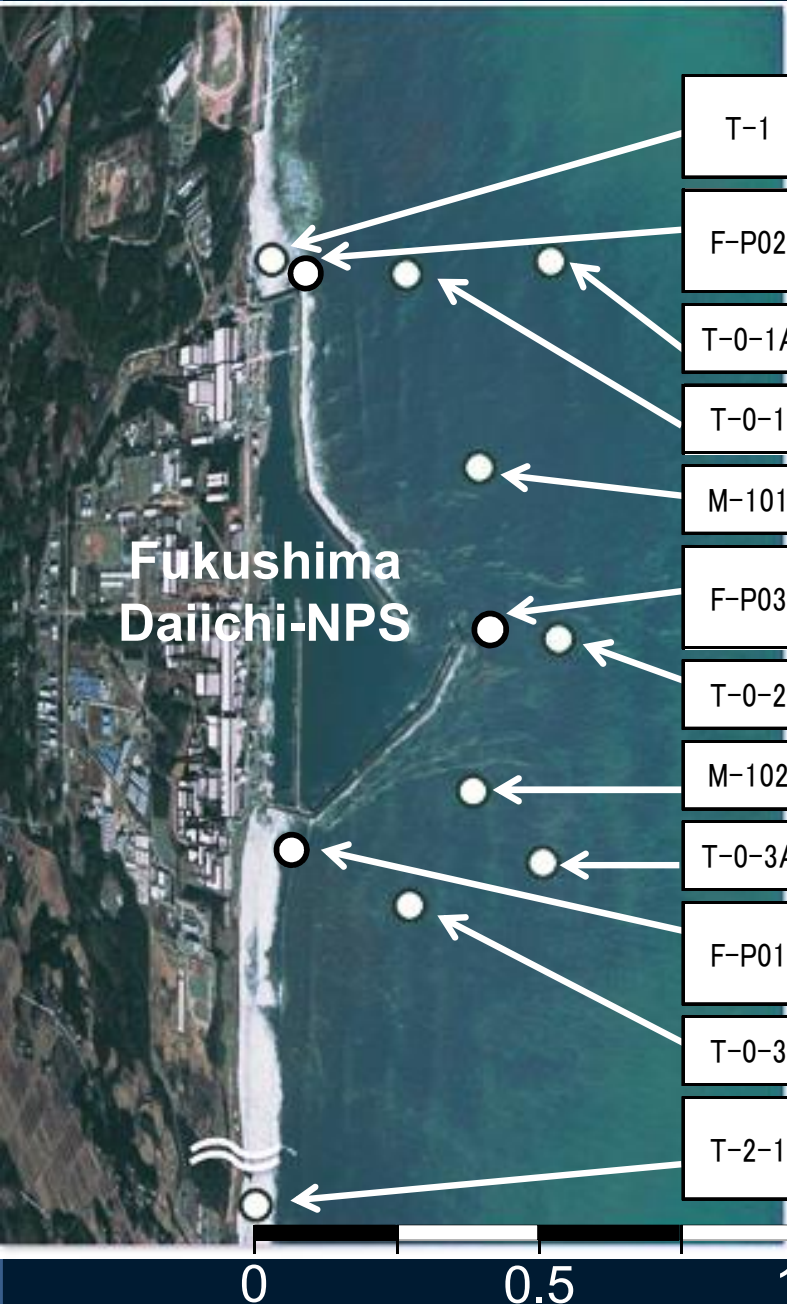


# Sea Area Monitoring

August 25, 2015

Nuclear Regulation Authority (NRA), Japan

# Sea area within 2km radius from the NPS



Sampling point	Sampling Date	Cs-134	Cs-137	total $\beta$	H-3	Sr-90	total $\alpha$	Pu-238	Pu-239+240
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Sea water radioactivity (Bq/L):

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

\*1: Total  $\beta$ : including K-40    \*2: Total  $\beta$ : excluding K-40

T-1	2015/8/10	ND(0.75)	ND(0.59)	13 <sup>*1</sup>	ND(1.7)				
	2015/7/6	ND(0.71)	ND(0.80)	10 <sup>*1</sup>	ND(1.7)	0.18	ND(1.6)		
	2015/4/8	ND(0.55)	ND(0.64)					ND( $5.5 \times 10^{-6}$ )	ND( $6.1 \times 10^{-6}$ )
F-P02	2015/7/21	0.19	0.67	0.31 <sup>*2</sup>	1.9	In progress		In progress	In progress
	2015/6/16	ND(0.065)	ND(0.053)	0.04 <sup>*2</sup>	ND(0.45)	0.046		In progress	In progress
	2015/3/3	ND(0.072)	0.094	0.06 <sup>*2</sup>	ND(0.43)	0.041		ND( $7 \times 10^{-6}$ )	$1.1 \times 10^{-5}$
T-0-1A	2015/8/14	ND(0.68)	ND(0.55)	ND(17) <sup>*1</sup>	In progress				
	2015/8/3	ND(0.80)	ND(0.50)	ND(17) <sup>*1</sup>	ND(1.9)				
T-0-1	2015/8/14	ND(0.60)	ND(0.67)	ND(17) <sup>*1</sup>	In progress				
	2015/8/3	ND(0.51)	ND(0.49)	ND(17) <sup>*1</sup>	ND(1.9)				
M-101	2015/6/10	0.030	0.12		0.53	In progress			
	2015/4/28	0.0067	0.025		0.17	0.012			
F-P03	2015/7/21	0.22	0.83	0.37 <sup>*2</sup>	2.6	In progress		In progress	In progress
	2015/6/16	ND(0.066)	ND(0.050)	0.03 <sup>*2</sup>	ND(0.46)	0.008		In progress	In progress
	2015/3/3	0.079	0.23	0.14 <sup>*2</sup>	1.4	0.23		ND( $6 \times 10^{-6}$ )	ND( $8 \times 10^{-6}$ )
T-0-2	2015/8/14	ND(0.67)	ND(0.64)	ND(17) <sup>*1</sup>	In progress				
	2015/8/3	ND(0.75)	ND(0.56)	ND(17) <sup>*1</sup>	ND(1.9)				
M-102	2015/6/11	0.0030	0.013		0.11	In progress			
	2015/4/27	0.013	0.047		0.12	0.017			
T-0-3A	2015/8/14	ND(0.60)	ND(0.72)	ND(17) <sup>*1</sup>	In progress				
	2015/8/3	ND(0.73)	ND(0.78)	ND(17) <sup>*1</sup>	ND(1.9)				
F-P01	2015/7/21	ND(0.054)	0.10	0.03 <sup>*2</sup>	ND(0.46)	In progress		In progress	In progress
	2015/6/16	ND(0.055)	ND(0.052)	0.03 <sup>*2</sup>	ND(0.46)	0.004		In progress	In progress
	2015/3/3	ND(0.068)	0.075	0.04 <sup>*2</sup>	ND(0.43)	0.004		ND( $6 \times 10^{-6}$ )	ND( $6 \times 10^{-6}$ )
T-0-3	2015/8/14	ND(0.68)	ND(0.72)	ND(17) <sup>*1</sup>	In progress				
	2015/8/3	ND(0.75)	ND(0.56)	ND(17) <sup>*1</sup>	ND(1.9)				
T-2-1	2015/8/10	ND(0.54)	0.74	12 <sup>*1</sup>	ND(1.7)				
	2015/7/6	ND(0.74)	ND(0.63)	12 <sup>*1</sup>	ND(1.7)	0.013	ND(1.6)		
	2015/4/8	ND(0.66)	ND(0.60)	8.9 <sup>*1</sup>				ND( $6.9 \times 10^{-6}$ )	( $9.7 \pm 2.4$ ) $\times 10^{-6}$

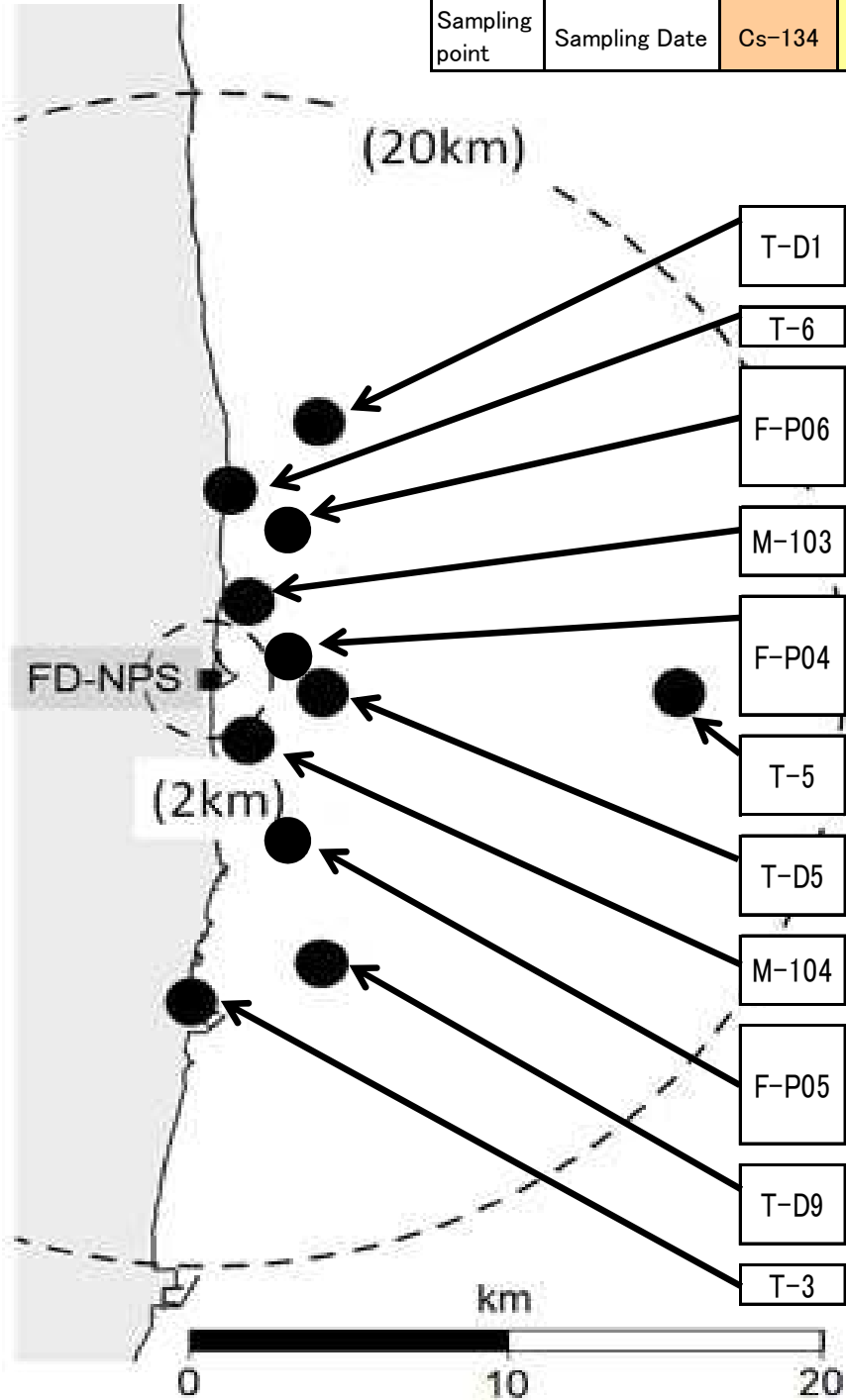
# Sea area between 2-20km radius from the NPS (1)

Sampling point	Sampling Date	Cs-134	Cs-137	total $\beta$	H-3	Sr-90	total $\alpha$	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  $\beta$ : including K-40 \*2: Total  $\beta$ : excluding K-40



T-D1	2015/7/6	0.0032	0.010	ND(15) <sup>*1</sup>	ND(0.33)	ND(0.0075)	ND(2.0)			S
	2015/4/8	0.0017	0.0048	ND(15) <sup>*1</sup>	0.49	ND(0.0099)	ND(2.0)	ND( $7.0 \times 10^{-6}$ )	ND( $6.8 \times 10^{-6}$ )	S
T-6	2015/7/7	0.030	0.11	ND(17) <sup>*1</sup>	ND(0.35)					S
F-P06	2015/7/21	ND(0.056)	ND(0.051)	0.02 <sup>*2</sup>	ND(0.45)	In progress		In progress	In progress	S
	2015/6/16	ND(0.067)	ND(0.069)	0.03 <sup>*2</sup>	ND(0.45)	0.003		In progress	In progress	S
	2015/3/3	ND(0.059)	ND(0.057)	0.03 <sup>*2</sup>	ND(0.43)	0.004		ND( $6 \times 10^{-6}$ )	$6 \times 10^{-6}$	S
M-103	2015/6/10	0.0050	0.020		0.13	In progress				0.5m
	2015/4/28	0.0044	0.015		0.14	0.0047				0.5m
F-P04	2015/7/21	ND(0.058)	0.054	0.02 <sup>*2</sup>	ND(0.45)	In progress		In progress	In progress	S
	2015/6/16	ND(0.062)	ND(0.053)	0.03 <sup>*2</sup>	ND(0.44)	0.002		In progress	In progress	S
	2015/3/3	ND(0.064)	ND(0.052)	0.03 <sup>*2</sup>	0.48	0.002		ND( $7 \times 10^{-6}$ )	ND( $8 \times 10^{-6}$ )	S
T-5	2015/7/6	ND(0.0018)	0.0039	ND(15) <sup>*1</sup>	ND(0.33)	ND(0.0094)	ND(2.0)			S
	2015/4/9	ND(0.0014)	0.0021	ND(17) <sup>*1</sup>	ND(0.32)	ND(0.011)	ND(1.6)	ND( $5.7 \times 10^{-6}$ )	ND( $5.6 \times 10^{-6}$ )	S
T-D5	2015/7/6	0.0041	0.018	ND(15) <sup>*1</sup>	ND(0.33)	ND(0.0091)	ND(2.0)			S
	2015/4/8	ND(0.0016)	0.0062	ND(15) <sup>*1</sup>	0.70	ND(0.011)	ND(2.0)	ND( $6.3 \times 10^{-6}$ )	ND( $6.0 \times 10^{-6}$ )	S
M-104	2015/6/11	0.0044	0.017		0.12	In progress				0.5m
	2015/4/27	0.0040	0.015		0.091	0.0016				0.5m
F-P05	2015/7/21	ND(0.061)	0.061	0.03 <sup>*2</sup>	ND(0.45)	In progress		In progress	In progress	S
	2015/6/16	ND(0.058)	ND(0.049)	0.02 <sup>*2</sup>	ND(0.44)	0.003		In progress	In progress	S
	2015/3/3	ND(0.096)	ND(0.053)	0.04 <sup>*2</sup>	ND(0.43)	0.004		ND( $6 \times 10^{-6}$ )	$8 \times 10^{-6}$	S
T-D9	2015/7/6	0.0024	0.0082	ND(15) <sup>*1</sup>	ND(0.33)	ND(0.0075)	ND(2.0)			S
	2015/4/9	ND(0.0017)	0.0043	ND(17) <sup>*1</sup>	ND(0.32)	ND(0.0092)	ND(1.6)	ND( $6.7 \times 10^{-6}$ )	ND( $6.5 \times 10^{-6}$ )	S
T-3	2015/7/7	0.014	0.065	ND(16) <sup>*1</sup>	ND(0.32)					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
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Sea water radioactivity (Bq/L):  
 ND: under detection limits; Numbers in parentheses: detection limits

T-S1	2015/7/8	0.0022	0.013	S
		0.0021	0.0074	B

T-14	2015/7/13	ND(0.0015)	0.0078	S
		0.0023	0.0090	B
	2015/7/6	0.0019	0.0075	S
		0.0026	0.011	B

T-D1	2015/7/13	0.0025	0.011	S
		0.0028	0.011	B
	2015/7/6	0.0032	0.010	S
		0.0022	0.010	B

T-6	2015/7/14	0.015	0.059	S
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T-S8	2015/7/12	0.0077	0.025	S
		0.0018	0.010	B

T-3	2015/7/14	0.015	0.070	S
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T-S7	2015/7/2	0.0050	0.027	S
		0.010	0.044	B

T-S5	2015/7/2	0.0046	0.021	S
		0.0068	0.025	B

T-S3	2015/7/7	0.0058	0.025	S
		0.0022	0.010	B

T-S4	2015/7/7	0.0044	0.021	S
		ND(0.0015)	0.0084	B

T-D5	2015/7/13	0.0023	0.011	S
		0.0057	0.019	B
	2015/7/6	0.0041	0.018	S
		0.0050	0.020	B

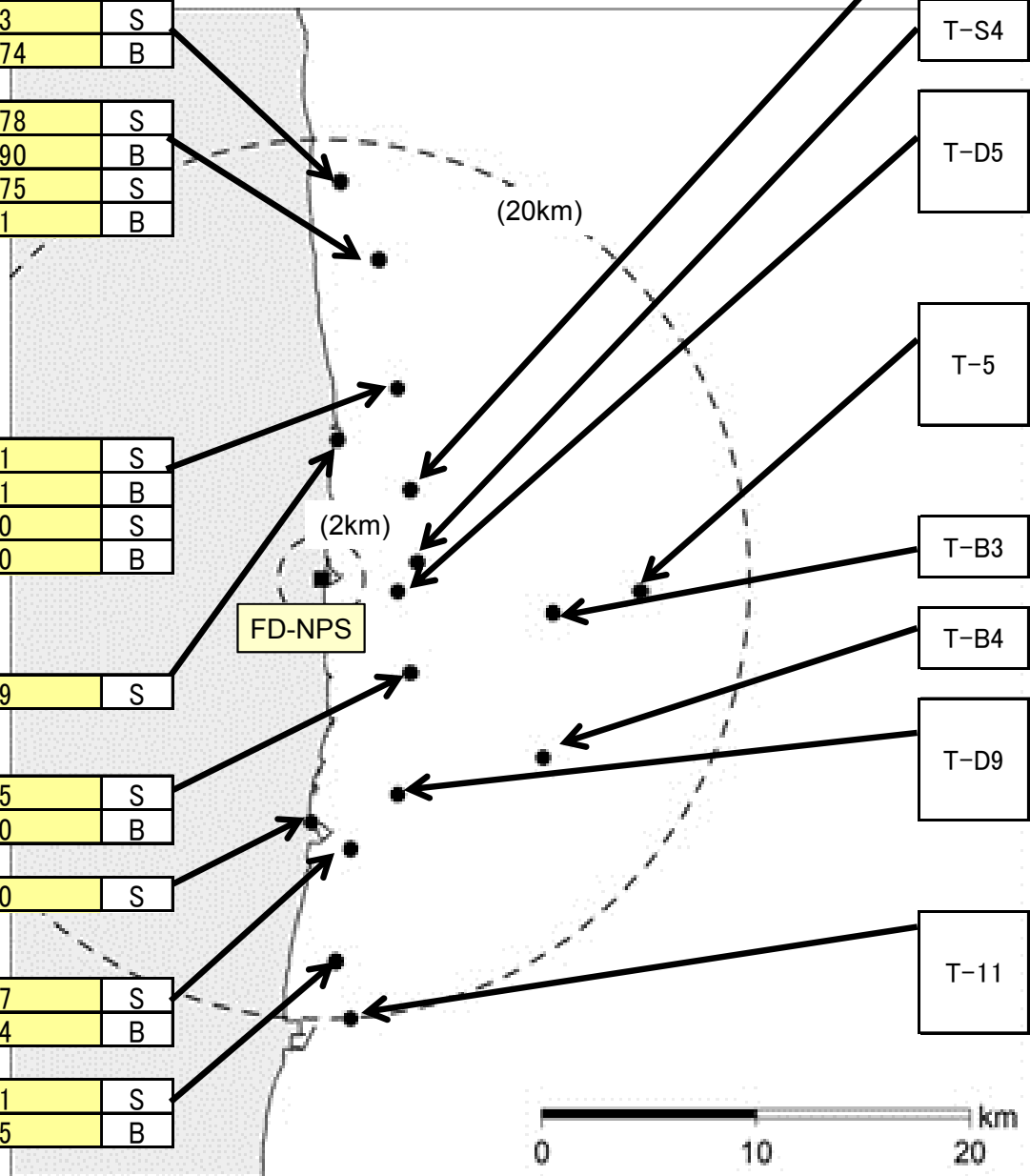
T-5	2015/7/13	ND(0.0018)	0.0073	S
		ND(0.0018)	0.0056	B
	2015/7/6	ND(0.0018)	0.0039	S
		ND(0.0018)	0.0043	B

T-B3	2015/7/14	0.0040	0.014	S
		ND(0.0015)	0.0059	B

T-B4	2015/7/14	0.0038	0.014	S
		ND(0.0015)	0.0054	B

T-D9	2015/7/13	0.0057	0.023	S
		0.0041	0.017	B
	2015/7/6	0.0024	0.0082	S
		0.0039	0.016	B

T-11	2015/7/13	0.0038	0.020	S
		0.0067	0.024	B
	2015/7/6	0.0057	0.024	S
		0.0060	0.024	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

T-MA	2015/7/15	0.0016 ND(0.0015)	0.0058 0.0071		S B
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T-13-1	2015/7/15	0.0041 ND(0.0012)	0.018 0.0070		S B
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T-7	2015/6/5	0.0014 ND(0.0012)	0.0066 0.0028		S B
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T-4	2015/7/14	0.026	0.094		S
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T-12	2015/7/1	0.0033 ND(0.0013)	0.011 0.0059		S B
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T-17-1	2015/7/1	0.0017 0.0014	0.0092 0.0057		S B
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M-C1	2015/5/12	0.00040 0.00038	0.0028 0.0023	In progress	1m 46m
	2015/1/22	ND(0.00072)	0.0028	0.00091	1m

T-B1	2015/7/10	ND(0.0015)	0.0048		S
		ND(0.0014)	0.0044		B

M-D1	2015/5/14	0.00067 0.00010	0.0035 0.0015	In progress	1m 50m
		0.00023	0.0019		113m
	2015/2/2	ND(0.00076)	0.0024	0.00093	1m

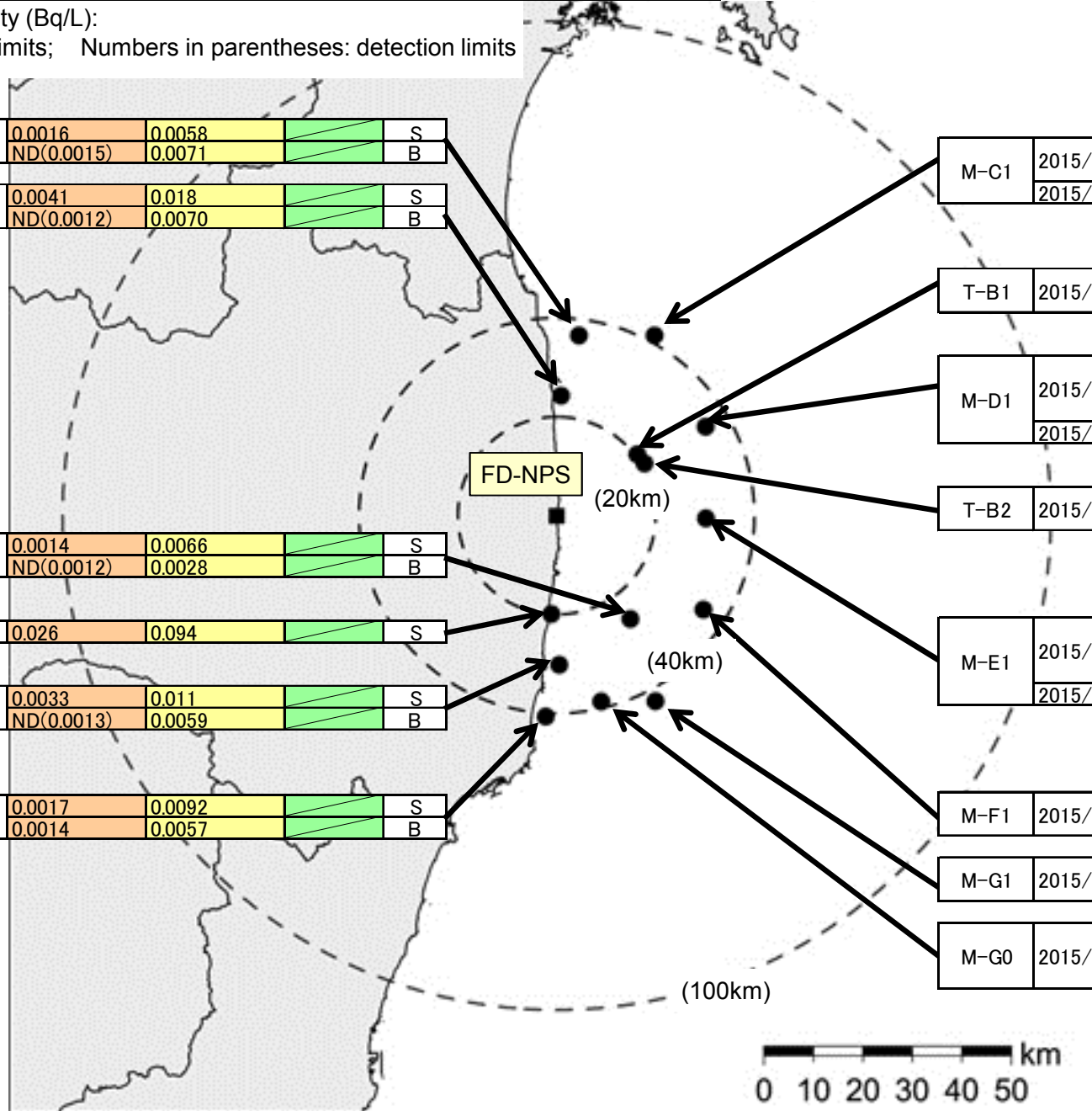
T-B2	2015/7/10	ND(0.0015)	0.0052		S
		ND(0.0015)	0.0068		B

M-E1	2015/5/14	0.00051 0.00020	0.0028 0.0018	In progress	1m 50m
		0.00020	0.0020		125m
	2015/2/6	ND(0.00057)	0.0022	0.0010	1m

M-F1	2015/5/14	0.00059 0.00025	0.0032 0.0021		1m 134m
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M-G1	2015/5/21	0.00074 0.00038	0.0036 0.0023		1m 130m
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M-G0	2015/5/21	0.0013 ND(0.00015)	0.0057 0.0018		1m 50m
		0.00022	0.0021		95m



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

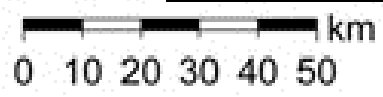
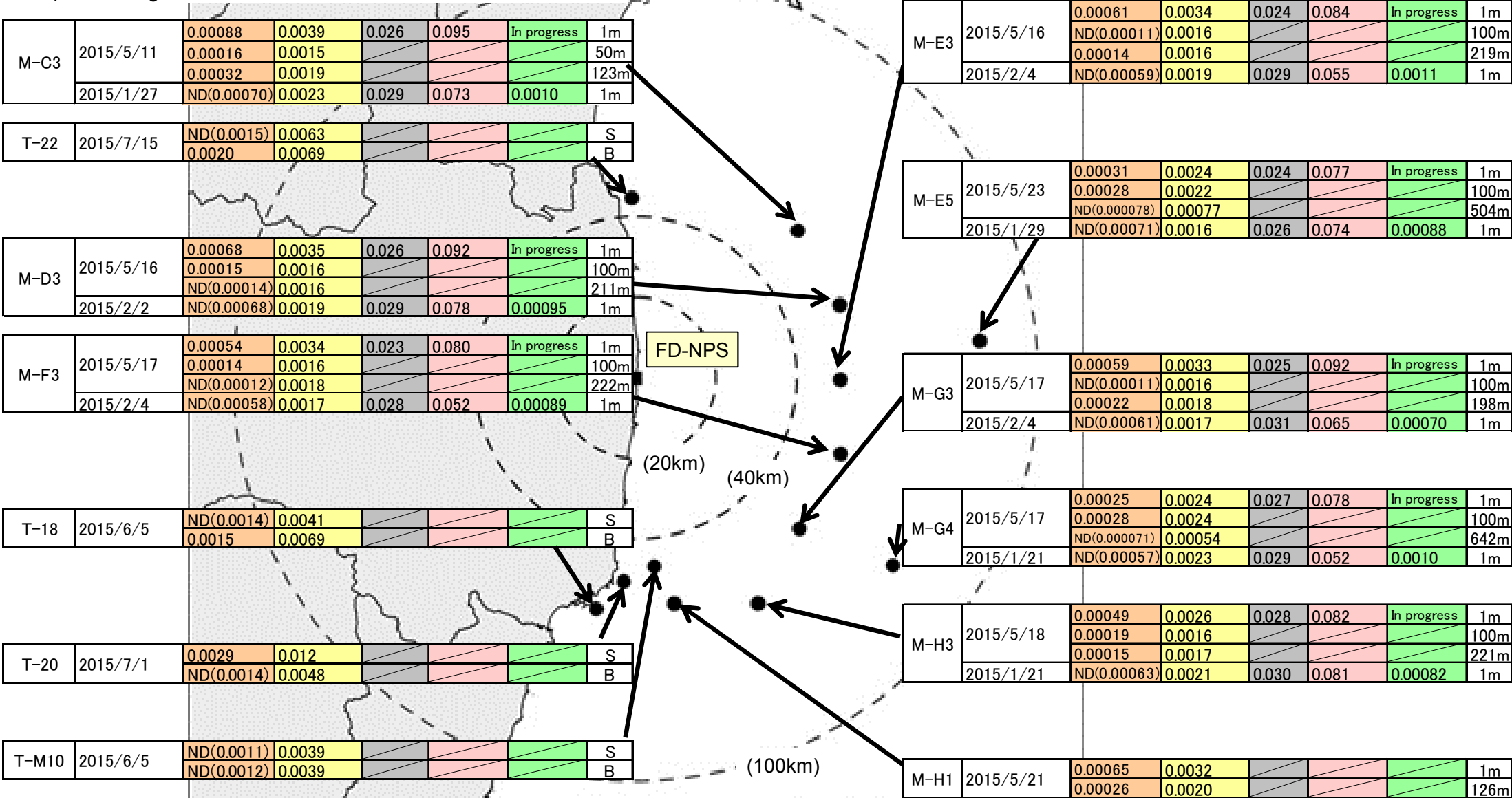
Sampling point	Sampling Date	Cs-134	Cs-137	Total β*	H-3	Sr-90	S/B	S:2m below sea level	B:2-3m above sea bottom
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Depth(m) from sea level
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Sea water radioactivity (Bq/L):

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

\*Total β: excluding K-40

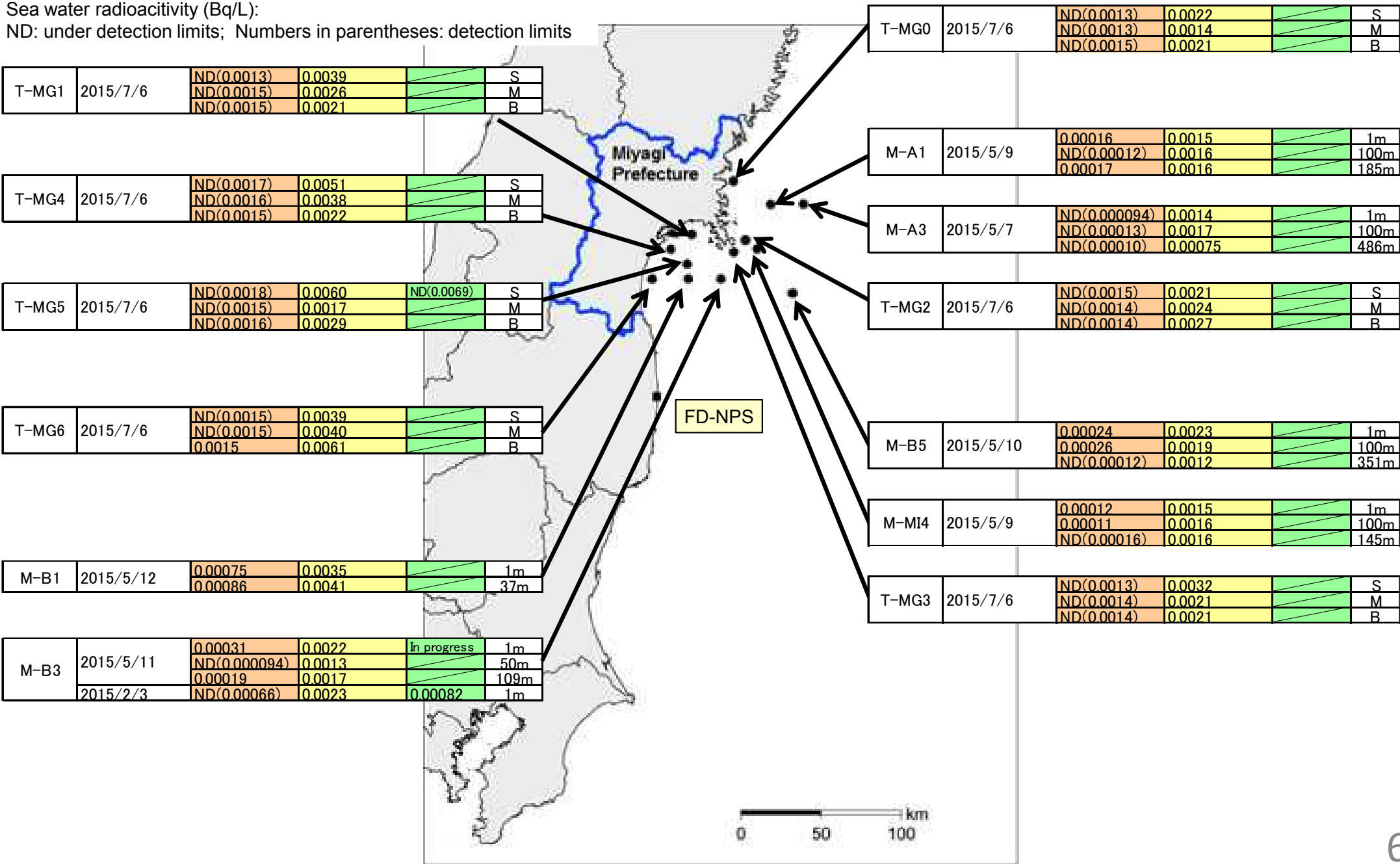


# Sea area along and off the coast of Miyagi Prefecture

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



# 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	2015/7/6	ND(0.72)	ND(1.1)		S
		ND(0.82)	ND(1.2)		B

T-A	2015/7/6	ND(1.2)	ND(1.2)		S
		ND(0.86)	ND(1.2)		B

T-B	2015/7/8	ND(1.0)	ND(1.3)		S
		ND(1.1)	ND(1.2)		B

M-J1	2015/5/19	0.00060	0.0034	In progress	1m
		0.00067	0.0035		43m
	2015/1/19	ND(0.00060)	0.0028	0.0012	1m

T-C	2015/7/7	ND(1.1)	ND(1.2)	ND(0.0065)	S
		ND(0.87)	ND(1.2)		B

M-K1	2015/5/19	0.00059	0.0036		1m
		0.00063	0.0030		22m

T-D	2015/7/8	ND(0.95)	ND(1.2)		S
		ND(0.93)	ND(1.2)		B

M-M1	2015/5/22	0.00022	0.0019		1m
		0.00040	0.0027		107m

M-I0	2015/5/18	0.00044	0.0028	In progress	1m
		0.00073	0.0035		65m
	2015/1/20	ND(0.00070)	0.0027	0.00096	1m

M-I1	2015/5/18	0.00048	0.0030		1m
		0.00037	0.0029		50m
		0.00051	0.0030		91m

M-I3	2015/5/18	0.00026	0.0022		1m
		0.00023	0.0019		100m
		0.00025	0.0023		176m

M-IB2	2015/5/19	0.00092	0.0044		1m
		0.00032	0.0025		107m

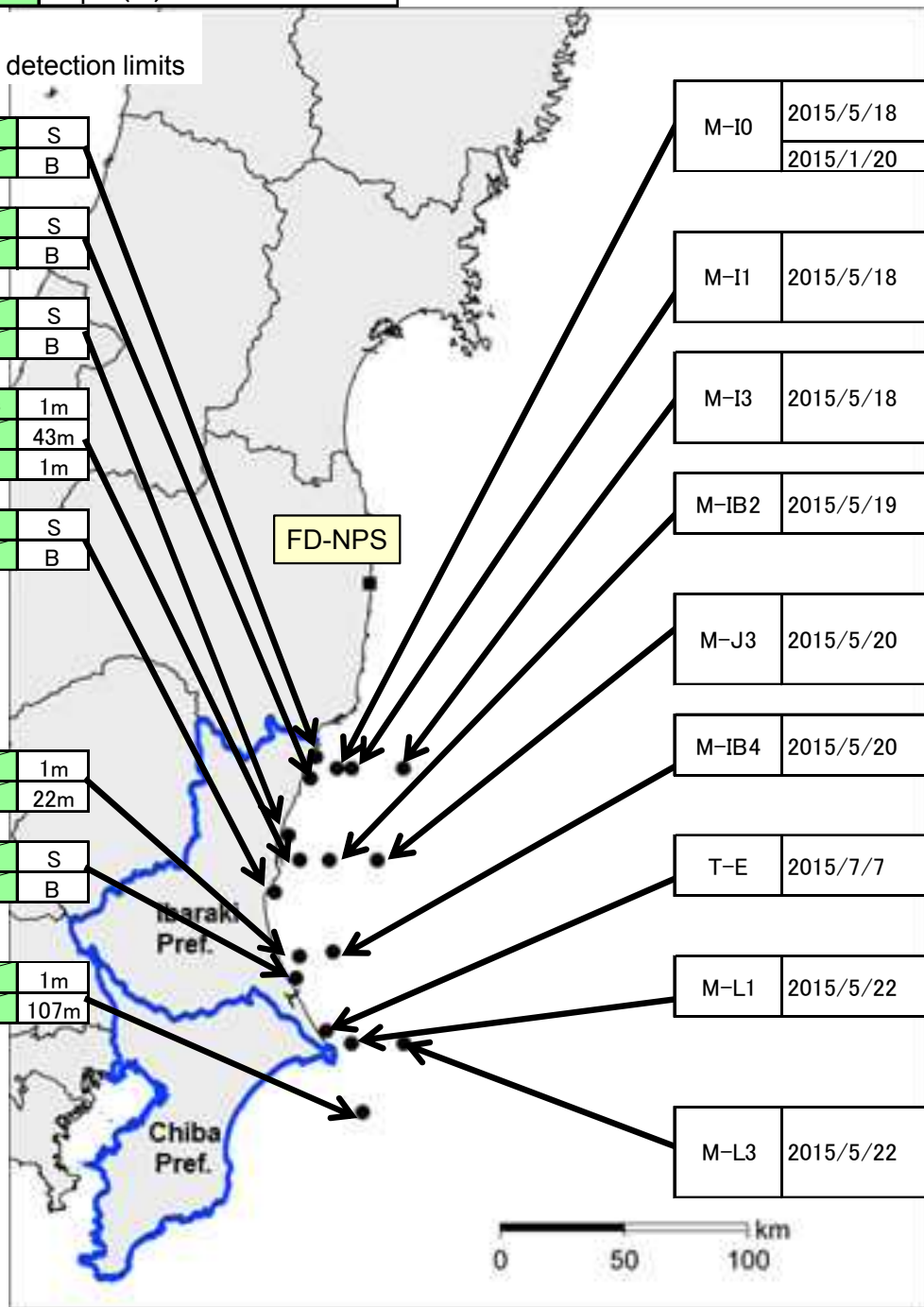
M-J3	2015/5/20	0.00033	0.0024		1m
		0.00028	0.0023		100m
		ND(0.000080)	0.00072		557m

M-IB4	2015/5/20	0.00040	0.0027		1m
		0.00052	0.0031		117m

T-E	2015/7/7	ND(0.90)	ND(1.0)		S
		ND(0.97)	ND(1.2)		B

M-L1	2015/5/22	0.00039	0.0027		1m
		0.00052	0.0026		37m

M-L3	2015/5/22	0.00044	0.0027		1m
		0.00041	0.0027		100m
		0.00050	0.0028		156m





# Open sea off the coast of Eastern Japan

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

