



Countermeasures for Japan Fukushima Nuclear Power Plant Accident

Department of Radiation Protection
Atomic Energy Council (AEC)

Mar. 21, 2011



Summary of Results from Radiation Monitoring at Ports

- ❑ AEC set up gate radiation monitors at three airports: Taipei Songshan Airport, Taoyuan International Airport, and Kaohsiung International Airport.
- ❑ As of 11 a.m. 3/21, 30,350 passengers monitored, 39 with minor contamination on clothes and shoes. After decontamination, all cleared to leave.
- ❑ Monitoring also conducted for 588 passengers onboard Nautica, docked in Keelung Port morning of. All came out negative.



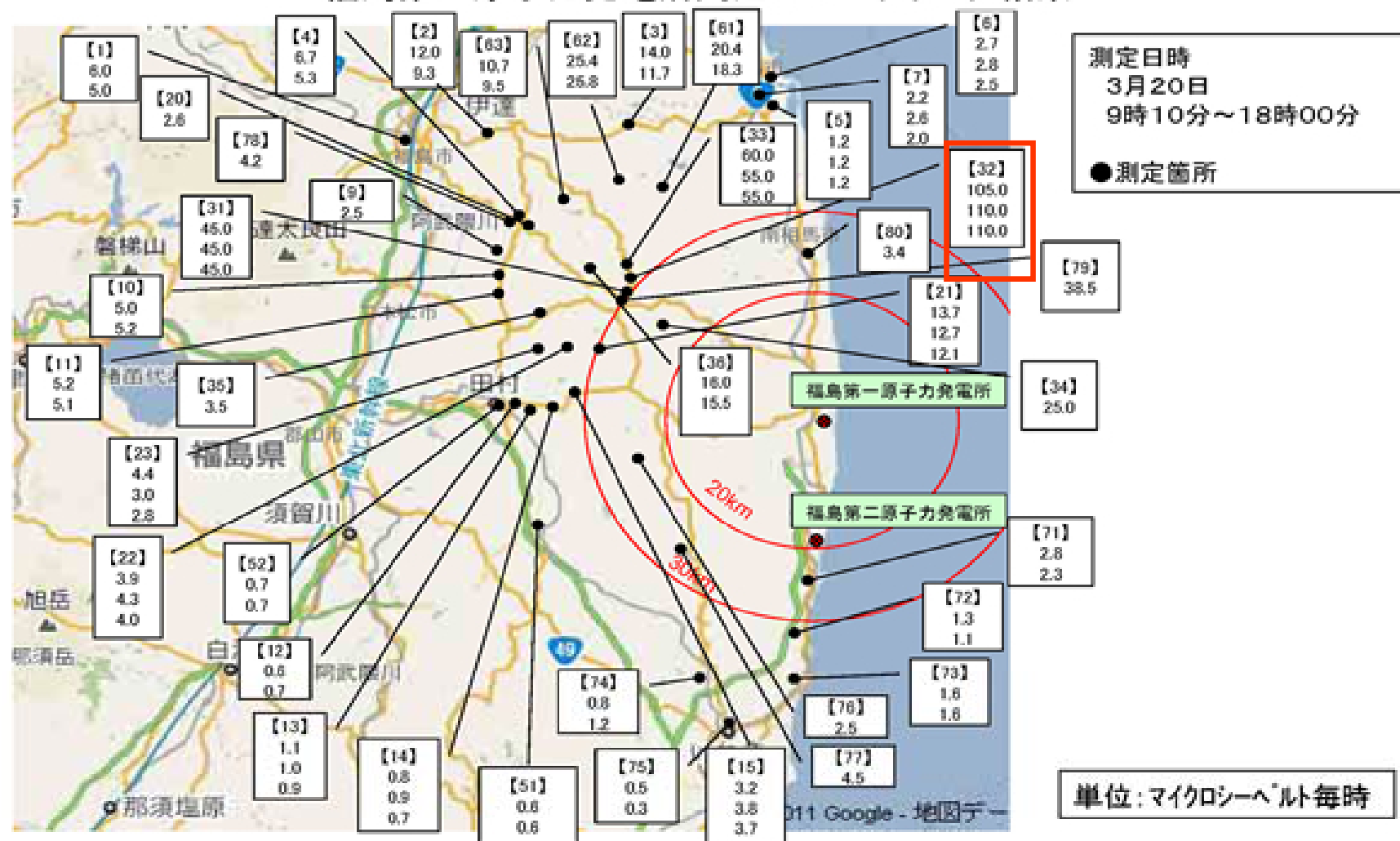
Breakdown of No. of Passengers Monitored (by airport)

Airport	Taipei Songshan	Taoyuan International	Kaohsiung International	Total
No. passengers screened	6,715	22,101	1,633	30,350
No. passengers with minor contamination	10	27	2	39

3/15~3/20 11:00

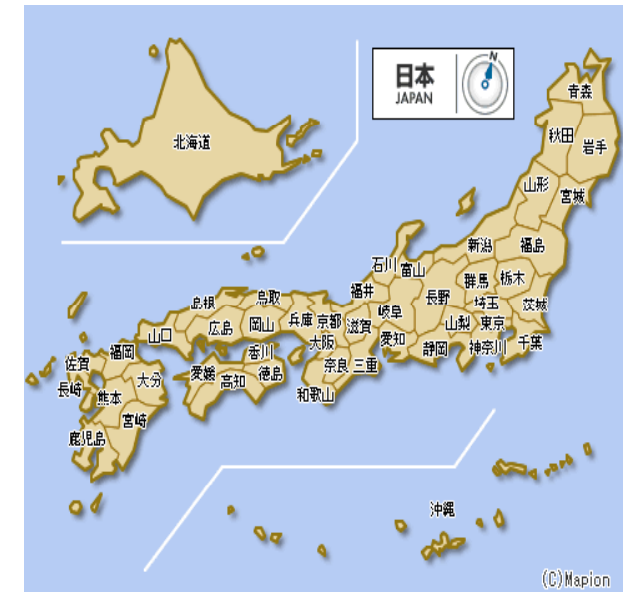
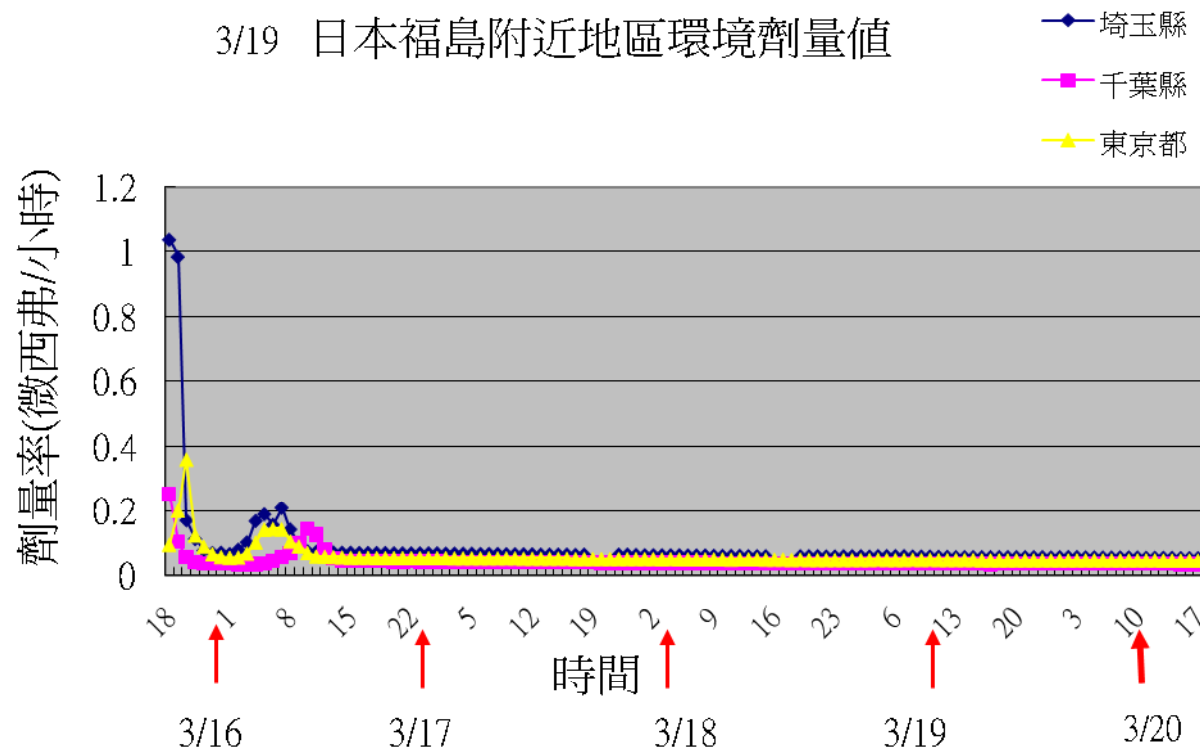


福島第一原子力発電所周辺のモニタリング結果



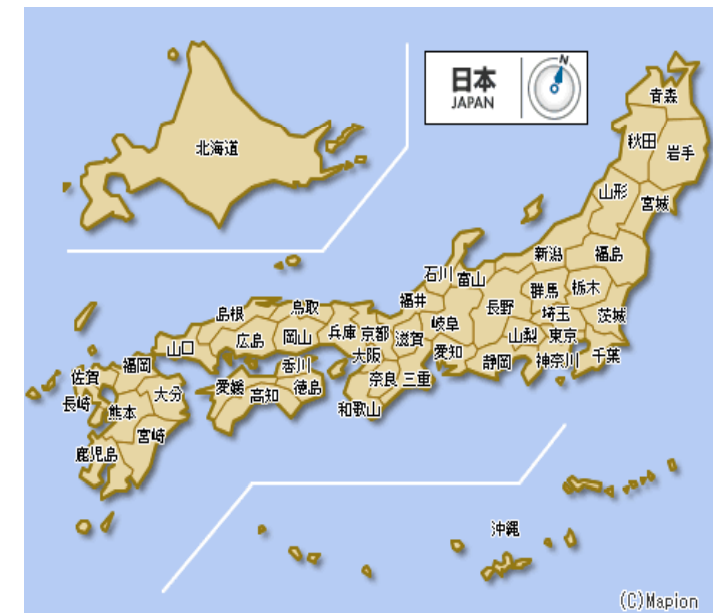
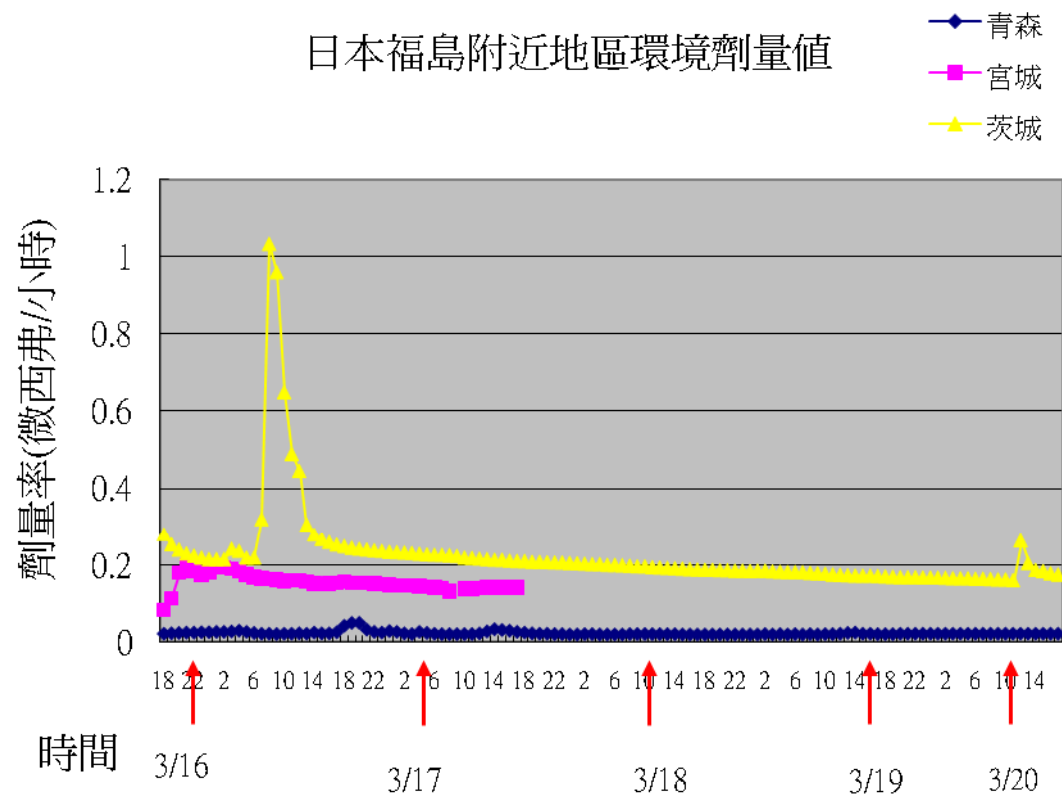


Radiation Monitoring Throughout Japan after the Fukushima Accident



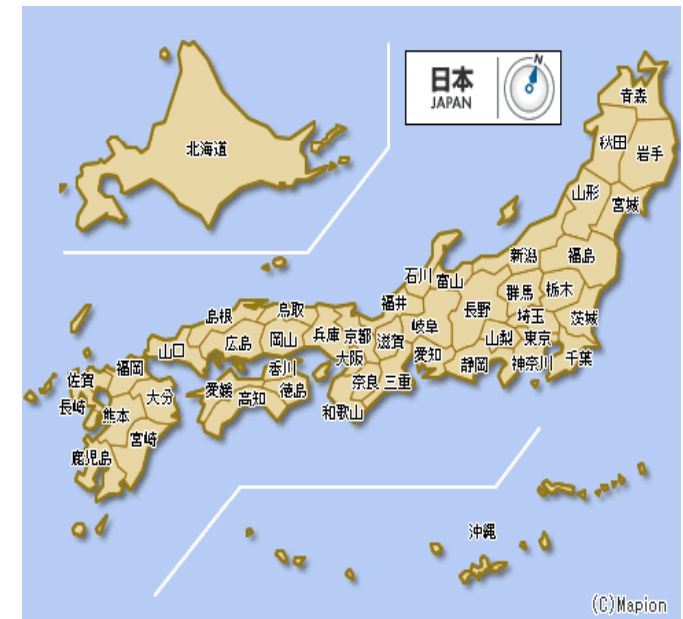
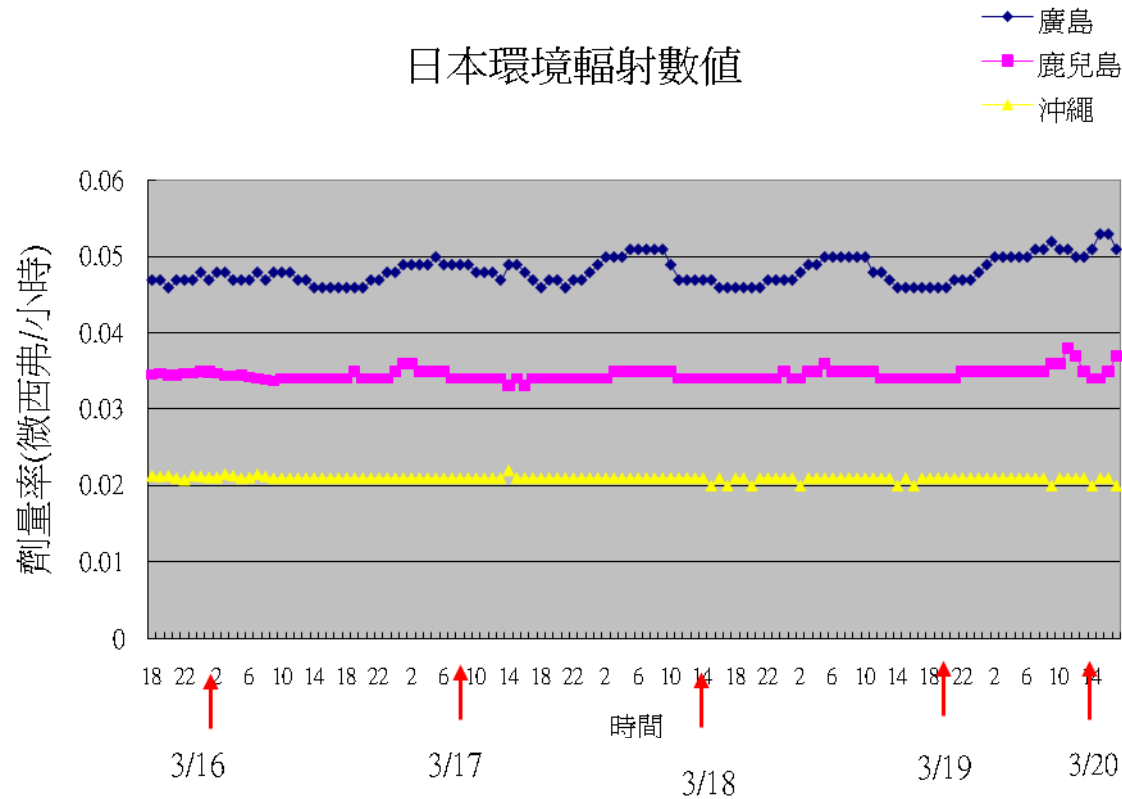


Radiation Monitoring Throughout Japan after the Fukushima Accident (cont.)



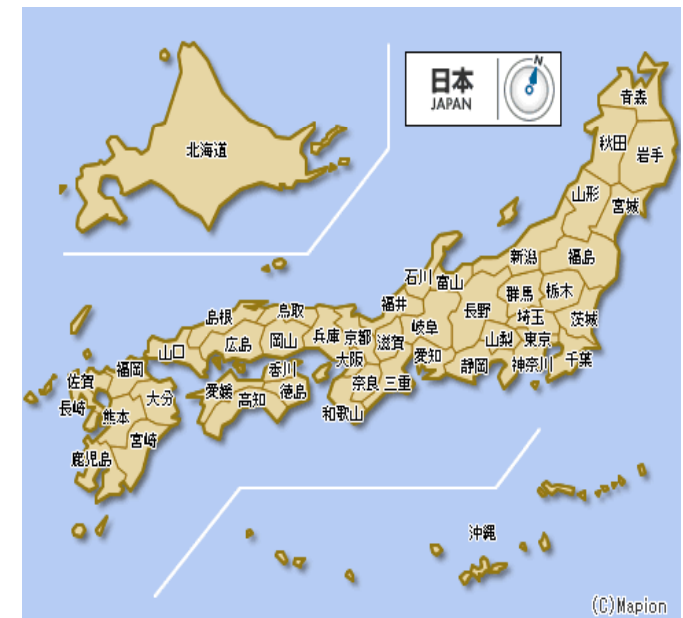
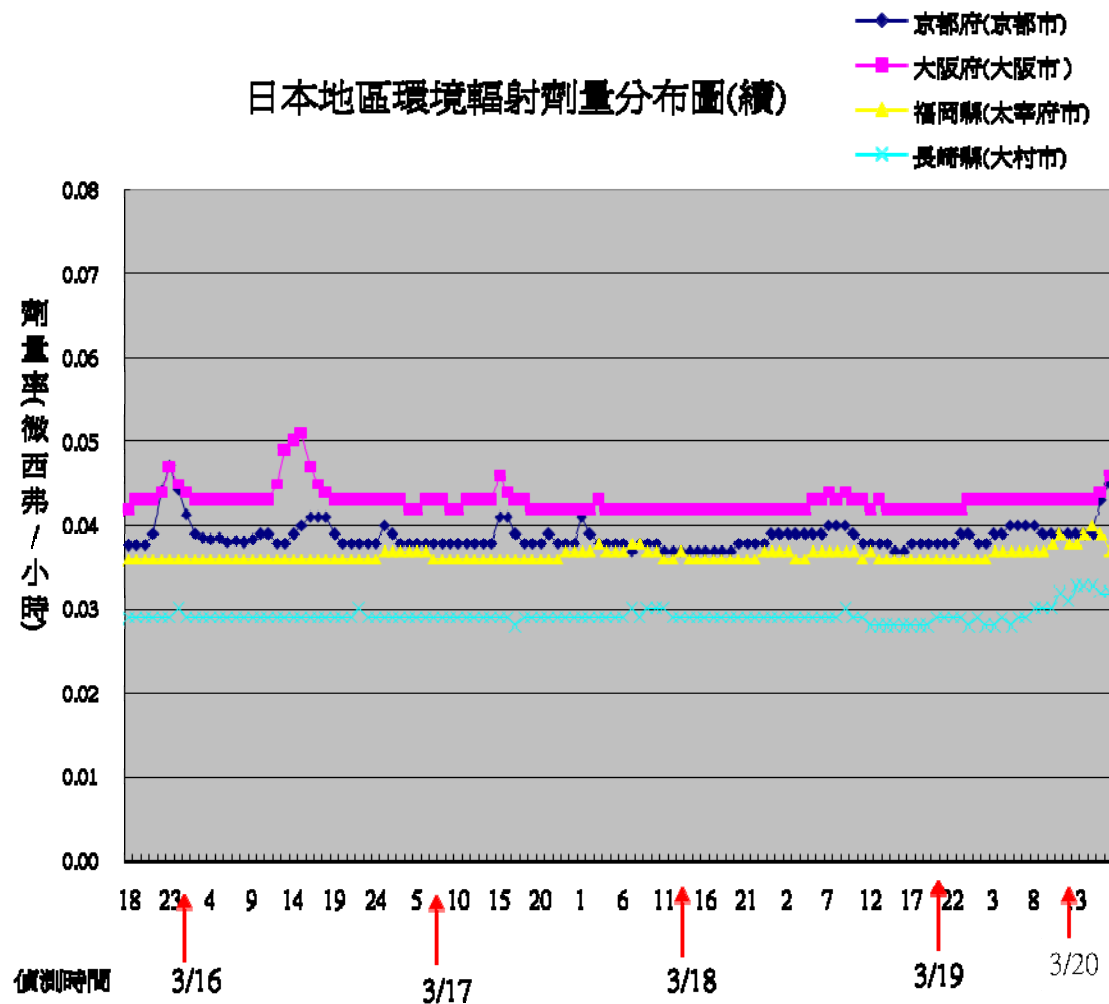


Radiation Monitoring Throughout Japan after the Fukushima Accident (cont.)





Radiation Monitoring Throughout Japan after the Fukushima Accident (cont.)





Radiation Screening of Tap Water in Japan

Unit : Bq/kg

Location	I-131	C-137	Japan Standards	Taiwan Standards	Action Required
Tochigi	16	2.6	I-131 300Bq/kg	Total Alpha 550Bq/m ³	I-131 100Bq/kg
Gunma	3.6	—			
Saitama	0.93	—	C-137 200Bq/kg	Total Bq 1800Bq/m ³	C-137 1000 Bq/kg
Chiba- ken	1.2	—			
Tokyo	2.9	—			
Kanagaw a	0.43	—			
Niigata	0.27	—		Triton 740000Bq/m ³ Strontium 90 300Bq/m ³	



Radiation Monitoring of Dust in Japan

Unit : MBq/km²

Location	I-131	C-137
Tochigi	540	45
Gunma	190	63
Saitama	66	—
Chiba-ken	44	3.8
Tokyo	40	—
Kanagawa	38	—
Niigata	2.5	
Iwate	—	0.24
Yamagata	22	20

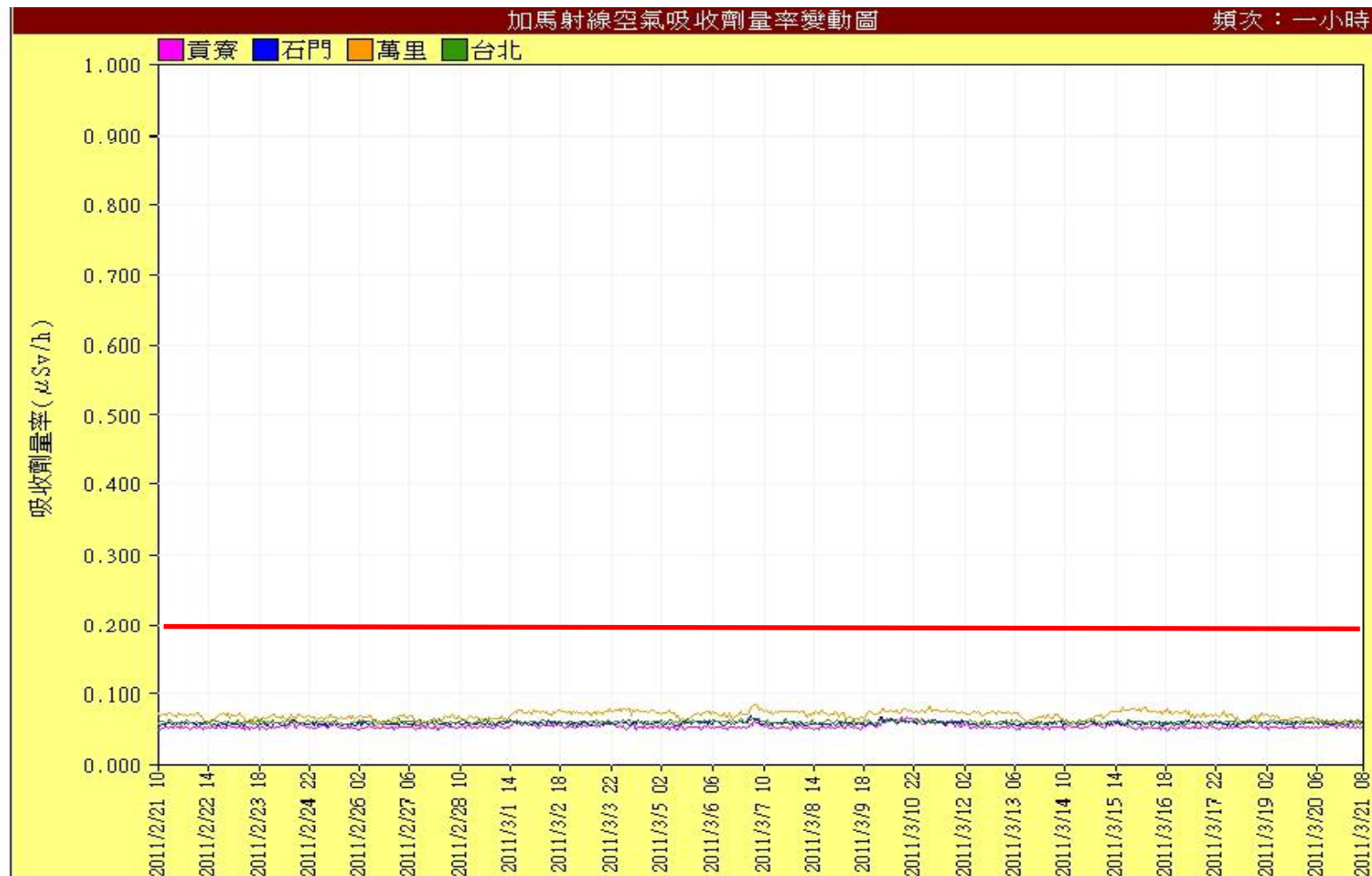
Time : 3/20 13:00

Environmental Monitoring Data in Taiwan

- A monitoring network equipped with real-time instrument has been in operation by RMC since 1991, and now has 30 sampling stations located widely across Taiwan.
- The readings are updated every 5 minutes. These and other information regarding the Fukushima nuclear accident can be viewed on AEC's website: <http://www.aec.gov.tw/english/>.



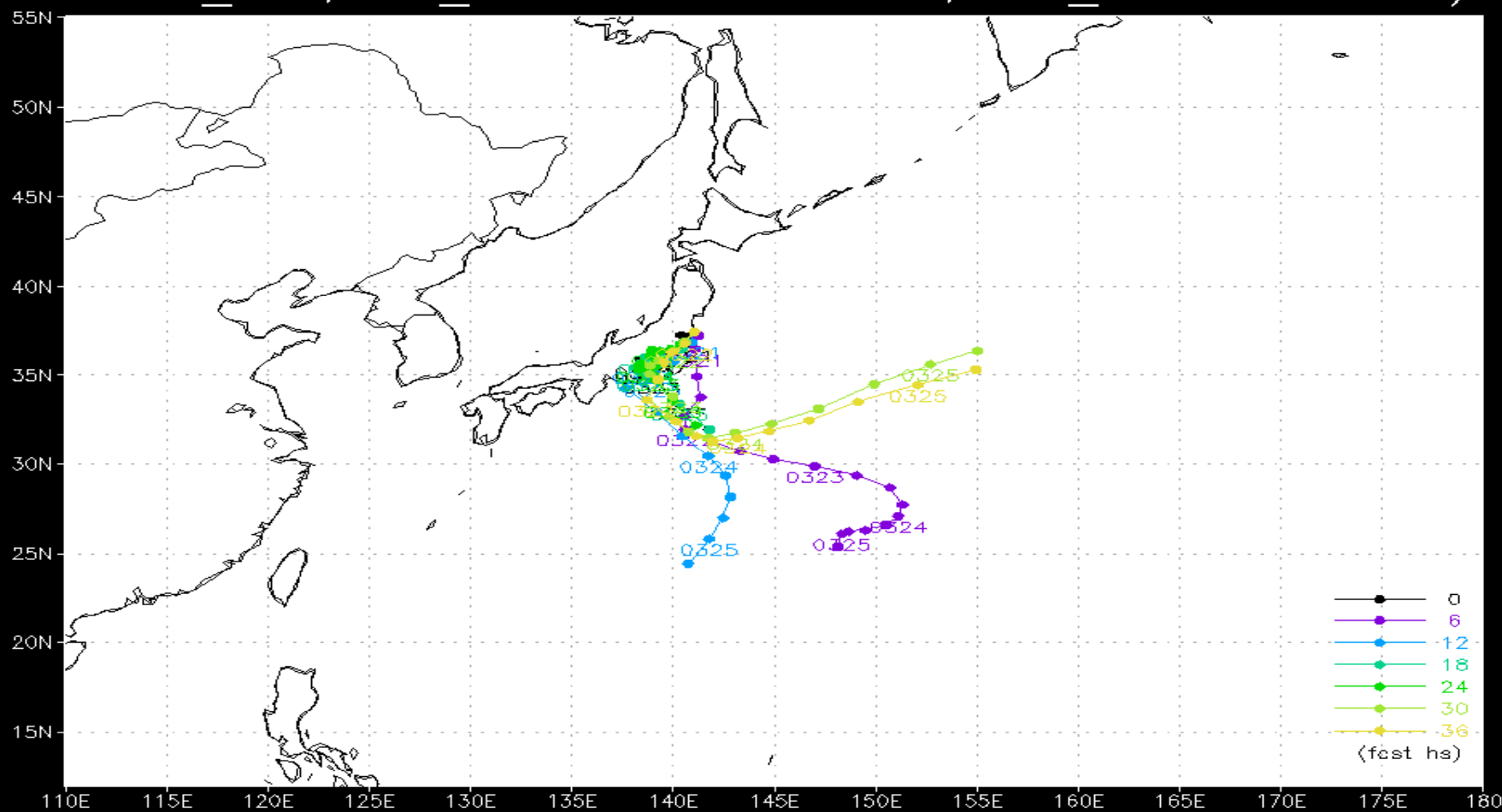
Environmental Monitoring Data in Taiwan





Weather Forecast

NCEP_GFS, T_init=06Z20MAR2011, P_level=1000hPa)



資料來源：中央氣象局



Radiation Screening of Food Products Imported from Japan

- ❑ AEC's Radiation Monitoring Center (RMC) began daily screening for radionuclides on food products sampled by DOH's Food and Drug Administration since 3/14.
- ❑ As of 3/21, 179 tests have been conducted on products imported from Japan, such as dairy products, alcoholic drinks, fruits, seafood, sauces, yam, seasonings, sugar, broad beans, and noodles. All are in compliance with regulatory standards.
- ❑ No radionuclides such as Iodide-131 and Cesium-137 were detected except for test samples of broad beans, which were detected with trace amounts of Iodide-131 and Cesium-137 on shells on 3/19.



Iodine-131 Profile

- ❑ I-131 decays quickly in the atmosphere and environment (note: its decay half-life is 8 days)
- ❑ The dose of I-131 is at its highest level in the first few days after a nuclear accident.
- ❑ The major exposure route of I-131 is through fresh milk.
- ❑ The dose people receive from eating fruit and vegetables contaminated with I-131 is far lower than fresh milk. The dust of I-131 only attaches itself onto surfaces of fruit and vegetables, and only washing it with water or peeling the skin is effective in removing it.
- ❑ The risk of contracting thyroid cancer is directly proportional to the exposure dosage, however, few people suffer the same in subsequent years.
- ❑ Children under exposure are at higher risk than adults.

(Source: U.S. National Cancer Institute)