Table 1

Core inventory and estimate of total release of radionuclides
[11]

Radio-nuclide	Half-life a/	Inventory (EBq) b/	Percentage released c/
Kr-85	10.72 a	0.033	~ 100
Xe-133	5.25 d	1.7	~ 100
I-131	8.04 d	1.3	20
Te-132	3.26 d	0.32	15
Cs-137	30.0 a	0.29	13
Cs-134	2.06 a	0.19	10
Sr-89	50.5 d	2.0	4
Sr-90	29.12 a	0.2	4
Zr-95	64.0 d	4.4	3
Mo-99	2.75 d	4.8	2
Ru-103	39.3 d	4.1	3
Ru-106	368 d	2.1	3
Ba-140	12.7 d	2.9	6
Ce-141	32.5 d	4.4	2
Ce-144	284 d	3.2	3
Np-239	2.36 d	0.14	3
Pu-238	87.74 a	0.001	3
Pu-239	24065 a	0.0008	3
Pu-240	6537 a	0.001	3
Pu-241	14.4 a	0.17	3
Cm-242	163 d	0.026	3

a/ Reference: [15]
b/ Decay corrected to 6 May 1986.
c/ Stated accuracy: ± 50%, except for noble gases.

Table 2

Activity ratios of radionuclides released in the Chernobyl accident relative to caesium-137
[13]

Date	Zr-95	Ru-103	Ru-106	I-131	Ba-140	Ce-141	Ce-144
30 April 1986	0.4	2.1	0.3	4.0		0.6	0.7
1 May 1986	1.5	5.2	0.8	13		3.2	5.5
2 May 1986	6.7	2.9	0.8	4.1	5.7	5.5	4.3
4 May 1986	5.3	5.2	1.1	6.2	9.6	4.8	3.8
6 May 1986	11	6.4	3.8	4.1	5.1	10	11

Table 3

Effective dose equivalent factors for cloud gamma irradiation [K5]

Radio-nuclide	Effective dose equivalent per unit time-integrated concentration in air (nSv per Bq d/m^3)
Sr-89	0.033
Sr-90	0.008
Zr-95	2.88
Nb-95	2.99
Mo-99 a/	1.04
Ru-103 a/	1.81
Ru-106 a/	0.874
Ag-110m	10.7
Cd-115 a/	1.39
Sb-125	1.61
Sb-127	2.55
Te-129m a/	0.324
Te-131m a/	2.90
I-131	1.44
Te-132 a/	9.78
I-133	2.33
Cs-134	6.03
Cs-136	8.47
Cs-137 a/	2.30
Ba-140	0.718
La-140	9.26
Ce-141	0.293
Ce-143	1.01
Ce-144 a/	0.275
Np-239	0.636

a/ Includes daughter radionuclide.

Table 4

Dose equivalent factors for the inhalation of radionuclides [H3, M3]

Radio-nuclide	Inha-lation class	Thyroid dose equivalent per unit inhaled activity (nSv/Bq)		Effective dose equivalent per unit inhaled activity (nSv/Bq)	
	a/	Infants	Adults	Infants	Adults
Sr-89	D	8.0	0.41	21	1.8
Sr-90	D	22	2.2	130	59
Zr-95	W	2.2	0.78	26	4.3
Nb-95	Y	0.42	0.36	27	1.6
Mo-99 b/	Y	0.23	0.033	7.9	1.1
Ru-103 b/	Y	0.82	0.26	8.0	2.4
Ru-106 b/	Y	12	1.7	900	130
Ag-110m b/	Y	38	6.4	210	22
Cd-115	Y	0.12	0.018	8.9	1.1
Sb-125	W	2.1	0.32	27	3.3
Sb-127	W	0.39	0.062	12	1.6
Te-129m b/	W	1.1	0.16	4.7	6.5
Te-131m b/	W	180	33	21	1.6
Te-132 b/	W	260	58	37	2.5
I-131	D	2200	270	66	8.1
I-133	D	420	44	14	1.5
Cs-134	D	6.5	11	7.3	13
Cs-136	D	4.2	1.7	4.7	2.0
Cs-137 b/	D	5.6	7.9	6.4	8.6
Ba-140	D	1.5	0.26	8.2	1.0
La-140	W	0.20	0.069	8.6	1.3
Ce-141	Y	0.039	0.025	17	2.4
Ce-143	Y	0.045	0.0062	6.8	0.92
Ce-144 b/	Y	1.4	0.29	700	100
Np-239	W	0.043	0.0058	4.7	0.66

a/ D, W, Y refer to retention times in the lungs (days, weeks and years, respectively).
b/ Includes daughter radionuclide.

Table 5

Effective dose equivalent factors
for external irradiation from deposited radionuclides
[B10]

Radio-nuclide	Effective dose equivalent per unit deposition density for outdoor exposure (nSv per Bq/m^2)	
	30 days to 1 year	After 1 year
Ru-103	0.691	0.00128
Ru-106	2.09	1.65
I-131	0.015	0.0
Cs-134	18.6	36.2
Cs-137	8.04	264

Table 6

Dose equivalent factors for the ingestion of radionuclides
[H3, N3]

Radio-nuclide	Thyroid dose equivalent per unit ingested activity (nSv/Bq)		Effective dose equivalent per unit ingested activity (nSv/Bq)	
	Infants	Adults	Infants	Adults
I-131	3500	430	110	13
Cs-134	11	18	12	20
Cs-137	9	13	9.3	14

Table 7

Parameters of caesium-137 deposition to diet transfer function derived from long-term fallout measurements
[U1, E7]
(Bq a/kg per kBq/m^2)

Country	First year transfer b_1	Transfer beyond first year $P_{23,2+}$	Total transfer P_{23}
Milk products			
Argentina	7.7	1.1	8.8
Denmark	3.0	2.8	5.8
United States	3.3	2.4	5.7
Average	4.7	2.1	6.8
Grain products			
Argentina	2.0	6.9	8.9
Denmark	3.3	23	27
United States	1.5	7.1	8.6
Average	2.3	12	15
Vegetables			
Argentina	2.1	2.3	4.4
Denmark	2.4	1.1	3.5
United States	1.4	0.7	2.1
Average	2.0	1.4	3.3
Fruit			
Argentina	0.5	2.6	3.1
Denmark	1.8	1.7	3.5
United States	1.7	1.8	3.6
Average	1.3	2.0	3.4
Meat			
Argentina	22	4.1	26
Denmark	12	12	24
United States	2.0	8.2	10
Average	12	8	20
TOTAL DIET			
Argentina	6.3	1.8	8.1
Denmark	4.0	8.0	12
United States	1.9	3.5	5.4
Average	4.1	4.4	8.5

Table 8

Area, population, food production and food consumption in assessed countries

Country	Area (10^3 km^2)	Population (10^6)		Food production (10^6 kg/a)					Food consumption per caput (kg/a)				
		Infants	Total	Milk prod.	Grain prod.	Leafy veg.	Veg./ fruit	Meat	Milk prod.	Grain prod.	Leafy veg.	Veg./ fruit	Meat
NORTH EUROPE													
Denmark	43.1	0.07	5.11	1100	420	250	140	340	173	80	18	150	66
Finland	338.1	0.07	4.87	1340	460	61	420	330	263	73	6	169	71
Norway	323.9	0.06	4.16	1060	280	190	400	210	202	65	37	120	76
Sweden													
Region 1	115.8	0.02	1.30	280	25	-	46	54	222	77	36	121	56
Region 2	105.9	0.004	0.26	43	5	-	8	7	222	77	36	121	56
Region 3	219.2	0.09	6.79	1530	676	13	1190	413	222	77	36	121	56
CENTRAL EUROPE													
Austria	83.9	0.09	7.56	1260	653	253	1420	673	145	66	71	136	99
Czechoslovakia													
Region 1	18.7	0.03	2.06	800	430	67	220	200	134	132	25	107	86
Region 2	75.0	0.15	10.40	4900	2900	270	870	1300	134	132	25	107	86
Region 3	34.2	0.04	3.02	1000	530	120	390	250	134	132	25	107	86
German Dem. Rep.													
Region 1	19.3	0.03	2.34	380	350	230	190	410	115	97	45	266	92
Region 2	25.8	0.04	2.62	620	420	280	230	540	115	97	45	266	92
Region 3	63.2	0.16	11.67	1600	1000	680	4100	1500	115	97	45	266	92
Germany, Fed. Rep. of													
Region 1	142.4	0.48	40.96	3000	2600	1440	4600	3200	108	80	23	112	55
Region 2	59.5	0.15	12.39	1200	890	580	1900	750	108	80	23	112	55
Region 3	46.8	0.09	7.68	1700	700	150	470	750	108	80	23	112	55
Hungary													
Region 1	35.2	0.06	5.16	252	391	301	137	815	185	110	25	160	80
Region 2	57.8	0.07	5.46	503	783	776	678	1630	185	110	25	160	80
Poland	312.7	0.64	37.46	16000	23200	3440	6900	2740	160	180	20	132	67
Romania													
Region 1	99.2	0.12	7.63	1360	1660	390	2570	905	150	190	40	240	86
Region 2	59.9	0.09	5.62	820	1000	235	1550	546	150	190	40	240	86
Region 3	78.4	0.15	9.48	1080	1310	310	2030	716	150	190	40	240	86
Switzerland													
Region 1	3.7	0.003	0.30	102	31	11	72	48	180	99	29	230	110
Region 2	12.4	0.02	2.03	345	105	38	244	162	180	99	29	230	110
Region 3	12.5	0.03	2.36	347	105	38	246	163	180	99	29	230	110
Region 4	12.7	0.02	1.80	355	107	39	251	167	180	99	29	230	110
WEST EUROPE													
Belgium	30.5	0.14	9.86	920	520	540	750	440	180	65	55	150	40
France													
Region 1	148.0	0.15	10.50	4150	1500	1300	1700	2100	130	84	84	132	73
Region 2	270.0	0.41	28.90	2520	5800	2900	6200	1300	130	84	84	132	73
Region 3	133.0	0.20	14.20	1330	600	1850	700	500	130	84	84	132	73
Ireland	70.3	0.08	3.54	100	220	270	390	220	163	68	40	69	50
Luxembourg	2.6	0.005	0.37	80	40	12	60	30	110	95	33	150	88
Netherlands	37.3	0.22	14.49	2100	310	2800	490	2200	145	65	65	135	70
United Kingdom													
Region 1	138.1	0.72	48.06	11000	5000	1200	4500	530	163	68	40	100	71
Region 2	86.5	0.10	6.56	730	780	88	1200	210	163	68	40	100	71
Region 3	19.5	0.02	1.25	730	220	13	180	96	163	68	40	100	71
SOUTH EUROPE													
Bulgaria													
Region 1	48.6	0.06	3.71	630	460	280	580	280	123	179	20	76	64
Region 2	62.3	0.08	5.18	760	550	340	700	340	123	179	20	76	64
Greece													
Region 1	56.8	0.04	4.22	300	400	170	800	200	80	100	30	250	60
Region 2	75.2	0.10	5.61	500	500	220	2000	300	80	100	30	250	60
Italy													
Region 1	119.8	0.23	26.03	10000	3000	1000	10000	1000	90	110	50	150	60
Region 2	181.5	0.39	30.88	2000	5000	2000	10000	600	90	110	50	150	60
Portugal	91.7	0.14	9.94	530	615	1630	953	425	45	125	113	105	42
Spain													
Region 1	100.9	0.10	7.50	820	828	1370	2100	478	104	88	124	132	62
Region 2	403.8	0.40	29.80	3280	3310	5490	8400	1910	104	88	124	132	62
Yugoslavia													
Region 1	89.5	0.13	7.87	2200	3400	230	4200	880	146	146	55	128	55
Region 2	153.5	0.22	13.5	3700	5700	380	7200	150	146	146	55	128	55
Region 3	12.8	0.02	1.12	300	400	40	60	70	146	146	55	128	55

Table 8, continued

Country	Area (10^3 km^2)	Population (10^6)		Food production (10^6 kg/a)					Food consumption per caput (kg/a)				
		Infants	Total	Milk prod.	Grain prod.	Leafy veg.	Veg./ fruit	Meat	Milk prod.	Grain prod.	Leafy veg.	Veg./ fruit	Meat
USSR													
Region 1	207.6	0.17	10.01	6360	1300	217	754	1040	332	133	37	118	63
Region 2	269.4	0.35	21.94	10800	3050	785	2270	1800	332	133	37	118	63
Region 3	485.1	0.51	29.80	8270	1780	474	1510	1300	332	133	37	118	63
Region 4	4532.6	2.47	139.70	49300	20900	4630	14800	9400	332	133	37	118	63
Region 5	16696.3	2.12	77.37	17900	10000	1780	5670	3600	332	133	37	118	63
WEST ASIA													
Cyprus	9.3	0.01	0.64	50	20	100	100	50	83	94	87	315	83
Israel	20.7	0.08	3.87	470	200	660	950	220	120	130	140	190	60
Syria	185.2	0.18	8.98	1100	1900	300	1500	200	70	190	30	340	22
Turkey	774.8	1.00	52.00	5000	20000	5000	20000	2000	125	200	100	150	40
EAST ASIA													
China	9571.3	18.63	1046.39	5380	216000	28400	170000	30000	5	229	29	173	30
India	3287.3	25.38	750.90	26300	120000	18900	61000	3060	39	183	28	89	5
Japan	358.8	1.43	121.01	4660	13500	5600	16800	16900	50	193	30	180	120
NORTH AMERICA													
Canada	9215.4	0.38	25.36	4550	10600	281	5080	3980	181	93	21	301	130
United States	9372.6	3.75	238.74	39400	71800	5970	61600	31700	174	91	25	260	146

Table 9

Time-integrated concentrations of radionuclides in ground level air
(Bq d/m³)

Country	Sr-90	Zr-95	Mo-99	Ru-103	Ru-106	I-131	Te-132	Cs-134	Cs-136	Cs-137	Ba-140	Ce-141	Ce-144	Np-239
NORTH EUROPE														
Denmark	0.012	0.15		1.1	0.33	6.7	2.1	0.26	0.10	0.49	0.31	0.15	0.10	
Finland		0.43	1.4	1.8	0.53	210	14	3.8	1.5	6.5	3.4	0.47	0.36	2.1
Norway				(11)	(2.4)	(85)	(14)	(2.8)	(1.2)	(5.3)	(2.7)	(0.37)		
Sweden														
Region 1		0.22		1.0	0.37	23	0.83	0.44	0.14	0.78	0.47		0.14	
Region 2		0.002		0.33	0.096	4.6		0.13	0.032	0.23	0.07		0.003	
Region 3		0.39		2.1	0.60	28	1.2	0.60	0.20	1.10	0.76		0.25	
CENTRAL EUROPE														
Austria	(0.58)		(12)	(28)	5.8	120	69	8.14	(1.6)	14	(6.9)	(0.32)	(0.14)	(0.14)
Czechoslovakia														
Region 1				16	(3.6)	140	43	6.0	(1.8)	12				
Region 2				23	1.1	170	94	6.8	(2.1)	14				
Region 3				26	4.0	140	85	5.4	(1.7)	11				
German Dem. Rep.														
Region 1		0.21		14	(6.9)	160	72	11	2.8	23		0.60	0.21	
Region 2		0.22		6.1	(2.6)	66	27	4.1	0.58	8.5		0.045	0.026	
Region 3		(0.22)		(6.1)	(2.6)	(66)	(27)	(4.1)	(0.58)	(8.5)		(0.045)	(0.026)	
Germany, Fed.Rep.of														
Region 1				3.3	0.78	16	20	1.4	0.52	2.6	1.3		0.052	
Region 2				9.7	2.3	52	64	4.2	1.5	7.7	3.9		0.15	
Region 3				16	3.9	84	100	7.0	2.6	13	6.5		0.26	
Hungary														
Region 1			1.3	14	(1.8)	34	33	1.9	(0.54)	3.5	0.72	0.08	0.0006	
Region 2		0.04	1.3	17	2.2	25	20	2.3	0.74	4.8	2.6	0.17	0.13	
Poland		0.31	7.9	20	2.2	72	69	4.1	1.6	8.2	1.4	0.24	0.14	
Romania														
Region 1	(1.2)	(8.4)		14	3.6	43	(70)	5.1	(1.2)	11	(5.2)			
Region 2	(1.9)	(13)		84	21	340	(110)	8.0	(1.9)	17	(8.1)			
Region 3	(1.5)	(11)		(49)	(12)	(190)	(89)	(6.6)	(1.6)	(14)	(6.6)			
Switzerland														
Region 1			(2.3)	(7.8)	(2.6)	33	(22)	(2.1)	(0.43)	4.2	(2.0)	(0.073)		(0.27)
Region 2			(1.9)	(6.2)	(2.1)	30	(18)	(1.7)	(0.34)	3.3	(1.6)	(0.058)		(0.22)
Region 3			(2.6)	(8.5)	(2.9)	28	(24)	(2.3)	(0.47)	4.6	(2.2)	(0.080)		(0.30)
Region 4			(1.6)	(5.4)	(1.8)	28	(15)	(1.5)	(0.30)	2.9	(1.4)	(0.051)		(0.19)
WEST EUROPE														
Belgium	0.05			6.5	1.5	30	20	2.0	1.0	5.0	2.0			
France														
Region 1				(0.09)	(0.018)	0.30	(0.29)	0.03	(0.009)	0.06	(0.024)	(0.002)	(0.002)	
Region 2				0.81	0.16	2.7	2.7	0.27	0.081	0.54	0.22	0.016	0.016	
Region 3				(4.8)	(0.96)	24	(16)	1.4	(0.48)	3.2	(1.3)	(0.096)	(0.096)	
Ireland				0.16	0.044	1.0	0.37	0.058	0.022	0.11	0.086			
Luxembourg	0.05			6.5	1.5	30	20	2.0	1.0	5.0	2.0			
Netherlands			0.69	2.7	0.67	19	6.9	0.92	0.35	2.1	0.92			
United Kingdom														
Region 1,2				1.4	0.75	5.0	10	0.38	0.17	0.75	0.39			
Region 3				5.6	3.0	12	23	1.5	0.58	3.0	1.5			
SOUTH EUROPE														
Bulgaria														
Region 1,2		0.39	2.5	28	6.9	41	38	4.5		9.1	22	1.2	1.3	
Greece														
Region 1	1.0	2.0		40	8.0	40	70	7.5		10	2.5	2.3	1.9	
Region 2	1.0	2.0		40	7.0	40	70	7.5		10	2.5	2.3	1.9	
Italy														
Region 1				11	4.7	46	41	2.9	0.59	5.9	3.0			
Region 2				4.9	2.2	26	23	1.6	0.27	2.7	1.4			
Portugal				(0.04)	(0.012)	(0.07)	(0.004)	(0.01)	(0.004)	(0.02)	(0.001)		(0.006)	
Spain														
Region 1				(0.11)	(0.021)	(0.40)		(0.035)	(0.011)	(0.07)	(0.028)			
Region 2				(0.03)	(0.006)	(0.07)		(0.010)	(0.003)	(0.02)	(0.008)			
Yugoslavia														
Region 1			3.6	14	2.7	72	53	3.4		7.4	3.7			
Region 2			3.0	8.7	1.9	57	45	2.5		5.9	2.6			
Region 3			3.6	14	2.7	72	53	3.4		7.4	3.7			
USSR														
Region 1	3.7	15	6	58	12	490	110	29		54	56	12	7.6	190
Region 2	2.4	8.6	11	26	4	160	43	13		21	42	3.7	2.7	63
Region 3	0.7	2.7	8.7	18	4.5	120	34	6.9		13	11	2.7	1.8	28
Region 4	(0.5)	(0.7)	(1.3)	5.7	1.7	33	7.2	2.1		4.1	(3.1)	(0.68)	(0.47)	(4.6)
Region 5	(0.02)	(0.04)	(0.02)	(0.4)	(0.1)	(2.7)	(0.4)	(0.2)		(0.3)	(0.1)	(0.033)	(0.025)	(0.07)
WEST ASIA														
Cyprus						(20)		(3.5)		(7.0)				
Israel				14		20	14	3.4		6.5	15			
Syrian Arab Rep.						(0.16)		(0.015)		(0.03)				
Turkey				24		17	40	3.8	5.8	7.4	36	5.1	36	
EAST ASIA														
China			(0.22)	(0.92)	(0.20)	4.4	(2.6)	(0.34)	(0.099)	(0.66)	(0.39)			
India				(0.074)	(0.010)	0.17	0.016	0.010	0.003	0.035	0.010			
Japan		(0.0006)	(0.01)	(0.70)	(0.14)	3.4	(1.1)	0.14	(0.033)	0.28	(0.020)			
NORTH AMERICA														
Canada				(0.073)	0.029	0.14	(0.22)	(0.028)	(0.011)	0.055	(0.028)			
United States				(0.063)	(0.008)	0.27	(0.046)	(0.013)		(0.027)				

Numbers in parentheses are inferred values.

Table 10

Ratios of integrated concentrations of radionuclides in air to caesium-137

Country	Ru-103	Ru-106	I-131	Te-132	Cs-134	Cs-136	Ba-140	Ce-141
NORTH EUROPE								
Denmark	2.2	0.67	14	4.2	0.53	0.21	0.63	0.30
Finland	0.28	0.08	32	2.2	0.58	0.23	0.52	0.07
Norway	(2.0)	(0.45)	(16)	(2.6)	(0.53)	(0.23)	(0.51)	(0.07)
Sweden								
Region 1	1.3	0.47	29	1.1	0.56	0.18	0.59	
Region 2	1.4	0.42	20		0.57	0.14	0.30	
Region 3	1.9	0.55	25	1.1	0.55	0.18	0.69	
CENTRAL EUROPE								
Austria	(2.0)	0.40	8.2	4.8	0.57	(0.11)	(0.48)	(0.02)
Czechoslovakia								
Region 1	1.3	(0.30)	12	3.6	0.50			
Region 2	1.6	0.30	12	6.8	0.49			
Region 3	2.4	0.37	13	7.7	0.49			
German Dem. Rep.								
Region 1	0.61	(0.30)	6.9	3.2	0.50	0.12		0.03
Region 2,3	0.72	(0.30)	7.7	3.1	0.48	0.07		0.01
Germany, Fed.Rep.of								
Region 1	1.3	0.30	6.2	7.6	0.54	0.20	0.50	
Region 2	1.3	0.30	6.8	8.3	0.55	0.20	0.50	
Region 3	1.3	0.30	6.5	8.0	0.54	0.20	0.50	
Hungary								
Region 1	4.0	(0.52)	9.7	9.3	0.54	(0.16)		0.01
Region 2	3.5	(0.46)	5.3	4.3	0.48	0.16		0.04
Poland	2.5	0.26	8.8	8.4	0.50	0.19	0.16	0.03
Romania								
Region 1	1.3	0.33	4.0	(6.4)	0.48	(0.11)	(0.48)	
Region 2	5.0	1.3	20	(6.4)	0.48	(0.11)	(0.48)	
Region 3	(3.6)	(0.89)	(14)	(6.4)	(0.48)	(0.11)	(0.48)	
Switzerland								
Region 1	(1.9)	(0.63)	8.0	(5.3)	(0.50)	(0.10)	(0.48)	(0.02)
Region 2	(1.9)	(0.63)	9.0	(5.3)	(0.50)	(0.10)	(0.48)	(0.02)
Region 3	(1.9)	(0.63)	6.2	(5.3)	(0.50)	(0.10)	(0.48)	(0.02)
Region 4	(1.9)	(0.63)	9.7	(5.3)	(0.50)	(0.10)	(0.48)	(0.02)
WEST EUROPE								
Belgium	1.3	0.30	6.0	4.0	0.40	0.20	0.40	
France								
Region 1,2,3	1.5	0.30	5.0	(4.8)	0.50	0.15	0.40	0.03
Ireland	1.5	0.40	9.1	3.4	0.53	0.20	0.78	
Luxembourg	1.3	0.30	6.0	4.0	0.40	0.20	0.40	
Netherlands	1.3	0.32	8.9	3.3	0.44	0.17	0.44	
United Kingdom								
Region 1,2	1.9	1.0	6.7	13	0.51	0.23	0.52	
Region 3	1.9	1.0	3.9	7.7	0.50	0.19	0.50	
SOUTH EUROPE								
Bulgaria								
Region 1,2	3.1	0.76	4.5	4.2	0.49		2.4	0.13
Greece								
Region 1	4.0	0.80	4.0	7.0	0.75		0.25	0.23
Region 2	4.0	0.70	4.0	7.0	0.75		0.25	0.23
Italy								
Region 1	1.8	0.80	7.8	7.0	0.49	0.10	0.50	
Region 2	1.8	0.81	9.6	8.5	0.59	0.10	0.50	
Portugal	(2.0)	(0.60)	(3.5)	(0.2)	(0.50)	(0.20)	(0.06)	
Spain								
Region 1	(1.5)	(0.30)	(5.7)		(0.50)	(0.15)	(0.40)	
Region 2	(1.5)	(0.30)	(3.5)		(0.50)	(0.15)	(0.40)	
Yugoslavia								
Region 1	1.8	0.36	9.7	7.2	0.46		0.50	
Region 2	1.5	0.32	9.7	7.6	0.42		0.44	
Region 3	1.8	0.36	9.7	7.2	0.46		0.50	
USSR								
Region 1	1.1	0.23	9.1	2.1	0.55		1.0	0.22
Region 2	1.2	0.19	7.6	2.0	0.62		2.0	0.17
Region 3	1.4	0.34	8.7	2.6	0.52		0.82	0.20
Region 4	1.4	0.40	8.1	1.8	0.50		(0.75)	(0.16)
Region 5	(1.3)	(0.33)	(9.0)	(1.3)	(0.67)		(0.33)	(0.11)

Table 10, continued

Country	Ru-103	Ru-106	I-131	Te-132	Cs-134	Cs-136	Ba-140	Ce-141
WEST ASIA								
Cyprus			(2.9)		(0.50)			
Israel	2.2		3.1	2.2	0.52		2.3	
Syrian Arab Rep.			(5.3)		(0.50)			
Turkey	3.3		2.4	5.4	0.51	0.78	4.8	0.69
EAST ASIA								
China	(1.4)	(0.30)	(6.7)	(3.9)	(0.51)	(0.15)	(0.59)	
India	(2.1)	(0.30)	5.0	(0.47)	0.29	0.10	0.29	
Japan	(2.5)	(0.50)	12	(3.9)	0.50	(0.12)	(0.07)	
NORTH AMERICA								
Canada	(1.3)	0.52	2.5	(4.0)	(0.50)	(0.20)	(0.50)	
United States	(2.4)	(0.30)	(10)	(1.7)	(0.50)			
MEDIAN VALUES	1.5	0.37	8.2	4.2	0.50	0.19	0.50	0.13

Numbers in parentheses are inferred values.

Table 11

Deposition of radionuclides

Country	Deposition density (kBq/m^2)					Ratios of deposition densities to caesium-137			
	Ru-103	Ru-106	I-131	Cs-134	Cs-137	Ru-103	Ru-106	I-131	Cs-134
NORTH EUROPE									
Denmark	1.9	0.59	(6.1)	0.65	1.29	1.5	0.5	(4.7)	0.5
Finland	19	12	100	7.6	15	1.3	0.8	7.0	0.5
Norway	(11)	2.4	(85)	2.8	5.3	(2.0)	0.5	(16)	0.5
Sweden									
Region 1	9.9	3.7	160	17	31	0.3	0.1	5.2	0.6
Region 2	2.3	0.85	13	0.45	0.81	2.8	1.0	16	0.6
Region 3	5.3	2.0	41	1.2	2.3	2.3	0.9	18	0.5
CENTRAL EUROPE									
Austria	31	(6.3)	120	(12)	23	1.3	(0.3)	5.0	(0.5)
Czechoslovakia									
Region 1	4.0	(0.72)	(26)	1.3	2.3	1.7	(0.3)	(11)	0.6
Region 2	6.3	(1.6)	(58)	2.7	5.3	1.2	(0.3)	(11)	0.5
Region 3	6.1	(0.85)	(30)	1.3	2.8	2.2	(0.3)	(11)	0.5
German Dem. Rep.									
Region 1	14	(1.8)	(45)	2.9	6.1	2.4	(0.3)	(7.4)	0.5
Region 2	23	(3.2)	42	5.7	11	2.1	(0.3)	3.9	0.5
Region 3	(14)	(1.8)	(19)	(2.9)	(6.1)	(2.4)	(0.3)	(3.1)	(0.5)
Germany, Fed. Rep. of									
Region 1	2.5	0.6	12	1.0	2.0	1.3	0.3	6.2	0.5
Region 2	5.0	1.2	27	2.0	4.0	1.3	0.3	6.8	0.5
Region 3	20	4.8	100	8.0	16	1.3	0.3	6.5	0.5
Hungary									
Region 1	12	(2.9)	30	2.4	4.8	2.5	(0.6)	6.3	0.5
Region 2	3.8	(0.90)	9.3	0.75	1.5	2.5	(0.6)	6.2	0.5
Poland	(13)	(1.6)	38	2.6	5.2	(2.5)	(0.3)	7.3	0.5
Romania									
Region 1	(13)	(3.3)	(24)	(2.1)	(4.5)	(2.9)	(0.7)	(5.2)	(0.5)
Region 2	(52)	(13)	(94)	(8.6)	(18)	(2.9)	(0.7)	(5.2)	(0.5)
Region 3	26	(6.5)	47	(4.3)	9.0	2.9	(0.7)	5.2	(0.5)
Switzerland									
Region 1	(28)	(9.3)	(30)	8.9	15	(1.9)	(0.6)	(2.0)	0.6
Region 2	(6.5)	(2.2)	25	2.1	3.5	(1.9)	(0.6)	7.2	0.6
Region 3	(3.8)	(1.3)	15	1.2	2.0	(1.9)	(0.6)	7.2	0.6
Region 4	(2.4)	(0.82)	9.4	0.78	1.3	(1.9)	(0.6)	7.2	0.6

Table 11, continued

Country	Deposition density (kBq/m2)					Ratios of deposition densities to caesium-137			
	Ru-103	Ru-106	I-131	Cs-134	Cs-137	Ru-103	Ru-106	I-131	Cs-134
WEST EUROPE									
Belgium	(1.4)	0.4	5.2	0.4	0.84	(1.7)	0.5	6.2	0.5
France									
Region 1	(0.27)	(0.054)	(0.9)	0.09	(0.18)	(1.5)	(0.3)	(5.0)	(0.5)
Region 2	(0.99)	(0.2)	(5.3)	0.33	(0.66)	(1.5)	(0.3)	(8.0)	(0.5)
Region 3	(3.2)	(0.96)	(24)	1.6	(3.2)	(1.0)	(0.3)	(7.5)	(0.5)
Ireland	4.9	1.3	10	1.7	3.4	1.5	0.4	3.1	0.5
Luxembourg	(4.5)	(1.3)	19	1.3	2.7	(1.7)	(0.5)	7.0	0.5
Netherlands	3.4	0.85	11	0.92	1.8	1.9	0.5	6.3	0.5
United Kingdom									
Region 1	0.18	0.06	0.8	0.05	0.1	1.8	0.6	8.0	0.5
Region 2	3.1	0.8	2.0	0.85	1.7	1.8	0.5	1.2	0.5
Region 3	5.5	1.4	6.0	1.5	3.0	1.8	0.5	2.0	0.5
SOUTH EUROPE									
Bulgaria									
Region 1	9.9	2.6	4.2	2.0	3.9	2.5	0.7	1.1	0.5
Region 2	30	7.9	13	6.2	12	2.5	0.7	1.1	0.5
Greece									
Region 1	33	3.0	36	4.0	8.0	4.1	0.4	4.5	0.5
Region 2	3.0	0.7	14	1.3	2.4	1.3	0.3	5.8	0.5
Italy									
Region 1	14	3.8	25	3.0	6.0	2.3	0.6	4.2	0.5
Region 2	7.0	2.0	15	2.0	4.0	1.8	0.5	3.8	0.5
Portugal	(0.04)	(0.012)	0.07	(0.01)	0.02	(2.0)	(0.6)	3.5	(0.5)
Spain									
Region 1	(0.11)	(0.021)	0.4	(0.035)	0.07	(1.5)	(0.3)	5.7	(0.5)
Region 2	(0.03)	(0.006)	(0.07)	(0.01)	(0.02)	(1.5)	(0.3)	(3.5)	(0.5)
Yugoslavia									
Region 1	33	7.0	140	9.0	23	1.4	0.3	5.9	0.4
Region 2	15	3.0	60	4.0	10	1.5	0.3	6.0	0.4
Region 3	6.0	1.3	24	1.7	4.0	1.5	0.3	6.0	0.4
USSR									
Region 1	41	8.8	590	21	39	1.1	0.2	15	0.6
Region 2	17	2.6	480	8.7	15	1.2	0.2	33	0.6
Region 3	13	3.2	160	5.2	10	1.3	0.3	16	0.5
Region 4	(3.7)	(1.1)	20	1.4	2.8	(1.4)	(0.4)	7.2	0.5
Region 5	(0.1)	(0.04)	(0.4)	(0.05)	0.09	(1.1)	(0.4)	(4.3)	(0.5)
WEST ASIA									
Cyprus			(2.0)	(0.3)	(0.6)	-	-	(3.3)	(0.5)
Israel	(1.6)		(0.7)	(0.2)	(0.4)	(4.0)	-	(1.8)	(0.5)
Syrian Arab Rep.				(0.06)	(0.13)	-	-	-	(0.5)
Turkey				2.0	4.0	-	-	-	(0.5)
EAST ASIA									
China	(0.21)	(0.044)	0.29	(0.075)	(0.15)	(1.4)	(0.3)	(2.0)	(0.5)
India	(0.073)	(0.011)	(0.044)	(0.010)	0.035	(2.1)	(0.3)	(1.3)	(0.3
Japan	(0.45)	(0.090)	1.6	0.087	0.18	(2.5)	(0.5)	9.0	0.5
NORTH AMERICA									
Canada	(0.04)	(0.016)	0.10	0.015	0.030	(1.3)	(0.5)	3.4	0.5
United States	(0.062)	(0.0079)	0.15	0.013	0.026	(2.4)	(0.3)	5.7	0.5
Median values						1.6	0.5	6.2	0.5

Numbers in parentheses are inferred values.

Table 12

Quotients of deposition density and time-integrated concentration in air for caesium-137

Country	Deposition density a/ (kBq/m^2)	Integrated concentration in air a/ ($Bq\ d/m^3$)	Quotient (cm/s)
NORTH EUROPE			
Denmark	1.3	0.49	3.1
Finland	11	6.5	1.9
Norway	7.1	(5.3)	(1.6)
Sweden	9.5	0.8	14
CENTRAL EUROPE			
Austria	23	14	1.9
Czechoslovakia	4.2	13	0.4
German Dem. Rep.	7.2	11	0.8
Germany, Fed. Rep. of	5.1	5.8	1.0
Hungary	2.7	4.3	0.7
Poland	5.2	8.2	0.7
Romania	(9.4)	(13)	(0.8)
Switzerland	3.4	3.7	1.1
WEST EUROPE			
Belgium	0.84	5	0.2
France	1.1	1.1	1.2
Ireland	3.3	0.11	35
Luxembourg	2.7	5	0.6
Netherlands	1.8	2.1	1.0
United Kingdom	0.9	0.9	1.2
SOUTH EUROPE			
Bulgaria	8.5	9.1	1.1
Greece	4.8	10	0.6
Italy	4.8	4.0	1.4
Portugal	0.02	(0.02)	(1.2)
Spain	0.03	(0.03)	(1.2)
Yugoslavia	14	7.0	2.4
USSR	1.4	2.1	0.8
WEST ASIA			
Cyprus	(0.6)	(7.0)	(0.1)
Israel	(0.4)	(6.5)	(0.07)
Syrian Arab Rep.	(0.13)	(0.03)	(5.0)
Turkey	4.0	7.4	0.6
EAST ASIA			
China	(0.15)	(0.66)	(0.3)
India	0.035	0.035	1.2
Japan	0.18	0.28	0.7
NORTH AMERICA			
Canada	0.030	0.055	0.6
United States	0.026	(0.027)	(1.1)

a/ Area-weighted average values.

Table 13

Outdoor effective dose equivalent in the first month from external irradiation per unit caesium-137 deposition

Country	Effective dose equivalent in first month (μSv)	Population-weighted deposition density of caesium-137 (kBq/m^2)	Effective dose equivalent per unit caesium-137 deposition (μSv per kBq/m^2)
NORTH EUROPE			
Denmark	(17)	1.3	(13)
Finland	(210)	15	(14)
Norway	(74)	5.3	(14)
Sweden			
Region 1	25	31	0.8
Region 2	6.6	0.8	8
Region 3	18	2.3	8
CENTRAL EUROPE			
Austria	(220)	22	(10)
Czechoslovakia			
Region 1	93	2.3	40
Region 2	180	5.3	34
Region 3	140	2.8	52
German Dem. Rep.			
Region 1	200	6.1	33
Region 2	200	11	19
Region 3	100	(6.1)	(17)
Germany, Fed. Rep. of			
Region 1	(26)	2.0	(13)
Region 2	(51)	4.0	(13)
Region 3	210	16	13
Hungary			
Region 1	100	4.8	21
Region 2	42	1.5	28
Poland	14	5.2	3
Romania			
Region 1	(70)	(4.5)	(16)
Region 2	(280)	(18)	(16)
Region 3	(140)	9.0	(16)
Switzerland			
Region 1	(200)	15	(14)
Region 2	(120)	3.5	(34)
Region 3	(64)	2.0	(32)
Region 4	(48)	1.3	(37)
WEST EUROPE			
Belgium	(11)	0.8	(13)
France			
Region 1	(2.5)	0.2	(14)
Region 2	(9.2)	0.7	(14)
Region 3	(45)	3.2	(14)
Ireland	(40)	3.4	(12)
Luxembourg	(35)	2.7	(13)
Netherlands	(22)	1.8	(12)
United Kingdom			
Region 1	(1.2)	0.1	(12)
Region 2	(21)	1.7	(12)
Region 3	(36)	3.0	(12)
SOUTH EUROPE			
Bulgaria			
Region 1	120	3.9	32
Region 2	210	12	18
Greece			
Region 1	31	8.0	4
Region 2	12	2.4	5
Italy			
Region 1	67	6.0	11
Region 2	11	4.0	3
Portugal	(0.3)	0.02	(14)
Spain			
Region 1	(1.0)	0.07	(14)
Region 2	(0.3)	(0.02)	(15)
Yugoslavia			
Region 1	5.3	23	0.2
Region 2	0.6	10	0.06
Region 3	0.9	4	0.2

Table 13, continued

Country	Effective dose equivalent in first month (μSv)	Population-weighted deposition density of caesium-137 (kBq/m²)	Effective dose equivalent per unit caesium-137 deposition (μSv per kBq/m²)
USSR			
Region 1	1200	39	31
Region 2	860	15	59
Region 3	190	10	19
Region 4	86	2.8	31
Region 5	(1.3)	0.09	(14)
WEST ASIA			
Cyprus	(5.6)	(0.6)	(9)
Israel	(5.6)	(0.4)	(14)
Syrian Arab Rep.	(3.9)	(0.1)	(39)
Turkey	5.6	4.0	1
EAST ASIA			
China	(1.3)	(0.15)	(9)
India	(0.2)	0.04	(5)
Japan	(1.7)	0.18	(9)
NORTH AMERICA			
Canada	(0.13)	0.03	(4)
United States	(0.13)	0.026	(5)

Numbers in parentheses are inferred values.

Table 14

Iodine-131 in foods

Country	Latitude (degrees north)	Integrated concentration (Bq a/kg)		Normalized integrated concentration (Bq a/kg per kBq/m²)		Ratio of integrated concentrations
		Milk products	Leafy vegetables	Milk products	Leafy vegetables	Leafy vegetables / milk products
NORTH EUROPE						
Denmark	56	0.14	(0.6)	0.02	0.1	(4.3)
Finland	63	0.9	3.5	0.01	0.03	3.9
Norway	61	(0.8)	(3.0)	(0.01)	(0.04)	(3.8)
Sweden						
Region 1	62	2	(2)	0.01	(0.01)	(1.0)
Region 2	66	(0)	(0)	(0)	(0)	(1.0)
Region 3	59	1	(1)	0.02	(0.02)	(1.0)
CENTRAL EUROPE						
Austria	48	12	(0)	0.1	(0)	-
Czechoslovakia						
Region 1	50	14	68	0.5	2.7	5.1
Region 2	50	15	68	0.3	1.2	4.6
Region 3	49	28	68	0.9	2.3	2.5
German Dem. Rep.						
Region 1	52	15	32	0.3	0.7	2.1
Region 2	53	10	15	0.2	0.4	1.5
Region 3	52	3.8	8.0	0.2	0.4	2.1
Germany, Fed. Rep. of						
Region 1	52	0.7	5.5	0.05	0.4	8.5
Region 2	49	2.6	12	0.1	0.4	4.6
Region 3	48	6.8	46	0.07	0.4	6.8
Hungary						
Region 1	47	10	15	0.3	0.5	1.5
Region 2	47	6	6	0.2	0.6	1.0
Poland	52	11	4	0.3	0.1	0.4

Table 14, continued

Country	Latitude (degrees north)	Integrated concentration (Bq a/kg)		Normalized integrated concentration (Bq a/kg per kBq/m^2)		Ratio of integrated concentrations
		Milk products	Leafy vegetables	Milk products	Leafy vegetables	Leafy vegetables / milk products
Romania						
Region 1	46	(11)	(9.1)	(0.5)	(0.4)	(0.8)
Region 2	46	(44)	(36)	(0.5)	(0.4)	(0.8)
Region 3	45	22	18	0.5	0.4	0.8
Switzerland						
Region 1	46	37	55	(1.2)	(1.9)	1.5
Region 2	47	26	54	1.0	2.1	2.0
Region 3	47	23	30	1.6	2.0	1.3
Region 4	47	7.3	32	0.8	3.4	4.4
WEST EUROPE						
Belgium	51	2.9	5.0	0.6	1.0	1.7
France						
Region 1	47	0.6	1.4	0.7	1.6	2.3
Region 2	47	1.5	3.3	0.3	0.6	2.2
Region 3	47	4.4	10	0.2	0.4	2.3
Ireland	53	3.1	12	0.3	1.2	4.0
Luxembourg	50	3.1	18	0.2	1.0	5.8
Netherlands	52	1.0	8.0	0.09	0.7	8.0
United Kingdom						
Region 1	53	0.8	(0.8)	1.0	(1.0)	(1.0)
Region 2	56	1.7	(1.7)	0.9	(0.9)	(1.0)
Region 3	55	2.1	(2.1)	0.4	(0.4)	(1.0)
SOUTH EUROPE						
Bulgaria						
Region 1	43	34	(34)	8.1	8.2	(1.0)
Region 2	42	34	(34)	2.6	2.7	(1.0)
Greece						
Region 1	41	36	150	1.0	4.1	4.1
Region 2	39	14	56	1.0	4.0	4.0
Italy						
Region 1	45	11	65	0.4	2.6	5.9
Region 2	42	11	12	0.7	0.8	1.1
Portugal	40	0.01	0.04	0.1	0.6	4.0
Spain						
Region 1	40	0.7	1.2	1.8	3.0	1.7
Region 2	40	(0.01)	(0.04)	(0.1)	(0.6)	(4.0)
Yugoslavia						
Region 1	45	24	210	0.2	1.6	8.8
Region 2	43	11	90	0.2	1.5	8.2
Region 3	43	3.6	31	0.15	1.3	8.6
USSR						
Region 1	55	25	13	0.04	0.02	0.5
Region 2	54	31	42	0.06	0.09	1.4
Region 3	52	4.4	2.2	0.03	0.01	0.5
Region 4	51	4.9	(0)	0.3	(0)	-
Region 5	53	(0.1)	(0)	(0.3)	(0)	-
WEST ASIA						
Cyprus	35	(6.0)	(24)	(3.0)	(12)	(4.0)
Israel	32	(1.6)	(15)	(2.3)	(21)	(9.4)
Syrian Arab Rep.	35	(2.0)	(0.6)	-	-	(0.3)
Turkey	40	3.0	2.5	-	-	0.8
EAST ASIA						
China	32	0.48	2.2	1.6	7.4	4.5
India	23	0.094	0.095	(2.2)	(2.2)	(1.0)
Japan	36	0.14	4.6	0.09	2.9	33
NORTH AMERICA						
Canada	55	(0.10)	(0.10)	(1.0)	(1.0)	(1.0)
United States	36	(0.15)	(0.15)	(1.0)	(1.0)	(1.0)

Numbers in parentheses are inferred values.

Table 15

Caesium-137 in foods during the first year

Country	Integrated concentration (Bq a/kg)					Normalized integrated concentration (Bq a/kg per kBq/m2)					Ratio of integrated concentrations	
	Milk prod.	Grain prod.	Leafy veg.	Veg./ fruit	Meat	Milk prod.	Grain prod.	Leafy veg.	Veg./ fruit	Meat	Leafy veg. / milk	Meat/ milk
NORTH EUROPE												
Denmark	1.6	2.1	0.5	0.8	1.3	1.2	1.6	0.4	0.6	1.0	0.3	0.8
Finland	21	3.8	2.9	9.4	66	1.4	0.3	0.2	0.6	4.5	0.1	3.1
Norway	14	1.2	7.0	4.3	44	2.6	0.2	1.3	0.8	8.3	0.5	3.1
Sweden												
Region 1	18	3	10	20	33	0.6	0.1	0.3	0.7	1.1	0.6	1.8
Region 2	(6)	(3)	(5)	(7)	(11)	(7.4)	(3.7)	(6.2)	(8.6)	(14)	(0.8)	(1.8)
Region 3	6	3	5	7	11	2.6	1.3	2.2	3.0	4.8	0.8	1.8
CENTRAL EUROPE												
Austria	44	15	18	26	57	1.9	0.7	0.8	1.1	2.5	0.4	1.3
Czechoslovakia												
Region 1	7.4	4.9	8	33	15	3.2	2.1	3.4	14	6.5	1.1	2.0
Region 2	7.8	13	8	33	15	1.5	2.5	1.5	6.3	2.9	1.0	1.9
Region 3	9.6	8.1	8	33	15	3.5	2.9	2.9	12	5.5	0.8	1.6
German Dem. Rep.												
Region 1	6.0	15	0.3	2.6	8.4	1.0	2.5	0.05	0.4	1.4	0.05	1.4
Region 2	17	23	0.8	5.1	20	1.6	2.1	0.07	0.5	1.9	0.05	1.2
Region 3	4.2	12	0.3	3.3	12	(0.7)	(2.0)	(0.05)	(0.5)	(2.0)	0.07	2.9
Germany, Fed. Rep. of												
Region 1	4.6	4.5	2.3	3	8	2.3	2.3	1.2	1.5	4.0	0.5	1.7
Region 2	6.7	9.0	4.5	6	16	1.7	2.3	1.2	1.5	4.0	0.7	2.4
Region 3	24	36	18	24	64	1.5	2.3	1.2	1.5	4.0	0.8	2.7
Hungary												
Region 1	13	9	12	10	25	2.7	1.9	2.5	2.1	(5.2)	0.9	1.9
Region 2	8	5	7	5	25	5.3	3.3	4.7	3.3	(17)	0.9	3.1
Poland	25	2	10	10	34	4.8	0.4	2.0	1.9	6.4	0.4	1.3
Romania												
Region 1	(9.7)	(12)	(4.8)	(3.6)	(28)	(2.2)	(2.7)	(1.1)	(0.8)	(6.3)	(0.5)	(2.9)
Region 2	(39)	(49)	(19)	(14)	(110)	(2.2)	(2.7)	(1.1)	(0.8)	(6.3)	(0.5)	(2.9)
Region 3	19	(24)	9.5	(7.2)	56	2.2	(2.7)	1.1	(0.8)	6.3	0.5	2.9
Switzerland												
Region 1	48	(30)	54	(12)	200	3.2	(2.0)	3.7	(0.8)	14	1.1	4.3
Region 2	11	(7.0)	16	(2.8)	24	3.2	(2.0)	4.5	(0.8)	6.9	1.4	2.1
Region 3	8.9	(4.1)	9.1	(1.6)	12	4.4	(2.0)	4.5	(0.8)	5.8	1.0	1.3
Region 4	2.7	(2.6)	4.8	(1.0)	12	2.1	(2.0)	3.7	(0.8)	9.0	1.8	4.4
WEST EUROPE												
Belgium	1.5	(1.7)	1.1	(0.7)	(2.6)	1.8	(2.0)	1.3	(0.8)	(3.1)	0.7	(1.7)
France												
Region 1	0.18	0.37	0.13	0.08	0.05	1.0	2.1	0.7	0.4	0.3	0.7	0.3
Region 2	2.7	1.2	4.4	1.2	0.8	4.1	1.8	6.7	1.8	1.2	1.6	0.3
Region 3	13	6.2	9.6	5.6	4.0	4.1	1.9	3.0	1.8	1.3	0.7	0.3
Ireland	10	(6.7)	3.0	(2.7)	18	3.0	(2.0)	0.9	(0.8)	5.4	0.3	1.8
Luxembourg	4.9	(5.4)	(3.5)	(2.2)	(8.1)	1.8	(2.0)	(1.3)	(0.8)	(3.0)	(0.7)	(1.7)
Netherlands	1.5	(3.6)	(2.3)	(1.4)	(5.4)	0.9	(2.0)	(1.3)	(0.8)	(3.0)	(1.5)	(3.5)
United Kingdom												
Region 1	0.9	(0.2)	(0.2)	(0.08)	(1.8)	9	(2.0)	(2.0)	(0.8)	(18)	(0.2)	(2.0)
Region 2	10	(3.4)	(2)	(1.4)	(20)	5.9	(2.0)	(1.2)	(0.8)	(12)	(0.2)	(2.0)
Region 3	18	(6.0)	(4)	(2.4)	(36)	6	(2.0)	(1.3)	(0.8)	(12)	(0.2)	(2.0)
SOUTH EUROPE												
Bulgaria												
Region 1	38	13	(27)	41	200	9.7	3.3	(6.9)	10	51	(0.7)	5.3
Region 2	38	13	(27)	41	200	3.1	1.1	(2.3)	3.4	17	(0.7)	5.3
Greece												
Region 1	76	60	46	46	61	9.5	7.5	5.8	5.8	7.6	0.6	0.8
Region 2	23	20	19	14	18	9.6	8.3	7.9	5.8	7.5	0.8	0.8
Italy												
Region 1	22	8	27	15	70	3.7	1.3	4.5	2.5	12	1.2	3.2
Region 2	13	12	3.5	10	60	3.3	3.0	0.9	2.5	15	0.3	4.6
Portugal	0.16	(0.2)	(0.1)	(0.04)	(0.4)	8.0	(10)	(5.0)	(2.0)	(20)	(0.6)	(2.6)
Spain												
Region 1	0.8	(0.7)	(0.5)	(0.2)	(2)	11	(10)	(7.1)	(2.9)	(29)	(0.6)	(2.6)
Region 2	(0.16)	(0.2)	(0.1)	(0.04)	(0.4)	(8.0)	(10)	(5.0)	(2.0)	(20)	(0.6)	(2.6)
Yugoslavia												
Region 1	49	2.6	10	1.	77	2.1	0.1	0.4	0.04	3.3	0.2	1.6
Region 2	20	1.1	4.3	0.5	33	2.0	0.1	0.4	0.05	3.3	0.2	1.6
Region 3	7	0.4	1.5	0.15	11	1.8	0.1	0.4	0.04	2.8	0.2	1.6
USSR												
Region 1	90	23	25	33	200	2.3	0.6	0.6	0.9	5.2	0.3	2.2
Region 2	26	6.0	17	8.0	55	1.8	0.4	1.2	0.6	3.8	0.7	2.1
Region 3	21	6.0	10	10	50	2.1	0.6	1.0	1.0	5.0	0.5	2.4
Region 4	4.2	(1.7)	(2.1)	(2.6)	14	1.5	(0.6)	(0.8)	(0.9)	5.1	(0.5)	3.3
Region 5	(0.16)	(0.05)	(0.04)	(0.06)	(0.50)	(1.7)	(0.5)	(0.4)	(0.6)	(5.3)	(0.3)	(3.1)

Table 15, continued

Country	Integrated concentration (Bq a/kg)					Normalized integrated concentration (Bq a/kg per kBq/m^2)					Ratio of integrated concentrations	
	Milk prod.	Grain prod.	Leafy veg.	Veg./ fruit	Meat	Milk prod.	Grain prod.	Leafy veg.	Veg./ fruit	Meat	Leafy veg. / milk	Meat/ milk
WEST ASIA												
Cyprus	(3.0)	(2.0)	(3.0)	(0.6)	(2.0)	(5.0)	(3.3)	(5.0)	(1.0)	(3.3)	(1.0)	(0.7)
Israel	(0.8)	(4.0)	(5.0)	(2.0)	(10)	(2.0)	(10)	(13)	(5.0)	(25)	(6.3)	(13)
Syrian Arab Rep.	(1.0)	(0.3)	(0.05)	(0.02)	(0.3)	(7.7)	(2.3)	(0.4)	(0.2)	(2.3)	(0.05)	(0.3)
Turkey	21	2.0	6.5	3.5	17	5.3	0.5	1.6	0.9	4.3	0.3	0.8
EAST ASIA												
China	(0.18)	(0.47)	(1.1)	(0.19)	(0.78)	(1.2)	(3.2)	(7.4)	(1.3)	(5.4)	(6.2)	(4.5)
India	(0.16)	(0.39)	0.11	(0.046)	(0.18)	(4.7)	(11.2)	3.2	(1.3)	(5.1)	(0.7)	(1.1)
Japan	0.22	0.056	0.29	(0.28)	0.29	1.2	0.3	1.6	(1.6)	1.6	1.3	1.4
NORTH AMERICA												
Canada	(0.05)	(0.08)	(0.03)	(0.02)	(0.09)	(1.5)	(2.5)	(1.0)	(0.8)	(3.0)	(0.7)	(2.0)
United States	(0.04)	(0.13)	(0.03)	(0.02)	(0.08)	(1.5)	(5)	(1.0)	(0.8)	(3.0)	(0.7)	(2.0)

Numbers in parentheses are inferred values.

Table 16

Comparison of body burdens of caesium-137 derived from measurements in man and expected from foodstuff concentrations (first-year intakes)

Country	Number of persons	Caesium-137 deposition density (kBq/m²)	Time-integrated body burdens (Bq a)		Body burden ratio (measured/expected)	Ref.
			Measured in man	Expected from diet		
Austria						
Vienna	4	4	2500	1200	2.1	[O1]
Country average	200	23	2800	7000	0.4	[S19]
Bulgaria						
Country average	308	8.6	2600	9200	0.3	[C4]
Czechoslovakia						
Country average	404	4.4	960	3000	0.3	[M7]
Finland						
Region 1	102	2	1500	610	2.5	[R14]
Region 2	27	6	1650	1800	0.9	[R14]
Region 3	31	15	3300	4600	0.7	[R14]
Region 4	41	34	4500	10000	0.4	[R14]
Region 5	16	52	5400	16000	0.3	[R14]
Country average		15	2730	4500	0.6	[R14]
France						
Region 1		0.18	130	40	3.3	[L5]
Region 2		0.66	270	430	0.6 a/	[L5]
Region 3		3.2	540	1700	0.3 a/	[L5]
German Dem. Rep.						
Country average	300	6.8	1000	1700	0.6	[L1]
Germany, Fed. Rep. of						
Region 1		2	490	670	0.7	[S16]
Regions 2,3		8.6	1200	2600	0.5	[S16]
Hungary						
Country average	39	3.1	770	2300	0.3	[H4]
Italy						
Region 1	43	6	3500	4200	0.8	[M6]
Region 2	67	4	2600	3100	0.8	[M6]
Japan						
Country average	19	0.18	34	43	0.8	[N4]
Netherlands						
Country average	20	1.8	250	480	0.5	[C26]
Norway						
Oslo	38	1.0	1400	550	2.5	[B11]
Oppland	151	27.8	3100	15000	0.2	[B11]
N. Tr.	78 b/	18.7	21000	10000	2.1	[B11]
Finmark	45 c/	0.4	5600	210	27	[B11]
Poland						
Country average	535	5.2	1700	3100	0.6	[C2]
Sweden						
Region 1	50	31	1900	3300	0.6	[F6]
Country average	218	6.8	820	1200	0.7	[F6]
Switzerland						
Mitteland		2.0	750	1500	0.5	[P2]
Turkey						
Country average	30	4	1700	1900	0.9	[T2]
United Kingdom						
Region 1	30	0.1	190	120	1.6	[F12]
Region 3	300	3	710	2500	0.3	[F12]

a/ Measured composited diet samples give relative results of 0.8 and 0.7 for regions 2 and 3, respectively [S21].
b/ Southern Lapps.
c/ Northern Lapps.

Table 17

First-year dose equivalents
(μSv)

Country	Thyroid dose equivalent		Effective dose equivalent	
	Infants	Adults	Rural	Urban
NORTH EUROPE				
Denmark	160	64	33	28
Finland	1800	1200	490	440
Norway	1000	570	240	220
Sweden				
Region 1	1800	700	440	340
Region 2	47	92	87	83
Region 3	870	280	110	99
CENTRAL EUROPE				
Austria	9400	1800	710	630
Czechoslovakia				
Region 1	2000	2300	280	270
Region 2	2200	2600	370	350
Region 3	2100	3200	340	340
German Dem. Rep.				
Region 1	12000	2000	270	250
Region 2	7700	1300	360	320
Region 3	3100	690	180	160
Germany, Fed. Rep. of				
Region 1	660	200	70	63
Region 2	2300	530	140	120
Region 3	6200	1500	510	460
Hungary				
Region 1	7500	1300	290	270
Region 2	4500	770	180	170
Poland	8100	1400	280	260
Romania				
Region 1	8200	1200	270	250
Region 2	33000	5300	1100	1000
Region 3	17000	2700	550	520
Switzerland				
Region 1	27000	4600	1300	1200
Region 2	20000	3000	320	310
Region 3	17000	2300	210	200
Region 4	5800	1100	120	120
WEST EUROPE				
Belgium	2300	460	42	39
France				
Region 1	450	90	6.7	6.1
Region 2	1100	240	40	37
Region 3	3400	810	160	150
Ireland	2500	540	130	120
Luxembourg	2700	580	100	93
Netherlands	940	390	61	54
United Kingdom				
Region 1	600	97	12	12
Region 2	1300	260	110	100
Region 3	1700	400	200	190
SOUTH EUROPE				
Bulgaria				
Region 1	25000	2800	720	700
Region 2	25000	2900	810	770
Greece				
Region 1	30000	7600	960	930
Region 2	12000	3000	330	320
Italy				
Region 1	4400	2300	380	360
Region 2	2700	970	240	230
Portugal	9	4	1.9	1.8
Spain				
Region 1	520	100	12	12
Region 2	9	5	2.2	2.1
Yugoslavia				
Region 1	22000	8500	660	590
Region 2	10000	4000	290	260
Region 3	3600	1500	110	99

Table 17, continued

Country	Thyroid dose equivalent		Effective dose equivalent	
	Infants	Adults	Rural	Urban
USSR				
Region 1	21000	6900	2000	1900
Region 2	24000	6300	930	880
Region 3	3800	1400	460	420
Region 4	3600	910	140	130
Region 5	82	25	4.3	3.9
WEST ASIA				
Cyprus	4700	1200	67	66
Israel	1500	1100	94	92
Syrian Arab Rep.	1400	74	7.7	7.3
Turkey	2300	480	200	180
EAST ASIA				
China	390	47	7.9	7.4
India	69	5	2.1	2.0
Japan	210	100	7.9	7.2
NORTH AMERICA				
Canada	75	11	1.4	1.3
United States	110	15	1.5	1.4

Table 18

Country average of first-year dose equivalents

Country	Thyroid dose equivalent		Effective dose equivalent	Ratio to result reported from country [N5]		
	Infant	Adult		Thyroid dose		Effective dose
	(μSv)		(μSv)	Infant	Adult	
EUROPE						
Bulgaria	25000	2900	760			
Austria	9400	1800	670	1.2	1.0	1.0
Greece	20000	5000	590	3.6	2.6	1.6
Romania	18000	2800	570			
Finland	1800	1200	460	1.0	1.7	0.9
Yugoslavia	14000	5500	390			
Czechoslovakia	2200	2700	350			
Italy	3400	1500	300	0.5	0.5	0.6
Poland	8100	1400	270			
Switzerland	15000	2300	270	9.3	2.1	1.2
Hungary	6000	1000	230			
Norway	1000	570	230	0.8	1.5	1.4
German Dem. Rep.	5100	970	210			
Sweden	1000	340	150	2.0	0.9	0.7
Germany, Fed. Rep. of	1700	440	130	0.6	0.5	0.4
Ireland	2500	540	120	0.2	2.3	1.1
Luxembourg	2700	580	98	3.5	1.7	0.8
France	1600	360	63	1.8	4.1	2.6
Netherlands	940	390	58	0.6	1.3	0.8
Belgium	2300	460	41	1.7	2.2	1.0
Denmark	160	64	30	0.6	1.3	1.1
United Kindom	710	130	27	0.3	0.8	0.7
Spain	110	24	4.2			
Portugal	9	4	1.8	0.1	0.4	0.3
USSR	5000	1400	260			
ASIA						
Turkey	2300	480	190	0.7	1.2	2.2
Israel	1500	1100	92			
Cyprus	4700	1200	68			
Syrian Arab Rep.	1400	74	8.3			
China	390	47	7.8			
Japan	210	100	7.6	1.4	2.1	1.2
India	69	5	2.1			
NORTH AMERICA						
Canada	75	11	1.4	4.2	6.5	0.6
United States	110	15	1.5			

Table 19

Transfer factor from deposition to thyroid dose for iodine-131

Country	Iodine-131 deposition density (kBq/m²)	Thyroid dose equivalent in first year from iodine-131 (µSv)		Transfer factor (P_{25}) deposition to thyroid dose for iodine-131 (µSv per kBq/m²)	
		Infants	Adults	Infants	Adults
NORTH EUROPE					
Denmark	6.1	130	33	21	5.4
Finland	100	1500	690	15	6.7
Norway	85	930	350	11	4.1
Sweden					
Region 1	160	1500	280	9.4	1.8
Region 2	13	17	13	1.3	1.0
Region 3	41	820	190	20	4.6
CENTRAL EUROPE					
Austria	120	9000	1100	78	9.5
Czechoslovakia					
Region 1	26	1900	2100	74	82
Region 2	58	2000	2200	34	38
Region 3	30	1900	2900	63	96
German Dem.Rep.					
Region 1	45	12000	1800	260	40
Region 2	42	7500	970	180	23
Region 3	19	3000	520	160	28
Germany, Fed. Rep. of					
Region 1	12	610	130	50	11
Region 2	27	2200	380	81	14
Region 3	100	5900	1000	57	9.7
Hungary					
Region 1	30	7400	1000	250	33
Region 2	9.3	4400	610	470	66
Poland	38	8000	1100	210	29
Romania					
Region 1	24	8100	980	340	42
Region 2	94	33000	4400	350	47
Region 3	47	17000	2200	360	47
Switzerland					
Region 1	30	27000	3600	910	120
Region 2	25	20000	2800	790	110
Region 3	15	17000	2200	1200	150
Region 4	9.4	5800	1000	620	110
WEST EUROPE					
Belgium	5.2	2200	420	420	81
France					
Region 1	0.9	450	85	500	94
Region 2	5.3	1100	210	210	40
Region 3	24	3300	670	140	28
Ireland	10	2400	430	230	41
Luxembourg	19	2600	480	140	25
Netherlands	11	910	340	80	30
United Kingdom					
Region 1	0.8	590	84	740	110
Region 2	2.0	1200	160	600	80
Region 3	6.0	1600	220	270	37
SOUTH EUROPE					
Bulgaria					
Region 1	4.2	24000	2200	5700	520
Region 2	13	24000	2200	1900	170
Greece					
Region 1	36	30000	6900	830	190
Region 2	14	12000	2700	860	190
Italy					
Region 1	25	4400	1900	180	76
Region 2	15	2700	750	180	50
Portugal	0.07	8.0	2.3	110	33
Spain					
Region 1	0.4	510	96	1280	240
Region 2	0.07	8.0	2.8	110	40
Yugoslavia					
Region 1	140	22000	8100	160	60
Region 2	60	10000	3800	170	63
Region 3	24	3500	1400	150	58

Table 19, continued

Country	Iodine-131 deposition density (kBq/m²)	Thyroid dose equivalent in first year from iodine-131 (μSv)		Transfer factor (P_{25}) deposition to thyroid dose for iodine-131 (μSv per kBq/m²)	
		Infants	Adults	Infants	Adults
USSR					
Region 1	590	20000	5100	34	8.6
Region 2	480	23000	5500	48	11
Region 3	160	3500	980	22	6.0
Region 4	20	3600	790	180	40
Region 5	0.4	80	22	200	55
WEST ASIA					
Cyprus	2.0	4700	1200	2400	600
Israel	0.7	1500	1000	2100	1400
Syrian Arab Rep.	-	1400	69		
Turkey	-	2200	320		
EAST ASIA					
China	0.3	390	40	1300	130
India	0.04	68	3.2	1500	73
Japan	1.6	210	96	130	60
NORTH AMERICA					
Canada	0.1	75	9.4	750	94
United States	0.15	110	14	740	94

Table 20

Transfer factor from deposition to first-year effective dose equivalent from ingestion of caesium-137

Country	Deposition density (kBq/m²)	First-year diet: Integrated concentration (Bq a/kg)	First-year diet: Intake (Bq)	Body burden integrated concentration (Bq a/kg)	Effective dose equivalent (μSv)	Transfer factors: b_1 a/	Transfer factors: P_{34} b/	Transfer factors: $P_{25,1}$ c/
NORTH								
Denmark	1.3	1.35	660	3.7	9.2	1.0	2.7	7.2
Finland	14.7	20.8	12100	68	170	1.4	3.3	12
Norway	5.3	14.1	7030	39	98	2.7	2.8	19
Sweden								
Region 1	31	17.3	8860	50	120	0.6	2.9	4.0
Region 2	0.81	(6.3)	(3210)	(18)	(45)	(7.7)	2.9	(55)
Region 3	2.3	6.3	3210	18	45	2.7	2.9	20
TEMPERATE								
Austria	23	34.5	17800	100	250	1.5	2.9	11
Belgium	0.84	1.3	650	3.6	9.1	1.6	2.7	11
Bulgaria								
Region 1	3.9	50.8	23500	130	330	13	2.6	84
Region 2	12	50.8	23500	130	330	4.2	2.6	27
Canada	0.03	(0.05)	(35)	(0.2)	(0.5)	(1.6)	4.1	(16)
Czechoslovakia								
Region 1	2.3	13.8	6660	37	93	5.9	2.7	40
Region 2	5.3	16.1	7780	44	110	3.1	2.7	21
Region 3	2.8	15.2	7380	41	100	5.5	2.7	38
France								
Region 1	0.18	0.16	80	0.45	1.1	0.9	2.8	6.2
Region 2	0.66	2.1	1040	5.8	15	3.1	2.8	22
Region 3	3.2	8.0	4050	23	57	2.5	2.8	18
German Dem.Rep.								
Region 1,3	6.1	6.0	3660	20	51	1.0	3.4	8.4
Region 2	11	12.1	7470	42	100	1.1	3.4	9.7

Table 20, continued

Country	Deposition density (kBq/m²)	First-year diet: Integrated concentration (Bq a/kg)	First-year diet: Intake (Bq)	Body burden integrated concentration (Bq a/kg)	Effective dose equivalent (μSv)	Transfer factors: b_1 a/	Transfer factors: P_{34} b/	Transfer factors: $P_{25,1}$ c/
Germany, Fed. Rep. of								
Region 1	2	4.5	1690	9.4	24	2.2	2.1	12
Region 2	4	8.2	3100	17	43	2.0	2.1	11
Region 3	16	31.9	12000	67	170	2.0	2.1	11
Hungary								
Region 1	4.8	13.0	7300	41	100	2.7	3.1	21
Region 2	1.5	8.9	5000	28	70	6.0	3.1	47
Ireland	3.4	8.4	3280	18	46	2.5	2.2	14
Italy								
Region 1	6	23.2	10700	60	150	3.9	2.6	25
Region 2	4	16.9	7770	43	110	4.2	2.6	27
Luxembourg	2.7	4.6	2210	12	31	1.7	2.7	11
Netherlands	1.8	2.4	1170	6.6	16	1.4	2.7	9.1
Poland	5.2	14.6	8160	46	110	2.8	3.1	22
Romania								
Region 1	4.5	(10.3)	(7250)	(41)	(100)	(2.3)	4.0	(23)
Region 2	18	(41.0)	(29000)	(160)	(410)	(2.3)	4.0	(23)
Region 3	9	20.5	14500	81	200	2.3	4.0	23
Switzerland								
Region 1	14.8	59.1	37900	210	530	4.0	3.6	36
Region 2	3.5	10.0	6430	36	90	2.9	3.6	26
Region 3	2.0	6.1	3890	22	54	3.0	3.6	27
Region 4	1.3	3.7	2390	13	33	2.9	3.6	26
United Kingdom								
Region 1	0.1	0.69	300	1.7	4.3	6.9	2.5	43
Region 2	1.7	7.9	3500	20	49	4.7	2.5	29
Region 3	3.0	14.2	6300	35	88	4.7	2.5	29
USSR								
Region 1	38.8	73.7	50400	280	700	1.9	3.8	18
Region 2	14.5	21.2	14500	81	200	1.5	3.8	14
Region 3	10.0	18.3	12500	70	170	1.8	3.8	18
Region 4	2.8	4.2	2890	16	40	1.5	3.8	15
Region 5	0.094	(0.15)	(100)	(0.6)	(1.4)	(1.6)	3.8	(15)
Yugoslavia								
Region 1	23	23.5	12400	70	170	1.0	3.0	7.6
Region 2	10	9.8	5200	29	73	1.0	3.0	7.3
Region 3	4	3.4	1780	10	25	0.8	3.0	6.2
SOUTH								
China	0.15	(0.42)	(200)	(1.1)	(2.8)	(2.8)	2.6	(18)
Cyprus	0.6	(1.6)	(1050)	(5.9)	(15)	(2.7)	3.7	(25)
Greece								
Region 1	8	55.0	28600	160	400	6.9	2.9	50
Region 2	2.4	17.3	8990	50	130	7.2	2.9	52
India	0.035	(0.25)	(86)	(0.5)	(1.2)	(7.1)	1.9	(34)
Israel	0.4	(3.6)	(2300)	(13)	(32)	(9.0)	3.6	(80)
Japan	0.18	0.20	120	0.6	1.6	1.1	3.2	9.0
Portugal	0.02	0.15	65	0.4	0.9	7.5	2.4	45
Spain								
Region 1	0.07	0.70	360	2.0	5.0	10	2.9	71
Region 2	0.02	(0.15)	(77)	(0.4)	(1.1)	(7.5)	2.9	(54)
Syrian Arab Rep.	0.13	(0.22)	(140)	(0.8)	(2.0)	(1.7)	3.6	(15)
Turkey	4	7.9	4880	27	68	2.0	3.4	17
United States	0.026	(0.05)	(36)	(0.2)	(0.5)	(2.0)	3.9	(20)

a/ Deposition to first-year total diet; units: Bq a/kg per kBq/m².
b/ Diet to body; units: Bq a/kg per Bq a/kg.
c/ Deposition to first-year committed effective dose equivalent; units: μSv per kBq/m².

Table 21

Transfer factor from deposition to effective dose equivalent from ingestion of caesium-137 after the first year

Region a/	Food consumption (kg/a)						Transfer factors			
	Milk prod.	Grain prod.	Leafy veg.	Veg./ fruit	Meat	Total	$P_{23,2+}$ b/ Grain	$P_{23,2+}$ b/ Total diet	P_{34} c/	$P_{25,2+}$ d/
North Europe	220	75	25	140	65	525	0.9	2.6	2.9	19
Central Europe	140	120	30	150	70	510	1.9	2.8	2.8	20
West Europe	150	75	60	120	70	475	2.0	2.8	2.6	19
Southeast Europe	105	125	45	150	60	485	2.3	3.0	2.7	20
Southwest Europe	90	95	120	125	60	490	10	4.3	2.8	30
USSR	330	130	35	120	65	680	0.6	2.3	3.8	22
West Asia	115	190	95	180	40	620	1.3	2.3	3.5	20
East Asia	20	210	30	140	25	425	6.0	4.4	2.4	26
North America	175	90	25	265	145	700	4.8	3.9	3.9	38

a/ North Europe: Denmark, Finland, Norway, Sweden.
Central Europe: Austria, Czechoslovakia, German Democratic Republic, Federal Republic of Germany, Hungary, Poland, Romania, Switzerland.
West Europe: Belgium, France, Ireland, Luxembourg, Netherlands, United Kingdom.
Southeast Europe: Bulgaria, Greece, Italy, Yugoslavia.
Southwest Europe: Portugal, Spain.
West Asia: Cyprus, Israel, Syrian Arab Rep., Turkey.
East Asia: China, India, Japan.
North America: Canada, United States.

b/ Deposition to total diet after first year; units: Bq a/kg per kBq/m^2.

c/ Diet to body; units: Bq a/kg per Bq a/kg.

d/ Deposition to effective dose equivalent commitment after first year; units: µSv per kBq/m^2.

Table 22

Regional transfer factors applicable after first year and components of the effective dose equivalent commitment

Region a/	Population-weighted caesium-137 deposition density (kBq/m^2)	Transfer factor related to caesium-137 deposition				Effective dose equivalent commitment (µSv)		
		$P_{25,2+}$ External gamma	$P_{25,2+}$ ingestion Cs-137	$P_{25,2+}$ ingestion Cs-134	$P_{25,2+}$ Total	First year	After first year	Total
North Europe	7.0	76	20	12	110	210	760	970
Central Europe	6.1	76	20	12	110	270	670	940
West Europe	1.0	76	20	12	110	48	110	160
Southeast Europe	7.4	76	20	12	110	390	810	1200
Southwest Europe	0.03	76	30	18	120	3.7	3.4	7
USSR	5.1	76	20	12	110	260	560	820
West Asia	3.2	76	20	12	110	160	350	510
East Asia	0.1	76	30	18	120	5.6	13	19
North America	0.03	76	30	18	120	1.5	3.2	5

a/ North Europe: Denmark, Finland, Norway, Sweden.
Central Europe: Austria, Czechoslovakia, German Democratic Republic, Federal Republic of Germany, Hungary, Poland, Romania, Switzerland.
West Europe: Belgium, France, Ireland, Luxembourg, Netherlands, United Kingdom.
Southeast Europe: Bulgaria, Greece, Italy, Yugoslavia.
Southwest Europe: Portugal, Spain.
West Asia: Cyprus, Israel, Syrian Arab Rep., Turkey.
East Asia: China, India, Japan.
North America: Canada, United States.

Table 23

Total transfer factor for effective dose equivalent based on caesium-137 deposition
(μSv per kBq/m^2)

Pathway/ radionuclide	North			Temperate			South		
	First year	After first year	Total	First year	After first year	Total	First year	After first year	Total
External gamma									
Cs-137	2.2	71	73	2.2	71	73	2.2	71	73
Cs-134	2.5	4.9	7	2.5	4.9	7	2.5	4.9	7
Other	5.6	0.2	6	5.6	0.2	6	5.6	0.2	6
Subtotal	10	76	86	10	76	86	10	76	86
Ingestion									
Cs-137	15	20	35	20	20	40	25	25	50
Cs-134	11	12	23	14	12	26	18	15	33
I-131	1	-	1	10	-	10	20	-	20
Subtotal	27	32	59	44	32	76	63	40	103
Total (rounded)	40	110	150	50	110	160	70	120	190

Table 24

Total caesium-137 deposit and dose commitments in the northern hemisphere

Region		Area	Population	Distance from Chernobyl	Caesium-137 deposition (kBq/m^2) weighted by		Cs-137 deposit	Effective dose equivalent commitment			
								Per caput (μSv)		Collective (man Sv)	
		(10^3 km^2)	(10^6)	(km)	Area	Population	(PBq)	First year	Total	First year	Total
EUROPE											
North	a/	1249	22.8	1300	8.2	7.0	10.2	210	970	4700	22000
Central	b/	1253	178.0	1200	7.0	6.0	8.8	280	930	49000	166000
West	c/	936	137.7	2000	1.3	1.0	1.2	48	150	6600	21000
Southeast	d/	829	101.6	1500	8.2	7.2	6.8	380	1200	39000	121000
Southwest	e/	596	47.2	2900	0.03	0.03	0.02	4	7	180	340
USSR		22190	279.1	-	1.4	5.0	30.9	260	810	72000	226000
ASIA											
Southwest	f/	4611	114.9	2200	1.0	1.0	4.6	70	190	8000	22000
South	g/	6786	1082	5400	0.08	0.08	0.5	6	15	6100	16000
Southeast	h	2575	240.6	7800	0.03	0.03	0.08	2	6	510	1400
East	i/	11720	1268	6600	0.04	0.04	0.5	3	8	3600	9600
AMERICA											
North	j/	20560	347.0	9000	0.02	0.02	0.4	1	4	490	1300
Caribbean	k/	216	30.1	9200	0.018	0.018	0.004	1	3	40	100
Central	l/	517	26.9	10700	0.012	0.012	0.006	0.7	2	20	60
South	m/	2520	49.7	10100	0.013	0.013	0.03	1	2	50	120
AFRICA											
North	n/	8438	128.4	3000	0.4	0.4	3.4	28	76	3600	9800
West	o/	6118	172.3	5600	0.08	0.08	0.5	6	15	970	2600
Central	p/	2415	18.3	5300	0.08	0.08	0.2	5	15	100	280
East	q/	2117	59.5	5100	0.09	0.09	0.2	6	17	380	1000
Greenland		2176	0.06	4000	0.18	0.18	0.4	7	30	0.4	2
North Atlantic Ocean		53000	-	5700	0.07	-	3.7				
North Pacific Ocean		102000	-	10900	0.01	-	1.0				
Northern hemisphere Total (rounded)		252800	4304	5700	0.3	0.9	70	45	140	200000	600000

a/ Denmark, Finland, Iceland, Norway, Sweden.
b/ Austria, Czechoslovakia, German Dem.Rep., Germany, Fed.Rep., Hungary, Poland, Romania, Switzerland.
c/ Belgium, France, Ireland, Luxembourg, Netherlands, United Kingdom.
d/ Albania, Bulgaria, Greece, Italy, Malta, Yugoslavia.
e/ Portugal, Spain.
f/ Bahrain, Cyprus, Dem. Yemen, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, Qatar, Saudi Arabia, Syrian Arab Rep., Turkey, United Arab Emirates, Yemen.
g/ Afghanistan, Bangladesh, Bhutan, India, Iran, Nepal, Pakistan, Sri Lanka.
h/ Burma, Dem. Kampuchea, Laos Dem. Rep., Malaysia, Philippines, Singapore, Thailand, Viet Nam.
i/ China, Dem. Korea, Hong Kong, Japan, Korea, Rep., Mongolia.
j/ Canada, United States, Mexico.
k/ Cuba, Dominican Rep., Haiti, Jamaica, Puerto Rico, Trinidad/Tobago.
l/ Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, Panama.
m/ Colombia, Guyana, Suriname, Venezuela, French Guiana.
n/ Algeria, Egypt, Libya, Morocco, Sudan, Tunisia.
o/ Benin, Burkina Faso, Cape Verde, Cote d'Ivoire, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, Togo.
p/ Cameroon, Central Afr.Rep., Chad, Equatorial Guinea.
q/ Ethiopia, Somalia, Uganda, Djibouti.

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