



TECHNICAL AND COMPLIANCE COMMITTEE
Fourteenth Regular Session
26 September – 2 October 2018
Majuro, Republic of Marshall Islands

Requests for new inclusions of ALCs to the WCPFC approved ALC/MTU list

WCPFC-TCC14-2018-13A
10 September 2018

Paper by the Secretariat

Purpose

1. The purpose of this paper is to present the Secretariat's recommendations in response to CCM requests for certain new Automatic Location Communicator (ALC)/ Mobile Transceiver Unit (MTU) to be included on the WCPFC Approved ALC / MTU List.

Background

2. WCPFC12 approved an amendment to Section 2.7 of the VMS SSPs which came into effect in February 2016. This amendment established a process for the Secretariat to be tasked to provide a recommendation to TCC in respect of removal or additions to the list of WCPFC approved ALCs. The Secretariat's assessments is to be based on a review of the ALCs against minimum standards for the Commission VMS as set out in Annex 1 of CMM 2014-02 (or its successor measure) and as relevant, by determining that the ALC make and model has the ability to successfully report to the Commission VMS.
3. Paragraph 2.7 of the Commission VMS SSPs states that:
"The Secretariat will assess proposals for inclusion of additional ALC makes and models on this list from both CCMs and equipment manufacturers and make recommendations for the TCC's consideration and the Commission's approval. Approval of ALCs will be based on the Secretariat's assessments of ALCs against minimum standards for the Commission VMS as set out in Annex 1 of CMM 2014-02 (or its successor measure), WCPFC SSPs, as relevant, by determining that the ALC make and model has the ability to successfully report to the Commission VMS, and by using the methodology established by the FFA with expenses for type approval processing to be borne by the proposing entity. By 31 July 2016, and as needed thereafter, the Secretariat will recommend removal from the list of approved ALC types any makes and models it has determined do not meet the minimum standards set out in Annex 1 of CMM 2014-02 (or successor measure), or do not have the ability to successfully report to the Commission VMS. If an ALC make and model is removed from the list of approved ALC types, flag States will ensure that their fishing vessels replace non-type approved ALCs with approved ALCs by the next replacement of the ALC but no later than three years after the Commission's decision."

4. The current list of WCPFC approved ALCs is published on the WCPFC website at this link:
<https://www.wcpfc.int/vessel-monitoring-system>

Secretariat recommendations in response to request for inclusion of new ALCs to the approved list

5. The Secretariat has received two requests from the Philippines for the following devices to be included on the new the WCPFC approved ALC list:

i) **Model: Skywave IDP-690**

This is presently FFA-type approved, and some CCMs have also approved it for their national system. Manufacturing of IDP-690 has been discontinued however servicing of existing unit will be maintained up to 2025. Additional information and unit specification is contained in Annex A.

Secretariat recommendation: The Secretariat’s assessment is that this unit meets minimum standards for the Commission VMS as set out in Annex 1 of CMM 2014-02 (or its successor measure) and WCPFC SSPs, as relevant, and has the ability to successfully report to the Commission VMS.

ii) **Model: ORBCOMM ST 6100**

This is a more advanced and improved version of Skywave-IDP-690. Additional information and unit specification are contained in Annex B.

The Secretariat’s assessment is that this unit meets minimum standards for the Commission VMS as set out in Annex 1 of CMM 2014-02 (or its successor measure) and WCPFC SSPs, as relevant, and has the ability to successfully report to the Commission VMS.

6. At the time of writing, the Secretariat was still working with the VMS service provider to ascertain if new gateways to receive data from the above two MTUs may be required. The cost charged by Trackwell to set up the SkyMate II500 gateway in 2018 for the Commission VMS was USD\$7,360.

Recommendation

7. TCC14 is invited to
- a. note the Secretariats assessment that the **Skywave IDP-690** and **ORBCOMM ST 6100** ALC units each meet the minimum standards for the Commission VMS and are capable to successfully report to the Commission VMS: and
 - b. Recommend to the Commission the addition of the units in b. above to the WCPFC approved ALC/MTU list;

| Model / Approved MTU Type | Manufacturer | Comm System | Service Provider |
|----------------------------------|---------------------|--------------------------|-------------------------|
| Skywave IDP-690 | ORBCOMM/Skywave | INMARSAT ISATDATA PRO | Skywave |
| ORBCOMM ST6100 | ORBCOMM/Skywave | INMARSAT ISATDATA PRO | Skywave |

Letter from Philippines requesting the listing of Skywave IDP-690



Republic of the Philippines
Department of Agriculture
BUREAU OF FISHERIES AND AQUATIC RESOURCES
PCA Compound, Elliptical Road, Diliman, Quezon City
Tel No. 929-9597
Fax No. 929-8074

January 31, 2018

MR. FELETI TEO
Executive Director
Western and Central Pacific Fisheries Commission
Kaselehlie Street, PO Box 2356
Kolonias Pohnpei State 96941
Federated States of Micronesia
Fax: +691 320 1108

Attention: Mr. Albert Carlot
VMS Manager

Dear Executive Director Teo,

We would like to forward the herein attached request of SOG Philippines, Inc., to have its Mobile Transceiver Unit (MTU) / Automatic Location Communicator (ALC), **Skywave IDP-690** be listed among the WCPFC approved MTU/ALC, subject to Commission's standards, specifications and procedures.

Attach herewith are additional documents in relation to this request, for consideration.

Thank you and warm regards,


EDUARDO B GONGONA
Undersecretary for Fisheries, DA and
Concurrent National Director, BFAR



SOG PHILIPPINES INC.

Asset Monitoring & Surveillance System
Satellite & Radio Communication System

OFFICE OF THE DIRECTOR

08 January 2018

HON. EDUARDO B. GONGONA
Department of Agriculture
Undersecretary for Fisheries
National Director
Bureau of Fisheries and Aquatic Resources
PCA Bldg., Elliptical Road,
Diliman, Quezon City

RECEIVED BY: Meng
TIME: _____ DATE: 1/9/18
CODE: _____

SIR:

We have met during WCPFC affairs in Manila Mr. Albert Carlot who is the current VMS Manager of WCPFC.

We mentioned to him about our intention to be listed in WCPFC accredited MTU/ALC.

He told us what we need to do:

1. Go to BFAR and ask your good office to acknowledge our intention for the listing. Then BFAR will communicate with his office stating that acknowledgement.
2. Send to him all documents relating to unit/equipment to be listed, in this case the IDP-690. We need to include pertinent documents such as test results inspected and confirmed by BFAR personnel, which we already had with 2GO installation and testing of IDP-690 equipment.

In view of this, we ask your kind consideration to send correspondence with WCPFC.

Sincerely yours,


SANNY U. IMPERIAL
Logistics Manager

SkyWave IDP-690 Technical Specification


| Physical | |
|--------------------|-----------------------------|
| Overall dimensions | 10.1 cm x 12.6 cm x 12.6 cm |
| Weight | 460 g |

| Environmental | |
|----------------------|--|
| Temperature range | -40°C to +85°C (operating and storage) |
| Vibration | SAE J1455 (Sec 4.9, 4.2); MIL-STD-810G (Sec 514.6) |
| Environmental rating | IP67 |
| Humidity | SAE J1455, section 4.2.3 |

| Position reporting | |
|------------------------------|-----|
| Automatic position reporting | Yes |
| Change reporting interval | Yes |
| On-demand position reporting | Yes |

| GPS | |
|------------------|---|
| Acquisition time | Hot: 1 sec; Cold: 30 sec |
| Accuracy | 4.0 m (Horizontal CEP) |
| Sensitivity | Acquisition: -140 dBm; tracking: -158 dBm |
| Channels | 8 |

| Power | |
|--|--|
| Input voltage | 9 to 32 V |
| Power consumption (typical @ 12 V dc, 22° C) | Receive with GPS: 49 mA Transmit: 0.75 A Sleep: 100 µA |

| Satellite | |
|-------------------|---|
| Satellite service | Inmarsat IsatData Pro |
| Coverage |  |
| Frequency range | Rx:1525.0 to 1559.0 MHz; Tx:1626.5 to 1660.5 MHz |
| EIRP | 5.0 dBW |
| Elevation range | -15° to + 90° |

Letter from Philippines requesting the listing of ORBCOMM ST6100



Republic of the Philippines
Department of Agriculture
BUREAU OF FISHERIES AND AQUATIC RESOURCES
PCA Compound, Elliptical Road, Diliman, Quezon City
Tel No. 929-9597
Fax No. 929-8074

March 8, 2018

MR. FELETI TEO
Executive Director
Western and Central Pacific Fisheries Commission
Kaselehlie Street, PO Box 2356
Kolonja Pohnpie State 96941
Federated States of Micronesia
Fax: +691 320 1108

Attention: Mr. Albert Carlot
VMS Manager

Dear Executive Director Teo,

We would like to forward the herein attached additional request of SOG Philippines, Inc., to have its Mobile Transceiver Unit (MTU) / Automatic Location Communicator (ALC), **ORBCOMM ST 6100**, be listed among the WCPFC approved MTU/ALC, subject to Commission's standards, specifications and procedures.

Attach herewith are additional documents in relation to this request, for consideration.

Thank you and warm regards,


EDUARDO B CONGONA
Undersecretary for Fisheries, DA and
Concurrent National Director, BFAR



SOG PHILIPPINES INC.

Asset Monitoring & Surveillance System
Satellite & Radio Communication System

22 February 2018

HON. EDUARDO B. GONGONA

Department of Agriculture
Undersecretary for Fisheries
National Director
Bureau of Fisheries and Aquatic Resources
PCA Bldg. Elliptical Road, Diliman Quezon City

OFFICE OF THE DIRECTOR



RECEIVED BY: Luisa
TIME: _____ DATE: 02/20/18
CODE: 412 TMS

Sir,

We are writing this letter to formally request an assistance from BFAR regarding our intention to be listed in WCPFC accredited MTU/ALC. We would like to extend our gratitude that the assistance we requested was granted.

Last month we sent a request letter regarding the same intention type-approval for IDP690, and this time we are again requesting for an additional product to be accredited by WCPFC and this is the **ST6100**.

The two units has the same manufacturer, but ST6100 is a more advanced and improved version of IDP690.

Attached to this letter are some of the pertinent documents and information related to the product.

In view of this, we are asking your kind consideration to send correspondence with WCPFC.

Yours truly,

Sanny Imperial
Logistics Manager
SOG Philippines Inc.



Monday, July 30, 2018

**Re: ST6100 VMS kit Pacific Islands Forum Fisheries Agency (FFA)
Type Approval**

To Whom It May Concern:

SkyWave Mobile Communications Inc. (SkyWave), an Orbcomm Company, is an Ottawa, Canada-based company which provides satellite communications products and network services to enable dependable, low-cost, global, fixed remote and mobile asset tracking, monitoring, control and security solutions over land, air and sea. SkyWave designs and manufactures integrated IDP and ST satellite terminals, integrated wireless controllers and provides network services using SkyWave's low-cost short-message IsatData Pro service.

This letter is to state that SkyWave is currently undergoing testing with the Pacific Islands Forum Fisheries Agency (FFA) for Type Approval of our ST6100 VMS kit. The ST6100 VMS kit will allow FFA members to track and monitor fishing activities across the region. This is a satellite-based system which monitors the position, speed and direction of registered fishing vessels as well as other monitoring tools if required.

SkyWave is fully confident that the ST6100 will successfully obtain Type Approval from the FFA this year given that the ST6100 is derived from and is functionally equivalent to the IDP-690, a previous generation SkyWave terminal which was fully compliant with FFA requirements.

Should you require any additional information, please do not hesitate to contact us at +1-613-836-4844

Best regards,

A handwritten signature in blue ink, appearing to read "Sean Faulkner".

Sean Faulkner
VP, OEM & Channel Sales, Asia Pacific

ST 6100

The next generation satellite terminal—more powerful, more versatile, more coverage

Reliably track, monitor and control assets in some of the world's most isolated regions



ORBCOMM's ST 6100 satellite terminal delivers complete visibility and control of industrial assets operating in remote areas. The versatile, environmentally sealed ST 6100 can be installed on mobile assets such as light- and heavy-duty commercial vehicles, railcars, fishing vessels, heavy equipment and more. And with two-way satellite connectivity, the ST 6100 is ideal for remotely monitoring and controlling fixed and portable assets used in SCADA applications such as those in the energy sector, where access may be restricted, including pipelines, flow meters, pumps, generators and tanks.

Easy integration

ORBCOMM makes it easy to bring IoT solutions to market. The fully programmable ST 6100 includes comprehensive resources to facilitate integration into a wide range of custom solutions. The resources include development, testing and production environments, documentation, code samples, device-level configurable applications and free technical support.

Global satellite connectivity

The ST 6100 delivers reliable global communications over the IsatData Pro satellite service for uninterrupted visibility of operations and access to business-critical field data in even some of the world's most remote locations. And because of its two-way connectivity, users can remotely control assets without sending workers to the field.

Comprehensive feature set

ORBCOMM's next generation ST 6100 leverages the latest technology advancements to offer enhanced functionality at great value. The internal antenna features exceptional low elevation angle performance, allowing one device to support both terrestrial and maritime applications. The terminal also features a built-in accelerometer, expanded memory capacity, and enhanced support for global navigation systems—GPS, Glonass and Beidou.

Fully programmable

Comprehensive integration resources for quick deployment

Two-way satellite communications

Ruggedized and versatile

**Satellite communication**

- Satellite service: two-way, Global, IsatData Pro
- From-mobile message: 6,400 bytes
- To-mobile message: 10,000 bytes
- Typical latency: <15 sec, 100 bytes
- Elevation angle: -5° to +90°
- Frequency: Rx: 1518.0 to 1559.0 MHz;
Tx: 1626.5 to 1660.5 MHz;
1668.0 to 1675.0 MHz
- EIRP: <7.0 dBW

GPS/Glonass/Beidou

- Acquisition time: Hot: 1 second; Cold: 29/30/36 seconds
- Accuracy: 2.0m CEP
- Sensitivity:
 - Acquisition: -148 dBm
 - Tracking: -163 dBm

Certification

- Regulatory: CE, FCC, IC, Anatel, RCM Mark, Mexico;
Pending: FFA, MSS Russia, SRRC, Philippines, Korea,
IEC 60945, C1D2
- Others: Inmarsat Type Approval, IP67

Electrical

- Input voltage: 9 to 32V; Load dump protection: +150V;
SAE J1455 (Sec. 4.13)
- Power consumption (typical average @12V DC, 22°C):
 - IDP Receive: 65 mA;
 - GPS/Glonass/Beidou Receive: 22 mA;
 - Transmit: 0.65 A;
 - Sleep: 100 µA

Dimensions

- 12.6 cm x 12.6 cm x 4.9 cm

External interfaces

- Inputs/outputs: 4 analog or digital in/out
- Serial: RS-232; RS-485

Environmental

- Operating temperature: -40°C to +85°C
- Dust and water ingress: IP67

- Vibration: SAE J1455 (Sec 4.9.4.2 fig 6-8);
MIL-STD-810G (Sec 514.6)
- Shock: MIL-STD-810G (Sec 516.6)

Programming

- Lua scripting engine with core services. SDK with GUI development tools available. Lua software application upgradable over the air (SOTA).
- Core services: Geofence, data logger, position reporting, accelerometer events, serial communications.
- Optional configurable device-level applications, including:
 - Analytics Agent - Notifications and reports for driver behaviour and vehicle/asset performance.
 - AVL Agent - Facilitates integration of ST 6100 terminals into fleet management solutions.
 - Garmin Dispatch Agent - Tracking, navigation, driver communication and dispatch using Garmin devices.
 - Garmin FMI Agent - Fleet management support for two-way text messaging, stops, driver ID, hours of service, file-transfer, custom forms, and speeding alerts

Accelerometer

- 3-axis accelerometer

Memory

- Lua Code RAM: 4MB
- Lua Code NVM: 6MB

Options

- Side or bottom connector variants

Ordering Codes/related products

- ST6100-SXX** ST 6100 Terminal, Side Connector
- ST6100-BXX** ST 6100 Terminal, Bottom Connector
- ST100679-001** ST 6100 Development Kit
- ST100030-001** Mating Cable Connector Kit with Solder Cups

CALL: 1.800.ORBCOMM EMAIL: SALES@ORBCOMM.COM VISIT: WWW.ORBCOMM.COM

ORBCOMM (Nasdaq: ORBC) is a global leader and innovator in the industrial Internet of Things, providing solutions that connect businesses to their assets to deliver increased visibility and operational efficiency. The company offers a broad set of asset monitoring and control solutions, including seamless satellite and cellular connectivity, unique hardware and powerful applications, all backed by end-to-end customer support, from installation to deployment to customer care. ORBCOMM has a diverse customer base including premier OEMs, solutions customers and channel partners spanning transportation, supply chain, warehousing and inventory, heavy equipment, maritime, natural resources, and government. For more information, visit www.orbcomm.com.

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