

Absorption Data

Year: 1973

Month: July

Station (circuit): Alma-Ata

Geographic latitude: 43°15'N

Longitude: 76°55'E

Dip angle: 52°

Geomagnetic latitude: 38°69'N

Longitude: 46°04'E

Frequency: 1.7 MHz

Distance: —

Method: A 1

Date	L _{min} (dB) meas./calc.	L (cos χ = 1) a.m./p.m. mean (dB)	L (cos χ = 0.2) a.m./p.m. mean (dB)	exponent n a.m./p.m. mean	τ (min.)	Notes
1	C					
2	44/43	53/48 51	14/ 5 11	0.84/1.43 1.07		
3	B	-/48 46	-/ 9 6	-/1.04 1.07		
4	54/54	-/58 58	-/16 14	-/0.78 0.87		
5	C	-/44 44	-/26 26	-/0.42 0.42		
6	B	-/- 48	2/- 22	-/- 0.60		
7	34/36	-/47 43	-/13 13	-/0.78 0.78		
8	S/B					
9	42/47	45/50 47	9/14 11	1.00/0.75 0.90		
10	39/39	43/43 44	3/ 3 3	1.66/1.66 1.66		
11	B/42	-/- 44	-/- 22	-/- 0.42		
12	B	40/- 40	15/- 15	0.60/- 0.60		
13	45/43	47/- 47	10/- 11	0.93/- 0.93		
14	41/42	43/- 43	8/- 13	1.04/- 0.73		
15	42/39	43/- 43	11/- 11	0.97/- 0.97		
16	30/30					
17	S	-/- 39	-/- 13	-/- 0.70		
18	49/44	-/- 49	-/- 11	-/- 0.97		
19	B	-/- 50	-/- 9	-/- 1.07		
20	C					
21	C/37	-/- 43	-/- 15	-/- 0.67		
22	44/46	-/- 48	-/- 14	-/- 0.75		
23	C	-/- 44	-/- 7	-/- 1.19		
24	C					
25	C					
26	S/52	-/- 56	-/- 10	-/- 1.11		
27	B					
28	B	-/- 52	-/- 23	-/- 0.51		
29	B					
30	C					
31	C					
Count	19/21	7/7 12	7/7 12	7/7 19		
Mean	47/46	43/48 48	10/13 7	0.97/0.78 0.87		

Absorption Data

Year: 1973

Month: July

Station (circuit) : Alma-Ata

Geographic latitude: 43°15'N

Longitude: 76°55'E

Dip angle: 52°

Geomagnetic latitude: 38°69'N

Longitude: 46°04'E

Frequency: 2.2 MHz

Distance: —

Method: A 1

Date	L _{min} (dB) meas./calc.	L (cos χ = 1) a.m./p.m. mean (dB)	L (cos χ = 0.2) a.m./p.m. mean (dB)	exponent n a.m./p.m. mean	τ (min.)	Notes
	37/39	41/- 45	4/- 7	1.38/-	1.13	
	38/38	45/41 41	7/ 6 6	1.23/1.15	1.15	
	41/45	41/- 44	4/- 6	1.54/-	1.30	
	47/44	-/- 50	-/- 11	-/-	0.93	
	38/37	-/- 39	-/- 16	-/-	0.55	
	42/39	-/- 43	-/- 7	-/-	0.81	
	34/33	-/- 40	-/- 5	-/-	1.11	
	41/40	42/- 47	21/- 16	0.42/-	0.70	
	36/34	41/41 41	6/1 3	1.19/2.05	1.60	
	39/39	42/- 41	7/- 7	1.11/-	1.11	
	44/41	48/47 47	4/ 6 6	1.11/1.33	1.33	
	38/36	-/- 43	-/- 5	-/-	1.33	
	39/43	45/50 41	4/ 9 7	1.54/1.11	1.11	
	34/34	36/41 39	8/ 7 8	0.93/1.11	1.04	
	37/35	39/48 43	5/ 6 5	1.28/1.28	1.28	
	32/37	-/40 40	-/12 12	-/0.75	0.75	
	35/40	-/- 47	-/- 7	-/-	1.23	
	35/35	37/43 39	11/12 11	0.78/0.78	0.78	
	47/46	-/- 55	-/- 9	-/-	1.11	
	C					
	39/38	-/46 43	-/11 9	-/0.92	1.00	
	36/37	38/- 40	18/- 12	0.47/-	0.73	
	43/41	46/44 45	14/ 7 10	0.81/1.19	0.97	
	C					
	C					
	41/41	-/- 39	-/- 6	-/-	1.19	
	48/45	53/54 54	5/ 5 5	1.54/1.54	1.54	
	40/40	43/- 43	10/- 10	0.90/-	0.90	
	42/42	44/- 45	14/- 18	0.73/-	0.58	
	C					
	C	44/- 44	23/- 23	0.40/-	0.40	
Count	26/26	17/11 18	16/10 27	15/11	27	
Median	39/39	43/44 42	7/ 7 1	0.93/1.13	1.11	

Absorption Data

Year: 1973

Month: August

Station (circuit): Alma-Ata

Geographic latitude: 43° 15' N

Longitude: 76° 55' E

Dip angle: 62°

Geomagnetic latitude: 38° 69' N

Longitude: 46° 04' E

Frequency: 1.7 MHz

Distance:

Method: A 1

Date	L _{noon} (dB) meas./calc.	L(cos χ = 1) a. m. / p. m. mean (dB)	L(cos χ = 0.2) a. m. / p. m. mean (dB)	exponent n a. m. / p. m. mean	τ (min.)	Notes
1	C					
2	C					
3	B					
4	S	-/- 54	-/- 26	-/- 0.75		
5	C					
6	C					
7	35/39					
8	C	-/- 71	-/- 16	-/- 0.93		
9	C					
10	C					
11	C					
12	C					
13	C					
14	C					
15	C					
16	C					
17	C					
18	C					
19	C					
20	C					
21	C					
22	C					
23	C					
24	C					
25	C					
26	C					
27	C					
28	C					
29	C					
30	C					
31	C					
Count						
Median						

Absorption Data

Year: **1973**Month: **August**Station (circuit): **Alma-Ata**Geographic latitude: **43°15'N**Longitude: **76°55'E**Dip angle: **62°**Geomagnetic latitude: **38°69'N**Longitude: **45°04'E**Frequency: **2.2** MHzDistance: **—**Method: **A 1**

Date	L _{min} (dB) meas./calc.	L (cos χ = 1) a.m./p.m. mean (dB)	L (cos χ = 0.2) a.m./p.m. mean (dB)	exponent n a.m./p.m. mean	τ (min.)	Notes
1	C/48	52/- 52	17/- 17	0.70/- 0.70		
2	C					
3	54/61	57/- 57	10/- 10	0.97/- 0.97		
4	C	-/- 40	-/- 14	-/- 0.65		
5	C					
6	C					
7	38/37	51/- 51	11/- 11	0.78/- 0.78		
8	46/43	50/- 50	12/- 11	0.87/- 1.00		
9	35/40	-/- 48	-/- 22	-/- 0.49		
10	40/44	44/- 44	14/- 14	0.70/- 0.70		
11	S	-/- 50	-/- 14	-/- 0.75		
12	C					
13	C					
14	C					
15	C					
16	23/C					
17	C					
18	C					
19	C					
20	C					
21	C					
22	C					
23	C					
24	C					
25	C					
26	C					
27	C					
28	C					
29	C					
30	C					
31	C					
Count	6/6	5/- 8	5/- 8	5/- 70		
Standard	39/43	51/- 50	12/- 14	0.78/- 0.70		

Absorption Data

Year: 1973

Month: September

Station (circuit): Alma-Ata

Geographic latitude: 43°15'N

longitude: 76°55'E

Dip angle: 62°

Geomagnetic latitude: 38°59'N

longitude: 46°04'E

Frequency: 1.7 MHz

Distance: —

Method: A 1

Date	L _{noon} (dB) meas./calc.	L(cos χ = 1) a. m. / p. m. mean (dB)	L(cos χ = 0.2) a. m. / p. m. mean (dB)	exponent n a. m. / p. m. mean	τ (min.)	Notes
1	C					
2	C					
3	C					
4	C					
5	C					
6	C					
7	C					
8	B					
9	29/29	-/- 33	-/- 27	-/-	0.38	
10	C					
11	B					
12	C					
13	26/34	-/- 42	-/- 7	-/-	1.19	
14	B	33/- 33	25/- 25	0.18/-	0.18	
15	26/27	-/- 39	-/- 15	-/-	0.58	
16	B	-/- 46	-/- 11	-/-	0.87	
17	27/30	-/- 40	-/- 16	-/-	0.58	
18	B	53/- 53	11/- 11	1.00/-	1.00	
19	C	-/- 43	-/- 9	-/-	0.93	
20	B	-/- 56	-/- 9	-/-	1.15	
21	B					
22	S	-/- 47	-/- 9	-/-	1.04	
23	C/25	-/- 46	-/- 7	-/-	1.18	
24	26/23					
25	C					
26	S					
27	C					
28	C					
29	S					
30	B					
31						
Count	13/14	10	10	10		
Median	B/B	45	10	0.97		

Absorption Data

Year: **1973**

Month: **September**

Station (circuit) : Alma-Ata

Geographic latitude: 43°15'N

longitude: 76°55'E

Dip angle: 62°

Geomagnetic latitude: 38°69'N

longitude: 46°04'E

Frequency: **2.2** MHz

Distance: —

Method: A 1

Date	L _{ncor} (dB) meas./calc.	L (cos χ = 1) a. m./p. m. mean (dB)	L (cos χ = 0.2) a. m./p. m. mean (dB)	exponent n a. m./p. m. mean	τ (min.)	Notes
1	28/C					
2	31/28	-/38 38	-/13 13	-/0.65 0.65		
3	C					
4	C					
5	C					
6	C					
7	C					
8	36/36	-/- 48	-/- 9	-/- 1.04		
9	27/28					
10	C					
11	33/27	38/- 38	12/- 12	0.67/- 0.67		
12	C					
13	15/17	-/- 25	-/- 2	-/- 0.97		
14	26/24	35/- 35	9/- 9	0.87/- 0.87		
15	24/22	-/- 28	-/- 9	-/- 0.70		
16	28/24	-/- 40	-/- 2	-/- 1.70		
17	26/25	-/- 34	-/- 9	-/- 0.72		
18	26/23	-/- 29	-/- 16	-/- 0.38		
19	C					
20	23/22	34/34 34	4/ 8 6	1.38/0.9 1.07		
21	27/21	38/- 38	4/- 3	1.48/- 1.54		
22	25/22	39/- 39	4/- 4	1.43/- 1.43		
23	19/15	-/- 28	-/- 3	-/- 1.38		
24	12/ 9	-/- 20	-/- 2	-/- 1.60		
25	C					
26	21/21	-/- 44	-/- 5	-/- 0.33		
27	C					
28	C					
29	S					
30	41/41	-/- 51	-/- 6	-/- 1.28		
31						
Count	18/17	5/2 15	5/2 15	5/2 15		
Median	26/23	38/- 34	4/- 6	1.38/- 0.78		

Absorption Data

Year: 1973

Month: October

Station (circuit): Alma Ato

Geographic latitude: 43°15'N

Longitude: 107°55'E

Dip angle: 62°

Geomagnetic latitude: 38°69'N

Longitude: 46°04'E

Frequency: 1.7 MHz

Distance: —

Method: A 1

Date	L _{moon} (dB) meas / calc	L (cos ² χ - 1) a. m. / p. m. mean (dB)	L (cos ² χ = 0.2) a. m. / p. m. mean (dB)	exponent n a. m. / p. m. mean	γ (min)	Notes
1	31/31	44/- 44	6/- 6	1.23/- 1.23		
2	S					
3	S					
4	15/20					
5	C					
6	C					
7	C					
8	C/26	-/60 60	-/15 15	-/0.84 0.84		
9	45/42	56/56 56	22/22 22	0.58/0.58 0.58		
10	35/33	-/- 45	-/- 17	-/- 0.60		
11	32/36	48/- 48	25/- 25	0.38/- 0.38		
12	36/35	-/- 62	-/- 11	-/- 1.07		
13	S					
14	41/38	-/- 60	-/- 18	-/- 0.75		
15	40/40	73/58 62	8/18 15	1.33/0.73 0.90		
16	34/31	-/- 60	-/- 12	-/- 1.00		
17	39/40	49/- 49	24/- 19	0.47/- 0.58		
18	43/39	36/51 43	17/18 17	0.47/0.67 0.58		
19	38/37	-/- 45	-/- 17	-/- 0.62		
20	35/39	-/68 68	-/20 18	-/0.78 0.84		
21	38/37	45/- 45	28/- 28	0.36/- 0.36		
22	S/41	63/64 64	14/21 18	0.93/0.70 0.78		
23	C					
24	48/46	64/64 65	25/22 24	0.60/0.67 0.62		
25	37/39	70/- 70	21/- 19	0.60/- 0.81		
26	C/41	-/- 72	-/- 17	-/- 0.93		
27	C					
28	C					
29	39/39	-/- 54	-/- 23	-/- 0.53		
30	B					
31	B					
Count	19/22	10/7 16	9/7 16	10/7 19		
Median	38/37	56/60 58	24/20 15	0.59/0.70 0.75		

Absorption Data

Year: 1973

Month: October

Station (circum): Alma Ata

Geographic latitude: 43°15'N

Longitude: 76°55'E

Dip angle: 62°

Geomagnetic latitude: 38°69'N

Longitude: 46°04'E

Frequency: 2.2 MHz

Distance: —

Method: A 1

Date	L _{moon} (dB) meas / calc	l (cos ² χ - 1) a.m. / p.m. mean (dB)	l (cos ² χ = 0.2) a.m. / p.m. mean (dB)	exponent n a.m. / p.m. mean	γ (min)	Notes
1	20/17	28/- 28	6/- 6	1.00/- 1.00		
2	C					
3	C					
4	C					
5	C					
6	C	-/- 25	-/- 3	-/- 1.28		
7	C					
8	C/28	-/50 50	-/31 31	-/0.31 0.31		
9	27/34	-/- 52	-/- 15	-/- 0.78		
10	36/38	-/- 56	-/- 18	-/- 0.93		
11	28/30					
12	35/36	-/- 55	-/- 13	-/- 0.90		
13	S	-/- 60	-/- 11	-/- 1.11		
14	40/33	-/- 60	-/- 16	-/- 0.90		
15	25/29	32/- 50	13/- 9	0.58/- 1.07		
16	28/34	-/58 58	-/12 12	-/0.97 0.97		
17	30/29	47/- 47	19/- 15	0.58/- 0.70		
18	C/32	-/- 55	-/- 23	-/- 0.58		
19	33/34	45/- 45	27/- 27	0.34/- 0.34		
20	41/41	48/60 56	23/20 20	0.47/0.65 0.65		
21	28/30	44/- 44	18/- 18	0.58/- 0.58		
22	34/31	-/- 40	-/- 14	-/- 0.65		
23	C	47/- 47	15/- 15	0.62/- 0.62		
24	44/41	-/- 66	-/- 25	-/- 0.60		
25	42/47	64/- 64	13/- 11	1.00/- 1.11		
26	C/32	47/47 47	24/11 17	0.44/0.90 0.65		
27	C					
28	C					
29	37/32	-/- 62	-/- 14	-/- 0.87		
30	26/28	52/- 50	22/- 16	0.53/- 0.70		
31	33/32	73/68 71	9/19 13	1.33/0.84 1.00		
Count	19/22	11/5 17	11/5 13	11/5	21	
Median	33/33	47/58 50	18/19 19	0.58/0.81	0.87	

Absorption Data

Year: 1973

Month: November

Station (circuit) : Alma-Ata

Geographic latitude: 43°15'N

Longitude: 76°55'E

Dip angle: 62°

Geomagnetic latitude: 38°69'N

Longitude: 46°04'E

Frequency: 1.7 MHz

Distance: —

Method: A 1

Date	L _{noon} (dB) meas./calc.	L(cos χ = 1) a.m./p.m. mean (dB)	L(cos χ = 0.2) a.m./p.m. mean (dB)	exponent n a.m./p.m. mean	τ (min.)	Notes
1	C	-/- 50	-/- 23	-/-	0.47	
2	42/42	-/- 58	-/- 24	-/-	0.53	
3	B					
4	C					
5	41/38	60/60 60	20/20 20	0.58/0.58	0.58	
6	C					
7	B					
8	C					
9	B					
10	31/C					
11	S					
12	B/33	62/- 62	12/- 12	0.62/-	0.62	
13	C					
14	31/31	-/- 70	-/- 10	-/-	1.23	
15	B					
16	B					
17	43/44	82/- 82	23/- 23	0.78/-	0.78	
18	C					
19	24/24					
20	C					
21	C					
22	C					
23	22/C					
24	C					
25	C					
26	30/31	-/- 50	-/- 21	-/-	0.53	
27	C					
28	35/C					
29	41/35	-/- 62	-/- 27	-/-	0.51	
30	S					
31						
Count	16/13	3/1 9	3/1 9	3/1	90	
Median	41/38	62/- 60	23/- 21	0.62/-	0.58	

Absorption Data

Year: 1973

Month: November

Station (circuit) : Alma-Ata

Geographic latitude: 43°15'N

Longitude: 76°55'E

Dip angle: 62°

Geomagnetic latitude: 38°69'N

Longitude: 46°04'E

Frequency: 2.2 MHz

Distance: —

Method: A 1

Date	L _{noon} (dB) meas./calc.	L(cos χ = 1) a.m./p.m. mean (dB)	L(cos χ = 0.2) a.m./p.m. mean (dB)	exponent n a.m./p.m. mean	τ (min.)	Notes
1	C	-/- 56	-/- 22	-/-	0.60	
2	31/32	73/- 58	24/- 23	1.04/-	1.04	
3	38/37	61/54 56	18/22 20	0.78/0.55	0.62	
4	29/30	-/- 52	-/- 19	-/-	0.58	
5	33/37	-/- 58	-/- 23	-/-	0.58	
6	C	34/- 47	25/- 21	0.16/-	0.44	
7	S /42	-/- 70	-/- 22	-/-	0.65	
8	C					
9	C					
10	S					
11	S					
12	30/31	54/- 54	9/- 9	0.78/-	0.78	
13	35/35	50/- 50	23/- 23	0.49/-	0.49	
14	27/25	56/- 56	10/- 10	1.04/-	1.04	
15	S /34	45/- 45	25/- 25	0.36/-	0.36	
16	42/37					
17	51/51	91/- 91	26/- 26	0.78/-	0.78	
18	C					
19	C/25					
20	C					
21	C					
22	C					
23	C					
24	C					
25	C	-/- 51	-/- 4	-/-	0.97	
26	25/30					
27	C					
28	C/37	-/- 100	-/- 19	-/-	1.11	
29	31/36					
30	S	-/- 79	-/- 20	-/-	0.84	
31						
Count	10/15	8/1 15	8/1 15	8/1	15	
Median	31/35	55/- 56	23/- 21	0.78/-	0.65	

Absorption Data

Year: **1973**Month: **December**Station (circuit): **Alma-Ata**Geographic latitude: **43°15'N**Longitude: **76°55'E**Dip angle: **62°**Geomagnetic latitude: **38°69'N**Longitude: **46°04'E**Frequency: **1.7** MHzDistance: **--**Method: **A 1**

Date	L _{noon} (dB) meas./calc.	L(cos χ = 1) a. m. /p. m. mean (dB)	L(cos χ = 0.2) a. m. /p. m. mean (dB)	exponent n a. m. /p. m. mean	τ (min.)	Notes
1	C					
2	C					
3	C					
4	R/44	-/- 70	-/- 31	-/- 0.51		
5	S					
6	C/30	-/48 48	-/21 21	-/0.51 0.51		
7	C					
8	S					
9	24/27					
10	C					
11	C					
12	40/31					
13	S					
14	C					
15	S					
16	33/30	68/- 68	18/- 18	0.81/- 0.81		
17	B/38	-/- 65	-/- 27	-/- 0.53		
18	C/32	44/- 44	25/- 25	0.32/- 0.32		
19	43/41	102/- 102	19/- 19	1.19/- 1.19		
20	33/32	63/49 53	19/25 23	0.73/0.42 0.53		
21	28/29					
22	C					
23	C					
24	29/31	-/53 53	-/24 24	-/0.49 0.49		
25	C					
26	36/C					
27	S					
28	S/39					
29	B					
30	37/37	70/- 70	22/- 22	0.70/- 0.70		
31	S					
Count	16/14	5/3 10	5/3 10	5/3 10		
Median	36/32	68/49 67	19/24 24	0.73/0.49 0.53		

Absorption Data

Year: 1973

Month: December

Station (circuit): Alma-Ata

Geographic latitude: 43°15'N

Longitude: 76°55'E

Dip angle: 62°

Geomagnetic latitude: 38°59'N

Longitude: 46°04'E

Frequency: 2.2 MHz

Distance: —

Method: A 1

Date	L (dB) meas./calc.	L(cos ² χ = 1) a.m./p.m. mean (dB)	L(cos ² χ = 0.2) a.m./p.m. mean (dB)	exponent n a.m./p.m. mean	τ (min.)	Notes
1	C					
2	C					
3	C					
4	39/39	54/- 54	32/- 30	0.32/-	0.36	
5	S					
6	25/29	-/- 44	-/- 26	-/-	0.32	
7	C					
8	S					
9	33/35					
10	C					
11	C					
12	45/38					
13	25/S					
14	C					
15	S					
16	S/43					
17	C/44	-/- 75	-/- 31	-/-	0.53	
18	C/37	-/- 81	-/- 27	-/-	0.67	
19	49/40	-/- 81	-/- 33	-/-	0.42	
20	34/35	-/- 72	-/- 22	-/-	0.73	
21	35/29	-/- 62	-/- 22	-/-	0.65	
22	C					
23	48/C					
24	38/35	-/- 76	-/- 22	-/-	0.78	
25	C					
26	41/39					
27	S					
28	37/39					
29	C					
30	54/45					
31	36/44	-/- 57	-/- 43	-/-	0.18	
Count	14/15	1/- 9	1/- 9	1/-	90	
Median	37/39	-/- 72	-/- 27	-/-	0.53	