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

§ 600.1504 Latency requirement.

- (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).
- (b) NMFS will continually examine latency by region and by type-approval holder
- (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.

§ 600.1505 Messaging.

- (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 typeapproval as both. Depending on the reporting requirements for the fishery(s) in which the requester is seeking typeapproval, 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:
- (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:
- (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.
- (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 email server(s).
- (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.).

- (4) The EMTU/EMTU-C must have an automatic retry feature in the event that a message fails to be delivered.
- (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.

- (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:
- (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 val-

- ues 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.
- (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.
- (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.