U. S. Department of Commerce
Charles Sawyer, *Secretary*

Coast and Geodetic Survey
Robert F. A. Studds, *Director*

Special Publication No. 292

PLANE COORDINATE PROJECTION TABLES
MARYLAND

LIBRARY
N.O.A.A.
U.S. DEPT. OF COMMERCE

QB
275
.U35
no. 292
1953

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1953

For sale by the Superintendent of Documents, U. S. Government Printing Office
Washington 25, D. C. - Price 15 cents

National Oceanic and Atmospheric Administration

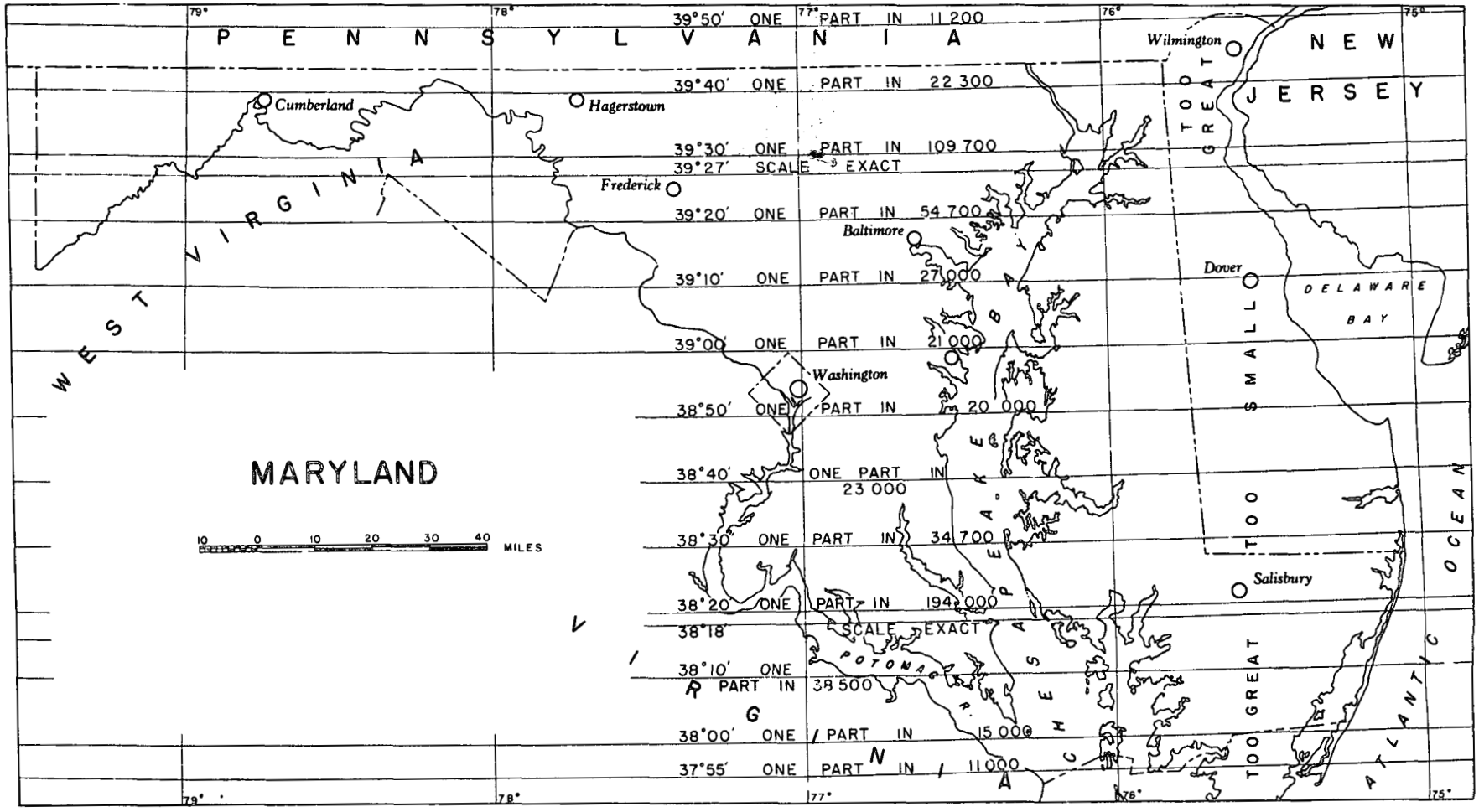
ERRATA NOTICE

One or more conditions of the original document may affect the quality of the image, such as:

Discolored pages
Faded or light ink
Binding intrudes into the text

This has been a co-operative project between the NOAA Central Library and the Climate Database Modernization Program, National Climate Data Center (NCDC). To view the original document, please contact the NOAA Central Library in Silver Spring, MD at (301) 713-2607 x124 or www.reference@nodc.noaa.gov.

LASON
Imaging Contractor
12200 Kiln Court
Beltsville, MD 20704-1387
January 1, 2006



STATE PLANE-COORDINATE SCALE FACTORS

X-6966

FEB 9 1953

Foreword

The plane coordinate system used in this State is based on the Lambert conformal conic projection with two standard parallels for each zone. The tables in this publication are to be used for the conversion of geographic positions to plane coordinates or plane coordinates to geographic positions. The constants of the projection are listed with the tables.

The methods of computation have been designed for machine calculation, using tables of natural trigonometric functions. A table of these functions has been published by the Coast and Geodetic Survey to ten decimal places with ten-second intervals for 0° to 6° in Special Publication No. 246 and is sold for a nominal sum by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C.

The formulas and sample computations which follow show the general methods for computing either type of coordinates.

Plane Coordinates from Geographic Positions

$$x = R \sin \theta + C$$

$$y = R_b - R \cos \theta$$

Grid azimuth = geodetic azimuth - θ + second term

where

R is the radius for the latitude of the station,

R_b is a constant for a zone,

θ is the mapping angle for the longitude of the station,

and

C is the value of x assigned to the Central Meridian for a zone.

The second term for the reduction of geodetic to grid azimuths may be neglected for most work. However, for lines five miles or more in length, if the same degree of accuracy is desired as is obtained by geographic computations, this term should be evaluated and used.

$$\text{Second term} = \frac{x_2 - x_1}{2\rho_0^{\,2} \sin 1''} \left(y_1 - y_0 + \frac{y_2 - y_1}{3} \right)$$

Geographic Positions from Plane Coordinates

The formulas show the method of computing R and θ from which the latitude and longitude may be obtained.

$$x' = x - C$$

$$\tan \theta = x' \div (R_b - y)$$

$$R = (R_b - y) \div \cos \theta$$

$$\Delta\lambda = \theta \div \ell$$

$$\lambda = \text{Central Meridian} - \Delta\lambda$$

where

R, R_b, θ, and C are the same as previously defined

and ℓ is a constant for a zone.

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form 725 d

PLANE COORDINATES ON LAMBERT PROJECTION

(Condensed form for calculating-machine computation)

$X = R \sin\theta + C$
$C =$ 800,000.00

$Y = R_b - R\cos\theta$
$R_b =$ 26,369,112.76

State-Zone Maryland
Grid Az. = Geod. Az. − θ

Station	Latitude / Longitude	R / θ	sin θ / cos θ	X / Y
1 Clough 1896	39 12 06.132	25,870,775.56	+0.00886 22267	1,029,272.68
	76 11 27.492	+0 30 27.9894	0.99996 07297	499,353.15
	Grid azimuth to azimuth mark, R.M. No. 1			223° 53' 41"
2 Windmill 2 1901 r. 1934	38 26 37.492	26,146,814.99	−0.00045 76636	788,033.55
	77 02 30.406	−0 01 34.3999	0.99999 98953	222,300.51
	Grid azimuth to azimuth mark, R.M. No. 3			84° 04' 13"
3				
	Grid azimuth to azimuth mark			° ' "
4				
	Grid azimuth to azimuth mark			° ' "
5				
	Grid azimuth to azimuth mark			° ' "
6				
	Grid azimuth to azimuth mark			° ' "
7				
	Grid azimuth to azimuth mark			° ' "
8				
	Grid azimuth to azimuth mark			° ' "
9				
	Grid azimuth to azimuth mark			° ' "
10				
	Grid azimuth to azimuth mark			° ' "
11				
	Grid azimuth to azimuth mark			° ' "
12				
	Grid azimuth to azimuth mark			° ' "

M-2524-2

DEPARTMENT OF COMMERCE
U. S. COAST AND GEODETIC SURVEY
Form 742 b

GEODETIC POSITIONS FROM LAMBERT COORDINATES

(CALCULATING MACHINE COMPUTATION)

STATE – ZONE Maryland — ℓ = 0.62763 412

Station Clough, 1896

C	– 800,000.00	R_b	26,369,112.76
X	1,029,272.68	Y	– 499,353.15
$X' = X - C$	+ 229,272.68	$R_b - Y$	25,869,759.61
$\tan\theta = X' \div (R_b - Y)$	+0.00886 25748	θ	+ 1827.9894"
θ	+ 0° 30' 27.9894"	$\Delta\lambda = \theta \div \ell$	+ 2912.508"
$\cos\theta$	0.99996 07297	$\Delta\lambda$	+ 48' 32.508"
$R = (R_b - Y) \div \cos\theta$	25,870,775.56	Central Meridian	77° 00' 00.000"
ϕ	39° 12' 06.132"	λ = C.M. – $\Delta\lambda$	76° 11' 27.492"

Station Windmill 2, 1901, r. 1934

C	– 800,000.00	R_b	26,369,112.76
X	788,033.55	Y	– 222,300.51
$X' = X - C$	– 11,966.45	$R_b - Y$	26,146,812.25
$\tan\theta = X' \div (R_b - Y)$	-0.00045 76638	θ	-94.3999"
θ	- 0° 01' 34.3999"	$\Delta\lambda = \theta \div \ell$	-150.406"
$\cos\theta$	0.99999 98953	$\Delta\lambda$	- 2' 30.406"
$R = (R_b - Y) \div \cos\theta$	26,146,814.99	Central Meridian	77° 00' 00.000"
ϕ	38° 26' 37.492"	λ = C.M. – $\Delta\lambda$	77° 02' 30.406"

Station

C	–	R_b	
X		Y	–
$X' = X - C$		$R_b - Y$	
$\tan\theta = X' \div (R_b - Y)$		θ	"
θ	° ' "	$\Delta\lambda = \theta \div \ell$	"
$\cos\theta$		$\Delta\lambda$	° ' "
$R = (R_b - Y) \div \cos\theta$		Central Meridian	° ' "
ϕ	° ' "	λ = C.M. – $\Delta\lambda$	° ' "

Station

C	–	R_b	
X		Y	–
$X' = X - C$		$R_b - Y$	
$\tan\theta = X' \div (R_b - Y)$		θ	"
θ	° ' "	$\Delta\lambda = \theta \div \ell$	"
$\cos\theta$		$\Delta\lambda$	° ' "
$R = (R_b - Y) \div \cos\theta$		Central Meridian	° ' "
ϕ	° ' "	λ = C.M. – $\Delta\lambda$	° ' "

M-2545-2

Constants for Maryland

C	800,000.00
Central Meridian	77° 00' 00".000
R_b	26,369,112.76
y_o	379,637.77
ℓ	0.627 63412
$\frac{1}{2\rho_o^2 \sin 1''}$	2.359×10^{-10}
$\log \frac{1}{2\rho_o^2 \sin 1''}$	0.372 6602 - 10
$\log \ell$	9.79770 65450 - 10
log K	7.61466 55982

Blank page retained for pagination

Table I.

Lat.	R ft.	Y' Y value on central meridian feet	Tabular difference for one sec. of lat. feet	Scale in units of 7th place of logs	Scale expressed as a ratio
37° 50'	26,369,112.76	0	101.16200	+494.4	1.0001138
51	26,363,043.04	6,069.72	101.16200	+471.9	1.0001087
52	26,356,973.32	12,139.44	101.16167	+449.7	1.0001035
53	26,350,903.62	18,209.14	101.16150	+427.9	1.0000985
54	26,344,833.93	24,278.83	101.16117	+406.4	1.0000936
55	26,338,764.26	30,348.50	101.16117	+385.3	1.0000887
37° 56'	26,332,694.59	36,418.17	101.16083	+364.6	1.0000840
57	26,326,624.94	42,487.82	101.16067	+344.2	1.0000793
58	26,320,555.30	48,557.46	101.16050	+324.2	1.0000746
59	26,314,485.67	54,627.09	101.16033	+304.6	1.0000701
38° 00	26,308,416.05	60,696.71	101.16033	+285.3	1.0000657
38° 01'	26,302,346.43	66,766.33	101.16000	+266.4	1.0000613
02	26,296,276.83	72,835.93	101.15983	+247.8	1.0000571
03	26,290,207.24	78,905.52	101.15983	+229.6	1.0000529
04	26,284,137.65	84,975.11	101.15967	+211.8	1.0000488
05	26,278,068.07	91,044.69	101.15967	+194.3	1.0000447
38° 06'	26,271,998.49	97,114.27	101.15933	+177.2	1.0000408
07	26,265,928.93	103,183.83	101.15933	+160.4	1.0000369
08	26,259,859.37	109,253.39	101.15933	+144.0	1.0000332
09	26,253,789.81	115,322.95	101.15917	+128.0	1.0000295
10	26,247,720.26	121,392.50	101.15917	+112.3	1.0000259
38° 11'	26,241,650.71	127,462.05	101.15917	+ 97.0	1.0000223
12	26,235,581.16	133,531.60	101.15900	+ 82.0	1.0000189
13	26,229,511.62	139,601.14	101.15900	+ 67.4	1.0000155
14	26,223,442.08	145,670.68	101.15883	+ 53.2	1.0000122
15	26,217,372.55	151,740.21	101.15900	+ 39.3	1.0000090
38° 16'	26,211,303.01	157,809.75	101.15883	+ 25.8	1.0000059
17	26,205,233.48	163,879.28	101.15883	+ 12.7	1.0000029
18	26,199,163.95	169,948.81	101.15883	0.0	1.0000000
19	26,193,094.42	176,018.34	101.15900	- 12.4	0.9999971
20	26,187,024.88	182,087.88	101.15883	- 24.5	0.9999944
38° 21'	26,180,955.35	188,157.41	101.15900	- 36.2	0.9999917
22	26,174,885.81	194,226.95	101.15883	- 47.5	0.9999891
23	26,168,816.28	200,296.48	101.15900	- 58.4	0.9999866
24	26,162,746.74	206,366.02	101.15900	- 69.0	0.9999841
25	26,156,677.20	212,435.56	101.15917	- 79.2	0.9999818

Table I (Cont'd).

Lat.	R ft.	Y' Y value on central meridian feet	Tabular difference for one sec. of lat. feet	Scale in units of 7th place of logs	Scale expressed as a ratio
38° 26'	26,150,607.65	218,505.11	101.15917	- 89.1	0.9999795
27	26,144,538.10	224,574.66	101.15917	- 98.6	0.9999773
28	26,138,468.55	230,644.21	101.15933	-107.7	0.9999752
29	26,132,398.99	236,713.77	101.15950	-116.5	0.9999732
30	26,126,329.42	242,783.34	101.15950	-124.9	0.9999712
38° 31'	26,120,259.85	248,852.91	101.15967	-133.0	0.9999694
32	26,114,190.27	254,922.49	101.15967	-140.6	0.9999676
33	26,108,120.69	260,992.07	101.15983	-148.0	0.9999659
34	26,102,051.10	267,061.66	101.16000	-154.9	0.9999643
35	26,095,981.50	273,131.26	101.16017	-161.5	0.9999628
38° 36'	26,089,911.89	279,200.87	101.16033	-167.8	0.9999614
37	26,083,842.27	285,270.49	101.16050	-173.6	0.9999600
38	26,077,772.64	291,340.12	101.16067	-179.1	0.9999588
39	26,071,703.00	297,409.76	101.16083	-184.2	0.9999576
40	26,065,633.35	303,479.41	101.16100	-189.0	0.9999565
38° 41'	26,059,563.69	309,549.07	101.16117	-193.4	0.9999555
42	26,053,494.02	315,618.74	101.16133	-197.5	0.9999545
43	26,047,424.34	321,688.42	101.16150	-201.1	0.9999537
44	26,041,354.65	327,758.11	101.16183	-204.4	0.9999529
45	26,035,284.94	333,827.82	101.16200	-207.4	0.9999522
38° 46'	26,029,215.22	339,897.54	101.16233	-210.0	0.9999516
47	26,023,145.48	345,967.28	101.16250	-212.2	0.9999511
48	26,017,075.73	352,037.03	101.16283	-214.0	0.9999507
49	26,011,005.96	358,106.80	101.16300	-215.5	0.9999504
50	26,004,936.18	364,176.58	101.16333	-216.6	0.9999501
38° 51'	25,998,866.38	370,246.38	101.16367	-217.3	0.9999500
52	25,992,796.56	376,316.20	101.16383	-217.7	0.9999499
53	25,986,726.73	382,386.03	101.16417	-217.7	0.9999499
54	25,980,656.88	388,455.88	101.16450	-217.4	0.9999499
55	25,974,587.01	394,525.75	101.16483	-216.7	0.9999501
38° 56'	25,968,517.12	400,595.64	101.16517	-215.6	0.9999504
57	25,962,447.21	406,665.55	101.16533	-214.1	0.9999507
58	25,956,377.29	412,735.47	101.16583	-212.3	0.9999511
59	25,950,307.34	418,805.42	101.16617	-210.1	0.9999516
39° 00	25,944,237.37	424,875.39	101.16650	-207.6	0.9999522

Table I (Cont'd).

Lat.	R ft.	Y' Y value on central meridian feet	Tabular difference for one sec. of lat. feet	Scale in units of 7th place of logs	Scale expressed as a ratio
39° 01'	25,938,167.38	430,945.38	101.16683	-204.7	0.9999529
02	25,932,097.37	437,015.39	101.16717	-201.4	0.9999536
03	25,926,027.34	443,085.42	101.16767	-197.8	0.9999545
04	25,919,957.28	449,155.48	101.16800	-193.8	0.9999554
05	25,913,887.20	455,225.56	101.16833	-189.4	0.9999564
39° 06'	25,907,817.10	461,295.66	101.16883	-184.6	0.9999575
07	25,901,746.97	467,365.79	101.16917	-179.5	0.9999587
08	25,895,676.82	473,435.94	101.16967	-174.1	0.9999599
09	25,889,606.64	479,506.12	101.17017	-168.2	0.9999613
10	25,883,536.43	485,576.33	101.17050	-162.0	0.9999627
39°11'	25,877,466.20	491,646.56	101.17100	-155.4	0.9999642
12	25,871,395.94	497,716.82	101.17150	-148.5	0.9999658
13	25,865,325.65	503,787.11	101.17183	-141.1	0.9999675
14	25,859,255.34	509,857.42	101.17250	-133.4	0.9999693
15	25,853,184.99	515,927.77	101.17283	-125.4	0.9999711
39° 16'	25,847,114.62	521,998.14	101.17333	-117.0	0.9999731
17	25,841,044.22	528,068.54	101.17383	-108.2	0.9999751
18	25,834,973.79	534,138.97	101.17433	- 99.0	0.9999772
19	25,828,903.33	540,209.43	101.17500	- 89.5	0.9999794
20	25,822,832.83	546,279.93	101.17533	- 79.6	0.9999817
39° 21'	25,816,762.31	552,350.45	101.17600	- 69.3	0.9999840
22	25,810,691.75	558,421.01	101.17650	- 58.7	0.9999865
23	25,804,621.16	564,491.60	101.17717	- 47.7	0.9999890
24	25,798,550.53	570,562.23	101.17767	- 36.4	0.9999916
25	25,792,479.87	576,632.89	101.17817	- 24.6	0.9999943
39° 26'	25,786,409.18	582,703.58	101.17867	- 12.5	0.9999971
27	25,780,338.46	588,774.30	101.17933	0.0	1.0000000
28	25,774,267.70	594,845.06	101.18000	+ 12.8	1.0000029
29	25,768,196.90	600,915.86	101.18067	+ 26.0	1.0000060
30	25,762,126.06	606,986.70	101.18117	+ 39.6	1.0000091
39° 31'	25,756,055.19	613,057.57	101.18183	+ 53.6	1.0000123
32	25,749,984.28	619,128.48	101.18250	+ 67.9	1.0000156
33	25,743,913.33	625,199.43	101.18300	+ 82.6	1.0000190
34	25,737,842.35	631,270.41	101.18367	+ 97.6	1.0000225
35	25,731,771.33	637,341.43	101.18450	+113.1	1.0000260

Table I (Cont'd).

Lat.	R ft.	Y' Y value on central meridian feet	Tabular difference for one sec. of lat. feet	Scale in units of 7th place of logs	Scale expressed as a ratio
39° 36'	25,725,700.26	643,412.50	101.18500	+128.9	1.0000297
37	25,719,629.16	649,483.60	101.18567	+145.1	1.0000334
38	25,713,558.02	655,554.74	101.18650	+161.6	1.0000372
39	25,707,486.83	661,625.93	101.18717	+178.5	1.0000411
40	25,701,415.60	667,697.16	101.18783	+195.8	1.0000451
39° 41'	25,695,344.33	673,768.43	101.18850	+213.5	1.0000492
42	25,689,273.02	679,839.74	101.18917	+231.5	1.0000533
43	25,683,201.67	685,911.09	101.19000	+249.9	1.0000575
44	25,677,130.27	691,982.49	101.19067	+268.6	1.0000618
45	25,671,058.83	698,053.93	101.19150	+287.8	1.0000663
39° 46'	25,664,987.34	704,125.42	101.19217	+307.3	1.0000708
47	25,658,915.81	710,196.95	101.19300	+327.1	1.0000753
48	25,652,844.23	716,268.53	101.19383	+347.4	1.0000800
49	25,646,772.60	722,340.16	101.19450	+368.0	1.0000847
50	25,640,700.93	728,411.83	101.19517	+389.0	1.0000896
39° 51'	25,634,629.22	734,483.54	101.19617	+410.4	1.0000945
52	25,628,557.45	740,555.31	101.19700	+432.1	1.0000995
53	25,622,485.63	746,627.13	101.19767	+454.2	1.0001046
54	25,616,413.77	752,698.99	101.19850	+476.7	1.0001098
55	25,610,341.86	758,770.90	101.19933	+499.5	1.0001150
39° 56'	25,604,269.90	764,842.86	101.20033	+522.7	1.0001204
57	25,598,197.88	770,914.88	101.20100	+546.3	1.0001258
58	25,592,125.82	776,986.94	101.20200	+570.3	1.0001313
59	25,586,053.70	783,059.06	101.20267	+594.6	1.0001369
40° 00	25,579,981.54	789,131.22		+619.3	1.0001426

Lambert Projection for Maryland

Table II.

1" of long. = 0".62763412 of θ

Long.	θ	Long.	θ	Long.	θ
75° 00'	+1° 15' 18".9657				
01	+1 14 41.3076	75° 36'	+0° 52' 43".2760	76° 11'	+0° 30' 45".2443
02	+1 14 03.6496	37	+0 52 05.6179	12	+0 30 07.5863
03	+1 13 25.9915	38	+0 51 27.9599	13	+0 29 29.9282
04	+1 12 48.3335	39	+0 50 50.3018	14	+0 28 52.2702
05	+1 12 10.6754	40	+0 50 12.6438	15	+0 28 14.6121
75° 06'	+1 11 33.0174	75° 41'	+0 49 34.9857	76° 16'	+0 27 36.9541
07	+1 10 55.3593	42	+0 48 57.3277	17	+0 26 59.2960
08	+1 10 17.7013	43	+0 48 19.6696	18	+0 26 21.6380
09	+1 09 40.0432	44	+0 47 42.0116	19	+0 25 43.9799
10	+1 09 02.3852	45	+0 47 04.3535	20	+0 25 06.3219
75° 11'	+1 08 24.7271	75° 46'	+0 46 26.6955	76° 21'	+0 24 28.6638
12	+1 07 47.0691	47	+0 45 49.0374	22	+0 23 51.0058
13	+1 07 09.4111	48	+0 45 11.3794	23	+0 23 13.3477
14	+1 06 31.7530	49	+0 44 33.7214	24	+0 22 35.6897
15	+1 05 54.0950	50	+0 43 56.0633	25	+0 21 58.0317
75° 16'	+1 05 16.4369	75° 51'	+0 43 18.4053	76° 26'	+0 21 20.3736
17	+1 04 38.7789	52	+0 42 40.7472	27	+0 20 42.7156
18	+1 04 01.1208	53	+0 42 03.0892	28	+0 20 05.0575
19	+1 03 23.4628	54	+0 41 25.4311	29	+0 19 27.3995
20	+1 02 45.8047	55	+0 40 47.7731	30	+0 18 49.7414
75° 21'	+1 02 08.1467	75° 56'	+0 40 10.1150	76° 31'	+0 18 12.0834
22	+1 01 30.4886	57	+0 39 32.4570	32	+0 17 34.4253
23	+1 00 52.8306	58	+0 38 54.7989	33	+0 16 56.7673
24	+1 00 15.1725	59	+0 38 17.1409	34	+0 16 19.1092
25	+0 59 37.5145	76° 00	+0 37 39.4828	35	+0 15 41.4512
75° 26'	+0 58 59.8564	76° 01'	+0 37 01.8248	76° 36'	+0 15 03.7931
27	+0 58 22.1984	02	+0 36 24.1667	37	+0 14 26.1351
28	+0 57 44.5403	03	+0 35 46.5087	38	+0 13 48.4770
29	+0 57 06.8823	04	+0 35 08.8506	39	+0 13 10.8190
30	+0 56 29.2242	05	+0 34 31.1926	40	+0 12 33.1609
75° 31'	+0 55 51.5662	76° 06'	+0 33 53.5345	76° 41'	+0 11 55.5029
32	+0 55 13.9082	07	+0 33 15.8765	42	+0 11 17.8448
33	+0 54 36.2501	08	+0 32 38.2185	43	+0 10 40.1868
34	+0 53 58.5921	09	+0 32 00.5604	44	+0 10 02.5288
35	+0 53 20.9340	10	+0 31 22.9024	45	+0 09 24.8707

Lambert Projection for Maryland

Table II (Cont'd).

1" of long. = 0".62763412 of θ

Long.	θ	Long.	θ	Long.	θ
76° 46'	+0° 08' 47".2127	77° 21'	-0° 13' 10".8190	77° 56'	-0° 35' 08".8506
47	+0 08 09.5546	22	-0 13 48.4770	57	-0 35 46.5087
48	+0 07 31.8966	23	-0 14 26.1351	58	-0 36 24.1667
49	+0 06 54.2385	24	-0 15 03.7931	59	-0 37 01.8248
50	+0 06 16.5805	25	-0 15 41.4512	78° 00	-0 37 39.4828
76° 51'	+0 05 38.9224	77° 26'	-0 16 19.1092	78° 01'	-0 38 17.1409
52	+0 05 01.2644	27	-0 16 56.7673	02	-0 38 54.7989
53	+0 04 23.6063	28	-0 17 34.4253	03	-0 39 32.4570
54	+0 03 45.9483	29	-0 18 12.0834	04	-0 40 10.1150
55	+0 03 08.2902	30	-0 18 49.7414	05	-0 40 47.7731
76° 56'	+0 02 30.6322	77° 31'	-0 19 27.3995	78° 06'	-0 41 25.4311
57	+0 01 52.9741	32	-0 20 05.0575	07	-0 42 03.0892
58	+0 01 15.3161	33	-0 20 42.7156	08	-0 42 40.7472
59	+0 00 37.6580	34	-0 21 20.3736	09	-0 43 18.4053
77° 00	0 00 00.0000	35	-0 21 58.0317	10	-0 43 56.0633
77° 01'	-0 00 37.6580	77° 36'	-0 22 35.6897	78° 11'	-0 44 33.7214
02	-0 01 15.3161	37	-0 23 13.3477	12	-0 45 11.3794
03	-0 01 52.9741	38	-0 23 51.0058	13	-0 45 49.0374
04	-0 02 30.6322	39	-0 24 28.6638	14	-0 46 26.6955
05	-0 03 08.2902	40	-0 25 06.3219	15	-0 47 04.3535
77° 06'	-0 03 45.9483	77° 41'	-0 25 43.9799	78° 16'	-0 47 42.0116
07	-0 04 23.6063	42	-0 26 21.6380	17	-0 48 19.6696
08	-0 05 01.2644	43	-0 26 59.2960	18	-0 48 57.3277
09	-0 05 38.9224	44	-0 27 36.9541	19	-0 49 34.9857
10	-0 06 16.5805	45	-0 28 14.6121	20	-0 50 12.6438
77° 11'	-0 06 54.2385	77° 46'	-0 28 52.2702	78° 21'	-0 50 50.3018
12	-0 07 31.8966	47	-0 29 29.9282	22	-0 51 27.9599
13	-0 08 09.5546	48	-0 30 07.5863	23	-0 52 05.6179
14	-0 08 47.2127	49	-0 30 45.2443	24	-0 52 43.2760
15	-0 09 24.8707	50	-0 31 22.9024	25	-0 53 20.9340
77° 16'	-0 10 02.5288	77° 51'	-0 32 00.5604	78° 26'	-0 53 58.5921
17	-0 10 40.1868	52	-0 32. 38.2185	27	-0 54 36.2501
18	-0 11 17.8448	53	-0 33 15.8765	28	-0 55 13.9082
19	-0 11 55.5029	54	-0 33 53.5345	29	-0 55 51.5662
20	-0 12 33.1609	55	-0 34 31.1926	30	-0 56 29.2242

Lambert Projection for Maryland

Table II (Cont'd).

1" of long. = 0".62763412 of θ

Long.	θ	Long.	θ	Long.	θ
78° 31'	-0° 57' 06".8823	79° 06'	-1° 19' 04".9139	79° 41'	-1° 41' 02".9456
32	-0 57 44.5403	07	-1 19 42.5720	42	-1 41 40.6036
33	-0 58 22.1984	08	-1 20 20.2300	43	-1 42 18.2617
34	-0 58 59.8564	09	-1 20 57.8881	44	-1 42 55.9197
35	-0 59 37.5145	10	-1 21 35.5461	45	-1 43 33.5778
78° 36'	-1 00 15.1725	79° 11'	-1 22 13.2042	79° 46'	-1 44 11.2358
37	-1 00 52.8306	12	-1 22 50.8622	47	-1 44 48.8939
38	-1 01 30.4886	13	-1 23 28.5203	48	-1 45 26.5519
39	-1 02 08.1467	14	-1 24 06.1783	49	-1 46 04.2100
40	-1 02 45.8047	15	-1 24 43.8364	50	-1 46 41.8680
78° 41'	-1 03 23.4628	79° 16'	-1 25 21.4944	79° 51'	-1 47 19.5261
42	-1 04 01.1208	17	-1 25 59.1525	52	-1 47 57.1841
43	-1 04 38.7789	18	-1 26 36.8105	53	-1 48 34.8422
44	-1 05 16.4369	19	-1 27 14.4686	54	-1 49 12.5002
45	-1 05 54.0950	20	-1 27 52.1266	55	-1 49 50.1583
78° 46'	-1 06 31.7530	79° 21'	-1 28 29.7847	79° 56'	-1 50 27.8163
47	-1 07 09.4111	22	-1 29 07.4427	57	-1 51 05.4744
48	-1 07 47.0691	23	-1 29 45.1007	58	-1 51 43.1324
49	-1 08 24.7271	24	-1 30 22.7588	59	-1 52 20.7904
50	-1 09 02.3852	25	-1 31 00.4168	80° 00	-1 52 58.4485
78° 51'	-1 09 40.0432	79° 26'	-1 31 38.0749		
52	-1 10 17.7013	27	-1 32 15.7329		
53	-1 10 55.3593	28	-1 32 53.3910		
54	-1 11 33.0174	29	-1 33 31,0490		
55	-1 12 10.6754	30	-1 34 08.7071		
78° 56'	-1 12 48.3335	79° 31'	-1 34 46.3651		
57	-1 13 25.9915	32	-1 35 24.0232		
58	-1 14 03.6496	33	-1 36 01.6812		
59	-1 14 41.3076	34	-1 36 39.3393		
79° 00	-1 15 18.9657	35	-1 37 16.9973		
79° 01'	-1 15 56.6237	79° 36'	-1 37 54.6554		
02	-1 16 34.2818	37	-1 38 32.3134		
03	-1 17 11.9398	38	-1 39 09.9715		
04	-1 17 49.5979	39	-1 39 47.6295		
05	-1 18 27.2559	40	-1 40 25.2876		

CORRECTIONS TO NATURAL SCALE RATIOS*
(in units of the 7th decimal place)

For Lambert Projection

Δø' as argument			
Δø'	Corr'n (Plus)	Δø'	Corr'n (Plus)
1	0	31	34
2	0	32	36
3	0	33	38
4	1	34	40
5	1	35	43
6	1	36	45
7	2	37	48
8	2	38	51
9	3	39	53
10	4	40	56
11	4	41	59
12	5	42	62
13	6	43	65
14	7	44	68
15	8	45	71
16	9	46	74
17	10	47	77
18	11	48	81
19	13	49	84
20	14	50	88
21	15	51	91
22	17	52	95
23	19	53	98
24	20	54	102
25	22	55	106
26	24	56	110
27	26	57	114
28	27	58	118
29	29	59	122
30	32	60	126

Δø' is the difference in latitude in minutes of the ends of the line.

For Lambert or transverse Mercator Projection

Δy or Δx	Corr'n (Plus)
10,000	0
20,000	0
30,000	1
40,000	2
50,000	2
60,000	3
70,000	5
80,000	6
90,000	8
100,000	10
110,000	11
120,000	14
130,000	16
140,000	19
150,000	21
160,000	24
170,000	27
180,000	31
190,000	34
200,000	38
210,000	42
220,000	46
230,000	50
240,000	55
250,000	59
260,000	64
270,000	69
280,000	74
290,000	80
300,000	86
310,000	91
320,000	97
330,000	103
340,000	110
350,000	116

*Scale ratio interpolated for mean latitude or mean x' of the ends of a line and corrected by the above table is a true mean value accurate to within one in the seventh decimal place.

U. S. GOVERNMENT PRINTING OFFICE : 1953 O - 236417