

Table 2. Summary of Estimated Radiation Dose Equivalents for

born

Location	Date	Test(s) with Potential of Causing Radiation Exposures at Location			Postulated Thyroid Dose Equivalent from Inhalation <sup>a</sup> (mrad)	Postulated Thyroid Dose Equivalent from Milk Ingestion (rad)	Milk Shed Potentially Affected by Fallout
		Test Name	Operation or Series	Date			
Las Vegas, NV	7/53-3/56		NONE		--	--	--
	1/57-8/61	Boltzman	Plumbbob	5/28/57	<1	--	--
		Franklin	Plumbbob	6/2/57	13	--	--
		Lassen	Plumbbob	6/5/57	2.0	--	--
		Wilson	Plumbbob	6/18/57	2.2	--	--
		Priscilla	Plumbbob	6/24/57	<1	--	--
		Hood	Plumbbob	7/5/57	<1	--	--
		Diablo	Plumbbob	7/15/57	<1	--	--
		John	Plumbbob	7/19/57	1.1	--	--
		Kepler	Plumbbob	7/24/57	<1	--	--
		Owens	Plumbbob	7/25/57	<1	--	--
		Stokes	Plumbbob	8/7/57	<1	--	--
		Shasta	Plumbbob	8/18/57	<1	--	--
		Doppler	Plumbbob	8/23/57	<1	--	--
		Franklin Prime	Plumbbob	8/30/57	<1	--	--
		Smoky	Plumbbob	8/31/57	6	--	--

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born

(Continued)

Location	Date	Test(s) with Potential of Causing Radiation Exposures at Location		Date	Postulated Thyroid Dose Equivalent from Inhalation (mrad) <sup>a</sup>	Postulated Thyroid Dose Equivalent from Milk Ingestion (rad)	Milk Shed Potentially Affected by Fallout
		Test Name	Operation or Series				
		Galileo	Plumbbob	9/2/57	15	--	--
		Wheeler	Plumbbob	9/6/57	<1	--	--
		LaPlace	Plumbbob	9/8/57	2.9	--	--
		Fizeau	Plumbbob	9/14/57	<1	--	--
		Newton	Plumbbob	9/16/57	<1	--	--
		Whitney	Plumbbob	9/23/57	1.3	--	--
		Charleston	Plumbbob	9/28/57	3.8	--	--
		Morgan	Plumbbob	10/7/57	<1	--	--
		(19 Tests)	Hardtack II	10/18-10/30/58	27	--	--
		Sanford	Hardtack II	10/26/58	--	0.85-3.4 <sup>b</sup>	--
Caliente, NV	8/61-8/69	(2 Tests)	Dominic II	7/11-7/14/62	--	0.21 <sup>c</sup>	Caliente, NV
		Bandicoot	Storax	10/19/62	<1	--	--
		Pin Stripe	Flintlock	4/25/66	<1	0.003 <sup>d</sup>	Caliente, NV
Las Vegas, NV	8/69-1/71		NONE		--	--	--

Table 2. Summary of Estimated Radiation Dose Equivalents for [redacted] born [redacted] (continued)

Location	Date	Test(s) with Potential of Causing Radiation Exposures at Location		Operation or Series	Date	Postulated Thyroid Dose Equivalent from Inhalation <sup>a</sup>	Postulated Thyroid Dose Equivalent from Milk Ingestion	Milk Shed Potentially Affected by Fallout
		Test Name				(mrad) <sup>a</sup>	(rad)	
	11/71-Present			NONE		--	--	--
Maximum Credible Dose Equivalent						<90	1.1-3.6	

<sup>a</sup>All dose equivalents calculated through August 1969 are based upon: (1) Gross beta radioactivity concentrations in air extrapolated to midpoint of collection or to peak of cloud passage; (2) maximum ratios of radioiodine to gross beta radioactivity derived from data in UCRL-50243, Fission Product Decay Chains, Vol. II, 3/31/67; (3) thyroid dose conversion factors in NERC-LV hand-out entitled, "Thyroid Dose Calculations," by D. E. Bernhardt, 4/4/71 (unpublished).

<sup>b</sup>Dose equivalent based upon open field gamma radiation levels, application of Knapp's correlation (TID-19266, Iodine in Fresh Milk and Human Thyroids Following a Single Deposition of Nuclear Fallout, USAEC, Washington, D.C., June 1, 1963) of peak <sup>131</sup>I concentrations in milk with open field gamma radiation readings at H+24 hours, and dose conversion factor of 1.6 mrad (for an adult) per 100 pCi/l peak <sup>131</sup>I concentration in milk based upon FRC Report No. 5.

<sup>c</sup>Dose equivalent based upon: (1) time-integrated concentrations of <sup>131</sup>I summed from data reports in TID-18892, Off-Site Environmental Contamination from Nuclear Explosives at the Nevada Test Site, September 15, 1961-September 15, 1962, USAEC, Division of Technical Information, Washington, D.C., (2) dose conversion factor derived by D. E. Bernhardt for infant thyroid exposure and (3) correction factor of 2/9 for difference in thyroid weight for a two- and nine-year old child.

<sup>d</sup>D. E. Bernhardt, R. B. Evans, F. N. Buck, M. W. Carter, Hypothetical Thyroid Dose from NTS and NRDS Activities, 1963-1970, WERLV-539-5, Western Environmental Research Laboratory, Las Vegas, Nevada (unpublished) and correction factor of 2/13 to compensate in differences in thyroid weight for infant and 13-year old child.

Table 3  
 Infant Thyroid Dose Equivalents Resulting  
 From Nuclear Tests Conducted at Nevada Test Site -  
 Estimates Performed by Others

Estimator	Location of Exposure	Test and Series Name	Test Date	Estimated Infant Thyroid Dose Equivalent (rad)
Pendleton <sup>1</sup>	St. George, Utah	Harry, Upshot-Knothole	5/19/53	84
Tamplin <sup>2</sup>	St. George, Utah	Annie, Upshot-Knothole	3/17/53	120
		Simon, Upshot-Knothole	4/25/53	
		Harry, Upshot-Knothole	5/19/53	
		Tesla, Teapot	3/1/55	
		Zucchini, Teapot	5/15/55	

<sup>1</sup>Pendleton, R. C., Mays, C. W., Lloyd, R. D., and Brooks, A. L., "Differential Accumulation of <sup>131</sup>I from Local Fallout in People and Milk," Health Physics, Vol. 9, No. 12, December 1963. p. 1258.

<sup>2</sup>Tamplin, A. R., "Estimation of Dosage of Thyroids of Children in the U. S. from Nuclear Tests Conducted in Nevada During 1952 Through 1955," UCRL-70787. Lawrence Radiation Laboratory, University of California, Livermore, November 14, 1967. p. 13.