ERVO Cruise leader instructions template

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1 Purpose

The purpose of these Cruise leader instructions is to ensure that cruises are planned, executed, and completed in the best possible manner in accordance with the aim of the research cruise.

2 Target group and responsibilities

This instruction applies to all cruises on research vessels manned and operated by *{RV Operator name}* or chartered by *{Institution}*. It covers cruise planning, preparation, execution, and post cruise activities.

3 Definitions

Cruise coordinator	Person named «Cruise coordinator " in the cruise program and therefore has a particular responsibility for the planning and execution of cruises that includes two or more projects and/or two or more vessels. The Cruise coordinator can appoint cruise leader(s) as necessary.
Cruise leader	Person responsible for the scientific activities on board in such a manner he/she think is the best for the execution of the cruise.
Cruise participants	Scientists, technicians and students participating in the cruise.
Ship worker	All persons working on board.
Passenger/Guest	Persons who are on board only as «passengers» and not doing any kind of work on board related to the vessel or the scientific work performed on board.

4 Description

4.1 Planning and preparations

Cruise time is a limited and very expensive resource, both regarding the ship days and the working days for the cruise participants. Good planning and preparations are therefore a very important factor in ensuring that the cruises are executed with the best possible efficiency and productivity.

For multi-projects and/or multivessel surveys it is of vital importance that detailed planning is performed to maximize the use of the available ship time and cruise participants work schedules. In addition, the Cruise coordinator must already in the early stage of the cruise planning assign tasks and delegate authority to involved personnel and delegate authority as necessary.

4.2 Cooperation

The main task for research vessels is to collect data and samples for routine surveys of fish stocks and/or the marine environment, other specific marine research activities, student training cruises or combined research, monitoring and/or student training cruises.

A successful cruise requires good cooperation between the vessel crew and the science party. The captain and the Cruise leader therefore share a particular responsibility for the on-board cooperation to ensure that the cruise tasks and activities are performed in the best possible manner.

The Cruise leader has, in addition to the scientific responsibility, the employer responsibility with regards to personal conflicts between science party members, and in cooperation with the Captain if the personal conflict is between science party member(s) and member(s) of the crew.

4.3 Personal code of conduct

Since on almost all research cruises there are both male and female participants, people of different colour, religion etc it is vitally important that all personnel on board are making their best effort to make the work and rest periods on board as productive and enjoyable as possible for everyone during the cruise by behaving friendly and respectfully in all professional and social situations during a cruise. It is therefore important that the Cruise leader and the Captain make sure that the expected and required behaviour is clearly communicated and followed up from the very beginning to the end of each cruise.

4.4 Drugs and alcohol policy

Illegal drugs are of course not allowed on board a research vessel. In some countries drugs like cannabis can be allowed for medical use, but before bringing such substances on board it is important to check the {Flag state} and {RV Operator name} rules and regulations regarding this matter. The same goes for alcoholic beverages that may be totally banned or being allowed to bring on board and/or consume iaw specific regulations. It is important that the Cruise leader makes sure that all members of the Science party are well informed about the "local" rules with regards to both alcohol and drugs.

4.5 Safety

The Captain is responsible for the safety of the vessel, all personnel and equipment on board, in addition to protection of the environment against pollution.

The Cruise leader responsibilities on board a {Nation} flagged vessel can be found in the link: {URL}.

The Cruise leader shall appoint one Health, Safety and Environmental protection (HSE) representative if they are between {N} and {N+n} persons on board and two HSE representatives if they are {N+n+1} or more persons in the science party.

Both Cruise leader and the HSE representative(s) must have completed required certified HSE at sea training before the cruise.

4.6 Risk assessment

For all operations that could lead to dangerous situations for personnel on board a risk assessment shall be performed iaw *{RV Operator name}* procedures.

4.7 Scientific work

The Cruise leader is responsible for all scientific work performed on board and to take decisions regarding changes in the planned course- and station net in addition to collection and processing of data and samples.

The Cruise leader is also responsible for all scientific instruments and equipment brought on board by the Science party.

As part of their environmental protection efforts, the *{RV Operator name}* is focused on minimizing the impact on the benthic fauna. The Cruise leader is therefore responsible for checking the ocean floor with particular attention to benthic fauna when planning and executing bottom trawling and other ocean floor contact activities.

4.8 Storage and use of chemicals and other substances harmful to human health

Those who are bringing chemicals and other substances harmful to human health on board must ensure that:

- The appointed Chemical responsible person for the cruise is informed about type(s) and quantities of chemicals taken on board
- All relevant rules, regulations and procedures for storage and use of the chemicals on board are implemented and followed
- What is left of chemicals are packed and labelled and taken ashore at the end of the cruise, or as soon as possible thereafter.

4.9 Use of gases on board

Cruise leader is responsible for appointing a Gas responsible person if canisters of gas are brought on board for the cruise. Some vessels are equipped with a gas central and the gas pipes can be cleaned with nitrogen before cruise start.
This must be planned and agreed with the vessel crew in beforehand. The storage, handling and use of gas shall follow the instructions in {URL}.

4.10 Certification and control of scientific equipment to be handled with vessel cranes or winches

All equipment that the Science party wish to bring on board for a cruise and that must be handled using the vessel cranes and/or winches shall be certified with regards to lifting and/or towing.
The certificates shall be reviewed by the Captain or Chief mate before the equipment is handled with the vessel cranes and/or winches. If such certificates are not available, the Captain can make his/her own assessment and if required test under safe conditions the lifting/towing eyes on the equipment to check that the lifting and/or towing eyes will not brake during lifting or towing in such a way that it could represent danger to personnel, the vessel, other equipment and/or the environment. If the Captain is not comfortable with bringing the equipment on board for use on the cruise due to lack of certificates, own inspection and/or testing, it will not embark the vessel.

4.11 Rest periods

The International Labour Organisation (ILO) Convention 180 “Seafarers hours of work and the manning of ships convention, 1996” defines the ground rules for work an rest hours and periods on ships. In accordance with the {Flag state} Maritime Authority’s implementation of The ILO 180 convention it is not allowed for persons working on board ships to work more than {X} hours pr day and maximum {Y} hours in any {Z} days period. The rest periods shall not be divided in to more than {A} periods in any 24 hours period, and one of the rest periods shall have a length of at least {B} hours and the interval between two consecutive rest periods shall not exceed {C} hours.

4.12 Dietary requirements

The catering staff to be informed about crew or cruise participants who have specific dietary requirements due to allergies or other medical conditions to avoid use of certain food products or prepare special dishes as necessary.
Other dietary requirements due to veganism, vegetarianism, religion or other, may not be accommodated due to limited catering staff and/or limited food preparation facilities.

4.13 Diplomatic clearance to operate in other countries exclusive economic zones

It is the Cruise leader's responsibility to apply for diplomatic clearance to collect data or samples in other countries Exclusive Economic Zone (EEZ). A detailed description can be found in {URL}. Be particularly aware of the application deadlines for different countries! A map of EEZs can be found at https://www.marineregions.org/eezmapper.php.

4.14 Course and station net

It is very useful for the Captain to receive early indications on planned course and station net in order to check if there are potential conflicts with wrecks or other obstacles on the ocean floor, in the water column or on the surface such as fish nets, fish farms etc in the area around each planned sampling station.

It can also be timesaving to change the sequence of the stations such that the transit between stations to avoid sailing head on towards major sea currents and/or weather systems instead of sailing in the same direction as the currents. Also, if entering ice cowered waters to consult ice maps etc to look for the less fuel consuming routes in the ice.

4.15 Marine Protected Areas

New Marine Protected Areas (MPAs) are from time to time established in different countries waters. It is therefore important to check if planned course and station net means sailing and/or sampling in such areas and collect the necessary permits to execute the cruise as planned.

4.16 Collection of high-resolution bottom contour data

Some countries have specific laws, rules and regulations with regards to recording or in other ways use information about specific bottom conditions inside the territorial border if it potentially could harm to the national integrity, safety or other vital national security interests if the information is made known to unauthorized parties. The consequence could be that such data are classified and that bottom contours with better than XxY meter resolution are classified {e.g. Confidential}.

In {Nation} territorial waters this means that only vessels equipped in accordance with rules regarding requirements for zone separation from {National Security Authority} can be used for such data collection. At the same time, personnel involved in the handling of the collected bathymetric data must have the necessary security clearance and authorized for classification level {Classification}. If the vessel used for such data collection is not equipped iaw {National Security Authority} requirements an application to the {e.g National Defence Force} about declassification of the bathymetric data collected is required.

4.16.1 Non-disclosure agreement

The following often applies to cruises where classified bathymetric data is collected:
Cruise personnel who do not have a security clearance must sign a Non-Disclosure Agreement (NDA). They shall not have access to classified data, but they can have access to screenshots as part of their work on board during the cruise.

It is the Cruise leader's responsibility that all cruise personnel can present a signed NDA before cruise start. The Cruise leader to deliver an overview over who has the required security clearance and who has signed an NDA to the Captain and the Instrument Chief before collection of classified data begins.

4.17 Personal safety training for cruise participants

Cruise participants shall undergo Personal Safety Training (PST) at least every {X}years.
If, for some reason, some of the cruise party lacks a valid PST certificate, the necessary training will be given on board before the ship leaves the pier.
The Cruise leader shall deliver documentation (PST certificates) to the captain before the start of the cruise.

4.18 Health certificate and passport requirement for cruise participants

All cruise participants must have a valid health certificate issued by an approved seafarer's doctor. The health certificate must be valid for the whole length of the cruise and the original health certificate shall be brought on board in case of port state control when inspection of health certificates can be performed. The Cruise leader shall deliver these certificates to the captain before cruise start.

4.18.1 Exemptions

The {Flag state} regulations says that students and passengers who are embarked for a short period of time and are not performing any cruise functions do not need a health certificate. However, if the cruise is of some length and far away from land (e.g. more than 24 hours transit time to nearest shore), the Cruise leader should consider if this personnel also should bring a valid health certificate from an approved seafarer's doctor.

4.19 Information regarding Next of Kin for cruise participants

All cruise participants, including cruise personnel, students and passengers must inform the crew about name, address, phone number, email and relation to the person they want to be regarded as their Next Of Kin (NOK) and contact information to their employer. If a situation occurs where the Captain or the {RV Operator name} needs to contact the NOK and/or the employer of a cruise participant, the information on the NOK list will be used.
The NOK and employer contact information list for the cruise participants shall be delivered to the Captain no later than the day before cruise start.

4.20 Guidelines for border control at sea, entering or leaving a Schengen area

For cruises where the territorial border (in {Flag state} territorial waters 12 n.m. from the shoreline) on its way to a {Flag state} port, it is a requirement for the Captain to report to the {Flag state} police identity data for all personnel on board (cruise party, students, passengers and crew). This is done electronically, sending over passport number for citizens from EU countries and EEA countries (Norway, Iceland and Lichtenstein) citizens or Schengen visa number for non-EU or EEA countries.
According to the {Flag state} immigration Act the national police are responsible for the national border control. In Europe the Schengen-convention ended border control between Schengen countries and as a result, {Flag state} has a common outer border with 25 other Schengen countries. The {Flag state} police therefore execute border control on behalf of all countries in the Schengen cooperation in the {Flag state} territory.
The main rule is that entrance- and departure control shall be executed for all persons crossing the outer border of Schengen. Contact information for the {Flag state} police districts are available at {URL}.
Some details about execution of the border control:

- EU/EEA-citizens shall be victim to a minimum of border control to establish their identity based on their presented travel documents.
- Third country citizens (Non-EU/EEA citizens) shall be victim to a thorough control, including search in relevant databases, control of visa and residence permit, control of means to cover living expenses, purpose of the stay etc. Third country citizen's travel documents shall be systematically stamped and controlled at arrival and departure.

The following tasks shall be taken care of by the Cruise leader:

- The police shall be given prenotice when crew are embarking/disembarking a ship. Information about embarkation/disembarkation shall be sent in due time on email to the relevant police district. If the information is sent via email less than 24 hours in beforehand, a phone call in addition to an email is recommended.
- Information about port/anchorage and relevant contact information to the ship to be included.
- If a cruise participant shall stay overnight before departure, the immigration control and if required, stamping of the travel document(s) shall take place at the time the disembarkation actually takes place, and seafarers must therefore complete the immigration control before their overnight stay.
- The same procedure applies to embarkation. Immigration control shall take place the same day as actual embarkation (in "real time").
- Information about the person(s) embarking/disembarking, including name, date of birth, nationality, and travel itinerary. If possible, passport number, visa number and seafarer's book or ID card should be registered.
- *Emergency visa*. If an acute need for an Emergency visa occurs, a form that can be found on {URL}, with the required attachments to be delivered via the responsible police unit for the immigration control. The approval process time will at least be a full working day. Applications are not processed outside regular working hours or during weekends or public holidays and an application fee will be presented. Seafarers who require a visa must stay on board during a port call if not something else is agreed with the police. It is desirable to be informed in beforehand by the ship or their agent as early as possible.

4.21 Work environment committee

Each crew have established a Work Environment Committee (WEC) in accordance with {URL} this committee shall consist of Captain, Chief mate, Chief Engineer, Fishing master, Health, Safety and Environment (HSE) representative and deputy HSE representative for the crew, in addition to the Cruise leader and the HSE representative(s) for the Science party. At least one WEC meeting shall take place in any {N} weeks period and the WEC on board has the same tasks, responsibilities, and authority as WECs ashore.
Non-conformity reports and improvement suggestions from WEC to be sent to the {RV operator name} «Designated Person Ashore» (DPA) at the {RV operator name}for follow up and required actions.

4.22 Use of spare cruise time

Before each cruise, the Cruise leader shall map tasks that can be performed if spare time occurs during the allocated cruise time. This could be tasks that should have been performed on other cruises, ship maintenance or allow following cruises to start earlier. The Cruise leader is obliged, together with the Captain, to ensure that the ship time is utilized in the best possible manner.

An {RV operator name} goal is to reduce emissions to air. Reducing the use of marine diesel is the most effective measure available. In addition to efficient use of available cruise time, the vessel shall when appropriate proceed to port as soon as possible after completed all planned cruise tasks.

4.23 Start and end time for cruises

Cruise start, the time of day that cruise personnel can embark the research vessel with their own equipment and personal belongings is at {e.g. 0800} on the first day of the cruise as stated in the {RV operator name} cruise programme.

Cruise end is no later than {e.g. 2359} on the last day of the cruise as stated in the {RV operator name} cruise programme. Cruise end means that the ship is secured alongside the pier, all laboratories and other rooms used during the cruise shall be cleaned, all equipment, chemicals, personal belongings and collected samples that shall be taken ashore shall be offloaded, and the cruise personnel shall be disembarked.

Under special circumstances and at the captain's discretion cruise participants can stay on board over nigh and disembark the next morning. The cabin(s) used must be abandoned before {e.g. 0800} the following morning in order for the catering staff to clean and prepare the cabin(s) for the next cruise party.

4.24 Information to media

Scientific information to media and others during a cruise shall only be given by the Cruise leader or in agreement with the Cruise leader, and for {RV operator name} cruise leaders preferably in cooperation with the actual {e.g. Science director and/or Research Group leader, and the Communication and Public relations department}. For other user institution cruises the cruise leaders act in accordance with their internal institution's rules in this regard.

4.25 Delayed cruise start

If unexpected events occur shortly before cruise commencement which results in a delayed cruise start the cruise participants shall be informed as soon as possible. There could be different reasons for such a delay, for example circumstances connected to the ship, equipment to be used on the cruise or severe weather which makes a delayed cruise start preferable or necessary.

The decision to delay cruise start shall be taken by the Cruise owner in consultation with the {RV operator name} and the Cruise leader.

Since a postponed cruise start is due to unforeseen circumstances, to set a new start date and time can be difficult, but for the sake of the cruise personnel private and professional schedules a realistically predicted start date and time must be stated. If the cruise party must be on standby to embark the vessel on short notice this must be specifically conveyed to all cruise participants.

With «standby» it means that the employer is limiting the cruise participants work and private schedules since they have to be available and able to embark on short notice. If such a standby order is issued it will trigger a right to compensation iaw {local labour agreements}.
According to this paragraph, standby duty is registered as work time base on a ratio agreed with the trade unions.
The actual Cruise owner informs the Cruise leader about the decisions made and the Cruise leader is responsible for relaying information about anticipated new sail date and time and if standby duty is established.

4.26 Calibration

The Cruise leader must allocate sufficient time in the Cruise plan for calibration of trawls, plankton sampling equipment, echosounders, sonars etc.

5 Step by step checklist

5.1 Before the cruise

Responsibility	Action/activity
Cruise coordinator	For multi-project and/or multivessel cruises, initiate the cruise planning process as early as possible after the cruise programme is approved, usually in {Month} the year before, by contacting all responsible for projects included in the cruise(s) in question.
Cruise coordinator	Map and recruit cruise leaders for multivessel cruise(s).
Cruise coordinator/ Cruise leader	Apply for diplomatic clearance to foreign Exclusive Economic Zone(s) if required. Study all relevant procedures for cruise.
Cruise coordinator/ Cruise leader	Ensure that the cruise(s) are manned with relevant scientific personnel.
Cruise coordinator/ Cruise leader	Arrange planning and information meetings where cruise participants and representatives for involved projects are present and tasks and responsibilities are assigned and authority delegated, including appointing chemical and/or gas responsible person(s).
Cruise coordinator/ Cruise leader	Develop a course and station net resulting in the most efficient cruise execution, both in relation to involved projects and the assigned start, port call(s) and end port. Check if the cruise plan contains sampling in Marine Protected Areas (MPAs) and if so, get the necessary permits. Check the bottom conditions in bottom sampling areas and ensure that the benthic fauna will not be unnecessarily damaged.
Cruise coordinator/ Cruise leader	Make a list of the cruise tasks in order of priority. If the cruise runs into time constraints due to bad weather or other circumstances, reduction in tasks should to the extent possible start from the bottom of the priority list. The priority list should be a part of the Cruise plan. If the cruise is planned to be executed with higher speed than «Economical speed» during survey and/or transit this must be agreed with the {RV operator} in beforehand.
Cruise coordinator/ Cruise leader	Check if the planned crew change port(s) are suitable for the planned execution of the cruise. If changes are necessary/desirable the {RV operator} must be contacted as soon as possible and at least one calendar month before cruise commencement to discuss possible changes to the crew change port(s). Be aware that flight tickets for crew are ordered and paid a long time in advance in order to get the lowest possible prices.
Cruise coordinator	For multi-project cruises, divide the cruise costs percentagewise between involved projects based on cruise objective(s).
Cruise coordinator/ Cruise leader	In cruise planning system: Update the Cruise plan and submit it for approval by the Cruise Owner at least two weeks before cruise start.
Cruise owner	Check that the Cruise plan is in accordance with the internal activity plans and budgets. Approve the Cruise plan.
Cruise leader	Check that all cruise participants have valid Personal Safety Training (PST) certificate and a valid Health certificate from an approved seafarer's doctor.
Cruise leader	Ensure that a Next Of Kin (NOK) list for the cruise party is made.
Cruise leader	Make sure that a list of required scientific instruments and equipment is developed and that all items are brought on board. Technical and functional status for mobile and ship fitted equipment and instruments to be controlled. If support from the {RV operator} is required, e.g. assistance from warehouse personnel, crew, instrument technicians and/or superintendents for the preparation of instruments and/or

	equipment, this must be agreed on in due time in beforehand. Equipment list to be included in the Cruise plan.
Cruise leader	Ensure that lifting points on instruments and equipment to be lifted by vessel cranes and/or towed with the ship winches have the necessary certificates.
Cruise leader/ Cruise participant	Those who brings chemicals on board must make sure that the Captain and the Cruise leader is informed about the regulations for transport, storage and use of the chemicals, and make sure that the necessary data sheets are available.
Cruise participant	All cruise participants who will use or be in touch with one or more types of chemicals must study the associated data sheet(s).
Cruise leader/ Captain	Inspect the research facilities on board before cruise start and take note of discrepancies, include the findings in the Post Cruise Assessment (PCA), and if possible have them closed before cruise commencement.
Cruise leader	Develop a watch/duty list for the Science party.
Captain	Ensure that risk assessments are performed for all operations the Cruise leader plans to execute that are regarded as routine operations and that all necessary risk reduction/risk elimination efforts are planned and implemented to avoid harm to personnel, materiel and the marine environment. For more information, see {Procedures for Risk Management}
Captain	Check that that lifting points on instruments and equipment to be lifted by vessel cranes and/or towed with the ship winches have the necessary certificates. If necessary, perform a controlled test of the lifting/towing eyes to make sure they do not represent any risk to personnel, materiel and the marine environment. If the Captain is in doubt about the potential risk of lifting and/or towing the equipment, the equipment shall not be embarked.
Cruise leader	For cruises that shall collect classified bathymetric data, the Cruise leader shall make a list of authorized cruise personnel and who has signed a Non-disclosure declaration, and deliver it to the Captain and the Instrument chief before cruise start.

5.2 At cruise start

Cruise leader	Inform cruise participants and crew about the cruise objective(s), data collection, sampling, processing routines and procedures, health and safety and environment protections requirements and procedures on board.
Cruise leader	Inform all cruise participants about “Code of conduct” with regards to other persons on board during the cruise with regards to sexual harassment, unwanted personal attention etc.
Cruise leader/ Cruise participant	Those who bring chemicals on board must: Check if the chemical(s) in question already are available on board in the required quantities to avoid storing unnecessary amounts on board during the cruise. Check if the Captain and the Cruise leader are informed about the governing regulations for transport, storage, and use of the chemicals. Check the required data sheets are on board. Make sure that all chemicals are properly marked and stored, in particular in case of bad weather.
Captain	Ensure that cruise participants receive the required information about ship safety routines, daily routines on board etc. in accordance with instructions and routines described in the ship operation manual for the vessel, in addition to participate in safety drills before and during the cruise. Check relevant performed risk assessments.
Captain/Instrument Chief	Inform all cruise participants about rules and procedures for internet access during the cruise to ensure that the available bandwidth is used efficient for the vessel administration and operations, and for the benefit of all personnel on board.

5.3 During the cruise

Cruise leader	Keep cruise participants and crew informed about ongoing activities, progress, and if any deviations from the cruise plan.
Cruise leader	Register and report damaged, or lost instruments and equipment included probable cause and fill it in the Post Cruise Assessment as necessary.
Cruise leader	Organize at regular intervals cleaning of equipment and laboratories used by the cruise party. Check that the laboratories are kept tidy and that chemicals are properly stored and used in a safe manner.
Cruise leader	Ensure that equipment, samples, and data are properly stored on board.
Chemical responsible person	Make sure that chemicals are properly marked and always stored safely, in particular if bad weather. Check that chemicals are responsibly managed, and that consumption is registered.
Cruise leader	Make sure that all cruise participants follow the {RV operator} alcohol and drugs policy in port and at sea.
Captain	Implement the necessary measures to minimize risk to personnel, materiel and the marine environment during the different operations and activities executed during the cruise.

5.4 At the end of the cruise

Cruise leader	Inform all personnel on board about the results achieved during the cruise.
Cruise leader	Organize thorough cleaning of equipment and laboratories used during the cruise before the cruise party disembarks.
Cruise leader	Make sure that all own equipment, collected samples and data are taken ashore or properly store don board if to be taken ashore at a later stage. Samples and data collected shall be quality controlled according to current procedures before transported to the responsible institution ashore.
Chemical responsible person	Those who brought chemicals on board must ensure that unused quantities are taken ashore and disposed of in a correct manner. Cruise leader and Captain to be informed about when and how the leftovers are disembarked.
Cruise coordinator/ Cruise leader	Fill in Cruise Summary Report form including map and station net and deliver it to {National Marine Data Center (NMDC)}.
IMR Cruise leader	Fill in and deliver cruise allowance form as soon as possible after the cruise.
Cruise leader	Scientific cruise report to be delivered to {responsible Research Group leader and/or Science director/Department head} no later than {days/weeks} after end of cruise.

Cross references

External references