

R.V. Celtic Explorer Vessel User Guidelines



**Research Vessel Operations
Marine Institute**

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1. RESEARCH VESSEL *CELTIC EXPLORER*

‘The Irish national platform for offshore marine research’

Research Vessel Operations is the section responsible for the management, development and promotion of the state's research vessels, specifically the R.V. *Celtic Voyager*, the R.V. *Celtic Explorer* and the *Holland I* deep-water ROV. The team is also involved with other aspects of sea-going research, managing the Foreign Vessel Observer scheme, and the current ship management contract with our service provider P&O Maritime Services (Ireland) Ltd.

The R.V. *Celtic Explorer* is 65.5m in length and accommodates 35 personnel, including 19-21 scientists. The R.V. *Celtic Explorer* is, in gross terms, six times the size of her sister vessel, the R.V. *Celtic Voyager*.

Ireland's unique strategic position on the edge of the Atlantic means that the R.V. *Celtic Explorer* is able to facilitate both national and international research and exploration. The vessel is based in Galway, which is ideally located as the gateway to the Atlantic and geographically close to the main working areas.

The following notes are provided to let all personnel joining the R.V. *Celtic Explorer* know, in advance, what their responsibilities are, and to provide information which will be of use during their time on board. Please read through these notes carefully and sign the sheet provided on signing on the vessel to indicate, that you have read, understood and will abide by the guidelines.

2. JOINING THE VESSEL

2.1 Following the introduction of the Maritime Labour Convention (ILO MLC, 2006) all scientists joining the vessel may sail on the vessel under either the Vessel's Passenger Boat Licence (PBL) as a passenger or as a "Seafarer". The details of which members of the scientific party are to sign on as seafarers will be decided at the pre cruise meeting in consultation with the chief scientist and will be dependent on the operational details of the survey and the certification status of the scientific compliment.

The following paragraphs describe the required certification, training and requirements for scientists to sign on the vessel as seafarers and passengers

2.2 **Passengers + Seafarers:** Medical Certification - All scientific staff must be in possession of a valid '**Seafarer's Medical Certificate**' (ENG 11 or acceptable alternative) and carry the **original certificate** with them to the vessel. The 'Seafarer's Medical Certificate' must be valid for the period of the survey. If a scientist is aware that they have a condition when going to sea, which contravenes the 'Seafarer's Medical Certificate', they must inform the Chief Scientist or Master immediately. All scientists must declare existing medical conditions and use of prescribed medicines using the medical declaration form which will be provided at the pre cruise meeting and this form is emailed to rv@marine.ie prior to the survey. If a scientist joining the survey is pregnant, she must obtain a doctor's clearance to participate in the survey, which should include details of work involved and distance from the shore.

2.3 **Passengers +Seafarers:** All scientific staff must be in possession of a **valid * Personal Survival Techniques (PST) Certificate** (formerly Sea Survival) as recognised under STCW '95.
* PST Certs are valid for 5 years from their date of issue.

2.4 **Passengers +Seafarers:** All scientists should bring a passport or National ID with them on board the vessel.

2.5 **Passengers +Seafarers:** All scientific staff are to attend a **formal safety briefing** including **Security related familiarisation training** and a general familiarisation tour prior to sailing on the vessel. The time of this briefing will be agreed at the pre-cruise meeting. This is mandatory under current shipping legislation. At this briefing, full information will be given by ship's staff relating to likely emergencies, safety parameters, security training and specific advice relating to the ship and the operating programme. The Chief Scientist may also use this opportunity to brief the Master and ship's company on the scientific objectives. **Note:** scientists will be requested to sign on as visitors to the vessel prior to receiving the formal safety briefing.

2.6 **Seafarers:** All seafaring scientists are required to sign on the ship's articles and abide by the clauses of that document. All scientific staff are requested to assist the Master by ensuring that they sign off the Ship's Articles before leaving the vessel.

2.7 **Seafarers:** All scientific staff must be in possession of a **STCW Certificate of Proficiency in security awareness** as set out in table A-VI/6-1 of the STCW code.

2.8 **Seafarers:** Hours of rest: All scientists signing on the vessel as seafarers must comply with regulation 2.3 of the ILO MLC – Hours of work and hours of rest including completion of

hours of rest records. These forms will be provided by the master on joining and will need to be completed and returned to the master on a weekly basis.

- 2.9 Personal protective equipment is required at all times when working on the aft deck area or in the proximity of moving equipment or when advised by ship's crew. Hard hats and lifejackets are provided on board but users are to bring personal safety boots or wellingtons and overalls.
- 2.10 Cabin accommodation on board will be available for occupation from 12:00hrs on the first day of mobilisation unless otherwise previously arranged. The Chief Scientist is requested to fill out a blank cabin allocation form and forward it to Research Vessel Operations (RV Operations). Cabins contain customer feedback forms which should be returned to RV Operations in the envelope provided. Please note that your comments will be treated with the strictest confidentiality.
- 2.11 The Marine Institute (MI) operates a zero tolerance policy towards the use of illegal drugs or substance abuse e.g. aerosols. Intoxicant testing may be carried out on board on a '*with cause*' or '*post-accident*' basis. This means where/whenever a person appears to be under the influence of an intoxicant or when a person is involved in an accident or injured and the circumstances suggest that intoxicants may be involved. Details of this testing procedure are outlined in Appendix VI.
- 2.12 The R.V. *Celtic Explorer* is a "dry" ship and, as such, it is **not permitted to bring alcohol on board** the vessel during any part of the charter period. Prior to going on duty, all vessel users shall observe a period of abstinence from alcohol for at least four hours. In the event that the vessel is in port for reasons such as weather standby, equipment repairs, staff exchanges, cruise breaks etc., all persons must be fully aware that while it is permissible for persons to consume alcohol ashore, all vessel users must **act responsibly and drink sensibly to avoid intoxication**.

The vessel master may carry out intoxicant testing on a '*with cause*' and '*post-accident*' basis only. In all cases, where the use of intoxicants are suspected, the decision whether to invoke the '*with cause*' or '*post-accident*' testing procedure will be made by the Master after consultation with the Chief Scientist. If the Chief Scientist is suspected of being under the influence of an intoxicant, then the decision about testing will be taken by the Master after consultation with the First Officer. Full details of the alcohol testing procedures are outlined in Appendix VI.

Positive Test Results - In the event of a positive result, the person will be required to remain in their cabin until arrangements are in place to enable the person to disembark.

Vessel users who have been requested to leave the vessel due to alcohol misuse, or those who been observed to have consumed excessive amounts of alcohol while ashore, may not be permitted to participate in future surveys onboard Marine Institute vessels for a period of up to 2 years.

This decision will be made at the discretion of the Marine Institute. If the vessel is due to sail, and a member of the scientific party is found to be unfit to put to sea due to alcohol intoxication, that individual will be put ashore so as to allow the vessel to perform its duties. The cost of any ship time lost due to the aforementioned reasons shall be to the vessel user's account. **For Marine Institute staff a formal disciplinary hearing will take place and**

the disciplinary action to be taken will be in line with the Institute's disciplinary procedure. For non-MI scientists, the MI will inform their respective employer/organisation.

- 2.13 Under the International Ship and Port Facility Security (ISPS) Code all ship's crew may be searched at any time going on or off the vessel. Failure to comply with such a request will result in personnel not being allowed join the vessel.

3. SAFETY AND OPERATIONS

- 3.1 The Master is responsible for the safety of all personnel aboard the vessel. Posted notices and directions are to be followed by all and special care should be taken when hazardous conditions exist e.g. excessive ship motion.
- 3.2 If you believe something is unsafe, inform the Chief Scientist or a member of the crew. Don't assume that somebody else will notice it.
- 3.3 All scientists working on board the R.V. *Celtic Explorer* sign on the vessel as crew and the vessel insurers (the Ship owners' Mutual Protection & Indemnity Association (Luxembourg)) have stated that for the purposes of insurance and liability cover *"their activities will not be as per usual seamen but as operational scientists"*. As such, all scientists working on board MI vessels are permitted to assist in the operation and deployment of scientific equipment, which includes, but is not limited to the deployment and recovery of CTDs, SVPs, small grabs, small corers and underwater cameras. This list is not exhaustive and scientists should consult with the Master to see if it is permissible to assist the deployment and recovery of other scientific equipment; however it is important to note that the final decision in this matter rests with the Master of the vessel. If any scientist is uncomfortable in assisting in any of the aforementioned activities then there is no obligation on him/her to do so.

Qualified and experienced third party contractors hired by the Marine Institute and marine vessel users may participate in ROV deployments, coring, seismic or other operations. With respect to fishing operations scientists may sample the catch from the nets once the nets, weights and doors have been brought on board. The installation of net-monitoring sensors can be carried out before the nets are shot and can be uninstalled once the nets have been brought on board on completion of the tow. For safety reasons, it is **NOT permissible for any member of the scientific party to assist or participate** in the following operations:

- **shooting or hauling of fishing nets,**
- **deployment and recovery of moorings and buoys,**
- **and heavy coring and/or grab operations.**

Scientists are only permitted to operate winches when the winch can be controlled using a deck lead from within the Dry Laboratory and is being used for specific scientific purposes e.g. Side Scan Sonar, CTD or Pro-Net control. Scientists are not permitted to use any of the vessels cranes.

- 3.4 The Chief Scientist should **report all accidents or near misses involving scientific staff or equipment to the Master, RV Operations and to the HR Section of the Marine Institute** (in the case of Marine Institute staff or Marine Institute surveys), either immediately or during the regular shipboard meetings. The Master has overall responsibility for the safety of the ships company and will record, where appropriate, any accidents. The Chief Scientist shall inform the Master of any illnesses or injuries amongst the scientific party, whereupon the Master decides on the appropriate course of action. Vessel users may be required to input into the review or completion of a risk assessment following an incident and may be required to complete a written statement in the event of a serious incident.

- 3.5 Please note that Vessel Users carry and use their own equipment on board the vessel at the equipment owner's risk.
- 3.6 The R.V. *Celtic Explorer* is equipped with a tender "Tom Crean". Details of its operational capabilities are contained in Appendix V.
- 3.7 Chief scientists should be aware of the requirement for scientific personnel to have adequate rest period in the course of survey. Watch systems and survey planning should ensure that all members of the scientific party have adequate rest periods. Please see section 2.8 for information regarding compliance with hours of rest requirements for seafarers

4. RESPONSIBILITIES – MASTER & CHIEF SCIENTIST

- 4.1 The Master has overall responsibility for the safety of the vessel and its full complement.
- 4.2 The decision to abandon work due to inclement weather or other factors should be reached between the Chief Scientist and the Master. However, if the safety of the vessel and its complement is of concern, the final decision rests with the Master. Should the Chief Scientist consider a decision to abandon work unreasonable then he/she should consult with RV Operations at the earliest possible opportunity. Any conflicts that arise between the Chief Scientist and the Master that cannot be resolved during the course of the survey should be communicated to RV Operations at the earliest possible opportunity. Throughout the survey all the scientific party are directly answerable to the Chief Scientist and he/she should assume this role as scientist in charge. Any general directions from the Master to the scientific complement should be channelled through the Chief Scientist.
- 4.3 The Chief Scientist is the primary liaison between the scientific complement and the Master.
- 4.4 The Chief Scientist is responsible for the overall execution of the scientific programme as laid out in the pre-cruise plan/sailing instructions. During the course of the survey the Chief Scientist oversees the scientific operations and adapts/adjusts the programme if he/she sees necessary in order to obtain maximum scientific value. The Chief Scientist may modify the cruise programme freely to suit conditions taking best possible advantage of weather and unexpected observations.
- 4.5 The Chief Scientist is responsible for the safe conduct of scientific work, the operation of his/her scientific equipment and management of the scientific complement. In planning for the cruise he/she should make sure that the scientific complement on board is adequate to accomplish the objectives of the survey programme.
- 4.6 The Chief Scientist is requested to make time available to brief the Master and ship's company on the scientific objectives after the formal safety briefing (Section 2.6), or as soon as possible after sailing and at agreed intervals during the cruise.
- 4.7 RV Operations shall be the point of contact for the Chief Scientist ashore on all operational and logistical issues. Please refer to the table in Appendix IV for relevant contact details.
- 4.8 Good communication with RV Operations and the Master is essential to ensure a professional working relationship, and a shared understanding of the survey tasks and objectives should ultimately ensure the completion of the survey programme. The preferred communications process is outlined in Appendix III.
- 4.9 Daily meetings between the Chief Scientist, the Master and others, as appropriate are recommended to ensure ongoing communication during the survey programme. These informal meetings should aim to update on the scientific programme and to discuss and resolve any problems that arise. Topics to be covered will normally be of scientific, technical and logistical nature, but may also include any personnel, housekeeping and safety issues.
- 4.10 Under extreme circumstances e.g. illness, harassment issue, family bereavement etc. arrangements shall be made by the Chief Scientist and the Master in consultation with RV Operations to return the vessel to port.

5. RESPONSIBILITIES – ALL SCIENTIFIC PERSONNEL

5.1 Operation of Cruise Programme - Operation of the cruise programme requires ongoing communication between scientists and the ship's personnel. If the Chief Scientist has assigned you to liaise with the bridge, please keep the following in mind:

- Keep the watch informed.
- Give the bridge advance notice on work site coordinates.
- If you are searching for an appropriate site or are awaiting results before you make your next move, please tell the bridge what is happening.
- **NEVER** put any equipment over the side without first consulting the bridge.

5.2 On Watch - Be punctual when you are scheduled to go on watch. You should report 15 minutes before the start of your watch to allow those going off watch to brief you on progress. Make sure you understand all aspects of what is happening and do not let the previous scientist on duty leave the work area until all uncertainties are cleared up. Determine in advance in which cabin your relief is situated so that if they need to be woken, this can be done with a minimum of disturbance to others.

5.3 Scientists' Responsibilities for Labs - It is the responsibility of the scientific complement to ensure that the ship's dry, wet, chemical, water laboratories and scientific freezers and fridges are left in a clean and tidy state, free of user equipment (unless otherwise agreed with RV Operations) and ready for use by the scientific party on the next survey. General cleaning of these labs should be carried out each day and a thorough cleaning carried out at the end of survey.

The Chief Scientist should oversee the removal of all samples at the end of the survey. All samples should be clearly labelled and the fridge and freezer should be empty of samples at the end of the cruise unless otherwise agreed with RV Operations.

The Chief Officer will inspect the laboratory spaces before the end of the survey. All biological samples collected during the course of a survey are the property of that particular survey. The Chief Scientist will advise the Master, when fish samples are ready for disposal or sharing amongst the crew or scientific party and will arrange for fish that are no longer required to be left in the designated area outside the wet lab for collection by crew/scientists. **No fish samples should be removed from the laboratory or disposed of until the Chief Scientist has advised accordingly.**

5.4 Waste materials gathered during survey - Scientists should be aware that any anthropogenic waste material e.g. plastics gathered when engaged in specific operations e.g. trawling/beam trawling, should not be disposed of in the sea, they should instead be stored on board and disposed of correctly when the vessel reaches port.

6. ACCOMMODATION FACILITIES

- 6.1 Scientists will be allocated a cabin and will be asked to sign a form to verify the acceptable condition of the cabin upon embarkation. Before disembarkation the cabins will be inspected to ensure that they are left in a satisfactory condition.
- 6.2 All scientists must ensure that cabins are kept clean and tidy and should note that there will be weekly inspections of cabins by members of crew. A list of the duties and areas to be cleaned by scientists is displayed in each cabin. Any defects in the living accommodation should be reported to the Master as soon as they have been observed. The cabins should be cleaned thoroughly before departure and will be inspected by the Chief Officer; all defects in the cabin should be reported as soon as they are noticed. Rubbish bins should be emptied into the garbage disposal.
- 6.3 The disposal of razor blades down the toilets is absolutely forbidden.

7. VESSEL FACILITIES

7.1 The vessel shall provide all vessel personnel with 3 meals during the 24 hour working day - breakfast, lunch, dinner and a self-service reheat meal for duty personnel at night. Self-service beverage and snack facilities shall be available 24 hours a day.

7.2 Flexibility of meal times to support the working programme of personnel on board shall be paramount but normally meals shall be available during the following times on the R.V. *Celtic Explorer*:

Breakfast:	07:30 – 08:30
Lunch:	12:00 – 13:00
Dinner:	18:00 – 19:00
Night Meals:	20:00 – 06:00

7.3 Personnel should assist the catering crew by scraping their plates into the suitable bins and placing used plates / cups etc. on the racks for cleaning.

7.4 Working clothes should not be worn in the mess room, lounges or dining area. Overalls and work boots should be removed in the changing rooms before entering the vessel's communal areas or cabins.

7.5 Washing Machines are available for use by the scientific party. Please abide by the instructions for use, posted adjacent to the facilities.

7.6 Bed linen, soap and towels are provided. When you need fresh linen etc., bring your old linen to the laundry for washing.

7.7 Sky TV, DVD and Library facilities are available for the entertainment of both crew and scientists. These are located in both lounges.

7.8 **Smoking is strictly prohibited** on board the vessel, except on open deck areas.

7.9 All electric sockets on the R.V. *Celtic Explorer* are European, 2-pin sockets. Scientists should bring their own adapters if needed. There is an uninterruptible power supply (UPS) on the R.V. *Celtic Explorer* - please use the sockets marked with green "UPS" stickers for PCs and laptops only, and 'normal' sockets for other equipment e.g. hoovers.

8. WORKING HOURS

- 8.1 The scientific watch system will be decided by the Chief Scientist at the start of the survey and the Master informed. Watches should be structured to ensure scientific personnel have adequate rest periods throughout the duration of the survey. Details of the watches should be posted on the notice board.
- 8.2 The watch system on board the vessels is generally 4 hours on / 8 hours off for Officers, with the ship's catering staff working to a 'daywork' routine. A deckhand watch system will be established depending on the nature of the work underway.
- 8.3 As there may be somebody asleep at all times while the vessel is at sea, it is imperative to remain quiet when below decks. Please avoid slamming doors and talking in the corridors.

9. VOICE & DATA COMMUNICATIONS FROM VESSEL

Access to e-mail is a benefit provided to all users upon joining the Marine Institute vessels. This access is limited due to the nature of the communications systems on each vessel. Users should be aware that all e-mails sent are representative of the Marine Institute and P&O Maritime Services Ltd. Therefore, there is an obligation on vessel users to respect this facility and use it in a professional manner. The Marine Institute and P&O Maritime Services Ltd reserve the right to check e-mails and ensure that inappropriate materials are not being circulated.

While e-mail is provided as a work tool, it is accepted that there will be some personal use within reason. With this privilege comes responsibility and accountability, if issues arise regarding possible abuse of these tools, the Marine Institute and P&O Maritime Services Ltd reserve the right to investigate and/or remove access. The same general guidelines also apply to the browsing of web, ftp sites and to the contents of emails sent using Marine Institute/P&O Maritime Services Ltd email accounts. Abuse of the email facility by a vessel user may result in a formal or informal complaint (see Section 10).

9.1 Internet Policy (General)

The R.V. *Celtic Explorer* has access to the Internet through any computer/laptop connected to the computer network which is enabled with internet access. Such access enables vessel users to obtain information specific to their role and enables two-way communication with sites appropriate to that role.

While Internet access is provided as a work tool, it is accepted that there will be some personal use within reason. With this privilege comes responsibility and accountability, if issues arise regarding possible abuse of these tools, the Marine Institute and P&O Maritime Services Ltd reserve the right to investigate and/or remove access.

When using the Internet, vessel users should be aware that while the Internet gives the impression of anonymity, it is not a truly anonymous medium. A visit to a web site, ftp site or any other transaction using the Internet Protocol (IP) can be externally tracked by a third party to the Marine Institute and P&O Maritime Services Ltd. For this reason vessel users should not use the Internet in a way that might bring the Marine Institute and P&O Maritime Services Ltd into disrepute. Examples of such usage include, but are not limited to:

- Accessing web or ftp sites on which material is displayed that is illegal under Irish Law, or the law of any jurisdiction in which a member of staff may be accessing the internet from, or material that is likely to give offence on the basis of a person's gender, sexual orientation, religious beliefs, marital status, nationality, race, or membership of the travelling community.
- Posting material to a bulletin board or web site that might give offence as above, or where views of a similar nature are regularly posted.
- Posting material to a bulletin board that brings the policies or operations of the Marine Institute and P&O Maritime Services Ltd into question.

The Marine Institute and P&O Maritime Services Ltd also have a duty of care to all their employees. All members of staff have a right to work in an environment free from harassment on the basis of his or her gender, sexual orientation, religious beliefs, marital status, nationality, race, or membership of the travelling community. On this basis, all vessel

users should have due regard for those working around them when using the internet, and should not view material that could result in their colleagues accidentally viewing items that are offensive and could be construed as harassment.

Users should be aware that even if there is not a person in the room at the time such material might be viewed, it may later become apparent as a result of system files, browsing histories etc. being inadvertently opened by someone else. Abuse of the email facility by a vessel user may result in a formal or informal complaint (See Section 10).

Please see Appendix II for details of the specific procedures for use of e-mail, internet and voice communication on the vessel.

10. BULLYING, HARASSMENT, SEXUAL HARASSMENT POLICY AND COMPLAINTS PROCEDURE

10.1 Bullying and Harassment

RV Operations is committed to providing vessel users with an environment free from bullying and harassment and all vessel users will be expected to comply with this policy. The policy applies to harassment by any member of the scientific complement, crew member, contractor or other person with which a vessel user might reasonably expect to come into contact with while the vessel is in port or at sea.

Section 32 of the Employment Equality Act 1998 defines harassment as any act or conduct including:

- Spoken words or gestures.
- The production, display or circulation of written words, pictures or other unwelcome material that could reasonably be regarded as offensive, humiliating or intimidating.
- Sexual gestures.
- Displaying sexually suggestive objects, pictures, and calendars or sending suggestive and pornographic correspondence.
- Unwelcome sexual comments and jokes.
- Unwelcome physical conduct such as pinching and/or unnecessary touching.

The Employment Equality Act 1998 prohibits harassment by reference to particular characteristics flowing from race, religion, age, gender, marital status, family status, sexual orientation or membership of the travelling community.

Harassment can include conduct offensive to a reasonable person, e.g. oral or written slurs, physical contact, gestures, jokes, displaying pictures, flags/emblems, graffiti or other material which state/imply prejudicial attitudes which are offensive to fellow employees.

10.2 Complaints Procedure

There is both an informal and formal procedure to deal with the issue of bullying, harassment or other serious misconduct whilst on board the vessel.

10.2.1 Informal Procedure

Where appropriate the informal route may be explored first to save discomfort for all parties involved, however all claims or allegations of harassment, sexual harassment or misconduct are treated seriously and dealt with sensitively, confidentially and transparently for those closely involved. Thus, in the first instance a vessel user who believes they are the subject of harassment should ask the person responsible to stop the offensive behaviour. When this action does not result in the cessation of the harassment or bullying, or when matters cannot be resolved locally, the vessel user should use the formal procedure. It is recognised that it may not always be practicable to use the informal procedure, particularly where the harassment is of a particularly serious nature or where the people involved are at different levels in the organisation. In such instances, vessel users should use the formal mechanism.

10.2.2 Formal Procedure

Where a formal complaint is necessary, the vessel user should contact the Chief Scientist as soon as possible. If this is inappropriate, then the employee should contact the Master of the Vessel. **The Chief Scientist is obliged to inform RV Operations and the Master of the Vessel on receiving any formal complaint.** The person making the complaint may be required to put their allegation in writing. All complaints received will be treated seriously, confidentially and dealt with as soon as is practicable. However, as the vessels operate at sea, all complaints will be dealt with in full when the vessel returns to port. In the interests of natural justice, the alleged harasser will be made aware of the nature of the complaint, his/her right to representation, and will be given every opportunity to rebut the allegations made. When the investigation has been completed, both parties will be informed as to whether or not the complaint has been upheld.

Where a complaint is upheld, any vessel user found to violate this policy may not be permitted to participate in future surveys on board Marine Institute vessels. This decision will be made at the discretion of the Marine Institute. For Marine Institute staff a formal disciplinary hearing may take place and the disciplinary action to be taken will be in line with the Institute's disciplinary procedure. In the case of P&O Maritime Services Ltd staff a formal disciplinary hearing may take place and the disciplinary action to be taken will be in line with the P&O Maritime Services Ltd disciplinary procedure. For external users of the vessel who are found to be in breach of this policy the matter will be referred to their senior management.

Forecastle Deck



CABIN NUMBER	CABIN DESCRIPTION
519	Chief Scientist cabin, en suite , separate day room
520	Senior scientist cabin (double if required)
522	Guest cabin, single en-suite cabin
514	Single en-suite cabin
512	Single en-suite cabin
312	Double en-suite cabin
315	Double en-suite cabin
316	Double en-suite cabin
318	Double en-suite cabin
319	Double en-suite cabin
320	Double en-suite cabin
321	Double en-suite cabin
323	Double en-suite cabin

APPENDIX II – VESSEL COMMUNICATIONS, IT & INSTRUMENTATION BRIEFING

Communications

The general Marine Institute I.T. policy above applies to all vessel users with the following specific rules applying to the R.V. *Celtic Explorer*.

Email

Email addresses have been set up for use by vessel users. The addresses are listed below:

- Bridge Officers: cebridge@pomaritime.ie * best email for sending emails to vessel users in case personal email needs to be sent/received urgently.
- General email intended for any of the crew: celticexplorer@pomaritime.ie
- Engineers: ceengineers@pomaritime.ie
- Cook: cecook@pomaritime.ie

It is suggested that users use Webmail /Gmail services on the provided internet access PCs.

Designated PCs on the vessel have been assigned mail and Internet access. They are listed below:

- Fleet1 PC in Wheelhouse (Officers access/Scientists when out of Broadband coverage).
- Officers Admin PC (Officers access only).
- InternetDL PC in Dry lab (general access for crew/scientists).
- InternetMR in meeting room (general access for crew/scientists).
- Plant Maintenance (general access for engineering).
- Chief/Senior Scientist Laptop in Cabin/elsewhere (on request, local admin password required).

Email File size

As the vessel has 2MB\512Kbps down\uplink connection (contention ratio 1:10), file sizes can be much larger than with the older Iridium system, however, there is a limit. As a rule files should be kept to under 2Mbytes. Larger files sizes will be tolerated if there is a business/ scientific need. The ships Instrument Technician may need to be consulted to allow larger files get through the system.

Email to the vessel:

- E-mail files to R.V. *Celtic Explorer* should not exceed 2Mbytes. If there is a business need to send larger files RV Operations or P&O Maritime Services Ltd should be notified.

No Broadband coverage

In cases where the vessel is out of range of the broadband system for an extended period, communication will be using the more limited and expensive Iridium system, the following restrictions apply when using this system for email communication:

Email is available on Fleet1 PC in the comms area of the bridge. A few points to note on email:

- Scientists may compose emails and submit them to a queue on this PC for sending.
- Ship's officers will send email in bulk at periodic intervals.

- Scientists will be notified of any mails received for them.
- All mail content is open for scrutiny by the ship's Master.
- Scientists should advise senders to identify the intended recipient's name in the subject header.
- Personal email must not contain any attachments.
- Should an unscheduled download be required please request the OOTW to download on the Fleet1 PC. The OOTW should log the call and ensure session is closed down on completion as there is a high cost associated with the use of this system. **(NB: Only Officers are permitted to use the Iridium).**

Internet Access policy

Access to the Internet is available on the PCs identified above. The communication bandwidth will allow downloading of larger files. If files greater than 1MB need to be downloaded the ship's technician should be notified. If uploading files to FTP sites, blogs etc. the files should be kept under 0.5MB. Notify ship's technician if larger files need to be uploaded.

Personal Access

The general policy above allows access to the Internet for ships business/operations and scientific operations. However as the R.V. *Celtic Explorer* is out of general communication range for extended periods, access for personal use is allowed to scientific personnel on the following basis:

- Access to web mail.
- File sizes limited to 500KB sending and 1MB receiving.
- No email or browser settings can be changed or altered.
- While Internet access is provided as a work tool, it is accepted that there will be some personal use within reason. With this privilege comes responsibility and accountability (please see Section 9.1 for Internet Policy). Users should be cognisant of the amount of time they spend using the internet so as to allow equal and efficient internet access to all Marine Institute vessel users.
- A web filter is in place which restricts access to certain websites.

Voice Communications

R.V. *Celtic Explorer* has 4 different voice communications services available. Smart Phones Apps (Viber & What's APP), VoIP, GSM mobile (Vodafone) and Satellite telephone (Iridium). In order to maximise cost efficiency the following rules should be observed:

- All voice communication to and from the vessel should be done on the cheapest option. The cheapest communication option is to use your personal Smart Phone. The two approved Apps are "Viber and WhatsApp". Other Apps will not be supported due to security and bandwidth issues. This service has no cost implication but please try to apply reasonable use policy. We recommend you restrict usage to texting and voice. Uploading pictures using these Apps will use your 50MB daily allowance very quickly.
- VOIP phones are available on the bridge and scientists' meeting room. This facilitates phone calls to be made over the satellite data connection. See Appendix VII for call charges. This is a major saving over satellite phone and mobile calls. Calls to mobiles, landlines and international calls should be done on this service. If this service is not available then the GSM mobile service should be used.
- In the event of non-availability of the VoIP Service and when within range of the vessel GSM service and for calls to mobiles the vessel GSM service should be used and only for operations purposes.

- If neither the GSM mobile nor the VoIP service is available then the satellite phone should be used as a last resort and only if the call is absolutely necessary. All sat phone calls must be logged on the ships call log.

Access to the VoIP system is available from telephones in the meeting room and the aft TV lounge as well as the bridge. The phone services on the vessel are primarily in place to facilitate business communications. As the R.V. *Celtic Explorer* is out of general communication range for extended periods, access for personal use is allowed to vessel users on the following basis:

- The vessel must be out of GSM mobile coverage. If within mobile coverage personal voice calls on the ships voice systems are forbidden.
- Crew and scientists should use the VOIP service on their personal mobiles as this has not cost to company. Only if this service is not working should they use the vessel VOIP service.
- Personal calls only may be made over VoIP and while the vessel is outside GSM range or user has no access to personal mobile VOIP service. The VoIP phone in meeting room is for scientific\crew use. The Bridge VoIP line is restricted for operational use (Officers & Chief Scientist).
- Personnel should be considerate in their use of the VoIP system. Users should be cognisant of the amount of time they spend using the VoIP and the cost it incurs, so as to allow equal and efficient access to all Marine Vessel users.

Vessel Scientific Instrumentation

Underway Instrumentation

Thermosalinograph	DGPS Simrad MX500
Fluorometer	DGPS Seapath
Depth sounder	Sea Temperature
Gyro	General Oceanics PC02

BATOS Weather Station

- Wind speed and direction.
- Air Temperature & Pressure
- Humidity
- Sea Temperature

Survey Specific Instrumentation

CTD/Rosette	Scanmar Net monitoring system
ER60 Scientific echosounder	Sound Velocity Profiler
Fisheries sounder	Scanning Fisheries sonar
EM1002 Multibeam sounder	Hydrographic echosounder
EM2040 Multibeam sounder	IXSEA ECHOS Sub Bottom Profiler
EM302 Multibeam sounder	ADCP
Moving Vessel Profiler (MVP) undulating CTD or SVP	

Data Streams

There are a number of data streams broadcast on the 192 Vlan to various PCs in the dry lab. If a particular data stream is required it should be requested during the pre-survey meeting several weeks before survey. It may be possible to tap into existing data feeds but this cannot be guaranteed without sufficient notice before the survey.

Vessel Computing – Vessel User Checklist

The R.V. *Celtic Explorer* computing environment consists of a Windows Domain with network, file, print and data acquisition services, connected via a 10/100/1000MB, switched VLAN network. A standard set of surface underway parameters are logged by the vessel. The primary role of the IT systems is that of data acquisition and storage. General computing PCs are also available.

The ship's technician should be informed of any systems brought on board by vessel users. There is a Scientists VLAN available for PCs and Laptops which do not require direct access to the vessels data storage and scientific PCs. This network is mainly for users to connect their private laptops for basic file sharing within this isolated network. (We cannot be held responsible for viruses within this network as all PCs belong to third parties).

Any computer requiring full access to the ships network will require the following:

- Marine Institute PCs should have up to date Corporate AV and can have full access to the vessel network. Techs should still check to ensure AV is installed and up to date as some PCs do not get updated when they are demobbed from surveys.
- Third party PCs should have adequate anti-virus software and up to date virus definitions followed by a full scan. PCs can then connect to the vessel celticexplorer.local network (some users may not wish to join the vessel domain due to changes in user settings. (See section # for restrictions to non-Domain users). Patched to the latest Operating System and security patches.
- Third Party PCs that need Internet connectivity i.e. Chief Scientist\Senior Scientist that do not meet AV requirements will be restricted to a firewalled network with direct internet access. Some cheap AV products do not provide adequate protection and would thus be too high risk to connect to the ships file shares.
- Scientists should ensure they have the local administrator password of all PCs requiring connectivity to the ships domain.
- Scientists should bring copies of all software required to rebuild any of their PCs from scratch (PC operating system, software drivers and scientific applications).

Any software or media brought on board should also be scanned for viruses. The vessel technician will scan the system for viruses. If the system is to be connected to the network it should have a fully functioning network card. The technician will assign a network port for the system and will ensure that it is automatically configured to integrate to the vessel network.

Data Acquisition/Storage

The SCS system logs surface underway data, storing a standard suite of parameters in a SQL server database. Access to this database is available via two methods. Post survey the data is sent to the Marine Institute for QC in a SQL format and can be requested from RV Operations.

Data can be extracted on the fly during the survey. This must be configured at the start of the survey so it can be exported using the SCS Event Logger Application. Please flag your data requirements at

the start of the survey leg. (See Appendix VIII for details of SCS Event Logger data extraction utility). The SCS data extraction utility is installed on several PCs. The SCS Data Vizulisation system provides a near real time representation of underway data being logged to the SCS system. Several data display options are available which can be customised to suit vessel user requirements.

Scientists should ensure that any data logged by standalone systems during the survey is copied regularly to an appropriately named network file share(s) on the file server \\CEFS01. The ship's technician should be informed of any additional data types that are logged during survey. The technician will create an appropriately named file share for this data on the server.

The network file shares on \\CEFS01\2.0Survey_Data will be visible to users via mapped drives. PCs that acquire Oceanographic data such as the ADCP or CTD will have mapped drives to

[\\CEFS01\2.0Survey_Data\2.1Oceanograhic_Data](#)

Data Type	Storage Location
Oceanographic	\\CEFS01\2.0Survey_Data\2.1Oceanograhic_Data
Hydrographic	\\CEFS01\2.0Survey_Data\2.2Hydrographic_Data
IFGS	\\CEFS01\2.0Survey_Data\2.3IGFS_Data
ER60	\\CEFS01\2.0Survey_Data\2.4Acoustic_Data
Public	\\CEFS01\2.0Survey_Data\2.5Public_Data

The [\\CEFS01\2.0SurveyData\2.5Public](#) is provided for general temporary file sharing. It has liberal access permissions and thus the “\2.5Public_Data” share is not to be used for storing important or sensitive data.

User accounts will be issued by the vessel technician which will have access to the required file shares. Different file shares require specific user account to gain access. This is done to reduce the risk of data being deleted by unauthorized users.

Data Backup

It is recommended that the vessels RAID storage system (\\CEFS01\2.0Survey_Data) is utilised by users for added data security. If they decide to avail of this service a customised backup will be created by the ship's technician. Every night during the survey the SCS database and the requested file shares on the \\CEFS01 server are backed up to LTO tape. It is the responsibility of the scientists/vessel users to copy survey data to the file shares regularly. At the very minimum data should be copied on a daily basis. If automated routines are in place for copying data to the shares, it is the scientist's responsibility to regularly check that the files have transferred successfully. Individual desktop PCs will not be part of the nightly backup routines. Data on these file shares will be transferred to the Marine Institute at the end of the survey. CD/DVD burner facilities are also available. If clients wish to receive data as an LTO deliverable they should bring enough LTO media to cover their requirements.

Printing/Consumables

There are a number of Laser and Multi-function desktop printers and Colour Plotters on board. Vessel users should ensure that there are adequate quantities of printer consumables (print cartridges, paper) available for the duration of the survey. Users should also ensure they have adequate quantities of CD/DVD and LTO media.

Acceptable Use

Vessel users:

- Should not interfere with and/or change system Hardware/Software configurations on any vessel system without the permission of the ship's technician.
- Should not install software without prior clearance from the ship's technician.
- Any software installed that is not part of the vessels regular software suite should be uninstalled at the end of the survey.

SCS Event Logger Extraction Utility

A dedicated PC has been installed in the scientists meeting room (FWD of the Dry Lab on the STB side). This PC has been supplied purely for the purpose of supporting vessel users in accessing the data that has been collected underway since the start of their trip. The PC can also be used to undertake analysis on these data. The system is straightforward to use and a set of written instructions have been pasted below the screen.

SCS Underway Data Visualization Utility

A dedicated PC has been installed in the Dry Lab on the port side, next to the door to the server room. This PC has been supplied purely for the purpose of supporting vessel users in visualizing data as it is being collected. There are various functions with the system that may assist users and technicians working with and managing the system as a whole, and instructions to get started are pasted below the screen. There are repeater screens in the Dry Lab, the Fish Lab and the Wet Lab.

The SCS and its peripheral applications are **ALWAYS ON** systems. If there are any issues with the systems please get in touch with the duty technician in the first instance and/or RV Operations for follow up. We would welcome suggestions as to how the systems could be improved.

PLEASE NOTE:

The Chief Scientist should inform RV Operations of any systems to be brought on board by vessel users that require connection. For security reasons all PCs/laptops that require connection to the ship's network must be presented to the ship's technician. It is **forbidden** to connect without the ship's technician being present. Computers owned by persons or organisations outside the Marine Institute will also need to be checked by the ship's technician for up to date anti-virus and definitions.

Detailed requirements can be easily dealt with, but must be discussed at the pre-cruise stage.

Data left on ship's PCs will periodically be deleted. Data can be stored for short periods after the survey has been completed by prior arrangement with RV Operations to allow scientists to ensure that their data backup has been successful and that no backup media have been corrupted.

The computers on the network are intended for ship and survey purposes only. Installation of software for other purposes, such as games, music, non-survey related programs etc., is expressly forbidden.

Printers

There is a Printer/Scanner/Photocopier available in the Dry Lab area and there is also a large Hp Plotter in the Dry Lab. All PCs in the Dry Lab have access to these printers. Vessel users must provide their own paper and ink cartridges. Scientists may provide their own printers and the duty instrumentation technician can connect it to an existing PC on request.

Requests must come through the Party Chief and the printer driver software must also be provided.

Marine Institute Staff Additional IT Facilities

There are additional services available to MI staff that brings their company laptops and scientific PCs onto the vessel.

VPN Connectivity

This facility is also available on the vessel to Chief and senior scientists. To use VPN connection the following requirements must be met.

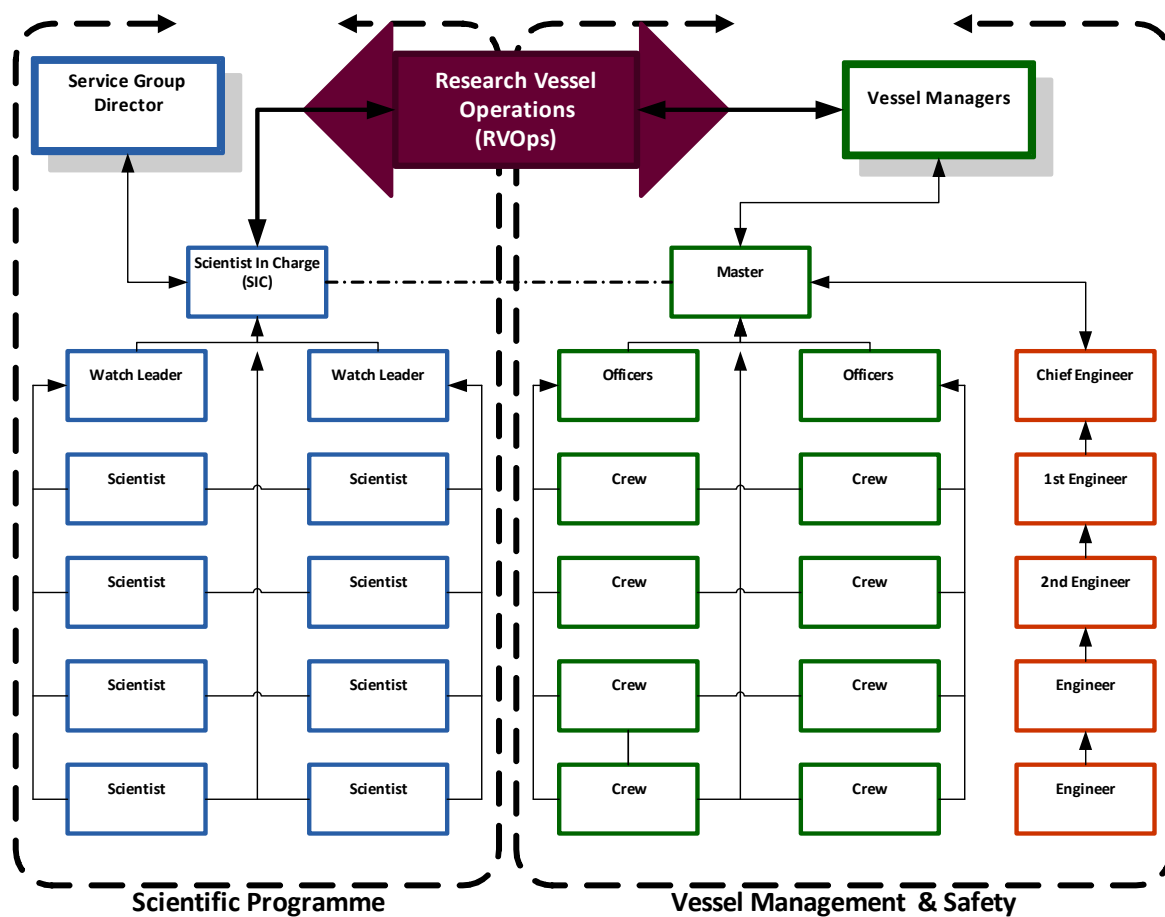
- You must be connected to a VLAN with Internet access with the appropriate IP settings. Contact ship's technician for details.
- File synchronisation must be disabled.
- Large files should not be transferred over the VPN due to limited bandwidth. File sizes should be limited to 2MB. Preferably a colleague should zip required files and email.
- Access to ships network is not possible while VPN connection is open. You must disconnect VPN before browsing of ships network is possible.

RDP Connection

Certain MI users have RDP access on "Galwayts2". This method of connection from the ship is preferred as it does not require the data on the MI server to be transferred to the vessel. The data remains on the MI network and is just accessed remotely. If the Internet connection on the vessel is lost the changes made via RDP should not be lost. Once the user logs back in again they should be able to pick up work from point where RDP connection dropped out. RDP connections do require a reasonable Internet connection speed. If access to Internet is busy on the vessel this type of service will be affected.

APPENDIX III – COMMUNICATION STRUCTURE

The below diagram shows the communication structure when conducting scientific surveys at sea on Marine Institute research vessels.



APPENDIX IV – CONTACT DETAILS

MARINE INSTITUTE	+ 353 91 387200
RESEARCH VESSEL OPERATIONS	
Aodhan Fitzgerald Direct Dial Mobile Email	+ 353 91 387470 + 353 87 2488765 afitzgerald@marine.ie
Rosemarie Butler Direct Dial Email	+353 91 387527 Rosemarie.butler@marine.ie
Bernadette Ni Chonghaile Direct Dial Email	+ 353 91 387507 Bernadette.nichonghaile@marine.ie
VESSELS	
Celtic Explorer Email	celticexplorer@pomaritime.ie
Celtic Explorer GSM Voice	00 353 87 9678520
Celtic Explorer GSM Voice Bridge Only	00 353 87 2044837
Celtic Explorer Iridium Voice	00 881 677737539
VOIP Bridge (Cheapest call rate)	00 353 91 423397
VOIP Scientists meeting room	00 353 91 423433
VOIP Instrumentation techs station	00 353 91 423397

APPENDIX V – THE TOM CREAN

R.V. Celtic Explorer Workboat and Tender

This short note outlines the operational capabilities and regulations concerning the use of the “Tom Crean”.

- The “Tom Crean” is a 5.5 metre heavy duty workboat with 82hp inboard diesel engine which is operated from the R.V. *Celtic Explorer* via a heave compensated davit.
- The boat can be used as a workboat and as a tender and its use in each of these modes is considered under headings below.
- The “Tom Crean” is fitted with VHF radio, navigation lights, GPS, depth sounder as well as all required safety equipment.
- The “Tom Crean” is to be operated by suitably qualified ship’s crew only.

Workboat

- The “Tom Crean” can be operated by ship’s crew as a workboat for operations such as aiding buoy recovery, transporting spare parts, deploying/recovering small items of scientific equipment etc.
- The vessel can carry up to a maximum 5 signed on ships crew and scientific personnel when operating as a workboat.
- The vessel can operate at night when operated as a workboat.
- The launching of the vessel is contingent on a suitable sea state and forecast.

Tender/Passenger vessel

- The “Tom Crean” has a P4 passenger licence issued by the Maritime Safety Directorate and operates within the limits of this licence when carrying passengers (non signed-on ships personnel).
- Up to 3 passengers and 1 or 2 crew can be carried.
- The ‘Tom Crean’ can operate in smooth/partially smooth waters or up to 0.5 of a mile to sea from the R.V. *Celtic Explorer* or from port in favourable weather and good visibility.
- The boat may operate in daylight only.
- All personnel on board must wear a lifejacket at all times whilst on board.

Note: At all times it is the master’s decision whether the “Tom Crean” can be utilised, depending on prevailing weather conditions.

APPENDIX VI – DRUG & ALCOHOL GUIDELINES

Drugs and Alcohol Testing Guidelines for Marine Institute staff working on board Marine Institute Research Vessels

The Safety, Health & Welfare at Work Act 2005 obliges certain employees to submit to appropriate and reasonable tests for intoxicants. The Marine Institute policy will only apply to safety critical situations. All members of staff who carry out work on board the Marine Institute Research Vessels – the *Celtic Explorer* and the *Celtic Voyager* will therefore come under the scope of this policy.

The Safety, Health & Welfare at Work Act 2005

The Safety, Health & Welfare at Work Act 2005 provides important definitions and general obligations on employers and employees and those pertinent to this policy are outlined below:

- Intoxicant includes alcohol and drugs and any combination of drugs and/or alcohol. The Act does not distinguish between legal or illegal drugs.
- An employee shall while at work ensure that he/she is not under the influence of an intoxicant to the extent where he/she may be in such a state as to endanger his/her own safety, health or welfare at work or that of any other person.
- An employee must not engage in improper conduct or other behaviour that is likely to endanger his/her own safety, health or welfare at work or that of any other person.
- An employee if reasonably required by his/her employer must submit to appropriate, reasonable and proportionate test for intoxicants.

Key Points

This policy will apply to all staff of the Marine Institute either directly employed or contracted to carry out work on behalf of the Marine Institute on board the MI Research Vessels.

Intoxicant testing will be carried out for ‘with cause’ and ‘post-accident’ testing purposes only. This means where/whenever a person appears to be under the influence of an intoxicant or when a person is involved in an accident or injured and the circumstances suggest that intoxicants may be involved. Reasonable cause may include but is not limited to the following:

- Evidence of drugs or alcohol about the person (blood shot eyes, hand tremor, incoherence, slurred speech, swaying or difficulty in walking).
- Observed taking of intoxicants.
- Unusual conduct that suggests impairment or influence of intoxicants.
- Poor performance patterns.
- Unexplained absences or sluggishness/lethargy.
- On the job accident or incident where the circumstances suggest the influence of intoxicants.

In all cases, where the use of intoxicants are suspected, the decision whether to invoke the ‘with cause’ or ‘post-accident’ testing procedure will be made by the Master after consultation with the Chief Scientist. If the Chief Scientist is suspected of being under the influence of an intoxicant, then the decision about testing will be taken by the Master after consultation with the First Officer.

Testing Procedures

In the event that testing is required, P&O Maritime Services Ltd will use an on board kit comprising of 'chain of custody' collection cups and forms. A calibrated breathalyser will be used for alcohol testing.

P&O Maritime Services Ltd named and trained staff will be responsible for the collection of samples. These samples will be securely stored refrigerated and then dispatched to the accredited laboratory for analysis as soon as feasible for priority analysis. Results will be reported by email as soon as available (usually on the same day as receipt).

Consent Procedures

All persons directly employed or contracted to carry out work on behalf of the MI on board the MI Research Vessels will be requested to sign a consent form prior to sailing.

Positive Test Results

In the event of a positive result, the person will be required to remain in their cabin until arrangements are in place to enable the person to disembark. Following disembarkation a meeting will take place at the earliest opportunity between the person, their line manager, the Chief Scientist, and the Human Resource Manager where appropriate action will be taken. This may include referral for a confidential, professional assessment and referral for resolving or accessing treatment for addiction or dependence, access to the company nominated Medical Practitioner / Employee Assistance Programme and or measures under the Marine Institute Disciplinary Procedures. At all times the company will treat in confidence and with sensitivity all cases where employees experience difficulties associated with the use of intoxicants.

APPENDIX VII – VOIP CALL CHARGES

The new rates for VoIP are divided into 4 areas. The rates are as follows:

Area	Rate (Fixed)	Rate(Mobile)
1	0.112\$/min	0.280\$/min
2	0.224\$/min	0.490\$/min
3	0.448\$/min	0.700\$/min
4	1.200\$/min	1.450\$/min

- Area 1:

Argentina, Australia, Austria, Bahamas, Bahrain, Bermuda, Brazil, Brunei Darussalam, Canada, Chile, China, Colombia, Costa Rica, Croatia, Cyprus, Denmark, Dominican Republic, France, Georgia, Germany, Greece, Guam, Hong Kong, Hungary, Iceland, India, Indonesia, Ireland, Israel, Italy, Japan, Jordan, Kazakhstan, Republic of Korea, Latvia, Lithuania, Luxembourg, Macao, Malaysia, Mexico, Netherlands, New Zealand, Northern Mariana Islands, Norway, Panama, Peru, Poland, Portugal, Puerto Rico, Romania, Russian Federation, San Marino, Singapore, South Africa, Spain, Sweden, Taiwan, Thailand, Trinidad And Tobago, Turkey, United Kingdom, United States, Uzbekistan, Venezuela, Vietnam, Virgin Islands.

- Area 2:

Algeria, American Samoa, Anguilla, Antigua And Barbuda, Armenia, Aruba, Bangladesh, Barbados, Belgium, Bolivia, Botswana, Burundi, Cambodia, Cayman Islands, Czech Republic, Dominican Republic, Ecuador, Egypt, El Salvador, Estonia, Faroe Islands, Finland, Ghana, Gibraltar, Guatemala, Honduras, Iran, Iraq, Jamaica, Kazakhstan, Kenya, Kuwait, Kyrgyzstan, Laos, Lebanon, Liechtenstein, Malawi, Malta, Mauritius, Moldova, Mongolia, Mozambique, Namibia, Netherlands Antilles, Nigeria, Pakistan, Paraguay, Reunion, Russian Federation, Saudi Arabia, Serbia and Montenegro, Seychelles, Slovakia, Sri Lanka, Sudan, Swaziland, Switzerland, Tajikistan, Tanzania, Turkmenistan, Turks And Caicos Islands, Uganda, Ukraine, Uruguay, Zambia.

- Area 3:

Albania, Andorra, Angola, Antarctica, Azerbaijan, Belarus, Belize, Benin, Bhutan, Bosnia And Herzegovina, Bulgaria, Burkina Faso, Cameroon, Cape Verde, Chad, Congo, Dominica, Fiji, French Guiana, Gabon, Grenada, Guadeloupe, Guinea, Guyana, Haiti, Ivory Cost, Lesotho, Liberia, Libyan Arab Jamahiriya, Macedonia, Maldives, Mali, Martinique, Mauritania, Mayotte, Micronesia, Monaco, Montenegro, Montserrat, Morocco, Nepal, New Caledonia, Nicaragua, Niger, Oman, Palestine, Philippines, Qatar, Rwanda, Saint Kitts And Nevis, Saint Lucia, Saint Vincent And The Grenadines, Senegal, Slovenia, Suriname, Syrian Arab Republic, Tunisia, United Arab Emirates, Virgin Islands, British, Yemen, Zimbabwe.

- Area 4:

Afghanistan, Ascension Island, Central African Republic, Comoros, The Democratic Republic Of The Congo, Cook Islands, Cuba, Diego Garcia, Djibouti, East Timor, Equatorial Guinea, Eritrea, Ethiopia, Falkland Islands (Malvinas), French Polynesia,

Gambia, Greenland, Guinea-Bissau, Kiribati, Democratic People's Republic Of Korea, Madagascar, Marshall Islands, Myanmar, Nauru, Niue, Norfolk Island, Palau, Papua New Guinea, Saint Helena, Saint Pierre And Miquelon, Samoa, Sao Tome And Principe, Sierra Leone, Solomon Islands, Somalia, Togo, Tonga, Tuvalu, Vanuatu, Wallis And Futuna.

The rates applied to Thuraya, Inmarsat and Iridium are 4.3 US\$/min, 10 US\$/min and 13 US\$/min, respectively.

Please, ask for rates on special numbers.

Connection fee: 0.18 US\$.

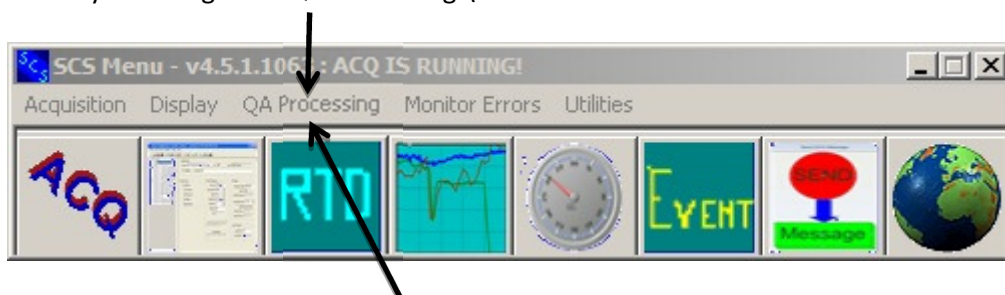
APPENDIX VIII – SOP REV1: SCS DATA EXTRACTION

SOP REV1: SCS Data Extraction

There are two ways for users to extract data from the SCS database.

1. Extracting RAW data with selected time from Database.
2. Compressing selected data from database tables regarding to TimeStamps collected.

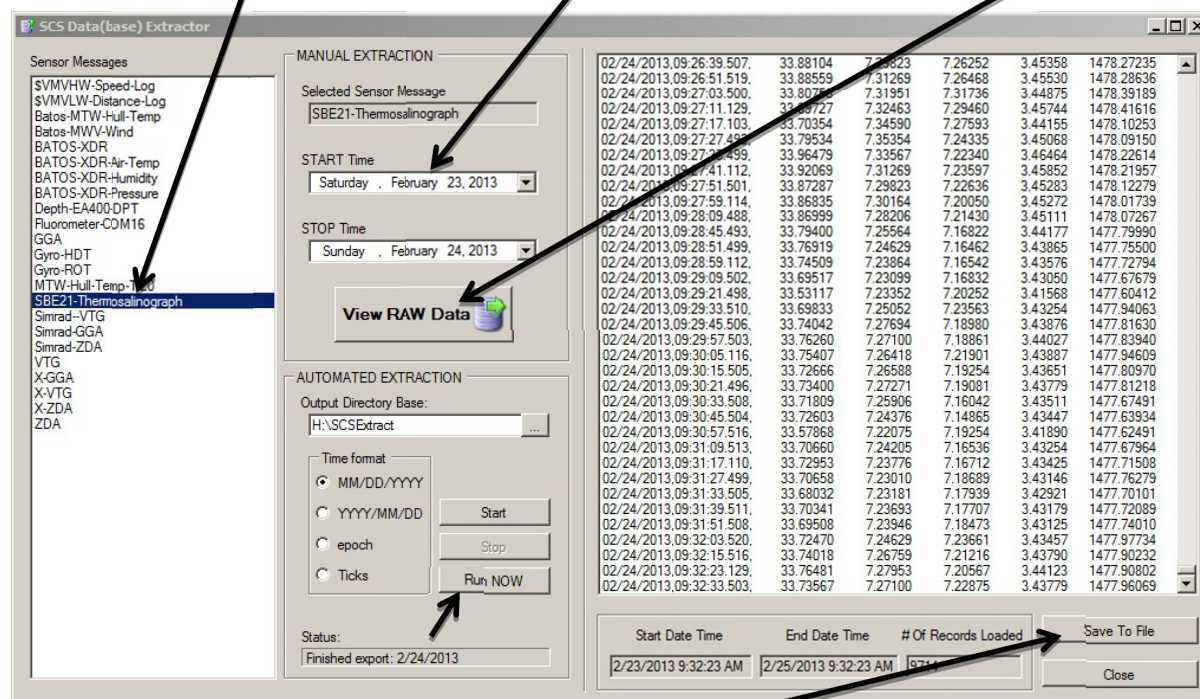
AD.1. is done by selecting from QA Processing \ Database Extractor



AD.2. is done by selecting from QA Processing \ Build New Compress File

AD.1. Database Extractor

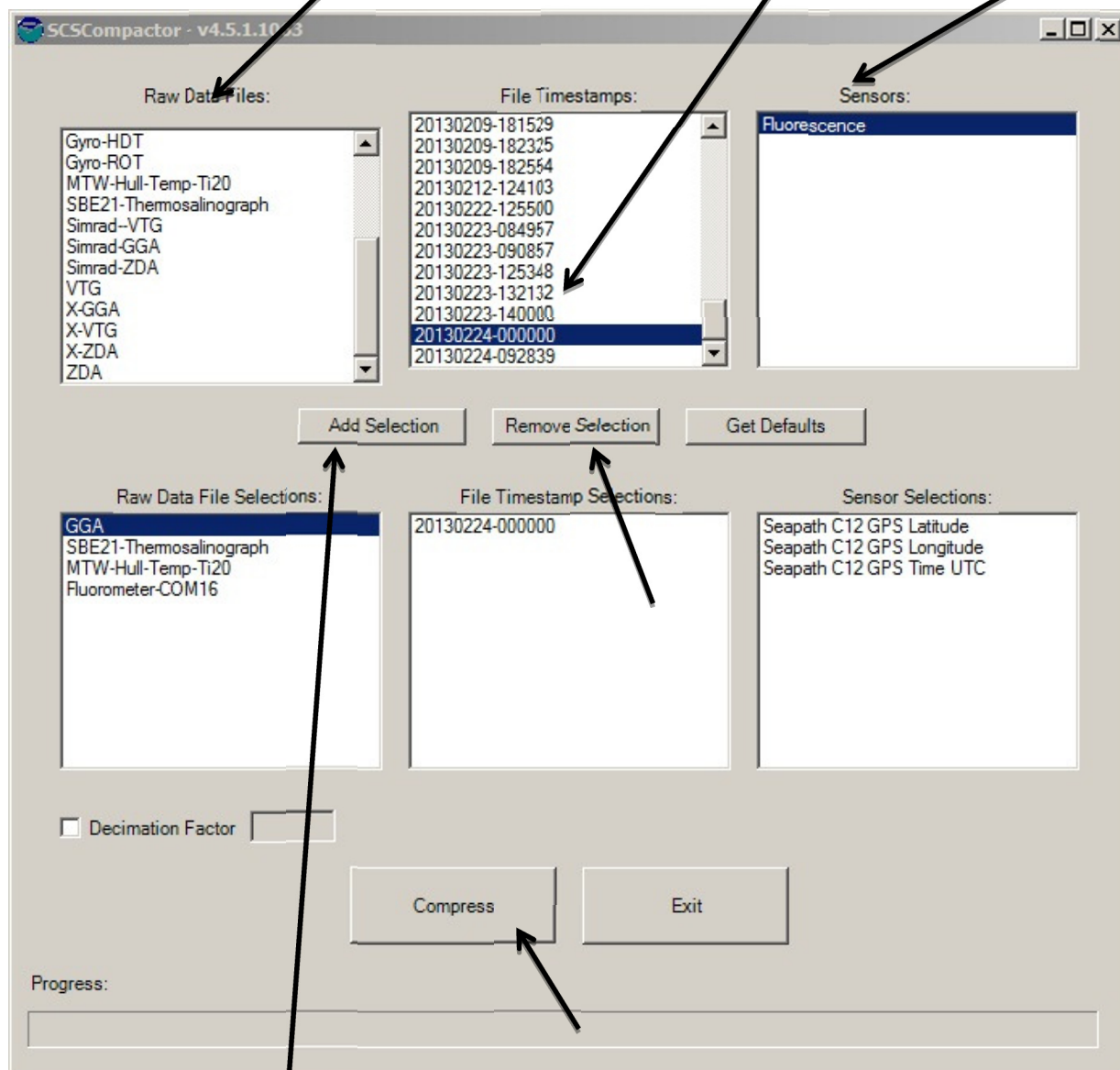
To extract Selected Instrument RAW Data select dates you are interested and click View RAW Data.



To save selected RAW data to file click Save To File. If would you like to save all instruments data on selected dates just click Run NOW. All data will be available to view and further processing on Server folder: <\\CVSCS02\SCSExtract>

AD.2. Build New Compress File.

To compress Data from Selected instruments, you have to pick the TimeStamps and interested values.



To Add values to file click Add Selection. If would you like to change time stamp or select different set of values to compress you can Remove Selection from bottom tables.

To mark more than one TimeStamp or instrument Value use SHIFT and/or CTRL keys on keyboard and left click mouse on additional items.

To start compress process click Compress. Compressed files could be find in folder on SCS Server: <\\CVSCS02\LOG40\Compress>

APPENDIX IX – INTERNET CONNECTION AND WIFI USAGE

VSAT System:

The ship's Internet/broadband is supplied by satellite and has a 2MB\512Kbps connection with a 10:1 contention ratio (this means that up to 9 other vessels may have to share our bandwidth allocation).

There are several fixed PCs with access to the VSAT onboard. There can be up to 35 personnel on the vessel which means the broadband can be heavily used. The average 4Gsmart phone/mobile device data connection is 10 times faster than the ships VSAT system so web browsing will be considerably slower than you are used to at home or work.

Web Usage:

Guidelines for personal Internet access are outlined below. If you need to send or receive larger files for business needs please contact the ship's technician.

- Occasional access to web mail.
- File sizes limited to 500KB sending and 1MB receiving.
- No email or browser settings can be changed or altered.
- A web filter is in place which restricts access to certain websites.
- While Internet access is provided as a work tool, it is accepted that there will be some personal use within reason. With this privilege comes responsibility and accountability (as per internet policy). Users should be cognisant of the amount of time they spend using the internet so as to allow equal and efficient internet access to all Marine Vessel users.
- Two PC's are designated for Crew and two for Scientists. These will be outlined during the familiarisation tour when joining the vessel.

VoIP (Telephone over the Internet):

There are two VoIP telephone lines which have dedicated bandwidth in parallel to the Internet connection. The VoIP should be unaffected by heavy Internet usage. There can be a two-three second delay on the voice which takes some time to get used to. See points below for guidelines on VoIP usage.

- There are no restrictions on VoIP business calls.
- The Bridge VoIP line is reserved for Business\Operational calls.
- The Meeting Room VoIP line can be used for personal calls. Calls should only be made to landlines if possible as these are much cheaper (2 cent\min). Mobiles should not be called if possible, as they are significantly more expensive (15-20 cent\min to Irish mobiles). Calls should be kept brief (10-15min) as other people on the vessel may wish to make calls.
- If you have a smart phone you should use it for your VOIP calls as there is no cost to the company.

Refer to Section 9.1 and Appendix II above for full details of the IT policy.

Wifi Network:

Ship wide wireless networks are available for the convenience of vessel users:

The Wifi network has four access areas, Bridge, Dry Lab, Main Deck and Lower accommodation deck.

There will be three Wifi networks available with restrictions applied to each.

1. **Corporate Wifi** (CE_Corp_Wifi): Exclusive for connection of MI and P&O Laptops. This will have full access to the ship's network and Internet via Webtitan Firewall.
Note: Ship's technician will enter the password for you. Password cannot be given out. This need only be done once per survey.
2. **Scientist Wifi** (Scientist_Wifi): Reserved for Chief and Senior Scientists that do not have Corporate Laptops. General scientific complement will use the ship's PCs provided for Internet and Email access.
Note: Ship's technician will enter the password for you. Password cannot be given out. This need only be done once per survey.
3. **Mobile Devices Wifi** (Mobile_VOIP): To allow scientists and crew communications, and is primarily for messaging and VOIP calls. A 100MB allowance per user per day is allocated. If your allocation runs out, you must wait until next calendar day to reconnect. For example: If you stream video via Facebook Apps etc, this will use your allocation quickly. Network ID and password is on the Access point in the Dry Lab. Contact the technician if you are having problems initially connecting.

FAQs:**Q1. My mobile device will not connect to the Internet?**

A1. You may have used your daily allowance. If the ship's PCs have access this is probably the case. Contact the technician if this is your initial login onboard. Try your phone the following day.

Q2. Why is my 100MB allowance used up so quickly?

A2. Your mobile updates may be switched on. Photos can be from 1-10MB on modern mobiles. 1 Photo can use 1/10th of your daily allowance. A typical web page uses 1246KB so about 80 web pages will use your allowance.

Use your allocation wisely!