

Description

Greater Gabbard offshore wind farm sits off the coast of Suffolk and consists of 140 wind turbines manufactured by Siemens .

The wind farm is capable of generating up to 90MW (megawatts) of clean, environmentally sustainable electricity. This is enough power for approximately 80,000 homes with three 45km long export cables bringing power onshore

Reducing the Risks whilst Fishing

To reduce the risks of fishing near offshore structures, it is essential to be up to date with KIS-ORCA information. KIS-ORCA information is easy to install on your vessel's fishing plotter and ensures skippers are able to make informed decisions for their safety.

The closer to the surface a subsea cable is lifted when fouled by fishing gear, the more danger there is to the fishing vessel. In the interests of fishing safety and to prevent damage to subsea structures, fishermen are advised to exercise caution when fishing in the vicinity of subsea cables and renewable energy structures. Loss of gear, fishing time and catch can result if a trawler snags a subsea structure and there is serious risk of loss of life.

Emergency Procedures

1. If you suspect you have snagged a subsea cable, **DO NOT** endanger your vessel and crew by attempting to recover your gear.
2. Carefully plot your vessel's position as accurately as possible.
3. Advise the Coastguard of your situation, and call the 24 hour Emergency Number and state that an incident is occurring concerning a subsea cable.

Advisory Safety Zones

An Advisory Safety Zone of 50m around each turbine and substation structure is requested. An 200m anchorage exclusion zone around the export cable is requested. All vessels are asked to respect the Advisory Safety Zones, which as well as reducing the risk of collision damage, will provide protection to vessels, the export cable, and wind turbine structures.

If any major maintenance works are planned, Notices to Mariners will be promulgated in advance as required. During such works a Mandatory Safety Zone of 500m is likely to apply to certain turbines and/or vessels.

Contact Details

EMERGENCY CONTACT NUMBER:
+44(0)1502 524003

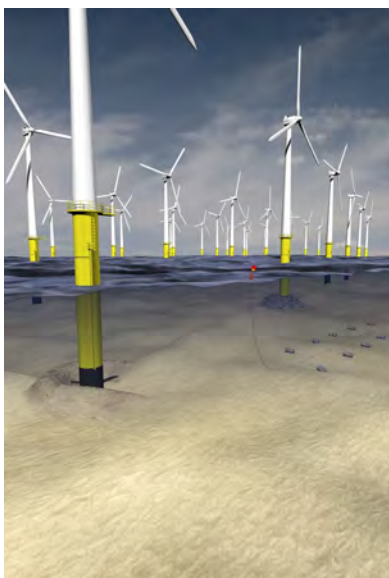
Dangers of Renewable Energy Structures & Cables to Fishing

Renewable Energy Structures and Subsea Cables are a hazard and fishing over them should be avoided at all times. Heavily armoured cables used within the subsea cable and renewable energy industry are very strong and have high breaking strains, sometimes over 70 tonnes and can do extensive damage before they give way. Most modern subsea cables carry high voltages which could prove lethal if attempts are made to cut them.

Fibre Optic cable consists of an inner optical core encased within a copper clad high tensile steel wire rope insulated with polythene. In water less than 1500 meters deep, protection is added against fishing and anchor damage in the form of external steel wire armour. Due to the severe environmental demands placed on submarine cables, a lead-alloy sheath is often specified because of its compressibility, flexibility and resistance to moisture and corrosion. The sheath is usually covered by a number of outer layers, comprising a PE or PVC jacket and metal wire armouring.

Wind Turbines and Foundations

As wind turbines get larger and are deployed in deeper waters, a range of different foundation types may be encountered such as monopole, jacket, gravity base and suction bucket. In some cases multiple foundation types may be used within a single site. In all cases it is likely that scour holes will form around the foundation base, the depth and extent being dependent upon a range of factors including seabed type and current strength and direction. Scour protection in the form of rock dumping or cable mattresses is often used around the base of the foundations which may present a snagging risk. During the operational phase of a wind farm, an operator may request a 50m advisory safety zone around each structure.



The KIS-ORCA Project

The Kingfisher Information Service - Offshore Renewable & Cable Awareness project (KIS-ORCA) is a joint initiative between Subsea Cables UK and RenewableUK and is being managed by the Kingfisher Information Service of Seafish.

Offshore wind farms, renewable energy structures and subsea cables are increasing in number around the shores of the UK. The potential risks these structures may cause to fishermen is significant and the KIS-ORCA project aims to ensure these are managed in a responsible way.

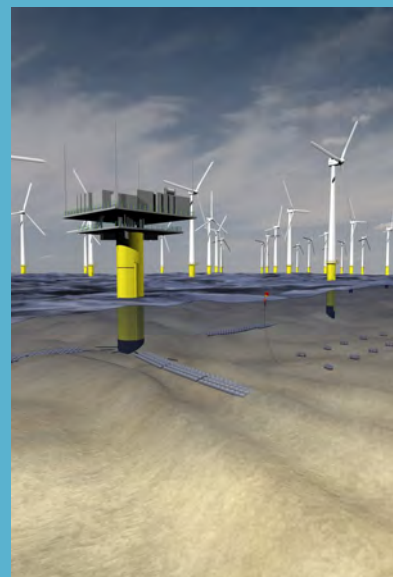
It is against the law to wilfully damage a subsea cable. To enable fishermen to continue to work safely in the

vicinity of subsea cables and renewable energy structures, KIS-ORCA provides fishermen with information and accurate positions of all these offshore structures.

KIS-ORCA information is made available as fishing plotter files and awareness charts for use on vessels and on www.kis-orca.eu, where information may be viewed and downloaded.

Inter Array Wind Farm Cabling

The inter array cables interconnect the turbines typically in radial strings going to the offshore substation platform. The issues associated with these are largely the same as per cable burial. Each turbine will usually have up to two cables entering the foundation structure at the seabed through a protective tube. Typically the tube end has a bellmouth at the seabed to aid alignment and pulling in of the cables. Whilst the cables may have been jetted in or ploughed as close as practical to the foundation, cables may not be fully buried and may also become exposed by scour holes forming. In these circumstances scour protection in the form of rock dumping or cable mattresses may be used. Cables, albeit close to the foundation, may present a snagging risk to anchors and/or trawled gear.



Reducing the Risks whilst Fishing

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The closer to the surface a subsea cable is lifted when fouled by fishing gear, the more danger there is to the fishing vessel. In the interests of fishing safety and to prevent damage to subsea structures, fishermen are advised to exercise caution when fishing in the vicinity of subsea cables and renewable energy structures. Loss of gear, fishing time and catch can result if a trawler snags a subsea structure and there is serious risk of loss of life.

If it is thought prudent to slip, or cut your fishing gear in an attempt to clear a subsea structure, always lower the gear to the seabed first. Never attempt to slip anything bearing excessive weight.

Claims for loss of gear should be made to the appropriate authority within 24 hours of arrival in port. Full particulars of the incident should be given and full details recorded in the vessel's official log, date and exact time, the vessel's position (VMS if suitable), depth of water and a description of the cable if sighted.

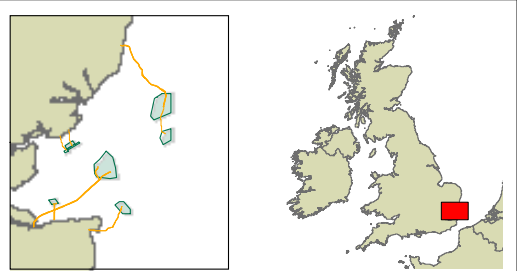
Claims for loss will only be considered if current KIS-ORCA data is installed on your vessel's fishing plotter.

Kingfisher Awareness Chart



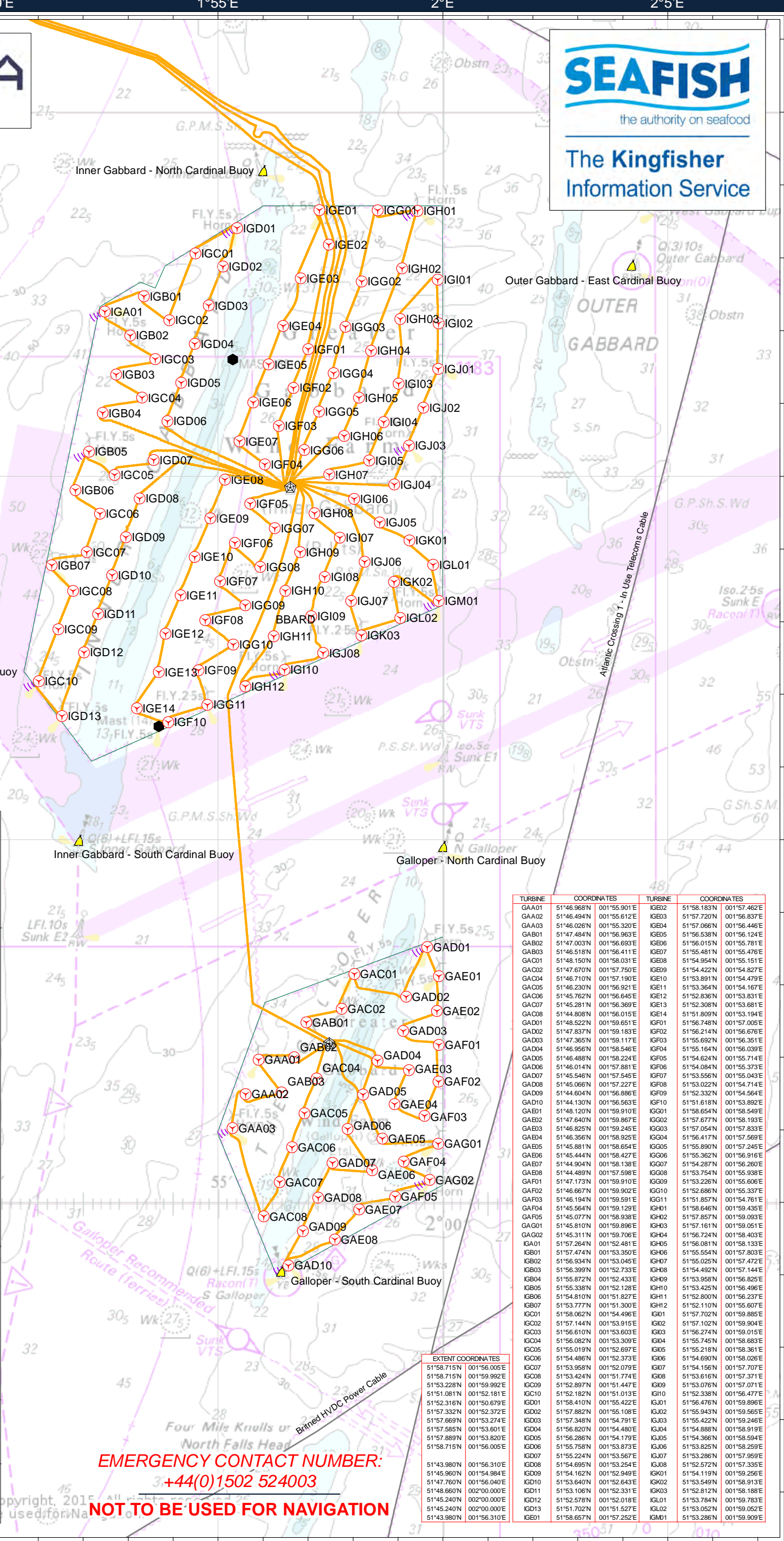
Legend

- Wind Turbine
- Wind Turbine - Border Green
- SubStation
- Met Mast
- Buoy
- Fog Signal
- Cable - Electricity
- In Use Power and Telecomms Cables
- Offshore Wind Farm Boundary



Date: January 2014
 Projection: WGS_1984_World_Mercator
 Spheroid: GCS_WGS_1984
 Datum: D_WGS_1984
 Scale: 1:169,999

This data is issued as a guide only. Seafish, cable / structure owners and Distributors accept no responsibility for any inaccuracies however caused. Please be aware that other structures & cables may exist in addition to those shown on this Chart. Chart from MarineFIND.co.uk © 2015. Licence No. EK01-1001-WB100.



TURBINE	COORDINATES	TURBINE	COORDINATES
GAA01	51°46.968'N 001°55.901'E	IGE02	51°58.183'N 001°57.462'E
GAA02	51°46.494'N 001°55.612'E	IGE03	51°57.720'N 001°56.837'E
GAA03	51°46.026'N 001°55.320'E	IGE04	51°57.066'N 001°56.446'E
GAB01	51°47.484'N 001°56.963'E	IGE05	51°56.538'N 001°56.124'E
GAB02	51°47.003'N 001°56.693'E	IGE06	51°56.015'N 001°55.781'E
GAB03	51°46.518'N 001°56.411'E	IGE07	51°55.481'N 001°55.476'E
GAC01	51°48.150'N 001°58.031'E	IGE08	51°54.954'N 001°55.151'E
GAC02	51°47.670'N 001°57.750'E	IGE09	51°54.422'N 001°54.827'E
GAC03	51°47.190'N 001°57.470'E	IGE10	51°53.891'N 001°54.479'E
GAC04	51°46.710'N 001°57.190'E	IGE11	51°53.364'N 001°54.167'E
GAC05	51°46.230'N 001°56.921'E	IGE12	51°52.836'N 001°53.831'E
GAC06	51°45.750'N 001°56.651'E	IGE13	51°52.308'N 001°53.481'E
GAC07	51°45.270'N 001°56.381'E	IGE14	51°51.780'N 001°53.124'E
GAC08	51°44.790'N 001°56.111'E	IGF01	51°51.252'N 001°52.767'E
GAC09	51°44.310'N 001°55.841'E	IGF02	51°50.724'N 001°52.410'E
GAC10	51°43.830'N 001°55.571'E	IGF03	51°50.196'N 001°52.053'E
GAC11	51°43.350'N 001°55.301'E	IGF04	51°49.668'N 001°51.696'E
GAC12	51°42.870'N 001°55.031'E	IGF05	51°49.140'N 001°51.339'E
GAC13	51°42.390'N 001°54.761'E	IGF06	51°48.612'N 001°50.982'E
GAC14	51°41.910'N 001°54.491'E	IGF07	51°48.084'N 001°50.625'E
GAC15	51°41.430'N 001°54.221'E	IGF08	51°47.556'N 001°50.268'E
GAC16	51°40.950'N 001°53.951'E	IGF09	51°47.028'N 001°49.911'E
GAC17	51°40.470'N 001°53.681'E	IGF10	51°46.500'N 001°49.554'E
GAC18	51°39.990'N 001°53.411'E	IGF11	51°45.972'N 001°49.197'E
GAC19	51°39.510'N 001°53.141'E	IGF12	51°45.444'N 001°48.840'E
GAC20	51°39.030'N 001°52.871'E	IGF13	51°44.916'N 001°48.483'E
GAC21	51°38.550'N 001°52.601'E	IGF14	51°44.388'N 001°48.126'E
GAC22	51°38.070'N 001°52.331'E	IGF15	51°43.860'N 001°47.769'E
GAC23	51°37.590'N 001°52.061'E	IGF16	51°43.332'N 001°47.412'E
GAC24	51°37.110'N 001°51.791'E	IGF17	51°42.804'N 001°47.055'E
GAC25	51°36.630'N 001°51.521'E	IGF18	51°42.276'N 001°46.698'E
GAC26	51°36.150'N 001°51.251'E	IGF19	51°41.748'N 001°46.341'E
GAC27	51°35.670'N 001°50.981'E	IGF20	51°41.220'N 001°45.984'E
GAC28	51°35.190'N 001°50.711'E	IGF21	51°40.692'N 001°45.627'E
GAC29	51°34.710'N 001°50.441'E	IGF22	51°40.164'N 001°45.270'E
GAC30	51°34.230'N 001°50.171'E	IGF23	51°39.636'N 001°44.913'E
GAC31	51°33.750'N 001°49.901'E	IGF24	51°39.108'N 001°44.556'E
GAC32	51°33.270'N 001°49.631'E	IGF25	51°38.580'N 001°44.199'E
GAC33	51°32.790'N 001°49.361'E	IGF26	51°38.052'N 001°43.842'E
GAC34	51°32.310'N 001°49.091'E	IGF27	51°37.524'N 001°43.485'E
GAC35	51°31.830'N 001°48.821'E	IGF28	51°36.996'N 001°43.128'E
GAC36	51°31.350'N 001°48.551'E	IGF29	51°36.468'N 001°42.771'E
GAC37	51°30.870'N 001°48.281'E	IGF30	51°35.940'N 001°42.414'E
GAC38	51°30.390'N 001°48.011'E	IGF31	51°35.412'N 001°42.057'E
GAC39	51°29.910'N 001°47.741'E	IGF32	51°34.884'N 001°41.700'E
GAC40	51°29.430'N 001°47.471'E	IGF33	51°34.356'N 001°41.343'E
GAC41	51°28.950'N 001°47.201'E	IGF34	51°33.828'N 001°40.986'E
GAC42	51°28.470'N 001°46.931'E	IGF35	51°33.300'N 001°40.629'E
GAC43	51°27.990'N 001°46.661'E	IGF36	51°32.772'N 001°40.272'E
GAC44	51°27.510'N 001°46.391'E	IGF37	51°32.244'N 001°39.915'E
GAC45	51°27.030'N 001°46.121'E	IGF38	51°31.716'N 001°39.558'E
GAC46	51°26.550'N 001°45.851'E	IGF39	51°31.188'N 001°39.201'E
GAC47	51°26.070'N 001°45.581'E	IGF40	51°30.660'N 001°38.844'E
GAC48	51°25.590'N 001°45.311'E	IGF41	51°30.132'N 001°38.487'E
GAC49	51°25.110'N 001°45.041'E	IGF42	51°29.604'N 001°38.130'E
GAC50	51°24.630'N 001°44.771'E	IGF43	51°29.076'N 001°37.773'E
GAC51	51°24.150'N 001°44.501'E	IGF44	51°28.548'N 001°37.416'E
GAC52	51°23.670'N 001°44.231'E	IGF45	51°28.020'N 001°37.059'E
GAC53	51°23.190'N 001°43.961'E	IGF46	51°27.492'N 001°36.702'E
GAC54	51°22.710'N 001°43.691'E	IGF47	51°26.964'N 001°36.345'E
GAC55	51°22.230'N 001°43.421'E	IGF48	51°26.436'N 001°35.988'E
GAC56	51°21.750'N 001°43.151'E	IGF49	51°25.908'N 001°35.631'E
GAC57	51°21.270'N 001°42.881'E	IGF50	51°25.380'N 001°35.274'E
GAC58	51°20.790'N 001°42.611'E	IGF51	51°24.852'N 001°34.917'E
GAC59	51°20.310'N 001°42.341'E	IGF52	51°24.324'N 001°34.560'E
GAC60	51°19.830'N 001°42.071'E	IGF53	51°23.796'N 001°34.203'E
GAC61	51°19.350'N 001°41.801'E	IGF54	51°23.268'N 001°33.846'E
GAC62	51°18.870'N 001°41.531'E	IGF55	51°22.740'N 001°33.489'E
GAC63	51°18.390'N 001°41.261'E	IGF56	51°22.212'N 001°33.132'E
GAC64	51°17.910'N 001°41.000'E	IGF57	51°21.684'N 001°32.775'E
GAC65	51°17.430'N 001°40.730'E	IGF58	51°21.156'N 001°32.418'E
GAC66	51°16.950'N 001°40.460'E	IGF59	51°20.628'N 001°32.061'E
GAC67	51°16.470'N 001°40.190'E	IGF60	51°20.100'N 001°31.704'E
GAC68	51°15.990'N 001°39.920'E	IGF61	51°19.572'N 001°31.347'E
GAC69	51°15.510'N 001°39.650'E	IGF62	51°19.044'N 001°30.990'E
GAC70	51°15.030'N 001°39.380'E	IGF63	51°18.516'N 001°30.633'E
GAC71	51°14.550'N 001°39.110'E	IGF64	51°17.988'N 001°30.276'E
GAC72	51°14.070'N 001°38.840'E	IGF65	51°17.460'N 001°29.919'E
GAC73	51°13.590'N 001°38.570'E	IGF66	51°16.932'N 001°29.562'E
GAC74	51°13.110'N 001°38.300'E	IGF67	51°16.404'N 001°29.205'E
GAC75	51°12.630'N 001°38.030'E	IGF68	51°15.876'N 001°28.848'E
GAC76	51°12.150'N 001°37.760'E	IGF69	51°15.348'N 001°28.491'E
GAC77	51°11.670'N 001°37.490'E	IGF70	51°14.820'N 001°28.134'E
GAC78	51°11.190'N 001°37.220'E	IGF71	51°14.292'N 001°27.777'E
GAC79	51°10.710'N 001°36.950'E	IGF72	51°13.764'N 001°27.420'E
GAC80	51°10.230'N 001°36.680'E	IGF73	51°13.236'N 001°27.063'E
GAC81	51°09.750'N 001°36.410'E	IGF74	51°12.708'N 001°26.706'E
GAC82	51°09.270'N 001°36.140'E	IGF75	51°12.180'N 001°26.349'E
GAC83	51°08.790'N 001°35.870'E	IGF76	51°11.652'N 001°25.992'E
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GAC85	51°07.830'N 001°35.330'E	IGF78	51°10.596'N 001°25.278'E
GAC86	51°07.350'N 001°35.060'E	IGF79	51°10.068'N 001°24.921'E
GAC87	51°06.870'N 001°34.790'E	IGF80	51°09.540'N 001°24.564'E
GAC88	51°06.390'N 001°34.520'E	IGF81	51°09.012'N 001°24.207'E
GAC89	51°05.910'N 001°34.250'E	IGF82	51°08.484'N 001°23.850'E
GAC90	51°05.430'N 001°33.980'E	IGF83	51°07.956'N 001°23.493'E
GAC91	51°04.950'N 001°33.710'E	IGF84	51°07.428'N 001°23.136'E
GAC92	51°04.470'N 001°33.440'E	IGF85	51°06.900'N 001°22.779'E
GAC93	51°03.990'N 001°33.170'E	IGF86	51°06.372'N 001°22.422'E
GAC94	51°03.510'N 001°32.900'E	IGF87	51°05.844'N 001°22.065'E
GAC95	51°03.030'N 001°32.630'E	IGF88	51°05.316'N 001°21.708'E
GAC96	51°02.550'N 001°32.360'E	IGF89	51°04.788'N 001°21.351'E
GAC97	51°02.070'N 001°32.090'E	IGF90	51°04.260'N 001°20.994'E
GAC98	51°01.590'N 001°31.820'E	IGF91	51°03.732'N 001°20.637'E
GAC99	51°01.110'N 001°31.550'E	IGF92	51°03.204'N 001°20.280'E
GAC100	51°00.630'N 001°31.280'E	IGF93	51°02.676'N 001°19.923'E
GAC101	51°00.150'N 001°31.010'E	IGF94	51°02.148'N 001°19.566'E
GAC102	50°59.670'N 001°30.740'E	IGF95	51°01.620'N 001°19.209'E
GAC103	50°59.190'N 001°30.470'E	IGF96	51°01.092'N 001°18.852'E
GAC104	50°58.710'N 001°30.200'E	IGF97	51°00.564'N 001°18.495'E
GAC105	50°58.230'N 001°29.930'E	IGF98	51°00.036'N 001°18.138'E
GAC106	50°57.750'N 001°29.660'E	IGF99	50°59.508'N 001°17.781'E
GAC107	50°57.270'N 001°29.390'E	IGF100	50°58.980'N 001°17.424'E
GAC108	50°56.790'N 001°29.120'E		
GAC109	50°56.310'N 001°28.850'E		
GAC110	50°55.830'N 001°28.580'E		
GAC111	50°55.350'N 001°28.310'E		
GAC112	50°54.870'N 001°28.040'E		
GAC113	50°54.390'N 001°27.770'E		
GAC114	50°53.910'N 001°27.500'E		
GAC115	50°53.430'N 001°27.230'E		
GAC116	50°52.950'N 001°26.960'E		
GAC117	50°52.470'N 001°26.690'E		
GAC118	50°51.990'N 001°26.420'E		
GAC119	50°51.510'N 001°26.150'E		
GAC120	50°51.030'N 001°25.880'E		
GAC121	50°50.550'N 001°25.610'E		
GAC122	50°50.070'N 001°25.340'E		
GAC123	50°49.590'N 001°25.070'E		
GAC124	50°49.110'N 001°24.800'E		
GAC125	50°48.630'N 001°24.530'E		
GAC126	50°48.150'N 001°24.260'E		
GAC127	50°47.670'N 001°23.990'E		
GAC128	50°47.190'N 001°23.720'E		
GAC129	50°46.710'N 001°23.450'E		
GAC130	50°46.230'N 001°23.180'E		
GAC131	50°45.750'N 001°22.910'E		
GAC132	50°45.270'N 001°22.640'E		
GAC133	50°44.790'N 001°22.370'E		
GAC134	50°44.310'N 001°22.100'E		
GAC135	50°43.830'N 001°21.830'E		
GAC136	50°43.350'N 001°21.560'E		
GAC137	50°42.870'N 001°21.290'E		
GAC138	50°42.390'N 001°21.020'E		
GAC139	50°41.910'N 001°20.750'E		
GAC140	50°41.430'N 001°20.480'E		
GAC141	50°40.950'N 001°20.210'E		
GAC142	50°40.470'N 001°19.940'E		
GAC143	50°39.990'N 001°19.670'E		
GAC144	50°39.510'N 001°19.400'E		
GAC145	50°39.030'N 001°19.130'E		
GAC146	50°38.550'N 001°18.860'E		
GAC147	50°38.070'N 001°18.590'E		
GAC148	50°37.590'N 001°18.320'E		
GAC149	50°37.110'N 001°18.050'E		
GAC150	50°36.630'N 001°17.780'E		
GAC151	50°36.150'N 001°17.510'E		
GAC152	50°35.670'N 001°17.240'E		
GAC153	50°35.190'N 001°16.970'E		
GAC154	50°34.710'N 001°16.700'E		
GAC155	50°34.230'N 001°16.430'E		
GAC156	50°33.750'N 001°16.160'E		
GAC157	50°33.270'N 001°15.890'E		
GAC158	50°32.790'N 001°15.620'E		
GAC159	50°32.310'N 001°15.350'E		
GAC160	50°31.830'N 001°15.080'E		
GAC161	50°31.35		