SERVICE LEVEL AGREEMENT

BETWEEN

IRISH COAST GUARD OF THE DEPARTMENT OF TRANSPORT

&

COMMISSIONERS OF IRISH LIGHTS

SERVICE LEVEL AGREEMENT BETWEEN THE IRISH COAST GUARD & THE COMMISSIONERS OF IRISH LIGHTS

AMENDMENT RECORD SHEET

This is a controlled document.

Amendments will be issued by agreement between IRCG and CIL.

Date	Section	Page No.	Summary of Changes
26/06/2008	Annex 16	All	New Annex 16 Added
25/02/2010	Annex 16	All	Annex 16 amended to include full sharing of AIS data. Signatures updated.

SERVICE LEVEL AGREEMENT BETWEEN THE IRISH COAST GUARD & THE COMMISSIONERS OF IRISH LIGHTS

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SERVICE LEVEL AGREEMENT BETWEEN THE IRISH COAST GUARD & THE COMMISSIONERS OF IRISH LIGHTS

THIS SERVICE LEVEL AGREEMENT is made this 26th day of March 2008 between the Irish Coast Guard (IRCG), which is a Division of the Department of Transport (DOT), and the Commissioners of Irish Lights (CIL).

1. Purpose of the Agreement

1.1. The Agreement sets out the terms and conditions under which the Commissioners will provide Helicopter landing facilities and refuelling services at their shore Helicopter Bases at Blacksod and Castletownbere for Marine Emergency Service (MES) helicopters operating under contract to, or under operational direction of IRCG.

1.2. The Agreement also sets out the circumstances and the conditions under which the Commissioners' vessel *ILV Granuaile* will be made available for marine training, exercises and emergencies.

1.3. The Agreement also sets out the level of service provided by the Coast Guard Radio Station services in monitoring the CIL contract helicopter and charging arrangements.

1.4. The Agreement also sets out the charging arrangements for the broadcast of Radio Navigational Warnings. (RNW's)

1.5. The Agreement also sets out the charging arrangements for the use of IRCG radio equipment at CIL properties.

1.6. The Agreement also sets out the charging provisions for the use of AIS data or facilities by either party to the other.

2. Responsibilities & Authorities of IRCG

2.1 The Irish Coast Guard (IRCG) discharges the State's responsibility for Maritime Search & Rescue (SAR), counter pollution and salvage operations at sea and, safety awareness. It operates Marine Rescue Coordination Centres and Sub-Centres at Dublin, Malin Head and Valentia and maintains a marine communications network around the Irish Coast and on inland waters. It co-ordinates the emergency response to incidents at sea and on inland waters, in caves and on mountains and utilises both its own and declared and additional SAR resources.

2.2. IRCG is the responsible authority for tasking and co-ordination of all MES (marine emergency service) helicopter operations in Ireland. IRCG 24/7 MES helicopters are based in Dublin, Waterford, Shannon and Sligo Airports.

2.3 The principal IRCG officer for the purpose of this agreement is The Director. The Deputy Director (Operations & Safety) will normally deal with all administrative and operations matters.

2.4 The Marine Rescue Coordination Centre (MRCC) Dublin is the normal 24-hour (H24) contact point for all matters requiring immediate decision or action outside normal office hours. MRCC Dublin will advise IRCG senior management as necessary depending on the urgency of the situation.

2.5 MRCC Dublin is the contact point for the Radio Navigation Warning Broadcast service and for routine operational matters in the area between Carlingford Lough and Youghal.

2.6 The Marine Rescue Sub Centre (MRSC) Valentia is the contact point for routine operational matters in the area between Youghal and Slyne Head.

2.7 MRSC Malin Head is the contact point for routine operational matters in the area between Slyne Head and Inishowen.

3. Responsibilities & Authorities of CIL

3.1 The Commissioners of Irish Lights are the General Lighthouse Authority for Ireland. CIL have responsibility for the superintendence and management of all lighthouses buoys and beacons throughout Ireland and the adjacent seas and islands. CIL provide General Aids to Navigation and through Local Lighthouse Authorities, superintend, manage and inspect local aids to navigation. CIL also have responsibilities in relation to wreck outside of Statutory Harbour areas.

3.2 The principal CIL officer for the operation of this agreement will be the Head of Marine. The CIL Deputy Head of Marine will normally deal with all administrative and operational matters.

3.3 In the event of an urgent operational matter requiring immediate decision or action outside normal office hours, the Duty Inspector should be contacted through the H24 Telemetry Systems Officer, Irish Lights, Dun Laoghaire as at Annex 4. MRCC Dublin will test this system at regular intervals.

3.4 The person responsible for providing helicopter refuelling services at Blacksod Helipad is the Attendant, Blacksod Lighthouse or, in his absence, a nominated Assistant.

3.5 The person responsible for providing helicopter refuelling services at Castletownbere Helipad is the Supervisor, Castletownbere Helipad & Berehaven Lights or in his absence, a nominated Assistant.

3.6 The Master, *ILV Granuaile,* will have direct on board responsibility for all operations involving *ILV Granuaile*, subject to the superintendence of the Head of Marine.

4. Provision of CIL Helipads & Services

4.1 CIL will provide landing and refuelling facilities for SAR helicopters at their shore Helicopter Bases at Blacksod and Castletownbere.

4.2 The availability of these facilities is subject to the condition that there is no prejudice to any CIL helicopter operation of equal urgency. If these facilities are not available the local MRCC/MRSC will be informed of the duration and reason for the non-availability.

4.3 At Blacksod there is, in addition to the main helipad, a helicopter-parking pad where the CIL contract helicopter is normally parked overnight or during daylight if no CIL operations are taking place.

4.4 At Castletownbere there is no helicopter-parking pad. In the event of SAR helicopter operations being required when the CIL contract helicopter is on the helipad CIL will make its best endeavours to arrange for the CIL contract helicopter to be flown to an alternative location.

4.5 At Blacksod and Castletownbere CIL provides and maintains a 6,000 gallon (27267 litres) JET A1 aviation fuel bulk storage tank with electrically operated high pressure and low pressure dispensing pumps.

4.6 The aviation fuel stored in these tanks is the property of CIL's helicopter service contractor, who is responsible for the supply and quality control of the fuel. CIL will be responsible for notifying their helicopter service contractor whenever the quantity of fuel in the tank becomes depleted and in need of replenishment. Should there be a period when fuel reserves are insufficient to refuel a Coast Guard S61 then MRSC Malin Head or MRSC Valentia will be notified without delay.

4.7 The Attendant Blacksod and the Supervisor Castletownbere, or their Assistants, will provide a continuous on-call service for SAR helicopter operations on a mutually agreed basis. However, the Supervisor/Attendant will have primary responsibility for providing this service.

4.8 In the absence of the Attendant/Supervisor because of illness, days off or holidays, or for any other reason the Assistants will take over responsibility for providing the on-call service. If a service cannot be provided, MRSC Malin Head or MRSC Valentia will be notified.

4.9 The Attendant Blacksod will notify MRSC Malin Head and the Supervisor Castletownbere will notify MRSC Valentia before handing over responsibility for providing the on-call service to their Assistants.

4.10 The Attendant Blacksod and the Supervisor Castletownbere will attend at the helipad during SAR helicopter operations and exercises, and any other operations requested by IRCG, to refuel the helicopter.

4.11 If required, CIL will also provide landing and refuelling services to UK SAR or other aircraft under the coordination of the IRCG but these aircraft must comply with the Standard Operational Procedures in Section 5 below and in ANNEX 8.

5. Standard Operational Procedures (SOPs) for Helicopter Operations

5.1 The agreed standard operational procedures for all helicopter landings at CIL Helibases are contained in ANNEX 8.

6. Training Requirements: CIL Helibase Personnel

6.1 IRCG, in consultation with CIL, will identify the skills and competencies required of CIL Helibase personnel to carry out the services referred to in this Agreement, and will provide the necessary training.

6.2 IRCG will ensure that CIL Helipad personnel are trained, with particular regard to safety and refuelling, on all the aircraft types covered by this Agreement. See ANNEX 10.

6.3 A schedule for repeat training is to be agreed between IRCG and CIL, or if any new aircraft types are introduced.

6.4 A sample training record is contained in ANNEX 13.

6.5 IRCG or their contractor will issue people trained or briefed with an appropriate certificate, to be copied to CIL.

6.6 IRCG SAR Operations Manager will monitor current CIL Helibase qualifications and training needs and will be informed of any changes to relevant personnel.

7. Payments: CIL Helibase Personnel

7.1 IRCG will pay a fixed annual sum to CIL for the services of the Attendant Blacksod, and the Supervisor, Castletownbere. The amount due will be agreed on an annual basis in November having regard to the level of use of the Helibases. CIL will invoice IRCG in respect of this amount due in early December of each year.

8. Provision of Other Services by CIL

8.1 Subject to consideration of the need to carry out urgent CIL service work, CIL will make its vessel *ILV Granuaile* available to assist in any marine emergency on request from IRCG.

8.2. CIL will also make *ILV Granuaile* available to IRCG for contract work and planned training exercises by prior arrangement

8.3 Payment terms and conditions for the provision of *ILV Granuaile* are set out in Annex 1.

8.4 CIL will make facilities at Baily Lighthouse and Helipad available for planned training purposes by prior arrangement.

8.5 The capabilities of Granuaile and equipment carried are set out in Annex 12.

9. IRCG Position Monitoring Service for CIL Contract Helicopter

9.1 IRCG will provide a position monitoring (flight watch) service for CIL's service contract helicopter through their coast radio service (CRS). CIL will pay a fixed annual sum to IRCG for this service. The amount due will be agreed on an annual basis in November having regard to the level of use of the Helibases. IRCG will invoice CIL in respect of this amount due in early December of each year.

10. Health & Safety

10.1 IRCG and CIL will adopt and comply with all safety precautions necessary to ensure the health, safety and welfare of all personnel engaged in providing services under this Agreement and any other persons, including all precautions required by Statute.

10.2 All Merchant Shipping and Sea Pollution Acts are to be complied with as appropriate.

10.3 IRCG and CIL will co-operate fully to ensure the proper discharge of these duties. IRCG and CIL will notify each other of any accident or dangerous occurrence relevant to this Agreement.

11. Costs

11.1 Costs arising from the provision of the services covered by this Agreement are laid out in the annexes.

11.2 CIL maintains the Helipads at Castletownbere and Blacksod to a standard in excess of their own daylight helicopter requirements. This includes night lighting and a high pressure refuelling system. Costs in maintaining these standards or for any other services will be on an agreed basis with IRCG.

12. Insurance & Indemnity

12.1 IRCG shall not be liable to CIL, its servants or agents, for any loss or damage, or consequential loss or damages, to the property of CIL, its servants or agents, by reason of, or on account of, or in any of the circumstances set out in this Agreement, unless due to the wilful misconduct or negligence of IRCG, their servants or agents.

12.2 CIL shall not be liable to IRCG, its servants or agents, for any loss or damage, or consequential loss or damages, to the property of IRCG, its servants or agents, by reason of, or on account of, or in any of the circumstances set out in this Agreement, unless due to the wilful misconduct or negligence of CIL, their servants or agents.

12.3 A separate insurance cover will be put in place to cover CIL employees when engaged on SAR work. This insurance cost is for the account of the IRCG. Terms and conditions to be mutually agreed.

12.4 The insurance of personnel on board *ILV Granuaile* will be covered by CIL's protection and indemnity (P&I) club.

12.5 IRCG will ensure that SAR helicopters operating under contract with them are adequately insured and that such documentation will be available to CIL for inspection upon request.

13. AIS

13.2. The IRCG is responsible for the Republic of Ireland Automatic Identification System ("AIS") network and infrastructure for the purposes of vessel traffic monitoring and other statutory obligations.

13.3. CIL are responsible for the application of AIS as an Aid to Navigation and may implement AIS infrastructure for that purpose.

13.4. AIS when used as an Aid to Navigation require Statutory Sanction from CIL under the Merchant Shipping Act 1894. The IRCG will provide such data to CIL who will verify its authenticity and accuracy. IRCG will advise CIL of any relevant AIS applications or transmissions which come to their attention.

13.5. The IRCG and CIL will, following on from this SLA, work towards a further Annex (16) to specify the details of both parties in the development and provision of AIS.

13.6. CIL on the one hand, and the IRCG on the other hand, will co-operate in making AIS data and transmission facilities available to each other, subject to the detailed conditions contained within Annex 16.

13.7. The IRCG and CIL will ensure that consideration is given to data protection and freedom of information requirements. CIL will be permitted to share data received with the other General Lighthouse Authorities namely Trinity House and Northern Lighthouse Board. Specific agreement will be required from IRCG should this data be further used or made available by the above-mentioned third parties.

14. Contacts & Communications

13.1 IRCG and CIL will provide each other with the contact details of their respective staff for the purpose of operating this agreement. The current contact details are in Annex 4, 5 and 6 to this agreement.

15. Liaison & Review

14.1 IRCG and CIL will freely exchange information as required to facilitate the operation of this Agreement and will meet annually. This Agreement will be subject to review as part of the overall provision of services to the Department of Transport.

14.2 Annexes will be updated as necessary.

16. Commencement & Termination

15.1 This Agreement will commence on 31st March 2008 and will continue for five years or until such time as either of the parties gives the other three months' notice in writing of their intention to terminate it.

Irish Coast Guard

Chris Reynolds,
Director

Date 22nd March 2010

Commissioners of Irish Lights

Dr. Stuart Ruttle
Chief Executive

Date 11th March 2010

SERVICE LEVEL AGREEMENT BETWEEN THE IRISH COAST GUARD & THE COMMISSIONERS OF IRISH LIGHTS

ANNEX 1 –Terms and conditions for use of *ILV Granuaile*

1. *ILV Granuaile* is an additional resource available to the IRCG for Marine Emergency Response.

2. MRCC will be updated on daily basis via a Traffic Report message on the vessel's position.

3. An agreed BIMCO supply time charter party between the IRCG and CIL will be the contractual basis for daily hire of ILV Granuaile. The charter party rates will be reviewed annually on the 1st April.

4. It is recognised that the proper organisation of this section of the agreement requires a degree of joint training between ILV Granuaile and IRCG. It is envisaged that IRCG will contract the vessel for 4 days each year (2 days for each crew) for training exercises.

5. IRCG and CIL will agree a schedule of yearly training for IRCG personnel & *ILV Granuaile crews* on marine emergencies. Such training may include exercises on Salvage, Towing, Command & Control, SAR, Heliops, Fire, Personnel Evacuation, Pollution Response & Oil Recovery.

6. Helicopter winching exercises of opportunity are not included in these terms and conditions and no charge applies.

7. CIL will invoice IRCG for the contracted days in paragraph 4 above as they fall due but no later than the 1st of November each year.

8. CIL will facilitate carriage of IRCG personnel on board ILV Granuaile for familiarisation purposes. There will be no additional charge for these visits.

ANNEX 2 – Position Monitoring Service for CIL Contract Helicopter

1. INTRODUCTION

1.1. The following procedures apply to all operations involving the CIL contract helicopter.

1.2. The purpose of these procedures is to provide a safe flight watch system for the helicopter when carrying out flights to and from lighthouses and for positioning flights between Irish Lights shore bases.

1.3. It is essential that good communications exist between the helicopter and controlling base at all times. Should the helicopter have a mechanical emergency while flying at the minimum height over water (*i.e.* 250 feet) the time from this height to hitting the water is 5 seconds. This is all the time the pilot has at his disposal to transmit a distress message **and have it acknowledged.** Strict adherence to these procedures will minimise the delay should an emergency occur, thus reducing the search area and thereby increasing the possibility of rescuing survivors.

1.4. Sample messages in these instructions assume that the Call Sign of the CIL contract helicopter is ***"India Tango"***. Radio operators should be aware, however, that another aircraft with a different call sign might be substituted, either temporarily or permanently. CIL will advise IRCG of long term replacements.

1.5. IRCG will charge CIL for these services. Costs will be agreed on an annual basis in December. IRCG will thereafter invoice CIL in January each year.

2. RADIO COMMUNICATIONS

2.1. CIL has contracted the Irish Coast Guard Coast Radio Service (CRS) as the primary radio communications service to provide flight watch for the helicopter.

3. COMMUNICATIONS PROCEDURES

3.1. For the first flight of the day, immediately on departure from the shore base, the pilot should call the CRS on the working channel to establish communications. This opens the flight watch service and CRS should acknowledge. The pilot will then pass on his flight plan details on the working channel.

4. FLIGHT DETAILS

4.1. On the working channel the pilot will provide information on the departure point (if not already known to CRS) the destination, souls on board, and duration of flight *i.e.* ***"Valentia Coast Guard—Valentia Coast Guard—India Tango airborne from Castletownbere for destination Bull Rock—three souls on board—ten minutes"***. The reply from Valentia Coast Guard should be ***"India Tango—Valentia Coast Guard—Roger"***.

5. GRID CHARTS AND REPORTING

5.1. The pilot will report his position every 6 minutes using the GPS, giving bearing and distance, or by the Ordnance Survey grid chart should the GPS be off the air. The CRS officer will acknowledge and **read back all reported positions**. When the helicopter is approaching the lighthouse or shore base the pilot will advise CRS and the pilot will make a further call when landed. All position reports are to be recorded by the CRS radio officer on his in-house computer form, stating position and time. On flights to lighthouses, which have a flight time from the base of 6 minutes or less, the pilot will advise CRS. ***"I will call you landing"***. All calls by the pilot to the CRS should begin with the coast station name being given twice *i.e.* ***"Glen Head Coast Guard—Glen Head Coast Guard—India Tango*—etc. etc."**

5.2. CRS must ensure that the pilot message stating that he has landed safely is confirmed.

6. POSITIONING FLIGHTS

6.1. A GPS navigator has been fitted to the helicopter and this is generally used for position reports and ETA's whilst on Service work. As with all electronic navigation aids, it should never be relied upon implicitly, and should be constantly verified by visual and other means. On take-off the pilot will give his flight details in the normal manner. Position reports when en route will be given as Bearing and Distance **OF THE DESTINATION.** On a typical flight from St John's Point to Blacksod the position report would be ***"Glen Head Coast Guard—Glen Head Coast Guard—India Tango—Blacksod Lighthouse bears 237 degrees, 25 miles"***. (This is also the course heading).

6.2. CIL will consider the fitting of AIS to their contract helicopters.

7. OVERDUE REPORTING OF POSITION

7.1. The normal flight time reporting interval over water is 6 minutes. However, should the pilot not report after 6 minutes the CRS radio officer should not wait longer than a further 2 minutes before requesting the pilot to report his position. For flights over land the reporting interval is 15 minutes. The CRS officer should not wait longer than a further 5 minutes before requesting the pilot to report his position.

8. AREAS OF POOR COMMUNICATION

8.1. When the helicopter is operating in known areas of poor communication, *e.g.* Clew Bay, the CRS will have to use its discretion.

9. CHANGING FREQUENCIES

9.1. When changing frequencies from one working channel to another the pilot will make a communications check on the new channel.

10. IRISH LIGHTS MARINE RADIOS

10.1. Irish Lights has installed marine radios at all shore bases and lighthouses. Should the pilot desire to have the Attendant at the shore base carry out his flight watch for operational reasons this can be done on the P1 Channel, *i.e.* the Irish Lights assigned Private Channel, frequency 157.775 MHz. This Channel is also available on the Irish Lights handheld radios and on *ILV Granuaile*.

11. AIR BAND RADIOS

11.1. CIL has been assigned the Aero frequency 129.95 MHz for lighthouse helicopter operations. This frequency is used as a back up to the Marine frequencies and the pilot will maintain a listening watch at all times during lighthouse operations, for operational reasons. Should the pilot request the lighthouse shore base to carry out his flight watch then the position reporting *etc.* as for CRS will apply. However, it should be noted that this equipment at CIL stations is gradually being phased out.

12. AERONAUTICAL FREQUENCIES

12.1. Dublin Air Traffic Control (ATC) is to be used when operating in the Dublin area with a listening watch on 129.95 MHz if and when possible.

12.2. Belfast Air Traffic Control is to be used when operating in Northern Ireland. Attendants will maintain a listening watch where possible.

13. TRANSFER OF FLIGHT WATCH

13.1. There will be a positive hand over of flight watch from CRS to ATC or Irish Lights by the helicopter pilot. For hand over the pilot will first establish communications with the station he requires to carry out his flight watch (ATC, CRS, or CIL) giving his flight details and then reverting to cancel the flight watch with the station whose frequency he is leaving.

13.2. **CRS engaged with other casualty:** Should this occur CRS will advise pilot that he is unable to continue flight watch.

14. MISCELLANEOUS

14.1 For repetitive flights to one station (underslinging etc.) the pilot may elect to have the flight watch done by CIL local radio for operational reasons, with a listening watch being kept on the Coast Guard channel.

15. DISTRESS MESSAGE

15.1. The **DISTRESS** message is sent by the pilot when he considers that the helicopter is threatened by serious or imminent danger and is in need of assistance. The distress call is made on the working channel already established and may be repeated on Channel 16 if time permits. If possible, the distress message is in the following format:-

1. ***"MAYDAY—MAYDAY—MAYDAY"***
2. ***India Tango***
3. ***Position, time, and heading***
4. ***Nature of Distress***
5. ***Intentions of pilot***
6. ***Any other useful information***

15.2. The radio message should be repeated, when possible, until acknowledged.

15.3. The pilot should cancel the distress call if the danger no longer exists.

15.4 Distress calls have absolute priority over all other radio transmissions until cancelled.

16. URGENCY MESSAGE

16.1. The pilot has a **VERY URGENT** message to transmit concerning the safety of the helicopter, or some person on board or within sight.

1. ***"PAN—PAN—PAN"***
2. ***India Tango***
3. ***Position, time and heading***
4. ***Nature of Urgency Message***
5. ***Intentions of pilot***
6. ***Any other useful information***

16.2. The radio message should be repeated, when possible, until acknowledged.

16.3 The pilot should cancel the urgency message as soon as action is no longer necessary.

17. OVERDUE PROCEDURE—CRS STATION OFFICER AND IRISH LIGHTS STATION ATTENDANTS

17.1. ***OVER WATER***

Helicopter fails to report position after 6 minutes

Action:

1. Check last reported position.
2. After not longer than a further 2 minutes request helicopter to report position.
3. If no reply, ask shore base/lighthouse if any radio or visual contact. If yes, pass control to them.

LAST MISSED REPORT + 5 MINUTES

Action:

4. Broadcast distress message on Channel 16 ***"Mayday relay - aircraft overdue"*** giving last reported position.
5. Alert Coast Guard on call Officer.
6. Advise ARCC.
7. Inform CIL and Irish Helicopters—see Section 17.3 below.

17.2. ***OVER LAND***

HELICOPTER FAILS TO REPORT POSITION AFTER 15 MINUTES

Action:

1. Check last reported position
2. After not longer than a further 2 minutes request helicopter to report position.

LAST MISSED REPORT + 5 MINUTES

Action:

3. If no reply ask nearest ATC centre if any contact. If none, inform them of missed report and intention to broadcast Mayday Relay, then proceed in accordance with the instructions in 17.1.4 to 17.1.7, *i.e.* Broadcast Mayday, Alert Coast Guard, and inform both CIL and Irish Helicopters.

17.3 **All Cases**

Inform CIL and Irish Helicopters in all cases. Contact details are in Annex 4 & Annex 5

ANNEX 3 – Payment terms for RNW transmissions

- CIL agree to pay IRCG a set annual amount covering the cost of transmitting all CIL Radio Navigational Warnings, (RNW's) via coast radio stations in Ireland.
- This payment covers the period from 01 January to the 31 December each year.
- The rate of payment will be agreed each December.
- IRCG will invoice CIL for this service on 1st January each year.

ANNEX 4 —Contact Names CIL

COMMISSIONERS OF IRISH LIGHTS

Head of Marine.

Capt Kieran O'Higgins	*'phone (office d.d.)*	01 2715540
Commissioners of Irish Lights	*'phone (home)*	01 6586192
Harbour Road	*'phone (mobile)*	087 2310230
Dun Laoghaire	*Fax: (office)*	01 2715566
County Dublin	*Email:*	k.ohiggins@cil.ie

Deputy Head of Marine.

Capt. Robert McCabe	*'phone (office d.d)*	01 2715541
Commissioners of Irish Lights	*'phone (home)*	01 6282286
Harbour Road	*'phone (mobile)*	087 9682537
Dun Laoghaire	*Fax: (office)*	01 2715566
County Dublin	*Email:*	r.mccabe@cil.ie

Local Aids to Navigation Inspector

Tim Ryan	*'phone (office d.d)*	01 2715546
Commissioners of Irish Lights	*'phone (mobile)*	087 1228576
Harbour Road	*Fax (office)*	01 2715566
Dun Laoghaire	*Email:*	t.ryan@cil.ie
County Dublin		

Assistant Inspector of Lights

Capt. Dermot Gray	*'phone (office d.d)*	01 2715542
Commissioners of Irish Lights	*'phone (home)*	021 4292132
Harbour Road	*'phone (mobile)*	087-2837198
Dun Laoghaire	*Fax (office)*	01-2715566
County Dublin	*Email:*	d.gray@cil.ie

Marine Assistant

Mr. Desmond O'Brien	*'phone (office d.d)*	01 2715545
Commissioners of Irish Lights		
Harbour Road	*Fax (office)*	01 2715566
Dun Laoghaire	*Email:*	d.obrien@cil.ie
County Dublin		

Telemetry System Officer (available through 24 hours)

Commissioners of Irish Lights	*'phone:*	01 2715405
Harbour Road	*Fax (office)*	01 2803279
Dun Laoghaire	*Email:*	tso@cil.ie
Co. Dublin		

Master, ILV Granuaile

'phone (mobile):	086-6376634
	087-2554501
Fax:	087-6510674
Email:	granuaile@cil.ie
Sat-C	***425019110@c.xantic.net***

Attendant, Blacksod Lighthouse

Mr Vincent Sweeney	*'phone (helipad):*	097-85662
Blacksod	*'phone (home)*	097-85774
Ballina	*'phone (mobile)*	087-285661
Co. Mayo	*Fax (helipad)*	097-85662

Assistant Attendant, Blacksod Lighthouse

Mr Gerry Sweeney	*'phone (helipad)*	097-85662
Blacksod	*'phone (home)*	097-85694
Ballina	*'phone (mobile)*	096-8514962
Co. Mayo	*Fax (helipad)*	097-85662

Supervisor, Castletownbere Helipad & Berehaven Lights

Mr Donal Holland	*'phone (helipad):*	027-70087
Irish Lights Helipad	*'phone (home)*	027-70171
Castletownbere	*Fax (helipad)*	027-70724
Co. Cork	*'phone (mobile)*	087 6502780

ANNEX 5 — Contact Names Helicopter Contractor

IRISH HELICOPTERS LTD

Office:

Westpoint Hangar Coultry Swords County Dublin	*'phone* *Fax:*	01-5055002 01-5055064

Flight Operations Manager

Capt. John McHale	*'phone* *email:* *mobile:*	01-5055002 johnmc@ irish-helicopters.com 086 8278206

Outside office hours (mobile 'phone nos.)

Alan O'Neill, Accountable Manager	087-9471793
Iain Baird, Ground Operations Manager	087-2556237
Jim Nolan, Quality Manager	087-9881604
Emergency phone	087 7999451

SERVICE LEVEL AGREEMENT BETWEEN THE IRISH COAST GUARD & THE COMMISSIONERS OF IRISH LIGHTS

ANNEX 6 —Contact Names IRCG

IRISH COAST GUARD

Mr. Chris Reynolds Director	*'phone (office)* *Fax: (office)* *Email:*	01-6783440 01-6620930 ChrisReynolds@transport.ie
Mr Eugene Clonan Deputy Director (Operations & Safety)	*'phone (office)* *Fax: (office)* *Email:*	01-6783441 01-6783459 eugeneclonan@transport.ie
Mr Declan Geoghegan SAR Operations Manager	*'phone (office)* *Fax (office)* *Email:*	01-6783444 01-6783459 declangeoghegan@transport.ie
Mr Norman Fullam Pollution & Salvage Operations Manager	*'phone (office)* *Fax (office)* *Email:*	01-6783443 01-6783459 NormanFullam@transport.ie
MRCC Dublin	*'phone* *Fax* *Email:*	01-6620922 01-6620795 mrccdublin@transport.ie mrccdublin@irishcoastguard.ie
MRSC Valentia	*'phone* *Fax*	066-9476109 066-9476289
MRSC Malin Head	*'phone* *Fax*	074-9370103 074-9370221

NOTE: DO NOT REPLY ON MRCC/MRSC'S TO RECEIVE EMAILS IN A REASONABLE TIME.

ANNEX 7—Forms SAR1 SAR2

Examples of the following forms are attached—

Form SAR 1: SAR Call Outs at Castletownbere and Blacksod.

FORM– SAR 1

SAR CALL OUTS & DRILLS AT CASTLETOWNBERE AND BLACKSOD

YEAR:_____ STATION: _____

NO.	DATE	DAY	START TIME	FINISH TIME	TOTAL TIME	HELICOPTER CALL SIGN	DRILL/ MISSION	FUEL QUANTITY UPLIFTED	REMARKS	TOTAL HOURS	RATE	AMOUNT PAID
								TOTAL				

MONTHLY FUEL REPORT **MONTH:** _____ **BASE:** _____ **DATE:** _____

CHECKS REQUIRED BEFORE THE FIRST REFUELLING OF THE DAY							BULK DELIVERY QUANTITY DELIVERED: _____ DATE: _____							FILTER: DATE CLEANED: _____ DATE: _____ REPLAC		
DATE	WATER TEST		CHECK CONDITION				TEST OR HELI REG	METER READING		QUANTITY	REFUELING WATER TEST		PRESSURE DROP ACROSS FILTER	PILOT'S SIGN.	COMPANY REMARKS	NAME
	FILTER DRAIN	TANK DRAIN	COUPLING FILLER SPOUT DUST CAP	BOND WIRE AND CLIP	FIRE FIGHTING EQUIP.	SIGN		BEFORE	AFTER		BEFORE	AFTER				

SERVICE LEVEL AGREEMENT BETWEEN THE IRISH COAST GUARD & THE COMMISSIONERS OF IRISH LIGHTS

ANNEX 8— Standard operational procedures (SOPs) for Helicopter operations

These procedures apply to SAR aircraft. Private aircraft and other agencies must seek the permission and agreement of CIL Marine Department.

1. The helicopter operator will notify IRCG of its requirements, including the type of flight (*e.g.* SAR training, SAR operation, specify other) and planned landing and take off times.

1.1 IRCG will telephone the CIL Attendant/Supervisor with as much notice as possible, indicating that a specific aircraft requires landing and/or refuelling facilities.

1.2 Normally Valentia Coast Guard will contact Castletownbere and Malin Head Coast Guard will contact Blacksod.

1.3 The Attendant/Supervisor will confirm that the helipad is available.

1.4 The Attendant/Supervisor will confirm if sufficient fuel is available for the requested uplift.

1.5 The Attendant/Supervisor will advise of weather and visibility conditions at the helipad.

1.6 Each time a helicopter is refuelled, the Attendant/Supervisor will complete the Irish Helicopters Ltd fuel sheet No. E68, detailing quantity of fuel uplifted. The pilot will sign for the fuel and complete registration details of the aircraft.

1.7 The pilot may request the Attendant/Supervisor to sign a separate form for landing and take off times and fuel uplift, *e.g.* the aircraft technical log.

1.8 The Attendant/Supervisor will complete an entry on form SAR 1.

1.9 The pilot will advise IRCG of the actual times of landing and take off.

1.10 CIL's helicopter service contractor will invoice IRCG directly for the fuel uplifted.

SERVICE LEVEL AGREEMENT BETWEEN THE IRISH COAST GUARD & THE COMMISSIONERS OF IRISH LIGHTS

ANNEX 9—Procedures for issuing of RNWS

ISSUING OF RADIO NAVIGATIONAL WARNINGS

Only the following personnel currently have the authority to issue RNW's on behalf of CIL:-

Capt. Kieran O'Higgins (KOH)	Head Office, Dublin
Capt. Robert McCabe (RMcC)	Head Office, Dublin
Capt. Dermot Gray (DG)	Head Office, Dublin
Mr. Tim Ryan (TR)	Head Office, Dublin
Mr Desmond O'Brien (DOB)	Head Office, Dublin
Capt. Harry McClenahan (HMcC)	Master, *Granuaile*
Capt. Rory Mullins (RM)	Master, *Granuaile*

In each case the caller will identify himself to the IRCG operator. The response confirmation message (fax to 00 353 1 2715564) must include the initials of the caller from CIL, e.g.: CIL (KOH). Changes to this list will be advised by the Deputy Head of Marine to the MRCC Divisional Controller as they occur.

Routine RNW's, acknowledgements or SITREPS should be sent by email to navwarning@cil.ie

ANNEX 10—Safety Briefing for SIKORSKY S61N SAR Helicopter

Irish Coast Guard

GARDA CÓSTA NA hÉIREANN

Search and Rescue Helicopter.

SAFETY BRIEF

AIM

The aim of this document is to give guidance to 'Commissioners of Irish Lights' Helipad Attendants on safety aspects and procedures while operating with Irish Coast Guard helicopters.

OVERVIEW

The Irish Coast Guard currently operates 4 Sikorsky S61N helicopters on contract from C.H.C. Ireland Ltd. There are aircraft based at Shannon, Dublin, Waterford and Sligo airports. These aircraft, by arrangement with C.I.L., are on occasion, required to be refuelled at C.I.L. helipad fuel installations, for extended range operations off the West Coast of Ireland.

COMMUNICATIONS:

Ground to Air - 129.95(Castletownbere and Blacksod)
Marine - Channel 16 or Working Channel

Shannon Operations	061-474690 or 061-474691
Dublin Operations	01-8445366
Waterford Operations	051-875265
Sligo Operations	071-9122990

Aircraft Callsigns:	Rescue 115	(Shannon)
	Rescue 116	(Dublin)
	Rescue 117	(Waterford)
	Rescue 118	(Sligo)

PRE- LANDING:

- Ensure landing and surrounding area is clear of F.O.D. (Foreign Object Debris). Tie down any loose items if not removable from area.
- Maintain listening watch on Ground to Air Frequency and / or Marine Channels for inbound aircraft.
- Pilots may request local weather conditions including wind speed and direction as observed.

AFTER LANDING:

- Do not approach aircraft until signalled by crew that it is safe to do so. (In SAR operations one crewman will normally disembark to guide and assist).
- Approach aircraft from safe area only (i.e. in view of pilots).
- If fuel is uplifted the Pilot will hand the Helipad Attendant a green page (Copy of technical log) which must be kept until safe arrival of aircraft at it's home base.

FUELLING:

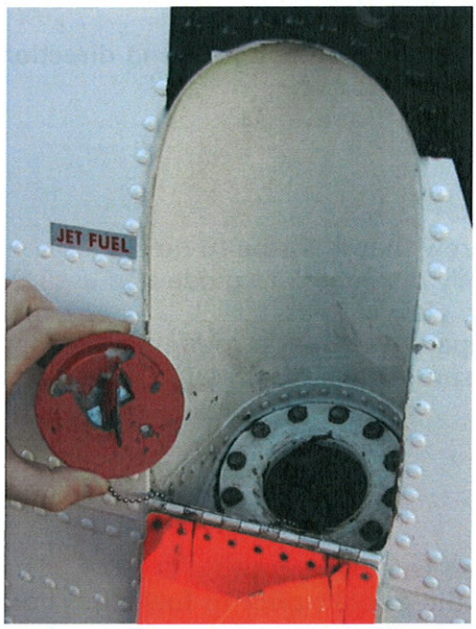
- Sikorsky S61N uses **JET A1** type fuel only.
- Run fuel hoses to aircraft only when indicated safe by aircrew.
- The fuelling installation must be bonded to the aircraft prior to fuelling. There is a crocodile clip attachment point on the front of the undercarriage strut. Alternatively, there is a jack plug style earthing point adjacent to each refuelling point except the pressure refuel filler.
- The jack plug style sockets are labelled 'ground here'.
- Guidance will be given by the aircrewman.

The Sikorsky S61N helicopter has 4 fuel tanks. They can either be **Gravity** or **Pressure** refuelled with the exception of the auxiliary tank, which must be gravity re-fuelled. The tank capacities are:

Forward	796 Litres	Pressure or Gravity.
Centre	910 Litres	Pressure or Gravity.
Aft	770 Litres	Pressure or Gravity.
Auxiliary	649 Litres	Gravity Only.

All fuelling panels are located on the left (port) side of the aircraft.

Gravity Re-fuelling.
Each fuel tank has a filling point for gravity fuelling.

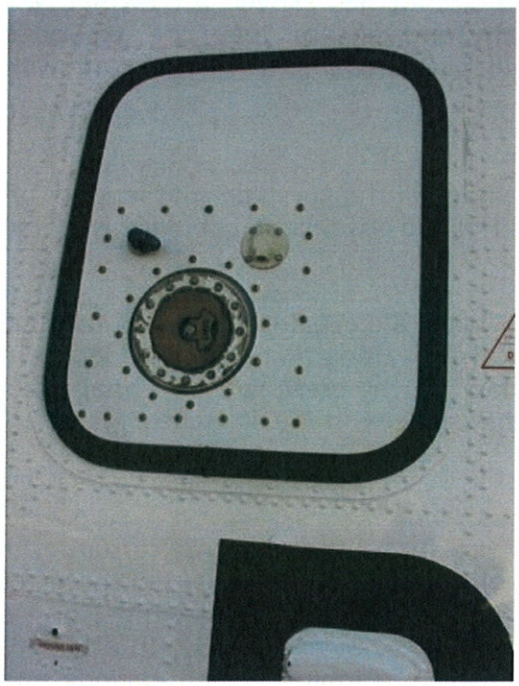


Gravity Re-fuelling point with Cap Off.

Pressure Re-fuelling.
There is a 'single point' pressure re-fuelling position on the aircraft. The pressure required for re-fuelling in this manner is between 55 and 65 p.s.i. However the auxiliary tank as carried by S.A.R aircraft may only be gravity re-fuelled. The pressure re-fuelling position is shown below.

Pressure Refuelling Panel and Connection S61N.

The **Auxiliary Tank** filler is located in a window blank on the left side of the aircraft. It is approximately 7 feet high off the ground. Suitable steps are required in order to gain access.



Auxiliary Tank Filler located in Window

Once re-fuelling is complete the following **must** be ensured:

- All re-fuelling hoses are removed and stowed.
- All re-fuelling caps are in place correctly.
- All airframe panels are closed and secured correctly.
- The static discharge lead is removed and stored.
- No Loose articles (such as rags) in vicinity of aircraft

(N.B. A member of the aircrew will also ensure the above.)

Embarking and Dis-Embarking Passengers:

It is the responsibility of the aircrew to ensure all persons travelling by SAR helicopters are briefed and wearing the correct protective clothing.

The aircraft will land pointing towards the wind. This may put the door away from the most suitable embarkation position and out of view. The direction of entry towards the door in this case will be around the nose of the aircraft.

Do not pass underneath the tail boom or tail rotor!

Embarkation.
Any persons awaiting the arrival of a S.A.R aircraft for embarkation should be mustered away from the helicopter landing area in a **Safe Place.** Ideally this would be inside a nearby building. Once the aircraft has arrived a crewman will meet the intending passengers, brief them and ensure they are equipped correctly. Once satisfied, the passengers will be marshalled to the aircraft with the assistance of the Helipad Attendant.

Dis-embarkation.
Once the aircraft has landed a crewman will marshal the survivors/passengers off the aircraft. Once clear of the aircraft the Helipad Attendant should assist the crewman in this task.

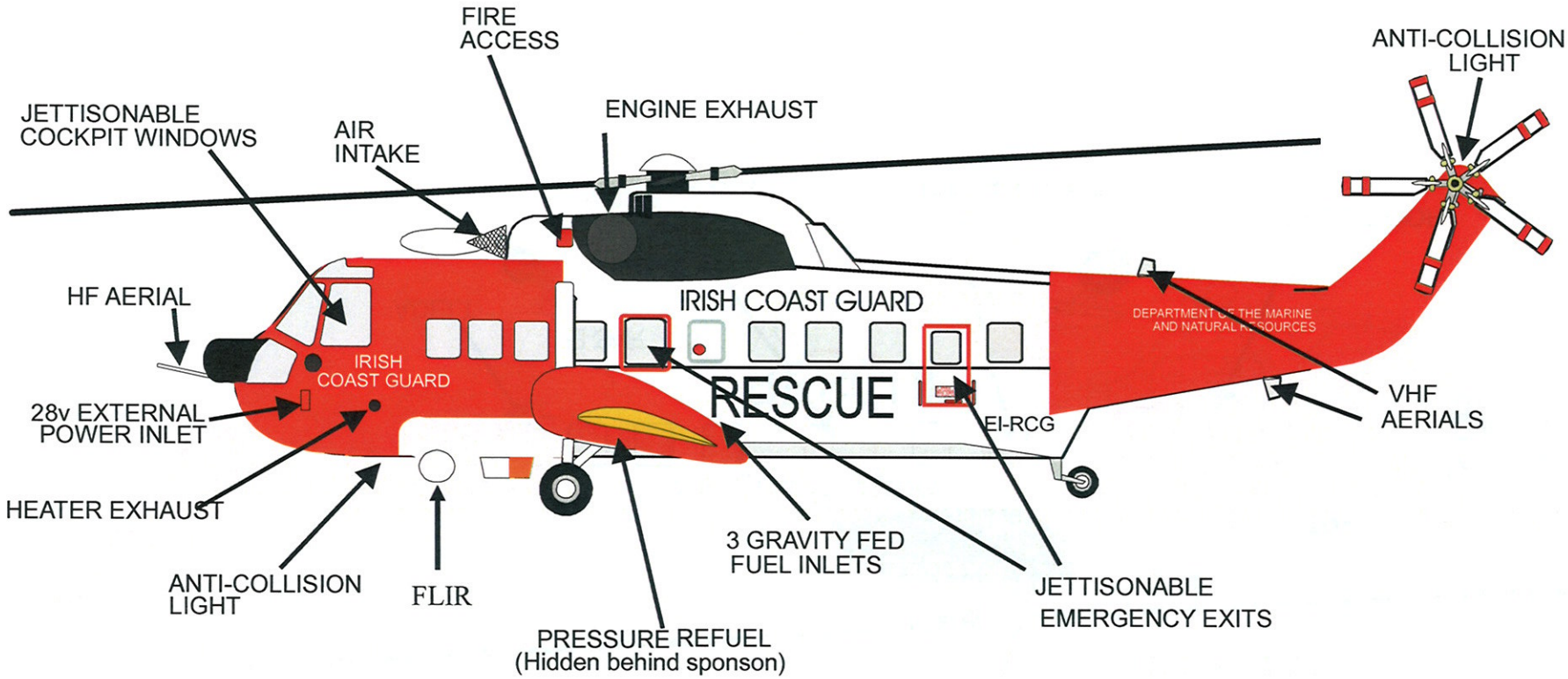
In the event of a S.A.R. aircraft arriving with a casualty requiring medical assistance the Helipad Attendant should park the awaiting ambulance or doctor in a safe place clear of the landing area. Once landed, the crewman will signal when it is safe to approach the aircraft to offload the casualty in the stretcher.

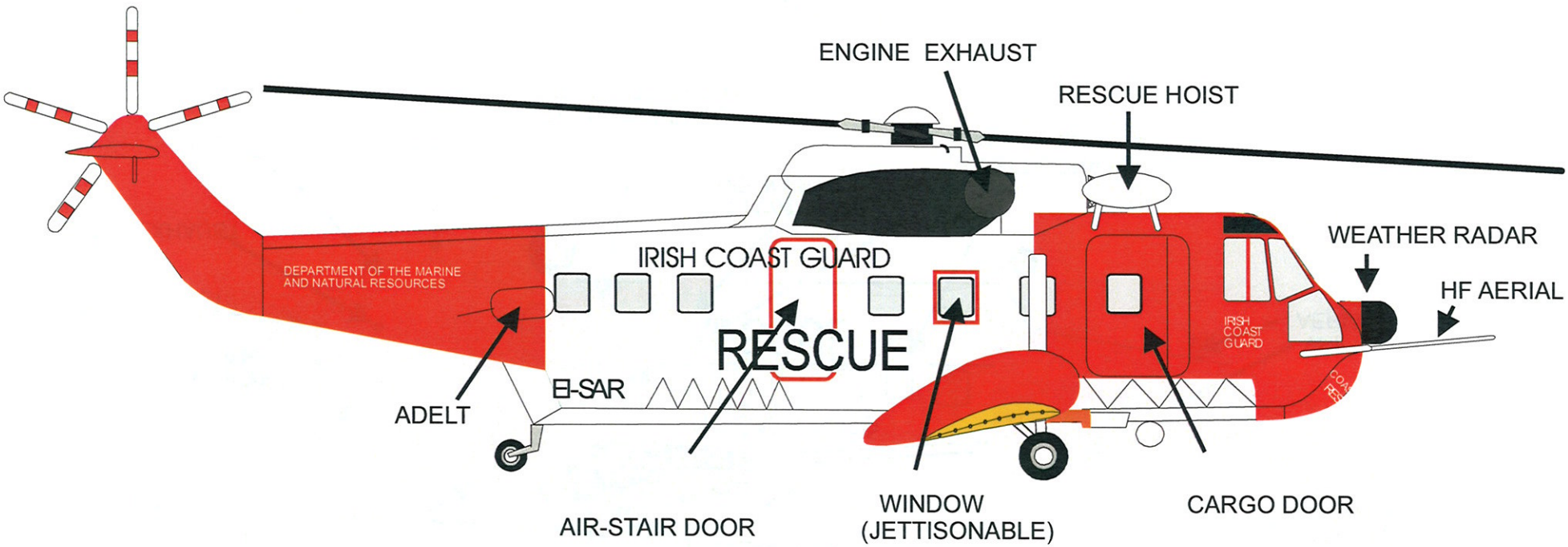
Considerations in the event of fire:

In the event of an accident and/or fire involving the Sikorsky S61N helicopter at or near to the helipad, all ground personnel should be aware of the danger of fire posed by the presence of possibly large quantities of aviation fuel. In addition, the S6 IN carries a number of pyrotechnics, which, if ignited, could explode and exacerbate the effects of fire.

SIKORSKY S61N

Maximum Length	**72′ 10″**	**22.25 m**	**Normal Cruise**	**110 Kt**
Rotor Diameter	**62′ 00″**	**18.90 m**	**Maximum**	**130 Kt**
Undercarriage Width	**16′ 02″**	**4.90 m**	**Range**	**200 N Miles**
Undercarriage	**23′ 06″**	**7.16 m**	**Crew**	**4**
Maximum All Up	**20500 lb.**	**9300 Kg.**		
Seating Capacity	**24**			
Fuel Capacity	**500 Gallons**			




ENGINE EXHAUST
RESCUE HOIST
WEATHER RADAR
HF AERIAL
IRISH COAST GUARD
DEPARTMENT OF THE MARINE AND NATURAL RESOURCES
RESCUE
IRISH COAST GUARD
EI-SAR
ADELT
AIR-STAIR DOOR
WINDOW (JETTISONABLE)
CARGO DOOR

ANNEX 11—Procedure for Traffic Reporting (T.R.) of *ILV Granuaile* to IRCG

As the *ILV Granuaile* is an additional resource available to IRCG for Marine Emergency Responses, movements of the *ILV Granuaile* are communicated to IRCG on a daily basis.

The reporting format is that the local Coast Radio Station is informed by VHF each morning, giving the following information:

1. Ship's Name
2. Number of personnel on board.
3. Planned route or general area of work.
4. Planned destination or overnight anchorage.
5. ETA at planned destination or overnight anchorage.

In the evenings, the CRS should be advised on safe arrival at anchorage or berth.

It is understood by the IRCG that the vessel's movements are subject to change due to weather conditions or priority tasks, and that sometimes only a general report can be made.

IRCG should be specifically informed if *ILV Granuaile* is deployed out of Irish waters or to drydock or if the vessel is on charter.

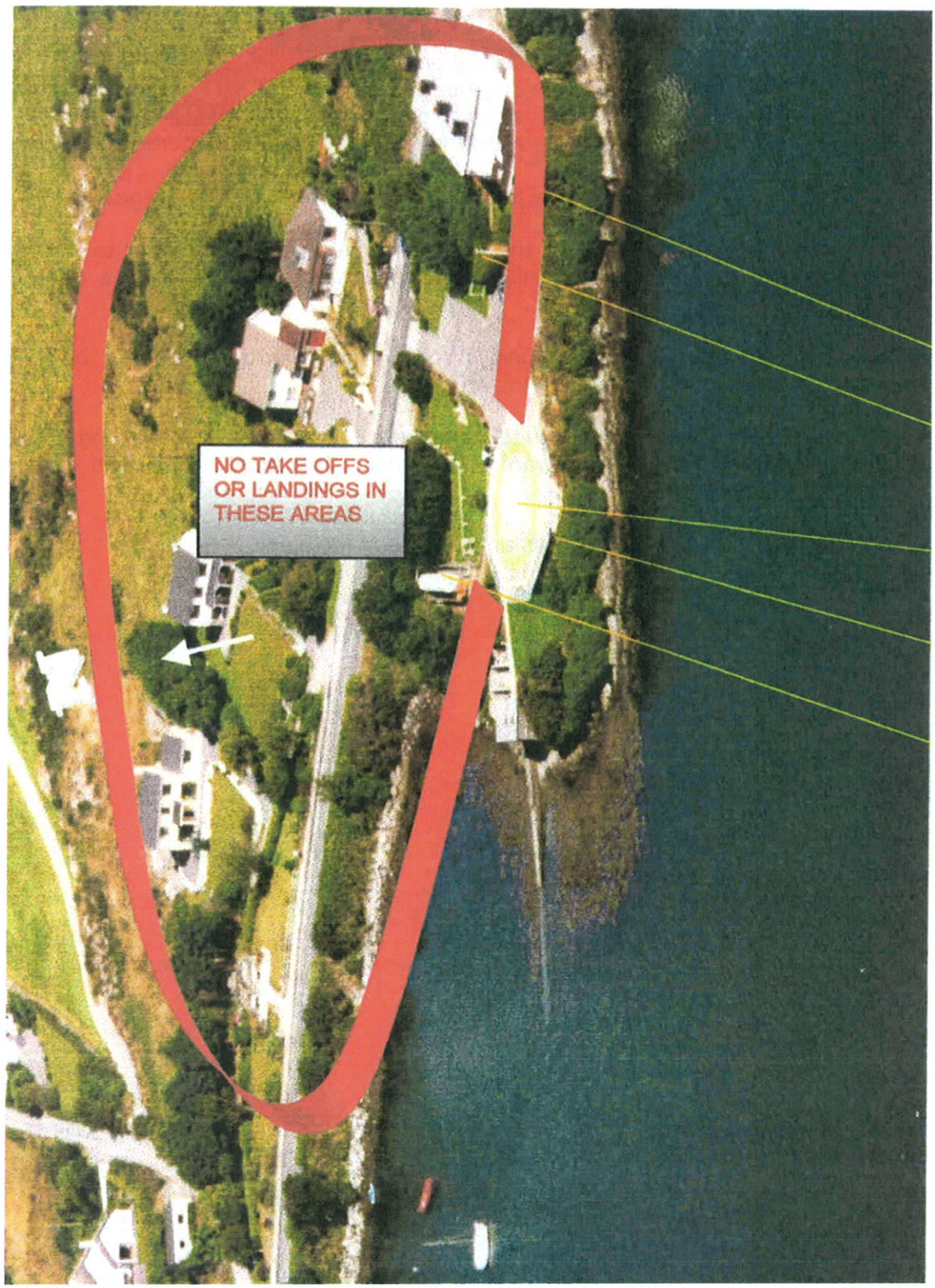
- A daily e-mail report is also issued from the ILV *Granuaile* each morning giving brief details of three-day forward operations. The IRCG is included on the circulation list.

- Sat Com C – IRCG is included as an authorised recipient.

- ILV *Granuaile* is fitted with AIS.

SERVICE LEVEL AGREEMENT BETWEEN THE IRISH COAST GUARD & THE COMMISSIONERS OF IRISH LIGHTS

ANNEX 12—Castletownbere Site Plan



CASTLETOWN, BEREHAVEN

SITE DETAILS

Latitude & Longitude (degrees, mins & decimals of mins)	N51.39.11 W009.53.60
Elevation (Feet)	Sea level
Tel. No.	027 70087
Attendant's Name	Donal Holland
Address	Lighthouse Dwellings Castletown Berehaven
Permanently manned/normally unmanned	Permanently manned
Fuel type	Jet A1
Communications VHF/MB	129.95 and MB
Wind sleeve/anemometer	Yes
Night Flying Lights	Yes
Date of Site Survey and Name of Surveyor	18 August 1999/ Peter Rover

SITE DIMENSIONS AND SIGNIFICANT FEATURES

Lighthouse dwellings on east side of compound.
Mast mounted, illuminated windsleeve, 5.5 metres above helipad level at 21 metres from east edge. TOCS gradient 26%.
17.5 metre octagonal shaped helipad surrounded by safety netting on elevated and exposed sides. Perimeter white lined with white "H" set in centre of yellow painted circular TLOF. Helipad perimeter lights and floodlights. The helipad is set on a level plinth some 7.5 metres above the sea on the south facing side. On the north side there is a set of access steps. 5 metres high. A semi circular apron area on the eastern side provides level access to and from the lighthouse complex.
Safety netting around exposed and elevated perimeter and at same level as the helipad.
Jet A1 Fuel tank below level of helipad.

HAZARDS AND CONTINGENCY PLAN

1. This **Search and Rescue Base** is set on a small promontory with unobstructed access to the sea areas on the south, southeast and southwest sides. A public road bounds the compound to the north beyond which there is rising ground with a large number of residential houses on the hillside. All take offs and landings should be made to and from the open sea sides. The helipad is elevated 7.5 metres above mean sea level.

2. Avoid taking off or landing to or from the landward side.

3. There is an elevated road bridge crossing the sea inlet from north to south 300 metres west of the helipad at a height of approximately 10 metres above the helipad. There is a communications mast 20 metres high at the southern end of this road.

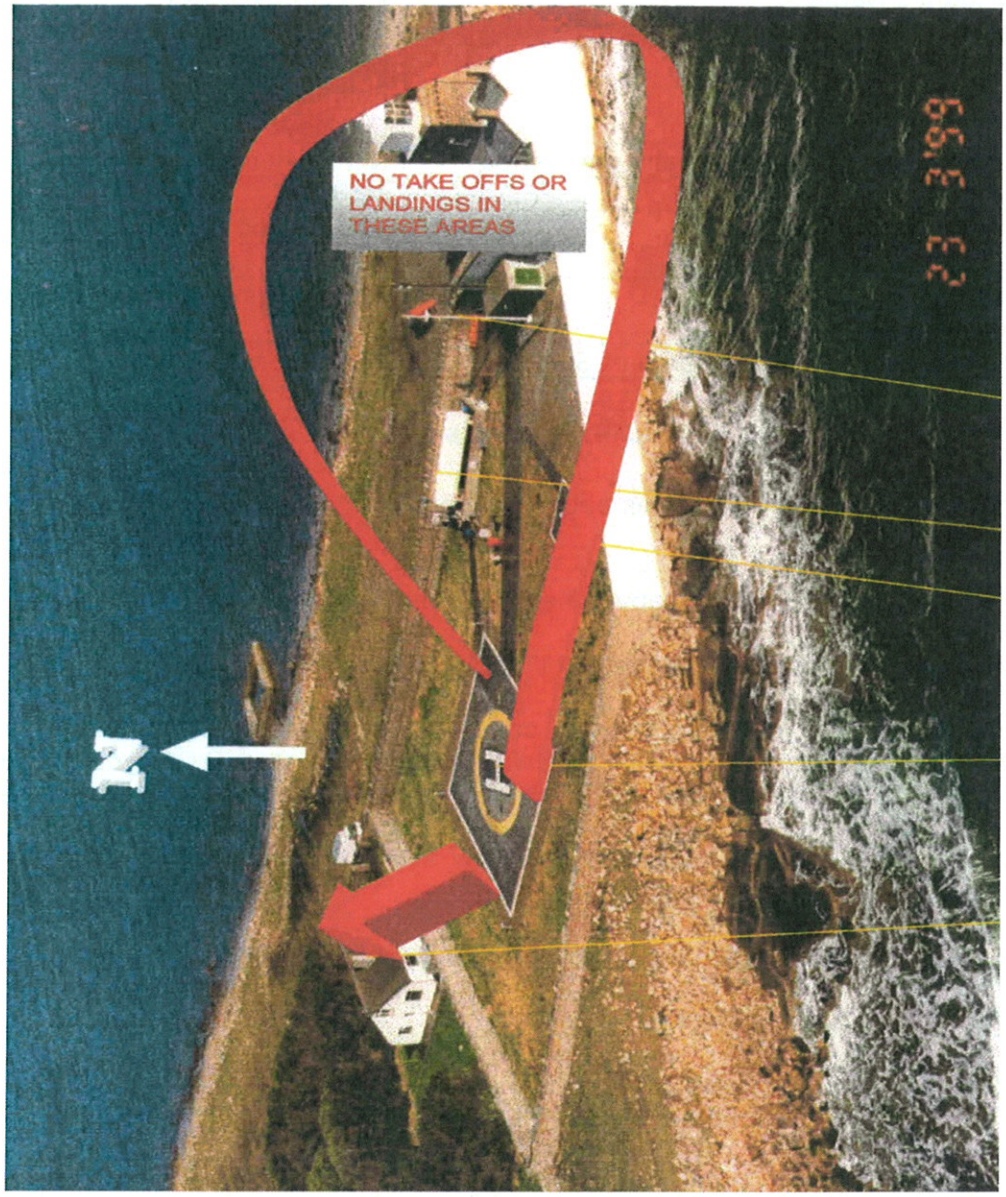
4. Trees immediately below the southwest corner of the helipad should be pruned to keep the foliage and branches below helipad level.

5. This site is used by other operators and is a SAR base. The Site Attendant should inform the pilot of any likely confliction of helicopter activity at or near the site so that pilots can establish two-way communication with the other traffic. The aircraft must be float fitted, and be equipped with 406 MHz capable ELT. The Site Attendant will initiate emergency action by means of either VHF or MB radio in the event of a forced landing occurring.

PERFORMANCE

There is no third party risk to seaward, so that provided the aircraft departs and arrives from seaward, Class 2 performance may be used with up to a 12 second risk period, from this public service site in accordance with JAR OPS 3.005.

ANNEX 12A— Blacksod Site Plan



BLACKSOD POINT, CO. MAYO

SITE DETAILS

Latitude & Longitude (degrees, mins & decimals of mins)	5405.9N 1003.6W
Elevation (Feet)	Sea Level
Tel. No.	Station: 097-85662 Vincent's home: 097-85774 Gerry's home: 097-85694 Mobile: 087-285661
Attendant's Name Assistant Attendant	Vincent Sweeney Gerry Sweeney (Assistant)
Attendant's Address	Blacksod, Ballina Co. Mayo
Permanently manned/normally unmanned	Normally manned
Fuel type	Jet A1
Communications VHF/MB	129.95 and MB
Wind sleeve/anemometer	Yes
Night Flying Lights	Floodlights at ground level around helipad
Date of Site Survey and Name of Surveyor	17 August 1999/Peter Rover

SITE DIMENSIONS AND SIGNIFICANT FEATURES

Windsleeve on pole 4.5 metres above helipad level 45 metres from eastern edge of helipad.

Jet A1 Fuel tank 3.5 metres above helipad level 18 metres from helipad.

Supplementary 6 metres square. Helipad used for parking only.

20 metre square, concrete helipad outlined in white paint with an "H" in the centre aligned on a north/south axis with a yellow painted TLOF around the "H". Picket points provided within the TLOF. Floodlights at each corner of the helipad.

Helipad enclosure level and surrounded by stone and concrete block walls to a height of 2 metres above helipad level.

Bungalow 5 metres above helipad level 20 metres from west edge of helipad.

HAZARDS AND CONTINGENCY PLAN

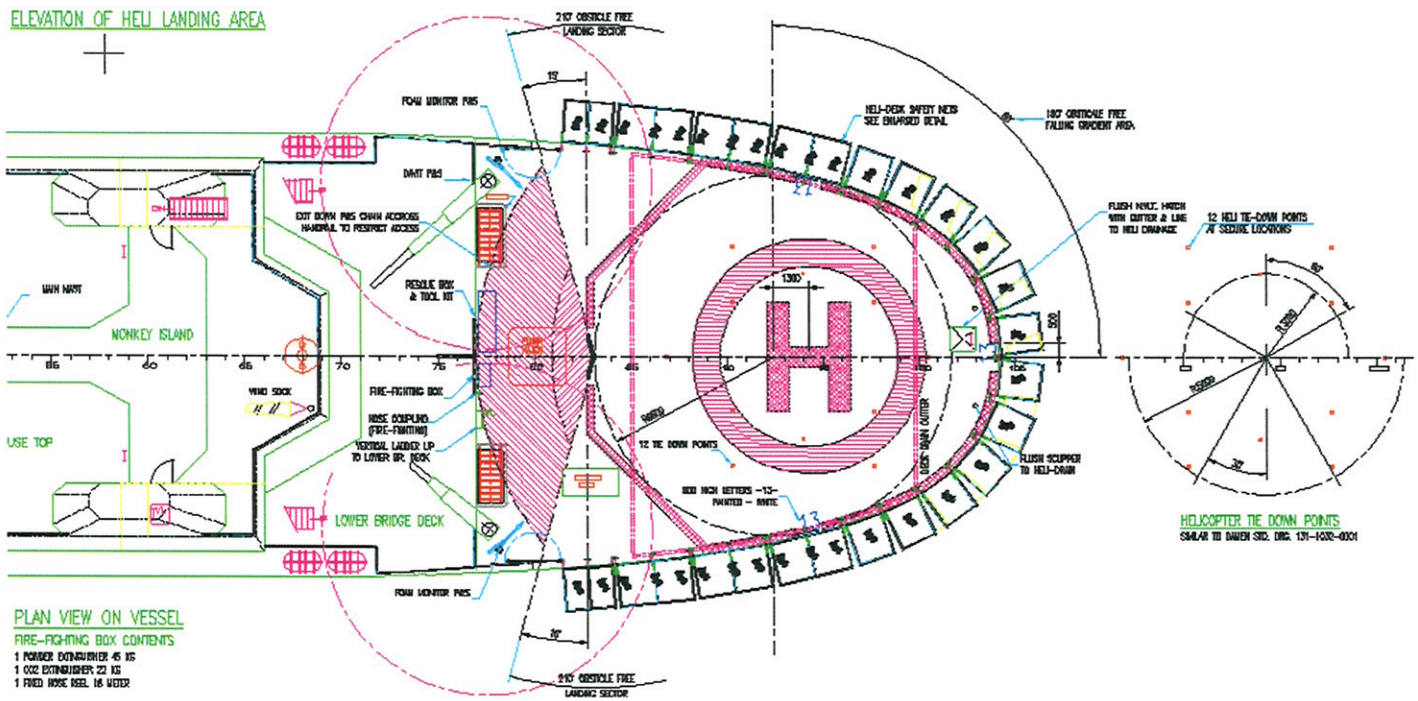
1. The helipad is contained within a walled enclosure. The helipad is large enough to accommodate a helipad profile rejected take off or landing.

2. The aircraft must be float fitted, equipped with 406 MHz capable ELT and the site VHF radio should be manned during all helicopter approaches and departures. The Attendant, using either VHF or MB radio, will initiate emergency action if necessary.

PERFORMANCE

Class 2 performance maximum regulated weights may be used at the "Public Interest Site" in accordance with Appendix 1 to JAR OPS 3.005 (e) for BO 105 variants.

ANNEX 12B— *ILV Granuaile* Helideck Plan



IRISH LIGHTS SHIP, GRANUAILE

SITE DETAILS

Latitude & Longitude (degrees, mins & decimals of mins)	Ship's position and intended movement (PIM) to be advised.
Elevation (Feet)	
Tel. No.	087 2554501
Permanently manned/normally unmanned	Permanently Manned
Fuel type	Jet A1
Communications VHF/MB	Initial contact on Channel 16
Wind sleeve/anemometer	Yes
Night Flying Lights	Nil
Date of Site Survey and Name of Surveyor	23 January 2006, Capt M. Coe

DECK DIMENSIONS AND SIGNIFICANT FEATURES

The deck has a 'D' value of 13 metres and there is a 210° obstacle free landing sector in accordance with CAP 437 standards.

The Heli-deck is located at the bow end of the vessel.

There is an HLO and helideck crew, who will, when contacted by the pilot with his ETA, ensure that the guardrails are lowered around the bows and the helideck area cleared of obstructions and secured for flying stations. The HLO will supervise loading and unloading of passengers and freight and will provide the pilot with a manifest. When clear to take-off the HLO will signal "thumbs up" to the pilot.

OPERATIONS LIMITATIONS

Ship			**Aircraft**
Bow (Ldg/T/O)		**Stern (Aerial Centre)**	Max All-up weight 2400kg
Pitch	2°	2°	Bow decks are subject to more exaggerated movement so pilots are to observe deck movement over a period and ensure that PR and H limits are not exceeded.
Roll	2°	2°	
Heave (metres)	3	2	
Sea state	5 or less	5 or less – Stable conditions	
Wind	27 kts.	27 kts.	Avoid down wind operations
		Ships Crane fully lowered, facing forward and outboard on starboard side of the ship	
		The crane rest lowered aft	
		The loads available on the aft, port side of the work deck giving maximum clearance from the crane	
		IHL marshal must be available on the work deck to supervise aerial crane operations and marshal the aircraft using a hand held radio on the company frequency.	

PERFORMANCE

Class 2 performance maximum weights may be used on this "Public Interest Ship" in accordance with Appendix 1 to JAR OPS 3.005 (e) for BO 105 variants.

ANNEX 12C— *ILV Granuaile* - General Particulars

ILV GRANUAILE SPECIFICATION AND CAPABILITIES

General Particulars

Built by:	Damen Shipyards Holland
Date:	31st January 2000
Official Number:	403374
IMO Number:	9192947
MMSI:	250191000
Radio Call Sign:	EIPT
Class:	Lloyds 100A1, +LMC, +UMS + DP (AM)
IMO DP Notation:	Class 1

Dimensions

Length Overall:	79.69m
Breadth Moulded:	16.10m
Depth of Hold:	6.0m
Working Deck Width:	15.80m
Gross Registered Tonnage:	2625 tonnes
Net Registered Tonnage:	787 tonnes
Loaded Displacement:	3,903 tonnes
Operational Draft:	4.40m

Deck Equipment

1 x Liebherr Crane, 20 tonne SWL with heave compensation, outreach 20 metres
2 x 15 tonne Chain capstans
2 x 26' wooden motor boats
1 x 8 metre RIB with twin water jets
2 x Karmform 'chain grabbers'
1 set of Hydraulic Towing Pins
Container Capability: 16 TEU Single Stack
Moonpool: diameter 0.5m, length 7.7m

Towing Equipment

1 x towing winch, 40 tonne bollard pull
1 x 32mm x 300m towing wire with 30cm soft eye.
60 tonnes breaking strain
1 x 200m 9" octoplait with large soft eye one end and wire tail with large eye other end.
Ancillary gear of slips, strops, shackles, etc.

Hydrographic Package

1 x ELAC Multibeam Bottom Chart Mk II
1 x Trac C Automatic Track Guidance
1 x CARIS Post Processing System
1 x Furuno CN 36 forward looking Sonar
1 x ELAC LAZ 5000 echo sounder (single beam)
1 x Seatex MRU-5
1 x Marimatech SVP-HMS1820
1 x Kongsberg Seatex Seapath 200 altitude GPS

Integrated Bridge System

2 x DGPS Trimble NT 300D
1 x Loran C Furuno LC90
2 x 6 CH Motorola GPS receivers + MBX -3 Differential Receiver
2 x C Plath Gyro Compass
Kongsberg Dynamic Positioning (Class 1 DP)

Radars:	2 x Nucleus 2 6000 26" colour Radars (1 X-Band, 1 S-Band)
Electronic	Kelvin Hughes Nucleus 2 Dual

Engine Configuration (Diesel Electric)

Power:	3,500 kW
Generator:	5 x 700 kW MAN B&W engines Type 8L 16/24 driving 690v AC AVK generators
Propulsion:	2 x 1,100 kW INDAR variable speed AC motors driving 2 x Schottel rudder propellers type SRP 1010 ZSFP
Bow Thruster:	1,100 kW INDAR variable speed AC motor driving Elliot White Gill Jet type 50T3S 360°
Stabilising:	Intering System (Passive)

Oil Recovery

Bilge Water Tank – 30 tonnes

Helicopter Operations

Daylight operations only

Pad:	Located forward – semi-circular with 13 metre diameter
Max weight:	3.2 tonnes
Fuel:	Direct pumped fuelling Jet A1 – 1700 litres
Underslinging:	Available from the afterdeck.

Liquids

Bunkers Maximum:	320 tonnes
Fresh Water:	457 tonnes
Water Making:	4 tons per day
Maximum Speed:	13.00 knots
Endurance:	45 days @ cruising speed
MGO Consumption 24 hrs:	2 engines @ 80% = 6 tonnes per day 3 engines @ 80% = 10 tonnes per day

Accommodation

Crew:	There is a permanent crew of 16
Others:	There is single room en-suite accommodation for

Charts:	Fuel ECDIS system	10 others. All cabins are air-conditioned
Electronic Chart Digitising Table:	1 x QMY 1 A1 ECTAB	

SECURITY
CCTV External and Internal Monitoring (6 cameras and 3 monitors)
ISPS approved access control system

Apart from Service work for CIL including Buoy Operations, Towage, Lighthouse Replenishment, Project Support, Helicopter Operations, the following are proven capabilities carried out for third parties:

On Scene Co-ordinator for Search and Rescue/Recovery.

Emergency Towage.

Oil Spillage Containment Exercise:
Deployment of booms and recovery of oil – Brackets welded to deck for outrigger and equipment supplied by UK Coastguard, removed after exercise.

Diving Support for Salvage Operations
3 point mooring and dynamic positioning over point of interest with ship's anchors and spare 3 tonne anchor attached to towing wire.

Recovery of sunken vessels from seabed.

Pipeline surveys using ROV at Gas Rigs
Contractor's ROV and equipment supplied – removed after contract.

Wreck search for missing persons:
Using ship's ROV.

Vibrocore sampling:
20 tonne lug fitted to deck in way of towing winch. Removed after contract.

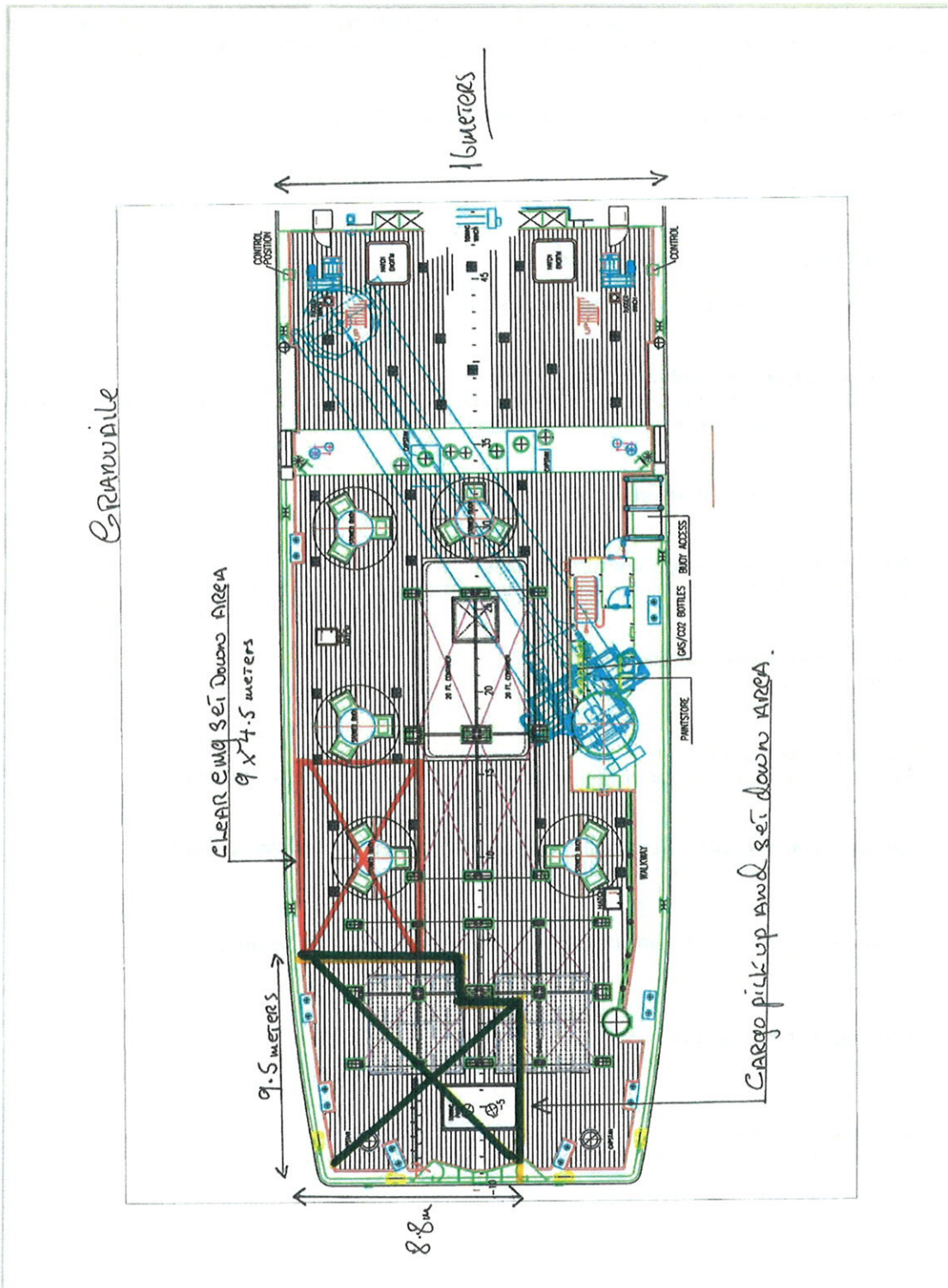
Recovery and deployment of 17 tonne x 18 metre Buoys (Wave-Bob):
Vertical lift on board – horizontal lift to shore.

Recovery and deployment of ODAS Buoys and moorings in deep water:
Towing winch used to recover moorings.

Hydrographic Surveys:
Contractor's equipment fitted to Bridge, removed after contract.

Seismic Surveys:
Contractor's equipment fitted to Bridge and deck, removed after contract.

ANNEX 12D— ILV *Granuaile* - Afterdeck plan



ANNEX 13—CIL Personnel Training Record re SAR Helicopters

DONIE HOLLAND, CASTLETOWNBERE

OLIVER HICKEY, CASTLETOWNBERE

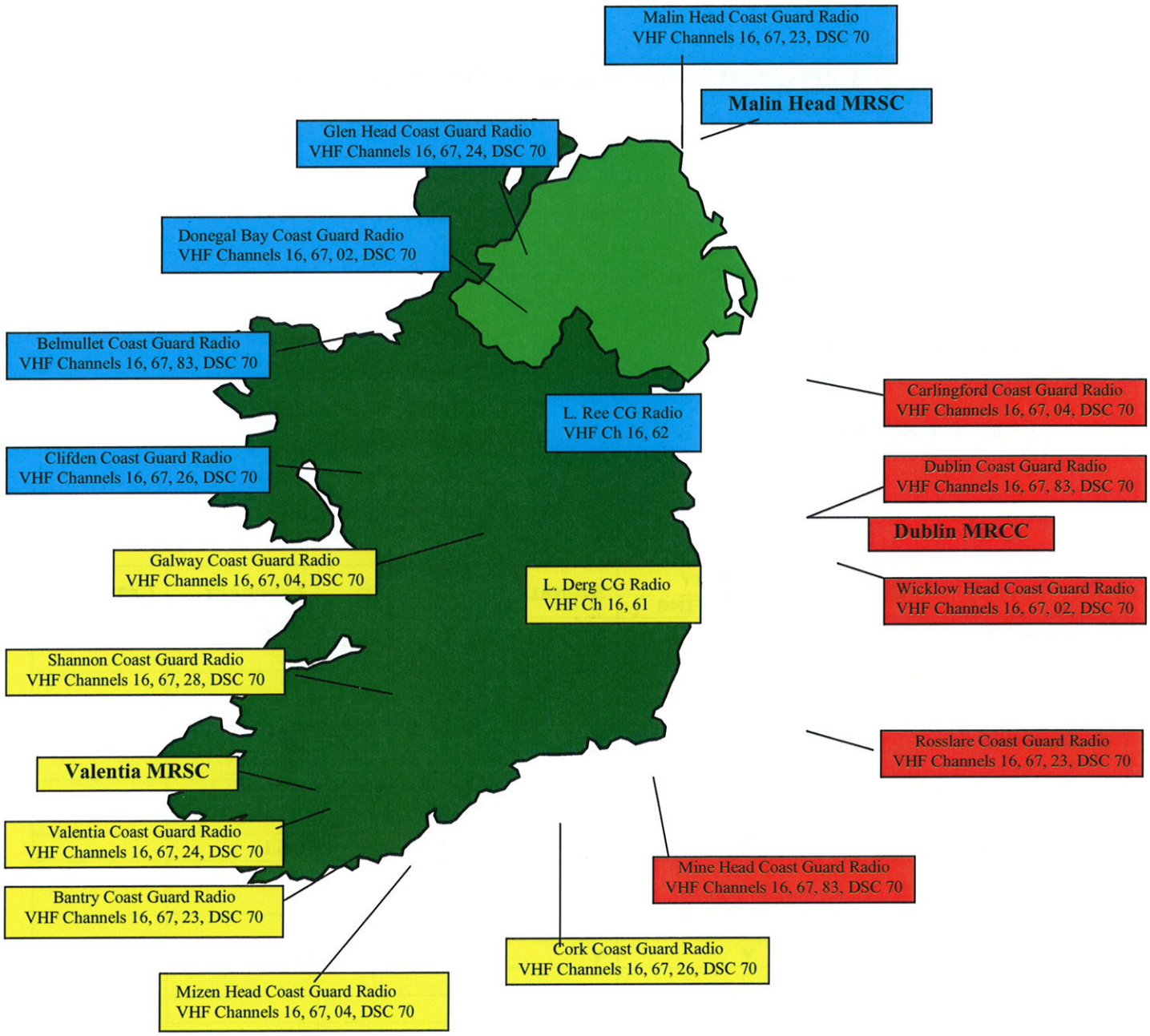
VINCENT SWEENEY, BLACKSOD

GERRY SWEENEY, BLACKSOD

	DATE	SAFETY BRIEFING	SIGNALS	FUELLING	AIRCRAFT	CERT
D. HOLLAND		Y	Y	Y	S61	
V. SWEENEY		Y	Y	Y	S61	
G. SWEENEY		Y	Y	Y	S61	
O. HICKEY		Y	Y	Y	S61	

ANNEX 14—VHF Stations Plan

IRISH COAST GUARD
MARINE VHF COMMUNICATIONS NETWORK (revised 18th August 2006)



WEATHER FORECASTS AT 0103, 0403, 0703, 1003, 1303, 1603, 1903 & 2203 ON WORKING CHANNELS.

DUBLIN MRCC CONTROLLED RADIO STATIONS

MALIN HEAD MRSC CONTROLLED RADIO STATIONS

VALENTIA MRSC CONTROLLED RADIO STATIONS

ANNEX 15 – Payment terms for IRCG radio installations on CIL properties.

- IRCG have radio equipment installed in CIL buildings at:
    - Mine Head Lighthouse
    - Galley Head Lighthouse
    - Wicklow Head Lighthouse
- The payment covers the period from 1 January to the following 31 December each year.
- A rate will be agreed each December and CIL will invoice IRCG for this service in January each year.

ANNEX 16 – Automatic Identification System (AIS)

The Commissioners of Irish Lights and the Irish Cost Guard are committed to assisting each other in the use and development of AIS.

The following specific arrangements have been agreed.

Part 1 – CIL Data Requirements

CIL require AIS data for the following purposes

1.1 – AIS AtoN Monitoring - CIL require this data to monitor the transmissions of their AIS AtoN. IRCG will provide the data required for AtoN monitoring, Messages 6, 7, 8, 10, 11, 12, 13, 14, 17 & 21, to CIL. CIL agree to only use the information for the purposes of AtoN monitoring and not to disclose the information outside of the General Lighthouse Authorities without prior approval from IRCG.

1.2 – AIS Integrity Monitoring

Responsibility for control and monitoring of the VHF Data Link and Slot Map rests with Comreg. However, there is a practical requirement for CIL to ensure the protection of their AIS AtoN service. IRCG will provide the data required for this purpose, Messages 4, 15, 16, 20, 22, 23, 25, 26 & 27 to CIL.

In addition to their own requirements CIL will undertake analysis of specific slots if requested by IRCG.

1.3 – Traffic analysis.

Solas Chapter V, Regulation 13 requires the provision of such aids to navigation as the volume of traffic justifies and the degree of risk requires. CIL require AIS traffic data to allow them to meet this requirement. Provision of the correct number and type of AtoN is recognised by IMO as a key contributor to enhancing the safety and efficiency of maritime traffic.

CIL require vessel traffic data for the purposes of assessing the volume, type and pattern of traffic for ongoing AtoN and fleet reviews. IRCG will provide the data required for traffic analysis, Messages 1, 2, 3, 5, 9, 18, 19, 24A, 24B to CIL.

CIL will only use this data for the purpose intended and will not forward these messages to any third party without the express permission of IRCG. Messages may be forwarded to other GLA for backup purposes.

Plots and tables of vessel tracks and densities derived from this data which do not identify the vessels involved may be used by CIL in reports and presentations. In such cases IRCG will be credited as the owner and source of the data.

Part 2 – AIS Transmission facilities.

It is accepted by both parties that transmission of CIL data through the IRCG network would require a detailed set of operating procedures and a clear legal expression of the responsibilities and liabilities of each party. It was agreed that while both parties have a shared view on where we wish to take this requirement it was best to first complete the IRCG to CIL data feed.

This part will be further developed in the future.

Part 3 – Data Provision and Capture

IRCG will provide the data by way of a proxy server link to CIL. At the outset data will be filtered to 30 seconds but this latency may be revised if it places unnecessarily onerous demands on the link.

These arrangements will be reviewed from time to time as the parties require.

Part 4 – Legal considerations and Responsibilities

Except as provided above IRCG and CIL agree not to disclose data provided under this SLA to third parties without consent of the data provider.