

RADIOACTIVITY SURVEY DATA in Japan

NUMBER 16
AUG. 1967

National Institute of Radiological Sciences
Chiba, Japan

Radioactivity Survey Data

in Japan

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Contents

THE SPECIAL EDITION OF SURVEY RESULTS ON THE FIRST TO FIFTH NUCLEAR EXPLOSION TESTS CARRIED OUT BY THE PEOPLE'S REPUBLIC OF CHINA

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National Institute of Radiological Sciences

THE SPECIAL EDITION OF SURVEY RESULTS ON THE FIRST TO FIFTH NUCLEAR EXPLOSION TESTS CARRIED OUT BY THE PEOPLE'S REPUBLIC OF CHINA

Preface

The People's Republic of China has conducted the six nuclear tests in total during the period of two years and eight months since the first nuclear test was conducted on the 16th October, 1964, till the sixth nuclear test on the 17th June, 1967.

In the meantime, we reported the survey results of the first nuclear test in Number 5 of Radioactivity Survey Data in Japan, and ever since, we have published the results one after another till the fifth nuclear test.

It is expected that these nuclear tests will be continued in the future, so we decided to issue the special edition covering the results of the first to fifth nuclear test in order to guide you to easy comparison with the past nuclear test results in the event that nuclear tests should be conducted in future.

This special edition is intened to serve merely as the reference data, so we provided only the survey results of the specific samples which had appeared in the past Survey Data in Japan for the first to fifth nuclear test and discarded some of the results considered to be not successive or important.

In addition, we tried the results as much as possible to give graphic representations.

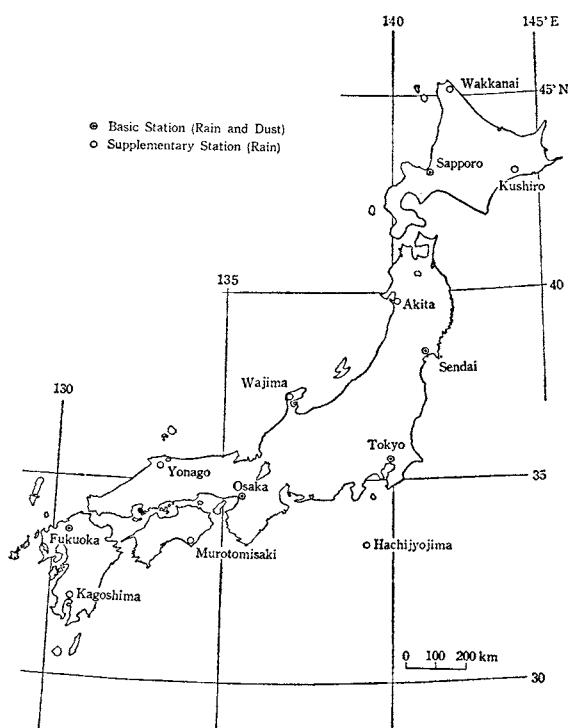
As to the detailed explanations of each nuclear test, readers are requested to refer to the Survey Data issued previously.

In the present special edition, however, we made partial amendments on numerical values reported in the previous Survey Data.

We shall be rejoiced if the special edition will be prove useful for you in whatever manner.

Meteorological Agency

Figure 1. Fallout Observation Network of Meteorological Agency
—The 1st Nuclear Test to The 5th Nuclear Test—



**The Meteorological Trajectories at those times when the five nuclear tests
were carried out. —Z: Greenwich Mean Time—
(Figure 2 to Figure 6)**

Figure 2. The First Nuclear Test
Explosion Day: Oct. 16, 1964

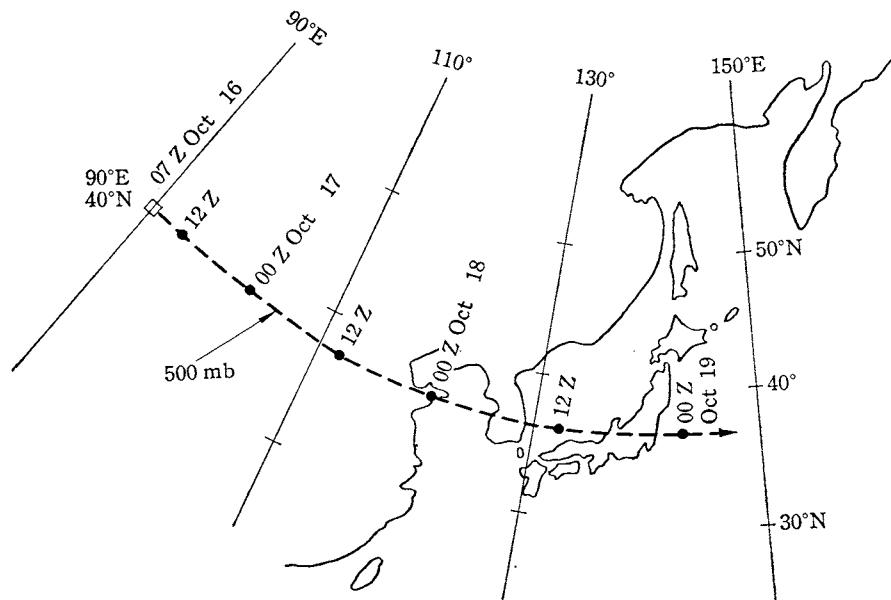


Figure 3. The Second Nuclear Test
Explosion Day: May 14, 1965

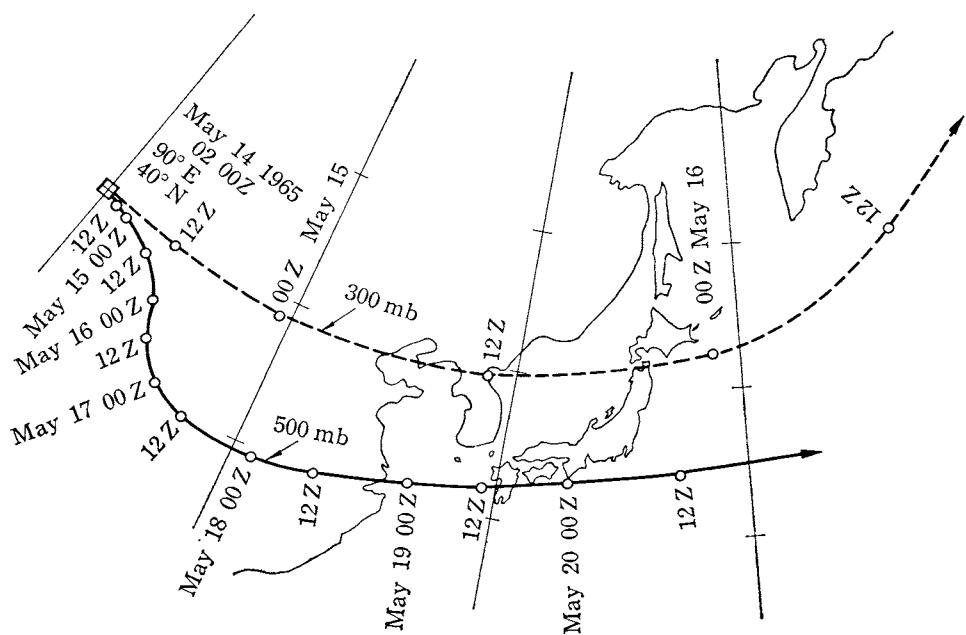


Figure 4. The Third Nuclear Test
Explosion Day : May 9, 1966

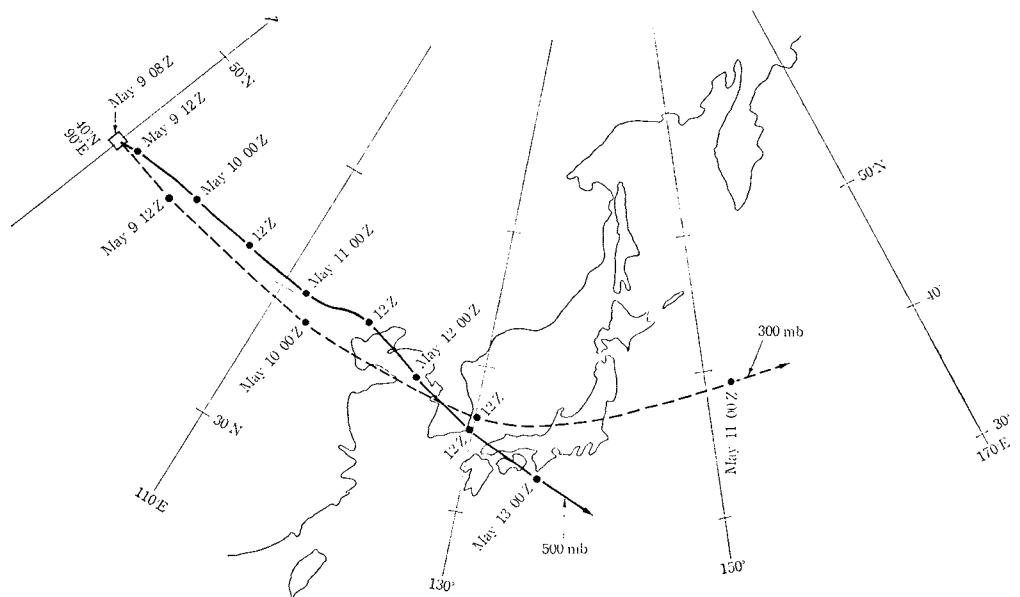


Figure 5. The Fourth Nuclear Test
Explosion Day : Oct. 27, 1966

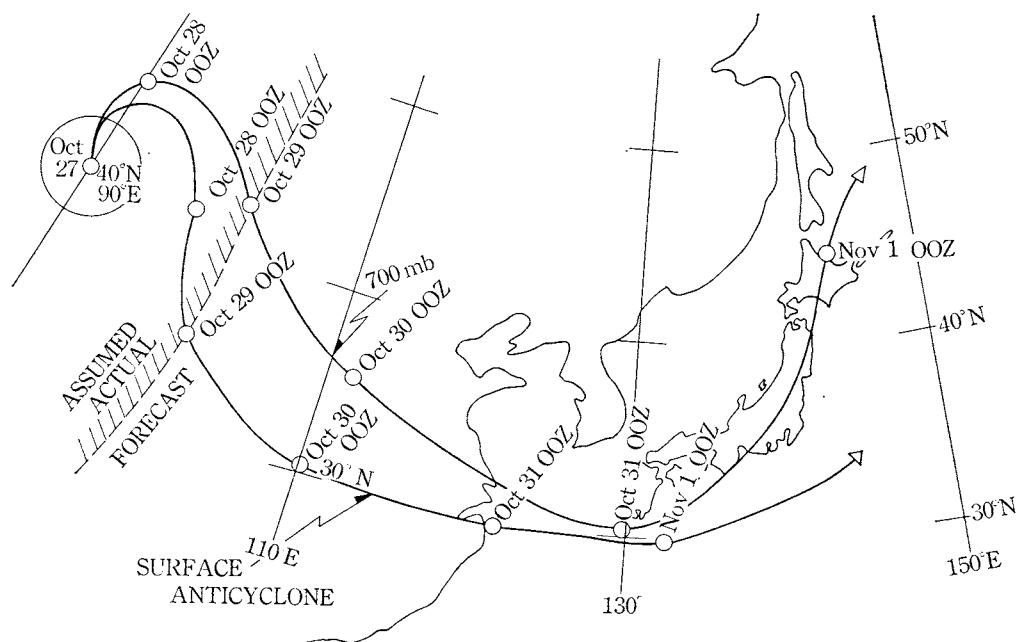
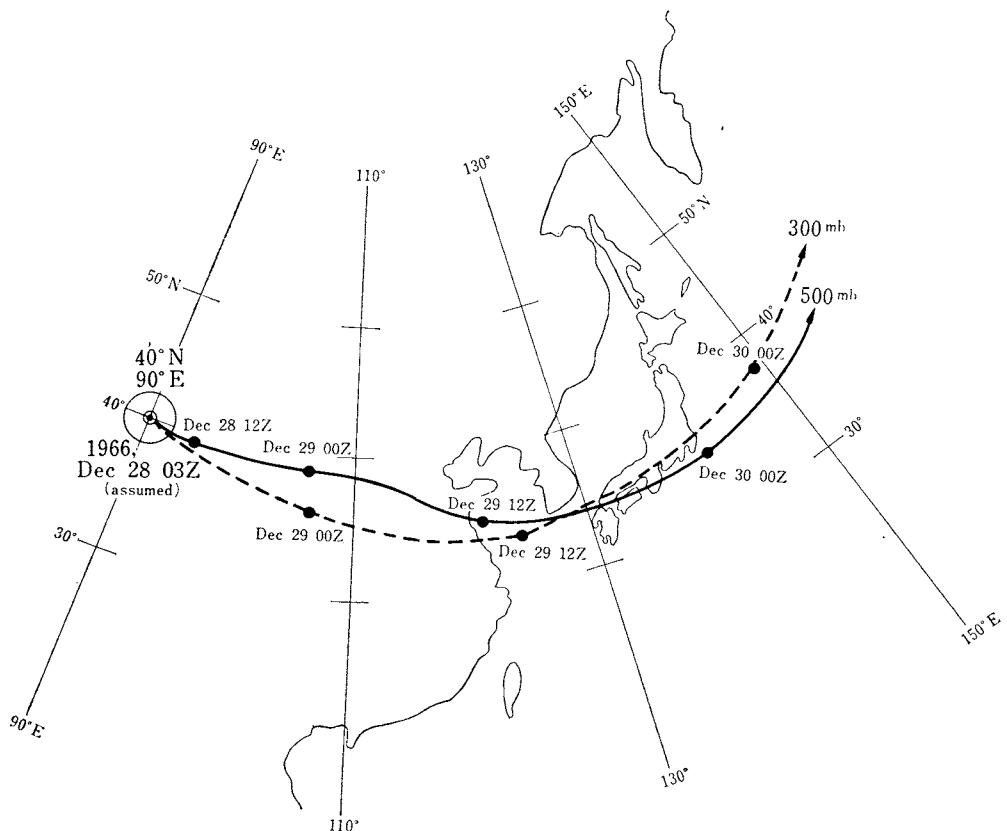


Figure 6. The Fifth Nuclear Test

Explosion Day : Dec. 28, 1966



**Gross Beta-Radioactivity in Rain at those times when the five
nuclear tests were carried out**

(Table 1 to Table 5)

Table 1. Results from The First Nuclear Test —Oct. 15 to Nov. 5, 1964—

(pCi/cc)

Station	Oct. 15	16	17	18	19	20	21	22	23	24	25
Wakkanai			0.7	0.0					1.2	2.4	2.4
Sapporo			0.1							3.1	0.4
Kushiro							18.5	1.6			3.0
Sendai	0.1						2.6	2.9	7.6	1.8	
Akita			0.1				1.0	2.2	6.0	6.0	2.2
Tokyo	0.1			0.1	0.0	27.2			11.7	2.6	
Wajima	0.0			0.1			0.9	0.2	2.5	2.3	2.0
Hachijojima	0.1					1.2			0.5	0.8	0.2
Osaka				0.1			31.0	8.0	2.5		
Yonago	0.0		0.1	0.0			1.1	0.3	7.0	20.0	6.0
Murotomisaki			0.2	0.1		2.5	16.0	2.5		1.4	
Fukuoka				0.2			0.5	0.3	8.4		
Kagoshima			0.0				0.2			0.4	

Station	Oct. 26	27	28	29	30	31	Nov. 1	2	3	4	5
Wakkanai			0.2		0.3		0.5	0.4	0.2		0.1
Sapporo	0.2							0.2			
Kushiro							0.5				
Sendai						0.5		0.5			0.5
Akita	1.2				0.5	1.0		0.5			0.5
Tokyo								0.2	0.1		
Wajima				3.2				0.1			0.4
Hachijojima	1.4	0.7	0.3	0.3				0.3	0.4		
Osaka			0.5					0.1			
Yonago				2.0				0.3	0.2		
Murotomisaki			0.2					0.0			0.0
Fukuoka								0.1			
Kagoshima								0.0			

Table 2. Results from The Second Nuclear Test —May 12 to Jun. 2, 1965—
(pCi/cc)

Station	May 12	13	14	15	16	17	18	19	20	21	22
Wakkanai							0.3				0.5
Sapporo	0.3					0.6	0.0				0.9
Kushiro	0.3			0.1			0.2			3.6	0.7
Sendai						0.6				1.5	2.9
Akita								1.6		8.0	6.0
Tokyo	0.2			0.0		0.2				4.9	
Wajima				0.0		0.3				10.0	
Hachijojima			0.1	0.0	0.0	0.0			4.2	0.2	
Osaka				0.1	0.2					2.1	
Yonago				0.0						18.0	
Murotomisaki						0.2				0.9	
Fukuoka			0.0	0.0						21.0	
Kagoshima			0.1	0.0				0.8		1.2	

Station	May 23	24	25	26	27	28	29	30	31	Jun. 1	2
Wakkanai	0.1	0.4	0.2								0.4
Sapporo			0.2	0.1							
Kushiro					0.1	0.1				0.3	0.1
Sendai					0.4	0.1					
Akita										0.4	
Tokyo		0.8	0.1		0.2	0.0		0.2	0.0	0.0	0.2
Wajima					0.8	0.1	0.2	0.2			
Hachijojima		0.2		0.2	0.1			0.1	0.1	0.1	0.1
Osaka				0.5	0.1	0.1		0.1			
Yonago				0.4	0.1	0.1	0.1	0.1			
Murotomisaki				0.2							
Fukuoka				0.4	0.1	0.8	0.5	0.2			
Kagoshima				0.5	0.1	0.0					

Table 3. Results from The Third Nuclear Test —May 9 to May 30, 1966—
(pCi/cc)

Station	May 9	10	11	12	13	14	15	16	17	18	19
Wakkanai	0.0				0.3		0.5	0.2			
Sapporo	0.0						0.2	0.1			
Kushiro	0.0							0.0			
Sendai			3.4					0.0			
Akita	0.0	0.0	6.0				0.3	0.2	0.1		
Tokyo			1.6					0.1			
Wajima			0.1					0.0			
Hachijojima	0.0			0.2				0.1	0.1		
Osaka			4.8					0.1			
Yonago			4.2				0.4	0.0			
Murotomisaki							0.3				
Fukuoka			0.0				0.0				
Kagoshima			0.0				0.0				

Station	May 20	21	22	23	24	25	26	27	28	29	30
Wakkanai											1.1
Sapporo											0.6
Kushiro											
Sendai			0.1	0.1	0.3	0.2					0.2
Akita			0.1								0.2
Tokyo		0.1		0.0	0.0						0.1
Wajima			0.0								0.1
Hachijojima			0.0	0.1							0.2
Osaka	0.1	0.1	0.0							0.0	0.1
Yonago	0.3	0.0	0.0		0.0					0.1	0.5
Murotomisaki				0.0							
Fukuoka		0.1								0.1	
Kagoshima	0.0	0.0	0.0							0.1	0.0

Table 4. Results from The Fourth Nuclear Test —Oct. 23 to Nov. 13, 1966—
(pCi/cc)

Station	Oct. 23	24	25	26	27	28	29	30	31	Nov. 1	2
Wakkanai				0.0			0.0	0.0	0.1		0.0
Sapporo	0.0	0.0			0.0	0.0	0.0	0.0	0.0		
Kushiro				0.0	0.0		0.0				
Sendai				0.0	0.0		0.0				
Akita			0.1	0.1			0.1	0.0			
Tokyo			0.0	0.0	0.0						
Wajima			0.0	0.1	0.0		0.0	0.0			0.9
Hachijojima											
Osaka			0.1	0.0							
Yonago			0.0	0.0	0.0		0.1				
Murotomisaki				0.0	0.0	0.1					
Fukuoka						0.1					
Kagoshima							0.0				

Station	Nov. 3	4	5	6	7	8	9	10	11	12	13
Wakkanai	0.0				5.0	1.7			1.5	0.5	0.6
Sapporo					2.7				0.3	0.3	0.1
Kushiro											
Sendai		4.6	1.0	1.1					1.3		0.7
Akita					1.1						
Tokyo					0.2						
Wajima											
Hachijojima											
Osaka						0.2					
Yonago	0.2				1.5						
Murotomisaki						0.6					
Fukuoka											
Kagoshima											

Table 5. Results from The Fifth Nuclear Test —Dec. 27, 1966 to Jan. 17, 1967—
(pCi/cc)

Station	Dec. 1966 27	28	29	30	31	Jan. 1967 1	2	3	4	5	6
Wakkanai		0.0	0.1	0.1	0.1				0.0	0.6	0.1
Sapporo	0.0	0.1	0.0				0.4			0.2	
Kushiro							0.6	0.4	0.1	0.1	
Sendai	0.0		0.1	0.1		58.0	0.5	1.8	1.0	0.2	0.3
Akita											
Tokyo	0.0	0.0	0.0	910.0	470.0	10.0	0.6	9.0	1.5	0.3	2.3
Wajima											
Hachijojima						60.0	1.4				
Osaka						413.0	11.0	45.0	3.4	16.0	
Yonago	0.1	0.1	0.1				23.0	0.1			
Murotomisaki							10.0	1.4		6.0	1.9
Fukuoka		0.1					55.0	7.0	40.0	4.0	
Kagoshima	0.0										

Station	Jan. 1967										
	7	8	9	10	11	12	13	14	15	16	17
Wakkanai		0.1	0.1	0.1		1.4	0.6	0.7	0.1	1.1	
Sapporo		0.1	0.0	0.0	0.9	0.1			0.5		
Kushiro						0.2	0.2				
Sendai				0.1							
Akita	0.2	0.2	2.3	0.8		0.4	0.4	1.9	1.6	2.2	1.0
Tokyo						1.8					
Wajima	0.9	0.5	1.1	2.3		2.8	0.1	1.1	0.9	0.3	0.0
Hachijojima											
Osaka						0.5					
Yonago	1.7	0.3	0.2	1.7		0.9			0.3	2.2	0.4
Murotomisaki						0.8					
Fukuoka						4.3	16.0			7.0	
Kagoshima	15.0					3.6				1.2	

Gross Beta-Radioactivity in Rain at those times when the five nuclear tests were carried out
—Maximum Value in Japan—
(Figure to 7 Figure 11)

Figure 7. Results from The First Nuclear Test
 —Oct. 16 to Nov. 5, 1964—

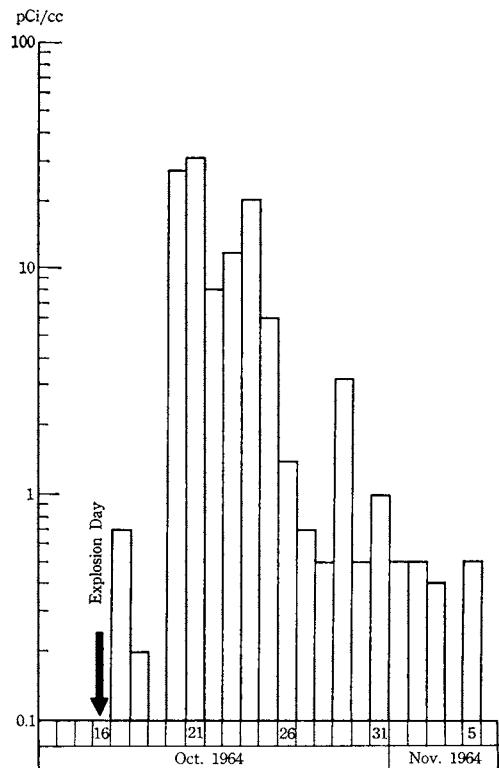


Figure 8. Results from The Second Nuclear Test
 —May 14 to Jun. 2, 1965—

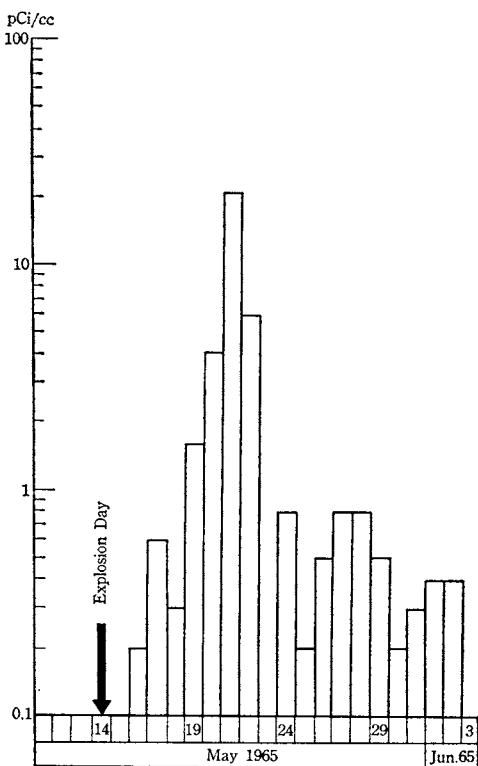


Figure 9. Results from The Third Nuclear Test
—May 9 to May 30, 1966—

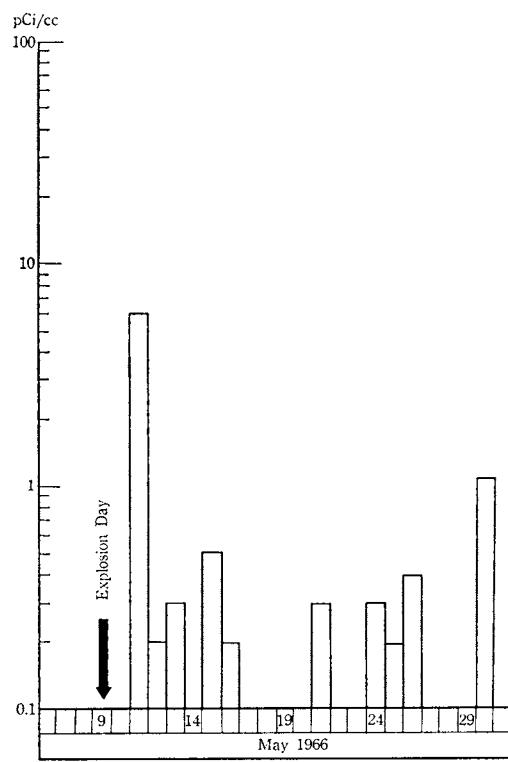


Figure 10. Results from The Fourth Nuclear Test
—Oct. 27 to Nov. 13, 1966—

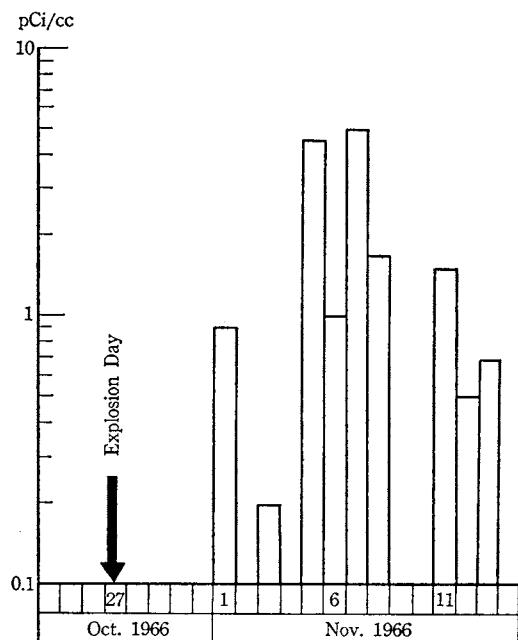
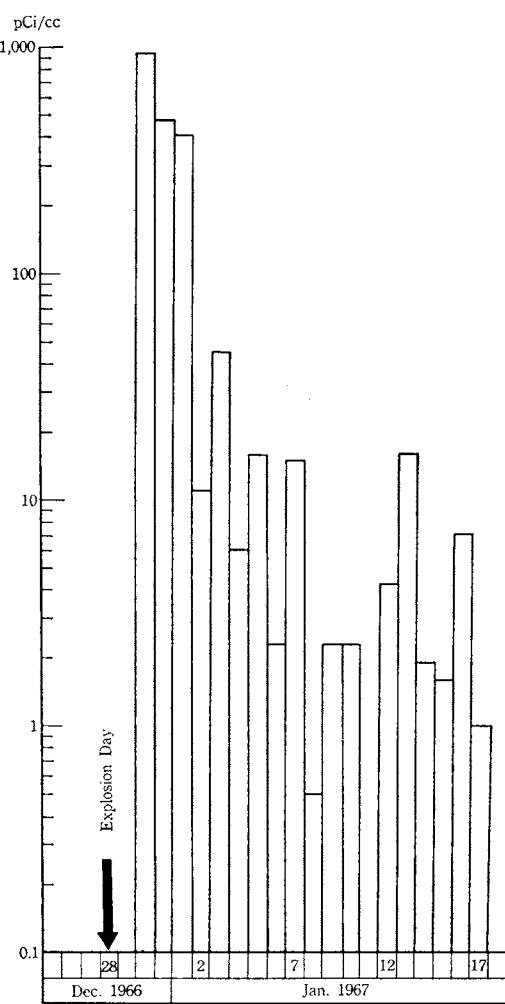


Figure 11. Results from The Fifth Nuclear Test
—Dec. 28, 1966 to Jan. 17, 1967—



**Deposits of Gross Beta-Radioactivity at those times when the five
nuclear tests were carried out**

(Table 6 to Table 10)

Table 6. Results from The First Nuclear Test —Oct. 15 to Nov. 5, 1964—
(mCi/km²)

Station	Oct. 15	16	17	18	19	20	21	22	23	24	25
Wakkanai			2.8	0.0					7.6	10.6	22.3
Sapporo			0.1							7.4	11.7
Kushiro							38.9	5.4			38.7
Sendai	0.3						29.0	4.9	200.0	1.6	
Akita				2.1			12.2	18.5	10.2	146.0	15.2
Tokyo	0.1			0.7	0.0	11.0			100.0	3.9	
Wajima	0.0			2.7			16.7	3.6	23.3	10.6	20.4
Hachijojima	0.2					1.7			4.1	7.4	1.6
Osaka				1.3			46.5	56.0	9.0		
Yonago	0.0		0.2	0.0			8.0	5.0	140.0	56.0	8.0
Murotomisaki				0.7	0.7	6.8	20.8	15.0		6.0	
Fukuoka					0.7		18.1	0.3	26.0		
Kagoshima				0.0			6.3			1.2	
Station	Oct. 26	27	28	29	30	31	Nov. 1	2	3	4	5
Wakkanai			3.2		1.2		2.2	3.5	0.6		1.7
Sapporo	1.3							1.0			
Kushiro								1.3			
Sendai								2.0	1.0		1.0
Akita	4.8				1.9	1.2		13.8			6.2
Tokyo								2.0	0.2		
Wajima				23.4				2.8			9.7
Hachijojima	4.8	3.0	2.1	1.1				0.5	2.1		
Osaka			1.7					2.2			
Yonago					4.0			10.0	2.0		
Murotomisaki				0.7				0.0			0.0
Fukuoka								5.6			
Kagoshima								0.0			

Table 7. Results from The Second Nuclear Test —May 14 to Jun. 4, 1965—
(mCi/km²)

Station	May 14	15	16	17	18	19	20	21	22	23	24
Wakkanai					0.7				6.4	0.2	2.4
Sapporo				1.3	0.0				1.8		
Kushiro					0.5				7.6		
Sendai		0.6			0.6				22.0		
Akita							1.9		33.0	20.0	
Tokyo	0.0			0.1					29.0	27.0	
Wajima	0.0			0.6					58.0	5.4	
Hachijojima	0.2	0.0	0.0	0.0				7.6	15.5		3.0
Osaka	2.0		1.5						51.2		
Yonago	0.0								120.0		
Murotomisaki					0.2				32.3		
Fukuoka	0.0	0.0							430.0		
Kagoshima	2.0	0.0						0.9	4.2		

Station	May 25	26	27	28	29	30	31	Jun. 1	2	3	4
Wakkanai	0.4							1.5			
Sapporo	2.4	0.5							0.8		
Kushiro									1.7		
Sendai		3.1	6.0					0.7			
Akita		1.5	4.2				0.7	0.3		1.4	4.0
Tokyo	0.4	20.0	0.0		4.0	0.0	0.8				9.0
Wajima		48.3	0.9	2.2	1.1						2.0
Hachijojima	1.9	4.1			7.6	2.4	1.9	0.4			0.9
Osaka	2.3	13.5	0.7		0.9	1.6					2.6
Yonago	5.0	5.0	0.8	2.0	0.9						3.0
Murotomisaki	1.8										3.1
Fukuoka	15.0	2.6	4.2	1.9	0.3						0.0
Kagoshima	35.3	7.3	0.0								

Table 8. Results from The Third Nuclear Test —May 9 to May 30, 1966—
(mCi/km²)

Station	May 9	10	11	12	13	14	15	16	17	18	19
Wakkanai	0.0				4.2		3.3	1.7			
Sapporo	0.0						0.3	0.3			
Kushiro	0.0							0.0			
Sendai		4.4						0.0			
Akita	0.0	0.0	46.0				3.6	4.6	0.6		
Tokyo		13.0						2.0			
Wajima		2.2						0.0			
Hachijojima	0.0		3.0				0.5	1.5			
Osaka		70.6						2.3			
Yonago		93.0					9.0	0.0			
Murotomisaki							0.4				
Fukuoka		0.0					0.0				
Kagoshima		0.0					0.0				

Station	May 20	21	22	23	24	25	26	27	28	29	30
Wakkanai										5.6	
Sapporo										1.0	
Kushiro											
Sendai		2.0								2.6	
Akita		0.3								1.4	
Tokyo		1.0	0.0	0.0			0.6			2.0	
Wajima			0.0							2.2	
Hachijojima		0.0	8.2							0.7	
Osaka	0.4	1.3	0.0							0.0	2.6
Yonago	1.0	0.0	0.0	0.0						0.7	0.8
Murotomisaki		0.8	0.0							1.1	
Fukuoka	0.0	0.0	0.0							3.6	0.0
Kagoshima											

Table 9. Results from The Fourth Nuclear Test —Oct. 23 to Nov. 13, 1966—
(mCi/km²)

Station	Oct. 23	24	25	26	27	28	29	30	31	Nov. 1	2
Wakkanai			0.0				0.0	0.0	0.2		
Sapporo	0.0	0.0			0.0	0.0	0.0	0.0	0.0		
Kushiro			0.0	0.0	0.0	0.0	0.0	0.0			
Sendai			0.0	0.0	0.0	0.0	0.0	0.0			
Akita		0.3	1.2				2.2	0.0			
Tokyo		0.0	0.0	0.0							
Wajima		0.0	2.4	0.0	0.0	0.0	0.0	0.0		4.4	
Hachijojima		0.1	0.0								
Osaka		0.0	0.0	0.0	0.0	0.0	0.2				
Yonago		0.0	0.0	0.0	0.0	0.0					
Murotomisaki		0.0	0.0	2.7	0.3	0.0					
Fukuoka											
Kagoshima											

Station	Nov. 3	4	5	6	7	8	9	10	11	12	13
Wakkanai	0.0				5.0	13.4			3.3	4.1	2.5
Sapporo					3.8				2.7	0.8	0.4
Kushiro											
Sendai											
Akita				42.3	3.2	5.2			1.8		2.2
Tokyo						4.2					
Wajima											
Hachijojima							0.5				
Osaka								15.0			
Yonago	0.6					13.1					
Murotomisaki											
Fukuoka											
Kagoshima											

Table 10. Results from The Fifth Nuclear Test —Dec. 27, 1966 to Jan. 17, 1967—

(mCi/km²)

Station	Dec. 1966					Jan. 1967					
	27	28	29	30	31	1	2	3	4	5	6
Wakkanai		0.0		0.1	0.2			0.0	0.9	0.8	0.7
Sapporo	0.0		2.0	0.0				0.0	0.0		
Kushiro						1.0			0.2		
Sendai	0.0					6.0	0.6	0.2	0.3		
Akita		0.5	0.5		58.0	9.0	2.5	2.8	0.9	0.3	
Tokyo	0.0	0.0	0.0	5600.0	1550.0	88.0	27.0				
Wajima						14.0	200.0	44.0	5.0	14.0	
Hachijojima						190.0	16.0				
Osaka						3840.0	200.0	230.0	23.0	100.0	
Yonago	3.0	0.5	0.2			350.0	2.0				
Murotomisaki						180.0	14.0		20.0	2.3	
Fukuoka		0.2				770.0	20.0	170.0	8.8		
Kagoshima	0.0										
Station	Jan. 1967										
	7	8	9	10	11	12	13	14	15	16	17
Wakkanai	0.2	2.0	0.5			5.5	1.0	10.0	1.0	4.7	
Sapporo	1.0	0.0	0.0	3.0		0.6	0.0	0.3	2.0		
Kushiro					0.1	0.7	0.3				
Sendai						2.0	1.0	19.0	5.3	3.3	0.4
Akita	0.6	0.9	6.7	4.0		6.8					8.3
Tokyo	30.0	9.0	15.0	5.5		43.0	0.9	10.0	5.0	10.0	0.0
Wajima						5.0					
Hachijojima						2.0			3.0	17.0	7.0
Osaka						6.0					
Yonago	5.8	2.0	3.0	28.0		42.0	34.0			20.0	
Murotomisaki						7.2				8.4	
Fukuoka											
Kagoshima	170.0										

Deposits of Gross Beta-Radioactivity at those times when the five nuclear tests were carried out
—Maximum Value in Japan—
(Figure 12 to Figure 16)

Figure 12. Results from The First Nuclear Test
 —Oct. 16 to Nov. 5, 1964—

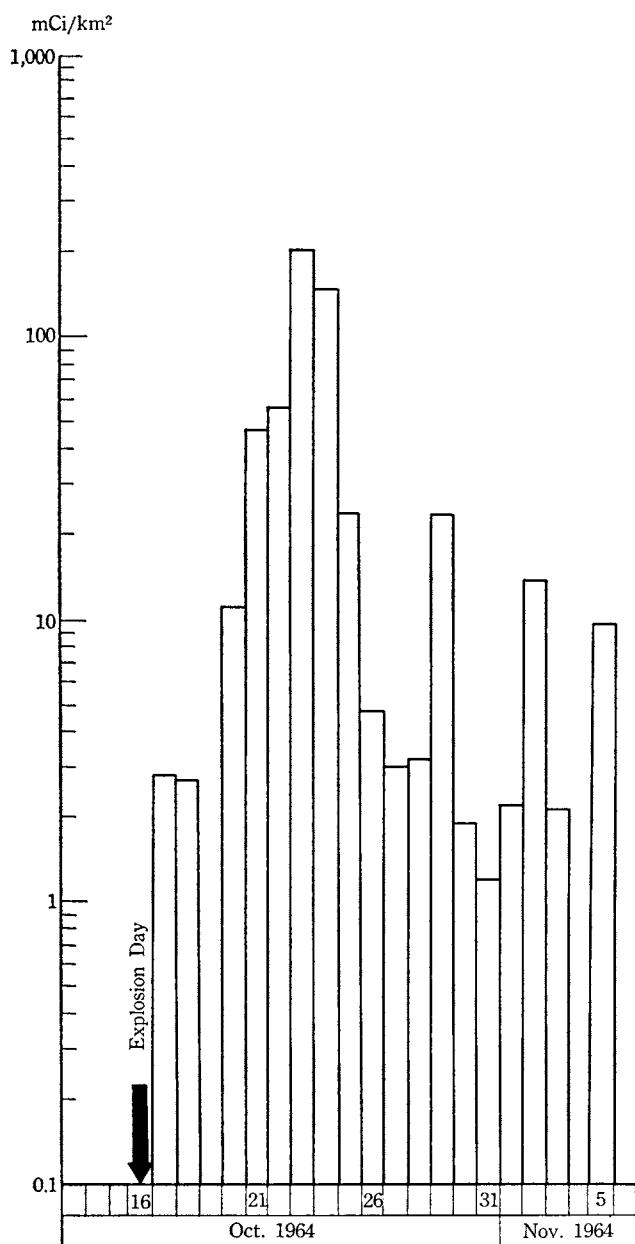


Figure 13. Results from The Second Nuclear Test
 —May 14 to Jun. 4, 1965—

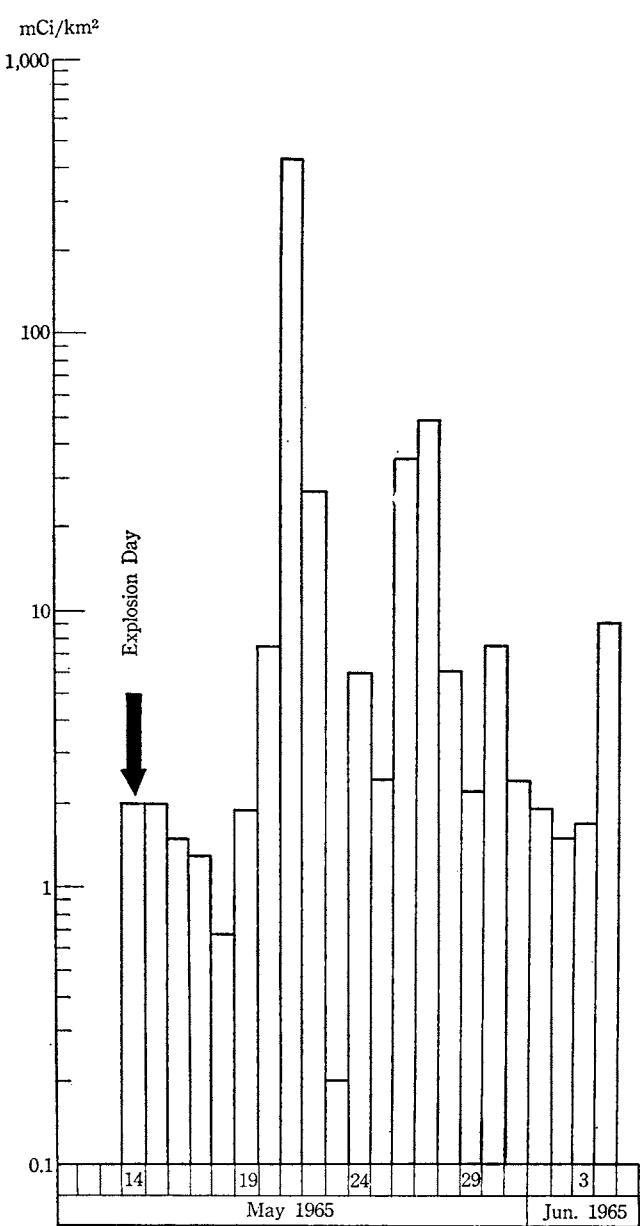


Figure 14. Results from The Third Nuclear Test
—May 9 to May 30, 1966—

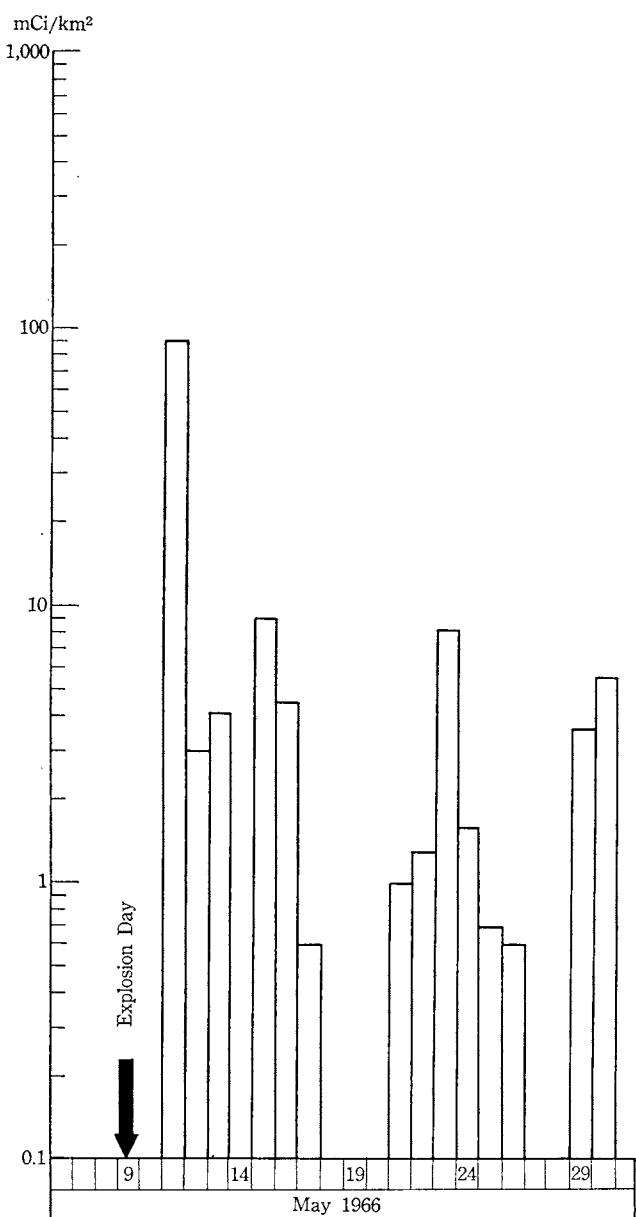


Figure 15. Results from The Fourth Nuclear Test
—Oct. 27 to Nov. 13, 1966—

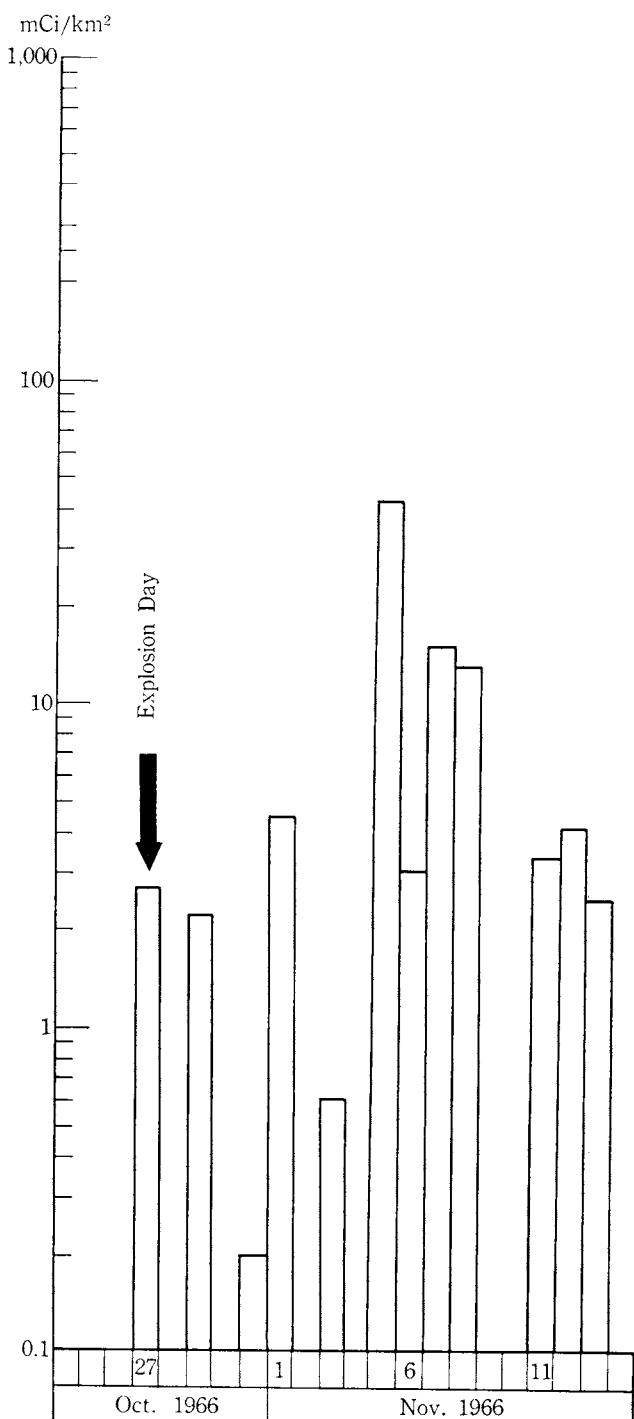
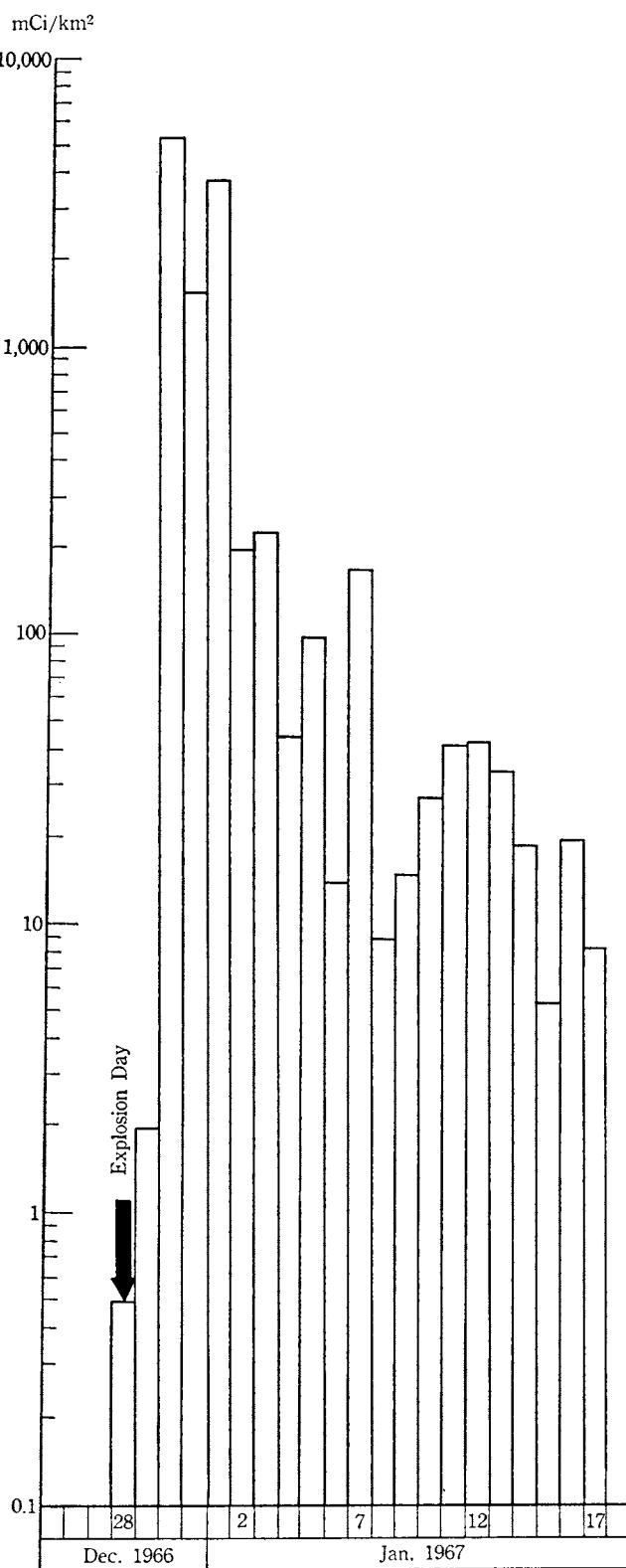


Figure 16. Results from The Fifth Nuclear Test
—Dec. 28, 1966 to Jan. 17, 1967—



**Gross Beta-Radioactivity in Dust at those times when the five
nuclear tests were carried out.**

(Table 11 to Table 15)

Table 11. Results from The First Nuclear Test —Oct. 16 to Nov. 6, 1964—
(pCi/m³)

Station	Oct. 16	17	18	19	20	21	22	23	24	25	26
Sapporo	0.7			0.5		1.4	1.4	1.4	0.2		0.0
Sendai	1.0			0.5		0.7	3.1	0.2	0.2		
Tokyo	0.8			12.0	3.3	1.3	1.9	1.4	3.5	1.7	0.9
Osaka	1.0			18.0	8.0			2.4		0.1	
Fukuoka	1.2			1.0	1.0	0.2	38.0	18.0	1.0	0.5	1.0
Station	Oct. 27	28	29	30	31	Nov. 1	2	3	4	5	6
Sapporo		1.0			0.2		0.0		0.0		1.0
Sendai	0.5	1.0	0.7	0.5	0.2		1.2		0.7	1.7	0.5
Tokyo	1.2	1.0	0.8	1.2			0.7		1.0		0.7
Osaka		0.7		0.7			0.7		0.1		0.7
Fukuoka		1.7	0.7	2.2	1.4		0.7		1.4		0.7

Table 12. Results from The Second Nuclear Test —May 14 to Jun. 4, 1965—
(pCi/m³)

Station	May 14	15	16	17	18	19	20	21	22	23	24
Sapporo	0.5		0.2	0.2	0.5	0.5	0.5	0.2	0.2	0.5	0.5
Sendai	0.2		0.0	0.2	1.0	1.0	0.0	0.2	1.2	1.2	1.2
Tokyo	0.9		0.6	0.6	0.6	0.9	0.6	16.0	1.5	1.2	1.4
Osaka	1.2	0.1	0.7	0.7	1.0	1.2	2.2	28.0	1.0	1.4	2.9
Fukuoka	1.2		0.7	0.7	0.7	1.4	2.9	0.5	1.0	1.0	7.0
Station	May 25	26	27	28	29	30	31	Jun. 1	2	3	4
Sapporo	0.5	0.2	0.5	0.2			0.0		0.2		0.2
Sendai	1.2	1.0	0.5	0.7			0.2		0.5		0.2
Tokyo	1.2	2.2	0.1	0.3			0.1		0.4		0.1
Osaka	2.9	1.9	0.3	0.5			0.2		0.7		0.5
Fukuoka	3.4	0.2	0.5	0.2			0.2		1.0		1.7

Table 13. Results from The Third Nuclear Test —May 9 to May 28, 1966—
(pCi/m³)

Station	May 9	10	11	12	13	14	15	16	17	18
Sapporo	0.2		0.0	0.2	0.2	0.2	0.0	0.2	0.2	0.2
Sendai	0.2	0.5	3.4	0.2	0.5	0.2	0.5	0.2	0.0	0.2
Tokyo	0.4		0.5	0.2	0.5	1.0	0.3	0.2	0.2	0.6
Osaka	0.5		0.5	0.5	3.6	0.5	0.9	0.2	0.3	0.7
Fukuoka	0.7		0.0	0.5	0.5	1.0	0.2	0.2	0.2	0.5
Station	May 19	20	21	22	23	24	25	26	27	28
Sapporo	0.2	0.5			0.2		0.2		0.5	
Sendai	0.5	0.5			0.0		0.2		0.5	
Tokyo	0.7	0.6			0.2		0.3		0.9	
Osaka	0.5	0.9			0.3		0.2		1.2	
Fukuoka	0.5	1.0			0.0		0.2		0.7	0.2

Table 14. Results from The Fourth Nuclear Test —Oct. 24 to Nov. 12, 1966—

(pCi/m³)

Station	Oct. 24	25	26	27	28	29	30	31	Nov. 1	2
Sapporo	0.2		0.0		0.0	0.0	0.0	0.0	0.2	0.0
Sendai	0.2		0.5		0.2	0.0	0.0	0.0	2.9	0.5
Tokyo	0.5		1.3		0.5	0.3	1.0	0.4	0.9	20.0
Osaka	0.7		0.7		0.2	0.2	0.2	1.0	0.5	17.0
Fukuoka	0.7		0.7		0.0	0.5	0.2	0.5	1.4	15.0
Station	Nov. 3	4	5	6	7	8	9	10	11	12
Sapporo	0.2	0.2	1.7	0.5	9.0	0.5	0.2	0.2	1.2	0.2
Sendai	0.2	0.2	2.6	8.0	6.0	1.7	1.4	0.7	0.7	1.0
Tokyo	1.2	0.3	0.9	2.0	7.0	4.9	3.2	2.4	0.8	2.7
Osaka	0.2	0.7	1.0	6.0	4.8	4.1	3.1	3.4	0.7	1.2
Fukuoka	0.2	0.5	0.7	5.0	1.9	3.1	2.6	1.9	1.7	2.2

Table 15. Results from The Fifth Nuclear Test —Dec. 26, 1966 to Jan. 18, 1967—

(pCi/m³)

Station	Dec. 1966					Jan. 1967						
	26	27	28	29	30	31	1	2	3	4	5	6
Sapporo	0.0		0.0		0.0	0.0	0.2	0.2		0.0		0.0
Sendai	0.5			0.0	0.2	0.5	0.3	0.2		0.1		0.5
Tokyo	0.6		0.2		3.6	12.0	2.5	0.2		1.1	0.3	
Osaka	0.5		0.0		22.0	43.0	2.9	2.4		0.5		1.4
Fukuoka	0.2		0.2		423.0	510.0	16.0	7.0	2.6	1.7		3.1
Station	7	8	9	10	11	12	13	14	15	16	17	18
Sapporo			0.0		0.5		0.2			0.0		0.0
Sendai			0.3		0.4		0.4			0.7		0.2
Tokyo			1.9		1.2		0.4			0.6		0.4
Osaka			1.0		1.7		1.7			0.5		0.2
Fukuoka			32.0		4.6		7.0			1.0		1.0

Gross Beta-Radioactivity in Dust at those times when the five nuclear tests were carried out
—Maximum Value in Japan—
(Figure 17 to Figure 21)

Figure 17. Results from The First Nuclear Test
—Oct. 16 to Nov. 6, 1964—

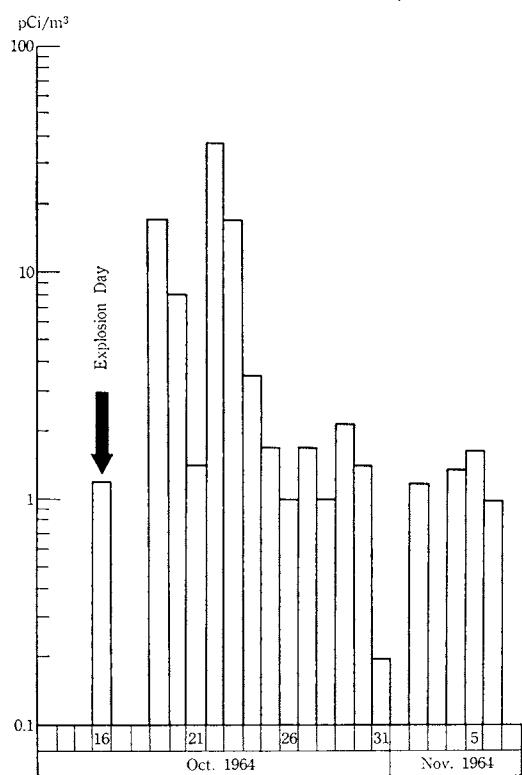


Figure 18. Results from The Second Nuclear Test
—May 14 to Jun. 4, 1965—

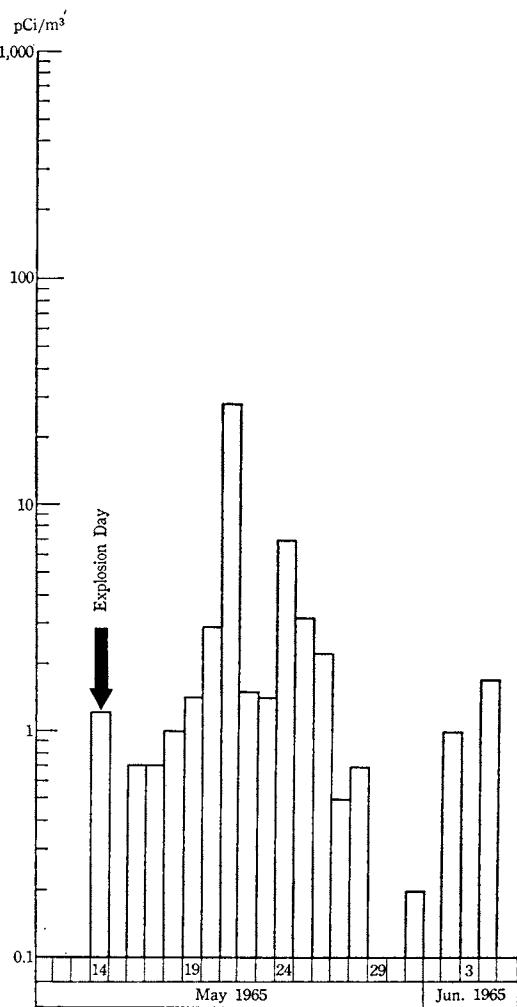


Figure 19. Results from The Third Nuclear Test
—May 9 to May 28, 1966—

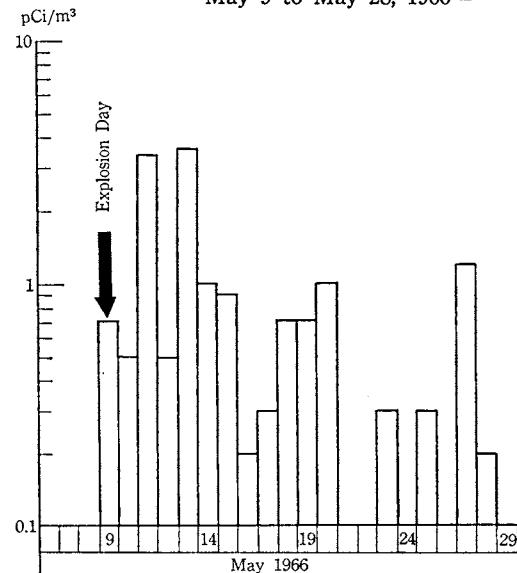


Figure 20. Results from The Fourth Nuclear Test
—Oct. 27 to Nov. 12, 1966—

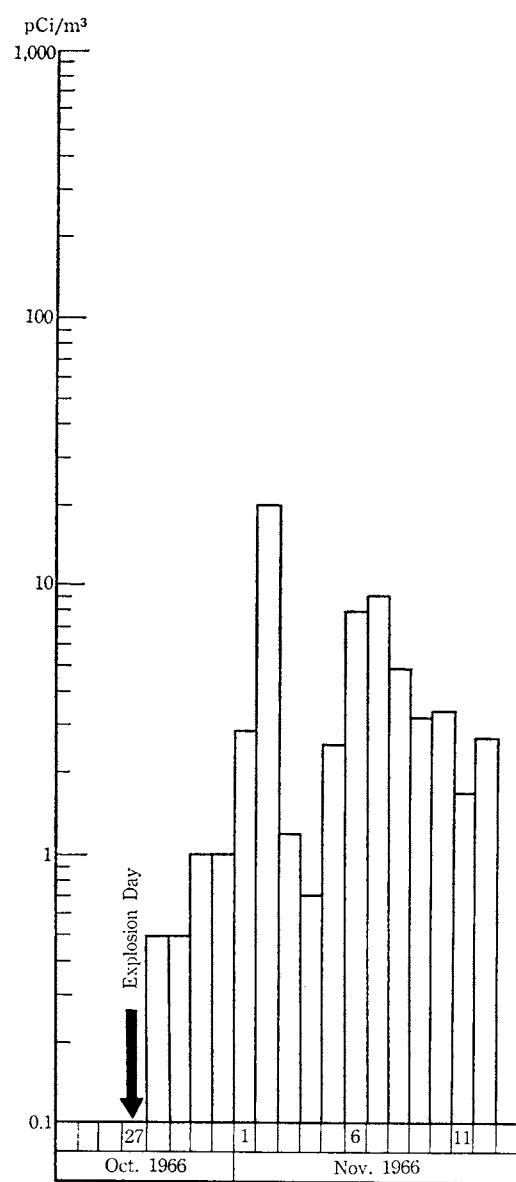


Figure 21. Results from The Fifth Nuclear Test
—Dec. 28, 1966 to Jan. 18, 1967—

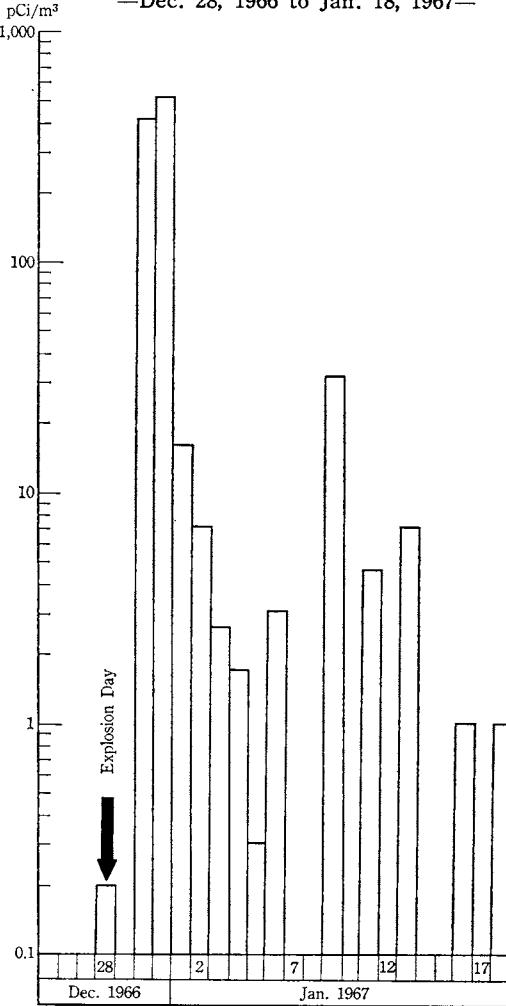


Table 16. Comparison among The Radioactive Fallouts caused by the five nuclear detonations for 1964-1966

(No. 1)

No.	Time of Explosion (Assumed) Z=Greenwich Mean Time	Site	Precipitation (pCi/cc)		Airborne Dust (pCi/m ³)	
			First Arrival	Maximum Value	First Arrival	Maximum Value
1	Oct. 16, 1964 (07 Z)	40°N 90°E	27.2 (Tokyo) (Oct. 20)	31.0 (Osaka) (Oct. 21)	18.0 (Osaka) (Oct. 19)	38.0 (Fukuoka) (Oct. 22)
2	May 14, 1965 (02 Z)	"	4.2 (Hachijojima) (May 20)	21.0 (Fukuoka) (May 21)	2.9 (Fukuoka) (May 21)	28.0 (Osaka) (May 21)
			0.6 (Sapporo) (Sendai) (May 17)			
3	May 9, 1966 (08 Z)	"	6.0 (Akita) (May 11)	6.0 (Akita) (May 11)	3.4 (Sendai) (May 11)	3.6 (Osaka) (May 13)
4	Oct. 27, 1966 (00 Z)	"	0.9 (Wajima) (Nov. 1)	5.0 (Wakkanai) (Nov. 7)	2.9 (Sendai) (Nov. 1)	20.0 (Tokyo) (Nov. 20)
5	Dec. 28, 1966 (03 Z)	"	840.0 (Wajima) (Dec. 30)	840.0 (Wajima) (Dec. 30)	423.0 (Fukuoka) (Dec. 30)	510.0 (Fukuoka) (Dec. 31)

(No. 2)

No.	Time of Explosion (Assumed) Z=Greenwich Mean Time	Maximum of Overall Mean (pCi/m ³)	Maximum Deposition (mCi/km ²)	Possible Air Trajectories corresponding to Nuclear Cloud Passage (Lower Limit of Altitude)
1	Oct. 16, 1964 (07 Z)	13.8 (Oct. 22)	200.0 (Sendai) (Oct. 23)	500 mb (About 5 Km)
2	May 14, 1965 (02 Z)	9.0 (May 21)	430.0 (Fukuoka) (May 21)	500 mb (About 5 Km)
3	May 9, 1966 (08 Z)	1.1 (May 13)	93.0 (Yonaog) (May 11)	300 mb (About 9 Km)
4	Oct. 27, 1966 (00 Z)	10.5 (Nov. 2)	42.3 (Akita) (Nov. 5)	700 mb (About 3 Km)
5	Dec. 28, 1966 (03 Z)	113.1 (Dec. 31)	5100.0 (Wajima) (Dec. 30)	500 mb-300 mb

**Temporal Variations of Gross Beta-Radioactivity in Rain and Dust near the ground
at those times when the five nuclear tests were carried out.**
(Figure 22 to Figure 26)

Figure 22. Results from The First Nuclear Test
—Oct. 16 to Nov. 15, 1964—

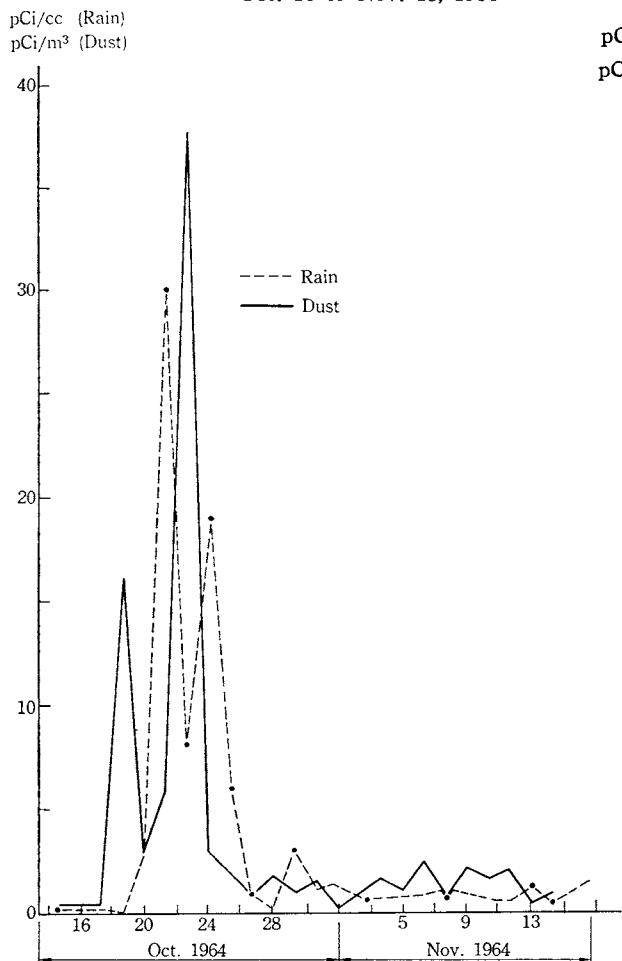


Figure 23. Results from The Second Nuclear Test
—May 2 to May 27, 1965—

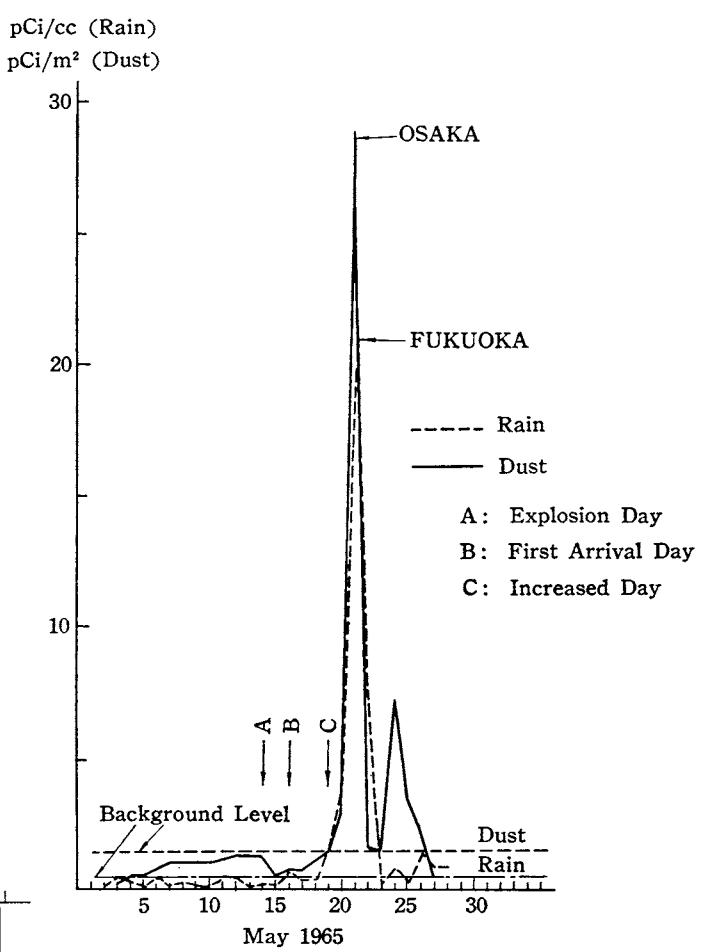


Figure 24. Results from The Third Nuclear Test
—May 2 to May 30, 1966—

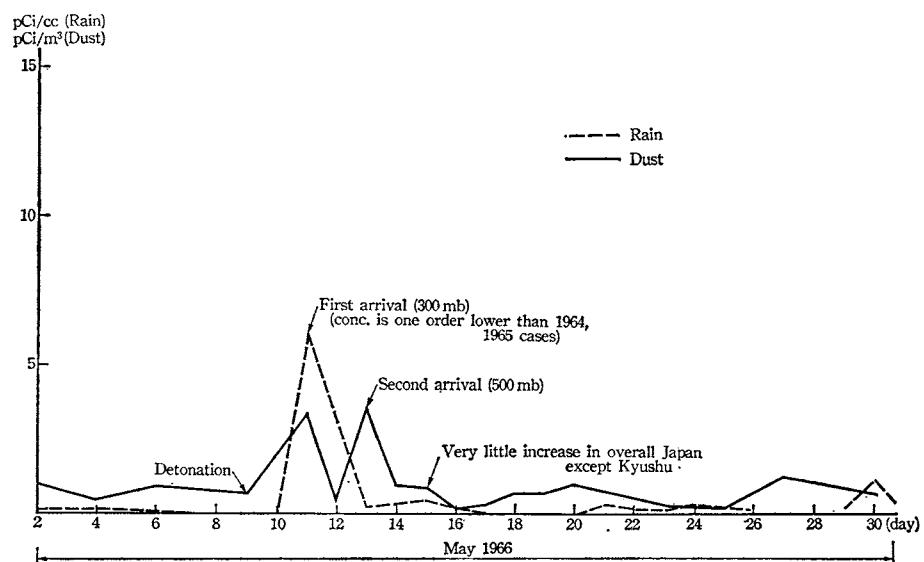


Figure 25. Results from The Fourth Nuclear Test
—Oct. 20 to Nov. 12, 1966—

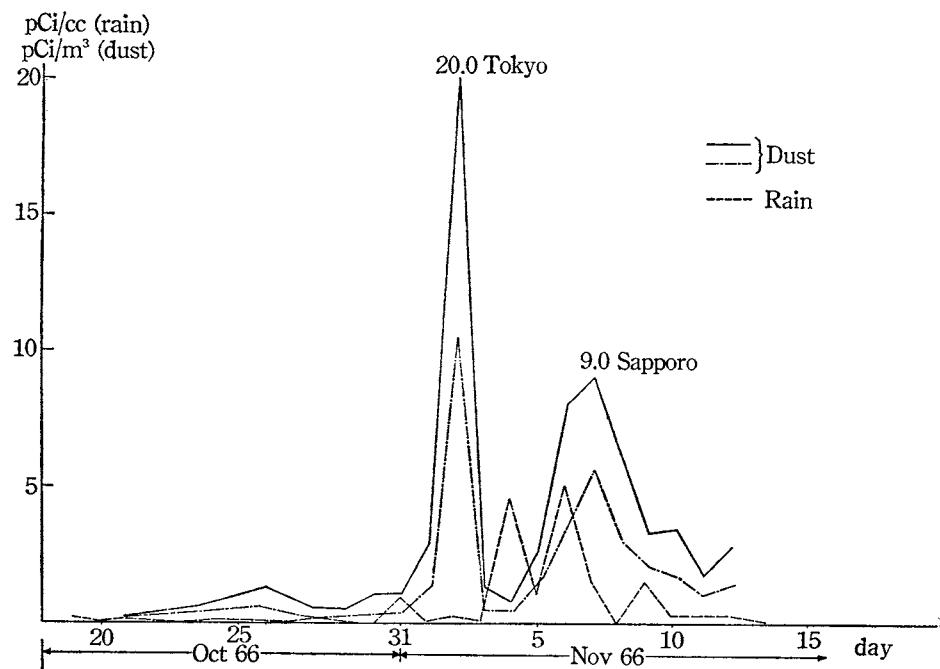


Figure 26. Results from The Fifth Nuclear Test
—Dec. 22, 1966 to Jan. 18, 1967—

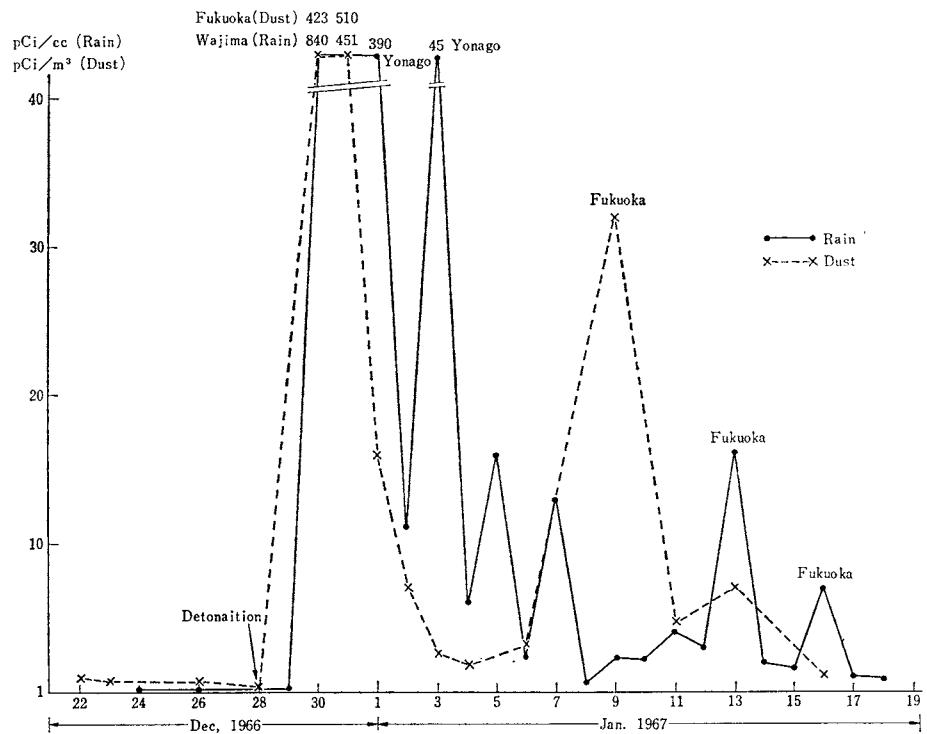


Figure 27. Monthly Variation of Gross Beta-Radioactivity
in Rain and Dust
—All Japan Maximum Value—

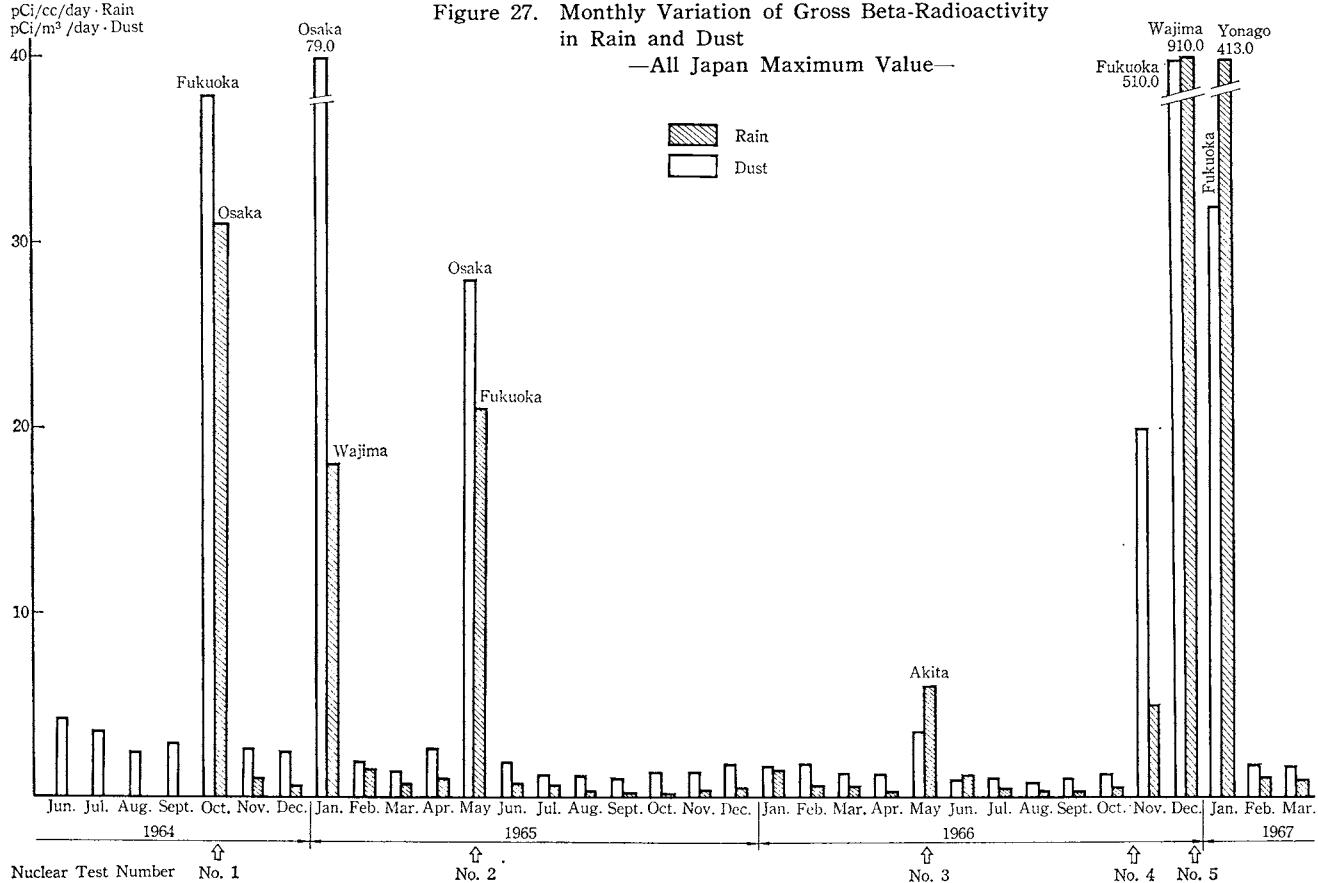
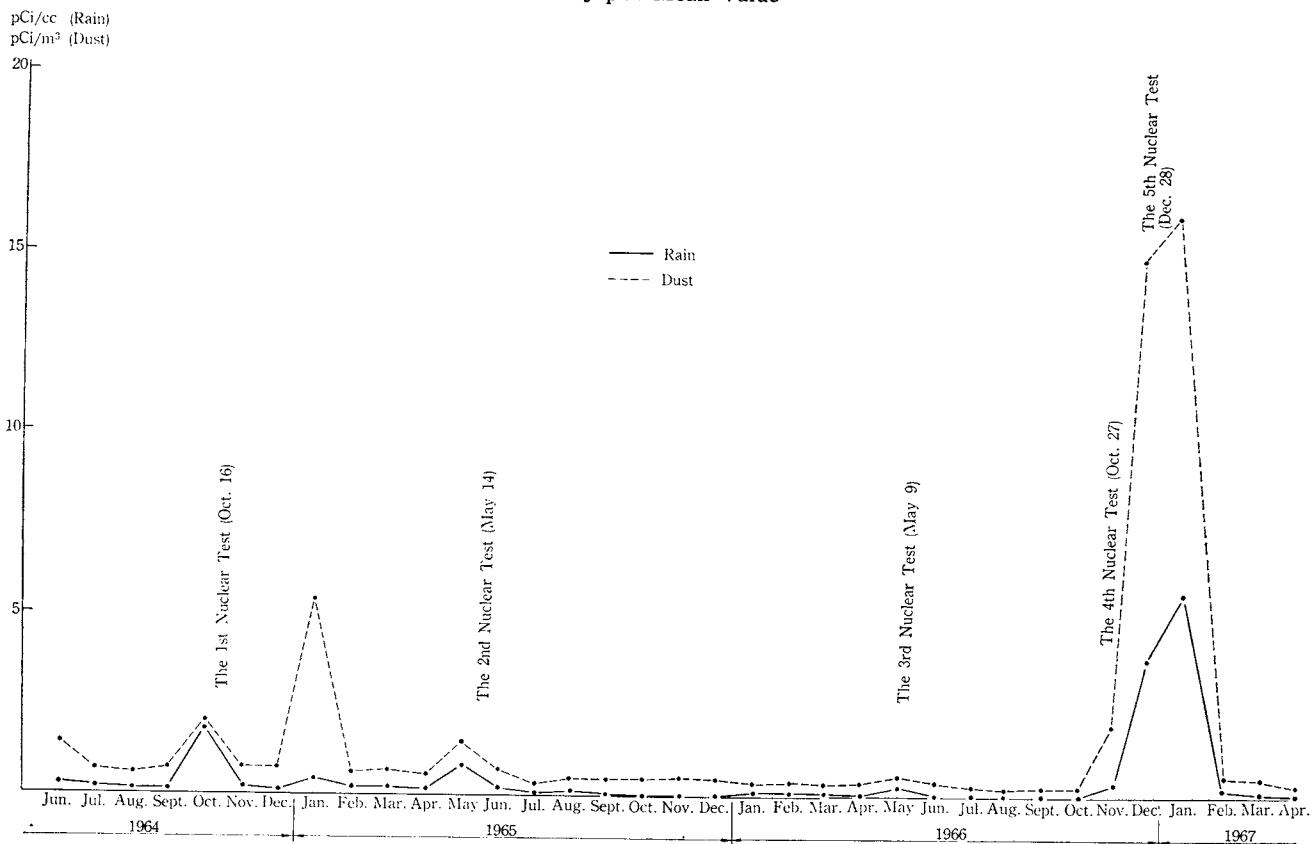


Figure 28. Monthly Average Values of Gross Beta-Radioactivity in Rain and Dust at the Ground Level
—All Japan Mean Value—



Meteorological Research Institute

Deposits of Radioactive Fallout derived from the five nuclear tests

—Results obtained by Meteorological Research Institute, Tokyo—

(Table 17 to Table 21)

Table 17. Results from The First Nuclear Test —Oct. 16 to Oct. 26, 1964—

Date of Sampling	Duration of Collection (hr)	Total β -activity (mCi/km ²)	Remarks
Oct. 1964			
9 a.m. 16th to 9 a.m. 17th	24	0.03	dry fallout
" 17 " " 10 a.m. 18 "	25	2.4	rain (17.7 mm)
10 a.m. 18 " " 4.30 p.m. 18 "	6.5	0.5	rain (12.2 mm)
4.30 p.m. 18 " " 9 a.m. 19 "	16.5	120	dry fallout
9 a.m. 19 " " 4 p.m. 19 "	7	85	"
4 p.m. 19 " " 9 a.m. 20 "	17	60	dry fallout and rain (0.95 mm)
9 a.m. 20 " " " 21st	24	20	dry fallout
" 21st " " 22nd	"	10	"
" 22nd " " 23rd	"	156	rain (12.0 mm)
" 23rd " " 24th	"	13	dry fallout and rain (1.5 mm)
" 24th " " 26 "	48	2	dry fallout

Table 18. Results from The Second Nuclear Test —May 15 to Jun. 22, 1965—

Date of Sampling	Duration of Collection (hr)	Total β -activity (mCi/km ²)	Remarks
May 1965			
9 a.m. 15th to 11 a.m. 16th	26	0.23	dry fallout
11 a.m. 16 " " 9 a.m. 17 "	22	0.24	rain (0.25 mm)
9 a.m. 17 " " " 18 "	24	0.11	dry fallout
" 18 " " " 19 "	"	0.08	"
" 19 " " " 20 "	"	0.07	"
" 20 " " " 21st	"	344	rain (72.0 mm)
" 21st " " 22nd	"	5	dry fallout
" 23rd " " 24th	"	10	rain (14.5 mm)
" 24th " " 25 "	"	0.3	dry fallout
" 25 " " 26 "	"	1.4	rain (0.6 mm)
" 26 " " 27 "	"	16	rain (85.5 mm)
" 27 " " 28 "	"	1.6	rain (50.2 mm)
" 28 " " 29th	"	1.3	rain (3.0 mm)
" 29 " " 31st	48	5.3	rain (75.0 mm)
" 31st " " 1 "	24	1.2	rain (8.8 mm)
Jun. 1965			
9 a.m. 1st to 9 a.m. 2nd	24	0.02	dry fallout
" 2nd " " 3rd	"	0.03	"
" 3rd " " 4th	"	4.9	rain (53.5 mm)
" 4th " " 5 "	"	0.2	rain (1.4 mm)
" 5 " " 7 "	48	0.06	dry fallout
" 7 " " 8 "	24	0.1	"
" 8 " " 9 "	"	0.04	"
" 9 " " 10 "	"	0.03	"
" 10 " " 11 "	"	0.04	"
" 11 " " 12 "	"	0.02	"
" 12 " " 14 "	48	13.9	rain (51.0 mm)
" 14 " " 15 "	24	0.9	rain (28.5 mm)
" 15 " " 16 "	"	0.04	dry fallout
" 16 " " 17 "	"	0.05	"
" 17 " " 18 "	"	0.08	"
" 19 " " 21st	48	1.0	rain (7.0 mm)
" 21st " " 22nd	24	0.8	rain (16.8 mm)

Table 19. Results from The Third Nuclear Test —May 7 to Jun. 10, 1966—

Date of sampling		Duration of Collection (hr)	Total β -activity (mCi/km ²)	Remarks
May 1966				
9 a.m.	7th to	9 a.m. 8th	24	0.47
"	9th "	" 10 "	"	0.03
"	10 "	" 11 "	"	23.3
"	11 "	" 12 "	"	0.04
"	12 "	" 13 "	"	0.03
"	13 "	" 14 "	"	0.04
"	14 "	" 15 "	"	0.07
"	15 "	" 16 "	"	0.56
"	16 "	" 17 "	"	0.11
"	17 "	" 18 "	"	0.03
"	18 "	" 19 "	"	0.02
"	19 "	" 20 "	"	0.02
"	20 "	" 21st	"	0.03
"	21st "	" 22nd	"	0.84
"	22nd "	" 24th	48	2.67
"	24th "	" 25 "	24	0.03
"	25 "	" 26 "	"	1.04
"	26 "	" 27 "	"	0.03
"	27 "	" 28 "	"	0.06
"	29 "	" 30 "	"	12.25
"	30 "	" 31st	"	0.29
"	31st "	" 1 "	"	2.32
Jun. 1966				
9 a.m.	1st to	9 a.m. 2nd	24	15.84
"	2 "	" 3rd	"	0.36
"	3rd "	" 4th	"	0.12
"	4 "	" 5 "	"	5.76
"	6 "	" 7 "	"	0.07
"	7 "	" 8 "	"	1.93
"	8 "	" 9 "	"	0.03
"	9 "	" 10 "	"	8.94

Table 20. Results from The Fourth Nuclear Test —Oct. 26 to Nov. 12, 1966—

Date of Sampling		Duration of Collection (hr)	Total β -activity (mCi/km ²)	Remarks
Oct. 1966				
9 a.m.	26th to	9 a.m. 27th	24	0.12
"	27 "	" 28 "	"	0.09
"	28 "	" 29 "	"	0.03
"	29 "	" 30 "	"	0.03
"	30 "	" 31st	"	0.03
"	31st "	" 1st	"	0.03
Nov. 1966				
9 a.m.	1st to	9 a.m. 2nd	24	7.90
"	2nd "	" 4th	48	2.15
"	4th "	" 5 "	24	2.00
"	5 "	" 7 "	48	0.11
"	7 "	" 8 "	24	0.07
"	8 "	" 9 "	"	0.04
"	9 "	" 10 "	"	0.07
"	10 "	" 11 "	"	0.04
"	11 "	" 12 "	"	0.08

Table 21. Results from The Fifth Nuclear Test —Dec. 24, 1966 to Jan. 21, 1967—

Date of Sampling		Duration of Collection (hr)	Total β -activity (mCi/km ²)	Remarks
Dec. 1966				
9 a.m.	24th to	9 a.m. 26th	48	0.03
"	26 "	" 28 "	"	0.03
"	28 "	" 0.30 p.m. 29 "	27.5	0.89
0.30 p.m.	29 "	" 30 "	24	1500
"	30 "	" 2 p.m. 31st	25.5	412

Date of Sampling	Duration of Collection (hr)		Total β -activity (mCi/km 2)	Remarks
Jan. 1967				
Dec. 66	Jan. 67			
2 p.m. 31st to	10 a.m. 2nd	44	35	
10 a.m. 2nd //	9 a.m. 4th	47	22	rain (12.9 mm) dry fallout
9 a.m. 4th //	// 5//	24	1.8	//
// 5// //	// 6//	//	5.5	//
// 6// //	// 7//	//	4.6	//
// 7// //	// 9//	48	3.7	//
// 9// //	// 10//	24	0.49	//
// 10// //	// 11//	//	0.54	//
// 11// //	// 12//	//	4.4	rain (3.4 mm) dry fallout
// 12// //	// 13//	//	0.68	
// 13// //	// 14//	//	0.16	//
// 14// //	// 16//	48	2.2	//
// 16// //	// 17//	24	0.34	//
// 17// //	// 18//	//	0.10	//
// 18// //	// 19//	//	0.04	//
// 19// //	// 20//	//	0.06	//
// 20// //	// 21st	//	0.08	//

Deposits of Radioactive Fallout derived from the five nuclear tests
—Results obtained by Meteorological Research Institute, Tokyo—
(Figure 29 to Figure 33)

Figure 29. Results from The First Nuclear Test

—Oct. 16 to Oct. 26, 1964—

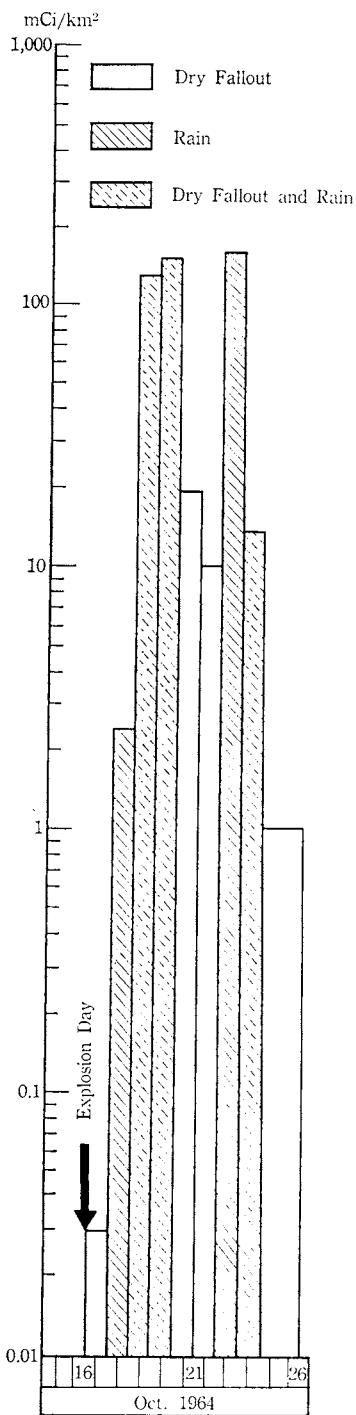


Figure 30. Results from The Second Nuclear Test

—May 15 to Jun. 18, 1965—

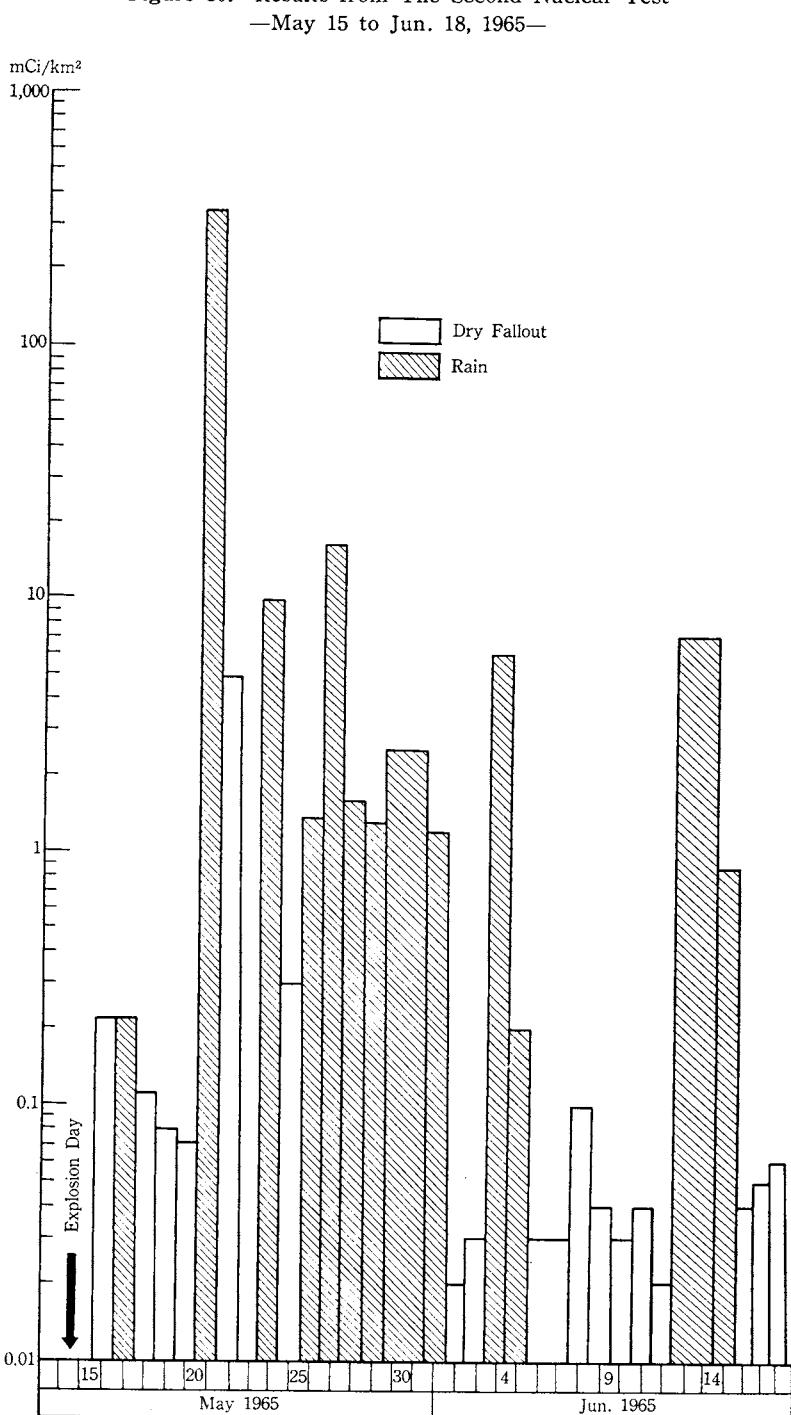


Figure 31. Results from The Third Nuclear Test
—May 7 to Jun. 10, 1966—

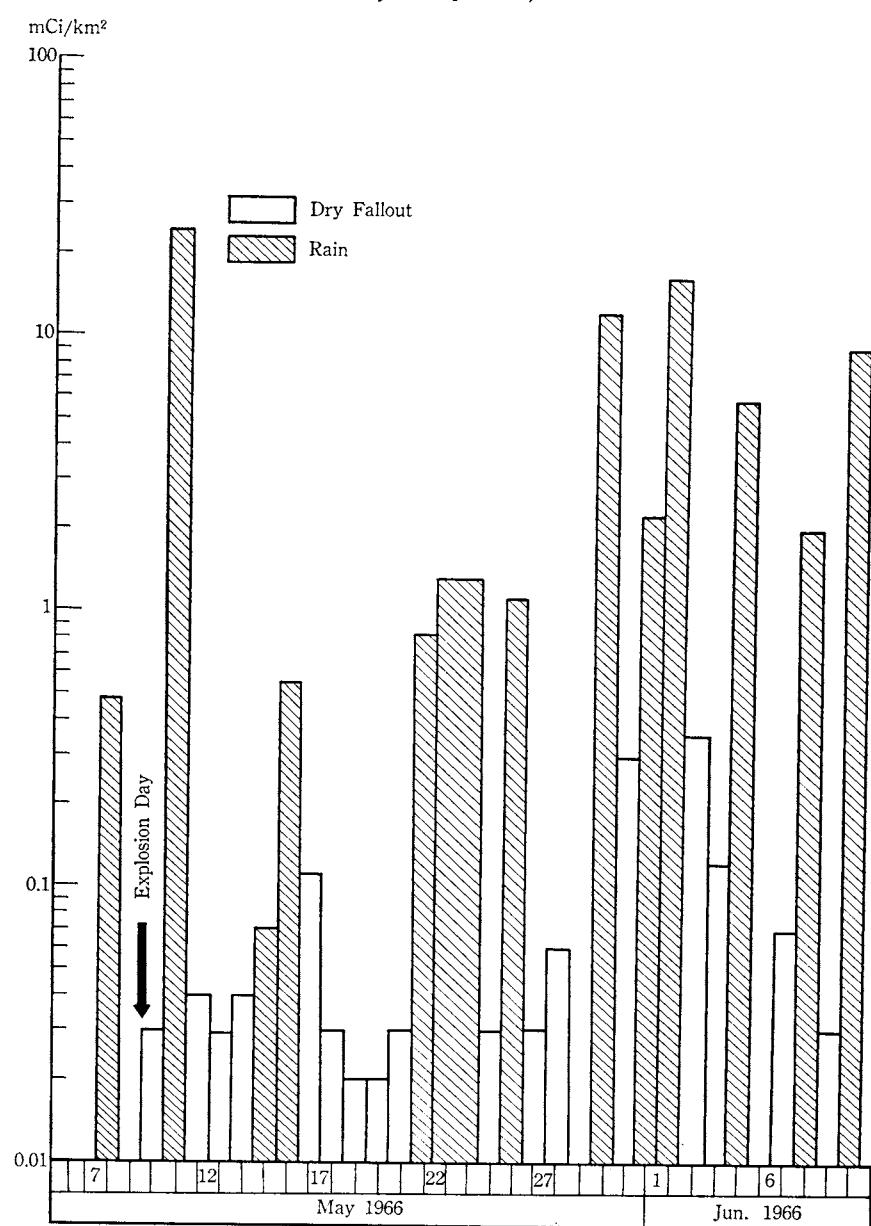


Figure 32. Results from The Fourth Nuclear Test
—Oct. 26 to Nov. 12, 1966—

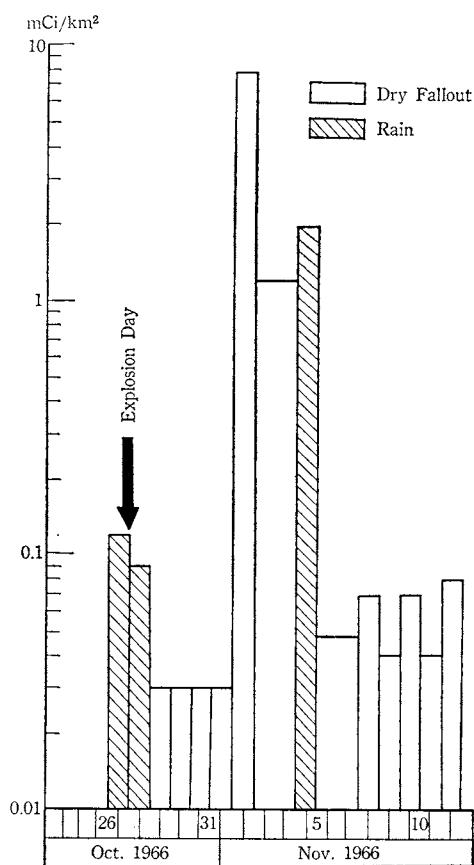
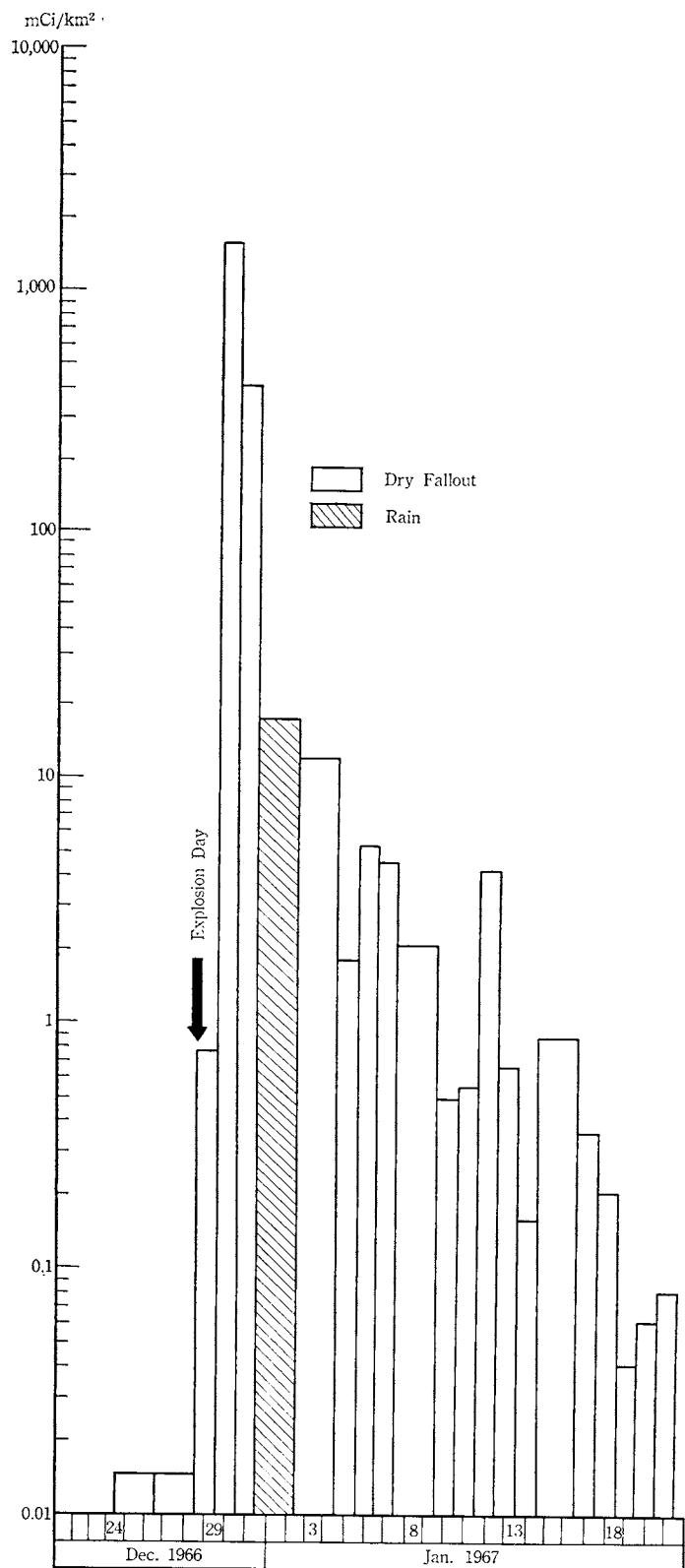


Figure 33. Results from The Fifth Nuclear Test
—Dec. 24, 1966 to Jan. 21, 1967—



**Radiochemical Analysis of Dry Fallout and Highly Radioactive Fallout
Particles derived from the five nuclear tests.**

—Results obtained by Meteorological Research Institute, Tokyo—

(Table 22 to Table 26)

Table 22. Results from The First Nuclear Test
Date of Sampling : Oct. 18 to Oct. 19, 1964
(Reduced Value on The 21st of Oct., 1964)

Nuclides	(Percentage in Activity) Fission and induced product
²³⁹ Np	64.0%
²³⁷ U	2.5
⁹⁹ Mo	
¹⁰³ Ru, ¹⁰⁶ Ru	8.3
¹⁰⁵ Ru-Rh	
Alkali Earths	5.1
Rare Earths	10.7
⁹⁵ Zr, ⁹⁷ Zr	
⁹⁵ Nb, ⁹⁶ Nb	1.0
Others	8.4

Table 23. Results from The Second Nuclear Test
Date of Sampling : May 21, 1965
(Reduced Value on The 21st of May, 1965)

Nuclides	(Percentage in Activity) Fission and induced product
²³⁹ Np	31.2%
²³⁷ U	1.0
⁹⁹ Mo	
¹⁰³ Ru, ¹⁰⁶ Ru	
¹⁰⁵ Ru-Rh	13.7
¹³² Te	
⁸⁹ Sr, ⁹⁰ Sr	
¹⁴⁰ Ba	14.3
¹³⁷ Cs	0.3
⁹¹ Y, ¹⁴⁰ La	
¹⁴¹ Ce, ¹⁴⁴ Ce	
¹⁴⁷ Nd, ¹⁴⁷ Pm	28.3
⁹⁵ Zr, ⁹⁷ Zr	
⁹⁵ Nb, ⁹⁶ Nb	2.9
¹³¹ I	5.7
Others	2.6

Table 24. Results from The Third Nuclear Test
Date of Sampling : May 11, 1966
(Reduced Value on The 25th of May, 1966)

Nuclides	(Percentage in Activity) Fission and induced product
²³⁹ Np	0.5%
²³⁷ U	0.9
⁹⁹ Mo, ¹³² Te	
¹⁰³ Ru, ¹⁰⁶ Ru	5.1
⁹⁵ Zr, ⁹⁵ Nb	14.8
⁸⁹ Sr, ⁹⁰ Sr	
¹⁴⁰ Ba	6.1
Rare-earth Elements	72.6

Table 25. Results from The Fourth Nuclear Test
Date of Sampling : Nov. 2, 1966
(Reduced Value on The 12th of Nov., 1966)

Nuclides	(Percentage in Activity) Fission and induced Product
²³⁹ Np	3.4%
²³⁷ U	1.0
⁹⁹ Mo, ¹³² Te	
¹⁰³ Ru, ¹⁰⁶ Ru	3.8
⁹⁵ Zr, ⁹⁵ Nb	17.5
⁸⁹ Sr, ⁹⁰ Sr	
¹⁴⁰ Ba	4.9
Rare-earth Elements	69.5

Table 26. Results from The Fifth Nuclear Test
Date of Sampling : Dec. 30, 1966
(Reduced Value on The 13th of Jan., 1967)

Nuclides	(Percentage in Activity) Fission and induced Product
²³⁹ Np	6.4%
²³⁷ U	6.5
⁹⁹ Mo, ¹³² Te	
¹⁰³ Ru, ¹⁰⁶ Ru	6.7
⁹⁵ Zr, ⁹⁵ Nb	6.8
⁸⁹ Sr, ⁹⁰ Sr	
¹⁴⁰ Ba	13.2
Rare-earth Elements	60.4

Table 27. Concentrations of ^{237}U and ^{239}Np , and their ratios derived from the five nuclear tests

Date of Test	Oct. 16, 1964 (The First Test)	May 14, 1965 (The Second Test)	May 9, 1966 (The Third Test)	Oct. 27, 1966 (The Fourth Test)	Dec. 28, 1966 (The Fifth Test)
Days after Test	7	7	7	7	7
^{237}U (%)	3.5	1.0	0.8	0.9	4.8
^{239}Np (%)	57.3	31.2	2.5	21.4	26.8
$^{237}\text{U}/^{239}\text{Np}$	0.06	0.03	0.32	0.04	0.18

Research and Development H.Q., Japan Defense Agency

Figure 34. Three Sampling Areas of Japan
(At those Times when The First, Second and
Third Nuclear Test were carried out)

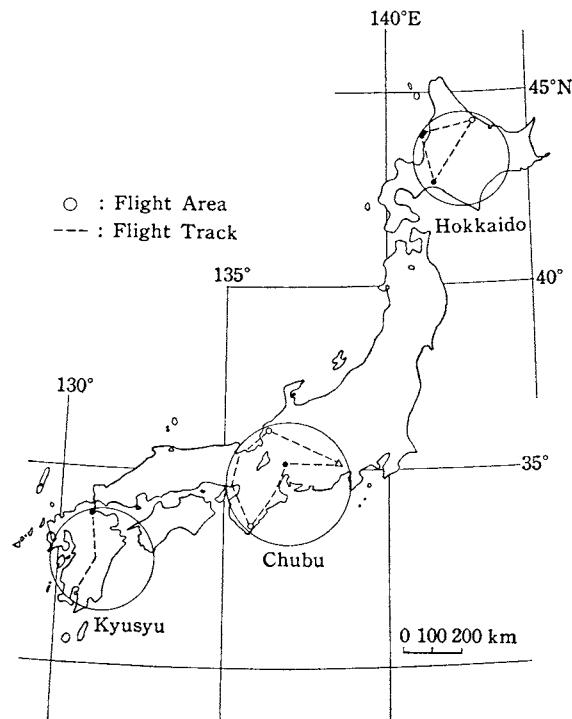
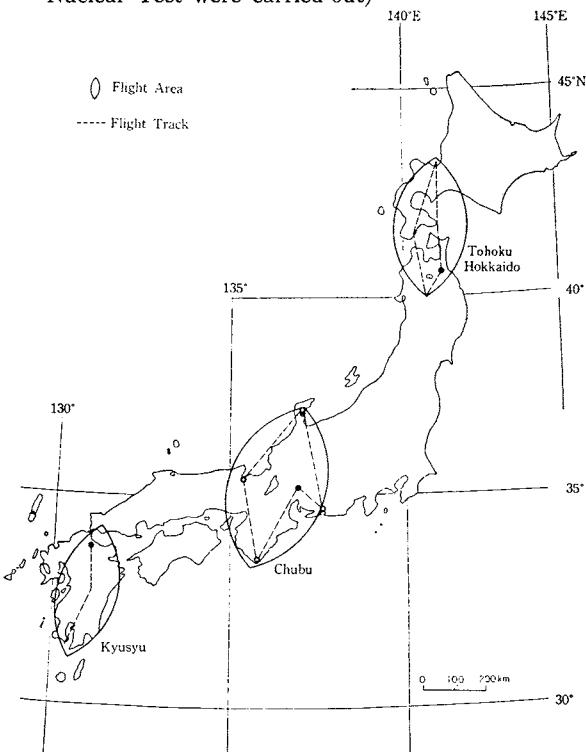


Figure 35. Three Sampling Areas of Japan
(At those Times when The Fourth and Fifth
Nuclear Test were carried out)



**Gross Beta-Radioactivity in Upper Air at those times when the five
nuclear tests were carried out**

(Table 28 to Table 32)

Table 28. Results from The First Nuclear Test —Oct. 17 to Oct. 28, 1964—
(pCi/m³)

Date	Sky Area	Hokkaido		Chubu		Kyushu	
		12,000 m	10,000 m	12,000 m	10,000 m	12,000 m	10,000 m
Oct. 17, 1964		2.6	1.34			11.73	0.60
" 18 "		25.65	54.0	2.54	2.02	11.33	0.70
" 19 "		11.99	9.7	102.65		761.82	419.30
" 20 "		350.65	231.60	356.0	425.10	294.0	60.60
" 21 "		17.25	19.50			4.30	3.28
" 22 "		6.20	17.39			40.60	38.50
" 23 "		25.58	7.72	3.38	6.89	11.05	6.70
" 24 "		42.99	12.18	7.05	3.92	7.60	1.84
" 28 "		189.15	180.14	10.30	10.90		

Table 29. Results from The Second Nuclear Test —May 11 to Jun. 19, 1965—

(pCi/m³)

Date \ Sky Area	Hokkaido		Chubu			Kyushu	
Date	12,000 m	10,000 m	12,000 m	10,000 m	6,000 m	12,000 m	10,000 m
May 11, 1965			17.4				
" 15 "		12.0	1.96				
" 16 "	*	()		3.6		{ 2.15 (A.M.) 1.66 (P.M.) 2.8	2.5
" 17 "			172.0			2.1	
" 18 "		88.5	941.0				344.0
" 19 "			65.4	13.9			130.4
" 20 "		406.3			221.8		
" 21 "				4.6			
" 22 "					6.1		
" 23 "						2.0	
" 24 "			21.0				
" 31 "			16.8				
Jun. 1, 1965				2.95			
" 7 "			11.6	9.86			
" 15 "			11.3				
" 19 "			2.8	0.34			

Note *It was certain that the value increased rapidly, but the precise value could not obtained.

Table 30. Results from The Third Nuclear Test —May 10 to May 25, 1966—

(pCi/m³)

Date \ Sky Area	Hokkaido		Chubu			Kyushu	
Date	12,000 m	10,000 m	12,000 m	10,000 m	6,000 m	12,000 m	10,000 m
May 10, 1966	0.58		0.16			-	
" 11 "		4.04		0.49			0.52
" 12 "	-		2.7			-	
" 13 "		3.1		-		-	0.1
" 14 "			0.1			0.7	
" 15 "							
" 16 "	0.3		-			0.2	
" 17 "		15.7		18.8			-
" 18 "	17.0		5.1			1.7	
" 19 "		6.3		3.3			0.6
" 23 "	2.5		-				-
" 25 "		5.1					24.0

Table 31. Results from The Fourth Nuclear Test —Oct. 28 to Nov. 7, 1966—

(pCi/m³)

Date	Shy Area	Tohoku, Hokkaido		Chubu			Kyushu		
		12,000 m	10,000 m	12,000 m	10,000 m	6,000 m	12,000 m	10,000 m	
Oct. 28, 1966		0.78		0.69	*{ 0.21 (A.M.) 1.15 (P.M.)				
" 29 "			0.72		*{ 4105.3 10833.3			1.03	
" 30 "		2.56					1.47	*{ 312.0 361.1	
" 31 "			1.99		*{ 14.7 22.9	6.5		*{ 1.3 2.6	
Nov. 1, 1966		*{ 918.8 1092.6			*{ 14.7 22.9	3.0		*{ 51.3 105.2	
" 2 "	"		0.9			0.92		0.75	
" 3 "	"	1.4				0.4		0.09	
" 4 "	"		*{ 14.8 21.0						
" 5 "	"	1.38			*{ 10.8 27.0	3.2		6.1	
" 6 "	"		*{ 28.6 34.9					*{ 13.6 36.3	
" 7 "	"					0.13			

*{Upper rank: The value of level sampling flight (pCi/1 gummed paper)

\Lower rank: The value of upward and downward sampling flight (pCi/1 gummed paper)

Table 32. Results from The Fifth Nuclear Test —Dec. 30, 1966 to Jan. 5, 1967—

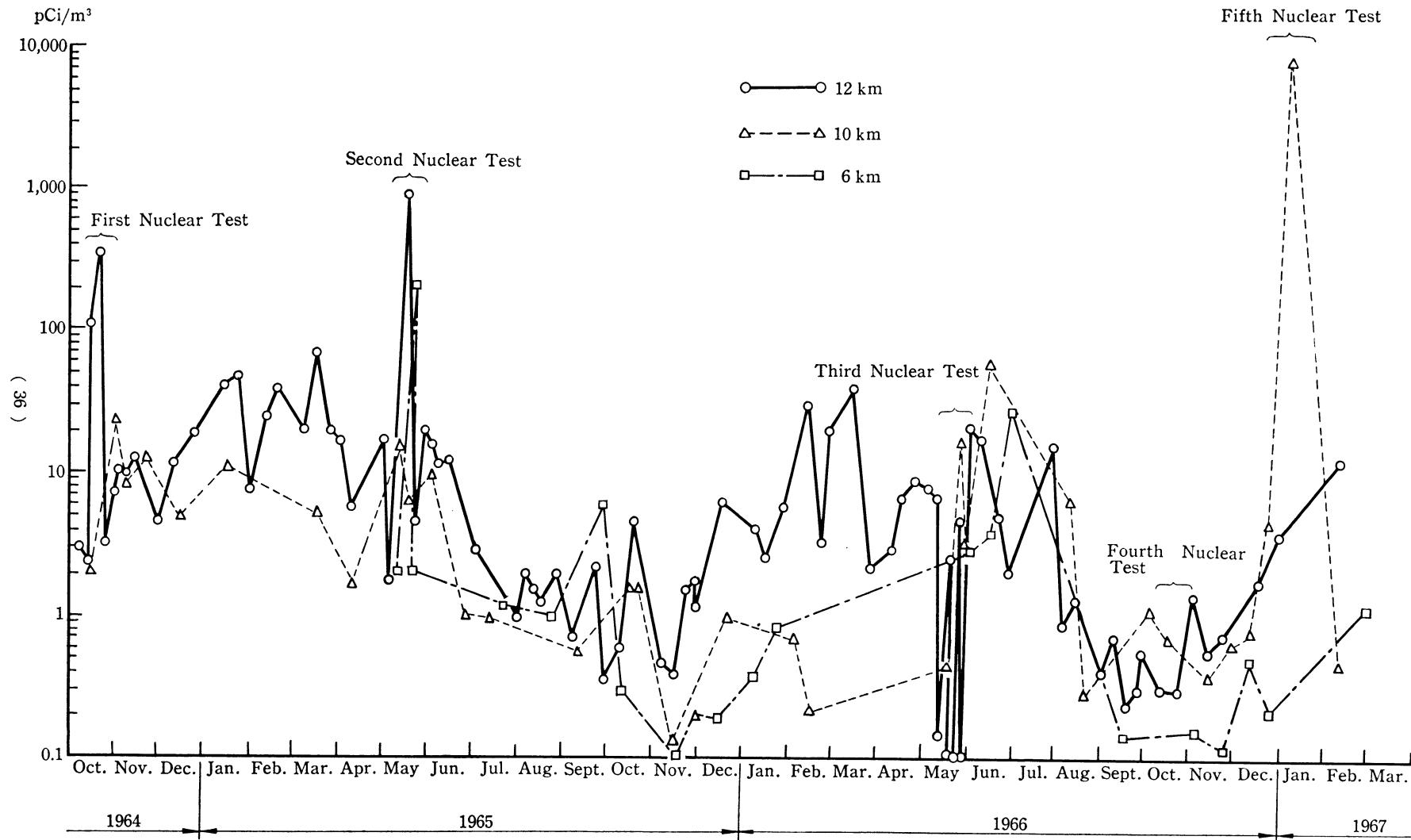
(pCi/m³)

Date	Shy Area	Tohoku, Hokkaido		Chubu		Kyushu		
		12,000 m	10,000 m	12,000 m	10,000 m	12,000 m	10,000 m	
Dec. 30, 1966		0.81			9693.0		*{ 5311.45 8546.86	
" 31 "			46.6		51.1			
Jan. 1, 1967		2.1					4014.0	
" 2 "	"				4.1		76.0	
" 3 "	"		5.9					
" 4 "	"	25.8			0.47		593.0	
" 5 "	"		31.8		1.4			
						51.9	*{ 258.4 1059.2	

*{Upper rank: The value of level sampling flight (pCi/1 gummed paper)

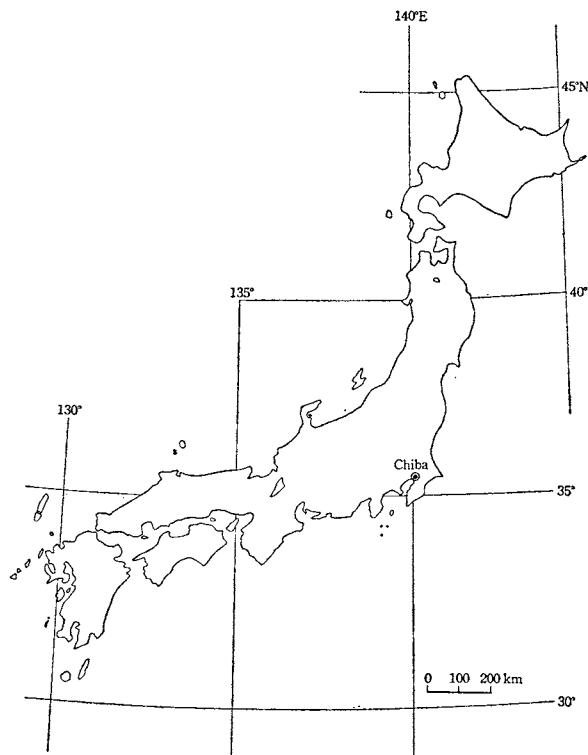
\Lower rank: The value of upward and downward sampling flight (pCi/1 gummed paper)

Figure 36. Monthly Variation of Gross Beta-activity in Chubu Sky Area.
—Oct., 1964 to Feb., 1967—



National Institute of Radiological Sciences

Figure 37. Rain and Dry Fallout Sampling Locations



**Gross Beta-Radioactivity and Radioactivity of Iodine in Rain and Dry
Fallout at those times when the five nuclear tests were
carried out (Collected at Chiba City)**

(Table 33 to Table 37)

Table 33. Results from The First Nuclear Test —Oct. 17 to Oct. 31, 1964—

Date of Sampling	Date of Determination	Gross β -activity (mCi/km ²)	β -activity of Iodine at the Time of Sampling (mCi/km ²)	Remarks
17~18 Oct. 1964	19 Oct. 1964	0.20 }	4.160	
18~19 "	19 "	43.60 }		
19~20 "	20 "	89.80	13.400	
20~21 "	21 "	18.20	—	
21~22 "	22 "	5.70	0.212	
22~23 "	23 "	28.50	0.975	
23~24 "	24 "	3.60	0.005	
24~25 "	26 "	3.90	0.017	
25~26 "		1.44	—	
26~27 "	27 "	0.70	0.003	
27~28 "	28 "	0.85	0.001	
28~29 "	29 "	0.27	—	
29~30 "	30 "	0.11	—	
30~31 "	31 "			

Table 34. Results from The Second Nuclear Test —May 15 to May 31, 1965—

Date of Sampling	Date of Determination	Gross β -activity (mCi/km ²)	β -activity of Iodine at the Time of Sampling (mCi/km ²)	Remarks
15~16 May 1965	16 May 1965	0.10		
16~17 "	18 "	0.10		
17~18 "	18 "	0.24		
18~19 "	19 "	0.16		
19~20 "	20 "	0.07		
20~21 "	21 "	94.45	3.05	
21~22 "	22 "	6.13	0.39	
22~23 "	23 "	2.32		
23~24 "	24 "	8.15		
24~25 "	25 "	4.36		
25~26 "	26 "	1.86		
26~27 "	27 "	6.40	0.01	
27~28 "	28 "	1.59	0.09	
28~29 "	31 "	0.20		
29~31 "	31 "	1.08 }	0.09	

Table 35. Results from The Third Nuclear Test —May 10 to Jul. 11, 1966—

Date of Sampling	Date of Determination	Gross β -activity (mCi/km ²)	β -activity of Iodine at the Time of Sampling (mCi/km ²)	Remarks
10~11 May 1966	11 May 1966	29.4	<13.80	
11~12 "	12 "	7.7	<0.18	
12~13 "	13 "	0.1	<0.09	
13~14 "	14 "	0.4	<0.10	
14~15 "	15 "	0.4	<0.12	
15~16 "	16 "	0.4	<0.03	
16~17 "	17 "	0.2	<0.02	
17~18 "	18 "	0.0	<0.00	
18~19 "	19 "	0.1	<0.00	
19~23 "	23 "	0.4		Rain (>50 mm)
23~26 "	26 "	2.3		" (12 mm)
26~30 "	30 "	6.2		" (15 mm)
30 May ~ 2 Jun. 1966	2 Jun. 1966	6.6		" (30 mm)
2~6	6	2.8		" (30 mm)
6~8	8	2.7		" (10 mm)
8~11	11	2.4		" (>50 mm)
11~18	20	1.8		" (>50 mm)
18~20	20	0.3		
20~21	22	0.6		
21~22	22	0.5		
22~23	23	0.1		
23~24	24	0.4		
24~25	27	0.1		
25~27	29	0.1		
27~29	5 Jul. 1966	0.5		
29~30 "	5 "	0.5		
30 Jun. ~ 2 Jul. 1966	6	0.3		
2~4	6	0.0		
4~7	11	0.1		
7~8	12	0.3		
8~11	18	0.6		

Table 36. Results from The Fourth Nuclear Test —Oct. 28 to Nov. 28, 1966—

Date of Sampling	Date of Determination	Gross β -activity (mCi/km ²)	β -activity of Iodine at the Time of Sampling (mCi/km ²)	Remarks
28~29 Oct. 1966	29 Oct. 1966	0.05	<0.04	
29~30 "	30 "	0.03	<0.05	
30~31 "	31 "	0.00	<0.01	
31 Oct.~1 Nov. 1966	1 Nov. 1966	0.01	<0.02	
1~2 "	2 "	0.49	0.07	Rain (<2 mm)
2~3 "	3 "	0.99	0.13	
3~4 "	4 "	0.13	0.02	
4~5 "	5 "	0.27	0.03	
5~7 "	7 "	0.19	0.03	
7~8 "	8 "	0.05	<0.04	
8~9 "	9 "	0.14	0.03	
9~10 "	10 "	0.06	0.01	
10~11 "	11 "	0.12		
11~12 "	12 "	0.13		
12~14 "	14 "	1.13		Rain (<2 mm)
14~15 "	15 "	0.33		
15~16 "	16 "	0.22		
16~17 "	17 "	0.73		Rain (<2 mm)
17~18 "	18 "	0.71		
18~19 "	19 "	0.21		
19~21 "	21 "	0.29		
21~22 "	22 "	0.15		
22~24 "	24 "	0.11		
24~25 "	25 "	0.07		
25~26 "	26 "	0.45		Rain (<2 mm)
26~28 "	28 "	0.11		

Table 37. Results from The Fifth Nuclear Test —Dec. 29, 1966 to Jan. 31, 1967—

Date of Sampling	Date of Determination	Gross β -activity (mCi/km ²)	β -activity of Iodine at the Time of Sampling (mCi/km ²)	Remarks
29~30 Dec. 1966	30 Dec. 1966	>4,600.0	74.0	
30~31 "	31 "	453.0	8.5	
31 Dec.~1 Jan. 1967	1 Jan. 1967	190.0	3.3	
1~2 "	2 "	137.0	7.0	
2~3 "	3 "	7.0	0.7	Rain (19 mm) " (0.5 mm)
3~4 "	4 "	4.2	0.5	
4~5 "	5 "	0.3		
5~6 "	6 "	0.1		
6~7 "	7 "	0.1		
7~9 "	9 "	11.0		
9~11 "	11 "	0.8		
11~12 "	12 "	6.3		Snow and Rain (5 mm)
12~13 "	13 "	0.2		
13~14 "	14 "	0.2		
14~16 "	16 "	0.7		
16~17 "	17 "	0.6		
17~18 "	18 "	0.0		
18~19 "	19 "	0.1		
19~21 "	21 "	0.1		
21~23 "	24 "	0.3		
23~24 "	24 "	0.2		
24~25 "	25 "	0.1		
25~26 "	28 "	0.0		
26~28 "	28 "	0.2		
28~30 "	31 "	1.2		
30~31 "	31 "	0.2		Rain (30 mm)

Gross Beta-Radioactivity in Rain and Dry Fallout at those times when the five nuclear tests were carried out (Collected at Chiba City)
(Figure 38 to Figure 42)

Figure 38. Results from The First Nuclear Test

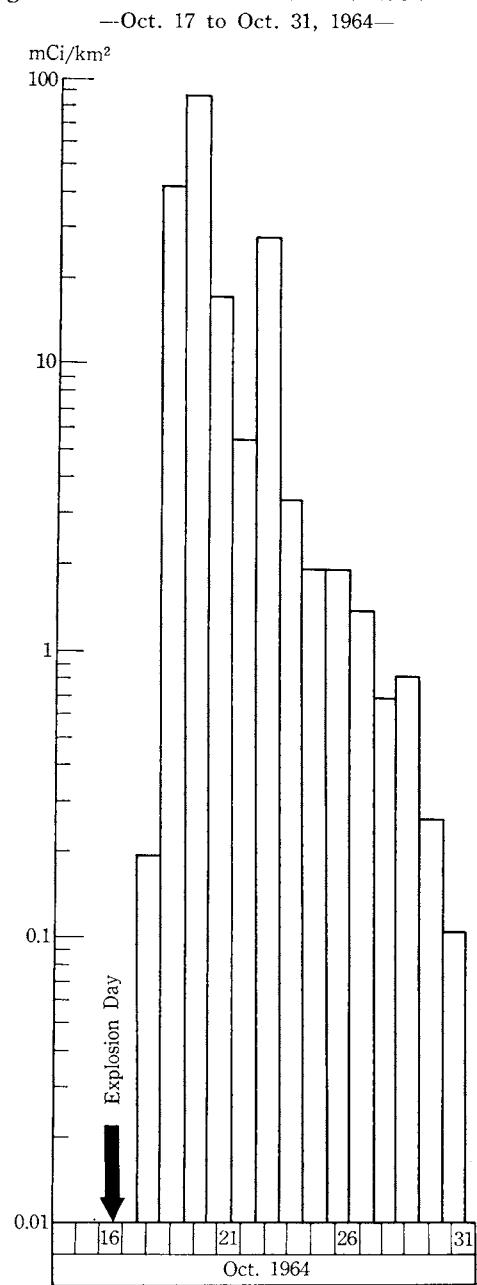


Figure 39. Results from The Second Nuclear Test
 —May 15 to May 31, 1965—

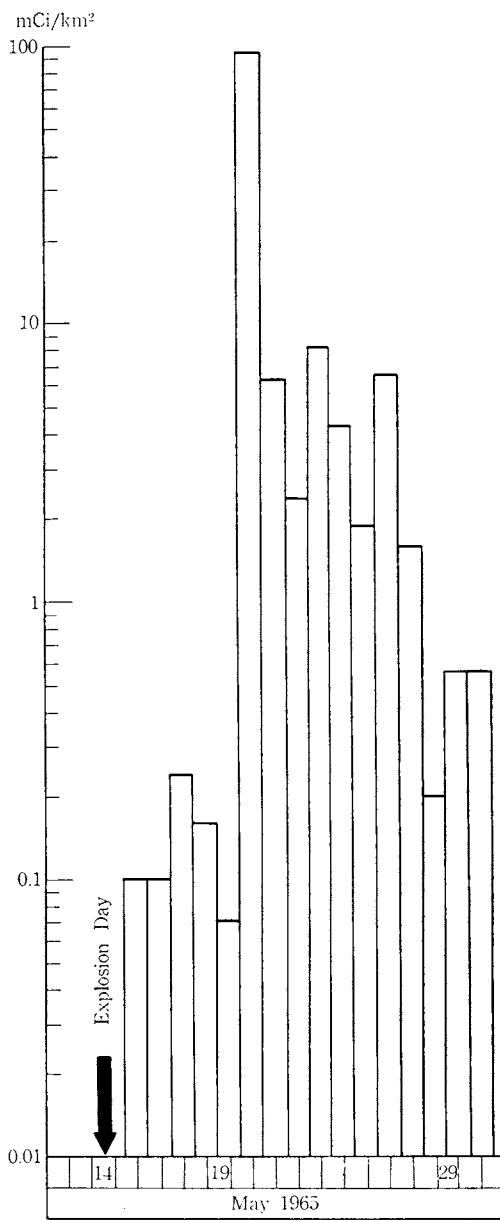


Figure 40. Results from The Third Nuclear Test
—May 10 to Jun. 20, 1966—

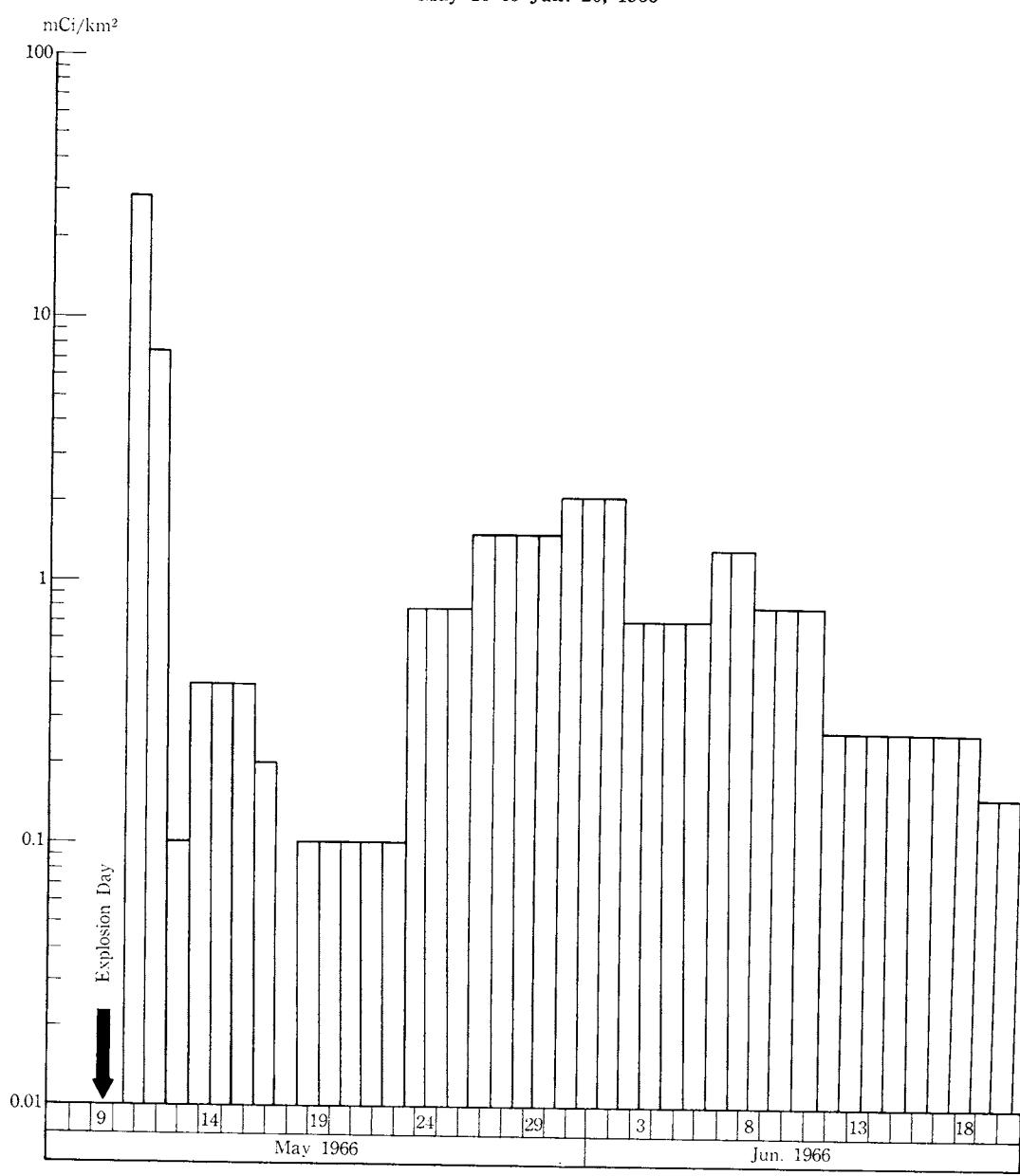


Figure 41. Results from The Fourth Nuclear Test
—Oct. 28 to Nov. 28, 1966—

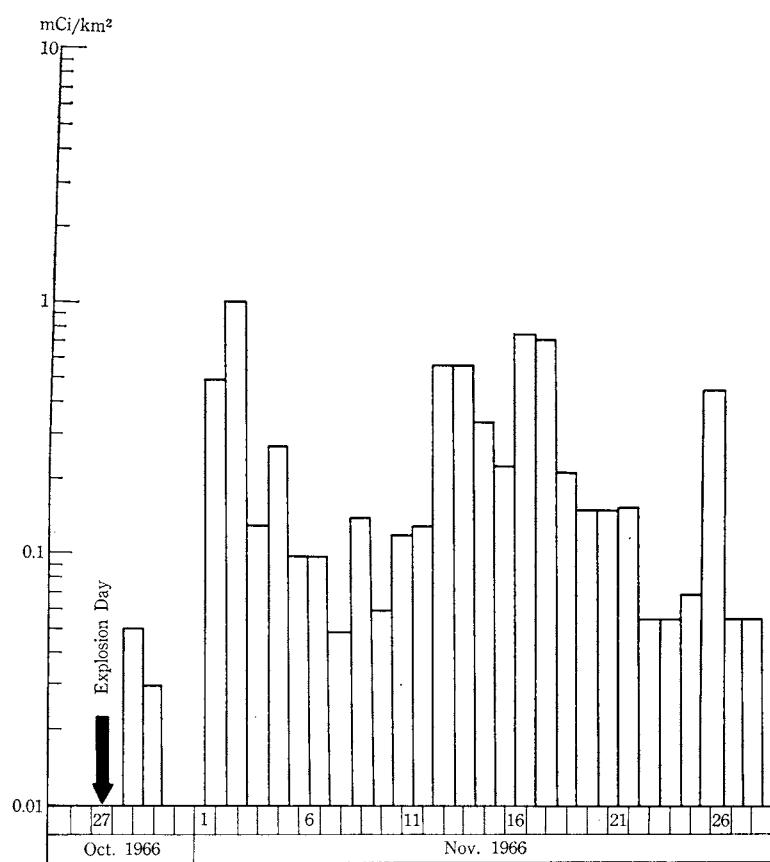
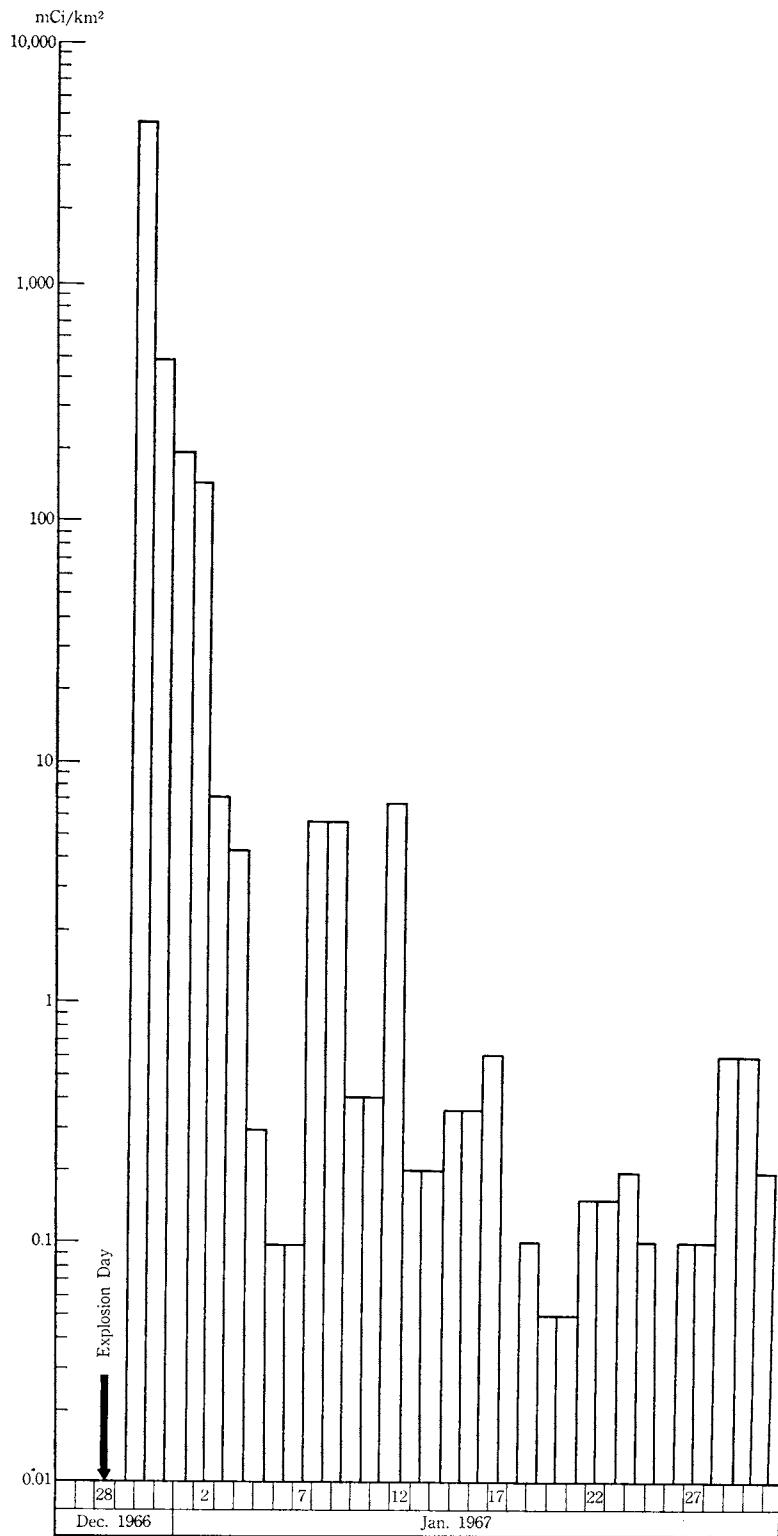


Figure 42. Results from The Fifth Nuclear Test
—Dec. 29, 1966 to Jan. 31, 1967—



**Beta-Radioactivity of Iodine in Rain and Dry Fallout at those times when
the five nuclear tests were carried out (Collected at Chiba City)**
(Figure 43 to Figure 47)

Figure 43. Results from The First Nuclear Test
—Oct. 17 to Oct. 28, 1964—

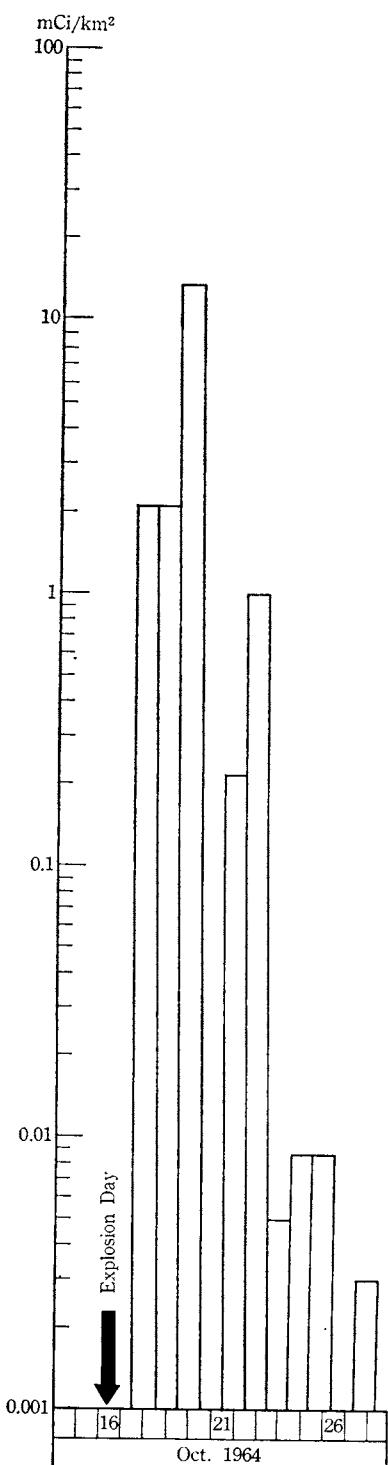


Figure 44. Results from The Second Nuclear Test
—May 20 to May 31, 1965—

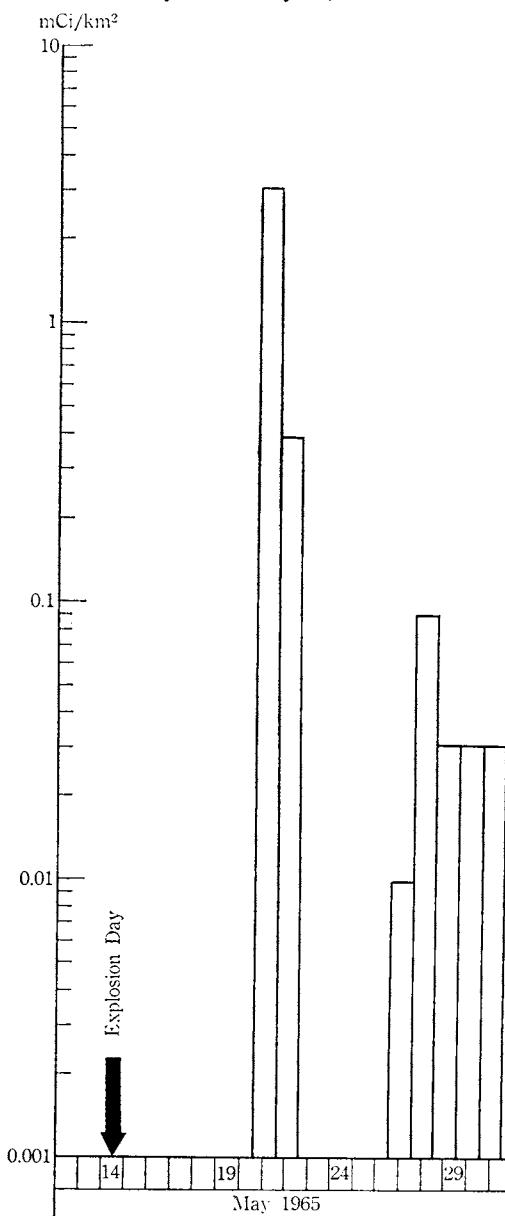


Figure 45. Results from The Third Nuclear Test
—May 10 to May 17, 1966—

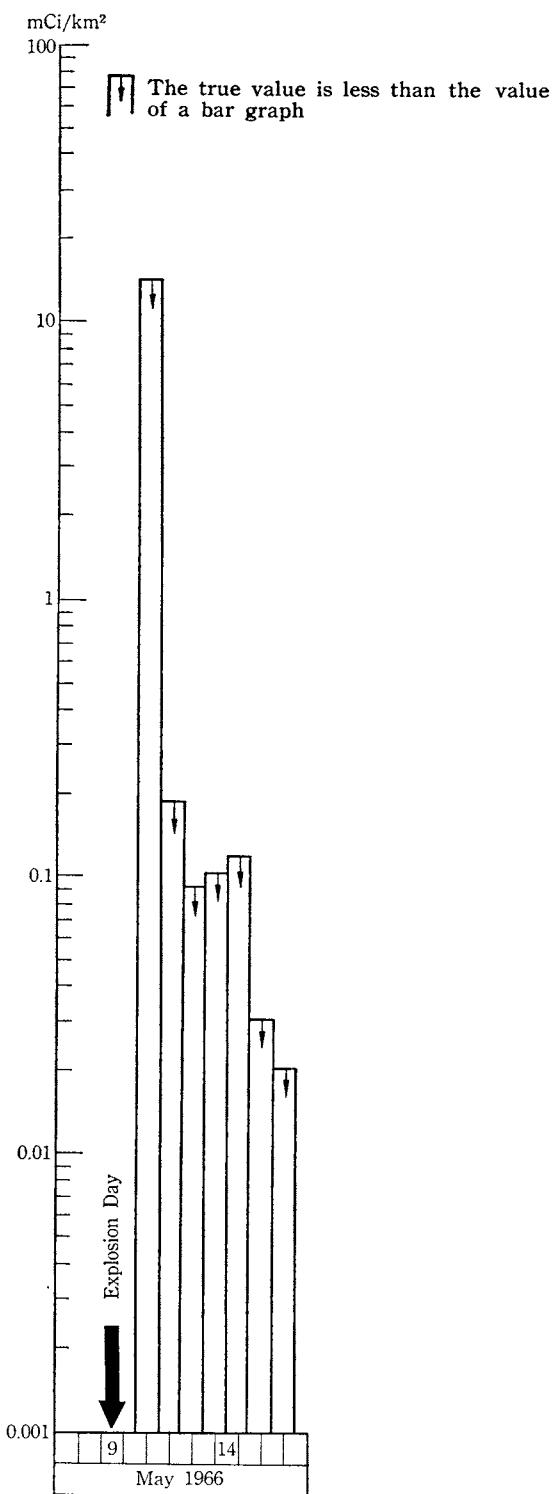


Figure 46. Results from The Fourth Nuclear Test
—Oct. 28 to Nov. 10, 1966—

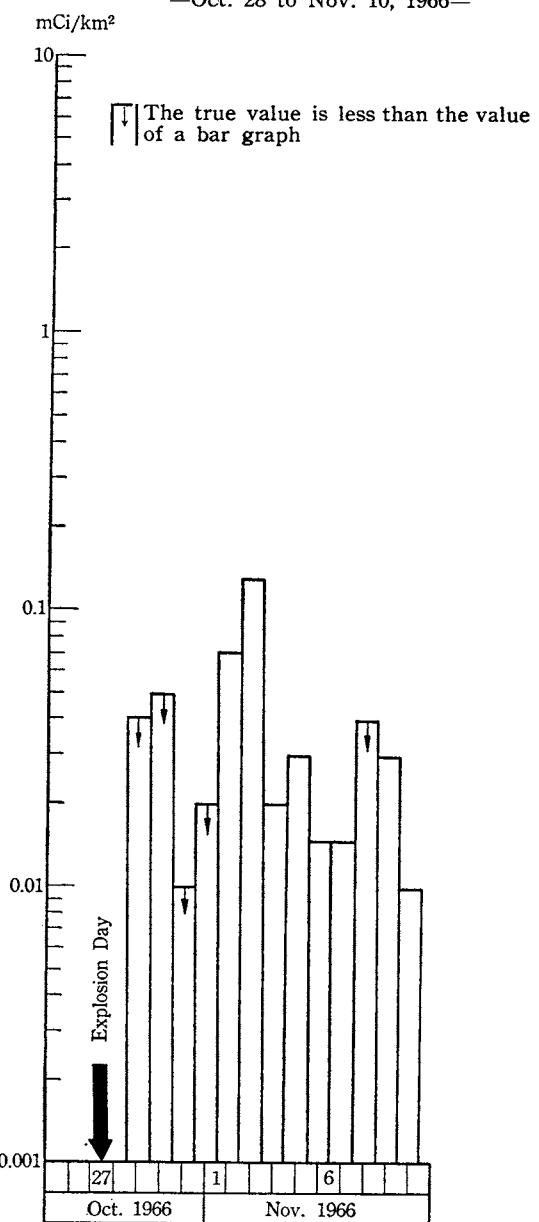


Figure 48. Milk Sampling Locations

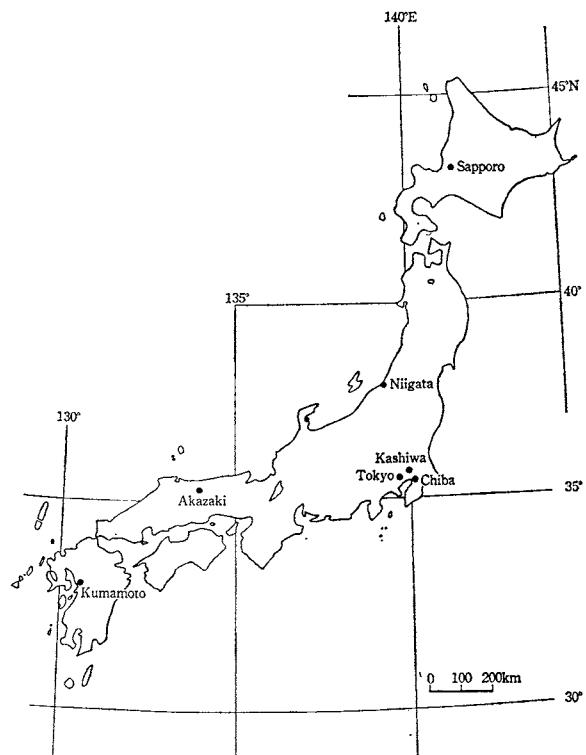
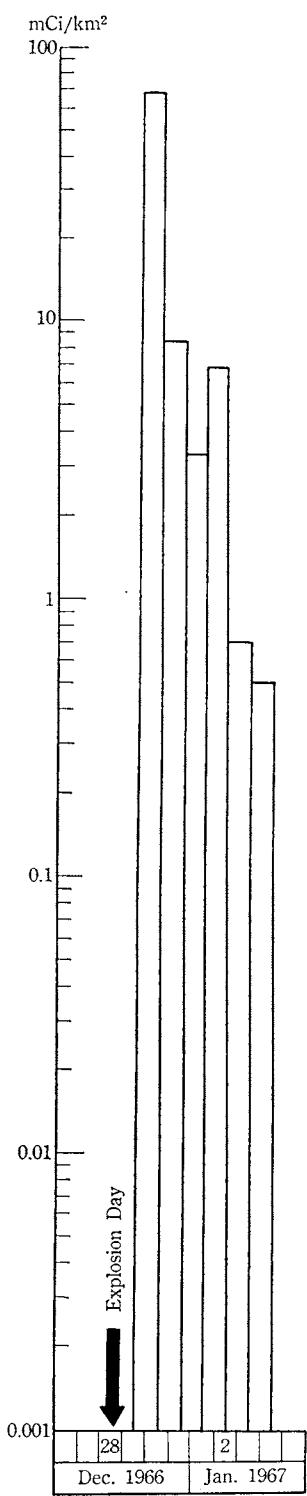


Figure 47. Results from The Fifth Nuclear Test
—Dec. 29, 1966 to Jan. 5, 1967—



**Iodine-131 in Milk at those times when the five nuclear tests were carried
out (Collected in Chiba Prefecture and other locations)**

(Table 38 to Table 42)

Table 38. Results from The First Nuclear Test —Oct. 18 to Nov. 12, 1964—

Location of Sampling	Date of Sampling	Date of Determination	^{131}I (pCi/l)	Sampled from
Chiba	18 Oct. 1964		1.2	Market
"	19 "		4.7	"
"	20 "		13.8	"
"	23 "		437.0	Farm
"	" "		175.0	Collecting center
"	24 "		73.9	Farm
"	" "		112.0	Collecting center
"	25 "		205.0	Farm
"	" "		89.6	Collecting center
"	26 "		212.0	Farm
"	" "		22.3	Collecting center
"	27 "		72.9	Farm
"	" "		49.2	Collecting center
"	5 Nov. 1964		15.2	Market
"	" "		19.8	Collecting center
"	6 "		2.0	Market
"	" "		20.4	Collecting center
"	7 "		3.5	Market
"	10 "		10.3	Collecting center
"	11 "		17.8	"
"	12 "		9.2	"

Table 39. Results from The Second Nuclear Test —May 20 to May 26, 1965—

Location of Sampling	Date of Sampling	Date of Determination	^{131}I (pCi/l)	Sampled from
Chiba	20 May 1965		not detected	Farm
"	22 "		35	"
"	24 "		113	"
"	" "		8	Plant
"	25 "		38	Farm
"	" "		not detected	Plant
"	26 "		29	"

Table 40. Results from The Third Nuclear Test —May 10 to May 31, 1966—

Location of Sampling	Date of Sampling	Date of Determination	^{131}I (pCi/l)	Sampled from
Chiba	10 May 1966	11 May 1966	not detected	Farm
"	11 "	" "	"	"
"	11 "	" "	"	Collecting center
"	12 "	12 "	42	Farm
"	" "	" "	10	Collecting center
"	13 "	13 "	12	Farm
"	" "	" "	9	Collecting center
Akazaki	" "	14 "	10	Farm
Niigata	" "	" "	8	"
Sapporo	" "	" "	3	"
Chiba	14 "	" "	10	"
"	" "	" "	8	Collecting center
"	15 "	15 "	4	Farm
"	" "	" "	2	Collecting center
"	16 "	16 "	4	Farm
"	" "	" "	not detected	Collecting center
"	17 "	17 "	4	Farm
"	" "	" "	5	Collecting center
Akazaki	" "	19 "	4	Farm
Niigata	" "	" "	2	"
Sapporo	" "	" "	not detected	"
Chiba	18 "	" "	3	"
"	" "	" "	not detected	Collecting center
Akazaki	21 "	25 "	3	Farm
Niigata	" "	" "	1	"
Sapporo	" "	" "	not detected	"
Chiba	25 "	" "	2	"
"	31 "	31 "	2	Collecting center

Table 41. Results from The Fourth Nuclear Test —Oct. 28 to Nov. 7, 1966—

Efficient concentration was not detected during the above period in Chiba Prefecture

Table 42. Results from The Fifth Nuclear Test —Dec. 30, 1966 to Jan. 26, 1967—

Location of Sampling	Date of Sampling	Date of Determination	^{131}I (pCi/l)	Sampled from
Chiba	30 Dec., 1966	31 Dec., 1966	27	Farm
"	31 "	" "	225	"
"	" "	" "	33	Collecting center
"	1 Jan., 1967	1 Jan., 1967	275	Farm
"	" "	" "	167	Collecting center
Sapporo	" "	2 "	0	Farm
Kumamoto	" "	" "	214	"
Chiba	2 "	" "	68	"
"	" "	" "	26	Collecting center
"	3 "	3 "	20	Farm
"	" "	" "	164	Collecting center
"	4 "	4 "	17	Farm
"	" "	" "	69	Collecting center

Location of Sampling	Date of Sampling	Date of Determination	¹³¹ I (pCi/l)	Sampled from
"	5 "	5 "	10	Farm
"	" "	" "	70	Collecting center
Sapporo	" "	6 "	0	Farm
Kumamoto	" "	" "	73	"
Chiba	6 "	" "	6	"
"	" "	" "	80	Collecting center
"	" "	" "	25	Market
"	7 "	7 "	23	Farm
"	" "	" "	58	Collecting center
Kashiwa	" "	" "	63	Market
Chiba	9 "	9 "	26	"
Sapporo	" "	10 "	68	Farm
Chiba	10 "	" "	21	Market
"	11 "	11 "	26	Collecting center
Kashiwa	" "	" "	29	Market
Chiba	12 "	12 "	7	"
"	13 "	13 "	21	Collecting center
Kashiwa	" "	" "	29	Market
Chiba	16 "	16 "	15	Collecting center
Tokyo	" "	" "	10	Market
Chiba	18 Jan., 1967	18 Jan., 1967	10	Collecting center
"	21 "	23 "	6	"
Tokyo	" "	" "	3	Market
Chiba	23 "	24 "	5	Collecting center
"	26 "	28 "	4	"
Tokyo	" "	" "	2	Market

Iodine-131 in Milk at those times when the five nuclear tests were carried out
(Collected in Chiba Prefecture and other locations)
(Figure 49 to Figure 52)

Figure 49. Results from The First Nuclear Test
 --Oct. 18 to Nov. 12, 1964--

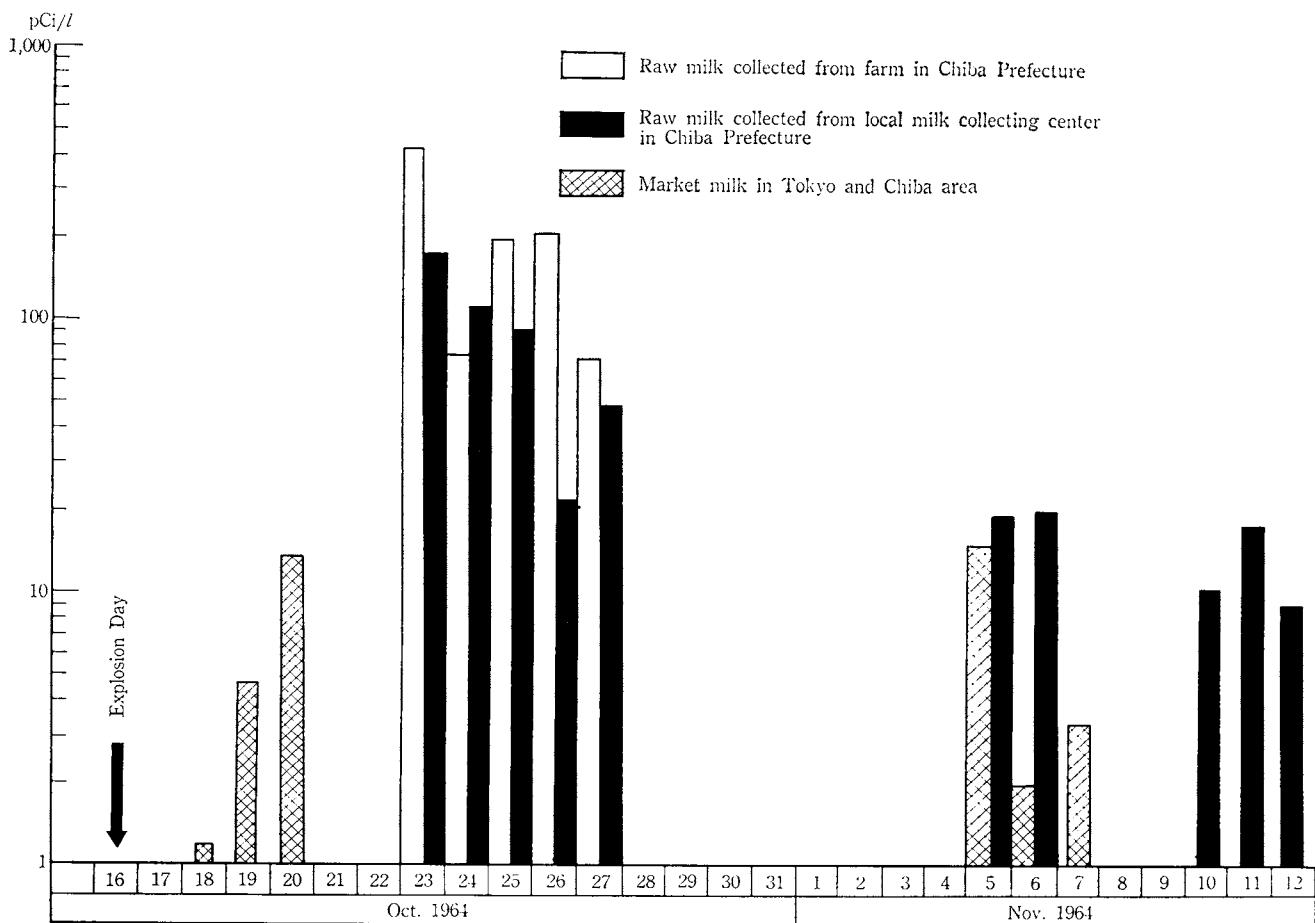


Figure 50. Results from The Second Nuclear Test
—May 22 to May 26, 1965—

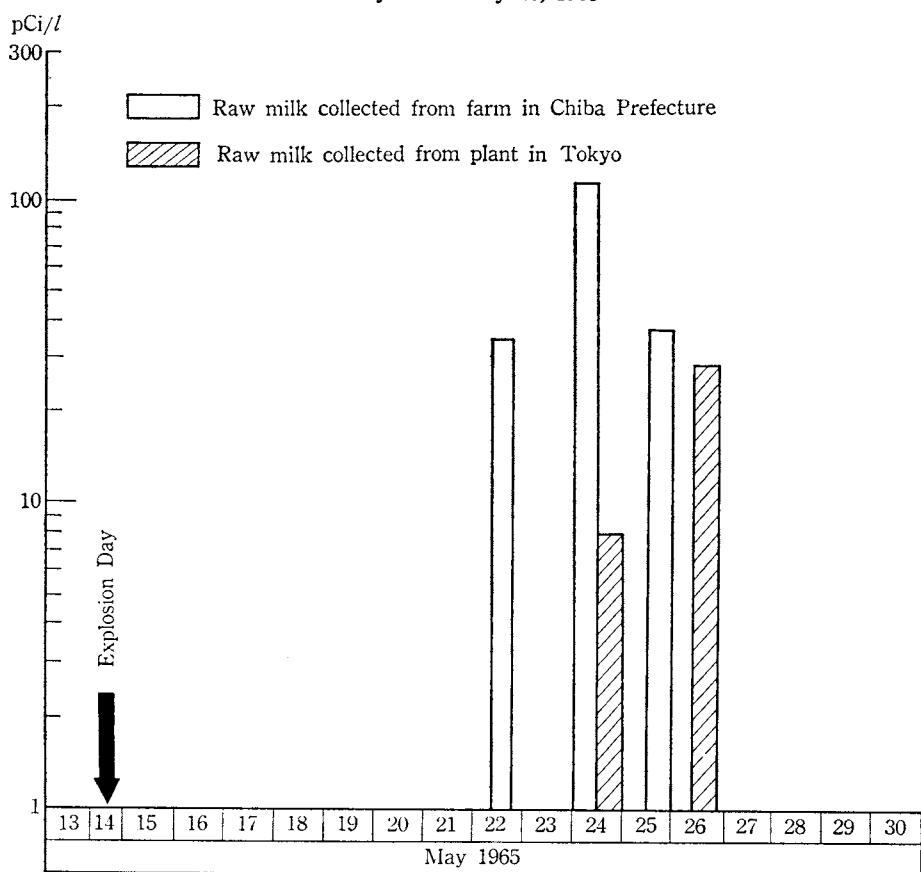


Figure 51. Results from The Third Nuclear Test
—May 12 to May 31, 1966—

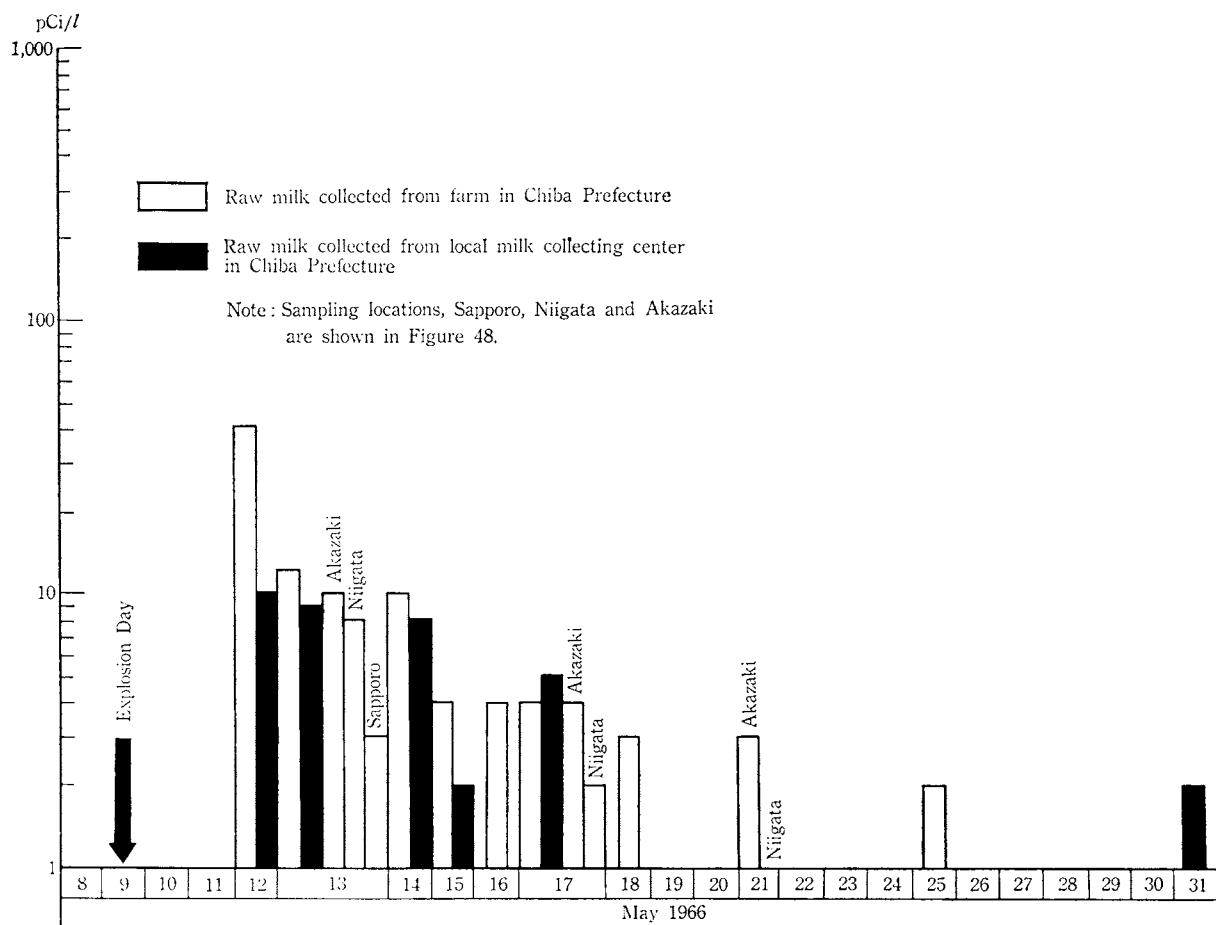
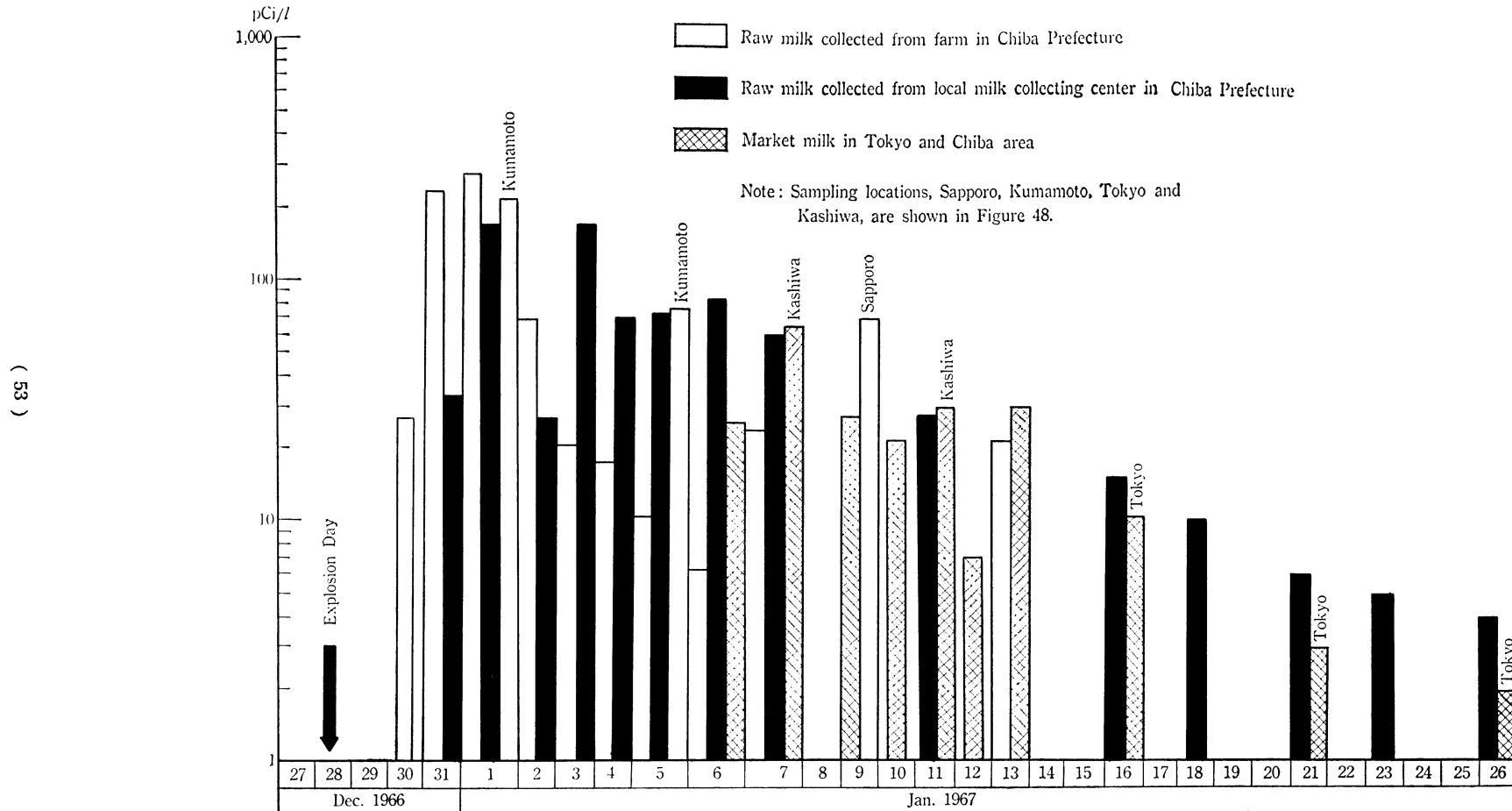


Figure 52. Results from The Fifth Nuclear Test

—Dec. 30, 1966 to Jan. 26, 1967—



THE INDEX OF RADIOACTIVITY SURVEY DATA IN JAPAN

(NUMBER 1—NUMBER 15)

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Note: The indications of nuclear tests in the note columns all show the nuclear tests of the People's Republic of China.

Object	Nuclide	Note	Survey Period	Survey Data Number	Page	Research Organization
1. (Meteorological Data) Rain and Dry Fallout	⁸⁹ Sr, ⁹⁰ Sr, ¹³⁷ Cs		1954 to Jul. 1963 Jul. to Nov. 1963	No. 1 No. 2	1- 2 1- 6	Meteorological Research Institute Japan Analytical Chemistry Research Institute
"	"		1954 to 1963	No. 3	1- 5	Meteorological Research Institute
"	⁹⁰ Sr, ¹³⁷ Cs		May, 1963 to Mar., 1964	No. 4	1- 5	Japan Analytical Chemistry Research Institute
"	⁸⁹ Sr, ⁹⁰ Sr, ¹³⁷ Cs	The First Nuclear Test	11 Oct. to 10 Nov., 1964	No. 5	1- 6	Meteorological Agency
"	Gross β -activity	"	16 to 26 Oct., 1964	"	6- 7	Meteorological Research Institute
"	"	"	18 to 19 Oct., 1964	"	8	"
"	Gross β -activity, Radioactive Iodine	"	17 to 31 Oct., 1964	"	9-11	National Institute of Radiological Sciences
"	⁹⁰ Sr, ¹³⁷ Cs		1954 to 1964	No. 6	1- 3	Meteorological Research Institute
"	"		Apr. to Sept., 1964	"	3- 7	Japan Analytical Chemistry Research Institute
"	"		Jan. to Jul., 1965	No. 7	1- 2	Meteorological Research Institute
"	"		Jan. to Dec., 1964	"	3	National Institute of Radiological Sciences
"	"		Oct., 1964 to Jul., 1965	"	3- 9	Japan Analytical Chemistry Research Institute
"	Gross β -activity	The Second Nuclear Test	10 May to 11 Jun., 1965	"	27-32	Meteorological Agency
"	"	"	15 May to Jun., 1965	"	32-33	Meteorological Research Institute
"	Gross β -activity, Radioactive Iodine	"	15 to 31 May, 1964	"	33	National Institute of Radiological Sciences
"	Chemical Composition	"	21 May, 1965	"	34	Meteorological Research Institute
"	⁹⁰ Sr, ¹³⁷ Cs		Aug. to Dec., 1965	No. 9-10	1- 2	"
"	"		Aug., 1965 to Mar., 1966	"	3- 8	Japan Analytical Chemistry Research Institute
"	Gross β -activity	The Third Nuclear Test	6 to 31 May, 1966	No. 11-12	1- 4	Meteorological Agency
"	"	"	7 May to 10 Jun., 1966	"	4- 5	Meteorological Research Institute

Object	Nuclide	Note	Survey Period	Survey Data Number	Page	Research Organization
Rain and Dry Fallout (")	Gross β -activity, Radioactive Iodine	The Third Nuclear Test	10 May to 11 Jul., 1966	No. 11-12	5- 6	National Institute of Radiological Sciences
	Gross β -activity	The Fourth Nuclear Test	23 Oct. to 13 Nov., 1966	No. 13	8-12	Meteorological Agency
	"	"	26 Oct. to 12 Nov., 1966	"	12	Meteorological Research Institute
	Gross β -activity, Radioactive Iodine	"	28 Oct. to 28 Nov., 1966	"	13	National Institute of Radiological Sciences
	^{90}Sr , ^{137}Cs ,		Jan. to Dec., 1966	No. 14	1- 3	Meteorological Research Institute
	Gross β -activity	The Fifth Nuclear Test	26 Dec., 1966 to 18 Jan., 1967	"	11-14	Meteorological Agency
	"	"	24 Dec., 1966 to 21 Jan., 1967	"	15	Meteorological Research Institute
	Gross β -activity, Radioactive Iodine	"	29 Dec., 1966 to 31 Jan., 1967	"	15-16	National Institute of Radiological Sciences
	β -ray Spectrum, γ -ray Spectrum	"	29 Dec., 1966 to 5 Jan., 1967	"	21-23	" "
	^{90}Sr , ^{137}Cs ,		Mar., 1966 to Feb., 1967	No. 15	1- 5	Japan Analytical Chemistry Research Institute
Air-borne Dust	^{90}Sr , ^{137}Cs , ^{144}Ce ,		Apr. to Jun., 1964	No. 6	8	" "
	"		Apr. to Jul., 1965.	No. 7	9-10	" "
	^{90}Sr , ^{137}Cs , ^{144}Ce ^{95}Zr , ^{95}Nb , ^{106}Ru		Apr., 1964 to Jul., 1966	No. 9-10	8-10	National Institute of Radiological Sciences
	^{90}Sr , ^{137}Cs , ^{144}Ce		Aug., 1965 to Mar., 1966	"	10-11	Japan Analytical Chemistry Research Institute
	Radioactive Zr+Nb, Ru, Ce	The Fourth Nuclear Test	1 Oct. to 15 Dec., 1966	No. 13	17	National Institute of Radiological Sciences
	^{90}Sr , ^{137}Cs , ^{144}Ce ,		Apr. to Dec., 1966	No. 15	5- 7	Japan Analytical Chemistry Research Institute
Air-borne Dust in Upper Air	Gross β -activity	The First Nuclear Test	2 Jul. to 28 Oct., 1964	No. 5	8- 9	Research and Development H. Q. Japan Defense Agency
	"	The Second Nuclear Test	11 May to 29 Jun., 1965	No. 7	34-36	" "
	"	The Third Nuclear Test	10 to 25 May, 1966	No. 11-12	7- 8	" "

Object	Nuclide	Note	Survey Period	Survey Data Number	Page	Research Organization
Air-borne Dust in Upper Air	Gross β -activity	The Fourth Nuclear Test	28 Oct. to 7 Nov., 1966	No. 13	15-16	Research and Development H. Q. Japan Defense Agency
"	"	The Fifth Nuclear Test	30 Dec., 1966 to 5 Jan., 1967	No. 14	16-18	" "
Highly Radioactive Fallout Particles	Gross β -activity and others	The First Nuclear Test	Oct., 1964	No. 5	12-19	Radiation Center of Osaka Prefecture
"	γ -ray Spectrum	The Third Nuclear Test	11 May to 9 Aug., 1966	No. 11-12	8-11	National Institute of Radiological Sciences
"	Chemical Composition	The Third Nuclear Test	25 May, 1966	"	11-12	Meteorological Research Institute
"	"	The Fourth Nuclear Test	12 Nov. 1966	No. 13	13-14	" "
"	γ -ray Spectrum	"	2 Nov. 1966	"	14-15	National Institute of Radiological Sciences
"	"	The Fifth Nuclear Test	31 Dec., 1966 to 7 Feb., 1967	No. 14	18-20	" "
"	Chemical Composition	"	13 Jan., 1967	"	21	Meteorological Research Institute
2. (External Dose Data)						
Fallout	γ -ray		1961 to 1965	No. 7	11-12	National Institute of Radiological Sciences, St. Paul's University, Institute of Physical and Chemical Research
"	"		1965 to 1967	No. 15	8- 9	National Institute of Radiological Sciences, Institute of Physical and Chemical Research
3. (Geographical Data)						
Soil	^{90}Sr , ^{137}Cs		Jun. to Dec., 1963	No. 4	6- 7	National Institute of Radiological Sciences
"	"		Jun., 1963 to Mar., 1964	"	7- 8	Japan Analytical Chemistry Research Institute
"	^{90}Sr , ^{137}Cs , ^{144}Ce		Apr., 1964 to Dec., 1965	No. 9-10	16-19	" "
4. (Water Data)						
City Water	^{90}Sr , ^{137}Cs ,		Dec., 1961 to Jul., 1963	No. 2	7-12	National Institute of Radiological Sciences

Object	Nuclide	Note	Survey Period	Survey Data Number	Page	Research Organization
City Water	⁹⁰ Sr, ¹³⁷ Cs,		Sept., 1963 to Mar., 1964	No. 4	9-10	National Institute of Radiological Sciences
"	"		Apr. to Aug., 1964	No. 6	9-10	" "
Source Water	"		May, 1963 to Mar., 1964	No. 4	11-13	Japan Analytical Chemistry Research Institute
"	"		Jul., 1963 to Mar., 1964	"	14-15	" "
"	"		Apr. to Jun., 1964	No. 6	10-12	" "
"	"		Oct., 1964 to Aug., 1965	No. 8	16-19	" "
"	"		Sept., 1965 to Mar., 1966	No. 14	3- 4	" "
"	"		Apr., 1966 to Jan., 1967	No. 15	24-26	" "
Well Water	⁹⁰ Sr		Dec., 1961 to Mar., 1962	No. 2	13	National Institute of Radiological Sciences
Potable Rain Water	"		Dec., 1961 to Mar., 1962	No. 3	6- 7	" "
"	"		Dec., 1961 to Feb., 1964	"	7-11	Hydrographic Division, Maritime Safety Agency, National Institute of Hygienic Sciences
"	⁹⁰ Sr, ¹³⁷ Cs		Jun, 1964 to Mar., 1965	No. 8	14-16	Japan Analytical Chemistry Research Institute
Potable Rain Water used by Lighthouse	"		May to Sept., 1964	No. 6	13-14	" "
"	"		Oct., 1964 to May, 1965	No. 8	13-14	" "
5. (Marine Data)						
Surface Sea Water	⁹⁰ Sr, ¹³⁷ Cs, ¹⁴⁴ Ce		1963 to 1967	No. 15	27-29	National Institute of Radiological Sciences
6. (Human Data)						
Bone	⁹⁰ Sr		1960 to Dec., 1962	No. 1	19-22	" "
"	"		1962 to 1963	No. 3	25-28	" "
"	"		1961 to 1964	No. 7	19-21	" "
"	²²⁶ Ra		1967	No. 15	12-13	" "
Muscle	¹³⁷ Cs		1960 to Nov., 1962	No. 1	23-25	Institute of Public Health
Lung	¹³¹ I, ⁹⁵ Zr		Dec., 1961	"	28	" "
Thyroid Gland	¹³¹ I		Dec., 1961 to Nov., 1962	"	26-28	" "
"	"	The First Nuclear Test	20 Oct. to 6 Nov., 1964	No. 5	23	National Institute of Radiological Sciences

Object	Nuclide	Note	Survey Period	Survey Data Number	Page	Research Organization	
Teeth	⁹⁰ Sr		1950 to 1956	No. 4	30-31	National Institute of Health	
"	"		1948 to 1959	No. 15	9-11	" "	
Organs	¹³⁷ Cs		Aug., to Sept., 1965	"	11-12	National Institute of Radiological Sciences	
Body	"		Nov., 1963 to Jul., 1965	No. 7	22-26	" "	
"	"		Aug., 1965 to Mar., 1967	No. 14	8-10	" "	
Blood	"		Jul. to Dec., 1963	No. 3	29	Institute of Public Health	
"	"		1964 to 1966	No. 13	6-7	" "	
Blood and Body	"		Nov., 1963 to Jan., 1964	No. 3	30	" "	
Urine	"		Nov., 1959 to Oct., 1961	No. 1	29-30	National Institute of Radiological Sciences	
"	"	The Third Nuclear Test	Jun., 1962 to Mar., 1963	No. 3	31-34	" "	
"	¹³¹ I		20 Oct. to 6 Nov., 1964	No. 5	23	" "	
"	¹³⁷ Cs		Jun., 1963 to Feb., 1964	No. 6	20-22	" "	
7. (Dietary Data)	Milk	⁹⁰ Sr, ¹³⁷ Cs	1961 to 1963	No. 1	9-13	Japan Analytical Chemistry Research Institute	
	"	"	1958 to 1963	"	13-16	National Institute of Animal Industry	
	"	¹³¹ I	Oct., 1961 to Feb., 1963	"	17-18	Institute of Public Health	
	"	"	Sept., 1962 to Jan., 1963	"	18	National Institute of Animal Industry	
	"	⁹⁰ Sr, ¹³⁷ Cs	Powderd Milk	Apr., 1962 to Mar., 1963	No. 2	28	National Institute of Hygienic Sciences
	"	"		Jul., 1963 to Jan., 1964	No. 3	16-17	National Institute of Animal Industry
	"	"		1963	"	17-23	Japan Analytical Chemistry Research Institute
	"	¹³⁷ Cs	Powderd Milk	1959 to 1963	"	23-24	Institute of Public Health
	"	⁹⁰ Sr, ¹³⁷ Cs		Jan. to Mar., 1964	No. 4	28	Japan Analytical Chemistry Research Institute
	"	"	Powderd Milk	Apr. 1963 to Jan., 1964	"	29	" "
"	¹³¹ I	The First Nuclear Test	15 Oct. to 3 Dec., 1964	No. 5	20	National Institute of Animal Industry	

Object	Nuclide	Note	Survey Period	Survey Data Number	Page	Research Organization
Milk	¹³¹ I	The First Nuclear Test	18 Oct. to 12 Nov., 1964	No. 5	20	National Institute of Radiological Sciences
	" ⁹⁰ Sr, ¹³⁷ Cs		Feb. to Dec., 1964	No. 6	16-17	National Institute of Animal Industry
	" "		Apr. to Sept., 1964	"	18-19	Japan Analytical Chemistry Research Institute
	" "		Jan. to Jul., 1965	No. 7	13-14	National Institute of Animal Industry
	" "		Oct., 1964 to Jul., 1965	"	14-15	Japan Analytical Chemistry Research Institute
	¹³¹ I	The Second Nuclear Test	20 to 26 May, 1965	No. 7	37	National Institute of Radiological Sciences
	⁹⁰ Sr, ¹³⁷ Cs	Powderd Milk	Apr., 1964 to Jul., 1965	No. 8	11-12	Japan Analytical Chemistry Research Institute
	" "		Aug., 1965 to Feb., 1966	No. 9-10	12-13	National Institute of Animal Industry
	" "		Aug., 1965 to Mar., 1966	"	14-15	Japan Analytical Chemistry Research Institute
	¹³¹ I	The Third Nuclear Test	10 to 31 May., 1966	No. 11-12	13-14	National Institute of Radiololical Sciences, National Institute of Animal Industry
Meat and Egg Vegetable	Radioactive Iodine	The Fourth Nuclear Test	28 Oct. to 7 Nov., 1966	No. 13	18	National Institute of Radiological Sciences
	"	The Fifth Nuclear Test	30 Dec., 1966 to 26 Jan., 1967	No. 14	23-25	National Institute of Radiological Scences, National Institute of Animal Industry
	⁹⁰ Sr, ¹³⁷ Cs		Mar, 1966 to Jan., 1967	No. 15	14-16	National Institute of Animal Industry
	"		Apr. to Sept., 1966	"	16-17	Japan Analytical Chemistry Research Institute
	"		Apr., 1962 to Feb., 1963	No. 2	27	" "
	"		May., 1961 to Apr., 1963	"	14-18	National Institute of Radiological Sciences
	"		Nov., 1961 to Oct., 1963	"	18-23	Japan Analytical Chemistry Resarch Institute
	"		Oct., 1963 to Mar., 1964	No. 4	24-26	" "

Object	Nuclide	Note	Survey Period	Survey Data Number	Page	Research Organization
"	⁹⁰ Sr		Oct., 1960 to Jan., 1964	No. 4	27	Ibaragi Prefectural Institute of Health
"	⁹⁰ Sr, ¹³⁷ Cs		Apr., 1964 to Jul., 1965	No. 8	5- 9	Japan Analytical Chemistry Research Institute
Vegetable	"		Aug., 1965 to Mar., 1966	No. 13	1- 3	" "
Fruit	"		1962 to 1963	No. 2	26	" "
Rice	"		1962	No. 3	14-15	National Institute of Agricultural Sciences, Institute of Public Health
"	"		1963 to 1964	No. 8	1- 3	National Institute of Agricultural Sciences
"	"		1965	No. 14	5- 6	National Institute of Agricultural Sciences, Institute of Public Health
Wheat	⁹⁰ Sr		1962 to 1964	No. 6	15-16	National Institute of Agricultural Sciences
"	"		1965	No. 8	3- 5	" "
"	"		1966	No. 14	7- 8	National Institute of Agricultural Sciences
Rice and Wheat	⁹⁰ Sr, ¹³⁷ Cs		1957 to 1961	No. 1	7- 8	Nation Institute of Agricultural Sciences, Institute of Public Health
Soybean and its Products	"		1960 to 1963	No. 2	24-25	National Institute of Radiological Sciences
Total Diet	"		Aug., 1960 to Feb., 1963	No. 1	3- 6	National Institute of Nutrition, Institute of Public Health
"	"		1963	No. 3	12-13	Japan Analytical Chemistry Research Institute
"	"		1963	No. 4	16-20	National Institute of Radiological Sciences
"	"		1960 to 1963	"	20-23	Japan Analytical Chemistry Research Institute
"	"		Jul., 1964 to Jul., 1965	No. 7	16-17	National Institute of Radiological Sciences
"	"		May to Aug., 1965	"	17-18	Japan Analytical Chemistry Research Institute
"	"		Oct. to Nov., 1965	No. 8	10	National Institute of Radiological Sciences

Object	Nuclide	Note	Survey Period	Survey Data Number	Page	Research Organization
Total Diet	⁹⁰ Sr, ¹³⁷ Cs		Nov., 1965 to Feb., 1966	No. 13	3- 5	Japan Analytical Chemistry Research Institute
"	"		May to Jun., 1966	No. 15	18-19	" "
Tea	"		1962	No. 2	29	National Institute of Hygienic Sciences
"	"		1963	"	30	Japan Analytical Chemistry Research Institute
8. (Fish Data)						
Various Kinds of Fish	"		1963 to 1966	No. 15	20-24	National Institute of Radiological Sciences
9. (Animal Data)						
Thyroid Glands	¹³¹ I	The First Nuclear Test	Oct., 1964 to Jan., 1965	No. 5	21-22	" "