

MARITIME COMMUNICATION PLAN

ADMINISTRATION PAGE

Document Control

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Document Revision

Version	Date	Changes
V1.0	16 June 2022	Initial Issue
V2.0	07 October 2022	Updated from Exercise Freya comms plan to Maritime Comms Plan
V2.1	18 Aug 2023	Revisions post external consultation
V3.0	29 Oct 2023	Further revisions post external consultation

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ABBREVIATIONS

DEFRA	Department for Environment, Food and Rural Affairs
HMCG	His Majesty’s Coastguard
MCA	Maritime and Coastguard Agency
MRCC	Maritime Rescue Coordination Centre
MSI	Maritime Safety Information
NLB	Northern Lighthouse Board
NRA	Navigational Risk Assessment
Saxa	SaxaVord Spaceport
UKHO	UK Hydrographic Office
VHF	Very High Frequency
WZ	UK Coastal Warnings

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1 PRIOR TO LAUNCH

L – 4 months

Preliminary information to MCA; Navigation Risk Assessment, Launch Campaign Risk Assessment, Communications Plan, Marine Emergency Action Card for consideration.

Marine Licence submission to Marine Scotland.

SaxaVord Spaceport delivers, via email, Temporary Notice to Mariners to UKHO.

L –2 months

UKHO publish Temporary Notice to Mariners

Temporary Notice to Mariners also delivered by SaxaVord Spaceport to the following:

- Sullom Voe Harbour
- Shetland Islands Council (Ferries)
- Cooke Aquaculture
- Shetland Islands Fishermen
- Shetland Shellfish Management Organisation
- Scottish Fishermen’s Federation
- North Atlantic Fisheries College
- Seafood Shetland
- Unst Shellfish Ltd
- RYA Scotland
- Fisheries Rep, DEFRA
- Lerwick Port Authority
- Navigation Branch, MCA
- Northern Lighthouse Board
- Seafish
- MRCC Shetland
- Offshore Energy Team, HMCG

L –1 month

Additional local notifications and notices / adverts distributed, and spaceport website updated with specific launch details.

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L –7 days

Radio Navigational Warning information delivered, via email using template supplied, to UKHO. UKHO to issue Navigational Warnings at L-5 days. Add all relevant email addresses here?

2 LAUNCH DAY

2.1 Communications Protocols – Saxa Range Control to Boundary and Recovery vessels

Saxa Range Control will confirm a comms protocols with any contracted vessels prior to launch day. This will cover; but not be limited to, any prowords or actions on – particularly regarding lost communications and re-establishment.

The Range Control Centre (RCC) will use a callsign of “Saxa Range Control” and assume command of the operation at a given point as agreed and briefed.

Communications between contracted maritime vessels will be established using recognised voice and data procedures allowing the following to be reported. Primary comms will be via VHF radio with telephone, SATCOM and email to back up in case of failures. VHF comms will be via Ch 67, unless previously agreed before launch day.

Saxa Range Control will repeat back the below reports in **highlighted** text to ensure clarity of messages passed before logging the message.

Saxa Range Control may repeat some messages and also ask vessel(s) to acknowledge receipt. Procedure words, or PROWORDS are in **BOLD** text.

No.	Report	Meaning
1.	<Callsign> Standby Position “#”	Vessel will report location either by conventional co-ords or Alpha-Numeric pre-defined coded locations
2.	Saxa Range Control, RANGE OPEN	The Range is open with Land, Sea and Air clearance checks begin / ongoing.
3.	Saxa Range Control, or <Callsign>, For information relating to a rocket launch, please move to Channel 67	Warning of WZ Notices imminent broadcast on Ch 67.
4.	<Callsign> ON TASK	Vessel is on task and actively engaged on Spaceport Maritime Operations. Can be coupled with position updates, time or any other relevant information.
5.	Saxa Range Control, All vessels (or Callsign) Report “Range Clear”	Vessels to actively sweep their assigned area using means at their disposal to ensure SOLAS principles.
6.	<Callsign> RANGE CLEAR	Vessel will report Range Clear after visual / electronic / physical checks (as required) are complete and the assigned area is clear. If not clear, vessel may be asked to provide a brief short description of the situation.

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7.	<Callsign> RANGE NOT CLEAR (x2)	Vessel will report Range NOT Clear <u>at least twice</u> if the observed area has become encroached and followed up with any further information until the situation changes.
8.	Saxa Range Control, “#” Minute launch countdown has commenced.	# may be at 10, 5 and at 1 minute points before Launch. Range Control may broadcast additional updates throughout as a secondary task. Range control may count through the last 5 seconds ONLY to keep the frequencies free to allow vessels to report if they need to. Point of Launch is expressed as point “T” with minus and plus timings given as required.
9.	Saxa Range Control, Countdown is ON HOLD at T minus “#”	Range Control has been advised of a delay, the timer may restart at “#” or be reset to another time. Range Control <i>may</i> advise further on reasons to allow vessels to manage their time.
10.	Saxa Range Control, Launch is SCRUBBED	Unlikely that the Launch will go ahead. Vessels will be advised on further actions / plans as required using telephone / email / SATCOM.
11.	Saxa Range Control, LAUNCH ANOMALY	Vessels to remain safely ON TASK until briefed otherwise.
12.	Saxa Range Control, Successful ROCKET LAUNCH at DTG	Vessels to continue to observe assigned areas and to watch the rocket for any debris or other anomaly. Marine and Space Accident Investigations may require witness statements later.
13.	Saxa Range Control, or <Callsign> SPLASHDOWN at “#” at DTG	Where “#” is given as co-ordinates, can be a centre point with a radius expressed in a clear fashion i.e. “... radius ½ a Nautical Mile” Range Control will be monitoring rocket telemetry. Vessels will likely be visually monitoring events. SPLASHDOWN may be the whole rocket or parts or debris and there may be multiple points or a large area. Vessels involved with recovery operations will give an ETA estimation to recovery point.
14.	<Callsign> at SPLASHDOWN point(s)	Vessel reports at SPLASHDOWN and any updates as required as to the status of any recovery operation.
15.	<Callsign> RECOVERY COMPLETE / NOT COMPLETE	Vessel reports safe (or otherwise) recovery and provides ETA to safe harbour. Saxa Range Control will not cease the operation until all vessels report safely alongside or otherwise off task.
16.	Saxa Range Control, Send area status report	Specific vessel or all vessels to sweep and check their assigned areas for any debris or anything that may be a hazard to navigation pre or post launch. Post launch, likely to be followed by a Return To Base (RTB) call if and when area is clear.

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17.	Saxa Range Control, RANGE CLOSED	The Range may be closed even whilst vessels are at sea. The RCC will continue to monitor communications until vessels have returned to safe harbour or report safely off task.
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Table 1 Communications Protocols

2.2 Communications Protocols –Boundary and Recovery vessels to Encroaching Vessels

Should the boundary or recovery vessel need to communicate with an encroaching vessel it will use the following procedure:

No.	Report	Meaning
1.	<Callsign> x2, this is (Boundary/Recovery Vessel) <Callsign> x 2. Request working Channel 67. Over.	Open communication. Encroaching vessel should return with (Boundary/Recovery Vessel) <callsign>, this is <callsign> Channel 67, Out". Communication will then be established on the working channel.
2.	<Callsign> As per WZ message broadcast at (<i>time</i>). Rocket launch in area bounded by...(positions) from (<i>date and time</i>) to (<i>date and time</i>).	This will provide the encroaching vessel with the information provided within the WZ messages.
3.	<Callsign> WARNING . Rocket launch imminent from Lamba Ness. You are entering an Exclusion Zone. Or if recovery vessel <Callsign> WARNING . Splashdown of rocket parts imminent.	Should encroaching vessel not change course to avoid Exclusion or Restricted Zones, a Message Marker will be used to warn the vessel of danger.
4.	Boundary/Recovery vessel report "RANGE NOT CLEAR" Saxa Range Control to then repeat "RANGE NOT CLEAR" .	Vessels to actively sweep their assigned area using means at their disposal to ensure SOLAS principles.
5.	Saxa Range Control, <Callsign>, vessel X at location '#', being tracked on bearing ...degrees, on course, towards Launch Exclusion Zone/Splashdown Area. Have warned vessel X of danger from launch/splashdown NOTE: Boundary/Recovery vessel to notify Saxa Range Control of encroaching vessel name and any other identifying marks or features. ie Fishing vessel, Corsair, number LE1335	Information will need to be passed to Saxa Range Control. If the encroachment is taking place near the Launch Exclusion Zone it is likely Saxa Range Control will hear the radio transmission. Saxa Range Control will acknowledge should this be the case. Should the encroachment be at the splashdown location, the Recovery Vessel will have to relay the message either via the Boundary Boat, or call Saxa Range Control using other means, ie satellite phone. Vessel will report RANGE NOT CLEAR <u>at least twice</u> if the observed area has become encroached and followed up with any further information until the situation changes.
6.	<Callsign> RANGE CLEAR	Vessel will report Range Clear after visual / electronic / physical checks (as required) are complete and the assigned area is clear.

Table 2

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2.3 Notifications to HMCG

By telephone to HMCG: 'Range Open' with estimated time to launch.

By telephone to HMCG: 'Range Closed' once there is no longer any danger or risk to shipping and navigation.

2.4 Broadcasts

WZ notices every 4 hours

T -1 hour

Saxa to promulgate securité message. Initial announcement on Channel 16 "For information relating to a rocket launch, please move to Channel 67"

T -5 mins

Broadcast message declaring imminent launch of rocket. Can be via Channel 16 if broadcast less than 1 minute in length

Should the boundary boat register a vessel in the nearby vicinity it will hail the vessel to find out its intentions. Saxa will be listening in on shore-based VHF radio, but boundary vessel will confirm that Saxa is aware.

SaxaVord will operate positive control of the Range and requires confirmation from the boundary boat that there are no vessels within the Range, or that could encroach on the Range during the launch, prior to launching the rocket.

2.5 Mission Deviation

Mission deviation – should there be any deviations to planned activities as published in the MSI or assessed in the NRA the following should take place:

- a) Immediate notification by telephone to MRCC Shetland/HMCG. Ongoing engagement with HMCG will take place to keep them updated and provide support/information as requested/required.
- b) Immediate notification to UKHO for reissue of amended MSI.

Within two hours - notification by email to all other interested parties to ensure no further risk mitigation is required.

2.6 Notifications detailed information:

- a) Whether the debris/payload is likely to float (surface or subsurface) or remain on the seabed;
- b) The location of the point of impact;
- c) Water depth;
- d) Whether the debris/payload will spread over a wide area; and

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- e) Whether the debris/payload is considered a danger or obstruction to shipping (including fishing activities).

Further information can be found in SAXA-UK-OPS-PLN-001 "Maritime Emergency Response Plan". This document also contains a Marine Emergency Action Card.

3 CONTACT DETAILS

SaxaVord Range Operations Manager:	01479 782042 ext 1010
SaxaVord Range Operations:	01479 782040 ext 1008
MRCC Shetland/HMCG:	01595 692976
Radio Navigation Warnings (UKHO):	+44 (0)1823 353448 (direct line)
Boundary Vessel Primary	TBD
Boundary Vessel Secondary	TBD
Recovery Vessel Primary	TBD
Recovery Vessel Secondary	TBD