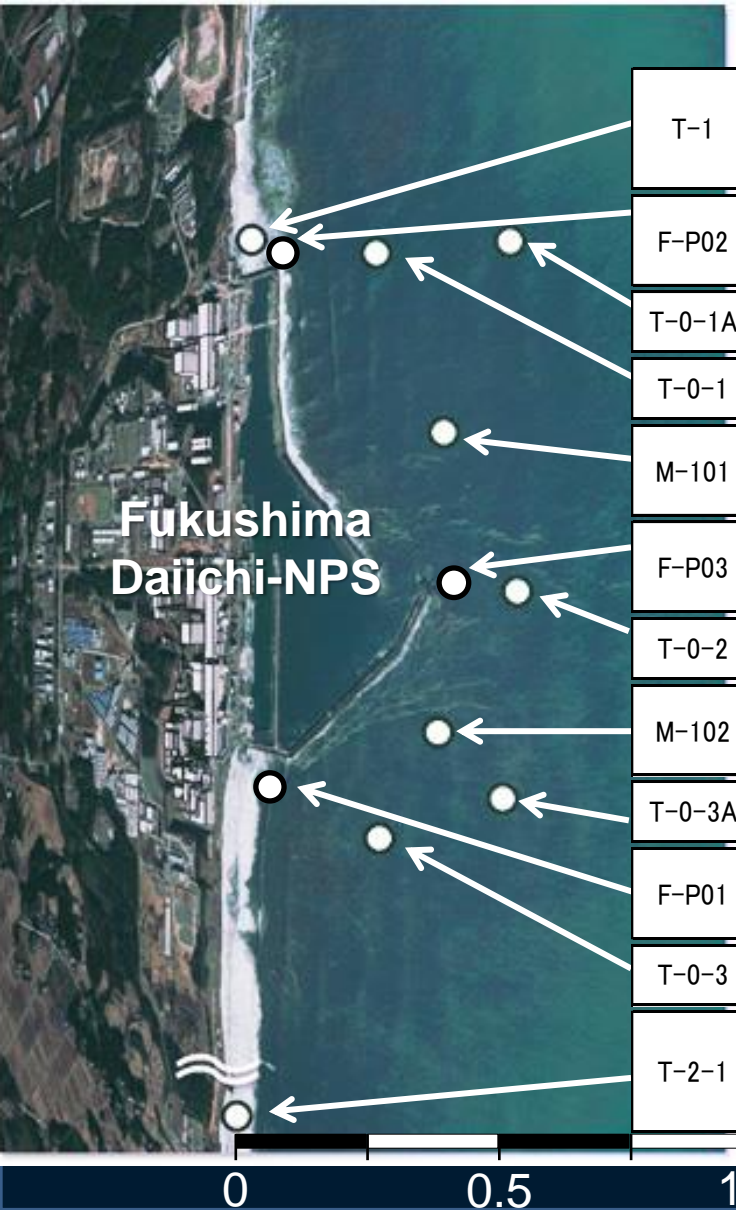


Sea Area Monitoring

December 08, 2015

Nuclear Regulation Authority (NRA), Japan

Sea area within 2km radius from the NPS



Sampling point	Sampling Date	Cs-134	Cs-137	total β	H-3	Sr-90	total α	Pu-238	Pu-239+240
----------------	---------------	--------	--------	---------------	-----	-------	----------------	--------	------------

Sea water radioactivity (Bq/L):

ND: under detection limits; Numbers in parentheses: detection limits

*1: Total β : including K-40 *2: Total β : excluding K-40

T-1	2015/11/23	ND(0.76)	ND(0.58)	12 ^{*1}	ND(1.6)				
	2015/11/16	ND(0.73)	ND(0.64)	15 ^{*1}	1.5				
	2015/10/14	ND(0.69)	ND(0.65)	13 ^{*1}	ND(1.7)	0.087	ND(1.9)		
	2015/4/8	ND(0.55)	ND(0.64)					ND(5.5×10^{-6})	ND(6.1×10^{-6})
F-P02	2015/9/14	0.21	1.0	0.03 ^{*2}	ND(0.41)	In progress		In progress	In progress
	2015/8/17	ND(0.088)	0.12	0.05 ^{*2}	ND(0.44)	0.10		In progress	In progress
	2015/3/3	ND(0.072)	0.094	0.06 ^{*2}	ND(0.43)	0.041		ND(7×10^{-6})	1.1×10^{-5}
T-0-1A	2015/11/23	ND(0.63)	ND(0.64)	ND(16) ^{*1}	In progress				
	2015/11/16	ND(0.67)	ND(0.68)	ND(17) ^{*1}	ND(1.9)				
T-0-1	2015/11/23	ND(0.71)	ND(0.53)	ND(16) ^{*1}	In progress				
	2015/11/16	ND(0.71)	ND(0.64)	ND(17) ^{*1}	ND(1.9)				
M-101	2015/10/5	0.018	0.085		0.44	In progress			
	2015/9/2	0.14	0.60		1.9	In progress			
	2015/8/5	0.0074	0.030		0.13	0.018			
F-P03	2015/9/14	ND(0.051)	0.087	0.03 ^{*2}	ND(0.40)	In progress		In progress	In progress
	2015/8/17	0.13	0.48	0.19 ^{*2}	1.1	0.46		In progress	In progress
	2015/3/3	0.079	0.23	0.14 ^{*2}	1.4	0.23		ND(6×10^{-6})	ND(8×10^{-6})
T-0-2	2015/11/23	ND(0.70)	ND(0.66)	ND(16) ^{*1}	In progress				
	2015/11/16	ND(0.65)	ND(0.58)	ND(17) ^{*1}	ND(1.9)				
M-102	2015/10/6	0.016	0.066		0.20	In progress			
	2015/9/3	0.0054	0.022		0.077	In progress			
	2015/8/6	0.0072	0.032		0.14	0.027			
T-0-3A	2015/11/23	ND(0.68)	ND(0.50)	ND(16) ^{*1}	In progress				
	2015/11/16	ND(0.72)	ND(0.62)	ND(17) ^{*1}	ND(1.9)				
F-P01	2015/9/14	ND(0.053)	0.15	0.05 ^{*2}	0.55	In progress		In progress	In progress
	2015/8/17	ND(0.071)	0.12	0.04 ^{*2}	ND(0.42)	0.037		In progress	In progress
	2015/3/3	ND(0.068)	0.075	0.04 ^{*2}	ND(0.43)	0.004		ND(6×10^{-6})	ND(6×10^{-6})
T-0-3	2015/11/23	ND(0.76)	ND(0.69)	ND(16) ^{*1}	In progress				
	2015/11/16	ND(0.68)	ND(0.73)	ND(17) ^{*1}	ND(1.9)				
T-2-1	2015/11/23	ND(0.76)	ND(0.64)	11 ^{*1}	ND(1.6)				
	2015/11/16	ND(0.85)	1.0	11 ^{*1}	ND(1.5)				
	2015/10/14	ND(0.88)	ND(0.78)	11 ^{*1}	ND(1.7)	ND(0.0093)	ND(1.9)		
	2015/4/8	ND(0.66)	ND(0.60)	8.9 ^{*1}				ND(6.9×10^{-6})	$(9.7 \pm 2.4) \times 10^{-6}$

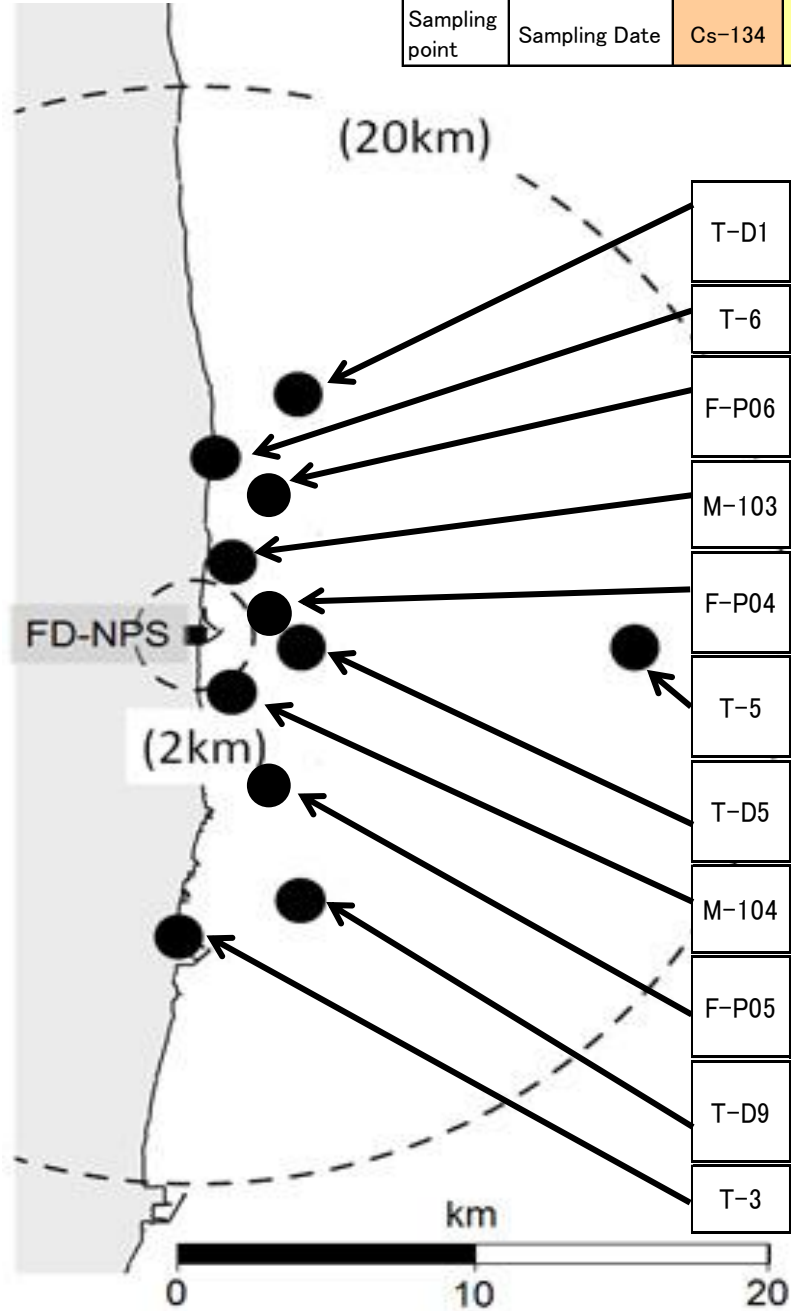
Sea area between 2-20km radius from the NPS (1)

Sampling point	Sampling Date	Cs-134	Cs-137	total β	H-3	Sr-90	total α	Pu-238	Pu-239+240	S	S:2m below sea level
										Depth(m) from sea level	

Sea water radioactivity (Bq/L):

ND: under detection limits; Numbers in parentheses: detection limits

*1: Total β : including K-40 *2: Total β : excluding K-40



T-D1	2015/10/19	0.0069	0.034	ND(17) ^{*1}	ND(0.36)						S
	2015/10/5	0.0029	0.010	ND(16) ^{*1}	ND(0.36)						S
	2015/4/8	0.0017	0.0048	ND(15) ^{*1}	0.49				ND(7.0 × 10 ⁻⁶)	ND(6.8 × 10 ⁻⁶)	S
T-6	2015/10/20	0.034	0.12	ND(15) ^{*1}	ND(0.32)						S
	2015/10/6	0.010	0.049	ND(16) ^{*1}	ND(0.33)						S
F-P06	2015/9/14	ND(0.050)	0.082	0.02 ^{*2}	0.47	In progress			In progress	In progress	S
	2015/8/17	ND(0.070)	ND(0.066)	0.02 ^{*2}	ND(0.41)	0.001			In progress	In progress	S
	2015/3/3	ND(0.059)	ND(0.057)	0.03 ^{*2}	ND(0.43)	0.004			ND(6 × 10 ⁻⁶)	6 × 10 ⁻⁶	S
M-103	2015/10/5	0.0046	0.020		0.10	In progress					0.5m
	2015/9/2	0.0068	0.030		0.10	In progress					0.5m
	2015/8/5	0.0038	0.018		0.082	0.0034					0.5m
F-P04	2015/9/14	ND(0.054)	0.052	0.02 ^{*2}	ND(0.40)	In progress			In progress	In progress	S
	2015/8/17	ND(0.090)	ND(0.066)	0.02 ^{*2}	ND(0.42)	0.001			In progress	In progress	S
	2015/3/3	ND(0.064)	ND(0.052)	0.03 ^{*2}	0.48	0.002			ND(7 × 10 ⁻⁶)	ND(8 × 10 ⁻⁶)	S
T-5	2015/10/19	ND(0.0017)	0.0032	ND(17) ^{*1}	ND(0.36)						S
	2015/10/6	ND(0.0015)	0.0042	ND(16) ^{*1}	ND(0.36)	ND(0.0067)	ND(1.9)				S
	2015/4/9	ND(0.0014)	0.0021	ND(17) ^{*1}	ND(0.32)	ND(0.011)	ND(1.6)		ND(5.7 × 10 ⁻⁶)	ND(5.6 × 10 ⁻⁶)	S
T-D5	2015/10/19	0.0079	0.030	ND(17) ^{*1}	ND(0.36)						S
	2015/10/5	ND(0.0016)	0.0085	ND(16) ^{*1}	ND(0.36)	ND(0.0062)	ND(1.6)				S
	2015/4/8	ND(0.0016)	0.0062	ND(15) ^{*1}	0.70	ND(0.011)	ND(2.0)		ND(6.3 × 10 ⁻⁶)	ND(6.0 × 10 ⁻⁶)	S
M-104	2015/10/6	0.0041	0.016		0.080	In progress					0.5m
	2015/9/3	0.0062	0.030		0.14	In progress					0.5m
	2015/8/6	0.0072	0.031		0.12	0.025					0.5m
F-P05	2015/9/14	0.067	0.31	0.03 ^{*2}	ND(0.39)	In progress			In progress	In progress	S
	2015/8/17	ND(0.080)	ND(0.070)	0.02 ^{*2}	ND(0.42)	0.002			In progress	In progress	S
	2015/3/3	ND(0.096)	ND(0.053)	0.04 ^{*2}	ND(0.43)	0.004			ND(6 × 10 ⁻⁶)	8 × 10 ⁻⁶	S
T-D9	2015/10/19	0.0053	0.023	ND(17) ^{*1}	ND(0.36)						S
	2015/10/6	0.0026	0.013	ND(16) ^{*1}	ND(0.36)	ND(0.0068)	ND(1.9)				S
	2015/4/9	ND(0.0017)	0.0043	ND(17) ^{*1}	ND(0.32)	ND(0.0092)	ND(1.6)		ND(6.7 × 10 ⁻⁶)	ND(6.5 × 10 ⁻⁶)	S
T-3	2015/10/20	0.034	0.12	ND(17) ^{*1}	ND(0.32)						S
	2015/10/6	0.012	0.056	ND(16) ^{*1}	ND(0.33)						S

Sea area between 2-20km radius from the NPS (2)

Sampling point	Sampling Date	Cs-134	Cs-137	S/B	S:2m below sea level B:2-3m above sea bottom
----------------	---------------	--------	--------	-----	---

Sea water radioactivity (Bq/L):

ND: under detection limits; Numbers in parentheses: detection limits

T-S1	2015/10/20	0.0060	0.029	S
		0.0045	0.020	B

T-14	2015/10/26	0.0033	0.011	S
		0.0032	0.012	B
	2015/10/19	0.0038	0.018	S
		0.0076	0.032	B

T-D1	2015/10/26	0.0030	0.014	S
		0.0030	0.013	B
	2015/10/19	0.0069	0.034	S
		0.0092	0.039	B

T-6	2015/11/4	0.014	0.061	S
	2015/10/27	0.012	0.057	S

T-S8	2015/10/18	0.0065	0.028	S
		0.0025	0.014	B

T-3	2015/11/4	0.017	0.064	S
	2015/10/27	0.019	0.080	S

T-S7	2015/10/15	0.0027	0.012	S
		0.0042	0.020	B

T-S5	2015/10/15	0.0031	0.016	S
		0.0036	0.015	B

T-S3	2015/10/27	0.0049	0.017	S
		0.0033	0.012	B

T-S4	2015/10/27	0.0027	0.011	S
		0.0031	0.016	B

T-D5	2015/10/26	0.0027	0.011	S
		0.0034	0.013	B
	2015/10/19	0.0079	0.030	S
		0.0049	0.020	B

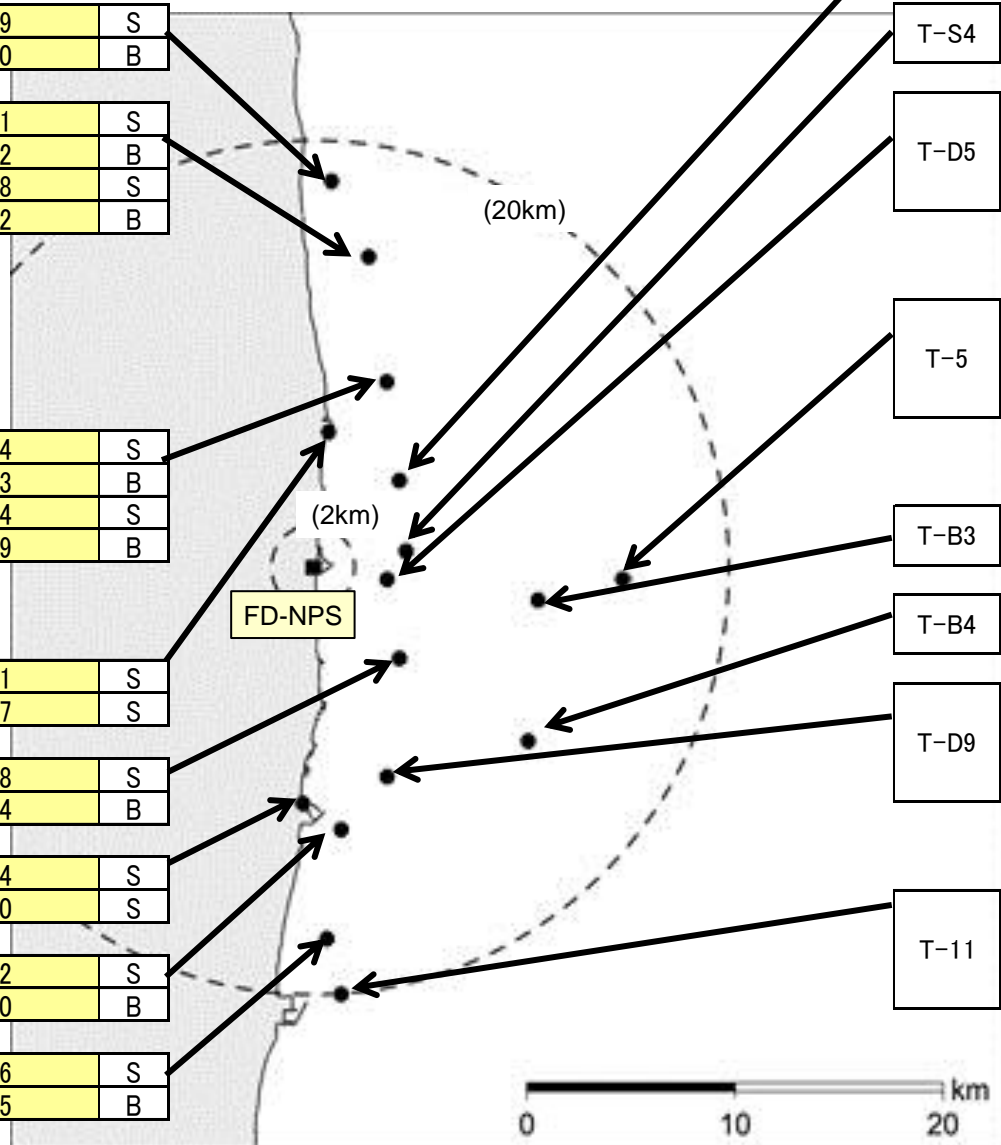
T-5	2015/10/26	0.0024	0.0098	S
		0.0030	0.012	B
	2015/10/19	ND(0.0017)	0.0032	S
		ND(0.0015)	0.0032	B

T-B3	2015/10/20	ND(0.0014)	0.0058	S
		ND(0.0014)	0.0026	B

T-B4	2015/10/20	ND(0.0014)	0.0031	S
		ND(0.0012)	0.0028	B

T-D9	2015/10/26	0.0021	0.010	S
		0.0031	0.012	B
	2015/10/19	0.0053	0.023	S
		0.0026	0.011	B

T-11	2015/10/26	0.0047	0.018	S
		0.0033	0.018	B
	2015/10/19	0.0072	0.035	S
		0.0059	0.028	B

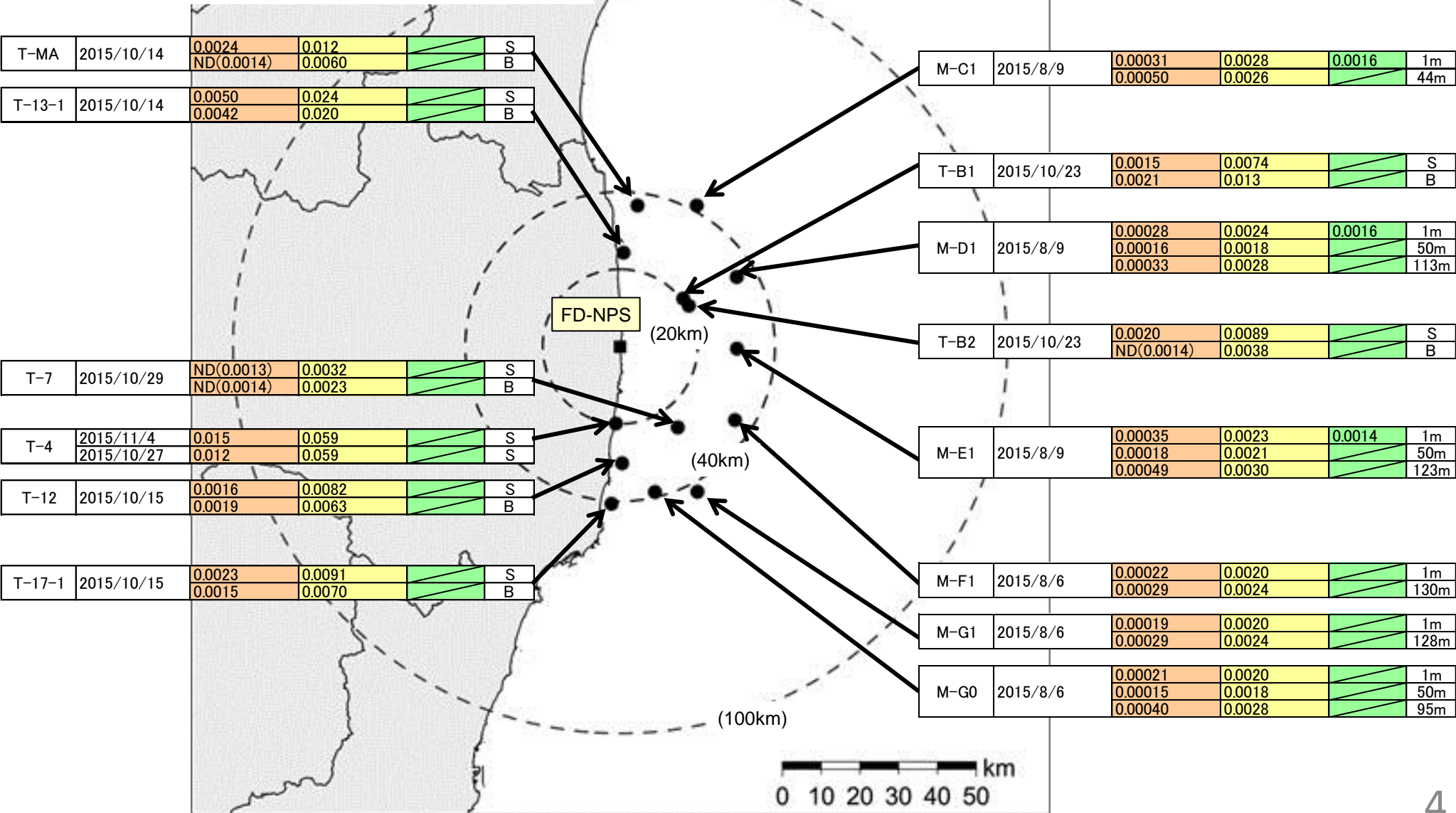


Sea area between 20-100km radius from the NPS(1)

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	S/B	S:2m below sea level	B:2-3m above sea bottom
					Depth(m) from sea level		

Sea water radioactivity (Bq/L):

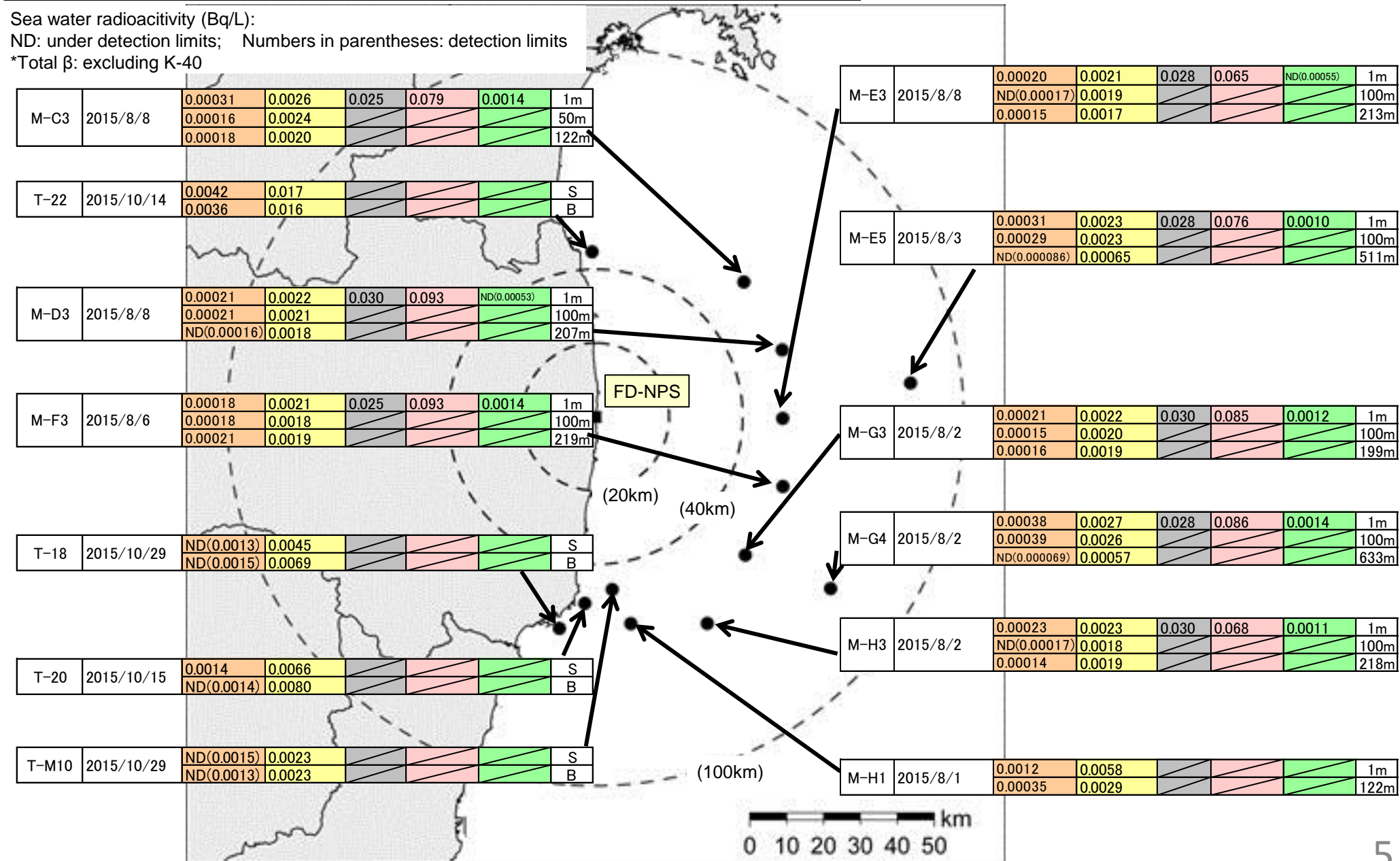
ND: under detection limits; Numbers in parentheses: detection limits



Sea area between 20-100km radius from the NPS(2)

Sampling point	Sampling Date	Cs-134	Cs-137	Total β *	H-3	Sr-90	S/B
							S:2m below sea level B:2-3m above sea bottom
							Depth(m) from sea level

Sea water radioactivity (Bq/L):
 ND: under detection limits; Numbers in parentheses: detection limits
 *Total β: excluding K-40



Sea area along and off the coast of Miyagi Prefecture

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	S/M/B
----------------	---------------	--------	--------	-------	-------

S:2m below sea level

M:between 2m below sea level and 2-3m above sea bottom

B:2-3m above sea bottom

Sea water radioactivity (Bq/L):

ND: under detection limits; Numbers in parentheses: detection limits

T-MG1	2015/10/14	ND(0.0015)	0.0099		S
		ND(0.0016)	0.0092		M
		0.0018	0.0098		B

T-MG4	2015/10/15	0.0016	0.0073		S
		ND(0.0016)	0.0060		M
		0.0027	0.011		B

T-MG5	2015/10/15	ND(0.0016)	0.0055		S
		ND(0.0016)	0.0055		M
		ND(0.0017)	0.0057		B
	2015/9/2	ND(0.0014)	0.0052	ND(0.0065)	S

T-MG6	2015/10/15	ND(0.0014)	0.0069		S
		0.0017	0.0063		M
		ND(0.0015)	0.0068		B

M-B1	2015/8/10	0.00041	0.0029		1m
		0.00016	0.0020		33m

M-B3	2015/8/9	ND(0.00011)	0.0016	0.00094	1m
		0.00014	0.0018		50m
		0.00029	0.0026		106m

T-MG0	2015/10/16	ND(0.0014)	0.0021		S
		ND(0.0016)	0.0019		M
		ND(0.0015)	0.0026		B

M-A1	2015/8/7	0.00013	0.0018		1m
		0.00019	0.0018		100m
		0.00015	0.0021		186m

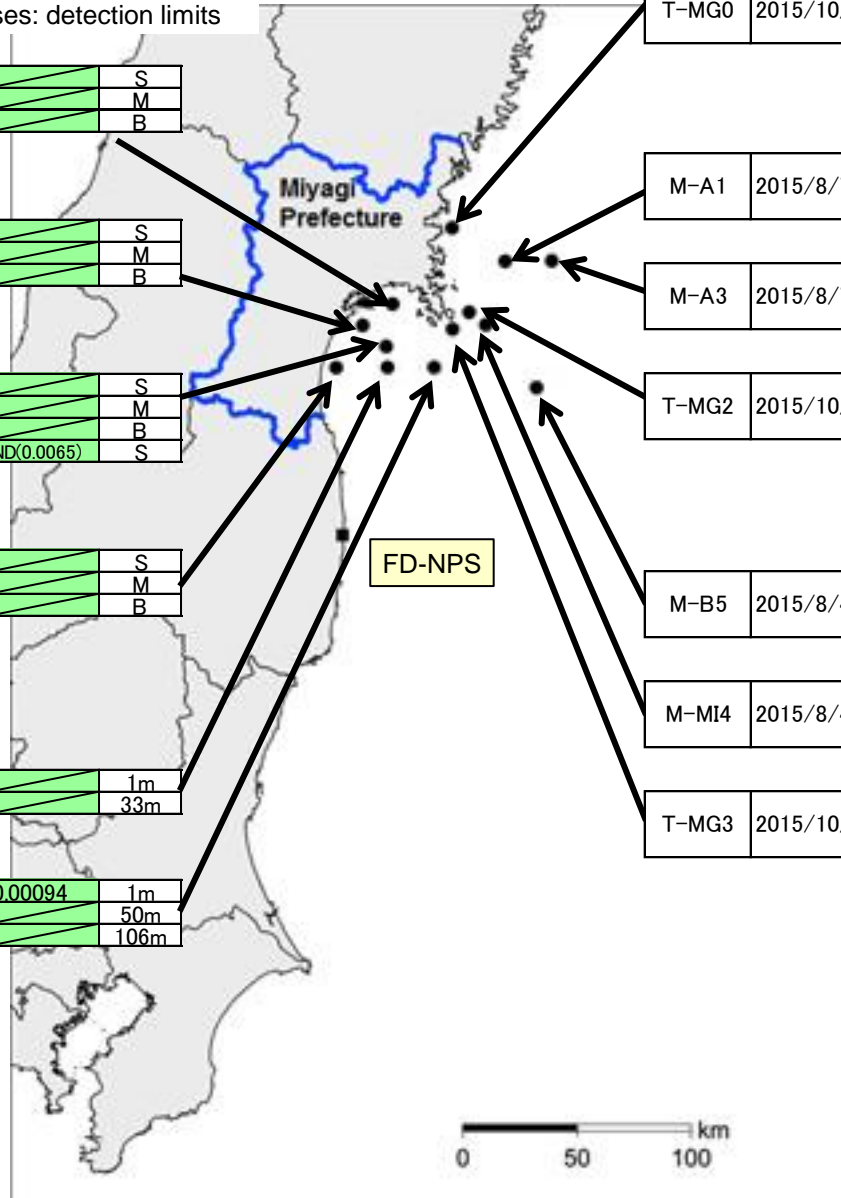
M-A3	2015/8/7	0.00013	0.0016		1m
		0.00031	0.0023		100m
		ND(0.000096)	0.00077		466m

T-MG2	2015/10/14	ND(0.0014)	0.0017		S
		ND(0.0015)	0.0023		M
		ND(0.0015)	0.0022		B

M-B5	2015/8/4	0.00023	0.0020		1m
		0.00021	0.0022		100m
		ND(0.00013)	0.0012		347m

M-MI4	2015/8/4	0.00018	0.0021		1m
		0.00031	0.0024		100m
		0.00013	0.0019		141m

T-MG3	2015/10/14	ND(0.0024)	0.0034		S
		ND(0.0021)	0.0031		M
		ND(0.0024)	0.0031		B



Sea area along and off the coast of Ibaraki Pref. and Chiba Pref.

Sampling point	Sampling Date	Cs-134	Cs-137	Sr-90	S/B
					S:2m below sea level B:2-3m above sea bottom
					Depth(m) from sea level

Sea water radioactivity (Bq/L):

ND: under detection limits; Numbers in parentheses: detection limits

T-Z	2015/11/9	ND(0.91)	ND(1.2)	/	S
		ND(0.91)	ND(1.2)		B

T-A	2015/11/9	ND(1.0)	ND(1.2)	/	S
		ND(0.98)	ND(1.2)		B

T-B	2015/11/11	ND(1.0)	ND(1.0)	/	S
		ND(1.1)	ND(1.2)		B

M-J1	2015/7/30	0.00058	0.0035	0.0011	1m
		0.0010	0.0051	/	37m

T-C	2015/11/10	ND(0.86)	ND(1.1)	/	S
		ND(0.99)	ND(1.2)		B
	2015/9/16	ND(0.99)	ND(1.0)	ND(0.0083)	S

M-K1	2015/7/30	0.00035	0.0028	/	1m
		0.00028	0.0022		20m

T-D	2015/11/11	ND(1.0)	ND(1.2)	/	S
		ND(0.98)	ND(1.2)		B

M-M1	2015/7/29	0.00023	0.0020	/	1m
		0.00039	0.0026		103m

M-I0	2015/7/31	0.00037	0.0025	/	1m
		0.00040	0.0031		61m

M-I1	2015/8/1	0.00046	0.0031	/	1m
		ND(0.00013)	0.0018		50m
		0.00033	0.0025		88m

M-I3	2015/8/1	0.00033	0.0025	/	1m
		0.00028	0.0023		100m
		0.00031	0.0023		173m

M-IB2	2015/7/31	0.00089	0.0045	/	1m
		0.00052	0.0030		105m

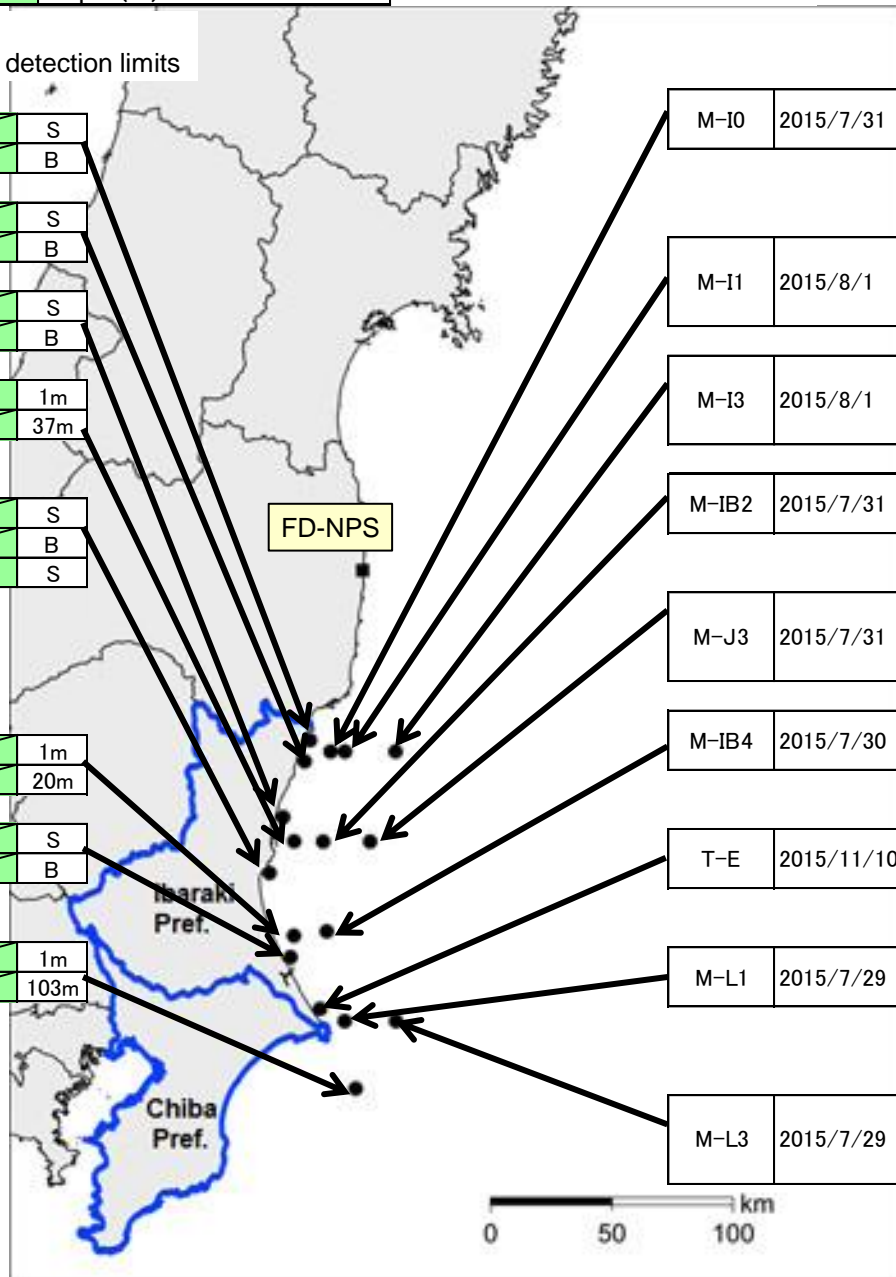
M-J3	2015/7/31	0.00040	0.0030	/	1m
		0.00029	0.0024		100m
		ND(0.000067)	0.00061		550m

M-IB4	2015/7/30	0.00034	0.0028	/	1m
		0.00026	0.0024		110m

T-E	2015/11/10	ND(0.91)	ND(1.2)	/	S
		ND(0.91)	ND(1.1)		B

M-L1	2015/7/29	0.00042	0.0031	/	1m
		0.00061	0.0032		33m

M-L3	2015/7/29	0.00041	0.0030	/	1m
		0.00028	0.0025		100m
		0.00018	0.0022		159m



Open sea off the coast of Eastern Japan

Sampling point	Sampling Date	Cs-134	Cs-137	Depth(m) from sea level
----------------	---------------	--------	--------	-------------------------

Sea water radioactivity (Bq/L):

ND: under detection limits; Numbers in parentheses: detection limits

M-10	2015/5/26	ND(0.00082)	0.0024	1m
		ND(0.00075)	0.0031	101m
		ND(0.00068)	0.0018	201m
		ND(0.00078)	0.0017	301m
		ND(0.00078)	0.00089	500m

M-11	2015/5/26	ND(0.00069)	0.0030	1m
		ND(0.00063)	0.0029	101m
		ND(0.00062)	0.0024	201m
		ND(0.00070)	0.0018	301m
		ND(0.00068)	0.0015	502m

M-14	2015/5/27	ND(0.00064)	0.0028	1m
		ND(0.00054)	0.0018	102m
		ND(0.00060)	0.0015	200m
		ND(0.00053)	0.0011	303m
		ND(0.00060)	0.00086	502m

M-15	2015/5/27	ND(0.00068)	0.0026	1m
		ND(0.00061)	0.0022	100m
		ND(0.00061)	0.0016	201m
		ND(0.00062)	0.0016	300m
		ND(0.00059)	0.00073	501m

M-19	2015/5/29	ND(0.00058)	0.0026	1m
		ND(0.00057)	0.0022	102m
		ND(0.00056)	0.0015	201m
		ND(0.00055)	0.0016	300m
		ND(0.00056)	0.00071	502m

M-21	2015/5/31	ND(0.00057)	0.0016	1m
		ND(0.00061)	0.0023	102m
		0.00061	0.0039	200m
		ND(0.00052)	0.0023	300m
		ND(0.00062)	0.00087	500m

M-20	2015/5/31	ND(0.00065)	0.0017	1m
		0.00065	0.0031	100m
		ND(0.00068)	0.0031	200m
		ND(0.00059)	0.0018	305m
		ND(0.00061)	0.0013	499m

M-26	2015/5/28	ND(0.00060)	0.0024	1m
		ND(0.00056)	0.0029	100m
		ND(0.00066)	0.0034	202m
		ND(0.00066)	0.0040	301m
		ND(0.00061)	0.0027	500m

M-25	2015/6/1	ND(0.00073)	0.0015	1m
		ND(0.00077)	0.0031	100m
		ND(0.00069)	0.0030	201m
		0.00081	0.0056	301m
		0.00067	0.0024	500m

M-27	2015/5/28	ND(0.00060)	0.0026	1m
		ND(0.00060)	0.0030	100m
		0.00082	0.0042	200m
		0.0011	0.0049	301m
		ND(0.00065)	0.0034	501m

