

New SIT 185 Message Format

FMCC - Florian Boularan



Current SIT 185 Message

1. DISTRESS COSPAS-SARSAT POSITION CONFIRMED UPDATE ALERT
2. MSG NO 28478 FMCC REF NO 281003
3. DETECTED AT 01 MAY 22 001751 UTC BY MEOSAR
4. DETECTION FREQUENCY 406.0314 MHZ
5. COUNTRY OF BEACON REGISTRATION 227/France
6. USER CLASS FGB -
STANDARD LOCATION - PLB
SERIAL NO: 4108
IDENTIFICATION 335/4108
7. EMERGENCY CODE NIL
8. POSITIONS
CONFIRMED - 47 02.4N 002 53.7W
DOPPLER A - NIL
DOPPLER B - NIL
DOA - 47 02.4N 002 53.7W EXPECTED ACCURACY 2NMS
ENCODED - 47 04.60N 002 55.06W
GNSS ALTITUDE 00160 METRES
UPDATE TIME WITHIN 4 HOURS OF DETECTION TIME
9. ENCODED POSITION PROVIDED BY INTERNAL
10. NEXT PASS / EXPECTED DATA TIMES
CONFIRMED - NIL
DOPPLER A - UNKNOWN
DOPPLER B - UNKNOWN
DOA - UNKNOWN
ENCODED - NIL
11. HEX ID 1C6EA7A018FFBFF HOMING SIGNAL 121.5 MHZ
12. ACTIVATION TYPE NIL
13. BEACON NUMBER ON AIRCRAFT OR VESSEL NO. NIL
14. OTHER ENCODED INFORMATION
ACR ELECTRONICS INC. TAC 335
BEACON MODEL - PLB-400 / PLB-425
ENCODED POSITION UNCERTAINTY :
PLUS-MINUS 2 SECONDS OF LATITUDE AND LONGITUDE
15. OPERATIONAL INFORMATION
REGISTRATION INFORMATION AT FMCC
BEACON REGISTRATION INFO PROVIDED IN A SEPARATE MESSAGE
MEOSAR ALERT LAST DETECTED AT 01 MAY 22 001751 UTC
16. REMARKS
NIL
END OF MESSAGE

POSITION UPDATE ALERT

CONFIRMED POSITION

MCC REFERENCE POSITION

EXPECTED ACCURACY

ESTIMATED ERROR

ENCODED POSITION

GNSS POSITION

**& Logical reorganization of
the message fields**

New SIT 185 Message

1. DISTRESS COSPAS-SARSAT POSITION UPDATE ALERT
2. MSG NO 28478 FMCC REF NO 281003
-

MSG ID

3. BEACON MESSAGE INFORMATION
BEACON TYPE STANDART LOCATION - PLB
SERIAL NO 4108
HEX ID 1C6EA7A018FFBFF
COUNTRY OF BEACON REGISTRATION 227/FRA
HOMING SIGNAL 121.5 MHZ
GNSS POSITION PROVIDED BY INTERNAL
-

BEACON INFO

4. ALERT POSITION INFORMATION
DETECTED AT 01 MAY 22 001751 UTC BY MEOSAR
ALERT LAST DETECTED AT 01 MAY 22 001751 UTC
GNSS - 47 04.60N 002 55.06W
MCC REFERENCE - 47 02.4N 002 53.7W
DOA - 47 02.4N 002 53.7W ESTIMATED ERROR 2 NMS
-

4D LOCATION

5. OTHER INFORMATION
REGISTRATION INFORMATION AT FMCC
BEACON REGISTRATION INFO PROVIDED IN A SEPARATE MESSAGE
TAC 335
BEACON MODEL - PLB-400 / PLB-425
DETECTION FREQUENCY 406.0314 MHZ
LUT ID 2272 TOULOUSE, France
-

SYSTEM INFO*

6. REMARKS NIL
END OF MESSAGE

**data extracted directly from the C/S System and not transmitted by the beacon itself*

CURRENT MESSAGE

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MEOSAR ALERT LAST DETECTED AT 01 MAY 22 001751 UTC
16. REMARKS
NIL
END OF MESSAGE

NEW MESSAGE

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REGISTRATION INFORMATION AT FMCC
BEACON REGISTRATION INFO PROVIDED IN A SEPARATE MESSAGE
TAC 335
BEACON MODEL - PLB-400 / PLB-425
ENCODED POSITION UNCERTAINTY :
PLUS-MINUS 2 SECONDS OF LATITUDE AND LONGITUDE
DETECTION FREQUENCY 406.0314 MHZ
6. REMARKS NIL
END OF MESSAGE

All essential data remains

Suppressed / Omitted Fields

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16. REMARKS
NIL
END OF MESSAGE

02/05/2022

New SIT 185 Message:

- Info on the « NEXT PASS/EXPECTED DATA TIME » are suppressed
- Some fields where the value is « NIL » may be omitted

**To keep the message as short
and as clear as possible**

Fields which may be omitted

« NIL »: Case of a badly coded or badly decoded beacon

LISTING

3.

- TYPE OF BEACON
- IDENTIFICATION
- COUNTRY OF BEACON REGISTRATION
- BEACON NUMBER
- HOMING SIGNAL
- ACTIVATION TYPE
- SOURCE OF GNSS POSITION DATA
- EMERGENCY CODE



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HOMING SIGNAL 121.5 MHZ
GNSS POSITION PROVIDED BY INTERNAL

4.

- GNSS POSITION, TIME OF UPDATE AND ALTITUDE
- MCC REFERENCE POSITION
- DOA POSITION AND ALTITUDE
- POSITION & PROBABILITY
- POSITION & PROBABILITY



4. ALERT POSITION INFORMATION

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5.

- OTHER ENCODED INFORMATION



5. OTHER INFORMATION

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DETECTION FREQUENCY 406.0314 MHZ

6. REMARKS NIL
- END OF MESSAGE

« NIL »: Case of a beacon badly or not localized (I.E.masking, satellites configuration... etc)

**A shorter and more concise new
SIT 185 message**

Optional Information

On line 5 “OTHER INFORMATION”

- LUT ID,
- Number of MEOSAR satellites,
- Number of packets used to generate the alert.



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