-4) DNID changes of LRIT and VMS**

LRIT and VMS use the polling service/data reporting service, and the DNID numbers are managed for each satellite.

When requiring a DNID of another satellite within the navigation area due to the change of satellite coverage based on the migration, the user must request the provider to program the DNID.

6-5) VMS/FFA operation pay attention to the latest information because the software may be changed.

**[Remedies]**

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Table 3 Remedies

<b>Models</b>	<b>Remedies</b>
FELCOM 15/16/18/19	Users) -Edit LES List (See “6-2 Reorganization of LES ID”). -Request the provider to program a DNID (See “6-4 DNID changes of LRIT and VMS).
	Engineers) Note: only for FELCOM 18/19 Update the software to the latest one (release schedule: July 2018) whose satellite name shown on the screen is changed to I-4 satellite.
FELCOM 70	Users) At the first startup after the migration, perform “Search all”. Note: At the first startup after the migration, “Search all” must be performed because the antenna directivity to the new satellite cannot be adjusted properly, and signals cannot be acquired. When signals are not acquired and time-out occurs, “Search all” starts automatically even if a user not performs “Search all”.