

CHAPTER 7

AUTOMATED MUTUAL-ASSISTANCE VESSEL RESCUE SYSTEM (AMVER)

700A. AMVER Participation Instructions

AMVER is a worldwide voluntary vessel reporting system operated by the U.S. Coast Guard to promote safety of life and property at sea. AMVER's mission is to quickly provide search and rescue (SAR) authorities, on demand, accurate information on the position and characteristics of vessels near a reported distress. Any merchant vessel on a voyage of greater than 24 hours to anywhere on the globe is welcome to participate in AMVER. In general, international participation is voluntary regardless of owner's nationality or vessel's flag, voyage origin, or destination. However, there are requirements for certain U.S. flag or U.S. interest vessels.

According to U.S. Maritime Administration (MARAD) regulations, the following vessels must report and regularly update their voyages and positions to the AMVER Center:

- United States flag merchant vessels of 1,000 gross tons or more, operating in foreign commerce.
- Foreign flag vessels of 1,000 gross tons or more, for which an Interim War Risk Insurance Binder has been issued under the provisions of Title XII, Merchant Marine Act, 1936.

In accordance with Title 47, Code of Federal Regulations (CFR), Ch. 1, Sec 80.905, the following vessels must participate in the AMVER system while engaged on any voyage where the vessel is navigated in the open sea for more than 24 hours:

- United States vessels which transport more than six passengers for hire, operated more than 200 nautical miles from the nearest land.

Information voluntarily provided by vessels to AMVER is kept strictly confidential, and is protected by the Coast Guard. It will be released only for safety purposes, and as a free service to AMVER participants to satisfy certain requirements of Title 33, Code of Federal Regulations for advance notification of arrival in U.S. ports.

AMVER's greatest use is in providing SURface PICTures, or SURPICs, to Rescue Coordination Centers (RCCs). A SURPIC either lists latitude/longitude or provides a graphical display of vessels near the position of a distress. It is used by RCCs to coordinate the efforts of merchant vessels and other resources to provide the best and most timely assistance possible to distressed vessels or persons at sea.

There are four types of AMVER reports: Sailing Plan, Position Report, Deviation Report, and Arrival Report. NOTE: Departure Reports have been eliminated in favor of the more common practice of filing a combined Sailing Plan/Departure Report upon departure. This combined report is now called simply a Sailing Plan and it should be sent within a few hours before or after departure. Nevertheless, Departure Reports will continue to be accepted indefinitely. The information required for Position and Deviation Reports has been increased to

ensure enough information is provided to keep AMVER accurate. Also, an end-of-report (Z line) line has been added to facilitate automatic processing of AMVER reports.

What and when to report to AMVER:

- Sailing Plan, containing complete routing information, should be sent within a few hours before, upon, or within a few hours after departure.
- Position Report should be sent within 24 hours of departure, and subsequently at least every 48 hours until arrival. The destination should also be included in Position Reports.
- Deviation Report should be sent as soon as any voyage information changes which could affect AMVER's ability to accurately predict the vessel's position. Changes in course or speed due to weather, ice, change in destination, or any other deviations from the original Sailing Plan should be reported as soon as possible.
- Arrival Report should be sent upon arrival at the port of destination.
- At the discretion of the Master, reports may be sent more frequently than the above schedule; for example, in heavy weather or under other adverse conditions.

AMVER also needs information that describes communications equipment, radio watch schedule, medical personnel on board, and so forth. This information is collected separately, retained in the automatic data processing system, periodically validated, and used only for search and rescue purposes.

700B. Communication Methods for Filing AMVER Reports

A worldwide radio station network of coastal facilities supports AMVER. Propagation conditions, location of vessel, and traffic density will normally determine which station may best be contacted to establish communications. To ensure that no charge is applied, all AMVER reports should be passed through specified radio stations. Those which currently accept AMVER reports and apply no coastal station, ship station, or landline charge are listed in each issue of the AMVER Bulletin. Also listed therein are the respective International Radio Call Signs, locations, frequency bands, and hours of operation. The AMVER Bulletin is available from:

AMVER MARITIME RELATIONS OFFICE
US COAST GUARD
USCG BATTERY PARK BUILDING
NEW YORK NY 10004-1499

Telephone: (1) 212-668-7762.

Fax: (1) 212-668-7684.

E-mail: RKenney@BatteryNY.uscg.mil.

AMVER

or:

COMMANDER
PACIFIC AREA
US COAST GUARD
COAST GUARD ISLAND
ALAMEDA CA 94051-5100

or U.S. Coast Guard District Offices, Marine Inspection Offices, and Captain of the Port Offices in major U.S. ports. Bulletin requests should state the language desired if other than English. Although AMVER reports may be sent through Inmarsat or non-participating radio stations, or directly via telex to 127594 AMVERNYK, the Coast Guard cannot reimburse the sender for any charges incurred through their use.

Vessels and radio stations sending reports to AMVER via telex should understand that all telex messages are delivered to AMVER via the Easylink (mailbox 62899122) electronic mail facility and go directly into the AMVER computer with no human intervention. AMVER's telex is in effect a receive-only circuit connected directly to a computer. There is no human operator or telex machine in the AMVER Center to acknowledge messages or otherwise interact with a human operator aboard the sending ship or radio station. ALL DISTRESS MESSAGES MUST BE SENT TO THE NEAREST RCC, NOT THE AMVER Center.

The following methods are recommended for ships to transmit AMVER reports:

ELECTRONIC MAIL VIA THE INTERNET: If a ship already has an inexpensive means of sending electronic mail to an internet address, this is a preferred method. Electronic mail may be sent via satellite or via HF radio, depending on the ship's equipment and arrangements with communications providers ashore. Ships must be equipped with a personal computer, an interface between the computer and the ship's communications equipment, and the appropriate software. NOTE: The e-mail path on shore to the AMVER Center is essentially free, but the communications service provider may still charge from ship-to-shore. AMVER Address: amvermsg@amver.org.

AMVER/SEAS "COMPRESSED MESSAGE" (INMARSAT-C VIA TELENOR): Ships equipped with an Inmarsat Standard C transceiver with floppy drive and capability to transmit a binary file (ship's GMDSS Inmarsat-C transceiver can be used); an IBM-compatible computer (not part of the ship's GMDSS System) with hard drive, 286 or better PC, VGA graphics; an interface between them; and the AMVER/SEAS software (available free of charge from the U.S. National Oceanic and Atmospheric Administration, NOAA), may send combined AMVER/Weather observation messages free of charge via Telenor Land Earth Stations at:

- 001 Atlantic Ocean Region-West (AORW)-Southbury.
- 101 Atlantic Ocean Region-East (AORE)-Southbury.
- 201 Pacific Ocean Region (POR)-Santa Paula.
- 321 Indian Ocean Region (IOR)-Aussaguel.

AMVER Address: NOAA phone number entered in the "addressbook" (for further information on how to find the NOAA phone number and to correctly setup the addressbook, see the instruction sheet for your specific brand of Inmarsat-C transceiver).

AMVER/SEAS software can be downloaded from the NOAA SEAS Website at:

<http://seas.nos.noaa.gov/seas/>
or requested from:

TELENOR SATELLITE SERVICES, INC.
6560 ROCK SPRING DRIVE
BETHESDA MD 20817

Telephone: (1) 301-214-3100 (option 1).
E-mail: customercare@telenor-usa.com

HF RADIOTELEX: AMVER reports may be filed via the HF radiotelex service of U.S. Coast Guard Communications Stations. Further information on how to send AMVER messages by this method is provided in Chapter 4, Appendix B (see COAST GUARD (HF RADIOTELEX)), or at the U.S. Coast Guard Navigation Center Website:

<http://www.navcen.uscg.mil/marcomms/cgcomms/call.htm>

AMVER reports may also be filed by HF radiotelex at no cost via U.S. Coast Guard contractual agreements with the following companies:

- Globe Wireless Maritime Data Network
<http://www.globewireless.com/>
- Mobile Marine Radio (WLO)
<http://www.wloradio.com>

TELEX: AMVER reports may be filed via telex using either satellite (code 43) or HF radio. Ships must pay the tariffs for satellite communications. Radio telex reports, if filed via a Coast Station participating in the AMVER program, may be sent free of charge. Participating Coast Stations are listed in the AMVER Bulletin magazine. Telex is a preferred method when less costly methods are not available. AMVER Address: 127594 AMVERNYK.

TELEFAX: In the event other communications media are unavailable or inaccessible, AMVER reports may be faxed directly to the AMVER Computer Center. However, this is the least desirable method of communications, since it involves manual input of information to the computer vice electronic processing. NOTE: Do not fax reports to the AMVER Maritime Relations Office in New York, since it is not staffed 24 X 7, and relay and processing of reports is delayed pending normal (Mon.-Fri.) business hours. The telefacsimile phone number to the U.S. Coast Guard Operations Systems Center in Martinsburg, West Virginia is (1) 304-264-2505.

The following method is discouraged:

CW (MORSE CODE): Due to the decline in its usage, the number of Coast Stations supporting it, its high cost, potential for error, and the mandatory carriage of upgraded GMDSS communications capabilities, ships are discouraged from using this medium.

AMVER

700C. Special Warnings to Mariners

Special Warnings reflect U.S. Government policy on international incidents with political ramifications. The content of such Special Warnings is the responsibility of the Department of State and National Imagery and Mapping Agency (NIMA). NIMA is the disseminating agency for such messages since its Radio Navigational Warning Broadcast System can be received by all U.S. flag merchant ships.

United States flag vessels in an affected area are required to acknowledge receipt of a Special Warning through the use of the Remarks line (X line) in their next regular AMVER report. For the purpose of this requirement, all vessels are deemed to be in an affected area if within 500 miles or 1 day's steaming of a reported incident.

700D. AMVER Voyage Report Types

There are four types of AMVER Reports: Sailing Plan, Position, Deviation, and Arrival Reports.

REPORTING FORMAT: Each AMVER message consists of report lines. There are 15 types of lines. The first line in every report begins with the word "AMVER" followed by a slash (/), a two letter code identifying the report type, and ends with a double slash (/). Each remaining line begins with a specific letter followed by a slash (/) to identify the line type. The remainder of each line contains one or more data fields separated by single slashes (/). Each line ends with a double slash (/). All reports should end with an end-of-report line (Z line).

REPORTING DATA: AMVER participants need to be familiar with the four types of reports. Report identifiers are as follows:

AMVER/SP// denotes Sailing Plan.

AMVER/PR// denotes Position Report.

AMVER/DR// denotes Deviation Report.

AMVER/FR// denotes Arrival Report.

An example and explanation of each of the four types of the AMVER reports follows. Numbers in parentheses refer to footnotes at the end of the section.

SAILING PLAN: A Sailing Plan should be sent within a few hours before, upon, or within a few hours after departure. It must include enough information to predict the vessel's actual position within 25 nautical miles at any time during the voyage, assuming the Sailing Plan is followed exactly. The L lines are used to report route information. These lines are the most complex lines in an AMVER report but they are critical to AMVER's success. Complete route information should be provided in all Sailing Plans and also in Deviation Reports when the vessel's route or destination changes.

Example:

```
AMVER/SP//  
A/SANDY JOAN/ABCD//  
B/110935Z//  
E/145//
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F/126//  
G/NOVOROSSIYSK/4470N/03780E//  
I/GIBALTAR/3600N/00600W/140730Z//  
L/RL/140/4130N/02910E/112000Z//  
L/RL/140/4010N/02620E/112300Z//  
L/RL/140/3630N/02330E/120300Z//  
L/RL/140/3650N/01520E/121500Z//  
L/RL/140/3760N/01000E/130100Z//  
L/RL/060//  
M/GKA/GKM//  
V/MD/NURSE//  
X/NEXT REPORT 120900Z//  
X/SITOR INSTALLED. SELCALL NUMBER IS 99999//  
Y/MAREP//  
Z/EOR//
```

Explanation:

Required items:

AMVER line/SP//
line A/vessel name/International Radio Call Sign//
line B/time/(1)
line E/current course/(5)
line F/estimated average speed/(6)
line G/port of departure/latitude/longitude/(2) (3)
line I/destination/latitude/longitude/ estimated time of arrival/(1)(2)(3)
line L/route information /(1)(3)(4)
line Y/relay instructions/(9)
line Z/end of report/(10)

Optional items:

line M/current coastal radio station or satellite number/next coastal radio station, if any//
line V/onboard medical resources/(7)
line X/up to 65 characters of amplifying comments/(8)

POSITION REPORT: A Position Report should be sent within 24 hours of departing port and at least once every 48 hours thereafter. The destination should be included, at least in the first few reports, in case AMVER has not received the Sailing Plan information.

Example:

```
AMVER/PR//  
A/SANDY JOAN/ABCD//  
B/120300Z//  
C/3630N/02330E//  
E/145//  
F/126//  
I/GIBALTAR/3600N/00600W/140730Z//  
M/GKM//  
X/NEXT REPORT 131800Z//  
Y/MAREP//  
Z/EOR//
```

Explanation:

Required items:

AMVER line/PR//
line A/vessel name/International Radio Call Sign//
line B/time of position/(1)

AMVER

line C/latitude/longitude//(2)(3)
line E/current course//(5)
line F/estimated average speed//(6)
line Y/relay instructions//(9)
line Z/end of report//(10)

Recommended items:

line I/destination/latitude/longitude/ estimated time of arrival//(1)(2)(3)

Optional items:

line M/current coastal radio station or satellite number/next coastal radio station, if any//
line X/up to 65 characters of amplifying comments//(8)(9)

DEVIATION REPORT: Deviation Reports should be sent whenever the vessel deviates significantly from its Sailing Plan. Other situations in which Deviation Reports should be sent include, but are not limited to: Change in destination, diverting to evacuate a sick or injured crewmember, diverting to avoid heavy weather, any change of route (as, for example, change based on recommendations from a vessel routing service), stopping to make repairs or await orders, change in anticipated average speed of one knot or more, etc.

Example:

AMVER/DR//
A/SANDY JOAN/ABCD//
B/120600Z//
C/3600N/02245E//
E/095//
F/220//
I/NEW YORK US/4040N/07380W/180800Z//
L/GC/220//
M/GKA/WSL/NMN//
X/DIVERTING BEST SPEED TO NEW YORK//
Y/MAREP//
Z/EOR//

Explanation

Required items:

AMVER line/DR//
line A/vessel name/International Radio Call Sign//
line B/time of position//(1)
line C/latitude/longitude//(2)(3)
line E/current course//(5)
line F/estimated average speed//(6)
line Y/relay instructions//(9)
line Z/end of report//(10)

Required items if destination or route changes:

line I/destination/latitude/longitude/ estimated time of arrival//(1)(2)(3)
line L/route information//(4)

Recommended items (in cases when not required):

line I/destination/latitude/longitude/ estimated time of arrival//(1)(2)(3)

Optional items:

line M/current coastal radio station or satellite number/next coastal radio station, if any//

line X/up to 65 characters of amplifying comments//(8)

ARRIVAL REPORT: Arrival Reports should be sent upon arrival in the immediate vicinity of the destination port, such as at the sea buoy or pilot station. This report properly terminates the voyage in AMVER's computer and ensures the vessel will not appear on an AMVER SURPIC until its next voyage.

Example:

AMVER/FR//
A/SANDY JOAN/ABCD//
K/NEW YORK/4040N/07380W/180830Z//
X/PROBLEMS WITH MF XMTR. AGENT ADVISED//
Y/MAREP//
Z/EOR//

Explanation:

Required items:

AMVER line/FR//
line A/vessel name/International Radio Call Sign//
line K/port name/latitude/longitude/time of arrival//(1)(2)(3)
line Y/relay instructions//(9)
line Z/end of report//(10)

Optional items:

line X/up to 65 characters of amplifying comments//(8)

Footnotes:

- (1) Indicates the time associated with the position given in the C and G lines of the report. All times must be expressed as a six-digit group giving date of month (first two digits), hours and minutes (last four digits). Only Universal Coordinated Time (i.e., Greenwich mean time) is to be used. The six-digit date-time-group is to be followed by either Z, GMT or UTC. The month is optional. If addition of the month is deemed appropriate, the first three letters of the English language month are used. The following examples are acceptable:
B/290900Z//
B/290900Z DEC//
B/290900GMT//
B/290900UTC//
- (2) Both port name and geographic position are required from U.S. flag vessels.
- (3) Latitude is a four-digit group expressed in degrees and minutes, suffixed with N for north or S for south. Longitude is a five-digit group expressed in degrees and minutes, and suffixed with E for east or W for west. For example:
G/4000N/03500W//.
- (4) The L lines contain most of the sailing plan information. As many L lines as needed may be used to describe the vessel's intended route. Detailed route information caused by maneuvering over short distances near coasts should not be included. An approximate route using fewer turn points and the

AMVER

“coastal” navigation method should be provided. However, enough turn points should be provided to keep AMVER’s plot of the vessel’s position within 25 nautical miles of the vessel’s true position. All L lines except the last one in the report require the following information: /navigation method/leg speed/latitude/longitude/port or landmark name/ETA/estimated time of departure. For example:

L/RL/125/0258N/07710W/ABACO/111200Z//.

L/RL/125/0251N/07910W/NWPROVCHAN/112145Z//.

L/RL/125/0248N/08020W/120255Z//.

L/RL/125//.

The navigation method is required. There are three types of navigation methods recognized by AMVER: Rhumb Line (RL), Great Circle (GC) and Coastal (COASTAL).

Leg speed is useful, but is not required. See footnote (6).

Latitude/longitude are required. See footnote (3).

Port or landmark name is useful, but is not required.

ETA is required. See footnote (1).

ETD is required if the ship will layover at an intermediate point. See footnote (1).

A final navigation method is required to route the ship to its destination.

Final leg speed is useful, but not required.

- (5) True course is a three-digit group.
- (6) Speed is a three-digit group in knots and tenths of knots. For example, 20.5 knots would be expressed as 205, without a decimal point.
- (7) If the optional V line is used, one or more of the following is required:
 - /MD/ for medical doctor or physician.
 - /PA/ for physician’s assistant or paramedic.
 - /NURSE/ for trained nurse.
 - /NONE/.

For example:

V/MD/NURSE//

It is important to accurately report a vessel’s medical resources EVERY VOYAGE. Medically trained personnel are very scarce on the high seas and this makes them extremely valuable in cases where a member of a vessel’s crew becomes ill or injured.

- (8) Any information provided in the remarks line will be stored in AMVER’s automatic data processing system for later review. However, no particular action will be taken, nor will the information be routinely passed to other organizations. The remarks line cannot be used as a substitute for sending information to other search-and-rescue authorities or organizations. However, AMVER will, at the request of other SAR authorities, forward remarks line information to the requesting agencies.

Changes in vessel data: When a vessel changes name, flag, owners, etc., it is important to include the number assigned the ship in Lloyds Register of Shipping to ensure the AMVER database is kept current.

- (9) The Y line is used to request relay of the AMVER report to certain other reporting systems. In accordance with Title 46 CFR, all U.S. flag merchant vessels and certain other vessels are REQUIRED to report their positions to MARAD via participation in the AMVER system. Such vessels must include the keyword “MAREP” in the Y line of every AMVER report.

Presently, AMVER and the Japanese Regional Reporting System (JASREP) cooperate with each other by accepting and complying with relay requests. For example:

Y/MAREP//

Y/JASREP//

Y/JASREP/MAREP//

Y/AMVER//

Y/AMVER/MAREP//

- (10) The Z line must be the last line in every AMVER report as it is used by the AMVER computer to signal the end of the report.