50 CFR 600 Sections 600.1502–600.1509	Section text		Are each of these requirements and sub-requirements met?	Explain generally how each requirement is met. Please refer to your appendices for further details, if necessary.
Basic information				
	Characteristics of the EMTU or EMTU-C:	Further information for the requirement		

Manufacturer:

Brand Name:

Model Name:

Model Number:

Software Version Number and Date:

Firmware Version Number and Date:

Hardware Version Number and Date:

Antenna Type:

Antenna Model Number and Date:

Monitor or Terminal Model Number and Date:

MCSP Providing Communications Services:

For the following responsibilities, name the business entities who act on behalf of the manufacturer and supplier applying for type approval. Include the address, phone, contacts, email, and designated geographic territory where applicable.

Manufacturer:

Label or use the EMTU or EMTU-C for an OEM. This includes re-labeling OEM EMTUs, EMTU-Cs, or reselling. Reselling includes value-added reselling. The EMTU or EMTU-C that is type approved is the final, value-added product and not the original manufacturer's EMTU or EMTU-C, if enhancements or modifications have been made. For example, if a transceiver is contained within an enclosure, it is the new enclosure including the transceiver that is being type approved.

Distribute:

Sell:

Bench configures the EMTU or EMTU-C at the warehouse or point of supply:

Install EMTU or EMTU-C onboard the vessel:

Offer limited warranty:

Offer maintenance and service agreement:

Repair:

Train:

Advertise:

§600.1502	Communications functionality		
600.1502(a)	An EMTU or EMTU-C must comply with the following requirements:		
600.1502(a)(1)	Be able to transmit all automatically-generated position reports.		
600.1502(a)(2)	Provide visible or audible alarms onboard the vessel to indicate malfunctioning of the EMTU or EMTU-C.		
600.1502(a)(3)	Be able to disable non-essential alarms in non-Global Maritime Distress and Safety System (GMDSS) installations.		
600.1502(a)(4)	Be able to send communications that function uniformly throughout the geographic area(s) covered by the type approval.		
600.1502(a)(5)	EMTU/EMTU-Cs must have two-way communications between the unit and authorized entities, via MCS, or be able to connect to a device that has two-way communications.		
600.1502(a)(6)	Have the capacity to send and receive electronic forms and Internet email messages.		
600.1502(a)(7)	Have messaging and communications that are completely compatible with NMFS vessel monitoring software.		

600.1502(b)	In addition, messages and communications from a VMS unit must be able to be parsed out to enable clear billing of costs to the government and to the owner of a vessel or EMTU/EMTU-C, when necessary. Also, the costs associated with position reporting and the costs associated with other communications (for example, personal email or communications/reports to non-NMFS Office of Law Enforcement entities) must be parsed out and billed to separate parties, as appropriate.

§600.1503	Position Data Formats and Transmission		
600.1503(a)	Unless otherwise specified, this subsection applies to all VMS units, MCSs and bundles. Units that can operate as both an EMTU and EMTU-C must meet the requirements for both an EMTU and an EMTU-C in order to gain type-approval as both. To be type-approved in any given fishery, a VMS unit must also meet any additional positioning information as required by the applicable VMS regulations and requirements in effect for each fishery or region for which the type-approval applies. The VMS unit must meet the following requirements: (a) Transmit all automatically-generated position reports, for vessels managed individually or grouped by fleet, that meet the latency requirement under § 600.1504.		
600.1503(b)	When an EMTU or EMTU-C is powered up, it must automatically re-establish its position reporting function without manual intervention.		

600.1503(c) Position reports must contain all of the following:
(1) Unique identification of an EMTU or EMTU-C within the communications class.
(2) Date (year/month/day with century in the year) and time stamp (GMT) of the position fix. (3) Date (year/month/day with century in the year) and time stamp (GMT) that the EMTU-C position report was sent from the EMTU-C.
(4) Position fixed latitude and longitude, including the hemisphere of each, which comply with the following requirements:
(i) The position fix precision must be to the decimal minute hundredths.
(ii) Accuracy of the reported position must be within 100 meters.

600.1503(d) An EMTU or EMTU-C must have the ability to:
(1) Store 1,000 position fixes in local, non-volatile memory.
(2) Allow for defining variable reporting intervals between 5 minutes and 24 hours.
(3) Allow for changes in reporting intervals remotely and only by authorized users.

600.1503(e) An EMTU or EMTU-C must generate specially identified position reports upon:
(1) Antenna disconnection.
(2) Loss of positioning reference signals.
(3) Loss of the mobile communications signals.
(4) Security events, power-up, power down, and other status data.
(5) The vessel crossing a pre-defined geographic boundary.
(6) A request for EMTU or EMTU-C status information such as configuration of programming and reporting intervals.

600.1504	Latency requirement		
600.1504(a)	Ninety percent of all pre-programmed or requested Global Positioning System position reports during each 24-hour period must reach NMFS within 15 minutes or less of being sent from the VMS unit, for 10 out of 11 consecutive days (24-hour time periods).		
600.1504(b)	NMFS will continually examine position reports by region and by type-approval holder.	N/A	
600.1504(c)	Exact dates for calculation of latency will be chosen by NMFS. Days in which isolated and documented system outages occur will not be used by NMFS to calculate a type-approval holder's latency.	N/A	

600.1505	Messaging		

600.1505(a)	Unless otherwise specified, this section applies to all VMS units, MCSs, and bundles. Units that can operate as both an EMTU and EMTU-C must meet the requirements for both an EMTU and an EMTU-C in order to gain type-approval as both. Depending on the reporting requirements for the fishery(s) in which the requester is seeking type-approval, an EMTU-C type-approval may not require the inclusion of a dedicated message terminal and display component at the time of approval, but the capability to support such a component must be shown. To be type-approved in any given fishery, a VMS unit must meet messaging information requirements under the applicable VMS regulations and requirements in effect for each fishery or region for which the type-approval applies. The VMS unit must also meet the following requirements:
600.1505(b)	An EMTU must be able to run software and/or applications that send email messages for the purpose of complying with VMS reporting requirements in Federal fisheries that require email communication capability. An EMTU-C must be able to run or connect to a device that can run such software and/or applications. In such cases, the EMTU/EMTU-C messaging must provide for the following capabilities:
600.1505(b)(1)	Messaging from vessel to shore, and from shore to vessel by authorized entities, must have a minimum supported message length of 1 KB. For EMTU-Cs, this messaging capability need only be functional when in range of shore-based cellular communications.
600.1505(b)(2)	There must be a confirmation of delivery function that allows a user to ascertain whether a specific message was successfully transmitted to the MCS e-mail server(s).
600.1505(b)(3)	Notification of failed delivery to the EMTU/EMTU-C must be sent to the sender of the message. The failed delivery notification must include sufficient information to identify the specific message that failed and the cause of failure (e.g., invalid address, EMTU/EMTU-C switched off, etc.).

600.1505(b)(4)	The EMTU/EMTU-C must have an automatic retry feature in the event that a message fails to be delivered.
600.1505(b)(5)	The EMTU/EMTU-C user interface must: (i) Support an “address book” capability and a function permitting a “reply” to a received message without re-entering the sender’s address. (ii) Provide the ability to review by date order, or by recipient, messages that were previously sent. The EMTU/EMTU-C terminal must support a minimum message history of 50 sent messages – commonly referred to as an “Outbox” or “Sent” message display. (iii) Provide the ability to review by date order, or by sender, all messages received. The EMTU/EMTU-C terminal must support a minimum message history of at least 50 messages in an inbox.

600.1506	Electronic forms		
Unless otherwise specified, this subsection applies to all EMTUs, EMTU-Cs, MCSs, and bundles.			
600.1506(a)	Forms. An EMTU/EMTU-C must be able to run, or to connect to and transmit data from a device that can run electronic forms software. Depending on the reporting requirements for the fishery(s) in which the requester is seeking type-approval, an EMTU-C type-approval may not require the inclusion of a dedicated message terminal and display component at the time of approval, but the capability to support such a component must be shown. The EMTU/EMTU-C must be able to support forms software that can hold a minimum of 20 electronic forms, and it must also meet any additional forms requirements in effect for each fishery or region for which the type-approval applies. The EMTU/EMTU-C must meet the following requirements:		

600.1506(a)	(1) Form Validation: Each field on a form must be capable of being defined as Optional, Mandatory, or Logic Driven. Mandatory fields are those fields that must be entered by the user before the form is complete. Optional fields are those fields that do not require data entry. Logic-driven fields have their attributes determined by earlier form selections. Specifically, a logic-driven field must allow for selection of options in that field to change the values available as menu selections on a subsequent field within the same form. (2) A user must be able to select forms from a menu on the EMTU/EMTU-C. (3) A user must be able to populate a form based on the last values used and "modify" or "update" a prior submission without unnecessary re-entry of data. A user must be able to review a minimum of 20 past form submissions and ascertain for each form when the form was transmitted and whether delivery was successfully sent to the type-approval holder's VMS data processing center. In the case of a transmission failure, a user must be provided with details of the cause and have the opportunity to retry the form submission.
600.1506(a)	(4) VMS Position Report: Each form must include VMS position data, including latitude, longitude, date and time. Data to populate these fields must be automatically generated by the EMTU/EMTU-C and unable to be manually entered or altered. (5) Delivery and Format of Forms Data: Delivery of form data to NMFS must employ the same transport security and reliability as set out in § 600.1507 of this subpart. The forms data and delivery must be completely compatible with NMFS vessel monitoring software.

600.1506(b)	Updates to Forms. (1) The EMTU/EMTU-C and MCS must be capable of providing updates to forms or adding new form requirements via wireless transmission and without manual installation. (2) From time to time, NMFS may provide type-approved applicants with requirements for new forms or modifications to existing forms. NMFS may also provide notice of forms and form changes through the NMFS Work Order System. Type-approved applicants will be given at least 60 calendar days to complete their implementation of new or changed forms. Applicants will be capable of, and responsible for translating the requirements into their EMTU/EMTU-C-specific forms definitions and wirelessly transmitting the same to all EMTU/EMTU-C terminals supplied to fishing vessels.

600.1507	Communications security		

600.1507(a)	Communications between an EMTU or EMTU-C and MCS must be secure from tampering or interception, including the reading of passwords and data. The EMTU or EMTU-C and MCS must have mechanisms to prevent to the extent possible: Sniffing and/or interception during transmission from the EMTU or EMTU-C to MCS.
600.1507(b)	Spoofing.
600.1507(c)	False position reports sent from an EMTU or EMTU-C.
600.1507(d)	Modification of EMTU or EMTU-C identification.
600.1507(e)	Interference with GMDSS or other safety/distress functions.

600.1507(f)	Introduction of malware, spyware, keyloggers, or other software that may corrupt, disturb, or disrupt messages, transmission, and the VMS system.
600.1507(g)	The EMTU or EMTU-C terminal from communicating with, influencing, or interfering with the Global Positioning System antenna or its functionality, position reports, or sending of position reports. The position reports must not be altered, corrupted, degraded, or at all affected by the operation of the terminal or any of its peripherals or installed-software.
600.1507(h)	VMS data must be encrypted and sent securely through all associated cellular, satellite, and internet communication pathways and channels.

600.1508	Customer service		
600.1508(a)	The type-approval holder is responsible for ensuring that customer service includes: Diagnostic and troubleshooting support to NMFS and fishers available 24 hours a day, seven days per week, and year-round.		
600.1508(b)	Response times for customer service inquiries that shall not exceed 24 hours.		
600.1508(c)	Warranty and maintenance agreements.		
600.1508(d)	Escalation procedures for resolution of problems.		
600.1508(e)	Established facilities and procedures to assist fishers in maintaining and repairing their EMTU, EMTU-C, or MTU.		
600.1508(f)	Assistance to fishers in the diagnosis of the cause of communications anomalies.		

600.1508(g)	Assistance in resolving communications anomalies that are traced to the EMTU, EMTU-C, or MTU.		
600.1508(h)	Assistance to NMFS Office of Law Enforcement and its contractors, upon request, in VMS system operation, resolving technical issues, and data analyses related to the VMS Program or system.		
600.1509	**General**		
600.1509(a)	Unless otherwise specified, this subsection applies to all VMS units. Units that can operate as both an EMTU and EMTU-C must meet the requirements for both an EMTU and an EMTU-C in order to gain type-approval as both. An EMTU or EMTU-C must have the durability and reliability necessary to meet all requirements of §§ 600.1502–600.1507 regardless of weather conditions, including when placed in a marine environment where the unit may be subjected to saltwater (spray) in smaller vessels, and in larger vessels where the unit may be maintained in a wheelhouse. The unit, cabling and antenna must be resistant to salt, moisture, and shock associated with sea-going vessels in the marine environment.		

600.1509(b) Personally identifying information (PII) and other protected information includes Magnuson-Stevens Act confidential information as provided at 16 U.S.C. 1881a and Business Identifiable Information (BII), as defined in the Department of Commerce Information Technology Privacy Policy. A type-approval holder is responsible for ensuring that:

(1) All PII and other protected information is handled in accordance with applicable state and Federal law.

(2) All PII and other protected information provided to the type-approval holder by vessel owners or other authorized personnel for the purchase or activation of an MTU, EMTU, or EMTU-C, or arising from participation in any federal fishery are protected from disclosure not authorized by NMFS or the vessel owner or other authorized personnel.

(3) Any release of PII or other protected information beyond authorized entities must be requested and approved in writing, as appropriate, by the submitter of the data in accordance with 16 U.S.C. 1881a, or by NMFS.

(4) Any PII or other protected information sent electronically by the type-approval holder to the NMFS Office of Law Enforcement must be transmitted by a secure means that prevents interception, spoofing, or viewing by unauthorized individuals.

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Paperwork Reduction Act Statement

Public reporting burden for this collection of information is estimated to average 80 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other suggestions for reducing this burden to: Vessel Monitoring System Program, Office of Law Enforcement, National Marine Fisheries Service, 1315 East-West Highway, Suite 3301, Silver Spring, MD 20910.

NMFS requires this information for the conservation and management of marine fishery resources. Responses to this collection are required to obtain or retain type-approval for transceiver units of vessel tracking data. Data collected are treated as confidential in accordance with the Magnuson-Stevens Act (16 U.S.C. 1881a) and NOAA Administrative Order 216-100, Protection of Confidential Fishery Statistics. It is NMFS' policy that confidential data are not to be released to non-authorized users, other than in aggregate form, as the Magnuson-Stevens Act protects in perpetuity the confidentiality of those submitting data. Non-confidential information may be released via a NMFS website. Notwithstanding any other provisions of the law, no person is required to respond to, nor shall any person be subjected to a penalty for failure to comply with, a collection of information subject to the requirements of the Paperwork Reduction Act, unless that collection of information displays a currently valid OMB Control Number.

Note any issues, unique features or circumstances, and any other pertinent notes.