

Cruise Planning 2012

Cruise Dates

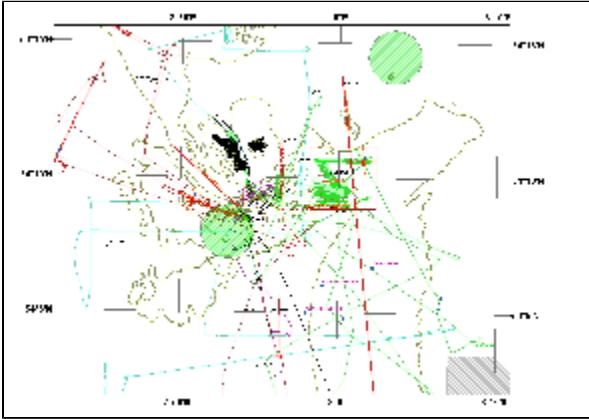
Arrival and Departure from Bremerhaven

* From Bremerhaven: We would have to leave early (guessing latest 08:00) on 10th April with a preferred time of departure 07:30;

* Return Bremerhaven: Might be 17:00 or 18:00 with 18:00 as a preferable time;

Cruise Planning Maps

More maps here : [1 - Complete Overview](#), [2 - Extent that can be surveyed during the excursion](#) , [3 - detail of area around Helgoland](#)



Detailed Daily Plans

DAY 1 - Tuesday

1. Leave at 07:30 from docks.
2. Transit about 1 hr
3. Start with Multibeam in the dredge spill regions (see map and publications)
 - a. Start line 1: 8 5.552763 53 50.66477 Degrees Decimal Minutes to End line 1: 8 3.237202 53 51.39688 Degrees Decimal Minutes; line length, 2.8 km; speed 5 knots; At least three lines further to the East with line spacing of about ~50 m, and with sufficient swath overlap.
4. After the end of lines; a CTD/SVP
5. Start ADCP Line
 - a. Head towards the southern tip of the ridges (7 59.270368 54 8.8996 Degrees Decimal Minutes),
 - b. Taking at least one CTD along the way
6. Short multibeam lines (ideally three):
 - a. start line ridges area multibeam: 7 59.270368 54 8.8996 Degrees Decimal Minutes; Stop line 1: 8 0.215957 54 8.896072 Degrees Decimal Minutes; line length; 1 km, line spacing, towards the South; ~50 m, with sufficient swath overlap
7. Arrive Helgoland 18:00

-- For the Captain --

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Bremerhaven Departure 10Apr2012 07:00 speed 8 knots
Start of Line 1 Multibeam/SES2000 53° 47.78' N 8° 19.75' E 10Apr2012 09:10 speed 5 knots
End of Line 1 Multibeam/SES2000 53° 51.29' N 8° 10' E 10Apr2012 10:30 speed 5 knots
Start of Line 2 Multibeam/SES2000 53° 51.33' N 8° 10.04' E 10Apr2012 10:30 speed 5 knots
End of Line 2 Multibeam/SES2000 53° 47.82' N 8° 19.79' E 10Apr2012 11:50 speed 5 knots
Start of Line 3 Multibeam/SES2000 53° 47.86' N 8° 19.82' E 10Apr2012 11:50 speed 5 knots
End of Line 3 Multibeam/SES2000 53° 51.37' N 8° 10.09' E 10Apr2012 13:10 speed 5 knots
CTD/SVP/Sediment Station 1 53° 51.37' N 8° 10.09' E 10Apr2012 13:10
ADCP Line to Helgoland speed 10 knots
Helgoland Arrival 10Apr2012 18:00 speed 10 knots
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DAY 2 - Wednesday

Exploration of the region due West of Helgoland; Leave Docks at 08:00; check breakfast times of the crew

1. Exploratory multibeam/SES2000 in the forbidden zone
 - a. start line of line: 7 53.515362 54 9.002957 Degrees Decimal Minutes; End of Line 7 49.320617 54 11.20335 Degrees Decimal Minutes; line length 6 km; line spacing 50 m, towards East and NE of above line; at least 3; speed 5 knots
2. SVP/CTD
3. Multibeam lines (X cross) across the shipwreck 6 at 7 50.748004 54 9.143726 Degrees Decimal Minutes
4. Oceanography - with multinet; push core, box core etc
5. Return to Site 1 or go to point 6 of Day 1

DAY 3 - Thursday

Main gravity coring session in the afternoon; take at least one in the morning; multibeam ridge fill in between;

Morning start with:

1. Multibeam ridges fill - start line 7 59.057033 54 9.832418 Degrees Decimal Minutes; stop line 8 0.411659 54 9.881957 Degrees Decimal Minutes; line length - 1.5 km; line spacing ~50 m, with sufficient swath overlap; speed 5 knots
2. SVP/CTD in the middle of the area
3. Multibeam (cross lines) of the Shipwreck 1 at 8 1.511895 54 10.590609 Degrees Decimal Minutes

Main Core Sites:

1. Core A 54°06.7'N - 08°02.2'E
2. Core B 54°06.00'N - 07°59.00'E
3. Core C 54°05.00'N - 07°58.00'E

DAY 4 - Friday

Tides seems to be okay to go North between Helgoland and Dune to visit the NE sections .. with multibeam, shipwrecks, oceanography, magnetics

1. Multibeam streamlined zone; start line 7 41.033472 54 16.884442 Degrees Decimal Minutes; Stop line 7 37.079052 54 18.11128 Degrees Decimal Minutes; line length 5 km; line spacing ~50 m, with sufficient swath overlap; speed 5 knots
2. SVP/CTD in the middle of the area
3. Oceanography and Geology
4. ADCP line
5. Shipwreck and magnetics ?

DAY 5 - Saturday

Leave early (07:30); add a line or two on the multibeam dredge sites; redo- ADCP / CTD profile on the way back ..

1. ADCP / CTD line start 7 59.988804 54 13.544738 Degrees Decimal Minutes; stop 7 42.66892 53 52.575531 Degrees Decimal Minutes; length; 45 km; spacing of CTD casts at 5 km (9 stops)

Tides

Bremerhaven

Tuesday, April 10, 2012	Saturday, April 14, 2012
04:25 GMT+02:00 High tide 4.07 Meters	01:55 GMT+02:00 Low tide 0.27 Meters
11:00 GMT+02:00 Low tide -0.42 Meters	08:11 GMT+02:00 High tide 3.19 Meters
16:44 GMT+02:00 High tide 3.99 Meters	14:16 GMT+02:00 Low tide 0.62 Meters
23:23 GMT+02:00 Low tide -0.45 Meters	20:30 GMT+02:00 High tide 3.38 Meters

Helgoland

Tuesday, April 10, 2012	Wednesday, April 11, 2012	Thursday, April 12, 2012	Friday, April 13, 2012	Saturday, April 14, 2012
02:49 GMT+02:00 High tide 3.13 Meters	03:41 GMT+02:00 High tide 3.06 Meters	04:31 GMT+02:00 High tide 2.91 Meters	05:25 GMT+02:00 High tide 2.71 Meters	24:37 GMT+02:00 Low tide 0.41 Meters
09:38 GMT+02:00 Low tide 0.08 Meters	10:20 GMT+02:00 Low tide 0.13 Meters	11:02 GMT+02:00 Low tide 0.27 Meters	11:48 GMT+02:00 Low tide 0.48 Meters	06:25 GMT+02:00 High tide 2.54 Meters
15:16 GMT+02:00 High tide 3.15 Meters	16:04 GMT+02:00 High tide 3.13 Meters	16:52 GMT+02:00 High tide 3.03 Meters	17:44 GMT+02:00 High tide 2.91 Meters	12:50 GMT+02:00 Low tide 0.68 Meters
22:03 GMT+02:00 Low tide -0.01 Meters	22:47 GMT+02:00 Low tide 0.05 Meters	23:37 GMT+02:00 Low tide 0.21 Meters		18:46 GMT+02:00 High tide 2.82 Meters

Based on the tides at Helgoland - only Thursday and Friday would be an option to go North between the Islands