



Training Manual SRC

WICHTIG: Dieses Training Manual dient nicht der Kursvorbereitung, kann aber zum Seminar mitgenommen werden und dient der Wiederauffrischung und Nachbereitung des Erlernen!

Legal requirements:

VHF registration Callsign and MMSI allocation: OFCOM (UK)

Frequencies and Channels:

- 📍 **VHF Maritime Frequencies:**
- 📍 156 MHz – 174 Mhz.
- 📍 59 Channels with a 25 kHz spacing each.
- 📍 Some Channels have distinctive functions and must never be used otherwise.
- 📍 Each VHF has a **high/ low function** in order to limit the radio range from 25W (High) to 1W (Low).
- 📍 The Squelsh Button reduces Background Noise
- 📍 Dual/ Tri / Multi Watch can listen to more channels simultaneously
- 📍 There are SIMPLEX & DUPLEX Channels.
- 📍 **SHIP TO SHIP COMMUNICATIONS ON DUPLEX IS NOT POSSIBLE!**

Channel Allocation:

Calling and Distress	16
Digital selective calling	70
Intership	6, 8, 72, 77
Bridge to bridge (Navigational safety)	13
Small craft safety – UK only	67
Coastgard - weather & safety	23, 84, 86
Port operations	12, 14
UK Marinas	80
Yacht club safety boats	M (ex 37)
Race Control	M2

How to calculate the Radio Range:

$(\sqrt{\text{Antennenhöhe Küstenstelle}} + \sqrt{\text{Antennenhöhe Schiff}}) \times 2,1 = \text{Range in Nautical Miles}$



Procedure Words for Standard Communication

Proword	Use	Example
Say again	To ask for a repetition	„Say again, which channel?“
I say again	To give a repetition	„I say again channel seven seven.“
All after	To obtain clarification	„Say again all after...“
All before	To obtain clarification	„Say again all before...“
Correction	Said before correcting part of a message	„Go to berth 273. Correction, berth 275. I say again: 275.“
I Spell	Said before using Phonetic Alphabet	„Vessel Indigo. I spell- India-November-Delta-India-Golf-Oscar.“
This is	To identify calling station	„This is yacht Indigo...“
Over	Invitation to reply as the PTT is released.	„This is yacht Indigo, over.“
Out	The end of the conversation. NO reply expected.	„Thank you, out.“
Station Calling	Used if the name of the vessel is not understood.	„Station calling Sierra. This is Sierra. Say again your name please, over.“



Pro- Words for VHF Communications in Distress, Urgency and Safety Situations

Proword	Use / Circumstances	Notes
MAYDAY	„if there is GRAVE and IMMEDIATE danger to ship, aircraft, vehicle or person which requires immediate assistance.“	MUST be Life threatening
SEELONCE MAYDAY	While MAYDAY in progress radio silence is imposed. CG may use SEELONCE MAYDAY when necessary.	Never use a channel when mayday is in progress.
(PRUDONCE)	PRUDONCE is used to RELAX but NOT end radio silence. Channel can be used with great care.	-
SEELONCE FEENEE	Radio silence is lifted.	
MAYDAY RELAY	A message sent by a vessel not in distress passing on a distress.	Make sure to be identified as the vessel passing on the distress call.
PAN PAN	If you need assistance but no life threatening situation. Also for medical advice or assistance.	DSC URGENCY FOR MAYDAY RELAY!!!
SECURITE	Message containing safety information	Usually by CG for example when broadcasting a new gale or navigational warning.



Forbidden Transmissions

- 📌 Unqualified Person, unless under the control of a SRC Holder.
- 📌 Calls without Identification by vessel's name, call sign or MMSI.
- 📌 Calls unauthorised by the skipper.
- 📌 False distress signals .
- 📌 Broadcasting of Music or other messages.
- 📌 Calls ashore except ports, marinas or coastguards.
- 📌 Profane indecent or obscene language.
- 📌 Unnecessary transmissions (e.g. lengthy discussions about a football game).

Definitions

- 📌 **Definition of Distress:**
A vessel, vehicle aircraft or person must be in GRAVE and IMMIDENT Danger.
Immediate Assistance required!
- 📌 **Definition of Urgency:**
A potentially dangerous situation which is not life threatening.
- 📌 **Safety Calls:**
Are usually made by the Coastguard for navigational and weather warnings. Can also be sent by vessel in a situation that is potentially dangerous to other vessels.



Examples of Distress, Urgency, Securite VHF Calls

The Distress Call and Message

MAYDAY MAYDAY MAYDAY
This is Condor Condor Condor
Callsign DBR44
(Short Break)

MAYDAY Condor Callsign DBR44
My Position is 55°44' .43 North
005° 32' .22 East
Aground and breaking up.
Require immediate assistance.
Three Persons on bord.
30 Foot Motor Cruiser.
Over

The Urgency Call

PANPAN PANPAN PANPAN
All Stations All Stations All
Stations.
This is Condor Condor Condor
Callsign DBR44
My Position is 55°44' .43 South
005° 32' .22 West
We have an engine failure. We
need tug assistance. 56 foot
motor cruiser.
Over.

The Mayday Relay Call

MAYDAY RELAY MAYDAY RELAY
MAYDAY RELAY. This is Watch Out,
Watch Out, Watch Out. Callsign
DGF52. Received Mayday from No
Worries. Call Sign L3FF2. Mayday No
Worries:
Callsign L3FF2. In position.....

The Securite Call

Securite Securite Securite
All Stations All Stations All Stations.
This is Indigo Indigo Indigo.
CallSign: D5HK1
Position 35°44' N 007° 33' W.
South Cardinal Bouy Hamble is
unlit.



The Callsign and the MMSI

The Callsign	The MMSI
in UK: From <u>OFCOM</u>	In UK: <u>OFCOM</u>
Allocated to a Boat NOT the owner	For DSC equipped Vessels and Shore Stations
Made up of numbers and letters	Consists of 9 Digits Three Digits MID: Maritime Identification Digit (UK: 232, 233,234,235) (Germany: 211, 218)
Exp: MCDW7	Four Types of MMSI: (In this Example: UK) a) Ship (235 445772) b) Group (0235 44888) c) Coast (00235 1240)
Use Phonetic Alphabet when spelling	To find out the MMSI look up in the Almanach.

The DSC Controller

- ⚓ Always on CH. 70
- ⚓ Channel 70 is a digital Channel therefore no voice transmission on CH. 70!
- ⚓ DSC has 50% more transmission range (very simple signal)
- ⚓ DSC sends programmed routine, safety, urgency and distress messages
- ⚓ DSC can send individual-, group- and all ships calls
- ⚓ The DSC is connected to the GPS and can send the location of your ship to every receiving station
- ⚓ Every DSC has an MMSI allocated by OFCOM for identification
- ⚓ Every VHF is different. Read the manual! (Menu allocation!)
- ⚓ Never test the DSC Distress Alert!



Wie verhalte ich mich wenn ich ein Mayday in GMDSS Area A1 (40 M) empfang?

Position	Did you hear or see the acknowledgement?	Can you assist?	Action
A1 Area	Yes from Coastguard	No	Maintain Radio silence. Listen and write down message. Plot Position
A1 Area	Yes from Coastguard	Yes	Call CG. `Mayday Yacht Indigo, Thames CG, this is yacht Sierra. Can assist. ETA 5 min. Over.`
A1 Area	No (very unlikely esp. If DSC used)	No	If you are sure it is necessary: DSC URGENCY ALERT -> CH. 16: `Mayday Relay 3x This is Sierra 3x (MMSI), Mayday Received from Yacht Indigo. Mayday Indigo (repeat message).
A1 Area	No (very unlikely esp. If DSC used)	Yes. Ack!	Ch. 16: Mayday yacht Indigo x3 This is Sierra x3 Received Mayday. Proceeding to your assistance. ETA 10 Min. Then: Send Mayday Relay

The EPIRB (Emergency Position Indicating Radio Beacon)

- 📍 Ermöglicht die Peilung der Position durch den Doppler Effekt wenn polumkreisende Satelliten das Signal empfangen.(Kann bis zu 4h dauern).
- 📍 Wenn EPIRB mit GPS ausgestattet kann die Ortung schneller geschehen (15-30 Min).
- 📍 Ist bei der Küstenwache zu registrieren, wird in der Ship Radio Licence festgehalten.
- 📍 Identifikation über MMSI.
- 📍 Sendet auf 406 MHz (IdR. 121,5 Mhz als Homing Signal integriert).

SART (Search And Rescue Transponder)

- 📍 Sendet ein Signal (12 Punkte) über Radar zur Erleichterung bei der Suchaktion.

AIS (Automatic Identification System)

- 📍 Angeschlossen an Chartplotter und VHF über Ch. 87.88
- 📍 „Enhanced Radar“
- 📍 Zeigt auf dem Chartplotter Schiffsfahrt in Reichweite mit Information über MMSI, Art des Schiffes, Kurs, Ziel.

NAVTEX

- 📍 Sendet auf 490 Khz oder 518 Khz Navigational and Weather Warnings + SAR Operations.

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