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| <p>CRUISE SUMMARY</p> <p>REPORT</p> | <p><i>FOR COLLATING CENTRE USE</i></p> <p>Centre: _____ Ref. no: _____</p> <p>Is data exchange restricted? <input type="checkbox"/> <input checked="" type="checkbox"/> <input type="checkbox"/></p> <p>Yes In part No</p> |
| <p>SHIP</p> <p>Name: TRIDENS 2 Call Sign: PBVO</p> <p>Type of ship: FISHERIES RESEARCH VESSEL</p> | |
| <p>CRUISE NO./NAME: IBTS 2008-Q1 (INTERNATIONAL BOTTOM TRAWL SURVEY)</p> | |
| <p>CRUISE PERIOD start 28 Jan 2008 to 29 Feb 2008</p> <p>PORT OF DEPARTURE: SCHEVENINGEN, THE NETHERLANDS</p> <p>PORT OF RETURN: SCHEVENINGEN, THE NETHERLANDS</p> | |
| <p>RESPONSIBLE LABORATORY:</p> <p>Name: INSTITUTE FOR MARINE RESOURCES AND ECOSYSTEM STUDIES (IMARES)</p> <p>Address: P.O. BOX 68 1970 AB IJMUIDEN HARINGKADE 1</p> <p>Country: THE NETHERLANDS</p> | |
| <p>CHIEF SCIENTIST(S)</p> <p>Remment ter Hofstede</p> | |
| <p>OBJECTIVES AND BRIEF NARRATIVE OF CRUISE</p> <p>The IBTS is designed to acquire recruitment indices and tuning data for several finfish species. The recruitment indices are used in ICES assessment working groups (herring, North Sea demersal fish, mackerel) and ACFM. Data on spatial and temporal distribution of fish species are used for ecosystem studies.</p> | |
| <p>PROJECT:</p> <p>Project name: ICES IBTS Working Group</p> <p>Coordinating body: ICES International Council for Exploration of the Sea</p> | |
| <p>PRINCIPAL INVESTIGATORS:</p> <p>A. Remment ter Hofstede</p> <p>B.</p> <p>C.</p> <p>D.</p> <p>E.</p> <p>F.</p> | |

MOORINGS, BOTTOM MOUNTED GEAR AND DRIFTING SYSTEMS

| PI | APPROXIMATE POSITION | | | DESCRIPTION | |
|----|----------------------|----------|----------|-------------|--|
| | ICES-haulno | rectangl | latitude | longitude | their depths, whether deployed and/or recovered, dates of deployment and/or recovery, and any identifiers given to the site. |
| A | 1 | '33F4 | 52.327 | 4.170 | GOV-haul + CTD-station |
| A | 2 | '34F4 | 52.680 | 4.042 | GOV-haul + CTD-station |
| A | 3 | '37F6 | 54.234 | 6.474 | GOV-haul + CTD-station |
| A | 4 | '37F7 | 54.273 | 7.220 | GOV-haul + CTD-station |
| A | 5 | '37F8 | 54.283 | 8.033 | GOV-haul + CTD-station |
| A | 6 | '36F7 | 53.954 | 7.446 | GOV-haul + CTD-station |
| A | 7 | '36F3 | 53.893 | 6.072 | GOV-haul + CTD-station |
| A | 8 | '36F5 | 53.964 | 5.563 | GOV-haul + CTD-station |
| A | 9 | '37F5 | 54.139 | 5.232 | GOV-haul + CTD-station |
| A | 10 | '37F4 | 54.120 | 4.909 | GOV-haul + CTD-station |
| A | 11 | '35F4 | 53.138 | 4.134 | GOV-haul + CTD-station |
| A | 12 | '39F2 | 55.434 | 2.656 | GOV-haul + CTD-station |
| A | 13 | '40F2 | 55.667 | 2.800 | GOV-haul + CTD-station |
| A | 14 | '40F3 | 55.834 | 3.351 | GOV-haul + CTD-station |
| A | 15 | '40F4 | 55.950 | 4.101 | GOV-haul + CTD-station |
| A | 16 | '41F4 | 56.275 | 4.459 | GOV-haul + CTD-station |
| A | 17 | '41F3 | 56.252 | 3.680 | GOV-haul + CTD-station |
| A | 18 | '41F2 | 56.310 | 2.973 | GOV-haul + CTD-station |
| A | 19 | '41F2 | 56.235 | 2.451 | GOV-haul + CTD-station |
| A | 20 | '41E9 | 56.451 | -0.295 | GOV-haul + CTD-station |
| A | 21 | '42E9 | 56.761 | -0.496 | GOV-haul + CTD-station |
| A | 22 | '43E9 | 57.133 | -0.540 | GOV-haul + CTD-station |
| A | 23 | '43E8 | 57.304 | -1.274 | GOV-haul + CTD-station |
| A | 24 | '42E8 | 56.667 | -1.612 | GOV-haul + CTD-station |
| A | 25 | '41E8 | 56.397 | -1.440 | GOV-haul + CTD-station |
| A | 26 | '41E7 | 56.368 | -2.084 | GOV-haul + CTD-station |
| A | 27 | '42E7 | 56.706 | -2.250 | GOV-haul + CTD-station |
| A | 28 | '41F0 | 56.162 | 0.808 | GOV-haul + CTD-station |
| A | 29 | '41F1 | 56.093 | 1.200 | GOV-haul + CTD-station |
| A | 30 | '40F1 | 55.736 | 1.450 | GOV-haul + CTD-station |
| A | 31 | '39F1 | 55.476 | 1.214 | GOV-haul + CTD-station |
| A | 32 | '40F0 | 55.555 | 0.930 | GOV-haul + CTD-station |
| A | 33 | '36F2 | 53.926 | 2.376 | GOV-haul + CTD-station |
| A | 34 | '36F1 | 53.652 | 1.541 | GOV-haul + CTD-station |
| A | 35 | '35F1 | 53.445 | 1.575 | GOV-haul + CTD-station |
| A | 36 | '35F0 | 53.449 | 0.667 | GOV-haul + CTD-station |
| A | 37 | '36F4 | 53.828 | 4.215 | GOV-haul + CTD-station |
| A | 38 | '36F3 | 53.654 | 3.724 | GOV-haul + CTD-station |
| A | 39 | '35F3 | 53.246 | 3.740 | GOV-haul + CTD-station |
| A | 40 | '34F3 | 52.982 | 3.800 | GOV-haul + CTD-station |
| A | 41 | '34F3 | 52.585 | 3.983 | GOV-haul + CTD-station |
| A | 42 | '35F3 | 53.059 | 3.343 | GOV-haul + CTD-station |
| A | 43 | '33F1 | 52.263 | 1.892 | GOV-haul + CTD-station |
| A | 44 | '32F1 | 51.934 | 1.817 | GOV-haul + CTD-station |
| A | 45 | '31F1 | 51.488 | 1.783 | GOV-haul + CTD-station |
| A | 46 | '30F1 | 50.977 | 1.182 | GOV-haul + CTD-station |
| A | 47 | '28F0 | 49.875 | 0.415 | GOV-haul + CTD-station |
| A | 48 | '29F0 | 50.161 | 0.986 | GOV-haul + CTD-station |
| A | 49 | '29F0 | 50.230 | 1.205 | GOV-haul + CTD-station |

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|---|----|-------|--------|--------|------------------------|
| A | 50 | '30F0 | 50.516 | 0.593 | GOV-haul + CTD-station |
| A | 51 | '31F2 | 51.465 | 2.330 | GOV-haul + CTD-station |
| A | 52 | '32F0 | 51.580 | 2.780 | GOV-haul + CTD-station |
| A | 53 | '32F3 | 51.832 | 3.432 | GOV-haul + CTD-station |
| A | 54 | '33F5 | 52.206 | 3.722 | GOV-haul + CTD-station |
| A | 55 | '33F2 | 52.338 | 2.731 | GOV-haul + CTD-station |
| A | 56 | '34F2 | 52.605 | 2.476 | GOV-haul + CTD-station |
| A | 57 | '33F4 | 52.323 | 4.409 | GOV-haul + CTD-station |
| A | 58 | '34F4 | 52.752 | 4.303 | GOV-haul + CTD-station |
| A | 59 | '35F4 | 53.007 | 4.230 | GOV-haul + CTD-station |
| A | 60 | '35F2 | 53.090 | 2.726 | GOV-haul + CTD-station |
| A | 61 | '35F3 | 53.288 | 3.445 | GOV-haul + CTD-station |
| A | 62 | '36F4 | 53.906 | 4.280 | GOV-haul + CTD-station |
| A | 63 | '36F5 | 53.750 | 5.224 | GOV-haul + CTD-station |
| A | 64 | '36F6 | 53.872 | 6.095 | GOV-haul + CTD-station |
| A | 65 | '37F6 | 54.256 | 6.360 | GOV-haul + CTD-station |
| A | 66 | '37F5 | 54.133 | 5.237 | GOV-haul + CTD-station |
| A | 67 | '37F4 | 54.141 | 4.736 | GOV-haul + CTD-station |
| A | 1 | '35F4 | 53.139 | -4.450 | MIK-haul |
| A | 2 | '35F4 | 53.285 | 4.289 | MIK-haul |
| A | 3 | '35F3 | 53.444 | 3.981 | MIK-haul |
| A | 4 | '36F4 | 53.637 | 4.207 | MIK-haul |
| A | 5 | '36F4 | 53.788 | 4.487 | MIK-haul |
| A | 6 | '37F4 | 54.068 | 4.402 | MIK-haul |
| A | 7 | '37F4 | 54.189 | 4.544 | MIK-haul |
| A | 8 | '36F7 | 53.901 | 7.235 | MIK-haul |
| A | 9 | '37F7 | 53.950 | 7.524 | MIK-haul |
| A | 10 | '37F8 | 54.067 | 8.041 | MIK-haul |
| A | 11 | '37F7 | 54.206 | 7.647 | MIK-haul |
| A | 12 | '37F7 | 54.230 | 7.223 | MIK-haul |
| A | 13 | '37F6 | 54.230 | 6.782 | MIK-haul |
| A | 14 | '36F5 | 53.693 | 5.073 | MIK-haul |
| A | 15 | '36F5 | 53.897 | 5.108 | MIK-haul |
| A | 16 | '37F5 | 54.131 | 5.155 | MIK-haul |
| A | 17 | '37F5 | 54.342 | 5.057 | MIK-haul |
| A | 18 | '40F4 | 55.925 | 4.155 | MIK-haul |
| A | 19 | '40F4 | 55.890 | 3.763 | MIK-haul |
| A | 20 | '40F3 | 55.892 | 3.447 | MIK-haul |
| A | 21 | '41F3 | 56.082 | 3.530 | MIK-haul |
| A | 22 | '41F3 | 56.180 | 3.818 | MIK-haul |
| A | 23 | '41f4 | 56.220 | 4.114 | MIK-haul |
| A | 24 | '41F2 | 56.254 | 2.365 | MIK-haul |
| A | 25 | '41F2 | 56.064 | 2.314 | MIK-haul |
| A | 26 | '40F2 | 55.900 | 2.217 | MIK-haul |
| A | 27 | '40F1 | 55.917 | 1.983 | MIK-haul |
| A | 28 | '41F1 | 56.083 | 1.867 | MIK-haul |
| A | 29 | '43E8 | 57.234 | -1.351 | MIK-haul |
| A | 30 | '43E8 | 57.118 | -1.161 | MIK-haul |
| A | 31 | '43E9 | 57.111 | -0.827 | MIK-haul |
| A | 32 | '43E9 | 57.019 | -0.573 | MIK-haul |
| A | 33 | '42E9 | 56.863 | -0.698 | MIK-haul |
| A | 34 | '42E9 | 56.751 | -0.918 | MIK-haul |
| A | 35 | '42E8 | 56.728 | 1.236 | MIK-haul |
| A | 36 | '40F0 | 55.567 | 0.633 | MIK-haul |
| A | 37 | '40F0 | 55.500 | 0.933 | MIK-haul |
| A | 38 | '39F1 | 55.400 | 1.200 | MIK-haul |

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|---|----|-------|--------|-------|----------|
| A | 39 | '39F1 | 55.300 | 1.600 | MIK-haul |
| A | 40 | '39F2 | 55.217 | 2.017 | MIK-haul |
| A | 41 | '39F2 | 55.050 | 2.200 | MIK-haul |
| A | 42 | '35F0 | 53.448 | 0.948 | MIK-haul |
| A | 43 | '35F1 | 53.485 | 1.202 | MIK-haul |
| A | 44 | '36F1 | 53.626 | 1.360 | MIK-haul |
| A | 45 | '36F1 | 53.684 | 1.754 | MIK-haul |
| A | 46 | '36F2 | 53.732 | 2.089 | MIK-haul |
| A | 47 | '36F2 | 53.650 | 2.367 | MIK-haul |
| A | 48 | '35F2 | 53.468 | 2.384 | MIK-haul |
| A | 49 | '34F3 | 52.751 | 3.634 | MIK-haul |
| A | 50 | '34F3 | 52.734 | 3.966 | MIK-haul |
| A | 51 | '34F4 | 52.702 | 4.250 | MIK-haul |
| A | 52 | '34F4 | 52.565 | 4.087 | MIK-haul |
| A | 53 | '33F4 | 52.420 | 4.272 | MIK-haul |
| A | 54 | '33F4 | 52.318 | 4.061 | MIK-haul |
| A | 55 | '33F3 | 52.321 | 3.773 | MIK-haul |
| A | 56 | '33F3 | 52.152 | 3.818 | MIK-haul |
| A | 57 | '35F3 | 53.093 | 3.141 | MIK-haul |
| A | 58 | '35F2 | 53.057 | 2.856 | MIK-haul |
| A | 59 | '34F2 | 52.929 | 2.649 | MIK-haul |
| A | 60 | '34F2 | 52.774 | 2.477 | MIK-haul |
| A | 61 | '34F2 | 52.717 | 2.487 | MIK-haul |
| A | 62 | '30F1 | 50.966 | 1.199 | MIK-haul |
| A | 63 | '30F1 | 50.799 | 1.165 | MIK-haul |
| A | 64 | '30F0 | 50.674 | 0.907 | MIK-haul |
| A | 65 | '30F0 | 50.555 | 0.614 | MIK-haul |
| A | 66 | '29F0 | 50.461 | 0.321 | MIK-haul |
| A | 67 | '29F0 | 50.152 | 0.613 | MIK-haul |
| A | 68 | '28F0 | 49.976 | 0.656 | MIK-haul |
| A | 69 | '28F0 | 49.986 | 0.954 | MIK-haul |
| A | 70 | '29F1 | 50.104 | 1.169 | MIK-haul |
| A | 71 | '29F1 | 50.298 | 1.252 | MIK-haul |
| A | 72 | '33F3 | 52.122 | 3.658 | MIK-haul |
| A | 73 | '32F3 | 51.870 | 3.500 | MIK-haul |
| A | 74 | '32F3 | 51.838 | 3.211 | MIK-haul |
| A | 75 | '32F2 | 51.783 | 2.953 | MIK-haul |
| A | 76 | '34F1 | 52.553 | 1.955 | MIK-haul |
| A | 77 | '33F1 | 52.386 | 1.929 | MIK-haul |
| A | 78 | '33F1 | 52.194 | 1.950 | MIK-haul |
| A | 79 | '33F2 | 52.206 | 2.172 | MIK-haul |
| A | 80 | '33F4 | 52.439 | 4.310 | MIK-haul |
| A | 81 | '33F4 | 52.429 | 4.062 | MIK-haul |
| A | 82 | '33F3 | 52.418 | 3.802 | MIK-haul |
| A | 83 | '33F3 | 52.436 | 3.502 | MIK-haul |
| A | 84 | '37F5 | 54.022 | 5.430 | MIK-haul |
| A | 85 | '37F5 | 54.024 | 5.748 | MIK-haul |
| A | 86 | '37F6 | 54.030 | 6.107 | MIK-haul |
| A | 87 | '36F6 | 53.969 | 6.375 | MIK-haul |
| A | 88 | '37F3 | 54.095 | 3.922 | MIK-haul |
| A | 89 | '35F3 | 53.964 | 3.697 | MIK-haul |
| A | 90 | '36F3 | 53.779 | 3.690 | MIK-haul |
| A | 91 | '35F3 | 53.468 | 3.644 | MIK-haul |

| SUMMARY OF MEASURED AND SAMPLES TAKEN | | | | |
|---------------------------------------|----|-------|-----------|-------------|
| PI | NO | UNITS | DATA TYPE | DESCRIPTION |

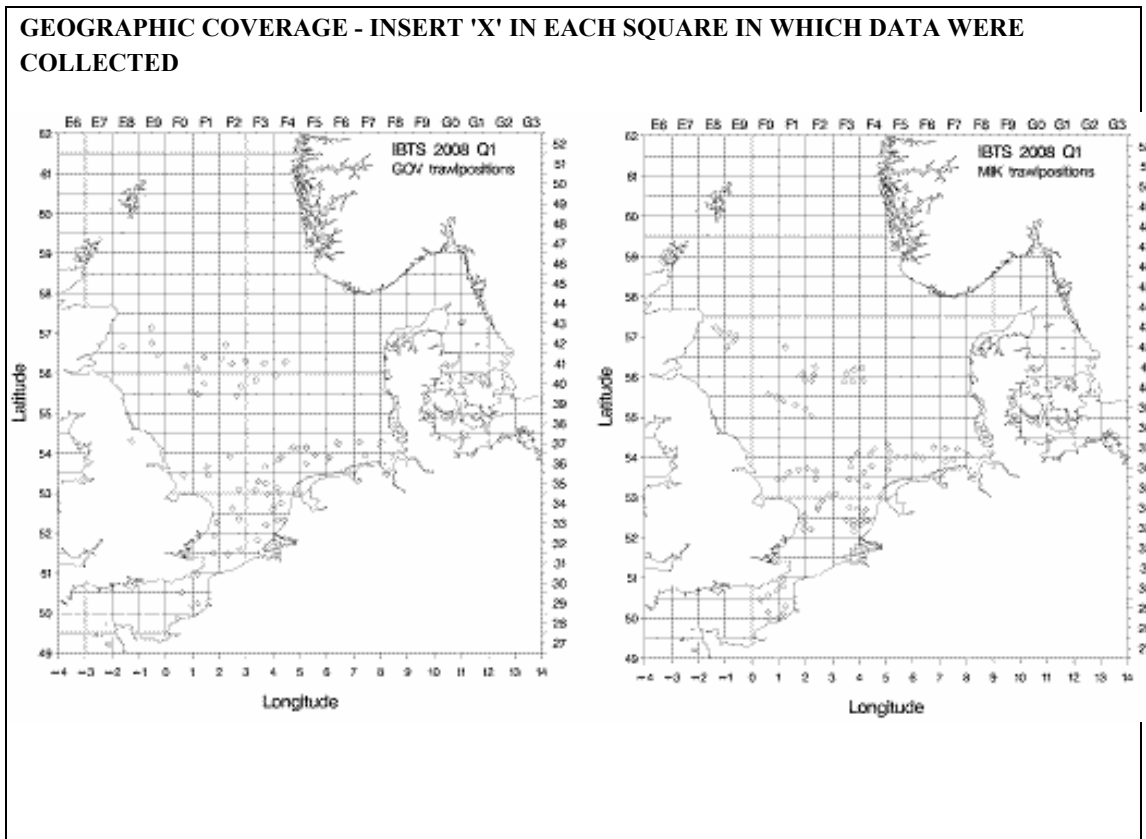
| PI | NO | UNITS | DATA TYPE | DESCRIPTION |
|----|----|-------|-----------|-------------|
|----|----|-------|-----------|-------------|

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|---|----|----------|-----|---|
| A | 67 | hauls | GOV | GOV- Bottom trawl (Grand Ouverture Verticale); Numbers and length-frequencies of all fish; number or weight of all benthos |
| A | 67 | stations | CTD | Temperatures and salinities at vertical gradient |
| A | 91 | hauls | MIK | MIK net (Method Isaac Kitt); Numbers and length-frequencies of clupeid larvae |

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| TRACK CHART: You are strongly encouraged to submit with the completed report, an annotated track chart illustrating the route followed and the points where measurements were taken. | <input checked="" type="checkbox"/> Insert a tick (√) in this box if a track chart is supplied. |
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| GENERAL OCEAN AREA(S): NORTH SEA, EASTERN CHANNEL |
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|--------------------------|
| SPECIFIC AREAS: - |
|--------------------------|



THANK YOU FOR YOUR COOPERATION

Please send your completed report without delay to the collating centre indicated on the cover page.