

CORDELL

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Principal facts for detailed gravity profiles near  
Albuquerque, NM

By: Cordell, Lindrith

UNITED STATES DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

Principal facts for detailed gravity profiles near  
Albuquerque, New Mexico

by

Lindrith Cordell

Open-file Report 78-818

1978

CORDILL 78-818

U.S. GEOLOGICAL SURVEY  
ALBUQUERQUE, NEW MEXICO  
87125

Gravity was measured using a Worden Master<sup>1/</sup> meter that has a reading repeatability of about 0.02 mgals. Elevation and position were established by means of a surveying laser and theodolite referenced to available bench marks. Elevation accuracy was about  $\pm 0.5$  m. Observed gravity was referenced indirectly to the IGSN-71 datum (1971 base value of the International Gravity Standardization Net) in that each profile was tied to a reconnaissance gravity survey station referenced to the IGSN-71 datum (Cordell, 1976). Gravity data were reduced to the complete Bouguer anomaly using standard formulas and correction for earth tide and instrument drift. Principal facts are included in the accompanying table.

#### Reference cited

Cordell, Lindrith, 1976, Aeromagnetic and gravity studies of the Rio Grande graben in New Mexico between Belen and Pilar: New Mexico Geol. Soc. Spec. Pub. No. 6, Tectonics and Mineral Resources of Southwestern North America, p. 62-70.

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<sup>1/</sup> Brand and manufacturer's names are for descriptive purposes only and do not imply endorsement by the U.S. Geological Survey.

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## BOUGUER GRAVITY DATA

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Detailed gravity profile data from Rio Grande rift in central  
New Mexico Lindrith Coruell and Chrys Dötmering Reel  
Peter Liu: 75 Date: 06/29/78

STATION		L O C A T I O N S			G R A V I T Y		C O R R E C T I O N S			A N O M A L I E S		
IDENTIFICATION		LATITUDE	LONGITUDE	ELE ST	OBSERVED	THEORETICAL	TERRAIN	BOUGUER	CURV	SPECIAL	FREE	COMPLETE-BOUGUER
proj	sta-id	deg min	deg min	(in ft)							AIR	d1=2.67 d2=2.40 F1
July 1:	1	35 12.16	106 30.12	6112.9 nm	979207.04	979750.12	3.34	-208.49	-1.50	0.00	31.70	-174.95 -154.06
July 1:	2	35 12.18	106 30.01	6166.3 nm	979203.45	979750.15	3.52	-210.31	-1.50	0.00	33.11	-175.19 -154.13
July 1:	3	35 12.18	106 29.85	6220.0 nm	979199.97	979750.15	3.76	-212.15	-1.51	0.00	34.67	-175.22 -154.06
July 1:	4	35 12.04	106 30.29	6045.6 nm	979208.95	979749.95	3.10	-206.20	-1.50	0.00	27.46	-177.14 -150.45
July 1:	5	35 12.06	106 30.38	6034.5 nm	979208.81	979749.98	2.93	-205.82	-1.50	0.00	26.25	-176.14 -157.47
July 1:	6	35 12.09	106 30.51	6002.1 nm	979249.65	979750.02	2.76	-204.71	-1.50	0.00	23.99	-179.46 -158.68
July 1:	7	35 12.09	106 30.63	5971.3 nm	979210.12	979750.02	2.58	-203.66	-1.49	0.00	21.57	-181.01 -160.52
July 1:	8	35 12.07	106 30.76	5935.9 nm	979210.65	979749.99	2.43	-202.46	-1.49	0.00	18.80	-182.72 -162.34
July 1:	9	35 12.04	106 30.91	5884.6 nm	979211.50	979749.95	2.28	-200.68	-1.49	0.00	15.34	-184.74 -164.51
July 1:	10	35 12.02	106 31.07	5845.6 nm	979212.47	979749.92	2.10	-199.38	-1.49	0.00	12.21	-186.56 -166.45
July 1:	11	35 12.02	106 31.21	5803.3 nm	979213.72	979749.92	1.97	-197.93	-1.48	0.00	9.48	-187.97 -168.00
July 1:	12	35 12.03	106 31.35	5773.6 nm	979214.37	979749.94	1.87	-196.92	-1.48	0.00	7.32	-189.21 -169.34
July 1:	13	35 12.06	106 31.48	5744.4 nm	979214.91	979749.98	1.78	-195.92	-1.48	0.00	5.08	-190.54 -170.76
July 1:	14	35 12.07	106 31.61	5713.3 nm	979215.68	979749.99	1.67	-194.86	-1.48	0.00	2.91	-191.76 -172.08
July 1:	15	35 12.09	106 31.74	5686.8 nm	979216.03	979750.02	1.58	-193.96	-1.48	0.00	0.74	-193.11 -173.51
July 1:	16	35 12.12	106 31.87	5660.1 nm	979216.41	979750.06	1.52	-193.05	-1.47	0.00	-1.43	-194.43 -174.91
July 1:	17	35 12.12	106 31.97	5642.8 nm	979216.18	979750.06	1.46	-192.46	-1.47	0.00	-3.29	-195.76 -176.30
July 1:	18	35 12.10	106 32.10	5617.4 nm	979215.98	979750.04	1.39	-191.59	-1.47	0.00	-5.84	-197.52 -178.13
July 1:	19	35 12.09	106 32.21	5592.2 nm	979216.02	979750.02	1.32	-190.73	-1.47	0.00	-8.16	-199.04 -179.74
July 1:	20	35 12.09	106 32.33	5570.3 nm	979215.70	979750.02	1.25	-189.99	-1.47	0.00	-10.54	-200.74 -181.51
July 1:	21	35 12.08	106 32.44	5551.0 nm	979215.36	979750.01	1.20	-189.33	-1.47	0.00	-12.68	-202.27 -183.10
July 1:	22	35 12.08	106 32.57	5525.0 nm	979215.34	979750.01	1.15	-188.44	-1.46	0.00	-15.14	-203.89 -184.81
July 1:	23	35 12.08	106 32.68	5500.8 nm	979215.17	979750.01	1.10	-187.89	-1.46	0.00	-16.83	-205.09 -186.05
July 1:	25	35 12.09	106 32.92	5465.3 nm	979215.77	979750.02	1.00	-186.41	-1.46	0.00	-20.34	-207.20 -188.30
July 1:	26	35 12.12	106 33.10	5434.0 nm	979216.20	979750.06	0.94	-185.34	-1.46	0.00	-22.89	-208.74 -189.95
July 1:	27	35 12.15	106 33.30	5394.4 nm	979216.81	979750.11	0.86	-184.16	-1.45	0.00	-25.57	-210.33 -191.64
July 1:	28	35 12.15	106 33.53	5356.2 nm	979217.62	979750.11	0.82	-182.69	-1.45	0.00	-28.83	-212.14 -193.01
July 1:	29	35 12.15	106 33.76	5321.7 nm	979218.90	979750.11	0.75	-181.51	-1.45	0.00	-30.79	-213.00 -194.57
July 1:	30	35 12.16	106 33.99	5286.1 nm	979219.67	979750.12	0.71	-180.29	-1.44	0.00	-33.38	-214.41 -196.10
July 1:	31	35 12.21	106 34.27	5244.9 nm	979220.48	979750.20	0.64	-179.06	-1.44	0.00	-36.04	-215.90 -197.71
July 1:	32	35 12.24	106 34.47	5211.7 nm	979222.11	979750.23	0.61	-177.76	-1.43	0.00	-38.05	-216.63 -198.57
July 1:	33	35 12.25	106 34.70	5174.2 nm	979223.33	979750.25	0.54	-176.65	-1.43	0.00	-39.90	-217.44 -199.46
July 1:	34	34 43.07	106 37.34	5075.5 nm	979179.80	979710.09	0.05	-173.11	-1.42	0.00	-53.02	-227.50 -207.86
July 1:	35	34 43.85	106 37.22	5076.1 nm	979179.77	979710.07	0.06	-173.13	-1.42	0.00	-52.96	-227.45 -207.61
July 1:	36	35 12.08	106 32.80	5403.8 nm	979215.19	979750.01	1.04	-187.21	-1.46	0.00	-18.70	-206.32 -187.35
July 1:	36	34 43.84	106 37.12	5078.6 nm	979179.77	979710.05	0.07	-173.22	-1.42	0.00	-52.71	-227.28 -209.62
July 1:	37	34 43.83	106 37.00	5083.3 nm	979179.81	979710.04	0.08	-173.38	-1.42	0.00	-52.22	-226.93 -209.27
July 1:	38	34 43.82	106 36.88	5087.6 nm	979179.74	979710.02	0.09	-173.52	-1.42	0.00	-51.87	-226.72 -209.04
July 1:	39	34 43.81	106 36.76	5095.1 nm	979179.73	979710.02	0.10	-173.78	-1.42	0.00	-51.16	-226.26 -208.55
July 1:	40	34 43.80	106 36.65	5097.8 nm	979179.79	979710.00	0.11	-173.87	-1.42	0.00	-50.83	-226.02 -208.30

## BOUGUER GRAVITY DATA

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Detailed gravity profile data from Rio Grande rift in central  
New Mexico Lindrith Coruell and Chrys Detmering Beal  
Meter ID: 75 Date: 06/29/78

STATION		L O C A T I O N S				G R A V I T Y		C O R R E C T I O N S				A N O M A L I E S			
IDENTIFICATION	proj	sta-id	LATITUDE	LONGITUDE	ELEVATION	OBSERVED	THEORETICAL	TERRAIN	BOUGUER	CURV	SPECIAL	FREE AIR	COMPLETE-BOUGUER	d1=2.67	d2=2.40
			deg min	deg min	(in ft)										FI
July 1:		41	34 43.79	106 36.54	5102.5 nm	979179.07	979709.98	0.12	-174.03	-1.42	0.00	-50.30	-225.64	-207.91	
July 1:		42	34 43.77	106 36.42	5107.4 nm	979179.97	979709.95	0.13	-174.20	-1.42	0.00	-49.71	-225.20	-207.46	
July 1:		43	34 43.76	106 36.31	5112.7 nm	979179.96	979709.95	0.14	-174.38	-1.42	0.00	-49.21	-224.87	-207.11	
July 1:		44	34 43.75	106 36.19	5118.5 nm	979180.07	979709.93	0.15	-174.58	-1.42	0.00	-48.54	-224.34	-206.61	
July 1:		45	34 43.74	106 36.06	5123.4 nm	979180.31	979709.91	0.16	-174.74	-1.42	0.00	-47.82	-223.83	-206.03	
July 1:		46	34 43.73	106 35.95	5130.2 nm	979180.46	979709.90	0.17	-174.98	-1.43	0.00	-47.02	-223.25	-205.43	
July 1:		47	34 43.72	106 35.84	5134.3 nm	979180.56	979709.88	0.19	-175.12	-1.43	0.00	-46.52	-222.87	-205.04	
July 1:		48	34 43.70	106 35.71	5142.7 nm	979180.73	979709.86	0.19	-175.40	-1.43	0.00	-45.53	-222.17	-204.31	
July 1:		49	34 43.69	106 35.59	5148.4 nm	979180.96	979709.84	0.20	-175.60	-1.43	0.00	-44.75	-221.58	-203.70	
July 1:		50	34 43.68	106 35.48	5154.7 nm	979181.23	979709.83	0.22	-175.81	-1.43	0.00	-43.87	-220.89	-202.99	
July 1:		51	34 43.67	106 35.37	5161.6 nm	979181.54	979709.81	0.22	-176.05	-1.43	0.00	-42.90	-220.16	-202.23	
July 1:		52	34 43.66	106 35.25	5169.6 nm	979181.84	979709.80	0.23	-176.32	-1.43	0.00	-41.83	-219.35	-201.40	
July 1:		53	34 43.65	106 35.14	5174.1 nm	979182.42	979709.79	0.25	-176.47	-1.43	0.00	-40.82	-218.47	-200.51	
July 1:		54	34 43.64	106 35.02	5179.8 nm	979182.96	979709.77	0.26	-176.67	-1.43	0.00	-39.73	-217.57	-199.59	
July 1:		55	34 43.62	106 34.90	5186.5 nm	979183.39	979709.74	0.28	-176.96	-1.43	0.00	-38.46	-216.57	-198.56	
July 1:		56	34 43.61	106 34.78	5194.2 nm	979183.99	979709.73	0.29	-177.16	-1.43	0.00	-37.30	-215.60	-197.57	
July 1:		57	34 43.60	106 34.67	5201.4 nm	979184.56	979709.72	0.31	-177.41	-1.43	0.00	-36.04	-214.57	-196.51	
July 1:		58	34 43.59	106 34.55	5209.0 nm	979185.34	979709.70	0.33	-177.66	-1.43	0.00	-34.53	-213.30	-195.22	
July 1:		59	34 43.58	106 34.43	5215.6 nm	979186.07	979709.69	0.35	-177.89	-1.43	0.00	-33.17	-212.14	-194.05	
July 1:		60	34 43.57	106 34.32	5224.1 nm	979186.67	979709.67	0.36	-178.18	-1.44	0.00	-31.75	-211.01	-192.88	
July 1:		61	34 43.55	106 34.20	5232.4 nm	979187.37	979709.65	0.38	-178.46	-1.44	0.00	-30.25	-209.77	-191.62	
July 1:		62	34 43.54	106 34.09	5240.7 nm	979188.13	979709.63	0.40	-178.75	-1.44	0.00	-28.69	-208.47	-190.29	
July 1:		63	34 43.53	106 33.98	5248.6 nm	979188.97	979709.62	0.41	-179.01	-1.44	0.00	-27.10	-207.14	-188.94	
July 1:		64	34 43.52	106 33.86	5258.3 nm	979189.77	979709.60	0.45	-179.35	-1.44	0.00	-25.37	-205.70	-187.47	
July 1:		65	34 43.51	106 33.74	5270.3 nm	979190.34	979709.59	0.46	-179.76	-1.44	0.00	-23.66	-204.39	-186.11	
July 1:		66	34 43.50	106 33.62	5279.2 nm	979191.15	979709.58	0.49	-180.06	-1.44	0.00	-22.00	-203.01	-184.71	
July 1:		67	34 43.49	106 33.52	5289.0 nm	979191.64	979709.56	0.50	-180.39	-1.44	0.00	-20.57	-201.91	-183.57	
July 1:		68	34 43.47	106 33.40	5312.5 nm	979192.10	979709.53	0.52	-181.19	-1.44	0.00	-17.88	-199.99	-181.58	
July 1:		69	34 43.44	106 33.28	5326.7 nm	979192.59	979709.49	0.54	-181.68	-1.45	0.00	-16.01	-198.59	-180.13	
July 1:		70	34 43.40	106 33.15	5366.6 nm	979193.60	979710.14	0.04	-172.81	-1.42	0.00	-54.10	-226.28	-210.67	
July 1:		71	34 43.91	106 37.63	5061.4 nm	979179.62	979710.16	0.04	-172.63	-1.42	0.00	-54.59	-228.59	-211.00	
July 1:		72	34 43.92	106 37.75	5057.8 nm	979179.70	979710.16	0.03	-172.51	-1.42	0.00	-54.85	-226.74	-211.16	
July 1:		73	34 43.93	106 37.86	5053.6 nm	979174.80	979710.18	0.02	-172.36	-1.42	0.00	-55.16	-226.93	-211.35	
July 1:		74	34 43.94	106 37.98	5050.0 nm	979179.92	979710.20	0.02	-172.24	-1.42	0.00	-55.39	-224.03	-211.47	
July 1:		75	34 43.95	106 38.10	5047.1 nm	979180.01	979710.21	0.02	-172.14	-1.42	0.00	-55.59	-229.13	-211.56	
July 1:		76	34 43.97	106 38.33	5041.3 nm	979180.24	979710.24	0.01	-171.94	-1.42	0.00	-55.93	-229.28	-211.75	
July 1:		77	34 43.42	106 33.18	5323.4 nm	979192.84	979709.46	0.58	-181.57	-1.45	0.00	-16.04	-198.47	-180.02	
July 1:		78	34 43.40	106 33.08	5330.7 nm	979193.30	979709.44	0.61	-181.82	-1.45	0.00	-14.87	-197.52	-179.05	
July 1:		79	34 43.38	106 32.96	5338.8 nm	979194.41	979709.41	0.65	-182.09	-1.45	0.00	-12.96	-195.65	-177.36	
July 1:		80	34 43.37	106 32.74	5396.5 nm	979192.88	979709.39	0.65	-184.06	-1.45	0.00	-9.06	-193.92	-175.23	

## BOUGUER GRAVITY DATA

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Detailed gravity profile data from Rio Grande rift in central  
New Mexico  
Meter ID: 75

Lindrith Cordell and Chrys Detmering Beal

Date: 06/29/78

STATION		L U C A T I O N S			G R A V I T Y		C O R R E C T I O N S				A N O M A L I E S		
IDENTIFICATION		LATITUDE	LONGITUDE	ELE	ST	OBSERVED	THEORETICAL	TERRAIN	BOUGUER	CURV	SPECIAL	FREE	COMPLETE-BOUGUER
proj	sta-id	deg min	deg min	(in ft)								AIK	d1=2.67 d2=2.40 FI
July 1:	81	34 43.34	106 32.59	5402.0	nm	979193.21	979709.35	0.73	-184.25	-1.45	0.00	-8.17	-193.14 -174.43
July 1:	82	34 43.33	106 32.48	5416.8	nm	979192.71	979709.34	0.78	-184.75	-1.45	0.00	-7.26	-192.69 -173.94
July 1:	83	34 43.32	106 32.34	5426.5	nm	979192.50	979709.32	0.84	-185.08	-1.46	0.00	-6.55	-192.21 -173.43
July 1:	84	34 43.34	106 32.18	5504.1	nm	979187.86	979709.35	0.72	-187.73	-1.46	0.00	-3.92	-192.40 -173.34
July 1:	85	34 43.37	106 32.05	5533.2	nm	979186.32	979709.39	0.73	-188.72	-1.46	0.00	-2.77	-192.23 -173.07
July 1:	86	34 43.34	106 31.84	5550.9	nm	979185.57	979709.35	0.77	-189.32	-1.47	0.00	-1.82	-191.84 -172.62
July 1:	87	34 43.34	106 31.68	5562.5	nm	979184.96	979709.35	0.79	-189.72	-1.47	0.00	-1.33	-191.73 -172.48
July 1:	88	34 43.29	106 31.51	5643.5	nm	979183.06	979709.28	0.87	-192.48	-1.47	0.00	4.45	-186.63 -169.11
July 1:	89	34 43.19	106 31.32	5609.0	nm	979181.75	979709.14	0.87	-191.31	-1.47	0.00	0.04	-191.87 -172.46
July 1:	90	34 43.02	106 31.20	5635.6	nm	979160.53	979709.90	0.94	-192.21	-1.47	0.00	1.56	-191.19 -171.70
July 1:	96	34 41.72	106 37.74	5063.7	nm	979175.79	979707.06	0.05	-172.71	-1.42	0.00	-55.11	-229.18 -211.58
July 1:	96	34 41.72	106 37.79	5063.7	nm	979175.75	979707.06	0.05	-172.71	-1.42	0.00	-55.15	-229.22 -211.62
July 1:	97	34 41.72	106 37.54	5072.3	nm	979175.62	979707.06	0.08	-173.00	-1.42	0.00	-54.47	-228.81 -211.18
July 1:	98	34 41.72	106 37.31	5079.7	nm	979175.79	979707.06	0.09	-173.25	-1.42	0.00	-53.60	-228.19 -210.53
July 1:	99	34 41.72	106 37.07	5088.3	nm	979175.78	979707.06	0.11	-173.55	-1.42	0.00	-52.80	-227.66 -209.98
July 1:	p1	35 11.92	106 33.26	5413.5	nm	979118.72	979749.78	0.86	-184.64	-1.45	0.00	-122.02	-307.25 -266.52
July 1:	100	34 41.73	106 36.84	5107.8	nm	979174.79	979707.08	0.13	-174.21	-1.42	0.00	-51.97	-227.48 -209.73
July 1:	101	34 41.73	106 36.60	5114.6	nm	979174.66	979707.08	0.16	-174.44	-1.42	0.00	-51.46	-227.17 -209.40
July 1:	102	34 41.73	106 36.36	5123.7	nm	979174.58	979707.08	0.18	-174.75	-1.42	0.00	-50.69	-226.69 -208.69
July 1:	103	34 41.73	106 36.14	5131.0	nm	979174.85	979707.08	0.20	-175.00	-1.43	0.00	-49.73	-225.96 -208.14
July 1:	104	34 41.73	106 35.90	5143.9	nm	979174.99	979707.08	0.22	-175.44	-1.43	0.00	-48.38	-225.03 -207.17
July 1:	105	34 41.73	106 35.66	5152.9	nm	979175.54	979707.08	0.24	-175.75	-1.43	0.00	-46.99	-223.93 -206.03
July 1:	106	34 41.73	106 35.43	5165.2	nm	979176.13	979707.08	0.26	-176.17	-1.43	0.00	-45.24	-222.58 -204.64
July 1:	107	35 30.31	106 14.71	5458.7	nm	979237.49	979775.92	0.20	-186.18	-1.46	0.00	-25.14	-212.58 -193.62
July 1:	108	35 30.26	106 14.62	5453.6	nm	979238.54	979775.85	0.20	-186.01	-1.46	0.00	-24.50	-211.77 -192.83
July 1:	109	35 30.20	106 14.53	5443.2	nm	979239.73	979775.77	0.23	-185.65	-1.46	0.00	-24.20	-211.08 -192.18
July 1:	110	35 30.14	106 14.40	5440.3	nm	979241.04	979775.68	0.25	-185.55	-1.46	0.00	-23.09	-209.64 -190.96
July 1:	111	35 30.10	106 14.29	5419.1	nm	979243.58	979775.63	0.34	-184.83	-1.45	0.00	-22.48	-208.42 -189.62
July 1:	112	35 30.07	106 14.18	5431.4	nm	979244.79	979775.59	0.32	-185.25	-1.46	0.00	-20.07	-206.46 -187.61
July 1:	113	35 30.05	106 14.07	5429.2	nm	979245.62	979775.55	0.37	-185.17	-1.46	0.00	-19.42	-205.68 -186.64
July 1:	114	35 30.03	106 13.97	5434.2	nm	979246.12	979775.52	0.39	-185.34	-1.46	0.00	-18.42	-204.83 -185.98
July 1:	115	35 29.99	106 13.77	5507.4	nm	979246.56	979775.47	0.26	-187.84	-1.46	0.00	-11.04	-200.68 -160.97
July 1:	116	35 29.93	106 13.55	5523.1	nm	979249.12	979775.38	0.29	-188.38	-1.46	0.00	-6.92	-196.47 -177.31
July 1:	117	35 29.87	106 13.35	5533.8	nm	979250.08	979775.30	0.33	-186.74	-1.46	0.00	-4.87	-194.75 -175.55
July 1:	118	35 29.83	106 13.21	5544.2	nm	979250.04	979775.24	0.34	-189.10	-1.47	0.00	-3.87	-194.10 -174.86
July 1:	119	35 29.77	106 13.07	5553.8	nm	979250.31	979775.16	0.34	-189.42	-1.47	0.00	-2.62	-193.17 -173.90
July 1:	120	35 29.67	106 12.87	5567.7	nm	979250.22	979775.02	0.33	-189.90	-1.47	0.00	-1.26	-192.29 -172.98
July 1:	121	35 29.58	106 12.67	5582.4	nm	979249.68	979774.88	0.33	-190.40	-1.47	0.00	-0.29	-191.63 -172.46
July 1:	122	35 29.47	106 12.47	5598.2	nm	979249.67	979774.73	0.31	-190.94	-1.47	0.00	1.34	-190.76 -171.33
July 1:	123	35 29.40	106 12.27	5632.9	nm	979247.80	979774.63	0.28	-192.12	-1.47	0.00	2.83	-190.48 -170.94

## BOUGUER GRAVITY DATA

page

Detailed gravity profile data from Rio Grande rift in central  
New Mexico Lindrith Cordell and Chrys Detmering Real  
Meter ID: 75 Date: 06/29/78

STATION		L O C A T I O N S				G R A V I T Y		C O R R E C T I O N S				A N O M A L I E S					
IDENTIFICATION		LATITUDE		LONGITUDE		ELE ST		OBSERVED THEORETICAL		TERRAIN BOUGUER CURV		SPECIAL		FREE	COMPLETE-BOUGUER		S.
proj	sta-id	deg	min	deg	min	(in ft)								AIR	d1=2.67	d2=2.40	FI
July 1:	124	35	29.31	106	12.08	5668.3	nm	979245.98	979774.50	0.21	-193.33	-1.47	0.00	4.48	-190.12	-170.44	
July 1:	125	35	29.33	106	11.86	5666.1	nm	979246.99	979774.53	0.28	-193.25	-1.47	0.00	5.25	-189.20	-169.54	
July 1:	126	35	29.30	106	11.66	5693.1	nm	979246.03	979774.48	0.22	-194.18	-1.48	0.00	6.87	-188.56	-168.80	
July 1:	127	35	29.77	106	12.75	5810.0	nm	979225.82	979775.16	0.81	-198.16	-1.48	0.00	-3.03	-201.86	-181.76	
July 1:	128	35	21.12	106	53.09	6201.2	nm	979180.17	979762.84	0.23	-211.51	-1.51	0.00	0.41	-212.38	-190.86	
July 1:	129	35	21.23	106	52.79	6289.4	nm	979172.85	979763.00	0.38	-214.51	-1.51	0.00	1.22	-214.42	-192.62	
July 1:	130	35	21.26	106	52.55	6298.3	nm	979171.46	979763.05	0.32	-214.82	-1.51	0.00	0.62	-215.39	-193.54	
July 1:	131	35	21.26	106	52.33	6336.8	nm	979167.72	979763.05	0.32	-216.13	-1.51	0.00	0.50	-216.82	-194.85	
July 1:	132	35	21.28	106	52.07	6387.5	nm	979162.68	979763.08	0.38	-217.86	-1.51	0.00	0.19	-218.60	-196.65	
July 1:	133	35	21.27	106	51.86	6432.0	nm	979158.56	979763.06	0.43	-219.38	-1.51	0.00	0.27	-220.19	-197.69	
July 1:	134	35	21.21	106	51.66	6484.7	nm	979153.75	979762.98	0.61	-221.17	-1.51	0.00	0.50	-221.58	-199.12	
July 1:	135	35	21.14	106	51.52	6469.9	nm	979153.76	979762.88	0.51	-220.67	-1.51	0.00	-0.78	-222.46	-200.04	
July 1:	136	35	21.09	106	51.31	6447.6	nm	979154.06	979762.80	0.42	-219.91	-1.51	0.00	-2.51	-223.51	-201.16	
July 1:	137	35	21.03	106	51.09	6428.5	nm	979154.45	979762.72	0.35	-219.26	-1.51	0.00	-3.82	-224.24	-201.95	
July 1:	138	35	20.95	106	50.83	6395.6	nm	979155.43	979762.61	0.30	-218.14	-1.51	0.00	-5.83	-225.17	-202.99	
July 1:	139	35	20.94	106	50.51	6361.6	nm	979156.56	979762.59	0.24	-216.98	-1.51	0.00	-7.87	-226.12	-204.05	
July 1:	140	35	20.85	106	49.99	6331.0	nm	979156.63	979762.46	0.23	-215.93	-1.51	0.00	-10.55	-227.76	-205.80	
July 1:	141	35	20.86	106	49.73	6293.3	nm	979158.09	979762.48	0.18	-214.65	-1.51	0.00	-12.65	-228.62	-206.78	
July 1:	142	35	20.88	106	49.43	6268.8	nm	979159.02	979762.51	0.16	-213.81	-1.51	0.00	-14.05	-229.21	-207.45	
July 1:	143	35	20.90	106	49.15	6285.0	nm	979157.30	979762.53	0.19	-214.36	-1.51	0.00	-14.26	-229.96	-208.15	
July 1:	144	35	20.92	106	48.90	6259.8	nm	979158.74	979762.56	0.16	-213.50	-1.51	0.00	-15.23	-230.08	-208.36	
July 1:	145	35	20.95	106	48.53	6238.5	nm	979159.78	979762.61	0.15	-212.78	-1.51	0.00	-16.24	-230.37	-208.72	