IBERIAN ORCA INTERACTION SAFETY CHECKLISTS and EMERGENCY COMMUNICATION PROTOCOLS

For Recreational Sailors Transiting the Strait of Gibraltar, Gulf of Cádiz, and Iberian Atlantic Coast

Aligned with MITECO (Spain) Guidance and Sailor Best Practices
(Please note that venerable organizations like the Cruising Association have only acknowledged but not embraced the MITECO recommendations—see https://www.theca.org.uk/orcas/safety-info)

CHECKLIST 1: PRE-PASSAGE PREPARATION & DRILLS

To be completed at least 24 hours before entering orca-risk zones.
Integrates standard pre-departure procedures with enhanced orca-interaction response protocols.

Strategic Navigation & Risk Review:

- Check orca interaction updates from:
  - ➡ orcas.pt Telegram channels (location and info/discussion groups) - sailor self-help group
  - ➡ GTOA: https://www.orcaiberica.org/en also GT Orcas app on Play Store and Apple Store (link / QR code on website)
  - ➡ Orcinus app (by BDRI and Nautilus project) on Play Store and Apple Store
- Plan routing to:
  - ➡ Avoid high-interaction areas (especially April–August)
  - ➡ Navigate **as close to the coast as safe** to allow shallower escape routes
  - ➡ Plan for **daylight AND fair-weather passage** (rescue if needed is more difficult in low visibility, adverse conditions, and darkness)
- File a ***float plan*** (see Addenda) and notify port authorities / self-help groups

- Confirm insurance coverage includes cetacean-related damage

Vessel Systems & Safety Equipment:

- VHF operational (CH 16), backup handheld available
- AIS transmitting and functional
- Safety gear checklist:
    - ➡ **Harnesses and tethers** for all crew
    - ➡ Jacklines installed
    - ➡ **Grab bag** with flares, water, food, documents
    - ➡ Functional **bilge pump** and watertight hatches
    - ➡ Dinghy inflated or ready-to-float, secured on deck
    - ➡ Emergency float (rescue buoy/life raft) tested and accessible
    - ➡ Emergency steering method (e.g., tiller, drogue rig tested (see Addenda)

Crew Safety Drill & Protocol Review:

- Brief crew on:
    - ➡ Current **orca interaction protocol (MITECO version)**:
      Do not stop. Maintain headway toward **coast and shallower waters**, avoid noise or defensive actions.
    - ➡ Crew safety: remain **tethered**, avoid deck exposure, and stay low/protected
    - ➡ Roles (to be assigned): helm, communications, logging, damage control—in case of attack or sighting each member needs to know and embody a pre-defined and previously practiced role
    - ➡ Assign a dedicated lookout with binoculars for orca spotting
- Run **orca interaction drill**:
    - ➡ Simulate response maneuver toward coast (see Checklist 2)
    - ➡ Simulate VHF call to CCS (Rescue Coordination)
    - ➡ Simulate loss of steering

- Run **evacuation drill**:
    - ➡ Confirm dinghy inflation/launch readiness
    - ➡ Practice crew transfer from cockpit to dinghy while tethered
    - ➡ Locate and demonstrate **life raft deployment**
    - ➡ Ensure grab bag and comms can be safely transferred

Printed and Posted Onboard:

- Orca response reference card (laminated-to be produced)
- VHF channels and CCS contacts by region
- Crew drill sheet & assigned roles

CHECKLIST 2: DURING INTERACTION OR ATTACK

To be executed immediately once orcas are spotted, approach, or make contact.

When entering orca zones**, disable Autopilot,** use manual steering for immediate rudder feedback and reduced mechanical stress

Action Under Stress:

- **Maintain vessel movement**:
  - ➡ Do not stop
  - ➡ Navigate toward **nearest shallow, coastal area** if conditions allow
  - ➡ ***Do not fight*** rudder pressure—accompany orca pushes to reduce steering system strain
  - ➡ If rudder is pushed port side, steer ***gently*** to starboard
  - ➡ Use engine power proactively—maintain steady heading, or accelerate to reduce exposure, if safe
  - ➡ Log depth of water during orca interaction (e.g., < or > 20m)
- **Avoid**:
  - ➡ Loud noises, banging, or erratic maneuvers
  - ➡ Crew movement near boat edges
  - ➡ Use of deterrents or aggressive actions
- Tether all crew and relocate to protected positions (see Addenda)
- Secure loose equipment on deck and cockpit

Communication & Monitoring:

- Initiate **VHF CH 16 watch**
  - ➡ Broadcast "**Securité Securité**" warning about presence of orcas with position and vessel status
- If situation escalates:
  - ➡ Broadcast **"Pan Pan"** with position and vessel status

- ➡ Contact nearest **Centro de Coordinación de Salvamento (CCS)**

- Begin incident log:
  - ➡ Time and GPS coordinates
  - ➡ Number and behavior of orcas
  - ➡ Description of vessel response and condition

Emergency Readiness:

- Monitor for:
  - ➡ Rudder or hull damage
  - ➡ Water ingress or flooding
- If critical damage or sinking begins:
  - ➡ Prepare for **evacuation**:
    - Launch and board dinghy or life raft
    - Bring grab bag and handheld VHF
    - Maintain tethering until all crew are safely transferred
    - Signal position using EPIRB or flares

CHECKLIST 3: POST-INTERACTION DEBRIEF & REPORTING

To be completed within 24 hours after passage or incident.

Vessel & Crew Status Check:

- Inspect:
  - ➡ Rudder and steering mechanisms
  - ➡ Hull for cracks or punctures
  - ➡ Bilges for water ingress
- Check for:
  - ➡ Signs of delayed steering failure
  - ➡ Any damage to lifelines, dinghy, or rigging
- Assess crew wellbeing (shock, injury, dehydration, mental stress)

Documentation:

- Complete log:
  - ➡ Exact time, date, GPS position
  - ➡ Duration and type of interaction
  - ➡ Orca behavior and group size
  - ➡ Actions taken and outcomes
  - ➡ Any damage sustained (photos or video if safe)
- Submit official report to:
  - ➡ **Spanish MITECO**: via online portal or designated form https://www.miteco.gob.es/en/biodiversidad/temas/biodiversidad-marina/habitats-especies-marinos/especies-marinas/bm_hayem_em_orcas.html
  - ➡ orcas.pt logs (via Telegram or affiliated portals)—use www.orcas.pt/orcasreport for detailed report of incident

- ➡ GTOA: https://www.theca.org.uk/orcas
- ➡ Local maritime authorities or coast guard if applicable

Debriefing & Learning:

- Crew debrief:
  - ➡ What worked? What failed?
  - ➡ Was the evacuation drill needed or nearly initiated?
  - ➡ Were tethering protocols properly followed?
- Update:
  - ➡ Safety procedures and roles
  - ➡ Future passage planning strategies
- Share anonymized incident data with:
  - ➡ Sailing associations
  - ➡ Orca alert platforms and networks

VHF RADIO COMMUNICATION PROTOCOLS (1)

For Use During Orca Interactions or Vessel Distress
VHF Channel 16 – International Distress and Hailing Frequency

SECURITÉ MESSAGE

(To be issued immediately after an ORCA SIGHTING: Early Warning / Presence Notification)

🇬🇧 ENGLISH

SECURITÉ, SECURITÉ, SECURITÉ
All stations, all stations, all stations,
This is sailing vessel **[VESSEL NAME]**,
Currently located at **[LATITUDE, LONGITUDE]**,
We have sighted orcas in this area.
We are under way, maintaining headway toward the coast.
Vessel is in normal condition.
Recommend all vessels in vicinity proceed with caution.
We will maintain a listening watch on Channel 16.
SECURITÉ, [VESSEL NAME] out.

🇪🇸 ESPAÑOL

SECURITÉ, SECURITÉ, SECURITÉ
A todas las estaciones, a todas las estaciones, a todas las estaciones,
Aquí velero **[NOMBRE DE EMBARCACIÓN]**,
Ubicación actual **[LATITUD, LONGITUD]**,
Avistamiento de orcas en esta zona.
Nos mantenemos en movimiento hacia la costa.
La embarcación está en condiciones normales.
Se recomienda precaución a todas las embarcaciones cercanas.
Permanecemos en escucha por Canal 16.
SECURITÉ, [NOMBRE DE EMBARCACIÓN], corto.

🇵🇹 PORTUGUÊS

SECURITÉ, SECURITÉ, SECURITÉ
A todas as estações, a todas as estações, a todas as estações,
Aqui veleiro **[NOME DA EMBARCAÇÃO]**,
Localização atual **[LATITUDE, LONGITUDE]**,
Avistamento de orcas nesta área.
Seguimos em movimento em direção à costa.
A embarcação está em condição normal.
Recomenda-se precaução às embarcações próximas.
Manteremos escuta no Canal 16.
SECURITÉ, [NOME DA EMBARCAÇÃO], câmbio.

VHF RADIO COMMUNICATION PROTOCOLS (2)

For Use During Orca Interactions or Vessel Distress
VHF Channel 16 – International Distress and Hailing Frequency

PAN PAN MESSAGE

(For non-life-threatening orca interaction requiring assistance or vigilance)

To be used immediately after orca contact begins, especially if risk of damage is present.

🇬🇧 ENGLISH

PAN PAN, PAN PAN, PAN PAN
This is sailing vessel [VESSEL NAME],
MMSI [NUMBER], call sign [CALL SIGN],
We are experiencing an orca interaction at position [LATITUDE, LONGITUDE],
We are navigating toward the coast in accordance with orca safety protocol.
We have [NUMBER] persons on board.
No injuries at this time.
Please acknowledge and advise if assistance is available.
We will maintain a listening watch on Channel 16.
[Repeat position if necessary]

🇪🇸 SPANISH

PAN PAN, PAN PAN, PAN PAN
Aquí velero [NOMBRE DE EMBARCACIÓN],
MMSI [NÚMERO], distintivo de llamada [CALL SIGN],
Estamos experimentando una interacción con orcas en la posición [LATITUD, LONGITUD],
Navegamos hacia la costa según el protocolo de seguridad.
Hay [NÚMERO] personas a bordo.
No hay heridos por el momento.
Solicitamos confirmación y asistencia si está disponible.
Mantenemos escucha en el Canal 16.
[Repetir posición si es necesario]

🇵🇹 PORTUGUESE

PAN PAN, PAN PAN, PAN PAN
Aqui veleiro [NOME DA EMBARCAÇÃO],
MMSI [NÚMERO], indicativo de chamada [CALL SIGN],
Estamos a ter uma interação com orcas na posição [LATITUDE, LONGITUDE],
Seguimos para a costa conforme o protocolo de segurança.
Estamos com [NÚMERO] pessoas a bordo.
Sem feridos até o momento.
Solicitamos confirmação e apoio, se possível.
Mantemos escuta no Canal 16.
[Repetir posição, se necessário]

VHF RADIO COMMUNICATION PROTOCOLS (3)

For Use During Orca Interactions or Vessel Distress
VHF Channel 16 – International Distress and Hailing Frequency

MAYDAY MESSAGE (SOS)

(For **life-threatening** situations: vessel taking on water, sinking, or evacuation needed)

Use if the boat is seriously damaged, flooding, or you are abandoning to dinghy or life raft.

🇬🇧 ENGLISH

MAYDAY, MAYDAY, MAYDAY
This is sailing vessel [VESSEL NAME],
MMSI [NUMBER], call sign [CALL SIGN],
We are sinking due to orca-related damage.
Our position is [LATITUDE, LONGITUDE].
We are abandoning ship to [dinghy/life raft].
[NUMBER] persons on board.
We require immediate rescue assistance.
MAYDAY [VESSEL NAME]
[Repeat position once]

🇪🇸 SPANISH

MAYDAY, MAYDAY, MAYDAY
Aquí velero [NOMBRE DE EMBARCACIÓN],
MMSI [NÚMERO], distintivo de llamada [CALL SIGN],
Nos estamos hundiendo debido a daños por interacción con orcas.
Nuestra posición es [LATITUD, LONGITUD].
Abandonamos la embarcación a [bote auxiliar/balsa salvavidas].
Hay [NÚMERO] personas a bordo.
Solicitamos rescate inmediato.
MAYDAY [NOMBRE DE EMBARCACIÓN]
[Repetir posición una vez]

🇵🇹 PORTUGUESE

MAYDAY, MAYDAY, MAYDAY
Aqui veleiro [NOME DA EMBARCAÇÃO],
MMSI [NÚMERO], indicativo de chamada [CALL SIGN],
Estamos a afundar devido a danos causados por orcas.
Estamos na posição [LATITUDE, LONGITUDE].
Vamos abandonar o barco para [bote/balsa salva-vidas].
Estamos com [NÚMERO] pessoas a bordo.
Necessitamos de resgate imediato.
MAYDAY [NOME DA EMBARCAÇÃO]
[Repetir posição uma vez]

Addenda

1. FLOAT PLAN – VESSEL SAFETY ITINERARY

(To be emailed or submitted in-person to marina office / port authority / emergency contact)

1. Vessel Information

- Name: *[e.g., SY ORCAJOY]*
- Type: *[Monohull/Catamaran]*
- Length: *[e.g., 36 ft]*
- Sail/Motor: *[Yes/Yes]*
- Registration #: *[e.g., SSR123456]*
- MMSI: *[e.g., 235112233]*
- VHF Call Sign: *[e.g., M7XYZ]*
- AIS Transmitting: [Yes/No]

2. Captain and Crew Details

- Skipper: *[Full name + phone + email]*
- Additional Crew: *[Names & emergency contacts]*
- Number aboard: *[Total]*

3. Route and Schedule

- Departure Port: *[e.g., Chipiona Marina]*
- Date/Time of Departure: *[DD/MM/YYYY HH:MM]*
- Intended Route:
  Waypoint 1: [Coordinates]
  Waypoint 2: [Coastal passage near Trafalgar]
- Destination Port: *[e.g., Barbate Marina]*
- ETA: *[DD/MM/YYYY HH:MM]*

4. Emergency Preparedness

- VHF: [Yes/No] – CH 16
- EPIRB: [Yes/No] – Reg #:
- Life Raft: [Yes/No]
- Dinghy: [Secured on deck / Deployed at stern]
- Safety Drills Completed: [Yes/No – Date]
- Orca-risk drills conducted: [Yes/No]

5. Notification Protocol

- If no contact by [Date + Time]:
    - ➡ Attempt VHF contact
    - ➡ Alert [Local CCS office / Port Authority]
    - ➡ Contact Salvamento Marítimo (Spain): 112 or VHF CH 16

6. Attachments

- Copy of passport / vessel registration
- Insurance proof
- Route map screenshot
- Emergency contact consent form (if needed)

2. DROGUE RIG

- **What it is**:
  A **series of small drag devices** (cones or lines with drag elements) towed from the **stern** (rear) of the boat.
  A **"Jordan Series Drogue"** is a popular variant for offshore yachts.

- **Used for**:

  ➡ Slowing the boat down when running downwind in large seas

  ➡ Preventing broaching (loss of control and sideways capsizing)

  ➡ Maintaining stern-to-wave position in storm conditions

- **Orca context**:

  ◦ **May help stabilize drift** if the rudder is damaged or the boat is circling

  ◦ Can reduce yawing or rolling if under engine but unable to steer

3. SEA ANCHOR

- **What it is**:
  A **parachute-like device** deployed from the **bow** (front) of the boat.
  It creates **drag in the water**, keeping the bow pointed into wind and waves.

- **Used for**:

  ➡ Holding position offshore during a storm

  ➡ Preventing the boat from drifting sideways or turning broadside to waves

  ➡ Buying time in emergencies while awaiting rescue

- **Orca context:**

  ➡ **Not advised to be used during orca interactions**, as orcas tend to be more curious about rudders and propellers than bow structures. However, in case of total rudder failure, it might be used to slow drift toward shore**.**

For more information see : https://passagemaker.com/technical/storm-drogues-and-sea-anchors-explained/

Important Notes

- Neither a drogue nor a sea anchor is designed to **"repel" orcas**.
- They should be used **only when passive drift becomes hazardous** (e.g., near rocks or shipping lanes), or when no steerage remains and sail/engine options are gone.
- Deployment requires **careful setup and retrieval**, so they should be **rigged for quick deployment** if a long offshore passage is planned through risky waters.

4. Harnesses, Tethers, Jacklines & MOB Preparedness

Setup Before Departure

- **Inspect all gear**: Check harness stitching, tether integrity, and jackline webbing for wear or UV damage.
- **Install jacklines**: Run **low-stretch webbing** along **deck centerline** (not outboard if possible) from bow to cockpit; secure with soft shackles or strongpad eyes.
- **Choose short tethers**: Prefer **single-leg tethers ≤ 1 m** (3 ft) to **prevent falling overboard**.
- **Attach harnesses**: Each crew member wears a **chest-height harness or integrated PFD/harness** combo.

Use Underway

- **Stay clipped in**: Clip to jacklines **before leaving the cockpit**.
- **Always move clipped**: Unclip only when already re-clipped at the next point.
- **Low and centered**: Stay near centerline; avoid edge movement or high structures.
- **Night & heavy weather**: **Mandatory** tethering and full gear at all times.

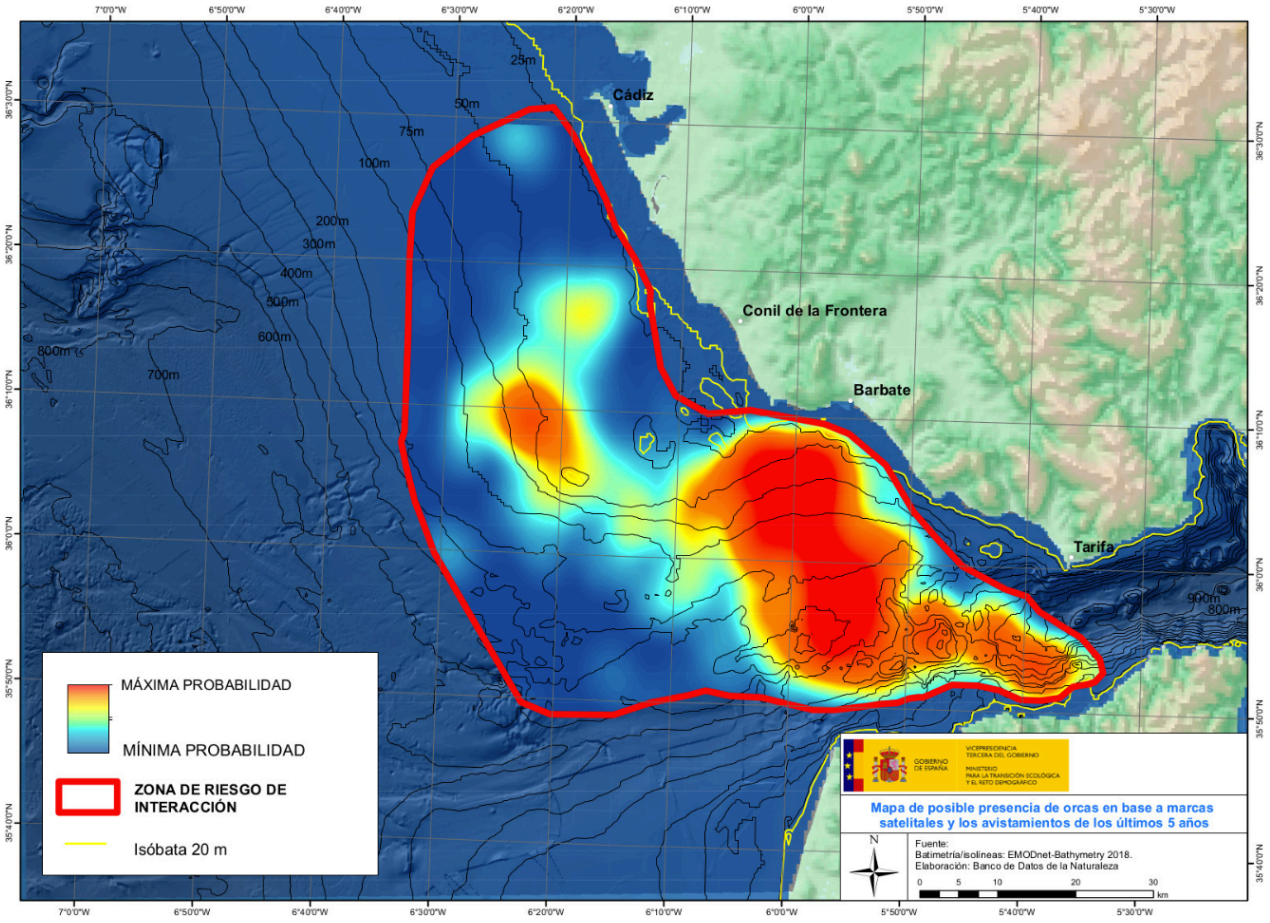
Prepare for MOB (Man Overboard)

- **Practice MOB drills regularly**: Include daylight and night retrievals.
- **Assign roles**: Helm (turn), Spotter (point, eyes on), Rescuer (lifesling/ deployment).
- **Mark with MOB button**: Log GPS instantly if person goes over.
- **Rescue gear**: Lifesling, retrieval block/tackle, or lifting halyard rigged and ready.
- **Short tethers** = MOB prevention; aim to **dangle alongside, not detach**.

See also https://www.pbo.co.uk/seamanship/is-it-safe-to-use-a-tether-25125#KfxXbKdDSjwdzL3s.01

5. Known Hotspots

Gulf of Cádiz (Barbate Hotspot)



6. Centros de Coordinación de Salvamento (Spain and Portugal)

http://www.salvamentomaritimo.es/conocenos/nuestros-medios/20-centros-de-coordinacion-de-salvamento

https://storymaps.arcgis.com/stories/fd1a14097eb841f7a6b0ce287ddf8099

(include phone numbers, frequencies, and procedures)