

NOTIFICATION OF PROPOSED RESEARCH CRUISE**PART A : GENERAL ORGANISATION**

1.	Name of research ship	RV BELGICA	Cruise N° 2017/26ab	
2.	Dates of cruise	From 28 August	to 08 September 2017	
3.	Operating Authority	Belgian Navy under contract for Belgian Ministry of Science Policy Royal Belgian Institute for Natural Sciences 'RBINS' Operational Directorate, Natural Environment, Measurement Services Ostend 3de & 23ste Linieregimentsplein, 8400 Oostende +32 59 70 01 31 • +32 59 70 49 35 • mso@odnature.be odnature.naturalsciences.be/belgica		
4.	Owner	Belgian state represented by Minister for Science Policy		
5.	Particulars of ship	Name Belgica Nationality Belgian Overall length 51 meters Maximum draught 4,5 meters Nett tonnage 232 NRT Propulsion Diesel Call Sign ORGQ Telephone INMARSAT 00870 76 218 73 27 Facsimile INMARSAT 00870 32 052 18 12 Email rvbelgica@naturalsciences.be		
6.	Crew	Name of master Lieutenant Commander (BeN) Bernard TABUREAU N° of Crew 15		
7.	Scientific Personnel	Name and address of scientists in charge : Miss Els Torreele Miss Loes Vandecasteele Institute for Agricultural and Fisheries Research 'ILVO' Animal Sciences, Fisheries and Aquatic Productions Ankerstraat 1, 8400 Ostend, Belgium www.ilvo.vlaanderen.be +32-59-56 98 33 • +32-59-33 06 29 • els.torreele@ilvo.vlaanderen.be +32-59-56 98 24 • +32-59-33 06 29 • loes.vandecasteele@ilvo.vlaanderen.be N° of scientists 15		

(A nominal roll of all personnel other than nationals of the applicant (flag) state is required)

8. Geographical area in which ship will operate (with reference in latitude and longitude).

Belgian, French and UK Continental Shelves
N 51°00, E 0°30, N 54°00, W 3°00

9. Brief description of purpose of cruise

Survey of the adult flatfish stocks in the southern North Sea as part of the 'North Sea Beam Trawl Survey'.

10. Port of Call. Dates. Reasons.

Zeebrugge	28/08 a.m.	Departure homeport Zeebrugge. Start of RV Belgica research cruise 2017/26a
Great Yarmouth	01/09 p.m.	Arrival harbor Great Yarmouth. End of RV Belgica research cruise 2017/26a
Great Yarmouth	02/09-03/09	Relaxation of crew RV Belgica and scientists.
Great Yarmouth	04/09 a.m.	Departure harbor Great Yarmouth. Start of RV Belgica research cruise 2017/26b
Zeebrugge	08/09 p.m.	Arrival homeport Zeebrugge. End of RV Belgica research cruise 2017/26b

11. Any special logistic requirements at ports of call (other than water, fuel provisions, etc.)

N.A.

NOTIFICATION OF PROPOSED RESEARCH CRUISE**PART B: DETAIL**

1. Name of research ship **BELGICA** Cruise N° **2017/26ab**

2. Date of cruise From **28 August** To **08 September 2017**

3. Purpose of research and general methods. (If the research work is being taken on behalf of a research institution of a third state, it is the responsibility of that state to obtain prior permission; it is essential that written confirmation that this has been done is obtained and quoted in this application.

Since 1985, the ILVO-Fisheries Research Group on Fisheries Biology performs fishery-independent surveys of the adult flatfish stocks (primarily plaice and sole) in the southern North Sea. Each year, 62 stations are sampled. All invertebrates and fish are sorted by species, and then counted. The commercial species and non-commercial fish are also measured for length. For plaice, sole, turbot, brill and cod, otoliths are taken for age determination (for each species 3 otoliths per cm size class in 14 separate geographical units). Since 2012 marine litter is also documented. On an annual basis, the data are exchanged at the Working Group on Beam Trawl Surveys (WGBEAM), a group which is coordinated by the International Council for the Exploration of the Sea (ICES), and they are uploaded in the ICES-database DATRAS (<http://datras.ices.dk>) from 2012 onwards. The survey is a compulsory part of the Belgian National Data Gathering Program, in fulfilment of the requirements of EC Regulation no. 199/2008.

4. Attach chart(s) showing (on an appropriate scale) the² geographical area of the intended work, positions of intended stations, tracks of survey lines, positions of moored / seabed equipment.

See Annex: chart + positions in Table 1

5. Types of samples required, e.g. Geological / Water / Plankton / Fish / Radioactivity / Isotope

Fish, commercial invertebrates, macrobenthos and litter

and methods by which samples will be obtained (including dredging/coring/drilling).

Beam trawling

6. Details of moored equipment :

Laying	Recovery	Dates	Description	Latitude	Longitude
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7. Explosives : **N.A.**

(a) Type and Trade Name	(b) chemical content
(c) Dept of trade class and stowage	(d) Size
(e) Depth of detonation	(f) Frequency of detonation
(g) Dates of detonation	

8. Details and reference of

- (a) Any relevant previous/future cruises

RV Belgica cruises 92/19, 93/19, 94/19, 95/19, 96/19, 97/17, 98/16, 99/18, 2000/20, 2001/21, 2002/18, 2003/20, 2004/18, 2005/19, 2007/18, 2008/19, 2009/22, 2010/21, 2011/22, 2012/22, 2013/23, and 2014/21

- (b) Any previous published research data relating to the proposed cruise

ICES. 2009. Report of the Working Group on Beam Trawl Surveys (WGBEAM). ICES CM 2009/LRC:04.

ICES. 2010. Report of the Working Group on Beam Trawl Surveys (WGBEAM). ICES CM 2010/ SSGESST:17.

ICES. 2011. Report of the Working Group on Beam Trawl Surveys (WGBEAM). ICES CM 2011/ SSGESST:14.

ICES. 2012. Report of the Working Group on Beam Trawl Surveys (WGBEAM). ICES CM 2012/ SSGESST:11.

ICES. 2013. Report of the Working Group on Beam Trawl Surveys (WGBEAM). ICES CM 2013/ SSGESST:12.

ICES. 2014. Report of the Working Group on Beam Trawl Surveys (WGBEAM). ICES CM 2014/ SSGESST:09.

ICES. 2015. Report of the Working Group on Beam Trawl Surveys (WGBEAM). ICES CM 2015/ SSGIEOM:20.

All these reports can be downloaded at:

<http://www.ices.dk/publications/library/Pages/default.aspx#K=WGBEAM>

9. Names and addresses of scientist of the coastal state in whose waters the proposed cruise takes place with whom previous contact has been made.

UNITED KINGDOM

Mr. Ian HOLMES, CEFAS, Lowestoft, Suffolk NR33 OHT

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FRANCE

Mr. Franck COPPIN, IFREMER, 150 quai Gambetta, 62200 Boulogne-sur-Mer

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10. State :

- (a) Whether visits to the ship in port by scientists of the coastal state concerned will be acceptable.

YES

- (b) Whether it will be acceptable to carry on board an observer from the coastal state for any part of the cruise and dates and ports of embarkation / disembarkation.

Yes, cfr. part A § 10

- (c) When research data from intended cruise is likely to be made available to the coastal state and if so by what means. (If the final report is likely to be delayed beyond 12 months, interim progress reports are required.

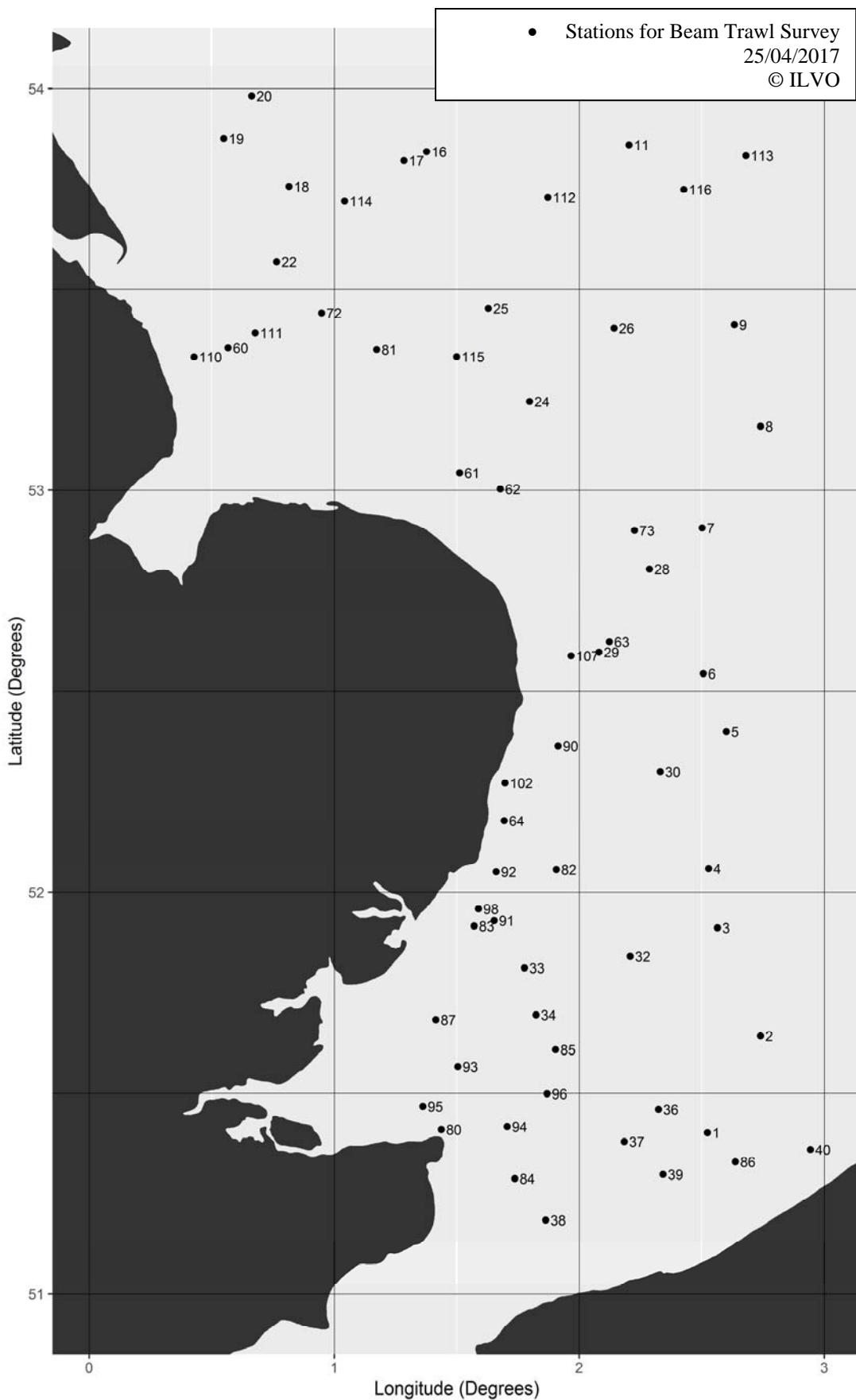
- Cruise report: 1 month after end of campaign

PART C : SCIENTIFIC EQUIPMENT**COASTAL STATE : UNITED KINGDOM**INDICATE "YES" OR "NO"

<u>LIST SCIENTIFIC WORK BY FUNCTION</u>				DISTANCE FROM COAST		
				WITHIN 12 NMS	BETWEEN 12-200 NMS	CONTINENTAL SHELF WORK ONLY) BEYOND 200 NM BUT WITHIN THE CONTINENTAL MARGIN
eg. MAGNETOMETRY : GRAVITY DIVING : SEISMICS: BATHYMETRY SEABED SAMPLING TRAWLING ECHO SOUNDING : WATER SAMPLING U/W T.V. : MOORED INSTRUMENTS: TOWED INSTRUMENTS:	WATER COLUMN INCLUDING SEDIMENT SAMPLING OF THE SEABED	FISHERIES RESEARCH WITHIN FISHING LIMITS	RESEARCH CONCERNING THE NATURAL RESOURCES OF THE CONTINENTAL SHELF OR ITS PHYSICAL CHARACTERISTICS	WITHIN 12 NMS	BETWEEN 12-200 NMS	CONTINENTAL SHELF WORK ONLY) BEYOND 200 NM BUT WITHIN THE CONTINENTAL MARGIN
4 m beam trawl with chain net & CTD	No	Yes	No	Yes	Yes	No

PART C : SCIENTIFIC EQUIPMENT**COASTAL STATE : FRANCE****INDICATE "YES" OR "NO"**

<u>LIST SCIENTIFIC WORK BY FUNCTION</u>				DISTANCE FROM COAST		
				WITHIN 12 NMS	BETWEEN 12-200 NMS	BEYOND 200 NM BUT WITHIN THE CONTINENTAL MARGIN
eg. MAGNETOMETRY : GRAVITY DIVING : SEISMICS: BATHYMETRY SEABED SAMPLING TRAWLING ECHO SOUNDING : WATER SAMPLING U/W T.V. : MOORED INSTRUMENTS: TOWED INSTRUMENTS:	WATER COLUMN INCLUDING SEDIMENT SAMPLING OF THE SEABED	FISHERIES RESEARCH WITHIN FISHING LIMITS	RESEARCH CONCERNING THE NATURAL RESOURCES OF THE CONTINENTAL SHELF OR ITS PHYSICAL CHARACTERISTICS	WITHIN 12 NMS	BETWEEN 12-200 NMS	CONTINENTAL SHELF WORK ONLY) BEYOND 200 NM BUT WITHIN THE CONTINENTAL MARGIN
4 m beam trawl with chain net & CTD	No	Yes	No	Yes	Yes	No

ANNEX:**RV Belgica research cruise 2017/26a-b: chart**

RV Belgica research cruise 2017/26a-b : Table 1 (positions)

Station	Position	Latitude		Longitude		Latitude	Longitude
		°	'	°	'	dec.	dec.
1	N 51°24.07 E 002°31.37	51	24.07	2	31.37	51.40	2.52
2	N 51°38.52 E 002°44.35	51	38.52	2	44.35	51.64	2.74
3	N 51°54.64 E 002°33.82	51	54.64	2	33.82	51.91	2.56
4	N 52°03.53 E 002°31.65	52	03.53	2	31.65	52.06	2.53
5	N 52°24.00 E 002°36.00	52	24.00	2	36.00	52.40	2.60
6	N 52°32.66 E 002°30.37	52	32.66	2	30.37	52.54	2.51
7	N 52°54.40 E 002°30.07	52	54.40	2	30.07	52.91	2.50
8	N 53°09.63 E 002°44.35	53	09.63	2	44.35	53.16	2.74
9	N 53°24.71 E 002°37.99	53	24.71	2	37.99	53.41	2.63
11	N 53°51.66 E 002°12.19	53	51.66	2	12.19	53.86	2.20
16	N 53°50.62 E 001°22.58	53	50.62	1	22.58	53.84	1.38
17	N 53°49.27 E 001°17.05	53	49.27	1	17.05	53.82	1.28
18	N 53°45.46 E 000°48.92	53	45.46	0	48.92	53.76	0.82
19	N 53°52.61 E 000°32.90	53	52.61	0	32.90	53.88	0.55
20	N 53°58.96 E 000°39.74	53	58.96	0	39.74	53.98	0.66
22	N 53°34.16 E 000°45.85	53	34.16	0	45.85	53.57	0.76
24	N 53°13.32 E 001°47.82	53	13.32	1	47.82	53.22	1.80
25	N 53°27.21 E 001°37.71	53	27.21	1	37.71	53.45	1.63
26	N 53°24.18 E 002°08.52	53	24.18	2	08.52	53.40	2.14
28	N 52°48.26 E 002°17.19	52	48.26	2	17.19	52.80	2.29
29	N 52°35.91 E 002°04.80	52	35.91	2	04.80	52.60	2.08
30	N 52°18.04 E 002°19.83	52	18.04	2	19.83	52.30	2.33
32	N 51°50.37 E 002°12.46	51	50.37	2	12.46	51.84	2.21
33	N 51°48.66 E 001°46.58	51	48.66	1	46.58	51.81	1.78
34	N 51°41.70 E 001°49.40	51	41.70	1	49.40	51.70	1.82
36	N 51°27.64 E 002°19.37	51	27.64	2	19.37	51.46	2.32
37	N 51°22.75 E 002°11.02	51	22.75	2	11.02	51.38	2.18
38	N 51°11.02 E 001°51.75	51	11.02	1	51.75	51.18	1.86
39	N 51°17.80 E 002°20.50	51	17.80	2	20.50	51.30	2.34
40	N 51°21.56 E 002°56.60	51	21.56	2	56.60	51.36	2.94
60	N 53°21.36 E 000°33.99	53	21.36	0	33.99	53.36	0.57
61	N 53°02.67 E 001°30.67	53	02.67	1	30.67	53.04	1.51
62	N 53°00.16 E 001°40.65	53	00.16	1	40.65	53.00	1.68
63	N 52°37.49 E 002°07.38	52	37.49	2	07.38	52.62	2.12
64	N 52°10.71 E 001°41.62	52	10.71	1	41.62	52.18	1.69
72	N 53°26.52 E 000°56.87	53	26.52	0	56.87	53.44	0.95
73	N 52°54.00 E 002°13.50	52	54.00	2	13.50	52.90	2.23
81	N 53°21.08 E 001°10.38	53	21.08	1	10.38	53.35	1.17
80	N 51°24.56 E 001°26.22	51	24.56	1	26.22	51.41	1.44
82	N 52°03.37 E 001°54.37	52	03.37	1	54.37	52.06	1.91
87	N 51°41.00 E 001°24.85	51	41.00	1	24.85	51.68	1.41
83	N 51°54.90 E 001°34.26	51	54.90	1	34.26	51.92	1.57

84	N 51°17.20	E 001°44.20	51	17.20	1	44.20	51.29	1.74
85	N 51°36.50	E 001°54.17	51	36.50	1	54.17	51.61	1.90
86	N 51°19.70	E 002°38.21	51	19.70	2	38.21	51.33	2.64
90	N 52°21.79	E 001°54.79	52	21.79	1	54.79	52.36	1.91
91	N 51°55.69	E 001°39.17	51	55.69	1	39.17	51.93	1.65
92	N 52°03.04	E 001°39.63	52	03.04	1	39.63	52.05	1.66
93	N 51°34.00	E 001°30.25	51	34.00	1	30.25	51.57	1.50
94	N 51°25.00	E 001°42.31	51	25.00	1	42.31	51.42	1.71
96	N 51°29.93	E 001°52.10	51	29.93	1	52.10	51.50	1.87
95	N 51°28.10	E 001°21.66	51	28.10	1	21.66	51.47	1.36
98	N 51°57.47	E 001°35.28	51	57.47	1	35.28	51.96	1.59
102	N 52°16.30	E 001°41.79	52	16.30	1	41.79	52.27	1.70
107	N 52°35.36	E 001°57.97	52	35.36	1	57.97	52.59	1.97
110	N 53°19.96	E 000°25.64	53	19.96	0	25.64	53.33	0.43
111	N 53°23.50	E 000°40.60	53	23.50	0	40.60	53.39	0.68
112	N 53°43.78	E 001°52.29	53	43.78	1	52.29	53.73	1.87
113	N 53°50.00	E 002°40.79	53	50.00	2	40.79	53.83	2.68
114	N 53°43.22	E 001°02.50	53	43.22	1	02.50	53.72	1.04
115	N 53°20.00	E 001°29.95	53	20.00	1	29.95	53.33	1.50
116	N 53°45.00	E 002°25.60	53	45.00	2	25.60	53.75	2.43