APPENDIX 2 – FFA TYPE APPROVAL TEST PLAN

This document should be completed electronically and emailed to the FFA.

The following pages comprise the type approval tests for MTUs, E-MTUs and MCSPs. For each test there is a reference for the relevant section of the FFA Vessel Monitoring System Type Approval:

MCSP:	Reference to sections within MCSP Schedule of Requirements.
MTU/E-MTU:	Reference to sections within MTU/E-MTU Schedule of Requirements.
M/O:	[M] Mandatory or [O] Optional Requirement (refer to Section 10.2)
Description:	Function being tested
Vendor Format Reference:	(as described below)

Where notes are present in the applicant's Format Reference field, specific details are requested as to how the function is implemented. You must answer each question fully.

References to formats must be specific and unambiguous at a transmission level (i.e. bitwise field definitions, or exact parameters within a protocol). General references to "scripting" or configuration options will not be accepted as a response. The response must define precisely how the function is to be implemented, if necessary in conjunction with a specific unit configuration or script.

Proposed scripts or configuration parameters must be supplied with the equipment at time of testing

Where configuration functions such as scripts or macros are used to meet functional requirements it is necessary for the unit to simultaneously perform all functions. Specifically; the testing procedure permits no script or configuration changes during the test process itself (excepting those initiated through a test, for example to alter a reporting rate).

Specify the certifications that you are testing for:

☐ MCSP
☐ MTU
☐ E-MTU

[Double click check box to edit]

MCSP Sections	MTU E-MTU Sections	Mandatory /Optional	Test Description	Vendor Format Reference	Pass /Fail	Comments
9.9.1.1 9.3 9.11.5 9.9.5	4.1.1 4.2.1.1 4.2.1.2 4.2.1.3 4.2.4 4.2.6 4.2.7	M(MCSP) M(MTU) M(E-MTU)	Ability to transmit automatically generated position reports sent to FFA from the MCSP in a format compatible with FFA monitoring software. (also) Position fix latitude and longitude, including the hemisphere of each (and) The position fix precision must be to the decimal minute hundredths (and) accuracy of the reported position must be within 100 metres. (also) The MCSP must support the ability to determine the position of an MTU at fixed, programmable reporting intervals between 5 minutes and 24 hours. *(detail; also refer to later tests for specific event codes)*	Format Reference: Min Reporting Rate: _____ (mins) Max Reporting Rate: _____ (mins) Format for over-the-air change of reporting rate: Method used to define "authorized users" who may change the reporting rate:		
N/A	4.1.2	N/A (MCSP) M(MTU) M(E-MTU)	Onboard visible or audible alarms for malfunctioning of MTU	Define how a malfunction is indicated: Describe how a unit malfunction can be simulated as a test case:		
N/A	4.1.3	N/A (MCSP) M(MTU) M(E-MTU)	Ability to disable non-essential alarms in non-Global Maritime Distress and Safety System (GMDSS) installations. *(detail; specification refers to disabling audible notification on non Search and Rescue based EGC/Safetynet messaging. Please Note; GMDSS itself is <u>not</u> a requirement, the requirement is that if GMDSS is supported, a facility to disable non-essential alarms must also be present)*			
2.1.2	4.2.1	M (MCSP) M (MTU) M (E-MTU)	Ability to transmit event driven position reports (*Detail; an MCSP must permit random access to the network such that the MTU's/E-MTU's may initiate a poll. This is in contrast to automatic reporting which can be coordinated by either the MCSP or MTU/E-MTU).* *(Detail; also refer to later tests for specific event codes)*	Format Reference: Can event reports be distinguished from automatically generated reports: If Yes, what format differences distinguish this?		
9.9.1.3	4.2.2	M (MCSP) O (MTU) O (E-MTU)	Ability to transmit safety and distress alerts and messages (and) Communications between MTU/E-MTU and MCSP must be secured from … interference with GMDSS or other safety/distress functionalities.	Format Reference: GMDSS Approved: Pre-empts other traffic: Where are safety and distress messages processed? – i.e. does the MCSP coordinate responses directly? If not; what options are available for direct forwarding of such requests to the local maritime safety authorities, preferably on a geographic area basis?		

MCSP Sections	MTU E-MTU Sections	Mandatory /Optional	Test Description	Vendor Format Reference	Pass /Fail	Comments
9.9.1.4 9.9.3	4.1.6	M (MCSP) M (MTU) M (E-MTU)	Ability to transmit (and receive) e-mail text messages *(Detail; Attachment support is optional)* *(Detail; An MTU is not required to support messaging for VMS functionality. However; the MTU used must support its use if the vessel operator purchases the appropriate additional interfacing equipment; such as a Mobile Data Terminal or Laptop/Software packages).*	Maximum Length: _____ (bytes) SMTP Support: __ Attachment Support: ___ Describe addressing format/scheme for mobiles; eg docnum@vmstracking.ffa.int How are unauthorized users prevented from sending e-mails to an MTU eg registered origin e-mail address? What is the recommended e-mail client for the MTU?		
9.9.1.5 9.9.1.6		M (MCSP) O (MTU) M(E-MTU)	Ability to remotely create new message types *(Detail; for MCSP this requires that there be no unreasonable restrictions on message content. The intention is to use specific message types for catch and other reporting in the future. MTU providers should indicate any forms, macro or similar features that exist and may potentially be used by the VMS)*	Forms Support: _____ Forms Language (i.e. HTML): _____ Macro Messaging Support: _____ If yes, Reference to Macro Messaging Specification:		
9.9.2 9.14 10.15.2	4.14	M (MCSP) M (MTU) M (E-MTU)	Comprehensive and Transparent Communications, which function uniformly within the entire area of geographic coverage for the particular communications class. (and) The MCSP must meet latency requirements from 5 minutes or less (near-real time) to 3 hours (store and forward between the time a position fix is received and the time it is received in FFA. (*detail; provide a coverage map and indicative dates for any proposed extensions to current coverage*) (*Detail; to interpret the required latency it is necessary to refer to the VMS requirements for each fishery. The latency figures supplied here may be used to determine which fisheries the MTU and MCSP combination is approved for).*	Latency within 200nmi of FFA Member countries : ***<5*** (mins) Latency on Worldwide Basis: ***<5*** (mins) a) Latency must be expressed to a confidence of 95%. Tests will time from message initiation, until delivery to the VMS simulator by service provider – so latency figures shown should include both MTU and MCSP introduced latency. b) If coverage is not provided within all the above regions; indicate N/A for the appropriate area(s)		

MCSP Sections	MTU E-MTU Sections	Mandatory /Optional	Test Description	Vendor Format Reference	Pass /Fail	Comments
9.9.4	4.24.4 4.2.6 4.2.7	M (MCSP) M (MTU) M (E-MTU)	Ability for FFA to initiate communication to vessels, either individually or by originator defined groups of vessels.	Maximum Group Size: a) Describe whether function is implemented as a distribution list or by broadcast message(s)? b) If a broadcast capability is NOT present – what cost implications are present if a message is sent to a large group? c) What geographic, satellite or spot beam restrictions apply to a broadcast message? Define the addressing format for a group: Define the mechanism for creating a group, and adding/removing mobiles from the group:		
9.1.1 9.1.2 9.1.3 9.1.4 9.1.5 9.1.6	4.2.1 4.2.1.2 4.2.1.3 4.2.4 4.2.6 4.2.7 4.2.8.1 4.2.8.2	M (MCSP) M (MTU) M (EMTU)	Position reporting format; with following characteristics; Lat/Long (with hemisphere), unique identification number of unit, date & time of fix (from MTU) and date & time of processing (from MCSP) and status information (as defined in separate tests below) *(also)* Position fix latitude and longitude, including the hemisphere of each (and) The position fix precision must be to the decimal minute hundredths (and) accuracy of the reported position must be within 100 meters. (*Detail; the specification references "with century" on the date. Formats that pass partial timestamps, for example in compressed binary representation, within the position fix are acceptable provided that such timestamp, when interpreted in conjunction with a fully specified timestamp from the MCSP, can be resolved unambiguously to a four year date format)*	Position Report Format: GPS as Pos Source: ____ Doppler Position Source: ____ (if yes, does the MTU or MCSP validate GPS fixes to ensure consistency with Doppler area): Accuracy of Position Fix (C.E.P): ____ Accuracy of Transmission: ____ Format of Identification Number: • numeric: • max length: ***20*** (chars)		
9.10.7	N/A	M (MCSP)	Date (year / month / day with century in the year) and time (GMT) stamp when the position report is sent to FFA	Suggested: show how timestamp is displayed either on the SMTP message header or in the XML encoding on the IP gateway.		
9.10.8	4.2.9.6	M (MCSP) M (MTU) M (E-MTU)	MTU/E-MTU Status Information: Power On/Off Reports Power-Up Power-Down Power Failure	Power On Format: _____ Power Off Format: _____ Power failure Format (optional). If power failure can be distinguished from a planned (user initiated) MTU shutdown, then please indicate the associated difference in the report formats:		

MCSP Sections	MTU E-MTU Sections	Mandatory /Optional	Test Description	Vendor Format Reference	Pass /Fail	Comments
9.11.1	4.2.9.1 4.2.9.2	M (MCSP) M (MTU) M (E-MTU)	Loss of Position Reference Signal	Does the event include the last-known-good fix: Y/N (if no, this test will fail. However it is acceptable if an event message and last-known-good fix are sent as separate message packets) Format for GPS Antenna Disconnected: Format for GPS Antenna Blocked: (i.e. when GPS jammed used in vicinity to MTU) Format for GPS Failure: Format for no Doppler fix: (if applicable): Tolerance: before event sent:		
9.11.2	4.2.9.3	M (MCSP) M (MTU) M (E-MTU)	Loss of the Mobile Communications Signal (*Detail; it is acceptable for an MTU to delay sending this message until signal is re-established*)	Format for loss of signal:: Tolerance: before event sent:		
9.11.3 9.15.3.1 9.15.3.2 9.15.3.3 9.15.3.4 9.15.3.5 9.15.3.6	4.2.9.4	M (MCSP) M (MTU) M (E-MTU)	Monitor and transfer Security Events and other data: 1. Tampering or interception, including the reading of passwords and data. 2. Interception and “sniffing” during transmission from the MCSP to FFA via either wireless or terrestrial facilities. 3. Spoofing, whereby one MTU is fraudulently identifying itself as another MTU. 4. Interference with Global Maritime Distress and Safety System (GMDSS) or other safety/distress functionalities. 5. Prevention to the introduction of viruses that may corrupt the messages, transmission or the VMS system.	a) Please describe the tamper resistance functions exist within the unit. In particular; what safeguards exist to prevent external location information (i.e. NMEA-GPS strings) being substituted for the legitimate vessel position. b) What safeguards are present to prevent a vessel operator from making configuration changes to the unit that may impact negatively on VMS performance? c) In addition; what are the likely sequence(s) of events (i.e. Power Failure, and Loss of Position Reference Signal) that may indicate tampering with a unit? d) What status information is present within the unit that could be used, if the unit was physically seized, to determine that it may have been tampered with?		

MCSP Sections	MTU E-MTU Sections	Mandatory /Optional	Test Description	Vendor Format Reference	Pass /Fail	Comments
9.11.4	4.2.9.5	M (MCSP M (MTU) M (E-MTU)	The vessel crossing a predefined geographic boundary	Maximum number of Boundaries: Maximum points in Each: (enter R for rectangle only boundaries, C for circle only boundaries. If the unit supports a variety of different types of boundaries please provide a summary of the zone related functions offered): Format for setting boundary information (over the air): Format of Zone Entry/Exit Reports: Can boundaries overlap: ____ Can the unit alter reporting rate automatically based on an inside/outside condition: ____ What restrictions, other than complexity, are present on the area definitions (i.e. angle restrictions, max distance or size of region)? NOTE: Unless otherwise specified; regions are assumed support between 3 and the defined maximum number of points in an arbitrarily shaped defined closed polygon.		
N/A	4.2.9.7	N/A (MCSP) M (MTU) M (E-MTU)	When an MTU is powered up, it must automatically re-establish its position reporting function without manual intervention	Reacquisition time when powered on: If GPS, upon initial (cold start) condition: _____ (sec) If GPS, upon warm start condition: _____ (sec)		
9.10.8		M (MCSP)	Power save modes	Can the unit be configured to power down between reports? If so, provide a reference to the format for configuring the power save mode over-the-air. Can the unit be configured to report only when movement is detected? If so, provide a reference to the over-the-air command for setting a distance threshold distance. Can the above modes be combined: ____ If yes; what limitations are present when both power saving features are enabled. If any other power saving features are present, please describe them;		

MCSP Sections	MTU E-MTU Sections	Mandatory /Optional	Test Description	Vendor Format Reference	Pass /Fail	Comments
		O (MTU) O (E-MTU)	Battery Backup	If the MTU supports an internal or external battery; please indicate what formats can be sent to indicate the following; a) Power switched from External to Battery b) Power switched from Battery to External c) Battery Voltage		
		M (MCSP) O (MTU) O (E-MTU)	The MCSP must support the MTU's ability to transmit messages with up to 3000 position fixes. (*Detail; the network must support the facility for bulk download of position reports. It is permissible that the download use several messages – where size limits prevent a single message. However, the protocol must be robust in such circumstances to allow the messages to be concatenated reliably upon receipt).* *(Detail; data logging is not presently required by the MTU specification. However, it is mandatory that the MCSP provides the appropriate network capabilities to support such a feature if provided by the MTU).*	Does the MTU support a logging or recording feature whereby data can be recorded at a high reporting frequency for later selective download? If so, please indicate; Formats for configuring logging: N/A Formats for requesting the download of a specific date range of data: N/A		
	4.2.5	N/A (MCSP) M (MTU) M (E-MTU)	If the MTU is unable to transmit status upon the occurrence of (events as tested above) then the specially identified position reports are transmitted when its ability to transmit is re-established. *(Detail; Must have the ability to store 100 position fixes in local, non-volatile memory when the MTU/E-MTU is either unable to transmit or FFA configures the unit to a "store and retrieve" mode. These positions must be either transferred to local storage media or transmitted via MCSP.*	Please indicate formats for delayed reports. Can a delayed report be identified separately from the same event type transmitted in real-time: ___ If yes, please elaborate;		
9.12.1.1		M (MCSP)	Group query to vessels within a rectangular or circular area (*detail; the test will use a change of reporting rate, and an immediate poll to verify this function*)	Rectangular area supported: ___ Circular area supported: ____		

MCSP Sections	MTU E-MTU Sections	Mandatory /Optional	Test Description	Vendor Format Reference	Pass /Fail	Comments
9.12.4 9.12.4.2	4.2.4	M (MCSP) M (MTU) M (E-MTU	Group query to vessels within an operator defined group to reprogram reporting rate. *(detail; the test will use a change of reporting rate, and an immediate poll to verify this function*)	Maximum Group Size: Not Limited (mobiles) a) Describe whether function is implemented as a distribution list or by broadcast message(s)? _____ b) If a broadcast capability is NOT present – what cost implications are present if a message is sent to a large group? _____ c) What geographic, satellite or spot beam restrictions apply to a broadcast message? _____		
9.15.1.1		M (MCSP) M (MTU) M (E-MTU)	Redundancy of terrestrial facilities and network connectivity between MCSP and FFA, such that backup circuits or alternate network types automatically replace the primary in the event of failure without any manual intervention.	Provide details on at least two options for connectivity and/or two alternative paths (i.e. a primary and backup server) that can be used to send and receive transactions:		
9.9.3 9.15.1.2	4.1.5	M (MCSP) M (MTU) M (E-MTU)	Two-way communications for delivery and acceptance of data from MCSP to FFA and back, supporting messages, position reports, queries and administrative functions.	Indicate a reference to the format(s) for data to/from a transponder which is added to messages from the MTU by the MCSP during processing: Indicate a reference to the format(s) for the following operations; Downloading new data: [_____] Submitting a message: [_____] Error codes and status responses: [_____] Any encoding schemes (i.e. BASE64/ZMODEM used for transfer of binary data:		
9.15.1.3		M (MCSP) N/A (MTU) N/A (E-MTU)	Auto-forwarding or auto-delivery of messages without the need for retrieval by FFA (retrieval of data by FFA is also supported).	Delivery option for e-mail: _____ Delivery option via FTP: _____ Other options (please elaborate): (at least one option must be provided)		

MCSP Sections	MTU E-MTU Sections	Mandatory /Optional	Test Description	Vendor Format Reference	Pass /Fail	Comments
9.15.1.4 9.16.1.2		M (MCSP) N/A (MTU) N/A (E-MTU)	Geographically transparent communications from FFA to the MTU, such that FFA seamlessly performs communication functions without a need to take additional steps to accommodate the geographic region where the vessel is fishing.	Describe how the network determines the current location of the vessel (i.e. area, spot beam or satellite #). _____ Describe any error codes specifically indicating when a mobile is not logged onto the network: _____		
9.15.2		M (MCSP) N/A (MTU) N/A (E-MTU)	Latency at 5 minutes or less (near real time) for 95% of transmissions for two-way messaging between the MCSP and FFA.	Internet delivery mechanisms, excepting e-mail, will be considered to meet this requirement. For SMTP, or other delivery mechanisms, describe the maximum latency – assuming delivery to an Internet address at FFA.		
10.15.3		M (MCSP) N/A (MTU) N/A (E-MTU)	Communications between MCSP and FFA must be secure from tampering or interception, including the reading of passwords and data. The MCSP must provide reasonable mechanisms to prevent interception and "sniffing" during transmission from the MCSP to FFA (and) Spoofing (and) Modification of MTU identification (and) Interference with GMDSS or other safety/distress functions (and) Introduction of viruses that may corrupt the messages, transmission of the VMS system. (*detail; the features above will be evaluated as a group. Industry standard solutions such as an encrypted VPN, IP/SEC or SSL are strongly preferred as solutions for security of data delivery).*	Username/Password on account: ____ Originator IP Address Validation supported: ____ VPN access supported: ____ IP/SEC access supported: ____ SSL access supported: ____ What features are present within the network to detect and combat cloning of a terminal identity (i.e. transmissions on geographically separated satellites within a short duration of time)? Does the MCSP have any recognized security certification(s). If so, please elaborate:		
	4.2.2 4.2.2.1 4.2.2.2 4.2.2.3 4.2.2.4 4.2.2.5	M (MCSP) M (MTU) M (E-MTU)	Communications between MTU and MCSP must be secure from tampering or interception, including the reading of passwords and data. Therefore, the MTU must have mechanisms to prevent to the extent possible: The MCSP must provide reasonable mechanisms to prevent interception and "sniffing" during transmission from the MCSP to FFA (and) Spoofing (and) Modification of MTU identification (and) Interference with GMDSS or other safety/distress functions (and) Introduction of viruses that may corrupt the messages, transmission of the VMS system. (*Detail; the features above will be evaluated as a group).*	Configuration Password on MTU: ____ (this function is required) Encrypted transmission formats: _____ (optional) What features are present within the terminal to prevent unauthorized users from making configuration changes?		

MCSP Sections	MTU E-MTU Sections	Mandatory /Optional	Test Description	Vendor Format Reference	Pass /Fail	Comments
	7 (entire) 8(entire)	M (MTU) M(E-MTU)	MTU/E-MTU suitable for marine use? Y/N Temperature operating range Physical mounting E-MTU terminal suitable for use at sea? Y/N Physical and software security Provide full installation instructions	Describe specifications for marine use Describe temperature operating range Describe physical mountings Specify levels of acceptable exposure Describe the physical and software security		
			Additional Testing for EMTU functionality			
	6.1.1 6.1.3 6.1.5 6.1.6 6.1.7 6.1.8	M (E-MTU) M (MCSP)	Text messaging from vessel to shore and shore to vessel with a minimum supported message length of 1kb. Attachment support is NOT required Interface must provide the ability to review by date order, or by recipient, messages that were previously sent. The terminal must support a minimum message history of 20 messages - commonly referred to as an' Outbox' or 'Sent' messages display, additionally the interface must provide the ability to review by date order, or by sender, all messages received. The terminal must support a minimum message history of 20 messages - commonly referred to as an 'Inbox' Confirmation of delivery function is required such that a user can ascertain whether a specific message was successfully transmitted via the satellite system to the MCSP e-mail server(s). Negative delivery notifications must be sent to the originator where delivery to the terminal could not be completed for any reason.	Provide evidence that an equal to or greater than 1kb text messages are supported on the MTU. Outbox criteria achieved, yes/no ____ Inbox criteria achieved, yes/no ____ Confirmation criteria achieved, yes/ no ____ Negative delivery notification criteria achieved, yes/no ___		

MCSP Sections	MTU E-MTU Sections	Mandatory /Optional	Test Description	Vendor Format Reference	Pass /Fail	Comments
	6.1.2 6.1.4	M (E-MTU) M (MCSP)	User interface must support an 'address book' capability and a function permitting a '' reply '' to a received message without re-entry of the senders e-mail address. Onward delivery to FFA must be reliable and make use of features such as SMTP retries and delivery confirmation to ensure a reliable transport path exists for text messages sent from the vessel to FFA.	Address book should remain persistent through a power cycle of the unit. This will also validate that the address book can be pre-populated with the desired FFA and fleet addresses. Persistent after a power cycle, yes/no ____ Reply to; functionality present, yes/no _____ Specify which protocol is used to for features such as retries and delivery confirmation. i.e. SMTP		
			Electronic Forms Criteria			
	6.2	M (E-MTU) M (MCSP)	The E-MTU must support a minimum of 20 Forms, selectable by the user from a menu. Forms must be updatable over the air.	Number of Forms supported _____ Please specify if user interaction is involved for forms' updates update and if so please explain the process involved (i.e. fully automatic, installer, confirmation dialog etc). Please specify the mode of over-the-air updates in sufficient detail to clarify how the update process ensures that all vessels receive each new form version. _____		

MCSP Sections	MTU E-MTU Sections	Mandatory /Optional	Test Description	Vendor Format Reference	Pass /Fail	Comments
	6.2.1	M (E-MTU) M (MCSP)	A form is defined as: (a) 1 –40 characters describing the form, (b) Delivery address (i.e., e-mail or other network identifier), (c) Form number as defined by FFA to uniquely identify the form, (d) Form version number (numeric with one decimal place; i.e., 1.2), and (e) a collection of 1 –30 fields and associated logic rules. *Detail: It is suggested that submitting vendors reference the current FFA specifications for e-forms in each fisheries program as a demonstration with actual forms is typically requested by FFA to validate correct operation of the forms functions.*			

MCSP Sections	MTU E-MTU Sections	Mandatory /Optional	Test Description	Vendor Format Reference	Pass /Fail	Comments
	6.2.2	M (E-MTU) O (MTU) O (MCSP)	Each field (within a form) is defined by the following elements. Except where noted, all elements of the field definition are mandatory: (a) Label (0 to 40 characters, alpha numeric), (b) Context Help Text (0 to 200 characters, alpha numeric) (c)Type (Either; enumeration, numeric, alpha, alphanumeric or Boolean) (d) Default Value (e) Optional/Mandatory/Hidden/ Logic indicator, (f) Min/Max values (for numeric fields only) in range 0.000 to 999,999 (g) Decimal places (for numeric fields only) 0 –3 (h) Min/Max characters (for alpha/alphanumeric fields only)**.** *Detail: It is suggested that submitting vendors reference the current FFA specifications for e-forms in each regional fisheries program as a demonstration with actual forms is typically requested by FFA to validate correct operation of the forms functions.*			
	6.2.3	M (E-MTU) O (MTU) O (MCSP)	Up to 100 code/value/help text pairs (enumerations only) must be provided, where codes are defined as 1 –20 alphanumeric characters, values are 1–80 alphanumeric characters and help text is 0 –200 characters. Such fields are typically used to permit a user to select from a range of options (i.e., geographic areas, gear types, fish species). Codes are used to compress the form data for efficient transmission. Help text would typically be displayed only when the user selects a specific value from the enumeration. *Detail: It is suggested that submitting vendors reference the current FFA specifications for e-forms in each fisheries program as a demonstration with actual forms is typically requested by FFA to validate correct operation of the forms functions.*			

MCSP Sections	MTU E-MTU Sections	Mandatory /Optional	Test Description	Vendor Format Reference	Pass /Fail	Comments
	6.2.4 6.2.5	M (E-MTU) O (MTU) O (MCSP)	Form Validation: Each field must be defined as; Optional, Mandatory or Logic Driven. Mandatory fields must be entered by the user before the form is complete, optional fields that do not require data entry, and logic driven fields have their attributes determined by earlier form selections. Specifically; it must be possible for selection of an enumeration to change the optional/mandatory setting, min/ max values, or the permitted enumeration values on a later field within the same form. State Information: The capability to populate a form based on the last values used must be available. This provides the user without with an easy mechanism to 'modify' or 'update' a prior submission – without unnecessary re-entry of data. The 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 completed to the vendor vendor's processing center. In the case of a transmission failure, the user must be provided with details of the cause and have the opportunity to retry the form submission. *Detail: It is suggested that submitting vendors reference the current FFA specifications for e-forms in each fisheries program as a demonstration with actual forms is typically requested by FFA to validate correct operation of the forms functions.*	The following tests will require some in depth knowledge of valid declarations and it is suggested to reference regional regulation documents. Valid date formats (i.e. leap year test) y/n _____ Valid number formats (i.e. no negative values) y/n ____ Required field validation y/n _____ Is the Capability to populate a form based on the last values used available? y/n please elaborate Is the ability to review a minimum of 20 past form submissions and ascertain for each form when the form was transmitted and whether delivery was successfully completed to the vendor vendor's processing centre. y/n _____ please elaborate In the case of a transmission failure, is the user provided with details of the cause and do they have the opportunity to retry the form submission? y/n _____		
	6.2.6	M (E-MTU) O (MTU) O (MCSP)	Inclusion of VMS Position Report: In addition to the manually entered fields, the forms package must permit the inclusion of VMS position report fields such as latitude, longitude, date and time. Such fields must be obtained from the GPS function of the MTU and transmitted along with the manually entered form data within the same transaction.	Provide an example of the forms transmission and specifically highlight where this information is included in the data.		

MCSP Sections	MTU E-MTU Sections	Mandatory /Optional	Test Description	Vendor Format Reference	Pass /Fail	Comments
	6.2.7	M (E-MTU) O (MTU) O (MCSP)	It is preferred that form data be transferred from the terminal to FFA using the same transport as for either text messages or VMS position reports (the selected option to be at the election of the E-MTU vendor). Currently supported protocols for transfer are; FTP, SMTP, XML and HTTP Post. The field coding within the data must follow either CSV or XML formatting rules. For CSV format the form must contain an identifier and the version number, and then the fields in the order defined on the form. In the CSV format strings that may contain ’’,’’ (comma) characters must be quoted. XML representations must use the field label to define the XML element that contains each field value *Detail: Reference to specific fishery e-form specifications is acceptable as a response. Current fishery specifications make use of CSV encoding specific to each form type.*	Please verify that you are using one of the supported protocols for transfer, FTP, SMTP, XML and HTTP Post. Which transfer format is used? _____ The field coding within the data must follow either CSV or XML formatting rules. CSV or XML _____		