

ORCA Site No.	Type	Description	Period	Importance	Magnitude of Impact	Mitigation	Significance of Effect
Y-U 21	Building	A roofed structure is marked on the OS First Edition, it is visible on Google earth, it is unclear if it is roofed Within the Gutcher Township boundary.	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-U 22	Buildings	A line of four houses is marked on the OS first Edition. The site is occupied by four modern properties, at least some of the original buildings appear to survive Within the Gutcher Township boundary.	Post-medieval	Low	None (350m from BMH location)	Avoidance	None
Y-U 23	Building	A small unroofed building is marked on the OS First Edition. It is visible on Google Earth Within the Gutcher Township boundary.	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-U 24	Well	A well is marked on the OS First Edition. Nothing is visible on Google Earth Within the Gutcher Township boundary.	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-U 25	Well	A well is marked on the OS First Edition. Nothing is visible on Google Earth Within the Gutcher Township boundary.	Post-medieval	Low	None (150m from BMH location)	Avoidance	None
Y-U 26	Well	A well is marked on the OS First Edition. Nothing is visible on Google Earth Within the Gutcher Township boundary.	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-U 27	Building	An unroofed structure is marked on the OS First Edition. It is not visible on Google Earth Within the Gutcher Township boundary.	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-U 28	Well	A well is marked on the OS First Edition. Nothing is visible on Google Earth Within the Gutcher Township boundary.	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-U 29	Building	An unroofed structure is marked on the OS second Edition, it is not visible on Google Earth Within the Gutcher Township boundary.	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-U 30	Buildings	Two buildings are marked on the OS first edition, they are on the site of the ferry terminal and associated buildings, it is unclear if any of the original buildings survive. Within the Gutcher Township boundary.	Post-medieval	Low	None (60m from BMH location)	Avoidance	None
Y-U 31	Post Office, enclosure	A post office and enclosure are marked on the OS Second Edition. The site is occupied but it is unclear if any of the original buildings remains Within the Gutcher Township boundary.	Post-medieval	Low	None (60m from BMH location)	Avoidance	None
Y-U 32	Footbridge, building	A foot bridge and unroofed structure is marked on the Ordnance Survey Second Edition. A modern bridge carrying a farm track occupies the site, it is unclear if any of the footbridge remains. The site of the structure is occupied it is also unclear if any of the original structure survives. Within the Gutcher Township boundary.	Post-medieval	Low	None (80m from BMH location)	Avoidance	None
Y-U 33	Buildings	Two ruinous structures are visible on Google Earth Within the Gutcher Township boundary.	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-U 34	Well	A well is marked on the OS First Edition. Nothing is visible on Google Earth Within the Gutcher Township boundary.	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-U 35	Building	A ruinous structure is visible on Google Earth Within the Gutcher Township boundary.	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-U 36	Building	A ruinous structure is visible on Google Earth Within the Gutcher Township boundary.	Post-medieval	Low	None (170m from BMH location)	Avoidance	None
Y-U 37	Sheepfold	An L shaped wall is visible on Google Earth Within the Gutcher Township boundary.	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-U 38	Sheepfold	A sheepfold is marked on the OS First Edition, it is visible on Google Earth	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None

ORCA Site No.	Type	Description	Period	Importance	Magnitude of Impact	Mitigation	Significance of Effect
Y-U 39	Inscribed stone	Carved stone engraved on both sides with figures and ornaments. Stone found by a man cutting peats at South Garth c.1815. It is uncertain what happened to the stone, it may be lying in the Belmont area or it may in fact be the Bressay stone. Unknown if there is an associated site.	Iron Age	Low	None (outwith landfall corridor and BMH location)	Avoidance	None

Table A 2.3: Impact appraisal of marine sites identified within the marine corridor of Route 2.1.

Name	Description	Circumstance of loss	Date Lost	Importance	Magnitude of Impact	Mitigation	Significance of Effect
None known	-	-	-	-	Uncertain	Instatement of marine PAD	Negligible

Appendix 2: Route 2.2 Appraisal**Table A 2.4:** Impact appraisal of sites identified within the onshore BMH 500m radius buffer study area, Brough, Yell, Route 2.2.

ORCA Site No.	Type	Description	Period	Importance	Magnitude of Impact	Mitigation	Significance of Effect
Y-M 1	Rectory	Parsonage associated with adjacent St Colman's church	Nineteenth century	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 2	Laird's House, Museum, War memorial	Laird's House dated 1672, with alteration of circa 1900. 2-storey and attic 3-bay with remains of former yard walls framing W elevation; single storey and attic 2-bay wing adjoining to N gable. The house has been restored and contains a local history exhibition. B listed.	Seventeenth century / Modern	Medium	None (270m from BMH location)	Avoidance	None
Y-M 3	Telephone kiosk	Sir Giles Gilbert Scott, 1935. Standard K6 telephone kiosk	Modern	Medium	None (170m from BMH location)	Avoidance	None
Y-M 4	Pier, shop and former booth	Later 19th century, with early 20th century addition and alterations. Single storey and loft 4-bay former pier building with principal elevation to pier (SE), single storey and attic 2-bay gabled range at right angles to W end with single storey shop addition under cat-slide roof in re-entrant angle to N. C listed.	Nineteenth century	Medium	None (170m from BMH location)	Avoidance	None
Y-M 5	Pier	A small rubble pier, repaired in concrete, with an inset ramp. At the landward end is a 2-storey, 4-bay harled store.	Nineteenth century	Low	None (200m from BMH location)	Avoidance	None
Y-M 6	Boat yard	Site of a boatshed, a drystone built arch (early 19th century) with attached barrel store originally part of enclosed walled yard	Nineteenth century	Low	None (150m from BMH location)	Avoidance	None
Y-M 7	Broch, chapel, skeo	A broch built, probably between 500 BC and AD 200, on a small promontory to the S of the settlement at Burravoe. The broch is visible as a large turf-covered mound, about 26m in diameter and 5m high. The outer wall face is visible in places and shows that the broch tower itself measures about 19m in diameter. On the S side of the mound a curving rampart is indicated by a low turf covered bank, 20m long, with remains of a stone revetment visible on the outer face.	Iron Age	High	Minor (25m from BMH location)	Avoidance; 10 m exclusion zone as precautionary measure; Watching brief in case remains associated with the broch extend further than thought.	None
Y-M 8	Farmstead	A farmstead comprising three roofed buildings are marked on the OS First Edition. Two ruined buildings and an enclosure are visible on Google Earth	Post-medieval	Low	None (90m from BMH location)	Avoidance	None
Y-M 9	Farmstead	A farmstead comprising two roofed buildings are marked on the OS First Edition. The site is currently occupied, it is unclear how much of the original buildings survive	Post-medieval	Low	None (160m from BMH location)	Avoidance	None
Y-M 10	Mill	A mill is marked on the OS First Edition. What may be the remains of the structure are visible on Google Earth	Medieval/ Post-medieval	Low	None (170m from BMH location)	Avoidance	None
Y-M 11	Well	A well is marked on the OS First Edition. Nothing is visible on Google Earth	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 12	Farmhouse	Two unroofed buildings and an enclosure are marked on the OS First Edition. They are visible on Google Earth	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 13	Mill	A mill is marked on the OS First Edition, it is not visible on Google Earth	Medieval/ Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 14	Building	A unroofed structure is marked on the OS first Edition. It is not visible on Google Earth	Post-medieval	Negligible	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 15	Farmstead	A farmstead comprising two roofed buildings and a smaller outbuilding and well are marked on the OS First Edition, an additional well is marked on the	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None

ORCA Site No.	Type	Description	Period	Importance	Magnitude of Impact	Mitigation	Significance of Effect
		second edition. The site is currently occupied. It is unclear how much of the original buildings survive.					
Y-M 16	Stepping stones	Stepping stones are marked on the Ordnance Survey First Edition, they are not visible in Google Earth	Post-medieval	Negligible	None (250m from BMH location)	Avoidance	None
Y-M 17	Buildings	Two buildings adjacent to the Road are marked on the Ordnance Survey First Edition. The site is currently occupied, it is unclear how much of the original buildings survive	Post-medieval	Low	None (40m from BMH location)	Avoidance	
Y-M 18	Post Office/ public house	A Post Office is marked on the Ordnance Survey First Edition, it is marked as a public house on the second edition. The Site is currently occupied, it is unclear how much of the original buildings survive	Post-medieval	Low	None (170m from BMH location)	Avoidance	None
Y-M 19	Buildings	Three roofed buildings and an enclosure are marked on the OS First Edition. The site is currently occupied. It is unclear how much of the original buildings survive	Post-medieval	Low	None (180m from BMH location)	Avoidance	None
Y-M 20	Farmstead	A farmstead comprising two roofed buildings and four unroofed structures/ enclosures is marked on the OS First Edition at the edge of the survey area. Those buildings within the survey area are not visible on Google Earth	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 21	Building and enclosure	A roofed building an enclosure are marked on the OS First Edition. They are visible on google Earth	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 22	Buildings	Three roofed buildings are marked on the Ordnance Survey First Edition. The site is currently occupied, it is unclear how much of the original buildings survive	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 23	Well	A well is marked on the Ordnance Survey First Edition. Nothing is visible on Google Earth	Post-medieval	Negligible	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 24	Chapel	A Wesleyan Methodist chapel is marked on the OS Second Edition. The site is currently occupied. It is unclear how much of the original buildings survives	Post-medieval/ Modern	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 25	Building	A roofed building is marked on the Ordnance Survey Second Edition. The site is currently occupied it is unclear how much of the original building survives	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 26	Village	Village of Burravoe	Medieval/ Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 27	Church	Episcopal church designed by RTN Speir and built with the finest materials (colour photograph on p.38). It has a rectangular nave with small external buttresses and an apsidal chancel, and there is a little spire over a ventilator at the east end of the nave. The walls are built of rubble with good sandstone dressings. The interior is light and airy, with an open timber kingpost roof-frame and beautifully crafted wooden pews and altar. The altar frontal is painted to show the Worship of Heaven. B listed.	Nineteenth century	Medium	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 28	Planticrubs	A pair of planticrubs identified during a walkover survey in 2000	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None

Table A 2.5: Impact appraisal of sites identified within the onshore BMH 500m radius buffer study area, Mossbank, Mainland, Route 2.2.

ORCA Site No.	Type	Description	Period	Importance	Magnitude of Impact	Mitigation	Significance of Effect
Y-M 29	Jetty, handcrane	Stone built 19th-century jetty and fittings, with modern turning area and carpark on top.	Nineteenth century	Low	None (50m from BMH location)	Avoidance	None
Y-M 30	House	Early 19th century. 2 storey and attic, 3 bay symmetrical house. Harl pointed rubble walls with stugged and droved sandstone ashlar dressings. Projecting sills at windows. C listed.	Nineteenth century	Medium	None (70m from BMH location)	Avoidance	None
Y-M 31	House	18th century. 2 storey and attic 3 bay asymmetrical house with single storey wings to S. Smooth rendered and whitewashed walls. C listed.	Eighteenth century	Medium	Negligible (10m from BMH location)	Avoidance of house and curtilage (it virtually stands on the road); Ensure site contractors are aware	None
Y-M 32	Church	The church is marked on the OS First Edition. The building is still in use	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 33	Anti-aircraft battery	The site of a heavy anti-aircraft battery. Thought to have been used in the protection of RAF Sullom Voe. Nothing now remains except slight earthworks	Modern	Negligible	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 34	Fishing bothy	Site of possible former trading booth now destroyed. An archaeological investigation of the Bod of Udhouse prior to its destruction. The investigation recorded a rectangular building, with attached annex, of possible mid-late 19th century date. It may have functioned as a trading booth before being used as a house and agricultural shed. A midden indicated occupation continued into the 1930s.	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 35	Farmstead	A farmstead comprising one unroofed building, one roofed building and one enclosure is marked on the OS First edition. The site is currently occupied, it is unclear how much of the original buildings survive.	Post-medieval	Low	None (210m from BMH location)	Avoidance	None
Y-M 36	Building	A roofed building is marked on the OS First Edition. It is not visible on Google Earth	Post-medieval	Low	None (250m from BMH location)	Avoidance	None
Y-M 37	Farmhouse	A roofed building is marked on the OS first edition. It is not visible on Google Earth	Post-medieval	Low	None (200m from BMH location)	Avoidance	None
Y-M 38	Farmhouse	A roofed building is marked on the OS First Edition. The site is currently occupied, it is not clear how much of the original building survives	Post-medieval	Low	None (200m from BMH location)	Avoidance	None
Y-M 39	Farmhouse, enclosures	A roofed building and two unroofed buildings/enclosures are marked on the OS First Edition. The site is currently occupied, it is not clear how much of the original building survives	Post-medieval	Low	None (230m from BMH location)	Avoidance	None
Y-M 40	Farmhouse	A roofed building is marked on the OS First Edition. The site is currently occupied, it is not clear how much of the original building survives	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 41	Farmhouse	A roofed building is marked on the OS First Edition. It is not visible on Google Earth	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 42	Farmstead	A farmstead comprising a line of five buildings and one outbuilding are marked on the OS First Edition. The site is currently occupied, it is not clear how much of the original buildings survive	Post-medieval	Low	None (110m from BMH location)	Avoidance	None
Y-M 43	Farmhouse	A roofed building is marked on the OS first Edition. The site is currently occupied it is not clear if any of the original building remains	Post-medieval	Low	None (200m from BMH location)	Avoidance	None
Y-M 44	Farmhouse	A line of three roofed building and outbuilding are marked on the OS First Edition. The site is currently occupied	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 45	Farmstead	A farmstead comprising 6 roofed buildings and four enclosures lies partly within the study area. The site is	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None

ORCA Site No.	Type	Description	Period	Importance	Magnitude of Impact	Mitigation	Significance of Effect
		currently occupied, it is unclear how much of the original buildings survive					
Y-M 46	Well	A well is marked on the OS First Edition. Nothing is visible on Google Earth	Post-medieval	Negligible	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 47	Capstan, well	A roofed building and well are marked on the OS First Edition. The site is currently occupied, it is unclear how much of the original buildings survive	Post-medieval	Low	None (200m from BMH location)	Avoidance	None
Y-M 48	House	Possible prehistoric house site. Part of a stone plough share was recovered nearby when peat cutting	Prehistoric	Low-Medium	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 49	Structure	An oval arrangement of large stones which may represent the remains of a structure. The S end is formed by a large boulder.	Uncertain	Uncertain	None (280m from BMH location)	Avoidance	None
Y-M 50	Lithic implement	Claystone axe, 4.5" x 2.5" x 1 1/8" donated by R.C. Haldane, Lochend, Lerwick (Acc. No. AF 613) in 1911. Approximate findspot, no known associated site	Prehistoric	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
Y-M 51	Nousts	Pair of nousts truncated by coastal erosion. Within natural cleft of bedrock outcropping. Some reinforcement of bank by drystone revetment. Nousts divided by a rubble wall/bank. Filled with modern rubble and rubbish.	Post-medieval	Low	None (180m from BMH location)	Avoidance	None

Table A 2.6: Impact appraisal of marine sites identified within marine corridor of Route 2.2

Name	Description	Circumstance of loss	Date Lost	Importance	Magnitude of Impact	Mitigation	Significance of Effect
Unknown (1)	"Broken up wreck of a small vessel."	-	-	Unknown	None (250m outwith corridor)	Avoidance; Instatement of Marine PAD	None
Unknown (2)	29m x 5m x 3,2m	-	-	Unknown	None (350m outwith corridor)	Avoidance; Instatement of Marine PAD	None
Unknown (3)	Craft, Wood. 5 drowned.	Small boat upset between Mossbank & Yell	11/01/1860	Low	Medium	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Minor / Negligible
Unknown (4)	Craft, Wood. 4 drowned.	Small boat upset between Mossbank and Samphray.	23/12/1852	Low	Medium	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Minor / Negligible
Unknown (6)		Part of a vessel, said to be the quarter, has been cast up at the Rumble,	00/03/1874	Unknown	None	Avoidance (of the Rumbles) Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible / None
Sanguine A 359	Steam trawler of Aberdeen. Steel. 204 tons. In ballast	Vessel stranded on Rumble Rock.	20/07/1921	Low	None	Avoidance (of the Rumbles) Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible / None

Name	Description	Circumstance of loss	Date Lost	Importance	Magnitude of Impact	Mitigation	Significance of Effect
Ellen	Fishing Smack. Wood. 18 tons. In ballast.	Vessel stranded on Rumble Rock,	27/04/1896	Low	None	Avoidance (of the Rumbles) Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	None
Ibis A 61	Steam trawler of Aberdeen. Steel. 142 tons. In ballast.	Stranded Little Rumble Rocks	21/03/1904	Low	None	Avoidance (of the Rumbles) Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	None
Unknown (7)	Smack, Wood. cargo of fish.	Wrecked on Yell Baa	1869	Low	None	Avoidance (of Yell Baa); Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	None
Haugesund	Smack. Wood. Salt Fish.	Struck Yell Baa, Urphacy Island and sank	05/07/1870	Low	None	Avoidance (of Yell Baa and Orfasay); Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	None
Unknown (8)	Small fishing craft. Wood. 4 crew saved.	Boat upset off Burranness.	09/09/1858	Low	Medium	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible / None
Elizabeth	Sloop	Sunk at Burravoe "some person having bored a hole in her bottom."	01/02/1866	Low	Medium	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible / None
Lerwegian	Sloop of Lerwick. 45 tons. Cargo of baled goods.	Parted from both anchors and drifted on the rocks and became a total wreck.	26/11/1852	Low	Medium	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible / None
Nellie Gardiner BF 74	Steam Drifter, Ex. River Ugie, of Cullen. Built 1919	Stranded at Burga Skerry	22/02/1935	Low	None	Avoidance (of Burga Skerry) Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	None
King Soloman	Of Hamburg	Lost at Burravoe, Yell.	1680	High	Medium	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Minor / Negligible
Resolution	Packet of Lerwick.	Driven ashore from moorings at Burravoe, Yell.	1856	Low	Medium	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible / None

Appendix 2: Route 2.3 Appraisal**Table A 2.7:** Gazetteer of sites identified within the onshore BMH 500m radius buffer study area, Sumburgh, Mainland, Route 2.3.

ORCA Site No.	Type	Description	Period	Importance	Magnitude of Impact	Mitigation	Significance of Effect
S-S 01	Boat	During drain laying in WW2, a boat was discovered. It was c 50ft long, c 18ft of beam, and was carvel built. It was somewhere at the head of Grutness Voe, 50-60m back from the beach. The nature of the plank-fastening recorded in this instance places the vessel within the Nordic or Viking tradition. This observation need imply no specific date.	Medieval	Low	High (uncertain if boat removed or not, and location uncertain). However, indicates potential for unknown remains in dunes	Watching brief	Minor-Negligible
S-S 02	Jetty	c. 1830. A beautifully-made structure, built in connection with Sumburgh Head Lighthouse. Nearby is a single-storey, three-bay store with a flat roof and octagonal chimney. The description matches that of the shore station pier, but the location given in Canmore is that of the modern Grutness Ferry Terminal.	Nineteenth century	Low	None (380m from BMH location)	Avoidance	None
S-S 03	Structure	A single unroofed structure which may be a planticrub is depicted on the OS First Edition, it is not visible on Google Earth	Post-medieval	Low-Negligible	None (320m from BMH location)	Avoidance	None
S-S 04	Fishing Station, Midden	Excavations at the 19th-century fishing station revealed a 17th-century midden with coins, tobacco pipes and pottery. The extant remains of the fishing station include the laird's boat house and four fish liver boiling tanks.	Seventeenth century	Low-Negligible	None (320m from BMH location)	Avoidance	None
S-S 05	Winch	Winch associated with Grutness Pier	Post-medieval	Low	None (250m from BMH location)	Avoidance	None
S-S 06	Lighthouse Shore Station	Circa 1820. Single storey, 3-bay flat roofed symmetrical lighthouse store of rectangular plan. Squared rubble walls with polished and droved ashlar dressings and details. Base course, eaves cornice. Margined openings. Vertically-boarded timber door in centre with vertically-boarded timber shutters to windows in flanking bays. Wallhead stacks centring side elevations; square bases swept up to octagonal shafts with corniced copes. Boundary wall and gate piers: rectangular plan random rubble enclosing wall, droved ashlar gate piers with pyramidal caps centred to W; distance to lighthouse inscribed on cap of N pier; wrought-iron gate. Additional stugged stone gate piers with pyramidal caps to S. C listed.	Nineteenth century	Medium	None (280m from BMH location)	Avoidance	None
S-S 07	Jetty	The pier at Grutness is marked on the OS First Edition, it is visible on Google Earth	Post-medieval	Low	None (250m from BMH location)	Avoidance	None
S-S 08	Military Installation	A large bank consisting of many large stones heaped on top of each other. The stones at the NW end are cemented together. This bank covers the WW2 fuel pipes which run from Grutness pier towards the fuel storage tanks SMR4490. It is 63m long.	Modern	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 09	Beach defences, sea mine	Remains of a WW2 iron sea mine located near Grutness. The mine is heavily corroded and the top has become detached and can be seen 15m to the W.	Modern	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 11	Military Installation	A concrete platform surrounded by an earth and stone bank on 3 sides. The remains of 3 concrete walls form a small room at the SE end of the structure and a	Modern	Low	None (outwith landfall corridor and BMH location)	Avoidance	None

ORCA Site No.	Type	Description	Period	Importance	Magnitude of Impact	Mitigation	Significance of Effect
		dyke has been built over the E side. The remains are thought to have had a military function					
S-S 12	Military Installation	Small, brick-built structure with a flat concrete roof and a doorway in the E wall. The building is situated at the edge of an overgrown trackway leading to military structures SMR4492. This structure is thought to have had a military function and could have been a small guard hut.	Modern	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 13	Earthwork	162.2m long turf-covered bank, aligned N-S with few stones protruding. Feature crosses bank SMR3818	Prehistoric	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 14	Military Installation	A large concrete block with 4 iron bolts protruding from each corner. The block is situated in a quarry and could be associated with the quarry itself, although it appears to be military and may therefore not be in situ	Modern	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 16	Military Installation	a) Remains of a building comprising a concrete floor and 2 gable ends with a brick fireplace in the NE gable. The sides of the building are missing, thought to have been constructed of some perishable material. Building presumed to have a military function. See also SMR4496 and 4497 b) Concrete platform surrounded by a wire fence, located just NE of possible military building SMR4495. It is thought that this site also had a military function c) Concrete structure built up on all 4 sides with earth and stone bank, with 2 small openings on the SE side and a large door at the rear. Thought to have a military function - either a water tank for supplying nearby military buildings, or a storeroom d) Rusty barbed wire fence surrounding concrete slabs, flush with the ground and each with an iron stake protruding from a corner. They may have been used for supporting a mast with a military function.	Modern	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 17	Military Installation	- Same as part of S-S16	Modern	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 18	Military Installation	- Same as part of S-S16	Modern	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 19	Military Installation	- Same as part of S-S16	Modern	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 20	Hollows	Four small depressions, three of which are oval in shape, which were possibly used for quarrying stone.	Uncertain	Uncertain	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 21	Earthwork	201m long turf-covered bank, aligned E-W with medium-large stones protruding at the eastern end. Feature crosses bank SMR3819	Prehistoric	Low-Medium	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 22	Lynchet, Enclosure	Curved turf-covered lynchet with some small stones protruding. The lynchet drops 1m into the area it encloses. Overall dimensions 44.7 x 27.8m, probably cut by road to W. Similar to SMR3794	Prehistoric	Low-Medium	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 23	Earthwork	Flat terrace measuring 17.2m x 42m, situated on sloping land. The E side is bounded by a curving bank up to 1.2m high with small stones protruding from it. The downslope boundary is a lynchet 0.5m high	Prehistoric	Low-Medium	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 33	Wartime Oil Storage Tanks	Situated to the SE of the end of Sumburgh Airfield runway are three underground bunkers built into the side of the hill each housing a fuel tank.	Modern	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 34	Occupation site	Fragments of a human skeleton and one wall of a medieval croft and an associated midden were found in a sand-dune complex following disturbance due to	Medieval	Medium	None (150m from BMH location). However, indicates potential for unknown remains in dunes	Avoidance	None

ORCA Site No.	Type	Description	Period	Importance	Magnitude of Impact	Mitigation	Significance of Effect
		SIC sand extraction. Two earlier phases of sand-blow with an intervening soil development were noticed.					
S-S 35	Military Installation	A large deliberately constructed pond with banks and mounds projecting into the pond forming an 'S' shape. It is thought that the pond was intended to be seen from the air and signify the presence of the Sumburgh air strip during WW2.	Modern	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 36	Country House, Hotel	David Rhind, 1867, with additions of 1897. Asymmetrical Scots Baronial former country house (now hotel). Original house comprised of 2-storey L-plan range wrapping around 2-storey L-plan entrance range to give double-pile arrangement with wings extending from E and S gables; later single storey and attic wings to E; southern wing of L-plan, terminated to S by 2-bay pavilion; balustraded screen wall extending NW to gabled northern wing. Stugged, squared and snecked sandstone walls with polished and droved ashlar dressings and details; coursed rubble walls to wings with droved ashlar dressings. Base course, string course at 1st floor, stop-chamfered arises to windows. Finds of prehistoric and medieval date have been recovered from the grounds surrounding the house and an earthen bank is visible in the nearby eroding cliff edge. B listed.	Nineteenth century	Medium	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 37	Broch, Settlement	Jarlshof Prehistoric and Viking settlement. Visitor Attraction and site run by Historic Environment Scotland.	Prehistoric / Medieval	High	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 38	Gun Emplacement (possible)	The possible gun-emplacement is visible on vertical air photographs (106G/Scot/UK 97, 4028-4029, 18 May 1946), in an area of sand dunes on the SW side of Sumburgh Airfield. A large irregular shaped mound with large stones and lumps of concrete protruding, situated at the base of a sand quarry. One of the exposed concrete slabs has 8 iron bolts protruding, suggesting the material came from a former gun emplacement at some other location.	Modern	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 39	Midden	A sand pit dug during the war revealed a kitchen midden, containing a bone pin, and a small piece of sandstone inscribed with a bird, probably of the Viking era.	Medieval	Medium	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 40	Farmstead	A farmstead comprising 10 roofed buildings and an enclosure are marked on the OS first Edition, five lie within the study area. The site is currently occupied	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 41	Quarry, building	Modern disused quarry, a possible sub-circular ruined building is marked in the OS first edition, it is visible on Google Earth	Modern	Negligible	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 42	Quarry	A quarry is marked on the OS First Edition, the site has been built over.	Post-medieval	Negligible	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 43	Stepping stones	Stepping stone are marked on the OS first edition, it is unclear if they are visible on Google Earth	Medieval/ Post-medieval	Negligible	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 44	Buildings	Remains of three concrete bases, most likely for Nissen or other type of huts.	Modern	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
S-S 45	Airfield	Established 1933. The RAF took over in 1939 to use it as a fighter station. Not until 1941 were 3 runways available. At the end of the war it proved a good airfield for post-war Shetland. The wartime control tower is still in use, albeit modernised. The decontamination centre and squash court still survive.	Modern	Low	None (10m from BMH location)	Avoidance	None

ORCA Site No.	Type	Description	Period	Importance	Magnitude of Impact	Mitigation	Significance of Effect
S-S 46	Earthwork, stonework	Possible linear stonework feature of rubble and beach stone. A former dyke or groin	Post-medieval	Low	None (350m from BMH location)	Avoidance	None
S-S 47	Field system	A field or large enclosure, a single unroofed structure which may be planticrub and a sheepfold are shown on the OS First Edition	Post-medieval	Low	None (550m from BMH location)	Avoidance	None

Table A 2.8: Impact appraisal of marine sites identified within the Sumburgh and Shetland Waters section of Route 2.3.

Name	Description	Circumstance of loss	Date Lost	Importance	Magnitude of Impact	Mitigation	Significance of Effect
HMS C-34	British submarine. Steel. 321 tons. 43.6m x 4.1m x 3.51m. 18 crew lost, 1 survivor	Sunk by torpedo from the German U Boat U -52.	17/07/1917	High	High / medium	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Minor
FV Espera	Steam Trawler, of Aberdeen. Steel. 47.3m x 6.7m x 3.9m	Damaged in heavy weather then foundered under tow 33 miles ENE from Dennis Head.	26/01/1937	Low	Low	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible / None
SS Dana	Norwegian Steamship of Bergen. Steel. 753 tons. 59.4m x 9.2m x 3.3m. Christiania (Oslo) to Hull with a cargo of condensed milk.	Sunk by UC-76 5 miles south of Sumburgh Head, Shetland.	09/03/1917	Low	Medium	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Minor / Negligible
FV Daisy LT 172	Steam drifter of Lowestoft. Wooden. Crew saved.	Lost between Fair Isle & Shetland	18/05/1906	Low	Low (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible / None
SS Gerda	Norwegian steamship. Steel, 979 tons. 66m x 9.6m x 3.9m. North Shields to Skien with a cargo of coke and carbonate of soda, Crew saved.	Sunk by UC-55. KTB states 5 miles SW of Sumburgh Head but Canmore places along route.	21/04/1917	Low	Medium	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Minor / Negligible
Curlew	British Revenue Cutter. Wood. 18 guns. All crew lost. Capt. Field	Foundered off Sumburgh Head.	00/09/1796	High	High (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Minor
Rose	Lugger. Wood. 1 ton. 3 crew.	Foundered off Sumburgh Head.	14/06/1889	Low	Medium (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Minor / Negligible
S.S. Lorenzo Semprun	Steamship.	Possibly foundered off Sumburgh Head. Lifeboat found 09/1866 but newspaper reports suggest vessel lost 07/1866.	18/09/1866	Medium	Medium	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Minor / Negligible

Name	Description	Circumstance of loss	Date Lost	Importance	Magnitude of Impact	Mitigation	Significance of Effect
Unknown (1)	Craft of Norway.	Lost near Sumburgh.	1744	Unknown	High (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Minor
Lerwick Packet	Sloop. Wood.	Driven from anchors at Grutness Voe.	08/10/1824	Medium	Medium (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Minor / Negligible
Freemason	Sloop. Wood. Lost while carrying materials for Sumburgh Lighthouse.	Vessel foundered at the entrance to Grutness Voe.	15/10/1820	Medium	Medium (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Minor / Negligible
O.51	Sloop. Wood.	Driven ashore at Grutness Voe.	27/05/1866	Unknown	Low (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible / None
Erin	Smack of Shetland. Wood. 5 tons. 3 crew, 2 lost. In ballast.	Foundered at entrance to Grutness Voe.	06/09/1880	Low	Low (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible / None
Sarah Rowe	Schooner of Lerwick. Wood. 70 tons. Cargo of fish oil.	Struck the Vackles and foundered between Mousa and Bressay. Canmore place in Grutness Voe.	16/11/1895	Low	Low (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible / None
Eulala	Schooner of Dumfries. Wood. 70 tons. Cargo coal and cement. Crew saved.	Stranded Grutness Voe.	29/06/1888	Low	Low (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible / None
Queen Of The Isles	Craft or Packet of Fair Isle. Wood.	Wrecked at Grutness Voe.	00/03/1901	Low	Low (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible / None
Welfare	Ketch of Lerwick. Wood. 80 tons. Cargo of coal, coke and cement.	Vessel was driven from moorings and stranded at Wilsness, Grutness Voe.	12/10/1903	Low	Low (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible / None
James	Sloop of Dunrossness. Wood. Hamburg to Hillswick, general cargo and salt, crew saved	Wrecked at Grutness Voe.	00/11/1741	Medium	Medium (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Minor / Negligible
Kleinkinder en	Dutch fishing vessel listed as "Buss" of Vlaandingen. Wood.	Wrecked at Grutness Voe	09/06/1848	Low	Low (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible / None

Name	Description	Circumstance of loss	Date Lost	Importance	Magnitude of Impact	Mitigation	Significance of Effect
Rebecca	Schooner of Lerwick. Wood	Driven ashore at Grutness Voe	1787	Unknown	Medium (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Minor / Negligible
Maria	Smack of Lerwick. Wood. 11 tons.	Wrecked at Grutness Voe	20/10/1864	Low	Low (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible / None
Nelson	Smack of Lerwick. Wood.	Parted anchors in Grutness Voe and went ashore. Possibly salvaged.	27/10/1869	Low	Low (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible / None
Mary	Schooner of Lerwick. Wood. 22 tons. From Fair Isle.	Wrecked at Wilsness, Grutness Voe	03/03/1911	Low	Low (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible / None
Aircraft Bristol Blenheim	Bristol Blenheim aircraft. T1949 404 Sqn3 crew killed.	Crashed into sea east of Sumburgh Head. Canmore places on route. Accident Bristol Blenheim T1949, 06 Oct 1942 (aviation-safety.net)	06/10/1942	High	High	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	High (due to PoMRA 1986, but likelihood of impact Negligible)
Aircraft Handley Page Halifax	Handley Page Halifax aircraft R9453 of 76 Sqn RAF. Crew of 7. All lost.	Crashed into the sea south 12 miles south of Sumburgh [Sumbrough] Head. Accident Handley Page Halifax Mk II R9453, 31 Mar 1942 (aviation-safety.net)	31/03/1942	High	High	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	High (due to PoMRA 1986, but likelihood of impact Negligible)

Appendix 2: Route 2.4 Appraisal**Table A 2.9:** Impact appraisal of sites identified within the onshore BMH 500m radius buffer study area, North Haven, Fair Isle, Route 2.4.

ORCA Site No.	Type	Description	Period	Importance	Magnitude of Impact	Mitigation	Significance of Effect
FI 01	Bomb Crater	Putative bomb crater adjacent to road.	Modern	Negligible	None (outwith landfall corridor and BMH location)	Avoidance	None
FI 02	Mound	Earth mound with some earth-fast stones, 5m by 4m.	Uncertain	Uncertain	None (outwith landfall corridor and BMH location)	Avoidance	None
FI 03	Stone Row	Alignment of stones approx. 150m in length.	Prehistoric	Low/ Medium	None. Outwith red line boundary	Avoidance	None
FI 04	Cairn	Cairn composed of small stones. Measures approx. 2m by 2m.	Prehistoric	Low	None. Outwith red line boundary	Avoidance	None
FI 05	Enclosure	Earthen enclosure with some stones, approx. 6m by 5m	Uncertain/ Prehistoric?	Low	None. Outwith red line boundary	Avoidance	None
FI 06	Quarry	Quarry working, approx. 8m by 6m and 1.5m deep.	Post-medieval/ Modern	Negligible	None. Outwith red line boundary	Avoidance	None
FI 07	Hostel, Observatory	Bird observatory with hostel.	Modern	Negligible	None. Outwith red line boundary	Avoidance	None
FI 08	Quarry	Quarry working, approx. 3m by 2m and 1.5m deep.	Post-medieval/ Modern	Negligible	None. Outwith red line boundary	Avoidance	None
FI 09	Cairn	Cairn base composed of small stones. Approx. 2m diameter.	Prehistoric	Low	None. Outwith red line boundary	Avoidance	None
FI 10	Structure, Military Installation	Square drystone structure with two adjacent circular features	Modern	Low	None. Outwith red line boundary	Avoidance	None
FI 11	Linear Earthwork	Earth and stone linear embankment approx. 205m long.	Prehistoric	Low/ Medium	None. Outwith red line boundary	Avoidance	None
FI 12	Promontory Fort	Small promontory fort with bank-and-ditch ramparts and interior buildings.	Iron Age	High	None. Outwith red line boundary	Avoidance	None
FI 13	Storehouse/ booth	Gabled flagstone rubble storehouse, rectangular in plan. This building is a rare survivor of traditional Shetland building practice, and an important member of the bods still surviving in Shetland.	Post-medieval	Medium	High (physical impact); Medium (potential vibration from trench cutting machinery or destabilising of foundations)	Ensure BMH no closer than 4m to storehouse; Avoidance with exclusion zone marked; Machinery used not to exceed 5 tons; PAD	Minor
FI 14	Stone cup, Mound	A portion of a stone cup was found in a mound which was cut through in the formation of a road. A second piece of the same cup was found some years earlier and was given to Sheriff Thorns. Mound not located by Hunter's survey.	Prehistoric	Negligible	None. Outwith red line boundary	Avoidance	None
FI 15	Military Camp	Small camp probably associated with the radar station on Ward Hill.	Modern	Low/ Negligible	None. Outwith red line boundary	Avoidance	None
FI 16	Harbour	Harbour	Post-medieval & Modern	Medium	Medium (collation of potential impacts on FI 13, FI 19 and possible paleoenvironmental deposits buried below beach)	Avoidance with exclusion zone marked; Watching brief PAD	Minor
FI 17	Pier	Lighthouse pier and a slip with mechanism for pulling up boats, including the ferry. The 5m diameter surface of the pier into which crane FI 18 was set is scheduled.	Post-medieval	High	None. Outwith red line boundary	Avoidance	None
FI 18	Crane	A small hand-operated crane on the edge of the old pier. The crane is of iron construction, and the mechanism survives in working order, although the hoist cable has been removed. The crane is probably	Post-medieval	High	None. Outwith red line boundary	Avoidance	None

ORCA Site No.	Type	Description	Period	Importance	Magnitude of Impact	Mitigation	Significance of Effect
		of late 19th-century date, and may have come second-hand from elsewhere in the north, possibly from a lighthouse station.					
FI 19	Pier (& Crane)	Canmore – 'Lighthouse pier, crane'. Stone-built and concreted slip with rails for winching rising up storm beach towards storehouse FI 13.	Post-medieval	Low	High (physical impact); Medium (potential vibration from trench cutting machinery or destabilising of foundations)	Avoidance by 2-3m; Machinery used not to exceed 5 tons; PAD	Minor
FI 20	Enclosure	Earthen enclosure with some stones, approx. 5m in diameter. Circular earthen enclosure 5m diameter. Possible flag pole location.	Modern	Negligible	None. Outwith red line boundary	Avoidance	None
FI 21	Linear Earthwork	Earth and stone linear embankment approx. 40m long.	Uncertain/ Post-medieval/ Modern	Low	None. Outwith red line boundary	Avoidance	None
FI 22	Scree and stone scatter, Cairn	Cairn composed of small stones, approx. 2m diameter; and an area of scree and stone, 40m by 30m.	Prehistoric	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
FI 23	Linear Feature	Linear feature of densely packed stones, approx. 30m long.	Uncertain	Uncertain	None (outwith landfall corridor and BMH location)	Avoidance	None
FI 24	Cist	Cist-like feature, approx. 2.5m by 1.5 m.	Uncertain	Uncertain	None. Outwith red line boundary	Avoidance	None
FI 25	Structure	Stone-built structure, approx. 4m by 3 m.	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
FI 26	Kerb Cairn	Circular, stone feature with possible kerb stones and loose stones in centre. Approx. 5m diameter.	Prehistoric	Medium	None. Outwith red line boundary	Avoidance	None
FI 27	Wall	Length of walling, 19m long and 1.5m wide, surviving to height of 0.5m.	Post-medieval	Low	None. Outwith red line boundary	Avoidance	None
FI 28	Military Installation	Drystone-built structure, 3m by 2.5m.	Modern	Low/ Negligible	None. Outwith red line boundary	Avoidance	None
FI 29	Structure	Possible structural foundation, approx. 8m in diameter, with earthen banking.	Uncertain/ Prehistoric	Low/ Medium	None. Outwith red line boundary	Avoidance	None
FI 30	Enclosure, Cairn, Quarrying debris	Walled enclosure, 20m by 16m; an area of scree and stone, 30m by 30m; and a cairn 4m by 4m. All features lie in vicinity of recorded quarrying for lighthouse construction	Uncertain/ Post-medieval/ Modern	Low	None. Outwith red line boundary	Avoidance	None
FI 31	Quarrying debris	Amorphous area of stones with considerable lichen cover, possible product of local quarrying. Lies in vicinity of recorded quarrying for lighthouse construction	Uncertain/ Post-medieval/ Modern	Low	None. Outwith red line boundary	Avoidance	None
FI 32	Stone Row	Stone setting open at north end, composed of loose angular stones	Uncertain/	Uncertain	None. Outwith red line boundary	Avoidance	None
FI 33	Mound	Mound, clearly visible in landscape, 13m by 10m, with a kerb-defined area of stone 6.5m by 5.5m.	Prehistoric	Medium	None. Outwith red line boundary	Avoidance	None
FI 34	Cairn, Stone Setting	A stone setting, 1.5m by 1.5m, which appears to form the base of a possibly later cairn.	Prehistoric	Medium	None. Outwith red line boundary	Avoidance	None
FI 35	Well	Well shown on the 1st Edition OS map. Not visible on Google Earth.	Post-medieval	Low	None. Outwith red line boundary	Avoidance	None
FI 36	Small stone box setting	A group of stones in an otherwise clear area. Several thin stones seem to form 3 sides of a box. 0.5 x 0.5m. Close to and south of FI 22 & 23	Uncertain/ Prehistoric	Uncertain	None (outwith landfall corridor and BMH location)	Avoidance	None
FI 37	Small stone spread	A small stone spread c.1.5m x 2m. No obvious structure but deliberately put there.	Uncertain	Uncertain	None. Outwith red line boundary	Avoidance	None

ORCA Site No.	Type	Description	Period	Importance	Magnitude of Impact	Mitigation	Significance of Effect
FI 38	Small stone spread	A second stone spread further downhill (northwest) from FI 37. Less obvious and partially grassed over. 1m x 2m	Uncertain	Uncertain	None. Outwith red line boundary	Avoidance	None
FI 39	Linear Earthwork	A linear earthwork running from the western ditch of the promontory fort northwest wards downhill where it has been obliterated by drainage works associated with the Bird Observatory. c.1m x c60m	Iron Age?	Medium?	None. Outwith red line boundary	Avoidance	None
FI 40	Stone spread	A clearing in the heather with some visible stones. North and downhill from FI 04. c.1m X 1.5m	Uncertain	Uncertain	None. Outwith red line boundary	Avoidance	None

Table A 2.10: Impact appraisal of marine sites identified near North Haven, Fair Isle and the marine corridor of Route 2.4.

Name	Description	Circumstance of loss	Date Lost	Importance	Magnitude of Impact	Mitigation	Significance of Effect
Charming Jenny	Full-rigged ship of Workington. Wood.	Captured by American Privateer 'Tartar' off Fair Isle and burnt.	00/08/1777	High	High (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of marine PAD	Minor
SS Signe	Finnish Steamship of Helsenburg. Steel. 1540 tons.	Sunk by torpedo or mine off Fair Isle. Crew lost	02/04/1940	High	High (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of marine PAD	Minor
Joanna En Pietrenella	Dutch Hooker (2 masted fishing vessel)	Wrecked at North Haven, Fair Isle	06/02/1816	Medium	Negligible (survival of any remains in North Haven highly unlikely)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of marine PAD	Minor / Negligible
Stork:	Smack, fishing vessel of Sumburgh. 20 tons.	Lost at North Haven, Fair Isle.	01/06/1888	Low	Negligible (survival of any remains in North Haven highly unlikely)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of marine PAD	Negligible
Good Shepherd K 58	Mail Boat of Kirkwall	Drove from mooring, wrecked at North Haven	31/01/1937	Low - Medium	Negligible (survival of any remains in North Haven highly unlikely)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of marine PAD	Negligible
Hebe	Schooner, of South Shields, wood, 75 tons. In ballast.	Stranded at Southhaven, Fair Isle.	25/11/1881	Low	Medium (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of marine PAD	Minor / Negligible
Monchgut	Schooner of Stralsund. Wood, 242 ton. Cargo of wood and tar.	Stranded on Cubbie Skerry	30/05/1879	Low	Medium (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of marine PAD	Minor / Negligible
Star Of The West:	Cutter of Fowey. Wood, 15 tons. Cargo of coal salvaged from Wilhelmine.	Stranded on Yess Ness, North Harbour.	15/11/1876	Low	Medium (should any remains survive)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of marine PAD	Minor / Negligible

Appendix 2: Route 2.8 Appraisal**Table A 2.11:** Impact appraisal of sites identified within the BMH 500m radius buffer study area, Levaneap, Mainland, Route 2.8.

ORCA Site No.	Type	Description	Period	Importance	Magnitude of Impact	Mitigation	Significance of Effect
M-W 1	Horizontal Mill	One of a group of 4 mills marked on the OS, visible on Google earth	Medieval / Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
M-W 2	Horizontal Mill	One of a group of 4 mills marked on the OS, unclear if visible on google earth	Medieval / Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
M-W 3	Horizontal Mill	One of a group of 4 mills	Medieval / Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
M-W 4	Structure	One unroofed structure is depicted on the OS first edition. It is not visible on Google Earth	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
M-W 5	Structure	One unroofed structure is depicted on the OS First Edition, it is visible on Google Earth	Post-medieval	Low	None (70m from BMH location)	Avoidance	None
M-W 6	Building	One unroofed building is depicted on the OS First Edition, it is not visible on Google Earth	Post-medieval	Negligible	None (300m from BMH location)	Avoidance	None
M-W 7	Farmstead	A farmstead comprising one unroofed building, seven roofed buildings and three enclosures is marked on the OS First Edition. Only one unroofed building is clearly visible on Google Earth.	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
M-W 8	Building	A single roofed building is marked on the OS First Edition. An unroofed building is visible on Google Earth	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
M-W 9	Farmstead	A farmstead comprising four roofed buildings and two enclosures is marked on the OS First Edition. Four unroofed buildings are visible on Google Earth	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
M-W 10	Building	A single roofed building was marked on the OS First Edition. A roofed building is visible on Google Earth	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
M-W 11	Farmstead	Five roofed buildings are marked on the OS First Edition. Two roofed buildings and two unroofed buildings are visible on Google Earth	Post-medieval	Low	None (50m from BMH location)	Avoidance Ensure site contractors are aware	None
M-W 12	Farmstead	A farmstead comprising 13 roofed buildings and four enclosures is marked on the OS First Edition. The site is currently occupied, it is unclear how much of the original buildings survive	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
M-W 13	Buildings, enclosure, well	Three roofed buildings, a well and enclosure are marked in the OS First Edition. All appear to be ruinous on Google Earth	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
M-W 14	Farmstead	A farmstead comprising seven roofed building and an enclosure is marked on the OS First Edition. The site is currently occupied, it is unclear how much of the original buildings survive	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None

ORCA Site No.	Type	Description	Period	Importance	Magnitude of Impact	Mitigation	Significance of Effect
M-W 15	Farmstead	A farmstead comprising four roofed buildings, a well and three enclosures are marked on the OS first Edition. The site is currently occupied, it is unclear how much of the original buildings survive	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
M-W 16	Building/ enclosure, nousts	Three unroofed buildings/enclosures are marked on the OS Second Edition. Not clearly visible on Google Earth	Post-medieval	Low	None (50m from BMH location)	Avoidance Ensure site contractors are aware	None
M-W 17	Building	A ruined building is visible on Google Earth	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
M-W 18	Possible sheepfold	A possible T-shaped structure is visible on Google Earth	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
M-W 19	Possible Mill	A ruined building is visible on Google Earth adjacent to a burn. It may be another mill together with three other recognised further up stream	Medieval / Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
M-W 52	Nousts	A pair of nousts on the shore edge. South edges have been truncated by coastal erosion. E noust is stone lined and measures 5.5m by 2m. W noust is less well-defined and measures 3m by 1.5m	Post-medieval	Low	None (100m from BMH location)	Avoidance	None
M-W 53	Earthwork, stone spread	Small pile of rubble (1.5m by 1.5m) at the end of a ditch open to the shore. May be the remnants of a demolished feature	Uncertain	Low	None (220m from BMH location)	Avoidance	None
M-W 54	Earthwork	Sub-oval enclosure/earthwork, 15m by 12m, incorporating a natural outcrop on NE corner. Earth fast stones along S & E sides	Uncertain	Low	None (outwith landfall corridor and BMH location)	Avoidance	None

Table A 2.12: Impact appraisal of sites identified within the BMH 500m radius buffer study area, Saltness, Whalsay, Route 2.8.

ORCA Site No.	Type	Description	Period	Importance	Magnitude of Impact	Mitigation	Significance of Effect
M-W 20	Lighthouse	20th-century lighthouse	Modern	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
M-W 21	Chambered cairn	The remains of a heel-shaped, chambered cairn, the plan of which can be traced by the remains of its facing wall. There is a considerable amount of cairn material outside the facing-wall, and a modern marker-cairn has been built at the centre, presumably over the position of the chamber.	Prehistoric	High	None (outwith landfall corridor and BMH location)	Avoidance	None
M-W 22	Village	The village of Symbister	Medieval / Post-medieval	Medium	None. (BMH location outwith village on Salt Ness)	Avoidance	None
M-W 23	Pier	Pier forming the south east side of the quay marked on the OS First Edition, still in use C listed	Post-medieval	Medium	None (outwith Saltness landfall corridor and BMH location)	Avoidance	None
M-W 24	Pier	Pier forming the north west side of the quay marked on the OS First Edition, still in use C listed	Post-medieval	Medium	None (outwith Saltness landfall corridor and BMH location)	Avoidance	None

ORCA Site No.	Type	Description	Period	Importance	Magnitude of Impact	Mitigation	Significance of Effect
M-W 25	Dock	Mid-19th century. Small triangular harbour with associated group of 3 stores to SW comprising New Hoose (circa 1900) to N, Fish House at centre, and Carpenter's Shed to S. C listed	Nineteenth century	Medium	None (outwith Saltness landfall corridor and BMH location)	Avoidance	None
M-W 26	Fish House, Salt store	tall gabled building with harl-pointed rubble walls and stugged sandstone dressings; 16-pane fixed-lights to outer right to side elevations; single storey lean-to to W gable, modern timber infill to tall round-headed arch rising into head of E gable. Corrugated-iron roof. C listed	Nineteenth century	Medium	None (outwith Saltness landfall corridor and BMH location)	Avoidance	None
M-W 27	Fish House	harl-pointed rubble walls; small square windows at outer left and right to north elevation; cement-rendered infill to semi-circular arch in E gable. Modern corrugated sheet roof cladding. C listed	Nineteenth century	Medium	None (outwith Saltness landfall corridor and BMH location)	Avoidance	None
M-W 28	Carpenter's Shed	harl-pointed rubble walls; deep-set vertically-boarded timber door with brick-infilled window centred above, to E gable. Blue-grey slate roof with cast-iron skylights. C listed	Nineteenth century	Medium	None (outwith Saltness landfall corridor and BMH location)	Avoidance	None
M-W 29	Cannon	Site investigations at 'an old derelict pier situated at the Southern end of Symbister Harbour' noted that the South pier has been the subject of repeated rebuilding operations over recent years, some proving more effective than others. The only archaeological evidence at the harbour noted comprised three cannon, one at the end of the pier and two on the SW standing. These have been embedded to facilitate mooring, but are in poor condition.	Post-medieval	Low	None (outwith Saltness landfall corridor and BMH location)	Avoidance	None
M-W 30	Fish store	Later 19th century. Symmetrical former fish store of random rubble granite with long and short granite dressings; modern 2-leaf vertically-boarded timber doors in cement-rendered S gable, 8 slit ventilators (in 2 tiers of 4) to each side; rubble-infilled segmental-arched doorway in N (seaward) gable. Corrugated-iron roof. C listed	Nineteenth century	Medium	None (outwith Saltness landfall corridor and BMH location)	Avoidance	None
M-W 31	Pier	20th century pier at Symbister harbour	Modern	Low	None (outwith Saltness landfall corridor and BMH location)	Avoidance	None
M-W 32	Pier	21st century pier at Symbister harbour	Modern	Low	None (outwith Saltness landfall corridor and BMH location)	Avoidance	None
M-W 33	Broch (possible)	Site of possible broch, on a grassy knoll, no obvious trace of it but a great quantity of stone said to have been removed in the past.	Iron Age	Low	None (160m from BMH location)	Avoidance; Ensure not accessed across here and no quarrying for materials (some quarrying for materials has occurred here in the past); Ensure site contractors are aware.	None
M-W 34	Weather Warning Pole	The remains of a weather warning pole consisting of 2 iron rings and round grass mound. Before the days of weather	Modern	Low	None (160m from BMH location)	Avoidance	None

ORCA Site No.	Type	Description	Period	Importance	Magnitude of Impact	Mitigation	Significance of Effect
		forecasts, the owner of the Symbister shop would hoist a 'buggy' as a warning of severe weather. The buggy was a cone made from canvas. One end was hoisted up for southerly winds and the other end for northerly.					
M-W 35	Coastguard hut, fish house (20th century)	Fish house and coastguard hut, 20th century	Modern	Low	None (outwith Saltness landfall corridor and BMH location)	Avoidance	None
M-W 36	Dock, pier	Probably 18th century, with alterations of circa 1830. 2-storey asymmetrical former pier house, of predominantly rectangular plan with E gable advanced (prow-like) at centre; straddling stone pier sloping down to E from shore and tapering to point at N edge; pier bounding S side of dock, open to W, and enclosed to N by N pier. Predominantly random rubble granite walls, coursed to E gable, with droved sandstone ashlar dressings. B listed	Eighteenth century	Medium	None (outwith Saltness landfall corridor and BMH location)	Avoidance	None
M-W 37	Dock (18th century), fishing bothy (18th century), visitor centre (20th century)	This building was the pier house for the nearby trading booth originally used by ships of the Hanseatic League, it now houses the Pier House Museum. Probably 18th century, with alterations of circa 1830. 2-storey asymmetrical former pier house, of predominantly rectangular plan with E gable advanced (prow-like) at centre; straddling stone pier sloping down to E from shore and tapering to point at N edge; pier bounding S side of dock, open to W, and enclosed to N by N pier. Predominantly random rubble granite walls, coursed to E gable, with droved sandstone ashlar dressings. Hem Dock: roughly U-plan, open to W, bounded to E by retaining wall above beach; bounded to N by random rubble granite pier projecting SE from shore, with sandstone slabbed carriageway and granite steps to water at S side. B listed	Eighteenth century	Medium	None (outwith Saltness landfall corridor and BMH location)	Avoidance	None
M-W 38	House	Possibly 1563, incorporated in 18th century rebuilding, with 19th century alteration. Single storey over laigh floor 5-bay asymmetrical former trading booth and house. Harled and lined walls with painted margins to doors and windows. Projecting sills to windows. C listed	Sixteenth century	Medium	None (outwith Saltness landfall corridor and BMH location)	Avoidance	None
M-W 39	Structures	Two unroofed structures are depicted on the OS First Edition, one is visible on Google Earth	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
M-W 40	House	17th century house, 11 roofed buildings around a garden are shown on the OS first edition. All that survives is the lower 4ft of a doorway, which can be seen built upon the wall of the courtyard at the end of the lane by which the modern mansion is approached.	Seventeenth century	Low-Medium	None (outwith Saltness landfall corridor and BMH location)	Avoidance	None

ORCA Site No.	Type	Description	Period	Importance	Magnitude of Impact	Mitigation	Significance of Effect
M-W 41	Possible sheepfold	A L shaped wall is visible on Google Earth	Post-medieval	Low	None (outwith Saltness landfall corridor and BMH location)	Avoidance	None
M-W 42	Farmstead	A farmstead comprising three roofed buildings and an enclosure is marked on the OS First Edition. The site is currently occupied, it is unclear how much of the original buildings survive	Post-medieval	Low	None (outwith Saltness landfall corridor and BMH location)	Avoidance	None
M-W 43	Sheepfold (possible)	A circular enclosure is visible on Google Earth	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
M-W 44	Limekiln	An old limekiln is marked on the OS First Edition, it is not visible on Google Earth.	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
M-W 45	Structure	A ruined structure is visible on Google Earth	Post-medieval	Low	None (outwith landfall corridor and BMH location)	Avoidance	None
M-W 46	Flood Gate	A flood gate is marked on the OS First Edition, it is not visible on Google Earth	Post-medieval	Low	None (outwith Saltness landfall corridor and BMH location)	Avoidance	None
M-W 47	Spout	A spout is marked on the OS First Edition, it is not visible on Google Earth	Post-medieval	Negligible	None (outwith Saltness landfall corridor and BMH location)	Avoidance	None
M-W 48	Building	A roofed building is marked on the OS First Edition, it is visible on Google Earth	Post-medieval	Negligible	None (outwith Saltness landfall corridor and BMH location)	Avoidance	None
M-W 49	Building	A roofed building is marked on the OS First Edition, the site is currently occupied, it is unclear if the original building survives	Post-medieval	Low	None (outwith Saltness landfall corridor and BMH location)	Avoidance	None
M-W 50	Building	Junction of land and submarine telegraph is marked on the OS Second Edition, it is not clearly visible on Google Earth	Post-medieval	Low	The structure here is part of the telecoms network system.	None required	None
M-W 51	Ship Burial	Located <100m from the coast edge. The SMR records a Viking burial in this area. No such site was located during 1998 survey	Viking/Norse	Medium-High	High	Avoidance; Watching brief if new groundworks are required outwith Area of M-W 50; PAD if no new groundworks required other than in disturbed area of M-W 50.	Negligible

Table A 2.13: Impact appraisal of marine sites identified within the marine corridor of Route 2.8.

Name	Description	Circumstance of loss	Date Lost	Importance	Magnitude of Impact	Mitigation	Significance of Effect
Brodrene (possible name)	Barque of Tonsberg. Wood	Derelict ashore at Dury Voe.	27/10/1877	Low	Minor	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible
Unknown (4)	Craft. Wood	Wrecked on Baa Skerry, Lee of Dury, Dury Voe.	1750	Unknown	Minor	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible
Eleanora	Barque of Youghal, Ireland. Wood. Cargo of deals.	Ran aground at Symbister. Refloated.	29/12/1795	Low	None (refloated)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	None

Name	Description	Circumstance of loss	Date Lost	Importance	Magnitude of Impact	Mitigation	Significance of Effect
St Antonio De Padua	Craft. Wood	Salvaged to Symbister where subsequently broken up and disposed	06/06/1707	Low	Negligible (broken up and sold)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible
Margaret	Motor Lighter of Whalsey	Driven from moorings and ashore at Symbister	22/01/1935	Negligible	None. Landfall and BMH is at Salt Ness.	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of PAD	None
Anna Christina	Galliot of Oslo. Wood.	Wrecked at Bay of Symbister, sold and broken up	11/1811	Low	Negligible (broken up and sold)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible
Watson	Brig. Wood. 169 tons. Archangel to Leith with a cargo of tar, hemp, feathers	Vessel was wrecked in the Outer Harbour at Symbister. The cargo was salvaged, but there is no record of the disposal of the vessel.	1817	Low	None. Landfall and BMH is at Salt Ness.	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	None
-	Craft of Bergen. Wood. Bordeaux to Bergen with a cargo of wine crew saved	Stranded in Symbister Voe	20/01/1799	Low/Medium	None. Landfall and BMH is at Salt Ness.	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	None
Walton	Brig of Leith. Wood.	Vessel stranded at Bay of Symbister,	23/11/1817	Low	None. Landfall and BMH is at Salt Ness.	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	None
Christian Den Syvende	Craft of Denmark. Danish West Indiaman. Copenhagen to Santa Cruz. All but 2 passengers and crew saved.	Wrecked in Voe of Symbister. Little of cargo saved.	01/12/1776	Medium	None. Landfall and BMH is at Salt Ness.	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	None
Saint Antonie	Craft. Drunton Norway bound for Brest with a cargo of tar and deals	Disabled near Whalsay. Ship towed into bay.	06/06/1707	Medium	None (towed into bay)	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	None
MFV Verdant LK 288	Motor fishing vessel of Lerwick. Wood.	Ran aground. Total wreck.	27/01/1959	Negligible	Negligible	Review of marine geophysical data for the route has not identified contacts or anomalies that indicate presence in the corridor; Instatement of Marine PAD	Negligible

9.3 Appendix 3: Walkover survey photographic register

(Photographic images can be supplied on request.)

Batch	Frame	Route	Landfall Location	Site	Description	Direction of Shot
1	1	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 32	Mossbank Church	NW
1	2	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 35	Farmstead	SW
1	3	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 51	Nousts	NW
1	4	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 51	Nousts	W
1	5	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 51	Nousts	SW
1	6	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 31	Wall of garden/yard	W
1	7	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 31	Outbuilding/farmhouse	SW
1	8	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 31	Mossbank Haa	W
1	9	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 31	Mossbank Haa	SE
1	10	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 29	Pier	E
1	11	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 30	Erlangen House	N
1	12	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 47	Structure	W
1	13	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 47	Structure	SE
1	14	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 38	Farmhouse	W
1	15	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 30	House	E
1	16	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 39	Farmhouse	SW
1	17	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 31	Back wall of garden	NE
1	18	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 39	Farmhouse	W
1	19	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 49	Oval arrangement of stones	N
1	20	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 49	Oval arrangement of stones	NE

Batch	Frame	Route	Landfall Location	Site	Description	Direction of Shot
1	21	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 40	Farmhouse	NW
1	22	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 32	Church	NE
1	23	2.2 Mainland-Yell	Mossbank, Mainland	Y-M 42	Farmhouse	SE
2	1	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 14	Farmhouse	NE
2	2	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 15	Farmhouse	NE
2	3	2.8 Mainland-Whalsay	Levaneap, Mainland	~	General shot of landfall from HU 48569 63236	S
2	4	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 12	Farmstead	N
2	5	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 4	Unroofed structure	NW
2	6	2.8 Mainland-Whalsay	Levaneap, Mainland	~	General shot of landfall from HU 48232 63223	N
2	7	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 9	Farmstead	NW
2	8	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 8	View to M-W 8 from landfall	W
2	9	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 5	Small enclosure	NW
2	10	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 5	Small enclosure	E
2	11	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 5	Small enclosure	W
2	12	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 16	Boulders at shoreline	E
2	13	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 16	Structures	E
2	14	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 16	Structures	W
2	15	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 52	Nousts	N
2	16	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 52	Nousts	N
2	17	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 52	Nousts	NE
2	18	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 16	Small, rectangular structure	E
2	19	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 16	Small, rectangular structure	W

Batch	Frame	Route	Landfall Location	Site	Description	Direction of Shot
2	20	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 16	Small, rectangular structure	E
2	21	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 16	Small, rectangular structure	W
2	22	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 16	Erosion edge	N
2	23	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 16	Undulations	E
2	24	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 16	Undulations	W
2	25	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 53	Stone pile	NE
2	26	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 54	Circular earthwork	E
2	27	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 54	Circular earthwork	SE
2	28	2.8 Mainland-Whalsay	Levaneap, Mainland	M-W 7	Farmhouse	NE
2	29	2.8 Mainland-Whalsay	Levaneap, Mainland	~	General view from HU 48609 62850	W
3	1	2.8 Mainland-Whalsay	Saltness, Whalsay	~	General view from HU 54053 62453	NE
3	2	2.8 Mainland-Whalsay	Saltness, Whalsay	M-W 33	Broch	NE
3	3	2.8 Mainland-Whalsay	Saltness, Whalsay	M-W 33	Earthworks on top of mound	N
3	4	2.8 Mainland-Whalsay	Saltness, Whalsay	M-W 33	Earthworks on top of mound	SW
3	5	2.8 Mainland-Whalsay	Saltness, Whalsay	M-W 33	General shot of mound from HU 53935 62681	SW
3	6	2.8 Mainland-Whalsay	Saltness, Whalsay	~	General view of survey area from HU 53935 62681	N
3	7	2.8 Mainland-Whalsay	Saltness, Whalsay	~	General view of survey area from HU 53937 62853	W
3	8	2.8 Mainland-Whalsay	Saltness, Whalsay	~	General view of survey area from HU 53937 62853	SW
3	9	2.8 Mainland-Whalsay	Saltness, Whalsay	M-W 51	General shot of location from HU 53982 62825	S
3	10	2.8 Mainland-Whalsay	Saltness, Whalsay	M-W 50	Location of submarine telegraph	S
3	11	2.8 Mainland-Whalsay	Saltness, Whalsay	M-W 33	General shot from HU 54064 62683	SW
4	1	2.2 Mainland-Yell	Brough, Yell	Y-M 29	Brough Haa	SE

Batch	Frame	Route	Landfall Location	Site	Description	Direction of Shot
4	2	2.2 Mainland-Yell	Brough, Yell	Y-M 29	Brough Haa	NE
4	3	2.2 Mainland-Yell	Brough, Yell	Y-M 5	Pier	S
4	4	2.2 Mainland-Yell	Brough, Yell	Y-M 6 / Y-M 7	Boatshed and broch mound	SW
4	5	2.2 Mainland-Yell	Brough, Yell	Y-M 4	Pier booth/shop	NW
4	6	2.2 Mainland-Yell	Brough, Yell	~	General view from pier	NE
4	7	2.2 Mainland-Yell	Brough, Yell	Y-M 6	Boatshed/dry store and archway	NW
4	8	2.2 Mainland-Yell	Brough, Yell	Y-M 5 / Y-M 20	Pier and farmstead from M-Y 7	E
4	9	2.2 Mainland-Yell	Brough, Yell	Y-M 7	Broch	W
4	10	2.2 Mainland-Yell	Brough, Yell	Y-M 7	Dyke remains on east side of mound	NW
4	11	2.2 Mainland-Yell	Brough, Yell	Y-M 7	North-facing elevation of structure on mound	SW
4	12	2.2 Mainland-Yell	Brough, Yell	Y-M 7	Broch mound and drystone structure	SE
4	13	2.2 Mainland-Yell	Brough, Yell	Y-M 7	Broch mound and rampart on SW side	NE
4	14	2.2 Mainland-Yell	Brough, Yell	Y-M 7	Detail of erosion to SW of broch	NW
4	15	2.2 Mainland-Yell	Brough, Yell	Y-M 18 / Y-M 19	View from Y-M 7	NE
4	16	2.2 Mainland-Yell	Brough, Yell	Y-M 17	View from Y-M 7	N
4	17	2.2 Mainland-Yell	Brough, Yell	Y-M 8	Farmstead	W
4	18	2.2 Mainland-Yell	Brough, Yell	Y-M 17	Farmstead	E
4	19	2.2 Mainland-Yell	Brough, Yell	Y-M 7	General view from HU 51732 79346	SE

Batch	Frame	Route	Landfall Location	Site	Description	Direction of Shot
4	20	2.2 Mainland-Yell	Brough, Yell	Y-M 4 / Y-M 5 / Y-M18	General view from HU 51732 79346	E
4	21	2.2 Mainland-Yell	Brough, Yell	Y-M 2	General view from HU 51732 79346	E
4	22	2.2 Mainland-Yell	Brough, Yell	Y-M 8	North elevation of farm structure	SW
4	23	2.2 Mainland-Yell	Brough, Yell	Y-M 8	Farm structure	S
4	24	2.2 Mainland-Yell	Brough, Yell	Y-M 9	Farmhouse	W
4	25	2.2 Mainland-Yell	Brough, Yell	Y-M 17	General view from HU 51793 79418	S
4	26	2.2 Mainland-Yell	Brough, Yell	Y-M 10	Mill and mill race	E
4	27	2.2 Mainland-Yell	Brough, Yell	Y-M 10	Mill and mill race	SE
4	28	2.2 Mainland-Yell	Brough, Yell	Y-M 10	Mill and mill race	N
4	29	2.2 Mainland-Yell	Brough, Yell	Y-M 10	Mill and mill race with probable modification of burn	NE
4	30	2.2 Mainland-Yell	Brough, Yell	Y-M 7	Drystone structure	SW
4	31	2.2 Mainland-Yell	Brough, Yell	Y-M 6	Back (north) wall of barrel store	S
4	32	2.2 Mainland-Yell	Brough, Yell	Y-M 3	Telephone kiosk	SW
4	33	2.2 Mainland-Yell	Brough, Yell	Y-M 18 / Y-M 19	Former Post Office	NW
4	34	2.2 Mainland-Yell	Brough, Yell	Y-M 19	Former farmstead	SW
4	35	2.2 Mainland-Yell	Brough, Yell	Y-M 10	Farmhouse	SW
5	1	2.1 Yell-Unst	Gutcher, Yell	Y-U 3	Pier	NE
5	2	2.1 Yell-Unst	Gutcher, Yell	Y-U 4/ Y-U 31	Telephone kiosk and Post Office	N
5	3	2.1 Yell-Unst	Gutcher, Yell	Y-U 3	Pier	S

Batch	Frame	Route	Landfall Location	Site	Description	Direction of Shot
5	4	2.1 Yell-Unst	Gutcher, Yell	Y-U 11	Farncliff House	N
5	5	2.1 Yell-Unst	Gutcher, Yell		Stones at shore (align with former post and wire fence) at HU 54760 99429	S
5	6	2.1 Yell-Unst	Gutcher, Yell		Stones at shore (align with former post and wire fence) at HU 54760 99429	SE
5	7	2.1 Yell-Unst	Gutcher, Yell		Stones at shore (align with former post and wire fence) at HU 54792 99367	SW
5	8	2.1 Yell-Unst	Gutcher, Yell		General view of survey area from HU 54818 99397	SW
5	9	2.1 Yell-Unst	Gutcher, Yell	Y-U 31	General view of survey area from HU 54818 99397 towards Y-U 31	SW
5	10	2.1 Yell-Unst	Gutcher, Yell	Y-U 3	General view of survey area from HU 54818 99397 towards Y-U 3	S
5	11	2.1 Yell-Unst	Gutcher, Yell	Y-U 30	Site of YU 30 - no visible remains of original structure	SW
5	12	2.1 Yell-Unst	Gutcher, Yell	Y-U 36	Building	W
5	13	2.1 Yell-Unst	Gutcher, Yell	Y-U 7 / Y-U 28	Well and South Haa chapel and burial ground from HU 54895 99061	S
5	14	2.1 Yell-Unst	Gutcher, Yell		General view from HU 54895 99061	N
5	15	2.1 Yell-Unst	Gutcher, Yell		General view from HU 54791 99092 - relict peat cutting to south of loch	N
5	16	2.1 Yell-Unst	Gutcher, Yell	Y-U 22	House and structural remains, from HU 54707 99040	W
5	17	2.1 Yell-Unst	Gutcher, Yell		General view of survey area from HU 54707 99040	E
5	18	2.1 Yell-Unst	Gutcher, Yell		General view of relict peat cutting south of loch from HU 54707 99040	E
5	19	2.1 Yell-Unst	Gutcher, Yell	Y-U 25	Concrete and scattered stone at shore that could relate to well location.	SW

Batch	Frame	Route	Landfall Location	Site	Description	Direction of Shot
6	1	2.1 Yell-Unst	Wick of Belmont, Unst	U-9	General view along shoreline towards booth	W
6	2	2.1 Yell-Unst	Wick of Belmont, Unst	U-9	General view of survey area towards south boundary of Belmont House	NW
6	3	2.1 Yell-Unst	Wick of Belmont, Unst	U-9	General view of survey area towards Belmont House from HP 56603 00607	N
6	4	2.1 Yell-Unst	Wick of Belmont, Unst	~	General view of field towards east of survey area from HP 56603 00607	N
6	5	2.1 Yell-Unst	Wick of Belmont, Unst	~	General view of field towards east of survey area from HP 56603 00607	N
6	6	2.1 Yell-Unst	Wick of Belmont, Unst	~	General view of field towards east of survey area from HP 56603 00607	NW
6	7	2.1 Yell-Unst	Wick of Belmont, Unst	U-53	Alignment of boulders forming possible wall on shoreline	S
6	8	2.1 Yell-Unst	Wick of Belmont, Unst	U-9	General view of shoreline and erosional edge with view towards booth	NW
6	9	2.1 Yell-Unst	Wick of Belmont, Unst	U-54	Possible earthwork/noust	N
6	10	2.1 Yell-Unst	Wick of Belmont, Unst	U-54	Possible earthwork/noust	N
6	11	2.1 Yell-Unst	Wick of Belmont, Unst	U-55	Possible nousts as seen in erosion section	N
6	12	2.1 Yell-Unst	Wick of Belmont, Unst	U-55	Possible nousts as seen in erosion section	N
6	13	2.1 Yell-Unst	Wick of Belmont, Unst	U-55	Possible nousts	E
6	14	2.1 Yell-Unst	Wick of Belmont, Unst	U-55	Possible nousts	E
6	15	2.1 Yell-Unst	Wick of Belmont, Unst	U-9	Trading booth at Belmont house	NW
6	16	2.1 Yell-Unst	Wick of Belmont, Unst	U-9	Trading booth - west elevation	E
6	17	2.1 Yell-Unst	Wick of Belmont, Unst	U-9	View towards Belmont house from HP 56353 00674	N
6	18	2.1 Yell-Unst	Wick of Belmont, Unst	U-56	Sub-circular stone setting	N

Batch	Frame	Route	Landfall Location	Site	Description	Direction of Shot
6	19	2.1 Yell-Unst	Wick of Belmont, Unst	~	General view of shoreline in survey area	E
6	20	2.1 Yell-Unst	Wick of Belmont, Unst	~	General view of shoreline in survey area	W
6	21	2.1 Yell-Unst	Wick of Belmont, Unst	U-57	Sub-circular stone setting	NW
6	22	2.1 Yell-Unst	Wick of Belmont, Unst	U-7	Remains of mill.	N
6	23	2.1 Yell-Unst	Wick of Belmont, Unst	U-7	Remains of mill.	N
6	24	2.1 Yell-Unst	Wick of Belmont, Unst	U-7	Mill race	N
6	25	2.1 Yell-Unst	Wick of Belmont, Unst	U-6	Structure at HP 56103 00629	NW
6	26	2.1 Yell-Unst	Wick of Belmont, Unst	U-6	Structure at HP 56103 00629	W
6	27	2.1 Yell-Unst	Wick of Belmont, Unst	U-6	Structure at HP 56103 00629	SW
6	28	2.1 Yell-Unst	Wick of Belmont, Unst	U-58	Mound at HP 56093 00616	N
6	29	2.1 Yell-Unst	Wick of Belmont, Unst	~	General view of field boundary on west side of survey area from HP 56099 00561	N
6	30	2.1 Yell-Unst	Wick of Belmont, Unst	~	General view of field boundary on west side of survey area from HP 56099 00561	N
6	31	2.1 Yell-Unst	Wick of Belmont, Unst	U-22	Small enclosure at HP 56049 00486	N
6	32	2.1 Yell-Unst	Wick of Belmont, Unst	U-22	Small enclosure at HP 56049 00486	NE
6	33	2.1 Yell-Unst	Wick of Belmont, Unst	U-9	General view towards Belmont House from HP 56057 00510	NE
6	34	2.1 Yell-Unst	Wick of Belmont, Unst	U-9	General view towards Belmont House from HP 56057 00510	E
6	35	2.1 Yell-Unst	Wick of Belmont, Unst	U-59	Sub-circular structure at HP 56138 00687	N
6	36	2.1 Yell-Unst	Wick of Belmont, Unst	U-59	Sub-circular structure at HP 56138 00687	NW
6	37	2.1 Yell-Unst	Wick of Belmont, Unst	U-59	Sub-circular structure at HP 56138 00687	S
6	38	2.1 Yell-Unst	Wick of Belmont, Unst	U-60	Small cairn at HP 56209 00719	E

Batch	Frame	Route	Landfall Location	Site	Description	Direction of Shot
6	39	2.1 Yell-Unst	Wick of Belmont, Unst	U-9	Trading booth, north elevation.	S
6	40	2.1 Yell-Unst	Wick of Belmont, Unst	U-9	Trading booth, east elevation.	W
6	41	2.1 Yell-Unst	Wick of Belmont, Unst	U-6	Gate in southern boundary at HP 56457 00671	SW
6	42	2.1 Yell-Unst	Wick of Belmont, Unst	U-6	Gate in southern boundary at HP 56457 00671 with view to Belmont House	N
6	43	2.1 Yell-Unst	Wick of Belmont, Unst	U-6	Gate in southern boundary at HP 56471 00775 with view to Belmont House	N
6	44	2.1 Yell-Unst	Wick of Belmont, Unst	U-61	Mound at HP 56468 00674	NE
6	45	2.1 Yell-Unst	Wick of Belmont, Unst	U-61	Boulders on west side of mound at HP 56478 00700	E
6	46	2.1 Yell-Unst	Wick of Belmont, Unst	U-9	View towards Belmont House from at HP 56478 00700	N
6	47	2.1 Yell-Unst	Wick of Belmont, Unst	~	East side of survey area from HP 56478 00700	NE
6	48	2.1 Yell-Unst	Wick of Belmont, Unst	U-18	Old Pier and Belmont House	N
7	1	2.3 Sanday-Shetland	Sumburgh, Mainland	~	Telephone Kiosk at pier - Normally listed?	N
7	2	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 9	Sea mine (deactivated)	E
7	3	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 8	Former fishing station	S
7	4	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 2	Capstan and view towards pier	N
7	5	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 3	Possible site of crub	NW
7	6	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 8	Former fishing station	NE
7	7	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 8	Former fishing station: Laird's boat house	E
7	8	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 7	Jetty	SW
7	9	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 7	Jetty	W
7	10	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 8	Former fishing station	NE

Batch	Frame	Route	Landfall Location	Site	Description	Direction of Shot
7	11	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 6	Lighthouse store	N
7	12	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 6	Lighthouse store and house/gardens	NE
7	13	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 8	Fishing station - fish liver boiling tank	SE
7	14	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 33	Bunkers/underground fuel tanks	E
7	15	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 33	Bunkers/underground fuel tanks	SE
7	16	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 34	Area of possible medieval structure	N
7	17	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 34	Structural remains	N
7	18	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 34	Structural remains	NE
7	19	2.3 Sanday-Shetland	Sumburgh, Mainland	~	General view of survey area from HU 40279 09842	W
7	20	2.3 Sanday-Shetland	Sumburgh, Mainland	~	General view of survey area from HU 40279 09842	SW
7	21	2.3 Sanday-Shetland	Sumburgh, Mainland	~	General view of Links of Sumburgh	W
7	22	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 4 / S-S 7	Pier and fishing station	NE
7	23	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 4 / S-S 7	Pier and fishing station	NE
7	24	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 2	Modern pier	N
7	25	2.3 Sanday-Shetland	Sumburgh, Mainland	~	General view of Links of Sumburgh	E
7	26	2.3 Sanday-Shetland	Sumburgh, Mainland	~	General view of Links of Sumburgh	W
7	27	2.3 Sanday-Shetland	Sumburgh, Mainland	~	Modern slip at west end of Grutness Voe	NW
7	28	2.3 Sanday-Shetland	Sumburgh, Mainland	~	View across Grutness Voe from west end	E
7	29	2.3 Sanday-Shetland	Sumburgh, Mainland	~	View across Grutness Voe from west end	SE
7	30	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 46	Rubble and beach stone at end of west slipway	E
7	31	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 47	Wills Ness	NE

Batch	Frame	Route	Landfall Location	Site	Description	Direction of Shot
7	32	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 47	Wills Ness	SW
7	33	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 47	Wills Ness shoreline	W
7	34	2.3 Sanday-Shetland	Sumburgh, Mainland	~	Links of Sumburgh from roadside	SE
7	35	2.3 Sanday-Shetland	Sumburgh, Mainland	~	Links of Sumburgh from roadside	NW
7	36	2.3 Sanday-Shetland	Sumburgh, Mainland	~	Field northwest of Sumburgh Hotel	NW
7	37	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 33	Bunkers/underground fuel tanks	NE
7	38	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 45	Airfield	NW
7	39	2.3 Sanday-Shetland	Sumburgh, Mainland	~	Gate pilers to Sumburgh Farm	SE
7	40	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 41	Quarry	NW
7	41	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 37	Jarlshoff	SW
7	42	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 36	Sumburgh House - south elevation	NE
7	43	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 36	Sumburgh House - north wing	E
7	44	2.3 Sanday-Shetland	Sumburgh, Mainland	S-S 41	Quarry	W
7	45	2.3 Sanday-Shetland	Sumburgh, Mainland	~	West Voe dunes	W
8	1	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 13	Eastern face	W
8	2	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 13	Eastern face	SW
8	3	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 13	Northern gable with adjacent drain	S
8	4	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 13	Northern gable	W
8	5	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 13	Northern gable showing inscribed pointing	W
8	6	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 13	Northern gable showing inscribed pointing	~
8	7	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 13	Eastern face showing inscribed pointing	W
8	8	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 13	Drain	S

Batch	Frame	Route	Landfall Location	Site	Description	Direction of Shot
8	9	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 13	Drain	S
8	10	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 13	Western face	E
8	11	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 13	Western face	E
8	12	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 13	Southern gable	NW
8	13	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 13	Southern gable	N
8	14	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 13	Setting shot	NE
8	15	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 13	Setting shot	N
8	16	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 15	General view	E
8	17	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 15	General view	SE
8	18	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 14	General view	E
8	19	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 14	General view	E
8	20	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 16 / FI 19	Harbour	N
8	21	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 16 / FI 17	Harbour	NE
8	22	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 13	Setting shot from slip	S
8	23	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 13	Setting shot from slip	SW
8	24	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 19	Iron debris on beach at site location	SW
8	25	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 19	Iron debris on beach at site location	SW
8	26	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 18	Dismantled crane	W
8	27	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 18	Dismantled crane	SW
8	28	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 18	Dismantled crane	NW
8	29	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 17	Pier	W

Batch	Frame	Route	Landfall Location	Site	Description	Direction of Shot
8	30	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 17	Pier	SE
8	31	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 16	View from pier	SW
8	32	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 16	View from pier	SW
8	33	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 16	View from pier	N
8	34	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 20	General view	S
8	35	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 20	General view	E
8	36	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 20	Depression in feature	S
8	37	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 20	Depression in feature	W
8	38	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 20	Depression in feature	N
8	39	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 21	Linear feature	W
8	40	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 21 / FI 22	Linear feature with stone spread at top of shot	E
8	41	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 21 / FI 22	Linear feature with stone spread at top of shot	E
8	42	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 22	Stone spread	S
8	43	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 22	Stone spread	SE
8	44	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 22	Stone spread	SE
8	45	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 22	Stone spread	W
8	46	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 22	Stone spread	E
8	47	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 22	Stone spread setting shot	W
8	48	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 22 / FI 23	View with linear feature on left	SW

Batch	Frame	Route	Landfall Location	Site	Description	Direction of Shot
8	49	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 22 / FI 23	View with linear feature on right	SW
8	50	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 22 / FI 23	Setting shot	NW
8	51	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 22 / FI 23	Setting shot	NW
8	52	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 36	Small, stone box setting	NW
8	53	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 36 / FI 22	Small, stone box setting with stone spread in background	N
8	54	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 36 / FI 22	Small, stone box setting with stone spread in background	N
8	55	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 36	Small, stone box setting	N
8	56	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 37	Stone spread	E
8	57	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 37	Stone spread	N
8	58	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 37 / FI 38	Stone spreads	NW
8	59	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 38	Stone spread	E
8	60	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 38	Stone spread	E
8	61	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 38	Stone spread	NW
8	62	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 35	Well	NW
8	63	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 35	Well	E
8	64	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 35	Well	W
8	65	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 35	Well	S

Batch	Frame	Route	Landfall Location	Site	Description	Direction of Shot
8	66	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 27	Wall	E
8	67	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 27	Wall	N
8	68	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 27	Wall	NW
8	69	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 27	Wall	SW
8	70	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 26	Kerb Cairn	N
8	71	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 26	Kerb Cairn	N
8	72	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 26	Kerb Cairn	SW
8	73	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 16	Harbour	SW
8	74	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 26	Kerb Cairn	NE
8	75	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 26	Kerb Cairn	W
8	76	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 26	Modern post support, north of kerb cairn	SW
8	77	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 26	Modern post support, north of kerb cairn	W
8	78	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 26	Modern post support, north of kerb cairn	SW
8	79	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 28	Enclosure	S
8	80	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 28	Enclosure	SW
8	81	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 28	Enclosure	S
8	82	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 28	Enclosure	N
8	83	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 28	Enclosure	N
8	84	2.4 Fair Isle-BU	Bu Ness, Fair Isle	~	Stones at top of Bu Ness	S
8	85	2.4 Fair Isle-BU	Bu Ness, Fair Isle	~	Stones at top of Bu Ness	W
8	86	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 29	Stone spread over structural remains	SW
8	87	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 29	Stone spread over structural remains	S

Batch	Frame	Route	Landfall Location	Site	Description	Direction of Shot
8	88	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 30	Enclosure, stone spread and Cairn	S
8	89	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 30	Enclosure, stone spread and Cairn	S
8	90	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 30	Enclosure, stone spread and Cairn	N
8	91	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 30	Stone spread	SW
8	92	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 30	General view	W
8	93	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 33	Kerbed mound/ Cairn	SW
8	94	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 33	Kerbed mound/ Cairn	W
8	95	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 33	Kerbed mound/ Cairn	N
8	96	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 33 / FI 31	Kerbed mound/ cairn with stone spread in background	W
8	97	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 33 / FI 30	Kerbed mound/ cairn with FI 30 in background	SW
8	98	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 33 / FI 30 / FI 31 / FI 32	Kerbed mound/ cairn with FI 30 / FI 31/ FI 32 in background	W
8	99	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 31	Stone spread	N
8	100	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 31 / FI 33	Stone spread with mound in background	NE
8	101	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 31 / FI 30	Stone spread with FI 30 in background	W
8	102	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 31 / FI 30	Stone spread with FI 30 in background	S
8	103	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 32	Stone row	N

Batch	Frame	Route	Landfall Location	Site	Description	Direction of Shot
8	104	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 32	Stone row	S
8	105	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 32	Stone row	W
8	106	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 34	Possible Cairn base	SW
8	107	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 34	Possible Cairn base	W
8	108	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 34	Possible Cairn base	N
8	109	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 30	Cairn	W
8	110	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 30	Cairn	N
8	111	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 30	Cairn	N
8	112	2.4 Fair Isle-BU	Bu Ness, Fair Isle	~	Possible linear feature	E
8	113	2.4 Fair Isle-BU	Bu Ness, Fair Isle	~	Possible linear feature with FI 27 Wall in background	W
8	114	2.4 Fair Isle-BU	Bu Ness, Fair Isle	~	Modern drainage cut from road below Bird Observatory	E
8	115	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 39	Linear earthwork looking towards Bird Observatory	W
8	116	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 39	Linear earthwork looking towards Bird Observatory	W
8	117	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 39	Linear earthwork. Dogleg within feature	W
8	118	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 39	Linear earthwork. Dogleg within feature	W
8	119	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 39	Linear earthwork looking towards promontory fort	S
8	120	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 12	Entrance ditch	E
8	121	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 12	Entrance ditch	E
8	122	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 12	Entrance ditches	E
8	123	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 12	Entrance ditches and causeway	E
8	124	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 12	From entrance	S
8	125	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 12	Internal structures	S

Batch	Frame	Route	Landfall Location	Site	Description	Direction of Shot
8	126	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 12	Internal structures	S
8	127	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 12	Internal structures	S
8	128	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 12	Internal structures	S
8	129	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 7	General view from promontory fort	NW
8	130	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 12	General view	N
8	131	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 12	General view	NE
8	132	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 12	General view	SW
8	133	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 12	General view	N
8	134	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 12	Modern metal pole base	~
8	135	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 12	Modern metal pole base	S
8	136	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 12	Modern metal pole base	~
8	137	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 12	Promontory fort from other side of bay	E
8	138	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 12	Promontory fort from other side of bay	S
8	139	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 7	Site of bird observatory	W
8	140	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 7	Site of bird observatory	S
8	141	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 6	Quarry pit	S
8	142	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 6	Quarry pit	S
8	143	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 6	Quarry pit	N
8	144	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 6	Quarry pit	N
8	145	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 5	Site of enclosure	NE
8	146	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 5	Site of enclosure	E
8	147	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 4	Possible cairn	N

Batch	Frame	Route	Landfall Location	Site	Description	Direction of Shot
8	148	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 4	Possible cairn	SE
8	149	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 4	Possible cairn	SE
8	150	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 4	Possible cairn	S
8	151	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 4	Possible cairn	W
8	152	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 10	Enclosure	S
8	153	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 10	Enclosure	SE
8	154	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 10	Enclosure	E
8	155	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 10	Enclosure	NE
8	156	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 10	Enclosure	N
8	157	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 10	Associated features	NE
8	158	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 10	Associated features	S
8	159	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 10	Associated features	S
8	160	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 10	Associated features	S
8	161	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 10	Associated features	E
8	162	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 10	Associated features	S
8	163	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 11	Linear earthwork	SW
8	164	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 11	Linear earthwork	NE
8	165	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 11	Linear earthwork	NE
8	166	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 11	Linear earthwork	SW
8	167	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 11	Linear earthwork	SW
8	168	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 11	Linear earthwork	S
8	169	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 11	Linear earthwork	N

Batch	Frame	Route	Landfall Location	Site	Description	Direction of Shot
8	170	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 9	Location of cairn	~
8	171	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 9	Location of cairn	W
8	172	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 9	Location of cairn	N
8	173	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 40	Stone spread	W
8	174	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 40	Stone spread	W
8	175	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 40	Stone spread	NE
8	176	2.4 Fair Isle-BU	Bu Ness, Fair Isle	FI 40	Stone spread	W

9.4 Appendix 4: Marine geophysical survey image files

Appendix 4: Route 2.1 Survey Data Reviewed

Table A 4.1: Route 2.1 MBES Image Files.

Route 2.1 MBES Image Files
2636_201_MBES_LAT_1m_issue1.tif
2636_201_FTV_MBES_LAT_Opt25m_issue1.tif

Table A 4.2: Route 2.1 SSS Image Files.

Route 2.1 SSS Image Files
2636_201_GEO_FTV_SSS_HF_Opt1m_issue1_R0001_C0000.tif
2636_201_GEO_FTV_SSS_HF_Opt1m_issue1_R0000_C0000.tif
2636_201_GEO_FTV_SSS_HF_Opt1m_issue1_R0002_C0001.tif
2636_201_GEO_FTV_SSS_HF_Opt1m_issue1_R0002_C0000.tif
2636_201_GEO_FTV_SSS_HF_Opt1m_issue1_R0001_C0001.tif

Table A 4.3: Route 2.1 Mag Image Files.

Route 2.1 Mag Image Files
2636_201_GEO_FTV_MAG_TFAS_0p3m_issue1.tif
2636_201_GEO_FTV_MAG_RES_0p3m_issue1.tif

Appendix 4: Route 2.2 Survey Data Reviewed**Table A 4.4:** Route 2.02 MBES Image Files.

Route 2.02 MBES Image Files
2636_202_MBES_LAT_1m_issue1.tif
2636_202_MBES_LAT_Opt25m_2_3_issue1.tif
2636_202_MBES_LAT_Opt25m_2_2_issue1.tif
2636_202_MBES_LAT_Opt25m_1_3_issue1.tif
2636_202_MBES_LAT_Opt25m_1_2_issue1.tif
2636_202_MBES_LAT_Opt25m_1_1_issue1.tif

Table A4.1: Route 2.02 SSS Images

Route 2.02 SSS Image Files
2636_202_GEO_FTV&FV_SSS_HF_Opt1m_issue1_E3.tif
2636_202_GEO_FTV&FV_SSS_HF_Opt1m_issue1_D2.tif
2636_202_GEO_FTV&FV_SSS_HF_Opt1m_issue1_D3.tif
2636_202_GEO_FTV&FV_SSS_HF_Opt1m_issue1_D5.tif
2636_202_GEO_FTV&FV_SSS_HF_Opt1m_issue1_D1.tif
2636_202_GEO_FTV&FV_SSS_HF_Opt1m_issue1_D4.tif
2636_202_GEO_FTV&FV_SSS_HF_Opt1m_issue1_C7.tif
2636_202_GEO_FTV&FV_SSS_HF_Opt1m_issue1_C6.tif
2636_202_GEO_FTV&FV_SSS_HF_Opt1m_issue1_C5.tif
2636_202_GEO_FTV&FV_SSS_HF_Opt1m_issue1_B8.tif
2636_202_GEO_FTV&FV_SSS_HF_Opt1m_issue1_B7.tif
2636_202_GEO_FTV&FV_SSS_HF_Opt1m_issue1_B5.tif
2636_202_GEO_FTV&FV_SSS_HF_Opt1m_issue1_B6.tif
2636_202_GEO_FTV&FV_SSS_HF_Opt1m_issue1_A8.tif
2636_202_GEO_FTV&FV_SSS_HF_Opt1m_issue1_A7.tif
2636_202_GEO_FTV&FV_SSS_HF_Opt1m_issue1_E4.tif
2636_202_GEO_FTV&FV_SSS_HF_Opt1m_issue1_E1.tif
2636_202_GEO_FTV&FV_SSS_HF_Opt1m_issue1_E2.tif

Table A4.2: Route 2.02 Mag Images

Route 2.02 Mag Image Files
2636_202_GEO_FTV&FV_MAG_TFAS_0p3m_issue1.tif
2636_202_GEO_FTV&FV_MAG_RES_0p3m_issue1.tif

Appendix 4: Route 2.3 Survey Data Reviewed**Table A 4.7:** Route 2.3 MBES Image Files.

Route 2.3 MBES Image Files
2636_203_FV_VK_FTV_MBES_LIDAR_LAT_1m_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_1_1_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_1_2_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_1_3_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_10_16_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_10_17_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_10_18_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_11_18_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_11_19_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_12_19_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_12_20_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_13_20_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_13_21_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_14_21_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_15_21_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_15_22_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_16_22_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_17_22_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_18_22_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_19_22_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_2_2_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_2_3_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_2_4_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_2_5_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_20_22_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_21_22_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_22_22_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_23_21_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_23_22_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_3_4_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_3_5_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_3_6_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_3_7_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_4_7_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_4_8_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_4_9_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_5_10_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_5_11_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_5_9_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_0pt25m_6_11_issue1.tif

Route 2.3 MBES Image Files
2636_203_FV_VK_FTV_MBES_LAT_Opt25m_6_12_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_Opt25m_6_13_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_Opt25m_7_12_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_Opt25m_7_13_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_Opt25m_7_14_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_Opt25m_8_14_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_Opt25m_8_15_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_Opt25m_8_16_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_Opt25m_9_15_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_Opt25m_9_16_issue1.tif
2636_203_FV_VK_FTV_MBES_LAT_Opt25m_9_17_issue1.tif
2636_203_FV_VK_FTV_MBES_LIDAR_GRADIENT_1m_1_1_issue1.tif
2636_203_FV_VK_FTV_MBES_LIDAR_GRADIENT_1m_1_2_issue1.tif
2636_203_FV_VK_FTV_MBES_LIDAR_GRADIENT_1m_2_2_issue1.tif
2636_203_FV_VK_FTV_MBES_LIDAR_GRADIENT_1m_2_3_issue1.tif
2636_203_FV_VK_FTV_MBES_LIDAR_GRADIENT_1m_2_4_issue1.tif
2636_203_FV_VK_FTV_MBES_LIDAR_GRADIENT_1m_3_4_issue1.tif
2636_203_FV_VK_FTV_MBES_LIDAR_GRADIENT_1m_3_5_issue1.tif
2636_203_FV_VK_FTV_MBES_LIDAR_GRADIENT_1m_4_5_issue1.tif
2636_203_FV_VK_FTV_MBES_LIDAR_GRADIENT_1m_5_5_issue1.tif
2636_203_FV_VK_FTV_MBES_LIDAR_GRADIENT_1m_6_5_issue1.tif
2636_203_FV_VK_FTV_MBES_LIDAR_LAT_1m_issue1_1_1.tif
2636_203_FV_VK_FTV_MBES_LIDAR_LAT_1m_issue1_1_2.tif
2636_203_FV_VK_FTV_MBES_LIDAR_LAT_1m_issue1_2_2.tif
2636_203_FV_VK_FTV_MBES_LIDAR_LAT_1m_issue1_2_3.tif
2636_203_FV_VK_FTV_MBES_LIDAR_LAT_1m_issue1_2_4.tif
2636_203_FV_VK_FTV_MBES_LIDAR_LAT_1m_issue1_3_4.tif
2636_203_FV_VK_FTV_MBES_LIDAR_LAT_1m_issue1_3_5.tif
2636_203_FV_VK_FTV_MBES_LIDAR_LAT_1m_issue1_4_5.tif
2636_203_FV_VK_FTV_MBES_LIDAR_LAT_1m_issue1_5_5.tif
2636_203_FV_VK_FTV_MBES_LIDAR_LAT_1m_issue1_6_5.tif

Table A 4.8: Route 2.3 SSS Image Files.

Route 2.3 SSS Image Files
2636_GEO_203_GEO_FTV_SSS_HF_Opt1m_issue1.tif
2636_GEO_203_GEO_VK_SSS_HF_Opt1m_issue1.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0023_C0021.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0023_C0020.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0022_C0022.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0022_C0021.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0021_C0022.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0021_C0021.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0020_C0022.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0020_C0021.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0019_C0022.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0019_C0021.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0018_C0022.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0018_C0021.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0017_C0021.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0016_C0021.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0015_C0021.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0014_C0021.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0014_C0020.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0013_C0020.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0012_C0020.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0012_C0019.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0012_C0018.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0011_C0019.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0011_C0018.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0011_C0017.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0010_C0018.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0010_C0017.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0010_C0016.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0009_C0016.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0009_C0015.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0008_C0015.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0008_C0014.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0007_C0014.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0007_C0013.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0007_C0012.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0006_C0013.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0006_C0012.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0006_C0011.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0006_C0010.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0005_C0011.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0005_C0010.tif

Route 2.3 SSS Image Files
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0005_C0009.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0004_C0009.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0004_C0008.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0004_C0007.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0003_C0007.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0003_C0006.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0003_C0005.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0003_C0004.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0002_C0005.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0002_C0004.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0002_C0003.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0002_C0002.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0001_C0003.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0001_C0002.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0001_C0001.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0001_C0000.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0000_C0001.tif
2636_GEO_203_FV_SSS_HF_0.1mpp_issue1R0000_C0000.tif
2636_20210721_203_FV_SSS_LF_0.1mpp_issue1R0014_C0012.tif
2636_20210721_203_FV_SSS_LF_0.1mpp_issue1R0013_C0013.tif
2636_20210721_203_FV_SSS_LF_0.1mpp_issue1R0013_C0012.tif
2636_20210721_203_FV_SSS_LF_0.1mpp_issue1R0012_C0013.tif
2636_20210721_203_FV_SSS_LF_0.1mpp_issue1R0012_C0012.tif
2636_20210721_203_FV_SSS_LF_0.1mpp_issue1R0011_C0013.tif
2636_20210721_203_FV_SSS_LF_0.1mpp_issue1R0011_C0012.tif
2636_20210721_203_FV_SSS_LF_0.1mpp_issue1R0010_C0012.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0009_C0012.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0008_C0012.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0008_C0011.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0007_C0012.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0007_C0011.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0007_C0010.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0006_C0011.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0006_C0010.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0006_C0009.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0005_C0009.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0005_C0008.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0004_C0008.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0004_C0007.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0003_C0007.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0003_C0006.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0002_C0005.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0002_C0004.tif

Route 2.3 SSS Image Files
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0002_C0003.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0001_C0003.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0001_C0002.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0001_C0001.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0001_C0000.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0000_C0001.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0000_C0000.tif
2636_GEO_203_FV_SSS_LF_0.1mpp_issue1R0003_C0005.tif

Table A 4.9: Route 2.3 Mag Image Files.

Route 2.3 Mag Image Files
2636_203_GEO_VK_FV_FTV_MAG_TFAS_Opt3m_issue1.tif
2636_203_GEO_VK_FV_FTV_MAG_TF_Opt3m_issue1.tif

Appendix 4: Route 2.4 Survey Data Reviewed

Table A4.3: Route 2.4 MBES Images

Route 2.4 MBES Image Files
2636_204_FV_AUV_MBES_LAT_025m.tif
2636_204_FV_AUV_MBES_LAT_Opt25m_issue1.tif

Table A4.4: Route 2.04 SSS Images

Route 2.4 SSS Image Files
2636_GEO_204_FV_SSS_HF_0.1mpp_issue1R0000_C0002.tif
2636_GEO_204_FV_SSS_HF_0.1mpp_issue1R0000_C0001.tif
2636_GEO_204_LLAUV_SSS_LF_0.1mpp_issue1.tif
2636_GEO_204_FV_SSS_LF_0.1mpp_issue1R0001_C0001.tif
2636_GEO_204_FV_SSS_LF_0.1mpp_issue1R0001_C0000.tif
2636_GEO_204_FV_SSS_LF_0.1mpp_issue1R0000_C0002.tif
2636_GEO_204_FV_SSS_LF_0.1mpp_issue1R0000_C0001.tif
2636_GEO_204_FV_SSS_HF_0.1mpp_issue1R0001_C0001.tif
2636_GEO_204_FV_SSS_HF_0.1mpp_issue1R0001_C0000.tif

Table A4.5: Route 2.04 Mag Images

Route 2.4 Mag Image Files
2636_204_GEO_FV_MAG_TF_Opt3m_issue1.tif
2636_204_GEO_FV_MAG_TFAS_Opt3m_issue1.tif

Appendix 4: Route 2.8 Survey Data Reviewed

Table A4.63: Route 2.8 MBES Images

Route 2.4 MBES Image Files
2636_208_MBES_LAT_1m_issue1.tif
2636_208_MBES_LAT_0pt25m_issue1.tif

Table A4.74: Route 2.8 SSS Images

Route 2.4 SSS Image Files
2636_208_GEO_FTV&FV_SSS_HF_0pt1m_issue1_B5.tif
2636_208_GEO_FTV&FV_SSS_HF_0pt1m_issue1_B2.tif
2636_208_GEO_FTV&FV_SSS_HF_0pt1m_issue1_B3.tif
2636_208_GEO_FTV&FV_SSS_HF_0pt1m_issue1_B4.tif
2636_208_GEO_FTV&FV_SSS_HF_0pt1m_issue1_B6.tif
2636_208_GEO_FTV&FV_SSS_HF_0pt1m_issue1_B1.tif
2636_208_GEO_FTV&FV_SSS_HF_0pt1m_issue1_B7.tif
2636_208_GEO_FTV&FV_SSS_HF_0pt1m_issue1_A6.tif
2636_208_GEO_FTV&FV_SSS_HF_0pt1m_issue1_A1.tif
2636_208_GEO_FTV&FV_SSS_HF_0pt1m_issue1_A2.tif
2636_208_GEO_FTV&FV_SSS_HF_0pt1m_issue1_A3.tif
2636_208_GEO_FTV&FV_SSS_HF_0pt1m_issue1_A4.tif
2636_208_GEO_FTV&FV_SSS_HF_0pt1m_issue1_A5.tif
2636_208_GEO_FTV&FV_SSS_HF_0pt1m_issue1_A7.tif

Table A4.85: Route 2.8 Mag Images

Route 2.4 Mag Image Files
2636_208_GEO_FTV&FV_MAG_TFAS_0p3m_issue1.tif
2636_208_GEO_FTV&FV_MAG_RES_0p3m_issue1.grd.tif