



RV Aranda

# ***Cruise plan 1/2017***

## ***Combine 1 Leg 1 GOF***

### **18. - 23.1.2017**

#### **Description of the cruise:**

Monitoring of chemical and physical parameters:

temperature,

salinity,

dissolved oxygen,

dissolved hydrogen sulphide,

dissolved nutrients and

dissolved/dispersed oil

in the Gulf of Finland according to HELCOM MONAS and EU Marine Framework Strategy Directive.

Additionally

- \* automatic chemical sond training and use
- \* Measuring temporal trends in bottom waters
- \* collection of bulk sea water for phytoplankton research
- \* wave buoy retrieval

**Chief scientist:** Harri Kankaanpää, -

Chief chemist: Ilkka Lastumäki, -, 23.01. - 23.01.

CTD-chief: Janne Bruun, -, 23.01. - 23.01.

IT-chief: Janne Bruun, -, 23.01. - 23.01.

Staff: Jan-Erik Bruun, SYKE, 23.01. - 23.01.

Riikka Hietala, FMI, 23.01. - 23.01.  
 Susanna Hyvärinen, SYKE, 23.01. - 23.01.  
 Harri Kankaanpää, SYKE, 23.01. - 23.01.  
 Tanja Kinnunen, SYKE, 23.01. - 23.01.  
 Pekka Kosloff, FMI, 23.01. - 23.01.  
 Ilkka Lastumäki, SYKE, 23.01. - 23.01.  
 Eeva Luostarinen, SYKE, 23.01. - 23.01.  
 Jere Riikonen, SYKE, 23.01. - 23.01.  
 N N, RUS, 23.01. - 23.01.  
 M M, RUS, 23.01. - 23.01.

Altogether 14 scientists.

**Departure: HELSINKI Wednesday 18.01.2017 at 10:00**

**Arrival: HELSINKI Monday 23.01.2017 at 15:08**

Cruising speed: 10.0 knots.

Duration of the cruise: 5 days 5 h 8 min

Length of the cruise: 561.79 nautical miles.

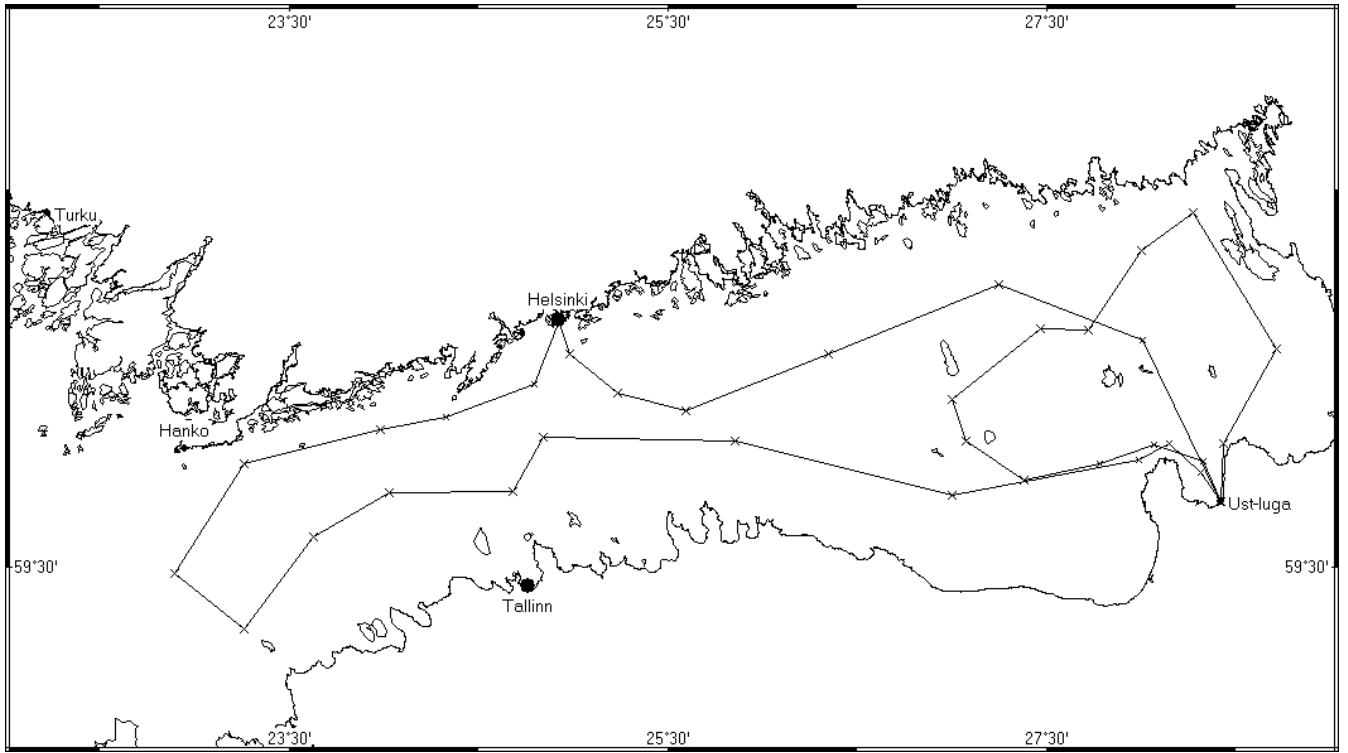
Number of observation stations 24 . Route points named as "P" are transit points only.

**Route:**

Nro	Name	Lat.	Long.	Depth	Arrival			Duration		Speed
		[WGS-84]		[m]	hh:mm	pv	pp.kk.vvvv	hh	mm	knots
0	HELSINKI	60°09.55'	24°55.37'	0	10:00	We	18.01.2017	0	0	S 10.00
1	39A	60°04.01'	24°58.81'	41	10:34	We	18.01.2017	3	0	S 10.00
2	AALTOHKI	59°57.90'	25°14.10'	62	14:33	We	18.01.2017	2	0	S 10.00
3	LL5	59°55.01'	25°35.82'	70	17:41	We	18.01.2017	2	30	S 10.00
4	LL3A	60°04.03'	26°20.80'	68	22:36	We	18.01.2017	2	0	S 10.00
5	XV1	60°15.00'	27°14.82'	64	03:30	Th	19.01.2017	2	0	S 10.00
6	P	60°06.30'	28°00.48'	-9	07:56	Th	19.01.2017	0	0	S 10.00
7	P	59°40.40'	28°25.28'	-9	10:48	Th	19.01.2017	0	0	S 10.00
8	UST-LUGA	59°40.55'	28°25.36'	0	10:49	Th	19.01.2017	6	0	S 10.00
9	6P	59°49.80'	28°26.00'	28	17:45	Th	19.01.2017	1	30	S 10.00
10	2	60°05.00'	28°43.00'	37	20:59	Th	19.01.2017	1	30	S 10.00
11	ARus	60°26.30'	28°16.70'	30	00:59	Fr	20.01.2017	1	30	S 10.00
12	GF6	60°20.31'	28°00.11'	44	03:30	Fr	20.01.2017	1	30	S 10.00
13	9F5	60°07.90'	27°43.50'	30	06:30	Fr	20.01.2017	1	30	S 10.00
14	F42	60°08.04'	27°27.94'	63	08:46	Fr	20.01.2017	2	0	S 10.00
15	33F	59°57.00'	27°00.00'	69	12:33	Fr	20.01.2017	1	30	S 10.00
16	_P	59°50.28'	27°04.51'	-9	14:45	Fr	20.01.2017	0	0	S 10.00
17	NAR3	59°44.13'	27°22.88'	72	15:52	Fr	20.01.2017	1	30	S 6.00
18	P	59°46.66'	27°46.87'	-9	19:25	Fr	20.01.2017	0	0	S 6.00

19	P	59°49.67'	28°04.08'	-9	20:57	Fr	20.01.2017	0	0	S	6.00
20	P	59°47.06'	28°19.68'	-9	22:20	Fr	20.01.2017	0	0	S	6.00
21	UST-LUGA	59°40.55'	28°25.36'	0	23:31	Fr	20.01.2017	6	0	S	10.00
22	P	59°45.25'	28°18.93'	-9	06:05	Sa	21.01.2017	0	0	S	10.00
23	P	59°49.88'	28°08.93'	-9	06:46	Sa	21.01.2017	0	0	S	10.00
24	P	59°47.26'	27°59.33'	-9	07:19	Sa	21.01.2017	0	0	S	10.00
25	WAYPOINT	59°41.60'	27°00.00'	-9	10:22	Sa	21.01.2017	0	0	S	10.00
26	GF2	59°50.31'	25°51.41'	84	13:55	Sa	21.01.2017	2	30	S	10.00
27	LL7	59°50.79'	24°50.27'	100	19:30	Sa	21.01.2017	6	0	S	10.00
28	GF1	59°42.30'	24°40.93'	84	02:28	Su	22.01.2017	2	30	S	10.00
29	LL9	59°42.01'	24°01.81'	69	06:56	Su	22.01.2017	2	30	S	10.00
30	JML	59°34.91'	23°37.61'	80	10:51	Su	22.01.2017	3	0	S	10.00
31	F62	59°20.01'	23°15.81'	95	15:43	Su	22.01.2017	6	30	S	10.00
32	LL12	59°29.01'	22°53.81'	82	23:39	Su	22.01.2017	4	0	S	10.00
33	LÄNGDEN	59°46.61'	23°15.77'	57	05:44	Mo	23.01.2017	2	0	S	10.00
34	XII3	59°52.01'	23°58.81'	38	09:58	Mo	23.01.2017	1	30	S	10.00
35	P	59°54.10'	24°19.65'	-9	12:31	Mo	23.01.2017	0	0	S	10.00
36	P	59°59.31'	24°47.66'	-9	14:01	Mo	23.01.2017	0	0	S	10.00
37	P	60°09.49'	24°55.66'	-9	15:07	Mo	23.01.2017	0	0	S	10.00
38	HELSINKI	60°09.55'	24°55.37'	0	15:08	Mo	23.01.2017	0	0	S	10.00

---



Route of the cruise Combine 1 leg 1 GOF.