K & E
FIELD BOOK
360 A

TABLES FOR EXCAVATIONS AND EMBANKMENTS.

DISTANCES FROM CENTER OF ROADWAY FOR CROSS-SECTIONING.
ROADWAY 18 FEET WIDE. SIDE SLOPES 1 TO 1.
FOR SINGLE TRACK EXCAVATION.

	0	.1	.2	.3	.4	.5	.6	.7	.8	.9	
0	9.0	9.1	9.2	9.3	9.4	9.5	9.6	9.7	9.8	9.9	0
1	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	1
2	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9	2
3	12.0	12.1	12.2	12.3	12.4	12.5	12.6	12.7	12.8	12.9	3
4	13.0	13.1	13.2	13.3	13.4	13.5	13.6	13.7	13.8	13.9	4
5	14.0	14.1	14.2	14.3	14.4	14.5	14.6	14.7	14.8	14.9	5
6	15.0	15.1	15.2	15.3	15.4	15.5	15.6	15.7	15.8	15.9	6
7	16.0	16.1	16.2	16.3	16.4	16.5	16.6	16.7	16.8	16.9	7
8	17.0	17.1	17.2	17.3	17.4	17.5	17.6	17.7	17.8	17.9	8
9	18.0	18.1	18.2	18.3	18.4	18.5	18.6	18.7	18.8	18.9	9
10	19.0	19.1	19.2	19.3	19.4	19.5	19.6	19.7	19.8	19.9	10
11	20.0	20.1	20.2	20.3	20.4	20.5	20.6	20.7	20.8	20.9	11
12	21.0	21.1	21.2	21.3	21.4	21.5	21.6	21.7	21.8	21.9	12
13	22.0	22.1	22.2	22.3	22.4	22.5	22.6	22.7	22.8	22.9	13
14	23.0	23.1	23.2	23.3	23.4	23.5	23.6	23.7	23.8	23.9	14
15	24.0	24.1	24.2	24.3	24.4	24.5	24.6	24.7	24.8	24.9	15
16	25.0	25.1	25.2	25.3	25.4	25.5	25.6	25.7	25.8	25.9	16
17	26.0	26.1	26.2	26.3	26.4	26.5	26.6	26.7	26.8	26.9	17
18	27.0	27.1	27.2	27.3	27.4	27.5	27.6	27.7	27.8	27.9	18
19	28.0	28.1	28.2	28.3	28.4	28.5	28.6	28.7	28.8	28.9	19
20	29.0	29.1	29.2	29.3	29.4	29.5	29.6	29.7	29.8	29.9	20
21	30.0	30.1	30.2	30.3	30.4	30.5	30.6	30.7	30.8	30.9	21
22	31.0	31.1	31.2	31.3	31.4	31.5	31.6	31.7	31.8	31.9	22
23	32.0	32.1	32.2	32.3	32.4	32.5	32.6	32.7	32.8	32.9	23
24	33.0	33.1	33.2	33.3	33.4	33.5	33.6	33.7	33.8	33.9	24
25	34.0	34.1	34.2	34.3	34.4	34.5	34.6	34.7	34.8	34.9	25
26	35.0	35.1	35.2	35.3	35.4	35.5	35.6	35.7	35.8	35.9	26
27	36.0	36.1	36.2	36.3	36.4	36.5	36.6	36.7	36.8	36.9	27
28	37.0	37.1	37.2	37.3	37.4	37.5	37.6	37.7	37.8	37.9	28
29	38.0	38.1	38.2	38.3	38.4	38.5	38.6	38.7	38.8	38.9	29
30	39.0	39.1	39.2	39.3	39.4	39.5	39.6	39.7	39.8	39.9	30
31	40.0	40.1	40.2	40.3	40.4	40.5	40.6	40.7	40.8	40.9	31
32	41.0	41.1	41.2	41.3	41.4	41.5	41.6	41.7	41.8	41.9	32
33	42.0	42.1	42.2	42.3	42.4	42.5	42.6	42.7	42.8	42.9	33
34	43.0	43.1	43.2	43.3	43.4	43.5	43.6	43.7	43.8	43.9	34
35	44.0	44.1	44.2	44.3	44.4	44.5	44.6	44.7	44.8	44.9	35
36	45.0	45.1	45.2	45.3	45.4	45.5	45.6	45.7	45.8	45.9	36

Calculated by Julien A. Hall, M. Am. Soc. C. E.

For Keith's Railroad Curve Tabels see end of book.

COMPUTATIONS FOR

FIELD NOTE BOOK # 1

1933

SURVEY of PIEDRAS NEGRAS

STA	100 x OBS. ROD DIST	VERT. ANG.	COMPUTED HOR. DIST	COMP. VERT DIFF. ELEV	ELEV.
		FROM 1932 SURVEY			
⊼ at △ 268			ELEV =		22.82
△ 267	46.5	+0° 12'	46.715	+ .162	24.44
△ 1300	72.1	+1° 24'	72.29	+ 1.765	24.58
△ 1301	65.0	+2° 40'	65.16	+ 3.01	25.83
△ 1302	42.1	+2° 0'	42.35 (42.50)	+ 1.48	24.30
⊼ at △ 1300					24.60
△ 268	72.	-1° 24'	72.29	- 1.76	22.82
△ 1301	42.4	+1° 42'	42.65 (42.45 M)	+ 1.235	25.83
△ 1302	49.6	-0° 22'	49.85	- .32	24.28
1328	21.6	+2° 10'	21.8	+ .82	
1326	21.6	+2° 40'	21.75	+ 1.02	
1327	20.4	+1° 46'	20.65	+ .64	25.22
1333	25.0	+0° 39'	25.25	+ .18	26.78
1332	28.0	+2° 40'	28.24	+ 1.32	
1331	35.0	+4° 50'	35.05	+ 2.97	
1330	42.0	+7° 0'	41.7	+ 5.10	29.70
1329	34.0	+5° 0'	34.04	+ 2.97	
1325	28.0	+4° 40'	28.11	+ 2.30	
1325-A	27.0	+2° 36'	27.24	+ 1.22	
△ 1334	66.0	+2° 33'	66.15	+ 3.05	
⊼ at △ 1301					25.83
△ 268	65.0	-2° 41'	65.15	- 3.01	22.82
△ 1300	42.0	-1° 42'	42.25 (42.45 M)	+ 1.225	24.60
1316-A	+ 6.72				

f + c = .3 MUST BE ADDED TO ALL ROD DISTANCES

①

9.350

.4625

8.510

14.418

8.530

9.970

4.356

4.350

4.130

5.050

5.648

7.010

8.364

6.808

5.622

5.448

13.230

13.030

8.490

THESE COLUMNS OF FIGURES ARE THE EQUIVALENTS WHEN MEASURED ON THE MAP AT THE SCALE:- ONE CENTIMETER ON THE MAP EQUALS FIVE METERS ON THE GROUND

					ELEV.
Mt 1301					25.83
1316	t 8.10				
1315	t 8.00				
1313	14.0	-5°29'	14.18	- 1.30	25.50
1314	12.0	-3°0'	12.26	-0.61	
1312	11.6	-2°30'	11.87	-0.52	
1306	17.0	-3°11'	17.25	-0.94	
1305	17.0	-1°5'	17.28	-0.32	
1304	21.0	-1°15'	21.28	-0.46	
1303	23.4	-4°12'	23.57	-1.73	
1310 1309	t 12.40				
1307	t 17.82				
1308	t 18.00				
1310	t 1.52				
1309	t 3.75				
1309-a	t 7.90				
1308-a	t 14.30				
1308	t 11.95				
1307	t 12.25				
top 1319	25.00	-2°0'	25.27	-0.88	
top 1318	28.00	-2°10'	28.27	-1.07	
1317	24.00	-3°15'	24.22	-1.38	
1319-a	22.00	-1°20'	22.29	-0.52	
1323	31.00	+1°20'	31.28	+.73	
1322	42.00	-1°0'	42.28	-.74	
1324	36.00	-1°45'	36.28	-1.05	
1320	36.00	-2°16'	36.24	-1.42	24.41

1.620
1.600
2.836
2.452
2.374
3.450
3.456
4.256
4.7.14
2.480
3.564
3.600
304
.750
1.580
2.860
2.390
2.450
5.054
5.654
4.844
4.458
6.256
8.456
7.256
7.248

1.37
1.42
1.17
.231

1.42
1.24
18
.36

⊼ at △1302					24.30
△268	42.40	-2°0'	42.65	-1.19	22.82
△1300	49.0	+0°22'	49.28	+0.31	24.61
△1336	74.0	-0°30'	74.14	-0.65	23.65
△1335	44.0	+5°28'	43.80	+4.21	28.51
1337	t 8.70				
1338	t 13.70				
1339	18.0	+3°40'	18.22	+1.17	
1340	22.0	+7°45'	21.88	+2.98	
⊼ at △1336					23.65
△268	65.0	-0°43'	65.15	-0.81	22.84
△1302	74.0	+0°31'	74.14	+0.65	24.30
1353 (1341)	33.0	+1°0'	33.22	+0.58	
1342	22.0	+4°30'	22.16	+1.75	
1346	21.0	+4°53'	22.155	+1.82	
1347	25.0	+5°38'	25.05	+2.48	
1348	26.8	+6°0'	26.80	+2.82	
1348-a	32.0	+5°45'	31.98	+3.20	26.85
1345-a	20.0	+4°50'	20.16	+1.70	
1345	16.0	+6°30'	16.10	+1.80	
1351	t 10.70				
1352	t 11.90				
1353	27.2	-2°35'	27.45	-1.19	
1354	22.0	+0°25'	22.28		

14.828
8.768
1.740
2.740
3.644
4.376

13.030
10.428
6.644
4.432
4.430
5.010
5.360
6.396
4.032
3.320
2.140
2.380
5.490
4.456

4635
4665
9300
4650

STA	100 x OBS. ROD DIST.	VERT. ANG.	HOR COMP. DIST	COMP. VERT. DIST.	ELEV.
At △1336					23.65
1355	22.0	+2°5′	22.28		
1356	34.8	+2°10′	35.08		
1357	34.6	+0°37′	34.88		
1358	34.2	-0°30′	34.29		
1363	33.0	-2°0′	33.28		
1364	33.0	-3°35′	33.17	-2.06	21.59
1365	44.0	-2°50′	44.20	-2.20	21.45
1366	43.8	-1°40′	44.06		
1350	34.2	-0°20′	34.50	-0.20	23.45
1360	41.6	+6°20′	41.50		
1361	39.8	+4°9′	39.89		
1362	46.0	+4°40′	46.0		
△285	146.0	+0°24′	146.28	+1.03	24.68
△281	67.8	-0°20′	68.08		
1671	63.0	-0°5′	63.3		
1669	58.4	-0°50′	58.68		
1670	55.8	-2°53′	55.96		
1667	55.0	-3°10′	55.14		
1668	58.0	-3°7′	58.14		
At △1335					28.51
△1302	44.0	-5°29′	43.89	-4.21	24.30
1376	27.0	-2°8′	27.26	-1.02	27.49
1372	28.8	-2°35′	29.04	-1.51	
1373	28.0	-2°10′	28.16	-1.07	27.44

(f+c) = 0.3 M.

4.456
7.016
6.976
6.898
6.654
6.634
8.840
8.812
6.900
8.300
7.978
9.20
29.256
13.616
12.66
11.736
11.192
11.028
11.628

8.778
5.452
5.808
5.652

1932 & 1933

					ELEV. -
					28.51
At 1335 Cont					
1374	28.4	+ 0° 50'	28.70		
1375	32.0	+ 0° 46'	32.28		
1350	29.8	+ 0° 25'	30.1		
1349	33.0	- 1° 0'	33.29		
1386	t 4.64	"	4.64		
1385	t 6.37	"	6.37		
1382-a	t 4.42	"	4.42		
1382	t 4.65	"	4.65		
1378-a	t 2.85	"	2.85		
1379	t 6.30	"	6.30		
1377	9.0	- 11° 55'	8.90	1.88	
1378	8.0	- 10° 40'	8.00	1.50	27.00
1380	8.6	+ 1° 7'	8.85		
1377-a	15.6	- 8° 27'	15.55	2.32	
1381	6.8	+ 4° 50'	7.05	0.60	
1341-a	8.8	- 7° 45'	8.94	1.20	
1383	15.0	+ 10° 0'	14.84	+ 2.61	31.12
1384	16.8	+ 12° 0'	16.36	+ 3.47	31.98
1383-a	34.0	+ 0° 38'	34.3		
At △1335					28.51
△1302	44.0	- 5° 28'	43.89	- 4.20	24.30
△1391	64.0	+ 19° 54'	56.78	+ 20.6	49.13
1390	50.0	+ 17° 6'	45.72	+ 10.49	39.00
1389	40.2	+ 14° 17'	38.04	+ 9.65	38.16

5.740
6.456
6.02
6.658
.928
1.274
.884
.930
.570
1.260
1.780
1.600
1.770
3.110
1.410
1.798
2.968
3.272
6.86

8.778
11.356
9.144
7.608

π at 1335 Coast					28.51
1388	33.2	+13°39'	31.64	+7.65	36.16
1387	22.0	+10°13'	21.6	+3.86	32.37
π at Δ1391					49.13
Δ1302	64.0	-19°55'	57.0	-20.65	28.51
Δ1392	62.0	+12°52'	59.10	+13.56	62.68
1393	32.0	+13°30'	30.54	+7.30	5643
1394	13.6	+13°30'	13.14	+3.15	52.28
π at Δ1392					62.68
Δ1391	62.0	-12°53'	59.20	-13.55	49.13
Δ1395	47.2	+5°59'	46.89	+4.93	67.63
1398	t 0.90	✓	.90		
1396	t 1.90	✓	1.90		
1397	t 4.95	✓	4.95		
1399	t 5.70	✓	5.70		
1401	t 3.15	✓	3.15		
1402	t 3.60	✓	3.60		
1403	6.0	-10°5'	6.1	1.09	61.59
1400	8.0	-21°30'	7.20	2.84	59.84
1404	7.0	-14°0'	6.87	1.71	
1406	8.0	-22°20'	7.10	-2.92	59.76
1405	7.2	-14°0'	7.06	-1.76	60.92
1408	14.4	-7°30'	14.45	1.90	
1407	17.2	-11°30'	16.80	3.42	59.26
1409	27.8	-6°50'	27.70	3.32	

6,328
4.32

11,400
11,820
6,108
2.628

11.840
9.378
.180
.380
.990
1.140
.630
.720
1.272
1.440
1.374
1.420
1.412
2.890
3,360
5.540

⊼ at △ 1392	Cont				62.68
1414	25.0	-6°45'	24.95	2.95	
1415	19.0	-7°01	19.01	2.34	
1411	27.0	-7°05'	26.79	3.70	
1410	30.0	-8°15'	29.68	-4.31	58.37
1412	53.0	-8°25'	52.16	-7.70	54.98
1413	27.0	+1°50'	27.28	.93	63.61
1412	35.4	+4°57'	35.42	+3.06	65.74
⊼ at △ 1395					67.63
△ 1392	47.7	-7°10'	47.25	5.97 -4.00	62.68
△ 1417	24.2	-14°55'	22.88	-6.16	61.47
1418	20.6	-21°25'	18.10	6.85	
△ 1416	47.0	+24°25'	39.20	+17.78	85.42
1420	26.4	+26°20'	21.45	+10.60	78.23
1419	13.6	+25°15'	11.18	+5.37	73.00
1421	67.0	+4°37'	66.80	+5.40	73.03
⊼ at △ 1416					85.42
△ 1395	47.0	-24°27'	39.20	-17.80	
1423	12.0	+5°35'	12.18	+1.19	86.61
1424	13.0	+11°20'	12.80	+2.56	87.98
1422	13.4	+7°01	13.50	+1.65	87.07
1425	30.1	+7°45'	30.14	+4.10	89.52
1426	60.0	+11°45'	57.80	+12.15	97.57
⊼ at △ 1417					61.47
1395	24.0	+15°23'	22.60	+6.22	67.63
⊙ 1427	76.0	+34°59'	51.56	+35.75	97.22

4.990
3.802
5.358
5.936
10.432
5.456
7.084

9.450
4.548
3.620
7.840
4.290
2.236
13.360

7.844
2.436
2.560
2.700
6.028
11.560

4.548
10.220

⊼ at △1417	Cont-				61.47
1429	36.0	+31°0'	34.05	+20.40	81.87
1428	16.0	+29°35'	12.35	+ 6.97	68.44
1430	39.7	-19°0'	37.38	-12.30	49.14
⊼ at △1427					97.22
△1417	76.0	-34°54'	51.28	-35.75	61.47
△1431	34.4	+30°25'	25.85	+15.20	112.52
CAVE	29.0	-1°15'	29.28	-.64	96.58
⊼ at 1431					112.52
△1427	35.0	-30°24'	26.30	-15.41	97.22
1434	10.0	+4°0'	10.27	+ .72	
1433	17.0	"	17.3		
1432	6.0	+3°30'	6.26	+ .38	
⊼ at △1301					25.83
△268	65.0	-2°40'	65.14	- 3.01	22.82
△1435	44.4	+28°40'	34.46	+18.80	44.95
△1436	62.0	-0°17'	62.25	- 0.30	25.53
⊼ at △1436					25.53
△1301	62.0	+0°17'	62.28	+ 0.30	25.83
△1300	50.6	-1°0'	50.85	- .85	
△1438	112.0	+2°17'	112.13	+ 4.46	29.99
△1437	78.0	+1°29'	78.26	+ 2.00	27.83
1440	13.2	-1°0'	13.48	- .20	
1441	19.2	-1°55'	19.28	- .65	
1442	15.8	-2°5'	16.08	.61	

6.810
2.470
7.476

10.250
5.210
5.856

5.210
2.050
3.460
1.252

13.028
6.892 tv = 7.00
13.450

12.456
10.176
22.226
15.652
2.696
3.956
3.216

1439	9.6	−1°55′	9.58		
1444	11.8	″	12.1		
1443	12.8	+1°40′	13.08		
1445	19.2	+1°25′	19.48		
1446	20.3	″	20.6		
1447	19.1	+3°0′	19.5N′	+1.01	
⊼ at △ 1438					29.99
△ 1436	112.0	−2°18′	112.13	−4.46	25.53
△ 1437	62.4	−2°14′	62.6	−2.44	27.55
△ 1460	80.0	−2°9′	80.18	−3.02	26.93
1455	t 2.75		2.75		
1456	t 3.00		3.00		
1450	t 5.55		5.55		
1451	t 3.25		3.25		
1452	t 2.00		2.00		
1452-a	t 2.87		2.87		
1453	t 1.65		1.65		
1454	t 2.30		2.30		
1448	7.0	−21°30′	6.32	−2.50	27.40
1449	6.8	−22°0′	6.12	−2.47	
1485	t 5.30		5.30		
1484	7.4	−10°20′	7.43	−1.27	
1458	9.6	−6°30′	9.77	−1.12	
⊼ at △ 1438					29.99
△ 1436	112.0	−2°17′	112.13	−4.46	25.53

1.976
2.420
2.616
3.896
4.12
3.850

22.426
12.52
16.036
.550
.600
1.110
.650
.400
.574
.330
.46
1.264
1.224
1.060
1.486
1.954

22.426

Rat 29/4 38

					29.99	
	Cout					
1458-a	16.0	-3°50'	16.23	- 1.09		3.246
1466	21.4	-2°0'	21.67	- .96		4.234
1465	20.6	+1°30'	20.88	+ .55		4.176
1461	12.0	+8°45'	12.02	+ 1.85		2.404
1462	10.4	+5°0'	10.62	+ .93		2.124
1463	11.8	+8°45'	11.82	+ 1.82		2.364
1464	10.0	+6°15'	10.18	+ 1.12		2.036
1467	23.6	+5°10'	23.71	2.15		4.742
1468	23.8	+5°15'	23.90	2.20		4.780
1550	29.6	-1°0'	29.88	.61	29.31	5.976
1551	28.6	+0°15'	28.89			5.778
? ~~1509~~ 1479	32.8	-0°45'	33.08			6.616
? ~~1479~~ 1509	33.0	-0°45'	33.28			6.656
1505	32.0	-0°25'	32.28			6.456
1506	34.0	-1°40'	34.26			6.852
1507	35.4	-1°15'	35.67			7.134
1508	34.0	-0°15'	34.29			6.858
1511	43.4	-1°0'	43.67			8.734
> 1510	45.8	-1°0'	46.06			9.212
1512	48.0	-1°0'	48.28			9.656
1478-a	42.0	-0°10'	42.30			8.460
1478	40.0	+1°0'	40.29			8.058
1477	35.4	+1°0'	35.68			7.136
1502	18.6	-0°40'	18.89			3.778

					29.99
1487	16.0	-6°24'	16.10	1.82	
1488	17.0	-3°45'	17.23	1.13	
1489	22.2	-3°45'	22.40	1.47	
1504	26.0	-7°0'	25.91	3.19	
1500	24.0	-1°40'	24.28	.66	
1480	28.0	-1°50'	28.27	.85	
1483	31.0	+0°20'	31.29		
1482	29.2	+0°20'	29.49		
1481	26.0	-2°0'	26.27	.92	
1477-a	31.8	+1°45'	32.07	.98	
1474	31.8	+2°0'	32.06	+1.12	31.11
1471	31.4	+3°0'	31.61	1.67	
1478-A	36.0	+1°40'	36.27	1.06	
1472	32.2	+3°35'	32.37	+2.03	32.02
1547	31.0	+13°20'	29.64	+7.00	36.99
1546	34.0	+13°45'	32.36	7.90	39.89
1545-b	38.0	+15°30'	35.56	9.87	39.86
1545-a	33.0	+17°0'	30.65	9.35	39.34
1545	30.2	+15°35'	28.30	7.79	37.78
1548	27.0	+16°50'	25.00	7.96	
1549	31.0	+15°0'	29.10	7.82	
1550	33.0	-4°10'	33.13	-2.40	
1533	29.0	-7°30'	28.82	3.67	
1532	29.0	-6°0'	7899	2.94	

30.5
2.20
28.30

3.220	
3.446	
4.480	
5.182	
4.856	
5.654	
6.258	
5.898	
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6.414	
6.412	
6.322	
7.254	
6.474	
5.928	
6.472	
7.112	
6.130	
5.660	
5.000	
5.820	
6.626	
5.764	
5.798	

1534	32.2	-6°15'	32.12	3.51		6.424
1529	36.6	-5°45'	36.53	3.67		7.306
1530	39.4	-5°15'	39.36	3.80		7.872
1527	32.4	-6°0'	32.36	3.34		6.472
1528	31.0	-6°45'	30.87	3.64		6.174
1532-a	28.0	-7°15'	27.85	3.55		5.570
1535-	24.0	-7°30'	23.89	3.15		4.778
1521	19.0	-9°30'	18.78	3.14		3.756
1522	20.0	-9°0'	19.80	3.14		3.960
1520	25.0	-8°15'	24.78	3.19		4.956
1518	21.4	-9°0'	21.17	3.35		4.234
1519	15.0	-12°40'	14.56	3.27		2.912
⊼ at ⊙ 1438					29.99	
△ 1436	112.4	-2°18'	112.52	-4.52	25.53	22.504
△ 1460	80.0	-2°8'	80.19	-3.10	26.93	16.038
△ 1553	49.8	+21°5'	43.63	16.85 7.64	4766	8.580
1526	35.0	-4°10'	35.11	2.56		7.022
1538	40.0	-5°45'	39.90	4.02		7.980
1524-a	42.4	-5°5'	42.36	3.77		8.472
1542	43.0	-5°0'	42.97	3.75		8.594
1540	46.0	-4°50'	45.97	3.89		9.194
1524-b	34.4	-4°45'	34.46	2.86		6.892
1524	34.8	-6°15'	34.68	3.80		6.936
1516	33.0	-6°15'	32.90	3.60		6.580

22.50
22.23
.73
.36

1525-a	29.0	-5°45'	29.00	2.92	
1525	27.8	-7°35'	27.61	3.67	
1515	29.0	-6°50'	28.88	3.55	
1517	28.4	-6°0'	28.39	2.98	
1513	29.6	-6°50'	29.48	3.53	
1514	24.6	-7°15'	24.50	3.12	
1554	20.4	-3°30'	20.62	1.26	
Π at Δ 1553					47.66
Δ 1438	49.6	-22°51'	42.90	17.85	29.99
Δ 1555	56.4	+1°5'	54.62	10.60	58.16
1557	12.1	-7°25'	12.19	1.57	
1558	17.2	+1°35'	17.48	.48	
1556	13.0	-5°45'	13.17	1.32	
Π at Δ 1555					58.16
Δ 1553	57.0	-11°5'	55.18	10.40	47.66
Δ 1572	54.0	+21°35'	46.90	18.60	76.46
1566	21.4	-9°15'	21.14	3.45	
1568	22.2	-9°45'	21.86	3.76	
1565	20.0	-9°0'	19.80	3.14	
1563	15.4	-11°30'	15.08	3.07	
1562	14.4	-12°10'	14.05	3.02	
1564	14.4	-11°0'	14.17	2.75	
1561	11.0	-11°30'	10.85	2.22	
1560	12.0	-10°40'	11.88	2.24	

5.800
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5.776
5.618
5.896
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8.590
10.980
2.438
3.496
2.634

10.980
9.210
4.228
4.392
3.960
3.016
2.810
2.834
2.170
2.376

⊼ at △1555					58.16
1570	6.4	+5°0'	6.65	.58	
1571	5.0	+1°35'	5.30		
1573	8.8	+11°30'	8.74	1.77	
1559	8.4	-12°0'	8.33	-1.77	56.39
1574a	18.2	+16°35'	17.00	5.60	
1578	26.6	+17°15'	24.54	7.61	65.77
1577	24.4	+17°5'	22.57	6.93	
1576	23.0	+16°15'	21.48	6.27	
1575	22.0	+13°30'	21.08	5.06	
1574	16.8	+6°55'	16.85	2.04	
1579	38.0	+15°0'	35.74	9.60	
1601	12.0	-0°45'	42.29	-0.59	57.57
1600	11.6	+13°50'	11.26	2.76	60.92
1602	24.0	-12°15'	23.21	-5.04	53.12
⊼ at △1555					58.16
△1553					47.66
1614	51.0	-10°0'	49.76	8.78	
1613	61.0	-9°45'	59.64	10.22	47.94
1623	58.0	-8°45'	56.95	8.78	
1624	57.0	-8°45'	55.97	-8.62	
1621	51.6	-9°15'	50.56	8.22	
1616	48.0	-9°15'	47.05	7.65	
1619-a	43.0	-9°15'	42.18	6.86	
1619	44.0	-9°30'	43.09	7.20	

	1.330		
	1.060		
	1.748		
	1.666	280 / 261 / 19	2045 / 183 / 215
	3.400		
	4.908		
	4.514		
	4.296		205 / 183 / 22
	4.216		
	3.370 42	138 / 114 / 21	
	7.148		
	8.458		1350 / 1228 / 122 / 244
	2.252		
	4.642		
		1685 / 1.43 / 255	
	9.952		
	11.928		
	11.390		
	11.194		
	10.112		
	9.410		
	8.436		
	8.618		

⊼ at △ 1555	Cont				58.16
1620	42.0	-9°35'	41.12	6.95	
1622	53.8	-9°0'	52.78	8.35	
1617	48.0	-10°20'	46.75	8.51	
1618	41.6	-10°30'	40.51	7.50	√0.66
△ 1603	30.0	+14°43'	28.34	7.43	65.57
⊼ at △ 1603					65.57.
△ 1555	29.8	-14°43'	28.16	7.40	58.16.
1604	20.0	-11°0'	19.56	3.81	
1605	18.4	-15°0'	17.10	4.66	
1606	22.0	-12°15'	21.28	4.62	
1611	24.0	-13°45'	22.92	5.56	
1609	33.4	-8°20'	32.99	4.83	
1607	35.0	-9°10'	34.40	5.56	
1608	42.4	-7°30'	41.97	5.51	
1610	44.0	-9°30'	43.07	7.20	58.37
1612	33.0	-12°35'	31.72	7.10	
⊼ at △ 1572					76.46
1555	52.0	-21°40'	45.20 (N. 46.05)	18.00 (N. 18.30)	58.16
1628	9.2	-5°0'	9.43	.80	
1627	11.0	-1°30'	11.29	.30	
1630	15.0	-2°15'	15.28	.60	
1629	13.4	-1°15'	13.69	.30	
1636	33.0	-4°10'	33.13	2.41	74.05
1631	24.6	-2°30'	24.85	1.08	75.38

8.224	1.699	
10.556	1.43	
9.350	269	
8.102	√38	
5.650		
5.650		
3.912		
3.420		
4.256		
4.584		
6.598		
6.880		
8.394		
8.614		
6.344		
9.210		
1.886		
2.258		
3.056		
2.738		
6.626		
4.970		

⊼ at △1572	Cont				76.46	
1632	21.2	-0°40'	21.48			4.296
1633	19.4	-1°25'	19.67			3.934
1635	19.6	-4°15'	19.79	-1.47	74.99	3.958
1634	19.6	-4°10'	19.795'	1.44		3.9590
1638	89.0	-28°20'	67.95	37.35	113.81	13.590
1640	32.0	-20°35'	28.35	10.60	87.02	5.670
1637	17.8	-18°30'	17.18	5.12	8158	3.436
1639	21.4	+2°25'	21.66	.90	7736	4.332
1625	t 6.30		6.30			1.260
1626	t 4.50		4.50			.900
1626-a	t 1.70		1.70			.340
1641	32.4	+6°45'	32.25	+3.82	80.28	6.450
1642	26.4	+14°0'	25.14	6.75	8271	5.028
⊼ at △1460		-			26.93	
△1438	80.0	+2°10'	80.18	3.05	29.98	16.036
△1643	69.0	-1°0'	69.26	-1.21	25.73	13.840
△1644	64.0	+1°18'	64.24	+1.46	28.38	12.848
1574	29.0	✓	29.3			5.86
1667	34.0	-0°10'	34.30			6.860
1668	37.0	✓	37.30			7.460
1666	40.0	+0°15'	40.29			8.058
1665	27.0	+0°20'	27.29			7.458
1663	44.0	+0°20'	44.29			8.858
1664	42.0	+0°15'	42.29			8.458

					26.93	
1662	48.0	+0°40'	48.25	+0.56	27.49	9.650
1661	46.2	+0°40'	46.45			9.290
1674	40.0	+0°30'	40.25			8.050
1677	38.0	+0°45'	38.25			7.650
1676	34.0	+0°35'	34.26			6.852
1675	36.0	+0°23'	36.27			7.254
1671	49.6	+3°5'	49.80	2.67		9.960
1669	48.2	+3°30'	48.32	2.95		9.664
1670	50.4	+4°10'	50.43	3.78		10.86
1670-a	51.0	+4°22'	51.00	3.72		10.200
1658	39.4	+3°10'	39.58	2.19		7.916
1657	38.0	+3°10'	38.18	2.11		7.636
1659	39.6	+3°12'	39.78	2.22	29.15	7.956
1660	39.4	+3°45'	39.53	2.47		7.906
1651	34.0	+2°0'	34.26	1.20		6.852
1651-a	34.8	+0°40'	35.08	.41	27.34	7.016
1646	24.4	+2°45'	24.64	1.18		4.928
1648	23.6	+2°45'	23.84	1.15		4.768
1647	21.8	+0°40'	22.07	.26		4.414
1645	23.0	+0°23'	23.29	.15		4658
⊼ ⊿1644					28.38	
△ 1460	64.0	-1°16'	64.20	-1.43	26.93	12.840
△ 1680	31.4	+14°14'	29.52	7.55	35.90	5964
△ 1681	76.4	+23°35'	64.22	27.80	54.73	12844

1682	17.0	+13°40'	16.34	3.97		3.268
Tau Δ 1644					28.39	
1460	64.0	-1°20'	64.20	1.50	26.93	12.840
1649	31.0	-1°50'	31.25	-.97	27.42	6.250
1649-a	30.6	-0°25'	30.88	.20		6.176
1654	28.8	+0°15'	29.09	.12		5.818
1652	32.4	+0°15'	32.68	14		6.536
1650	40.4	-0°46'	40.67	.18		8.134
1656	28.2	+1°22'	28.47	.63		5.694
1653	28.2	+1°40'	28.47	.83		5.694
1655	24.8	+1°5'	25.08	.47		5.016
1672	22.2	+5°50'	22.27	2.27		4.454
1673	26.4	+5°0'	26.50	2.32		5.300
1678-a	t 11.75					2.350
1678	t 6.90					1.380
1698	t 7.60					1.520
1699	t 10.10					2.020
1679	9.2	+7°20'	9.45	1.20		1.890
1679-a	11.2	+6°0'	11.38	1.19		2.276
1700-a	13.4	+6°5'	13.54	1.42		2.708
1700	14.0	+7°0'	14.09	1.73		2.818
1697	15.0	+15°0'	14.28	3.83		2.856
1694	14.4	+18°10'	13.28	4.35		2.656
1693	10.6	+1°25'	10.87	.27		2.174
1692	13.8	+3°25'	13.05	.84		2.810

木 at △1644	Cont				28.39
1691	22.0	+3°25'	22.22	1.33	
1690	23.8	+6°0'	23.84	2.50	
1704	25.0	+3°0'	25.23	1.32	
1702	24.0	+2°45'	24.24	1.16	
1701	22.6	+1°0'	22.89	.40	28.79
1703-a	29.0	+1°30'	29.28	.77	
1703	27.8	+2°35'	28.04	1.26	
1706	33.0	+1°30'	33.28	.87	29.26
1709	34.8	+3°0'	35.00	1.84	
1705	30.2	+3°0'	30.41	1.60	
1711	35.6	+3°15'	35.78	2.03	
1708	44.0	+2°20'	44.23	1.80	
1710	46.0	+3°0'	46.17	2.42	
1707	51.2	+4°0'	51.25	3.58	
1720	69.0	+1°30'	69.28	1.81	30.20
1719	112.0	+1°30'	112.26	2.94	31.33
1721	32.0	✓	32.3		
1723	35.8	+1°15'	36.08	+0.79	29.18
1724	41.0	+1°20'	41.28		
1722	34.0	+0°45'	34.29		
1725	38.6	+0°40'	38.88		
木 at △1680					35.90
1644	31.4	-14°9'	29.81	7.50²	28.38
1790	69.6	+17°49'	62.74 63.38	20.12 20.35	56.02
1685	±5.80	✓			

4.444
4.768
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10.250
13.856
22.452
6.46
7.316
8.256
6.858
7.776
5.963
12.548
1.160

1685-a	t 6.40					1.280
1714-a	t 5.50					1.150
1683	t 7.85					1.570
1779	t 9.15					1.830
1689	12.6	-13°15'	12.22	2.88		2.444
π at △ 1680	Cont				35.90	
1778	10.8	-13°30'	10.50	2.52		2.100
1777	10.6	-13°0'	10.35	2.40		2.070
1776	12.0	-15°5'	11.47	3.09		2.294
1749	12.0	-12°45'	11.70	2.50		2.340
1748	10.0	-11°0'	9.93	1.965		1.986
1678	9.0	-6°5'	9.20	.98		1.840
1684	7.4	-4°0'	7.66	.53		1.532
1686	6.3	-0°30'	6.59	.05		1.316
1755	7.0	-2°25'	7.18	.30		1.436
1754	9.4	-4°27'	9.12	.95		1.824
1747	7.2	-2°30'	7.48	3.27		1.496
1750	9.0	-5°10'	9.22	.83		1.844
1729	10.4	-3°35'	10.46	.67		2.092
1730	12.8	-4°0'	13.04	.91		2.608
1730-a	13.6	-5°50'	13.76	1.40		2.752
1728	23.0	-5°10'	23.11	2.10		4.622
1727	21.8	-5°18'	21.91	2.03		4.382
1735	22.2	-8°35'	22.00	3.32		4.400
1769	21.0	-8°47'	20.80	3.22		4.160
1758	26.0	-6°45'	25.94	3.06		5.188

					ELEV
⊼ at △ 1680	Cont	— — —	— — —	— — —	35.90
1766	25.0	-8°20'	24.77	3.64	
1775	22.6	-6°10'	22.64	2.45	
1756	18.4	-11°20'	17.97	3.60	
1770	21.0	-9°45'	20.695	3.56	
1771	22.2	-9°15'	21.92	3.57	
1773	23.8	-10°0'	23.38	4.12	
1774	26.0	-10°0'	25.50	4.50	
1772	21.8	-8°45'	21.59	3.32	
1696	21.8	-7°50'	21.69	2.98	
1757	32.0	-8°45'	31.55	-4.86	31.04
1780	11.4	-15°0'	10.91	2.92	
1695	12.8	-11°20'	12.59	2.53	
1714	t 6.10	"			
1716	t 5.60	"			
1688	t 2.60	"			
1712-A	14.0	+2°0'	14.28	.50	
1715	12.8	+4°20'	13.02	.98	
1713	14.0	+3°0'	14.26	.75	
1734	19.0	-0°40'	19.29	.22	
1712	19.0	+3°10'	19.24	1.03	
1736	20.0	+4°45'	20.16	1.68	
1733	17.0	+1°45'	17.28	.53	
1737	18.0	+5°0"	18.16	1.58	
1732	15.6	+6°0'	15.73	1.65	
1731	14.4	+2°10'	14.28	.55	
1733-a	18.6	+4°0'	18.80	1.32	

A

1507
1495
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11.4

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2.518
1.220
1.120
520
2.856
2.604
2.852
3.858
3.848
4.032
3.456
3.632
3.146
2856
3.760

					31.90
1740	16.4	+1°30'	16.68		
1741	14.6	+1°50'	14.88		
1742	9.8	+1°10'	10.08		
1743	12.4	+1°0'	12.68		
1745	13.0	-1°30'	13.28		
1746	8.3	-1°50'	8.58		
1751	17.2	+1°15'	17.28		
1752	21.0	+2°30'	21.24	.92	
1753	18.4	-0°35'	18.69		
1786	24.2	+3°30'	24.41	1.48	
1786-a	24.0	-2°35'	24.25	1.10	
1785	28.0	+4°40'	28.11	+2.30	38.20
1738	24.0	+5°15'	24.10	2.22	
1739	21.2	+3°0'	21.44	1.12	
1784	26.3	+5°25'	26.36	2.53	
1783	36.0	+12°20'	34.63	+7.60	43.50
1782	23.8	+6°30'	23.79	2.71	
1781	30.0	+12°15'	28.94	6.29	
1726	28.0	+2°40'	28.24	1.32	
1726-a	29.0	+4°25'	29.14	2.25	
△1791	42.0	+11°25'	40.63	8.20	44.10
⊼ of △1790					56.02
△1680	68.4	-17°45'	62.74 62.32	40=20.12 19.90	35.90
△1791	29.2	-26°35'	23.60	11.80	44.10
△1792	39.0	+20°15'	40=35.00 34.65	40=12.40 12.80	68.92

3.336
2.976
2.016
2.536
2.656
1.716
3.456
4.248
3.738
4.882
4.850
5.622
4.820
4.288
5.272
6.926
4.758
5.788
5.648
5.828
8.126
12.548
4.720
7.000

1798	t3.20					.640
1797	8.2	−23°30′	7.12	3.10		1.240
1793	9.0	−11°50′	8.91	1.93		1.782
1800 1794	7.2	−13°50′	7.07	1.72		1.414
1795.	14.0	−6°45′	14.10	1.67		2.820
1811	19.6	−4°50′	19.76	1.67		3.942
1796	15.8	−6°0′	15.92	1.67		3.184
1809	13.4	−6°45′	13.55	1.60		2.710
1807	10.4	+6°0′	10.58	1.25		2.116
1808	12.0	+4°25′	12.23	.95		2.446
1810	14.8	+0°30′	15.09			3.018
1805	8.8	+5°45′	9.01	.91		1.802
1806	t6.15					1.230
1804	11.0	+4°10′	11.24	.82		2.248
1803	t4.05					.810
1802	t4.20					.820
1801	t6.20					1.240
木武田1792					68.92	
△1790	39.8	−20°10′	by 35.00 35.35	rv. 12.90 13.00	56.02	7.000
△1812	93.0	+21°35′	rv. 63.80 63.50	rv. 15.22 15.05	84.14	12.760
1816	t3.10					.620
1817	t4.50					.900
1814	t5.70					1.140
1815	t7.40					1.480
1818	t9.20					1.840
1813	t8.40					1.680

3√3.5
34.6.5
7°

1799	35.4	-23°0'	30.21	12.81		6.042
1822	21.0	-12°35'	20.28	4.53		4.056
1819	12.6	-12°30'	12.30	2.73		2.460
1820	11.8	-25°0'	10.02	4.67		2.004
1821	19.0	-18°35'	17.35	5.82		3.470
1823	33.0	-22°30'	28.37	11.78		5.674
1824	34.0	-23°0'	29.15	12.37		5.830
1825	29.0	-23°15'	24.75	10.65		4.950
METATE	t 2.50					.500
1827	20.4	-4°30'	20.56	1.62		4.112
1826	24.0	-6°40'	23.97	2.80		4.794
1828	25.0	-2°20'	25.26	1.03		5.052
1829	27.0	-3°30'	27.20	1.67		5.440
1830	28.6	-4°0'	28.76	2.01		5.752
⊼ at △ 1812					84.14	
△ 1792	74.0	-21°35'	63.80 64.10	dr = 15.23 15.40	68.92	12.760
1831	t 2.70					.540
1834	t 3.40					.640
1835	t 4.00					.800
1836	t 7.40					1.480
1832	t 8.30					1.660
1833	t 8.25					1.650
1839	t 14.85					2.970
1846	t 4.65					.930
1847	t 5.75					1.150

					ELEV.
1845	t 8.40				
1843	t 8.60				
1848	t 10.00				
1844	t 11.15				
⊼ at △1643					25.73
△1436	64.6	-0°15'	64.89	-.20	25.53
△1300	96.0	-0°45'	96.28	-1.26	Ht = 24.47 / 24.47
△1460	69.0	+1°0'	69.28	+1.20	26.93
1849	t 8.10				
1850	t 11.20				
1851	17.4	+7°0'	17.44	2.14	
1852	20.0	+4°30'	20.18	1.58	27.31
1853	21.0	+6°30'	21.03	2.39	
1854	23.4	+6°45'	23.37	2.77	28.50
1855	26.4	+6°45'	26.33	3.13	
1856	23.0	+6°30'	23.00	2.63	
1857	24.4	+5°40'	24.46	2.43	
1858	24.4	+5°30'	24.47	2.35	
1859	22.0	+5°20'	22.11	2.06	
1860	20.6	+4°30'	20.77	1.63	
1863	22.2	+5°10'	22.32	2.07	
1861	25.4	+4°50'	25.52	2.17	
1862	27.0	+3°15'	27.22	+1.54	27.27
1864	23.6	+5°25'	23.69	2.25	
1865	24.0	+0°40'	24.29		26.00

1.44

	1.680
	1.620
	2.000
	2.230
	12.978
	19.256
	13.856
	1.620
	2.240
	3.488
	4.036
	4.206
	4.674
	5.266
	4.600
	4.892
	4.894
	4.422
	4.154
	4.464
	5.104
	5.444
	4.738
	4.858

π at △1643 Cont					25.73
1865-a	102.0	+18°15'	92.23	30.50	56.23
1866	85.0	+19°0'	75.18	26.20	51.93
1867	30.2	+8°0'	29.90	+4.20	29.93
π at △1435					44.95
△1301	45.8	-28°40'	35.50	19.40	25.83
△1868	42.0	+25°53'	34.27	16.60	61.55
1869	57.0	-2°0'	57.23	-2.00	42.95
1870	31.0	+7°0'	30.84	+3.79	48.74
π at 1868					61.55
△1435	42.0	-25°53'	34.27	-16.60	
?△1871	72.2	+19°55'	64.10	+23.10	
△1872	60.0	+10°18'	58.38	+10.63	72.18
△1873	61.2	+3°5'	61.34	+3.30	64.85
1874	t 10.0				
1875	t 9.30				
1876	t 5.74				
1878	11.2	+8°0'	11.29	1.58	
1879	13.2	+7°25'	13.27	1.73	
1880	14.0	+7°25'	14.06	1.83	
1881	16.2	+9°15'	16.07	2.62	
1882	28.0	+5°20'	28.06	2.62	
1883	28.0	+3°20'	28.20	1.64	63.19
1884					
1885	20.0	+9°0'	19.80	3.14	64.69
1877	t 3.43				

	18.446
	15.036
	5.980
a = 7.00	7.100
	6.854
	11.446
	6.165
	6.854
	12.820
	11.676
	12.268
	2.000
	1.860
	1.148
	2.258
	2.654
	2.812
	3.214
	5.612
	5.640
	3.960
	.686

3446
3520
216996
34.98
7.00

T at △ 1873					64.85
△ 1868	61.2	−3°5′	61.34	−3.30	
△ 1872	36.0	+12°8′	34.70	W = 7.39 7.49	
△ 1890	30.2	−6°15′	30.14	3.30	61.55
1897	t 3.40				
1894	26.8	+1°15′	27.08		
1895	27.0	+2°0′	27.27	+0.95	65.80
1896	33.0	+1°45′	33.28		
1898	37.0	+1°15′	37.28		
1893	33.0	+1°15′	33.28		
1892	34.0	✓	34.30		
1891	38.0	+0°15′	38.29		
1887	40.0	−0°15′	40.21		
1889	37.6	−0°35′	37.89		
1886	45.0	−1°15′	45.29	−1.00	63.85
1888	41.8	−0°45′	42.09		
1918	t 1.80	✓			
1918-a	t 1.65				
1914	t 5.50				
1915	t 6.05				
1916	t 2.20				
1911	t 6.60				
1913	t 6.35				
1912	t 7.75				
1917	t 5.65				
1919	t 6.85				

12.268
6.940
6.028
.680
5.416
5.454
6.656
7.456
6.656
6.860
7.858
8.058
7.578
9.058
8.418
.360
.330
1.100
1.210
.440
1.320
1.270
1.550
1.130
1.370

					64.85
1910	9.4	-5°30'	9.60	.93	
1909	12.8	-5°25'	12.97	1.23	
1906	16.0	-5°15'	16.17		
1902	t 4.40				
1901	t 8.80				
1907	17.8	-5°30'	17.93	-1.72	63.13
1905	16.6	-7°30'	16.61	2.19	
1904	20.0	-7°0'	20.00	2.46	
1899	19.8	-4°15'	19.99	1.48	
1900	22.4	-6°0'	22.45	2.36	
1903	24.8	-7°20'	24.69	3.17	61.68
Mat Δ 1890					61.55
Δ 1873	30.2	+6°15'	30.14	3.20	64.85
1935	t 3.38				
1935-a	t 4.23				
1938	t 3.15				
1938-a	t 4.15				
1946	t 2.80				
1956	t 1.95				
1957	t 4.10				
1960	t 5.25				
1923	t 6.20				
1922	t 5.35				
1921	t 8.60				
1924	t 10.10				

	1.920
	2.594
	3.237
	.880
	1.760
	3.586
	3.322
	4.000
	3.998
	4.490
	4.938
	6.028
	.676
	.846
	.630
	.830
	.560
	.390
	.820
	1.050
	1.240
	1.070
	1.720
	2.020

13

61.55

1920	10.8	-4°30'	11.03	0.87	2.206
1926	12.6	-4°15'	12.83	0.95	2.566
1933	13.6	-3°45'	13.84	0.91	2.768
1930	17.8	-4°45'	17.98	1.50	3.596
1930-a	16.2	-3°50'	16.43	1.10	3.286
1925	14.0	-4°25'	14.22	1.10	2.844
1927	15.0	-3°30'	15.24	.93	3.048
1928	16.2	-5°15'	16.36	1.50	3.272
1929	19.4	-6°0'	19.49	2.05	3.898
1931	22.0	-5°0'	22.13	1.97	4.426
1932	20.0	-5°0'	20.15	1.46	4.030
1932-a	23.8	-7°10'	23.72	2.98	4.744
1934	t 6.90				1.380
1936	t 4.10				.820
1940	t 5.10				1.020
1937	t 3.90				.780
1939	t 4.60				.920
1955	t 5.20				1.040
1958	t 6.60				1.320
1959	t 7.60				1.520
1944	t 9.00				1.800
1941	13.2	-2°0'	13.48	0.47	2.696
1942	14.6	-0°15'	14.89		2.978
1943	18.8	-0°35'	19.09		3.818
1943-a	17.6	-2°30'	17.87	0.78	3.574

					61.55
1945	18.0	-3°15'	18.24	1.09	
1947	18.0	-5°30'	18.13	1.74	
1961	? 18.0	-7°30'	17.99	2.36	
1962	20.2	-11°45'	19.65	4.09	57.46
1963	17.2	-12°0'	16.74	3.56	
1964	14.6	-7°45'	14.63	1.99	
1965	21.0	-9°0'	20.79	3.29	
1966	19.0	-7°0'	19.01	2.34	
1968	17.0	-7°0'	17.04	2.10	
1967	19.0	-6°0'	19.09	2.01	
1969	27.0	-4°50'	27.11	2.20	
1970	30.0	-7°30'	29.79	4.03	47.51
1971	35.8	-2°30'	36.03	1.18	
1972	29.6	-2°30'	29.84	1.31	
1951	26.8	+0°45'	27.09		
1948	17.2	+0°30'	17.49		
1953	16.0	-2°45'	16.26	0.77	
1908	16.0	-5°0'	16.18	1.42	
1954	25.0	-7°10'	24.91	3.13	58.42
1973	21.0	+1°30'	21.28		
1974	23.8	+1°50'	24.08		
1952	24.8	+3°15'	25.02	1.42	
1950	31.6	+0°25'	31.89		
1949	24.0	+0°15'	24.29		

1909

3.648
3.626
3.598
3.930
3.348
2.926
4.158
3.802
3.408
3.818
5422
5958
7.206
5.968
5.418
3.498
3.252
3.234
4.982
4256
4.816
5004
6.378
4.858

for 20N see page (46)
also (41)

⊼ at △ 1872					72.18	
△ 1868	60.0	−10°18′	58.37	10.63		
△ 1873	36.0	−12°0′	34.70	7.30 (or 7.34)		6.940 o.k.
△ 2015	44.0	+0°35′	44.28	.45−.10 (35)	72.12	5.856
2005	34.0	+11°30′	32.94	6.14		6.588
2004	35.0	+11°5′	34.00	6.13		6.800
2003	35.4	+10°35′	34.30	6.09		6.860
2006	37.8	+11°15′	36.65	7.55		7.330
2008	43.6	+10°38′	42.41	7.90		8.482
1988	28.4	+7°5′	28.26	+3.51	75.69	5.652
1987	20.0	+6°55′	20.01	+2.43	74.61	4.002
1985	17.4	+5°15′	17.55	1.62		3.510
1985-a	15.6	+5°15′	15.77	1.44		3.154
1985-b	14.6	+7°0′	14.68	1.80		2.936
1986	16.4	+6°35′	16.48	1.90		3.296
1986-b	15.6	+7°25′	15.63	2.04		3.126
1990	13.6	+7°45′	13.65	1.86		2.730
1991	18.2	+4°25′	18.39	1.42	73.60	3.678
1992	23.6	+2°30′	23.85	1.04		4.770
1993	16.0	+1°45′	16.28	.49		3.256
1994	13.8	+1°40′	14.08			2.816
1995	21.8	+2°30′	22.07	.77		4.414
1996	21.0	+1°0′	21.29	+0.37	72.55	4.258
1979	9.6	−2°10′	9.89	.37		1.978
1989	8.0	−1°0′	8.25			1.650

±8.25

					72.18
1983	t 7.60	+2°0'	7.89	0.27	
1982	t 8.25	"			
1981	t 7.40				
1984	t 5.20				
1984-a	t 4.15				
1984-b	t 2.80				
2021	t 8.60				
1975	t 1.20				
2020	t 2.10				
1976	t 3.70				
1977	7.0	-22°20'	6.25	2.57	
2016	14.6	-19°15'	13.25	4.67	
2017	12.6	-15°30'	11.98	3.21	
2018	14.2	-16°30'	13.33	3.95	
2019	16.6	-15°10'	15.47	4.26	
1997	13.8	-11°50'	13.51	-2.83	69.35
1998	12.6	-13°30'	12.20	2.93	
1999	16.3	-11°35'	15.93	3.27	
2000	17.4	-11°15'	17.03	3.38	
2001	19.8	-11°45'	19.27	4.00	
2002	22.0	-15°45'	20.66	-5.82	66.36
M-2022	26.0	-12°50'	25.00	5.70	
2023	19.8	-10°50'	19.39	3.70	
2024	27.2	-10°0'	26.67	4.70	67.48
2025	31.6	-12°0'	30.48	6.70	

1.578
1.650
1.480
1.040
.830
.560
1.720
.240
.420
.740
1.350
2.650
2.396
2.666
3.094
2.702
2.440
3.186
3.406
3.854
4.132
5.000
3.878
5.334
6.096

⊼ at △ 2026					v = 88.27 / 88.13	
△ 1868	86.0	−18°22′	77.53	−25.80 −1.00 (26.80)	61.98	
△ 1872	66.0	−14°2′	62.40	15.60		
⊼ at △ 2026					v = 88.27 / 88.41	
△ 1872	65.8	−14°3′	62.38	15.57	72.61	12.476
△ 1868	84.0	−17°42′	76.50	−24.43 −2.00 (−26.43)	61.98	1.5300
△ 1871	12.4	−14°4′	11.95	−3.00	85.27	2.390
△ 2027	41.0	+1°45′	41.26	1.26	89.53	8.232
2036	t 1.75					.350
2028	t 1.40					.280
2029	t 1.35					.270
2037	t 4.75					.950
2038	t 6.50					1.300
2039	t 7.87					1.574
2044	12.4	−14°45′	11.88	3.13		2.376
2043	14.8	−13°0′	14.34	3.30		2.868
2041	11.0	−15°45′	10.47	2.95		2.094
2030	t 4.35					.870
2030-a	t 4.87					.974
2031	t 2.85					.570
2032	t 3.25					.650
2033	t 5.90					1.180
2034	t 7.20					1.440
2035	8.6	−20°0′	7.87	2.86		1.574
2046	14.0	−14°45′	13.37	8.52	84.75	2.674

378
336
42

12.30

15.00

661
390
6220

12.4

2 | 12.30
6.150
6.220
.790

} Probably reversed (.27, .28)

8.35

					88.27
2042	13.0	-13°0'	12.63	2.92	
2045	11.2	-22°30'	9.80	4.05	84.22
2065	16.2	-18°0'	14.97	4.85	83.42
2059	19.0	-19°0'	17.23	5.93	
2060	16.0	-21°15'	14.16	5.50	82.77
2061	20.0	-20°30'	17.88	6.70	
2064	21.0	-18°15'	19.19	6.32	
2063	23.2	-18°0'	21.25	6.90	
2062	26.0	-17°50'	23.83	7.68	
2070	21.4	-18°0'	19.71	6.39	
2007	25.0	-16°50'	23.18	7.00	
2013	22.0	-18°30'	20.10	6.71	
2014	15.6	-16°30'	14.62	-4.33	83.94
2009	21.4	-19°40'	19.61	6.88	
2010	23.0	-18°50'	20.80	7.11	
2011	24.6	-18°0'	19.70	7.31	
2012	24.0	-18°0'	21.98	-7.14	81.13
2044	13.8	-1°0'	14.09	0.77	
2050	14.4	-3°0'	14.26	0.77	87.47
2048	9.7	-0°45'	9.99		
2047	8.0	-5°15'	8.23	0.76	
2058	11.8	-1°45'	12.08		
2051	10.2	-3°30'	10.46	0.64	
2052	7.8	-9°0'	7.90	1.98	
2053	9.6	-3°50'	9.86	0.66	

2.526
1.960
2.994
3.446
2.832
3.576
3.838
4.250
4.766
3.942
4.636
4.020
2.924
3.922
4.160
3.940
4.396
2.818
2.852
1.998
1.646
2.416
2.092
1.580
1.972

2054	12.6	+0°25'	12.89		
2057	14.0	-1°10'	14.28		
2057-a	24.2	-0°45'	24.49		
2056	15.6	-4°01	15.82	1.10	
2055	14.6	-2°30'	14.87	0.65	
⊼ tt 2027					89.53
⊼ 2026	40.8	-1°45'	41.06	-1.26	88.27
⊼ 2071	78.2	+0°26'	78.48	+0.59	90.11
2069	t 1.60				
2067	t 3.25				
2066	t 3.85				
2068	t 1.90				
2082	t 5.60				
2083	t 6.20				
2068-a	5.4	-22°0'	4.90	1.98	
2089	9.6	-11°15'	9.52	1.89	87.64
2086	22.4	-15°30'	21.08	5.83	83.70
2098	19.0	-11°30'	18.53	3.76	85.77
2091	14.6	-14°35'	13.96	3.62	
2090	19.6	-11°45'	19.08	3.96	
2092	19.0	-9°15'	18.80	3.06	
2093	17.0	-12°30'	16.49	3.66	
2087	15.4	-17°0'	14.38	4.40	85.13
2072	24.6	-4°30'	24.75	1.97	87.56
2075	23.0	-3°45'	23.20	1.52	

1.40
1.80 1
95

2.578
2.856 19
4.898
3.164
2.974

8212
15.776
.320
.650
.770
.380
1.120
1.240
.980
1.904
4.216
3.706
2.792
3.818
3.760
3.298
2.876
4.950
4.640

78.48
79.28
21.10 7.76
15.88

					89.53
2074	24.0	-1°45'	24.28		
2077	23.2	-1°30'	23.99		
2078	18.2	-4°15'	18.40	1.37	
2079	19.0	-4°30'	19.18	1.51	
2080	15.2	-4°0'	15.43	1.08	
2081	15.2	-3°45'	15.42	1.01	
2095	20.0	-7°30'	19.95	2.63	
2097	21.4	-9°15'	21.14	3.45	
2094	21.8	-7°30'	21.72	2.86	
2084	37.0	-11°0'	35.95	6.96	82.57
2085	32.0	-6°15'	31.92	-3.49	86.04
2085-a	32.0	-10°0'	31.33	5.51	84.02
2099	50.0	-10°20'	48.68	-8.90	80.63
⊼⊼△ 2071					90.11
△ 2027	79.0	-0°25'	79.28	-.87 (1.13)	89.53
△ 2100	57.0	+3°10'	57.13	3.16	93.24
2131	t 4.80				
2101	t 6.20				
2102	9.2	-2°0'	9.49		
2103	11.4	-7°25'	11.50	1.50	88.61
2105-a	19.0	-1°0'	19.29		
2105	20.2	-2°0'	20.49	0.71	89.40
2107	23.0	-3°40'	23.20	1.49	88.62
2108	25.0	-4°25'	25.15	1.94	88.17
2096	24.6	-8°45'	24.33	3.75	86.36

OUT OF PLACE — SEE F.N.B. # 1.

4.856
4.698
3.680
3.836
3.086
3.084
3.990
4.228
4.344
7.190
6.384
6.266
9.736

1,5856
1,1426
9.60
1.240
1.898
2.300
3.858
4.098
4.640
5.020
4,866

					90.11
2106	18.2	-1°0'	18.49		
2130	18.6	-2°30'	18.86	0.82	89.29
2126	21.8	+0°25'	22.09		
2129	21.0	+1°0'	21.29		
2133	21.4	+1°45'	21.68		
2137	21.2	+2°45'	21.45	1.03	91.14
2134	22.6	+2°20'	22.86	0.93	91.04
2137-a	22.2	+3°0'	22.44	1.18	91.29
2135	17.5	+5°30'	17.64	1.70	91.81
2136	14.0	+5°45'	14.16	1.42	91.53
2132	12.0	+3°15'	12.26	0.70	90.81
2128	10.4	+1°10'	10.69		
2127	9.6	+0°15'	9.89		
2104	28.0	-7°0'	27.88	3.43	86.68
2109	32.2	-5°15'	32.23	3.06	87.05
2110	37.8	-4°45'	37.84	3.15	86.96
2111	36.0	-4°0'	36.12	2.52	87.59
2114	35.0	-4°5'	35.12	3.51	86.60
2113	55.0	-5°0'	54.88	4.80	85.31
2112	38.4	-4°0'	38.51	2.69	87.42
2115	38.0	-4°0'	38.71	2.67	87.44
2075	44.0	-1°45'	44.28		
2076	44.4	-2°30'	44.61	1.94	88.17
2125	38.0	-7°0'	37.58	5.85	84.26
2116	21.6	-10°0'	21.24	3.75	86.36
2109-a	34.0	-4°15'	34.11	2.54	87.57

1513

3.698
3.772
4.418
4.258
4.336
4.290
4.572
4.488
3.528
2.832
2.452
2.138
1.978
5.576
6.446
7.568
7.224
7.024
10.976
7.702
7.642
8.856
8.922
7.516
4.248
6.822

139
1.25
175

139
1.98
192
384

					90.11
2117	25.0	-9°2'	24.67	4.03	86.08
× 2118	22.0	-9°0'	21.75	3.46	86.65
2119	23.4	-8°30'	23.18	3.46	86.65
2120	20.6	-8°50'	20.41	3.17	86.94
2121	18.6	-10°10'	18.31	3.28	86.83
2122	21.2	-8°45'	20.98	3.38	86.73
2123	20.0	-10°15'	19.66	3.56	86.55
2124	19.0	-8°25'	18.89	2.80	87.31
2148	15.0	-7°30'	15.04	1.78	88.13
2145	13.2	-6°10'	13.34	1.44	88.67
2146	11.6	-7°10'	11.72	1.48	88.63
2149	12.2	-6°15'	12.35	1.36	88.75
2150	18.2	-6°35'	18.26	2.11	88.00
2166	t 1.23				
2167	t 2.83				
2170	t 2.05				
2169	t 3.25				
2144	t 4.30				
2168	t 5.00				
2138	t 4.90				
2141	t 6.80				
2143	t 5.80				
2140	t 6.60				
2171	t 2.00				
△ 2165	63.0	-4°25'	62.92	-4.86 -.30 -5.16	84.95

4.934
4.350
4.636
4.082
3.662
4.196
3.932
3.778
3.008
2.668
2.344
2.470
3.652
.246
.566
.410
.650
.860
1.000
.980
1.360
1.160
1.320
0.400
12.580

1.645
152
125

木は△2100					193.24	
2071	57.0	-3°6'	57.13	3.09 (13)	90.11	11.426
2151	29.0	-15°45'	27.14	-7.79	85.45	5.428
2152	31.0	-17°15'	28.55	-8.78	84.46	5.710
2153	29.0	-17°15'	26.72	-8.30	84.94	5.344
2154	23.0	-19°45'	20.65	-7.41	85.53	4.130
2156	16.2	-18°0'	14.93	-4.85	88.39	2.986
2155	20.3	-18°35'	18.56	-6.21	87.03	3.712
2163	18.8	-16°25'	17.58	-5.18	88.06	3.516
2164	25.0	-10°45'	24.43	-4.64	88.60	4.886
2159	18.0	+10°45'	17.66	+3.35	96.59	3.532
2158	21.0	+17°10'	19.44	+6.05	89.29	3.888
2157	17.6	+25°0'	14.72	+6.87	100.11	2.944
2160	14.4	+20°15'	12.92	+4.77	98.01	2.584
2161	25.0	+21°30'	21.90	+8.62	101.86	4.380
2162	28.0	+18°30'	25.45	+8.51	101.75	5.090
2168	57.0	+24°0'	47.80	+21.35	114.59	8.560
2169	80.0	+29°35'	60.90	+34.50	127.74	12.180
2170	90.0	+35°50'	59.25	+43.75	136.990	11.850
2171	22.0	+23°30'	18.78	+8.15	101.39	3.756
2171-a	23.8	+20°15'	21.20	+7.81	101.05	4.240
2171-b	12.8	+19°0'	11.70	+4.03	97.27	2.340
2171-c	20.0	+23°15'	17.17	+7.35	100.59	3.434

Inst 2165					84.95	
Δ 2071	63.0	+4°40'	62.88	5.13		12.576
Δ 2177	50.4	-18°40'	45.55	15.40		9.110
Δ 2172	76.0	-2°20'	76.17	3.10	81.85	15.234
Δ 2173	77.0	-18°5'	69.03	23.82		13.800
2174	48.0	+30°45'	35.65	21.20		7.130
2175	93.0	+39°30'	55.75	43.50		11.150
2176	21.0	-19°45'				
2178	30.0	-21°15'	26.35	10.11		5.270
2179	56.0	-20°5'	49.55	18.17		9.910
Inst 2099					80.63	
Δ 2027	50.0	+10°20'	48.68	+8.89	89.53	9.736
2180	t 9.90					1.980
2181	t 7.80					1.560
2182	t 6.40					1.280
2183	t 3.15					0.630
2184	t 6.65					1.330
2185	t 5.60					1.120
2186	25.0	+16°0'	23.38	+6.70	87.33	4.676
2187	15.0	-18°40'	13.72	+4.63	76.00	2.744
2188	13.6	-13°30'	13.15	-3.15	76.48	2.630
2189	12.2	+4°0'	12.44	+0.87	81.50	2.488
2190	t 14.15					2.830

1695
130
315

1845
138
465
93

1319
1391
2710
2.76

1391
1384
11
2.2

1.38
1.319
.061
12.2

for 2015 see page (46)
Also 2192
2192

⊼ At 2015					72.12	
△ 1872	44.0	−0°28′	44.28	− .36		88√6
△ 2192	66.4	−16°51′	61.11	18.50		12.222
△ 2191	26.0	−20°5′	23.16	−8.51	63.61	4.632
△ 2177	60.0	−3°25′	60.09	3.60		12.018
2194	t 4.25					.850
2193	t 3.60					.720
2195	16.8	−19°15′	15.22	−5.32	66.80	3.044
2196	10.2	−16°0′	9.70	−2.78	69.34	1.940
2197	t 7.05					1.410
2198	t 7.65					1.530
⊼ At △ 2191					63.55	
△ 2015	26.0	+20°5′	23.16	8.51	72.12	4.632
△ 2177	48.6	+5°25′	46.46	4.59		9.292
△ 2192	43.4	−14°31′	40.95	= 10.02 −10.62+60	53.53	8.190
△ 2173	59.0	−3°47′	59.04	−3.91		11.808
2199	t 5.05					1.010
2200	t 3.90					.780
2201	t 2.43					.486
2202	t 1.60					.320
2203	t 1.75					.350
2204	t 2.80					.560
2205	t 5.10					1.020
2206	t 4.15					.830
2207	t 4.30					.860

					63.55
2208	t 2.95				
2209	t 2.55				
2210	t 3.87				
2211	t 6.67				
2212	t 6.70				
2213	11.6	-4°25'	11.83	0.91	
2214	14.4	-9°15'	14.32	2.33	
2215	13.0	-8°10'	13.03	1.87	
2216	″	″			
2217	16.0	-12°25'	15.55	-3.42	60.12
2218	20.1	-13°0'	19.65	4.54	
2219	25.0	-10°5'	24.53	4.36	
2220	22.4	-10°10'	21.99	3.94	
2221	26.4	-10°45'	25.77	4.90	
2222	22.0	-16°15'	20.56	5.99	
2223	28.0	-8°50'	27.64	4.30	
2224	28.4	-7°45'	28.18	3.83	
2225	27.6	-7°30'	27.43	3.60	
2226	32.0	-6°30'	31.88	3.64	
2227	33.0	-6°45'	32.84	3.88	
2228	″	″			
2229	38.0	-4°30'	38.07	3.00	
2230	45.2	-2°0''	45.45	1.59	
2231	44.0	-0°10'	44.29		
2232	44.0	+0°20'	44.29	+0.25	63.80

	0.590
	0.510
	0.774
	1.334
	1.340
	2.366
	2.864
	2.606
	3.110
	3.930
	4.906
	4.398
	5.144
	4.112
	5.528
	5.636
	5.486
	6.376
	6.568
	7.614
	9.090
	8.858
	8.858

1,779
1,272

24,41

12,205

					63.55	
2242	t8.70					1,740
2241	13.2	-4°30'	13.42	1,06		2,684
2243	t8.20					1,640
2244	t10.65					2,130
2245	10.2	-12°0'	10,05	2,14		2,010
2246	t31,0					6,200
2233	26.0	-1°40'	26.28			5,256
2234	26.0	+5°0'	26,10	2.28		5,220
2235	26,0	+6°50'	25.93	3,10		5,186
2236	28.6	+7°30'	28.41	3.74	67,29	5,682
2237	20.6	+10°30'	20.21	3,745		4,042
2238	17.0	+10°15'	16.75	3.03		3,350
2239	15.2	+9°40'	15.06	2,56		3,012
2240	22.0	+10°10'	21,60	3.87		4,320
不出 △2192					53,53	
△2015	66.0	+16°30'	60.95	18.50 18,10+.40	72,12	12,190
△2191	42.4	+12°58'	40.55	9.91 +9,31+60		8,110
△2173	42.0	+8°38'	41.34	6.28		8,268
△2250	55.2	+0°46'	55.43	.71	54.25	11,086
2248	t5.50					1,100
2249	t6.40					1,280
2254	t1.45					.290
2253	t9.20					1,840
2251	t9.45					1,890
2255	9.0	+9°0'	9.07	1.43	54.63	1,814

2256	10.6	+10°45'	10.53	400		2.106
2257	9.6	+9°0'	9.66	1.54		1.932
2258	15.0	+11°0'	14.74	1.74		2.944
2259	17.0	+10°0'	16.78	2.96		3.356
2260	15.0	+9°48'	14.86	2.56		2.972
2216	29.0	+10°30'	28.33	5.25		5.666
2228	32.0	+7°30'	31.75	4.29		6.350
↑at △2192					53.53	
2250	55.2	+0°46'	55.47	0.71	54.75	11.094
2261	26.8	+10°0'	26.28	4.64		5.256
2262	27.6	+12°10'	26.66	5.74	59.47	5.332
2264	27.0	+13°0'	25.92	5.99	59.72	5.184
2263	41.0	+4°20'	41.08	8.11		8.216
2265	17.4	-6°40'	17.46	2.04		3.492
2266	18.0	-3°30'	18.23	1.12		3.646
2267	26.0	-6°10'	26.00	2.81	50.72	5.200
2268	25.0	-3°40'	25.20	1.62		5.040
2269	26.0	+3°0'	26.23	1.38		5.246
2270	18.6	-2°10'	18.87	0.71		3.774
2271	27.0	-2°0'	27.27	0.95		5.454
2272	29.8	-3°15'	30.00	1.70		6.000
2273	24.4	-5°50'	24.45	2.50	51.03	4.890
2274	23.2	-1°40'	23.48			4.696
2275	✓	✓				
2276	24.0	-4°30'	24.15	1.90		4.830
2278-a	24.6	-3°45'	24.80	0.97		4.960

199
.37
1053

140
13.1
.085
.17

					53.53	
2277	17.0	-3°30'	17.24	1.06		3.448
2278	24.0	-3°10'	24.23	1.34		4.843
2279	18.2	-3°0'	18.45	0.97	52.56	3.690
2280	18.0	-5°0'	18.16	1.59		3.632
2281	19.6	-6°50'	19.62	2.35		3.924
2282	18.0	-5°50'	18.11	1.85		3.622
2283	14.0	-5°15'	14.18	1.30		2.836
2284	19.0	-7°30'	18.97	2.50		3.794
✓	✓					
2263-a	38.0	+2°15'	38.24	1.50		7.648
2263-b	47.6	+7°20'	47.12	6.04		9.424
2247	28.0	-2°0'	28.27	0.99		5.654
⊼ at △2173						
△2165	77.0	+19°7'	68.98 (69)	23.86		13.800
△2191	79.0	+3°30'	79.00	4.84		15.800
△2192	42.0	-8°39'	41.34	6.29	53.53	8.268
△2250	50.4	-8°21'	49.63		54.25	9.926
2286	+2.50					.500
2287	+4.15					.830
2288	16.0	+2°10'	16.28	0.62		3.256
2285	13.0	+2°0'	13.28	0.46		2.656
⊼ at △2250					54.25	
△2192	55.2	-0°47'	55.42	0.77	53.53	11.084
△2173	47.4	+8°35'	~~46.42~~ 56.42	+8.50 (+7.00) -7.50	61.16	9.284
△2289	62.2	+20°40'	54.72	20.68	74.93	10.944

Use this in Calculating Elevation (Checks on Map for distance

5950
2
10900

					54.25
△ 2290	46.4	+6°25'	46.12	5.18	59.35
△ 88	60.0	-1°5'	60.25	-1.142	52.97
2293-a	12.0	-0°45'	12.29	-0.16	54.09
2293	9.0	-7°35'	9.14	1.22	53.03
2275	21.4	-13°30'	20.52	4.92	
2294	18.0	-20°15'	16.09	5.95	48.30
2304	5.8	+10°0'	5.91	1.04	
2305	7.0	+16°15'	6.74	1.93	
2306	7.8	+17°35	7.36	2.33	
2307	10.0	+20°0'	9.10	3.31	
2309	14.0	+15°45'	13.26	+3.74	57.99
2308	30.6	+12°30'	29.46	6.51	
2303	13.0	+12°35'	12.67	2.83	
2302	16.0	+15°50'	15.08	4.27	
2301	17.4	+16°10'	16.33	4.74	
2300	18.6	+14°30'	17.82	4.58	58.83
2310	27.6	+13°35'	26.36	+6.36	60.61
2299	26.6	+9°25'	26.18	4.35	
2309-a	20.0	+1°0'	20.29		
2299-a	22.0	+7°30'	21.92	2.89	
2295	30.6	+5°15'	30.64	2.82	58.07
2295-a	12.6	+6°15'	12.76	1.28	
⊼ at △2290					59.35
△ 2250	46.4	-6°25'	46.12	-5.18	54.25
△ 114	8.8	-9°26'	9.07	-1.46	

RED INDICATES ELEVATIONS USED when there is a difference in 1932 & 1933 Surveys. These are averaged and taken up as follows

1932. Elev of △ 88 = 52.65 meters
1933. Elev of △ 88 = 53.30 "
← Checked in from △2250 see map.

average = 52.97. - use

△ 2290	= 59.62 -	use	59.35
△ 2250	= 54.44 -	"	54.25
△ 2192	= 53.73 -	"	53.53
△ C.	= 54.21 -	"	54.60
△ A.	= 56.55 -	"	56.80
△ H.B.	= 53.45 -	"	53.50
△ 90	= 43.12 -	"	43.30
△ 113	= 37.45 -	"	37.60
△ 2015	= 72.23	"	72.12

4.128
2.552

9.224
1.814

					54.25
△ 2290	46.4	+6°25'	46.12	5.18	59.35
△ 88	60.0	-1°5'	60.25	-1.142	52.97
2293-a	12.0	-0°45'	12.29	-0.16	54.09
2293	9.0	-7°35'	9.14	1.22	53.03
2275	21.4	-13°30'	20.52	4.92	
2294	18.0	-20°15'	16.09	5.95	48.30
2304	5.8	+10°0'	5.91	1.04	
2305	7.0	+16°15'	6.74	1.93	
2306	7.8	+17°35	7.36	2.33	
2307	10.0	+20°0'	9.10	3.31	
2309	14.0	+15°45'	13.26	+3.74	57.99
2308	30.6	+12°30'	29.46	6.51	
2303	13.0	+12°35'	12.67	2.83	
2302	16.0	+15°50'	15.08	4.27	
2301	17.4	+16°10'	16.33	4.74	
2300	18.6	+14°30'	17.82	4.58	58.83
2310	27.6	+13°35'	26.36	+6.36	60.61
2299	26.6	+9°25'	26.18	4.35	
2309-a	20.0	+1°0'	20.29		
2299-a	22.0	+7°30'	21.92	2.89	
2295	20.6	+5°15'	20.64	2.82	58.07
2295-a	12.6	+6°15'	12.76	1.28	
Att △2290					59.35
△ 2250	46.4	-6°25'	46.12	-5.18	54.25
△ 114	8.8	-9°26'	9.07	-1.46	52.79

9.224
12.050
2.458
1.828
4.104
3.218
1.182
1.348
1.472
1.820
2.652
5.892
2.534
3.016
3.266
3.564
5.272
5.236
4.058
4.384
4.128
2.552

9.224
1.814

2/66.1
2/13.22

pt 88 from 2250) there
N ERROR of CLOSURE
75 METERS.
VIDED AMONG the
△'s 301, 1435, 1868
2192 & 2250, & 88
(SEE DRAWING)
IVISION of the
DISTANCE (AND HOR.
CLOSURE
) 1 from △2173 to
2250 IS LESS THAN
bove plotted distribution
almost exactly

					54.25
△ 2290	46.4	+6°25'	46.12	5.18	59.35
△ 88	60.0	-1°5'	60.25	-1.142	52.97
2293-a	12.0	-0°45'	12.29	-0.16	54.09
2293	9.0	-7°35'	9.14	1.22	53.03
2275	21.4	-13°30'	20.52	4.92	
2294	18.0	-20°15'	16.09	5.95	48.30
2304	5.8	+10°0'	5.91	1.04	
2305	7.0	+16°15'	6.74	1.93	
2306	7.8	+17°35	7.36	2.33	
2307	10.0	+20°0'	9.10	3.31	
2309	14.0	+15°45'	13.26	+3.74	57.99
2308	30.6	+12°30'	29.46	6.51	
2303	13.0	+12°35'	12.67	2.83	
2302	16.0	+15°50'	15.08	4.27	
2301	17.4	+16°10'	16.33	4.74	
2300	18.6	+14°30'	17.82	4.58	58.83
2310	27.6	+13°35'	26.36	+6.36	60.61
2299	26.6	+9°25'	26.18	4.35	
2309-a	20.0	+1°0'	20.29		
2299-a	22.0	+7°30'	21.92	2.89	
2295	30.6	+5°15'	30.64	2.82	58.07
2295-a	12.6	+6°15'	12.76	1.28	
⊼ at △ 2290					59.35
△ 2250	46.4	-6°25'	46.12	-5.18	54.25
△ 114	8.8	-9°26'	9.07	-1.46	

$2 \,/\, \frac{66.1}{13.22}$

12,040 on Pt 88 (from 2250) there

IS AN ERROR of Closure

of ABOUT 0.75 METERS.

THIS WAS DIVIDED AMONG the

△ POINTS (ON MAP) △ 1301, 1435, 1868

1872, 20N, 2192 & 2250, & 88

(SEE DRAWING)

USING THIS DIVISION of the

ERROR, the HOR DISTANCE (AND HOR. ANGLE CLOSURE) ERROR OF CLOSURE from △ 2173 to

△ 2192 & △ 2250 IS LESS than

0.25, so the above plotted distribution

of Error is almost exactly

Correct.

9.224

.176

					59.35	
△ 2291	25.6	-6°16'	25.60	2.81	"	5120
2296	22.0	-4°25'	22.17	1.72		4434
2297	12.4	-8°30'	12.42	1.86	57.49	2484
2298	12.2	-6°25'	12.34	1.39		2464
2316	12.0	-9°40'	11.95	2.03		2390
2315	12.4	-11°45'	12.18	2.53	56.82	2436
2313	10.4	-12°15'	10.22	2.22		2044
2314	↓	↓				
2312	8.2	-9°25'	8.26	1.37		1652
2311	9.2	-11°0'	9.15	1.78		1830
2327	t 4.40					880
2328	t 5.70					1140
2329	t 5.20					1040
2330	t 6.90					1380
2332	t 4.70					940
2331	t 9.10					1820
2321	t 9.10					1820
2322	t 4.40					880
⊼ 2291					56.54	
△ 2290	25.6	+6°16'	25.60	2.81	59.35	5120
△ 114	21.4	+3°25'	21.62	1.29		4324
△ 2292	31.6	+26°45'	25.45	12.80		5090
✓ 2325	24.0	-26°45'	19.37	9.75		3874
✓ 2319	13.0	-25°30'	10.41	5.18		2042
2331	13.4	-23°30'	11.50	5.01	51.53	2300

					56.54	
2333	8.4	−29°15′	6.61	−3.71	52.83	1.322
2318	10.2	+2°20′	10.48	0.43		2.096
2317	9.2	+2°15′	9.49			1.898
2320	10.0	+4°25′	10.24	0.78		2.048
木此 2289					+74.93	
△ 2250	62.0	−20°40′	54.73	20.65	54.25	10.946
△ 2172	46.0	+7°20′	45.55	5.37		
△ 2292	32.6	−9°25′	32.01	5.30	69.09	
2335	37.0	+30°0′	27.95	17.18	92.11	5.590
木此 2292					69.09	
△ 2289	32.6	+9°30′	32.00	5.37		6.400
△ 2291	31.0	−26°42′	25.45	12.68 (74)	56.54	5.090
△ 2355	70.0	+1°18′	70.18	1.60	70.60	14.036
2353	48.0	−16°10′	44.64	12.61	53.48	8.928
2356	15.0	+24°0′	12.79	+5.69	74.78	2.558
2357	62.0	+29°40′	47.10	+26.80	95.89	9.420
2358	76.0	+31°35′	55.60	+34.05	103.14	11.120
2359	105.0	+35°40′	69.44	+49.65	118.74	13.888
2343	t 3.40					.680
2342	t 4.65					.930
2340	t 1.20					.240
2341	t 2.55					.510
2360	t 1.75					.350
2336	t 9.20					1.840
2337	10.0	−3°30′	10.26	0.63		2.052

64.80
.29
90.00

2338	9.6	+ 4°45'	9.83	0.82	
2339	10.4	+3°30'	10.66	0.65	
2345	16.2	+3°0'	16.45	0.86	
2346	15.4	+1°20'	15.69		
2344	17.0	+6°35'	17.07	1.97	
2347	24.0	+2°0'	24.27	0.85	
2348	26.0	+4°0'	26.17	1.93	
2349	26.0	+5°20'	26.07	2.44	
2350	33.0	+4°15'	33.12	2.46	
2351	32.4	+2°45'	32.62	1.57	
2352	34.0	+0°30'	34.29	.30	
2361	16.6	-12°0'	16.17	3.44	
At 2355					70.60
△ 2292	70.0	-1°19'	70.18	1.61	69.09
△ 156	74.2	-26°20'	59.92	29.63	40.83
△ 2363	42.4	-7°2'	42.06	-5.17	
△ 2362	34.8	+5°53'	34.73	3.58	
2377	20.0	-7°0'	20.00	-2.51	68.09
2376	20.4	-13°30'	19.63	-4.70	65.90
2371	7.8	-22°45'	6.90	2.90	
2372	6.0	-26°15'	5.08	2.50	68.10
2373	12.6	-16°15'	11.90	3.46	
2374	8.8	-20°0'	8.02	2.92	67.68
2375	5.0	-29°0'	4.05	2.25	
2370	+1.30				

RED INDICATES ELEVATIONS USED when there is a difference in 1932 & 1933 surveys. These are arranged and taken up as follows.

1932. ELEV. of △156 = 40.50 meters
1933, " " " 41.17
from △ 2355 - See map

AVERAGE = 40.83 - use

△ 2355 = 70.80 - use 70.60
△ 2292 = 69.19 - " - 69.09
△ 2291 = 56.54 - " - 56.50
△ 605 = 39.97 - " - 40.15
△ 606 = 37.53 - " - 37.65
△ 113 = 37.45 - " - 37.60
△ 90 = 43.12 - " - 43.30
△ 157 = 50.20 - " - 50.25

1.016
2.380
1.604
.810
.260

2338	9.6	+4°45'	9.83	0.82	
2339	10.4	+3°30'	10.66	0.65	
2345	16.2	+3°0'	16.45	0.86	
2346	15.4	+1°20'	15.69		
2344	17.0	+6°35'	17.07	1.97	
2347	24.0	+2°0'	24.27	0.85	
2348	26.0	+4°0'	26.17	1.93	
2349	26.0	+5°20'	26.07	2.44	
2350	33.0	+4°15'	33.12	2.46	
2351	32.4	+2°45'	32.62	1.57	
2352	34.0	+0°30'	34.29	.30	
2361	16.6	-12°0'	16.17	3.44	
At 2355					70.60
△ 2292	70.0	-1°19'	70.18	1.61	69.09
△ 156	74.2	-26°20'	59.92	29.63	40.83
△ 2363	42.4	-7°2'	42.06	-5.17	
△ 2362	34.8	+5°53'	34.73	3.58	
2377	20.0	-7°0'	20.00	-2.51	68.09
2376	20.4	-13°30'	19.63	-4.70	65.90
2371	7.8	-22°45'	6.90	2.90	
2372	6.0	-26°15'	5.08	2.80	68.10
2373	12.6	-16°15'	11.90	3.46	
2374	8.8	-20°0'	8.02	2.92	67.68
2375	5.0	-29°0'	4.05	2.25	
2370	t 1.30				

1939401

Scale 1 CM. = 5.00 METERS

1.966
2.132
3.290
3.138
3.414
4.854
5.234
5.214
6.624
6.524
6.858
3.234

14.016
11.984
8.412
6.946
4.000
3.926
1.380
1.016
2.380
1.604
.810
.260

156 checks WITHIN
ECTIONS. O.K.
on in Hor. angle and
is within 0.10

= 40.90 diff. of .93

2338	9.6	+4°45'	9.83	0.82	
2329	10.4	+3°30'	10.66	0.65	
2345	16.2	+3°0'	16.45	0.86	
2346	15.4	+1°20'	15.69		
2344	17.0	+6°35'	17.07	1.97	
2347	24.0	+2°0'	24.27	0.85	
2348	26.0	+4°0'	26.17	1.93	
2349	26.0	+5°20'	26.07	2.44	
2350	33.0	+4°15'	33.12	2.46	
2351	32.4	+2°45'	32.62	1.57	
2352	34.0	+0°30'	34.29	.30	
2361	16.6	-12°0'	16.17	3.44	
At 235J					70.66
△ 2292	70.0	-1°19'	70.18	1.61	69.09
△ 156	74.2	-26°20'	59.92	29.63	40.83
△ 2363	42.4	-7°2'	42.06	-5.17	
△ 2362	34.8	+5°53'	34.73	3.58	
2377	20.0	-7°0'	20.00	-2.51	68.09
2376	20.4	-13°30'	19.63	-4.70	65.90
2371	7.8	-22°45'	6.90	2.90	
2372	6.0	-26°15'	5.08	2.80	68.10
2373	12.6	-16°15'	11.90	3.46	
2374	8.8	-20°0'	8.02	2.92	67.68
2375	5.0	-29°0'	4.05	2.25	
2370	+1.30				

Draw △ 235J pt D156 checks WITHIN 0.50 IN. BOTH DIRECTIONS. O.K.
or that is; the Error in Hor. angle and the Hor. Distance is within 0.80

For PK 156. 1932.5 Elev = 40.90 diff. of .93

2378	t 5.10				
2367	11.0	-2°45'	11.27	0.54	
2368	11.6	✓			
2369	12.0	+3°15'	12.26	0.69	
2364	21.2	+2°25'	21.46	0.90	
2365	20.8	+0°30'	21.09	✓	
2366	22.0	-2°0'	22.27	0.77	
⊼ 2363	✓	✓			65.43
△ 2355	42.4	+7°2'	42.06	5.17	
△ 2362	22.0	+28°3'	17.17	+9.24	74.67
△ 2380	41.0	-10°8'	40.02	-7.26	58.17
2385	25.6	-19°45'	22.98	-8.25	57.18
2384	24.8	-22°45'	21.38	-8.95	56.48
2384-a	23.8	-22°20'	20.65	-8.48	56.95
2379	7.4	-3°0'	7.67	-0.40	65.03
2381	11.2	+8°0'	11.28	+1.58	67.01
2382	14.4	-3°0'	14.66	-0.77	64.66
2383	15.0	✓	15.30		65.-
⊼ ⊠ △ 2380					58.17
△ 2363	41.2	+10°6'	40.01	7.25	65.43
△ 2387	56.0	-7°30'	55.34	+7.30	50.87
△ 2386	51.0	-6°0'	50.74	-5.34	52.99
△ 2388	49.2	-12°50'	47.06	10.72	47.43
2409	12.0	-6°10'	12.16	1.31	56.86
2406	12.0	-0°5'	12.295	✓	

	1.020
	2.254
	2.320
	2.452
	4.292
	4.218
	4454
	8.412
	3.434
	8.004
	4.596
	4.276
	4130
	1534
	2.256
	2.932
	3.060
	8.002
	11.068
	10.148
	9.412
	2.432
	2.459

					58.17	
2407	15.0	+0°40'	15.29	+ .18	58.35	3.058
2408	18.0	-5°10'	-18.15	-1.64	56.43	3.630
2404	14.6	+7°45'	14.87	+0.71	58.88	2.974
2405	11.0	+2°0'	11.29	✓		2.258
2403	18.0	+4°25'	18.19	+1.40	59.57	3.638
2397	10.4	+6°50'	10.55	+1.26	59.43	2.110
2398	13.2	+5°45'	13.36	+1.34	59.51	2.672
2395	10.4	+3°30'	10.66	+0.65	58.82	2.132
2394	11.2	+0°30'	11.49	✓		2.298
2399	20.4	+4°50'	20.55	+1.74	59.91	4.110
2401	14.4	+7°25'	14.46	+1.94	60.11	2.892
2402	19.6	+9°35'	19.35	+3.26	61.43	3.870
2400	28.0	+9°15'	27.57	+4.49	62.66	5.514
2412	t 2.35					.470
2396	t 4.10					.820
2411	t 1.80					.360
2410	t 3.50					.700
2393	t 3.10					.620
2396-a	t 3.65					.730
2389	t 5.40					1.080
2391	t 5.60					11.20
2392	9.0	-13°0'	8.83	-2.03	56.04	1.766
2390	8.2	-13°0'	8.07	-1.93	56.24	1.614
2414	20.2	-12°30'	19.54	-4.34	53.83	3.908
2417	26.0	-10°15'	25.47	-4.61	53.56	5.094

					58.17	
2413	20.0	-10°10'	19.69	-3.48	54.69	3.938
2418	21.0	-12°45'	20.26	-4.50	53.67	4.052
∡ at △285					24.84	
1336	147.0	-0°25'	47.22	1.03		9.444
286	53.6	-3°50'	53.66	3.58	21.26	10.732
2420	30.0	+11°47'	29.04	+6.07	30.91	5.808
∡ at 286					21.26	
△ 285	54.2	+3°50'	54.26	+3.63	24.89	10.852
△2421	68.0	+0°15'	68.21	+0.30	21.56	13.642
2424	18.0	+8°10'	17.93	+2.57	23.83	3.586
2425	17.2	+3°50'	17.42	+1.27	22.53	3.484
2423	31.6	+6°42'	31.47	+3.70	24.96	6.294
2427	40.4	-1°45'	40.67	-1.25	20.01	8.134
2426	12.6		12.88			2.576
∡ at △2421					21.56	
△ 286	68.0	-0°15'	68.21	0.30	21.26	13.642
△2432	79.0	+29°35'	59.98	34.01	55.57	11.996
△ 2431	65.6	+13°01'	62.56	14.41	36.04	12.542
△ 2430	48.6	-2°35'	48.80	2.20	19.36	9.760
2446	49.8	+21°01'	43.65	16.80	38.36	8.730
2428	20.0	-6°25'	20.05	2.26	19.30	4.010
2429	14.0	-8°10'	14.01	2.02	19.54	2.802
2433	9.8	+2°40'	10.08	0.47	22.03	2.016
2437	10.0	+16°45'	9.44	2.84	24.40	1.888
2438						

2442	15.8	+13°50'	15.18	3.74	25.30
2443	15.4	+16°35'	14.42	4.29	25.85
2438	10.4	+18°0'	9.99	3.14	24.70
2439	16.0	+12°0'	15.60	3.32	24.88
2436	14.6	+8°45'	14.55	2.24	23.80
2434	13.8	+2°45'	14.06	.67	22.23
2440	19.8	+12°0'	19.23	4.08	25.64
2435	38.4	-	38.70		
2444	120.0	-9°30'	116.93	19.75	1.81
2445	88.4	-16°45'	81.35	24.45	-2.89
✻at 2431					36.04
△ 2421	66.0	-13°0'	67.86	14.55	21.56
△ 2430	36.2	-31°20'	26.64	16.20	19.84
2448	35.0	-35°40'	23.35	16.75	19.29
2449	36.0	-29°40'	27.40	15.63	20.41
△ 2447	49.6	+12°50'	47.45	10.80	42.88
2450	38.0	+39°15'	22.98	18.75	54.79
2451	36.0	+42°0'	20.10	18.00	54.04
2452	26.0	+31°0'	19.37	11.60	47.64
✻at △ 2447					46.88
△ 2431	50.0	-12°20'	48.00	10.50	36.00
2453	87.0	+35°15'	58.14	41.15	87.65
△ 2455	30.0	+34°45'	20.45	14.19	60.64
2454	13.4	+19°15'	12.13	+4.26	51.14

	3.036	
	2.884	
	1.998	
	3.120	
	2.910	
	2.812	
	3.846	
	7.740	
	23.386	
	16.270	
	12.542	
	5.328	
	4.670	
	5.480	
	9.544	
	4.596	
	4.020	
	3.874	
	9.544	
	11.628	
	4.004	
	2.426	

2457	32.4	-16°30'	29.87 30.06	8.90	37.98
2458	58.0	-32°35'	41.50	26.40	30.48
⊼ at △2455					60.64
△2447	29.0	-34°45'	20.02 19.60	13.76	46.88
△2458	82.0	-36°50'	52.74	39.33	21.31
△2456	37.0	-18°0'	33.73	10.92	49.71
2466	t 3.55				
2467	t 3.25				
2464	t 1.75				
2463	t 4.75				
2465	12.6	-3°15'	12.85	0.73	59.91
2459	11.8	-1°0'	12.08		
2460	11.0	+3°0'	11.25		
2461	12.2	+6°35'	12.34	1.42	62.06
2462	8.0	+14°30'	7.78	2.02	62.66
2468	t 4.85				
2470	7.0	+13°15'	6.92	1.63	62.27
2471	13.0	+9°30'	12.94	2.16	62.80
2472	23.0	+8°0'	22.85	3.21	63.85
⊼ at 2456					49.71
△2455	36.6	+18°0'	33.38	10.86	60.57
△2457	30.0	-21°40'	26.15	10.39	39.32
△2487	65.2	-30°20'	48.95	28.55	21.16
△2485	44.0	-7°31'	43.49	5.75	43.96
△2486	80.0	-7°50'	78.69	10.81	39.90

5.978
8.300
4.004
10.548
6.710
.910
.650
.250
.950
2.570
2.416
2.250
2.468
1.556
.970
1384
2.588
4.570

6.710
5.230
9.790
8.698
15.738

29.72
30.06
2 | 59 78
29.89

33.73
33 38
2 | 67 11
33.55

2490	15.4	-29°30'	11.90	6.72	42.99
2488	15.6	-27°15'	12.57	6.46	43.25
2489 2490	14.6	-26°15'	11.95	5.90	43.81
2491	22.0	-10°45'	21.60	4.06	45.65
2477	t 2.00				
2478	8.0	-19°0'	7.75	2.55	47.16
2476	t 2.15				
2476-a	t 4.20				
2475	8.0	-5°15'	8.23	.75	48.96
2474	9.6	+3°30'	9.86	.60	50.31
2484	10.6	+15°30'	10.12	2.89	52.60
2483	7.6	+12°30'	7.53	1.667	51.38
2482	t 4.15				
2473	12.6	+11°30"	12.39	2.53	52.24
2481	t 3.25				
2479	t 2.30				
2480	t 7.65				
2492	68.0	+34°30'	46.47	31.89	81.60
⊼ at 2457					
△ 2447	32.2	+16°30'	29.72	9.83	
△ 2456	32.0	+27°26'	25.45	13.20	
△ 2458	37.4	-34°35'	25.59	17.66	
△ 2487	55.0	-16°30'	50.75	15.06	
2494	t 18.0				
2495	20.0	-4°30'	20.17	1.59	
2493	t 20.0				

2.380
2.514
2.390
4.320
.400
1.550
.430
.840
1.646
1.972
2.024
1.506
.830
2.478
.650
.460
1.530
9.294

5.954
5.090
5.118
10.150
3.600
4.034
4.000

31.6
49.71
1.67
51.38

31.89
49.71
51.60

					43.9	
⊼ at 2485						
△ 2456	44.0	+7°20'	43.49	5.62		4.698
△ 2487	47.0	−34°15'	32.40	21.97		6.480
2497	49.6	−36°30'	32.30	−23.8	21.1	6.460
2498	100.0	−28°0'	78.80	−41.85	2.05	15.760
△ 2486	35.0	−8°24'	34.50	−4.64 5.10+48		6.900
2499	27.6	+33°0'	19.61	12.77	56.67	3.922
2502	76.0	+38°30'	46.80	35.1	79.0	9.360
2501	10.0	+30°30'	7.65	4.5	48.4	1.530
△ 2500	50.0	−37°0'	32.13	24.29	20.07 19.61	6.426
					43.9	
⊼ at △ 2486					38.90	
△ 2485	35.0	+6°20'	34.89	N.+ 4.64 387+77	use 43.9	6.978
△ 2506	28.2	−27°40'	22.01 22.55	−11.73	27.17	4.402
△ 2505	41.0	−13°7	39.11	60 = 9.25 9.20	29.65	7.822
⊼ at 2506					27.17	
△ 2486	27.0	+27°40'	22.01 21.47	11.37	38.90	4.902
△ 2505	27.0	+5°12'	27.10	+2.45		5.420
△ 2500	35.0	−11°8'	33.94	−6.700	20.07 20.47	6.788
2509	15.6	−19°10'	14.67	4.93	22.24	2.934
2508	+4.70					.940
2507	+7.00					1.400
2504	22.0	−5°25'	22.10	2.1	25.16	4.420
2503	24.0	−1°45'	24.28	.65	26.52	4.856

43.9
24.29
19.61

27.17
6.70
20.47

22.55
21.47
2 | 4402
22.01

⊼ at 2505					29.65
△ 2486	41.0	−13°10′	39.19	9.17	20.48
△ 2506	27.2	−5°10′	27.30	2.47	27.18
△ V	22.2	−8°50′	21.96	3.41	26.24
2516	17.6	−32°30′	12.72	8.1	21.55
2517	24.0	−30°30′	28.02	10.61	19.04
2510	+1.00				
2511	+3.90				
⊼ at V					26.24
△ 2505	22.4	+8°49′	21.97	3.42	29.66
△ T	43.4	+19°4′	39.18	+13.53	39.78
△ 2525	42.6	+5°25′	42.60	+4.01	30.25
2523	23.2	+18°40′	22.45	7.12	33.36
2522	24.0	+20°10′	21.47	7.75	33.99
2518	29.0	+18°30′	27.95	8.72	34.96
1519	26.0	+20°0′	23.25	8.47	34.71
1520	23.0	+23°20′	19.70	8.5	34.74
1521	22.0	+21°45′	19.35	7.70	33.94
1524	15.0	+13°0′	14.53	3.36	29.60
2512 / 2515	13.0	+11°30′	14.77	2.60	28.84
2513	11.0	+12°30′	10.77	2.39	28.63
2514	+8.00				
2527	+5.70				
2526	8.4	+7°30′	8.55	1.13	27.37
2528	10.0	+10°30′	9.96	1.84	28.08

8 30

7.838
5.460
4.392
2.544
5.604
.200
.780
4.394
7.838
8.520
4.490
4.294
5.590
4.650
3.940
3.870
2.906
2.944
2.154
1.600
1.140
1.710
1.992

Co[illegible] WEST GROUP PLAZA
△V [illegible] — ELEV = 26.20 △
" " [illegible] — " = 26.24 △
Comin[illegible] "om" CAMP - PLAZA.

21.9
2|4.20

In[illegible] at pt △V. — Nov-30
The [illegible] perfect. It
hits [illegible] pt V. Coming
fro[illegible]
The [illegible] 2505 & V.
Dec[illegible] the map and
the [illegible] 39.
Di[illegible]on of the point
is [illegible] difference
is [illegible] It is, however
wit[illegible]r.

⊼ at 2505					29.65
△ 2486	41.0	−13°10′	39.19	9.17	20.48
△ 2506	27.2	−5°10′	27.30	2.47	27.18
△ V	22.2	−8°50′	21.96	3.41	26.24
2516	17.6	−32°30′	12.72	8.1	21.55
2517	24.0	−30°30′	28.02	10.61	19.04
2510	+1.00				
2511	+3.90				
⊼ at V					26.24
△ 2505	22.4	+8°49′	21.97	3.42	29.66
△ T	43.4	+19°4′	39.19	+13.53	39.78
△ 2525	42.6	+5°25′	42.60	+4.01	30.25
2523	23.2	+18°40′	22.45	7.12	33.36
2522	24.0	+20°10′	21.47	7.75	33.99
2518	29.0	+18°30′	27.95	8.72	34.96
1519	26.0	+20°0′	23.25	8.47	34.71
1520	23.0	+23°20′	19.70	8.5	34.74
1521	22.0	+21°45′	19.35	7.70	33.94
1524	15.0	+13°0′	14.53	3.36	29.60
2512 2515	13.0	+11°30′	14.77	2.60	28.84
2513	11.0	+12°30′	10.77	2.39	28.63
2514	+8.00				
2527	+5.70				
2526	8.4	+7°30′	8.55	1.13	27.37
2528	10.0	+10°30′	9.96	1.84	28.08

39.15
7.830
7.838

Coming from △ D WEST GROUP PLAZA
△V of 1932 SURVEY — ELEV = 26.20
" " " 1933 " — " = 26.24
Coming from △286. from CAMP - PLAZA.

21.9
2 | 4.20

4.394
7.838

In Checking in at pt △V. — Nov-30
The Direction is perfect. It hits exactly with pt V. Coming from △2505.

The distance from 2505 to V. scales 4.20 on the map and the reading is 4.39.

And the direction of the point is Correct, this difference is disregarded. It is, however within one meter.

2529	12.4	+4°30'	12.62	.99	27.23
2530	14.4	+2°45'	14.67	.70	26.94
2531	16.0	+5°0'	16.18	1.42	27.66
2533	14.0	+7°0'	14.09	1.62	27.86
2532	16.4	+6°30'	16.49	1.88	28.12
⊼ at △T					39.78
△ V	43.6	−19°4'	39.20	13.56	26.23
△ R	24.0	+12°19'	23.20	+5.01	44.83
△ 2540	42.0	+8°0'	41.48	+5.81	45.59
△ P	61.2	+1°45'	61.49	+1.93	41.66
△ 2534	30.4	+0°30'	30.69	+0.27	40.05
2549	13.0	+2°5'	13.28	.47	40.25
2550	14.0	+4°2'	14.23	1.02	40.80
2551	12.6	+3°50'	12.33	.86	40.64
2552	15.2	+11°40'	14.87	3.07	42.85
2551-a	21.4	+6°0'	21.47	2.25	42.03
2555	25.6	✓	25.90		
2554	24.6	−0°10'	24.89		
2558	25.6	−0°10'	25.89		
2560	25.8	−0°10'	26.09		
2568	23.5	−0°10'	23.79		
2561	22.4	−0°10'	22.69		
2562	21.2	−0°5'	21.50		
2565	27.6	✓	27.9		
2566	28.6	−0°4'	28.89		

1.732
1√8
15+2

2.524
2.934
3.236
2.818
3.298

7.840
4.640
8.296
12.298
6.138
2.656
2.846
2.466
2.974
4.294
5.180
4.978
5.178
5.218
4.758
4.538
4.300
5.580
5.778

2559	30.0	✓	30.3		
2563	30.0	✓	30.3		
2564	30.0	✓	30.3		
2556	32.0	✓	32.3		
2557	33.4	-0°6'	33.7		
2543	t 3.75				
2544	t 4.10				
2546	t 2.65				
2545	t 4.45				
2548	5.8	-23°0'	5.18	2.20	37.58
2547	t 2.0				
2539	t 5.10				
2539-a	t 4.30				
2538	10.0	+4°30'	10.24	0.803	40.583
2536 2537	11.4	+1°0'	11.68		
2541	t 7.75				
2542	7.4	+1°45'	7.69		
2569	25.4	+2°30'	25.65	1.12	40.90
2571	9.4	+2°15'	9.68		
2572	30.0	+2°45'	30.25		
2573	29.0	+3°0'	29.24		
2574	28.0	+3°10'	28.24		
2576	22.0	+2°40'	22.26		
2575	23.0	+3°15'	23.25		

6.060
6.060
6.060
6.460
6.740
.750
.870
.530
.890
1.036
.400
1.020
.860
2.048
2.336
1.550
1.538
5.130
1.936
6.050
5.848
5.648
4.452
4.650

.917
.75
167
33.4

NO
185

⊼ at 2540					45.59
△ T	42.0	-8°0'	41.49	-5.82	39.78
△ R	26.0	-3°48'	26.11	1.72 (2.72) +1.00	44.87
△ D	36.6	+12°45'	35.07	+7.92	53.51
△ P	56.0	-4°5'	55.97	3.98	41.66
2591	t 4.70				
2592	t 5.85				
2590-a	t 5.25				
2588	t 3.75				
2589	t 5.00				
2587	t 4.00				
2586	8.4	-19°40'	7.82	2.75	42.84
2585	7.8	-15°40'	7.51	2.11	43.48
2584	7.0	-9°10'	7.11	1.15	44.44
2582	13.0	-2°30'	13.27	0.58	45.01
2583	13.2	-3°45	13.55		
2577	15.4	-11°35'	15.10	3.09	42.50
2579	13.6	-9°30'	13.52	2.27	43.32
2580	14.6	-2°30'	14.87	0.61	44.98
2595	14.4	-1°30'	14.69	0.38	45.21
2596	15.0	+2°30'	15.27	0.67	46.26
2597	✓	✓			
2594	12.0	-9°15'	11.98	1.95	43.64
2593	13.0	-4°25'	13.22	1.05	44.54
2590	t 4.50	✓			

8.298
5.272
7.014
11.194
.940
1.190
1.050
.750
1.000
.800
1.564
1.502
1.422
2.654
2.710
3.020
2.704
2.974
2.938
3.054

2.396
2.644
.900

⊼ at 2540					45.59	
T	✓	✓				
2607	27.5	−8°15′	27.23	−3.93	41.66	5.446
2606	26.4	−8°30′	26.12	−3.90 +.4°	42.09	5.224
2604	18.0	−9°15′	17.87	2.90	42.69	3.574
2605	18.0	−11°0′	17.63	3.43	42.16	3.526
2608	18.6	−7°45′	18.56	2.52	43.07	3.712
2598	21.0	+2°40′	21.25	0.98	46.57	4.250
2599	23.2	+5°15′	23.30	2.14	47.73	4.660
2600	15.0	+7°15′	15.06	1.92	47.51	3.012
2601	20.0	+12°0′	19.40	4.13	49.72	3.880
2602	22.8	+11°15′	22.22	4.42	50.01	4.444
2603	17.0	+8°0′	16.96	2.38	47.97	3.392
⊼ at △P					41.66	
△T	61.2	−1°45′	61.39	1.88	39.78	12.278
△2534	64.0	−1°26′	64.20	1.67	40.05	12.840
△2540	56.0	+4°4′	55.94	3.93	45.59	11.188
2626-a	29.0	+3°30′	29.20	1.79	43.45	5.840
2626	32.0	+4°5′	32.14	2.30	43.96	6.414
2625	36.0	+4°25′	36.08	2.78	44.44	7.216
2622	26.0	+3°40′	26.19	1.68	43.34	5.238
2621	23.4	+3°10′	23.63	1.32	42.98	4.726
2620	23.1	+3°0′	23.34	1.22	42.88	4.668
2619	22.0	+2°20′	22.26	0.91	42.57	4.452
2609 2616	27.0	+2°20′	27.25	1.12	42.78	5.450

2611					
2612	26.0	+1°55'	26.27	0.88	42.54
2624	31.6	+3°40'	31.77	2.04	43.70
2623	31.8	+2°35'	32.03	1.49	43.15
2614	+3.30				
2615	+3.85				
2617	+5.20				
2616	+4.95				
2613	9.6	+4°30'	9.84	0.77	42.43
2613-a	8.4	+6°40'	8.58	1.00	42.66
2618	9.0	+6°5'	9.18	0.95	42.61
2628	6.4	+3°20'	6.68	0.38	42.04
2627	9.2	+10°10'	9.21	1.64	43.30
2629	6.4	+7°0'	6.60	0.81	42.47
2630	14.0	+4°30'	14.21	1.12	42.78
2631	15.0	+5°45'	15.15	1.52	43.18
2632	13.4	+1°35'	13.69		
2633	20.4	+5°0'	20.54	1.80	43.46
2634	22.0	+5°0'	22.13	1.94	43.60
2634-a	23.0	+2°45'	23.25	1.12	42.78
2635	29.0	v	29.30		
2636	29.0	-0°45'	29.29		
2637	27.6	+0°15'	27.89		
2638	29.6	-2°0'	29.88		
2639	14.4	-1°30'	14.69		
2640	15.0	v	15.30		

5.254
6.354
6.406
.660
.770
1.040
.990
1.968
1.716
1.636
1.336
1.842
1.320
2.842
3.030
2.738
4.108
4.426
4.650
5.860
5.858
5.578
5.976
2.938
3.160

					41 66	
2641	14.6	+0° 40'	14.89			2.978
2642	14.0	+0°15'	14.29			2.858
2643	21.4	-1°0'	21.69			4.338
2644	23.6	-2°0'	23.88			4.776
2645	18,0	-1°45'	18.29			3.658
2647	22.0	-3°15'	22.03	1.26	40.40	4.406
2646	22.2	-2°50'	22.45	1.11	40.55	4.490
2648	21.2	-2°0'	21.47	0.75	40.91	4.294
2649	20.0	-3°15'	20.23	1.15	40.51	4.046
2650	14.4	-2°40'	14.67	0.68	40.98	2.934
2651	14.4	-4°15'	14.62	1,08	40.58	2.924
2655	17.2	-3°45'	17.43	1.14	40.52	3.486
2654	19.0	-1°30'	19.29	0.50	41.16	3.858
2653	20.0	-1°30'	20.29	0.55	41.11	4.058
2652	19.4	-1°30'	19.69	0.51	41.15	3.938
2657	22.8	-1°40'	23.08	0.67	40.99	4.616
2656	24.0	-2°0'	24.27	0,85	40.81	4.854
2658	22.0	-1°20'	22.29	0.52	41.14	4.458
△ T	-	-			39.78	
△ 2660	48.0	-2°20'	48.15	1.97	39.68	9.630
↑ at 2660					39.68	
△ P	48.0	+2°20'	48.15	+1.97	41.65	9.630
△ 2534	36,0	+0°37'	36.25	.39	40.05	7.250
2682	+6.50					1.300
2681	+6.85					1.370

					39.68
2684	t 8.20				
2683	t 7.80				
2694	t 7.50				
2693	t 8.25				
2685	10.6	+ 3°0'	10.87	0.57	40.25
2686	12.0	v	12.30		
2688	12.6	+ 3°0'	12.86	0.67	40.35
2687	13.6	+ 0°50'	13.89	0.20	39.88
2689	15.4	+ 2°15'	15.68	0.62	40.30
2690	16.4	+ 2°15'	16.67	0.66	40.34
2691	12.4	+ 3°15'	12.66	0.72	40.40
2692	12.0	+ 5°0'	12.21	1.07	40.75
2672	t 6.55				
2673	t 7.70				
2674	10.6	+ 3°30'	10.86	0.66	40.34
2675	12.4	+ 1°0'	12.69		
2675-a	16.0	v	16.30		
2676-b	20.0	- 1°0'	20.29		
2676-a	16.4	+ 0°30'	16.69		
2676	15.6	+ 3°15'	15.85	0.90	40.58
2677	12.0	+ 3°15'	12.26	0.69	40.37
2678	12.0	+ 1°0'	12.29		
2679	11.6	- 0°25'	11.89		
2680	10.2	+ 1°40'	10.49		
2671-a	10.4	- 4°30'	10.23	0.83	38.85

1.640
1.560
1.500
1.650
2.174
2.460
2.572
2.778
3.136
3.334
2.532
2.442
1.310
1.540
2.172
2.538
3.260
4.058
3.338
3.170
2.452
2.458
2.378
2.098
2.046

					39.68
2667	t 7.05				
2668	t 7.40				
2666	t 6.60				
2669	t 7.10				
2664	9.0	+1°35'	9.29		
2665	9.8	-1°10'	10.09		
2661	9.0	+1°30'	9.29		
2659	11.0	+2°0'	11.29	0.39	40.05
2662	14.4	+1°0'	14.69	0.25	39.93
2663	15.0	-0°25'	15.29		
2670	8.8	+1°10'	9.09		
2671	8.3	-0°25'	8.59		
2695	18.6	-9°30'	18.39	3.07	36.61
					40.05
x at 2534					
+	30.2	+0°10'	30.49		
Δ 2660	36.0	-0°36'	36.26	.385	39.68
Δ 2525	25.8	-24°10'	21.68	9.76	30.27
2696	"	"			
2697	~~28.0~~	"	~~28.30~~		
2698	21.2	-1°0'	21.49		
2699	20.4	-2°15'	20.67	0.82	39.23
2700	19.0	-1°0'	19.29		
2701	20.0	"	20.30		40.05
2702	27.6	+0°15'	27.89		
2703	28.0	"	28.30		

	1.410
	1.480
	1.320
	1.420
	1.858
	2.018
	1.858
	2.258
	2.938
	3.058
	1.818
	1.718
	3.678
	6.098
	7.252
	4.336
	~~7~~.660
	4.298
	4.134
	3.858
	4.060
	5.578
	5.660

2704	8.4	-28°0'	6.78	3.60	36.45	1.356
2705	t 7.50					1.500
2706	t 9.25					1.850
2707	t 360					.720
2707-a	t 7.00					1.400
⊼ at 2525					30.27	
△ V	42.8	-5°25'	42.69	4.01	26.26	8.538
△ 2534	25.6	+24°10'	21.58	9.68	39.95	4.316
△ 2535	33.4	-6°40'	33.24	3.89	26.38	6.648
2713	12.0	-9°0'	12.00	1.90	28.37	2.400
2708	14.4	-12°30'	14.02	3.10	27.17	2.804
2709	17.0	-9°30'	16.84	2.82	27.45	3.368
2711	11.0	-1°10'	11.29			2.258
2710	16.4	-6°0'	16.32	1.74	28.53	3.264
⊼ at 2535					26.38	
△ 2525	33.4	+6°40'	33.24	3.89 -2.21	30.27	6.648
△ 2725	54.6	-2°54'	54.76	-2.76 +.55	24.15	10.952
2720	35.8	+9°30'	35.12	5.88	32.26	7.024
2715	18.2	+4°45'	18.37	1.53	27.91	3.674
2714	20.2	+6°20'	20.25	2.25	28.63	4.050
2718	13.0	+6°20'	13.14	1.46	27.84	2.628
2719	12.2	+3°10'	12.46	0.68		2.492
2717	12.0	+6°50'	12.13	1.45		2.426
2716	8.3	-	8.60			1.720
2722-a	t 5.00					1.000

π at △2735					26.38
2722	t 5.80				
2720	t 5.70				
2721	7.8	-9°30'	7.88	-1.32	25.06
2721-a	15.6	-4°20'	15.81	-1.20	25.18
2712	30.0	-5°30'	30.02	-2.09	24.27
2725	11.0	-3°0'	11.27	-0.59	25.79
2726	19.0	-6°45'	19.03	-2.25	24.13
2728	21.0	-6°0'	21.07	-2.22	24.16
2727	23.0	-7°5'	22.95	-2.85	23.53
2723	20.0	-7°30'	19.96	-2.63	23.75
2724	16.8	-8°15'	16.75	-2.43	23.95
2722-b	20.0	-10°15'	19.66	-3.55	22.73
2729	19.0	-10°0'	18.72	-3.30	23.08
2733	46.0	-5°50'	45.82	-4.69	21.69
2734	32.0	-5°50'	31.97	-3.26	23.12
2735	25.0	-3°30'	25.20	-1.54	24.84
2730	29.0	-3°10'	29.21	-1.62	24.76
2731	35.0	-5°0'	35.03	-3.07	23.31
2732	44.0	-5°0'	43.96	-3.85	22.73
2726-a	10.8	-5°15'	11.01	-1.07	25.31
2727-a	12.2	-9°0'	12.20	-1.93	24.45
2723-a	9.0	-5°15'	9.22	-0.85	25.53
2724-a	10.0	-7°10'	10.14	-1.27	25.11
2735-a	15.2	-3°30'	15.44	0.95	25.43

	1.160
	1.140
	1.576
	3.162
	6.004
	2.254
	3.806
	4.214
	4.590
	3.992
	3.350
	3.932
	3.744
	9.164
	6.394
	5.040
	5.842
	7.006
	8.792
	2.201
	2.440
	1.849
	2.028
	3.088

⊼ at 2725					24.15
△ 2535	54.4	+1°30'	54.69	+ 2.17 / 1.43 +.74	26.38
△ 2738	56.6	-3°40'	56.69	-3.30 / -3.61 +.34	20.85
△ 2739	48.0	+23°20'	41.62	17.40 / 17.66 -.26	41.55
△ 2740	9.0	+17°30'	8.47	+2.67	26.82
△ 2741	36.0	+6°50'	35.79	+4.26	28.40
2736	21.0	-14°30'	19.96	5.17	18.92
2737	13.6	-25°0'	11.20	5.32	18.83
2737-a	25.0	-15°30'	25.12	6.52	17.63
2745-a	14.0	-4°20'	14.22	-1.08	23.07
2745	14.6	+1°10'	14.89	0.30	
2746	17.2	+1°30'	17.49	0.46	
2743	8.4	-0°30'	8.69		
2744	9.0	-12°40'	8.86	1.98	22.17
2742	7.0	+3°30'	7.27	0.45	
⊼ at 2740					26.82
2725	✓	✓			
△ 2750	82.0	+1°26'	82.10	+2.03	28.85
2749	50.4	+30°10'	37.88	+22.00	48.82
2748	27.0	+26°25'	21.80	+11.00	37.82
2747	10.0	+14°30'	9.66	+2.42	29.24
2751	+3.50				
2752	10.0	+1°15'	10.29		
2753	5.4	+7°30'	5.60	0.74	27.56

10.938
11.338
8.324
1.694
7.158
3.992
2.240
5.024
2.844
2.978
3.498
1.738
1.772
1.454
16.420
7.576
4.360
1.932
2.058
1.120

At 2738					20.85	
△ 2725	56.6	+2°25'	5.674	+ 3,31 +2.39 +.92	24.85	11.348
△ 2741	39.8	+11°8'	38.66	+7.59	28.35	7.732
2758	21.0	+2°0'	21.28	+0.74	21.59	4.256
2757	22.2	+3°5'	22.43	+1.21	22.06	4.486
2759	29.6	+0°35'	29.89	+0.30	21.15	5.978
2755	34.6	-28°0'	27.20	-14.42	6.43	5.440
2756	113.0	-10°20'	109.66	-20.00	0.85	21.932
2754	16.4	-20°0'	14.75	-5.38	15.17	2.950
At 2741					28.40	
△ 2725	36.0	-6°47'	35.76	-4.14	24.15	7.152
△ 2738	40.0	-11°6'	38.84	-7.60	20.80	7.768
△ 2760	20.0	+22°25	17.38	+7.16	35.56	3.476
△ 2761	49.4	-8°15'	48.66	-7.03	21.37	9.732
2762	9.0	+4°0'	9.26	+0.65	29.05	1.852
2763	29.6	-13°45'	28.22	-6.80	21.60	5.644
2764	18.0	+5°15'	18.15	+1.67	30.07	3.630
2765	24.0	-7°15'	23.91	-3.04	25.36	4.782
2766	15.6	-10°0'	15.42	-2.72	25.68	3.084
2767	13.0	-6°45'	13.12	-1.55	26.85	2.624
2768	22.0	-7°15'	21.94	-2.81	25.59	4.388
2763-a	23.0	-12°0'	22.29	-4.75	23.65	4.458
At 2761					21.37	
△ 2741	49.4	+8°17'	48.67	+7.03	28.40	9.734
△ 2771	50.4	+7°19'	49.89	+6.87 +6.39 +.48	28.25	9.978

⊼ at 2761					21.37
△ 2770	44.2	+5°51'	43.99	+4.51	25.88
2769	17.8	-2°10'	18.07	-0.67	20.70
2772	18.0	-5°30'	18.13	-1.74	19.63
2773	18.4	✓	18.70		
2774	t 5.40				
⊼ at 2771					28.25
△ 2761	50.8	-7°50'	50.05	-6.88	21.37
△ 2780	24.6	+15°40'	23.07	+6.47	33.73
2778	t 2.00				
2783	t 3.35				
2785-a	t 4.20				
2786-	t 4.20				
2782	8.2	+17°45'	7.71	+2.47	30.72
2781	6.4	+15°30'	6.22	+1.62	29.87
2779	2.8	+3°40'	3.09	+0.20	28.45
2774	16.2	-7°45'	16.20	-2.20	26.05
2776	6.4	-15°45'	6.21	-1.75	26.50
b 2775	20.6	-23°0'	17.77	-7.51	20.74
M 2796	14.6	-18°0'	13.38	4.37	23.88
2797	17.0	-15°30'	16.07	4.45	23.80
2795	18.0	-23°0'	15.55	6.59	21.66
2785	7.0	-18°10'	6.60	2.16	26.09
2784	8.0	-18°30'	7.48	2.50	25.75
2791-b	16.0	-2°0'	16.28	5.70	22.55
2791	16.8	-3°45'	17.03	1.12	27.13

	8.798
	3.614
	3.626
	3.740
	1.080
1687	10.010
	4.614
	.400
	.670
	.820
	.820
	1.542
	1.244
	.618
	3.240
	1.242
	3.554
	2.676
	3.214
	3.110
	1.320
	1.496
	3.256
	3.406

					28.25	
2794	28.0	-6°20'	27.96	-3.11	25.14	5.592
2793	26.0	-7°35'	25.84	-3.45	24.80	5.168
2792	18.0	-9°35'	17.79	-3.01	25.24	3.558
2802	15.2	-8°0'	15.20	-2.13	26.12	3.040
2801	14.0	-7°40'	14.04	-1.95	26.30	2.808
2800	14.0	-9°45'	13.89	-2.39	25.86	2.778
2799	12.2	-11°10'	12.03	-1.37	26.88	2.406
2798	10.2	-10°35'	10.15	-1.90	26.35	2.030
⊼ at 2770					25.88	
△ 2761	44.4	-5°51'	44.09	-4.53	21.37	8.818
△ 2780	50.0	+10°20'	48.69	+8.86	33.73	9.738
△ 753	43.6	+14°40	41.03	+10.756	36.63	8.206
△ 2805	73.0	+1°5'	73.12	+1.39	27.27	14.624
⊼ at 2770					25.88	
2761						
2814	8.2	-11°0'	8.20	1.59	24.29	1.640
2815	t 6.40					1.280
2813	17.0	-9°0'	16.88	2.67	23.21	3.376
2810	20.0	-8°10'	19.89	2.86	23.02	3.978
2809	24.0	-9°20'	23.66	3.89	21.99	4.732
2813-a	16.6	-9°15'	16.46	2.68	23.20	3.292
2811	19.6	-9°0'	19.41	3.08	22.80	3.882
2808	22.0	-10°30'	21.56	3.99	21.89	4.312
2806	39.0	-8°25'	38.46	5.69	20.19	7.692
2807	34.0	-8°15'	33.59	3.87	22.01	6.718

for 753 Rec Survey 1932 page (47)
Elev = 36.63 ft
1933 " = 36.63 ft.

					25,88	
2812	14.0	-11°10'	-13.39			
2816	7.6	-1°45'	-7.88			1.576
2816-a	8.8	-5°01	-9.03	-0.79	25.09	1.806
2821	9.6	-1°15'	-9.89			1.978
2836	11.0	+1°10'	+11.29			2.258
2837	12.0	+6°25'	12.15	+1.37	27.25	2.430
2837-a	18.3	+8°45'	18.17	+2.78	28.66	3.634
2832	15.2	+8°40'	15.15	+2.31	28.19	3.030
2835	10.2	+10°45'	10.13	+1.93	27.81	2.026
2834	8.4	+8°01	8.53	+1.21	27.09	1.706
2820	5.0	+9°30'	5.16	+0.86	26.74	1.032
2819	+1.50					.300
2823	+3.50					.700
2824	12.4	-4°30'	12.62	-0.99	24.89	2.524
2825	11.0	-0°30'	11.29			2.258
2826	12.4	+2°01	12.68	+0.44	26.32	2.536
2830	16.2	+6°50'	16.27	+1.95	27.83	3.254
2831	17.0	+8°30'	16.92	+2.53	28.41	3.284
2829	19.4	+8°25'	19.28	+2.84	28.72	3.856
2827	23.8	+5°01	23.99	+1.22	27.10	4.798
780	32,0	-6°15'	31.94	-3.28	22.60	6.388
2804	36.0	-12°50'	34.51	-7.79	18.09	6.902
⏊ at 2805					27,87	
△ 2770	73.2	-1°5'	73.25	-1.39	25.88	14.650

					27.27
△2840	40.0	-0°54'	40.20	-0.60	26.67
△2841	26.8	-11°40'	25.94	5.39 40	21.87
△2842	33.7	+4°30'	33.79	+2.64	29.91
2860	t 4.95				
2858	t 4.60				
2857	t 5.90				
2856	t 9.05				
2855	t 9.50				
2854	t 10.55				
2853	t 12.00				
2851	t 14.00				
2850	10.2	-4°0'	10.25	-0.73	26.54
2849	11.6	-0°50'	11.89	-0.17	27.10
2852	14.0	-0°30'	14.29	-0.13	27.14
2861	9.3	-3°30'	9.56	-0.58	26.69
2862	13.0	-4°45'	13.21	-1.09	26.18
2863	10.2	-7°30'	10.32	-1.36	25.91
2889	20.0	-1°30'	20.28	-0.53	26.74
2877	t 4.50				
2880	t 6.50				
2876	10.6	-9°35'	10.60	-1.78	25.49
2875	12.3	-10°10'	12.21	-2.17	25.10
2878	11.6	-8°10'	11.66	-1.68	25.59
2879	12.6	-8°30'	12.62	-1.88	25.39
2882	13.4	-8°0'	13.43	-1.88	25.39

8.040
5.188
6.758
.990
.920
1.180
1.810
1.900
2.110
2.400
2.800
2.050
2.378
2.858
1.912
2.642
2.064
4.056
.900
1.300
2.120
2.442
2.332
2.524
2.686

					27.27
2881	15.0	-5°45'	15.15	1.53	25.74
2883	16.0	-5°30'	16.15	1.56	25.71
2884	16.5	-7°30'	16.50	2.29	24.98
2888	22.0	-3°45'	22.20	1.47	25.80
2887	24.0	-4°40'	24.14	1.97	25.30
2886	20.0	-4°0'	20.20	1.42	25.85
2885	19.6	-4°30'	19.78	1.56	25.71
2865-a	16.4	"	16.70		
2866	15.4	-3°50'	15.63	1.00	26.27
2865	13.0	-3°30'	13.25	0.81	26.46
2864	14.0	-3°10'	14.26	0.78	26.49
Kat 2780					33.73
△ 2770	50.0	-10°20'	48.69	-8.86	25.88
2771	"	"			
2900	24.2	+10°18'	24.72	4.37	38.10
2905	20.6	+8°40'	20.43	3.11	36.84
2901	19.6	+5°35'	19.71	1.93	35.66
2902	18.0	+1°44'	18.28	0.55	34.28
2904	16.2	+1°47'	16.48	0.52	34.25
2903	17.0	+6°01'	17.11	1.80	35.53
2913	t 1.60				
2912	t 1.90				
2909	t 6.00				
2908	t 6.60				
2906	t 7.75				

3.030
3.230
3.300
9.440
4.828
4.040
3.956
3.340
3.126
2.650
2.852

9.738

4.944
4.086
3.942
3.656
3.296
3.422
.320
.380
1.200
1.320
1.550

					33.73
2907	t 7.10				
2910	t 3.70				
2911	t 3.90				
2917	t 4.25				
2914	t 6.25				
2915	9.0	-16°45'	8.53	2.57	31.16
2916	6.6	-15°0'	6.44	1.72	32.01
2922	6.0	-19°15'	5.61	1.98	31.75
2921	8.0	-20°45'	7.25	2.75	30.98
2920	13.2	-11°25'	12.97	2.63	31.10
2919	12.0	-12°10'	11.76	-2.53	31.20
2918	20.0	+9°10'	19.79	+3.20	36.93
2928	13.6	-15°50'	12.85	-3.65	30.08
2789	17.0	-13°10'	16.40	3.84	29.89
2790	19.0	-17°0'	18.65	5.40	28.33
2727	13.0	-19°0'	11.90	4.09	29.64
2929	13.4	-16°0'	12.64	3.62	30.11
2923	11.8	-15°0'	11.29	3.03	30.70
2924	11.0	-10°15'	10.94	1.90	31.63
2930	15.0	-6°35'	15.10	1.74	31.99
2925	19.4	-6°40'	19.43	2.27	21.46
π at 2780					33.73
√2770	✓	✓			
2934	24.0	-2°0'	24.27	-0.85	32.88
2931	39.0	-2°15'	39.24	1.52	32.21

	1.420
	.740
	.780
	.850
	1.250
	1.706
	1.288
	1.122
	1.450
	2.594
	2.352
	3.958
	2.570
	3.280
	3.730
	2.380
	2.538
	2.258
	2.188
	3.020
	3.886
	4.854
	7.848

					33.73
2828	42.0	-2°25'	42.22	1.78	31.95
2932	28.6	-5°15'	28.66	2.63	31.10
2933	28.0	-5°40'	28.02	2.78	30.95
Δ 2771	25.0	-15°41'	23.47	6.18	27.55
2934	16.0	+1°01	16.29		
π at Δ 2805					
					27.27
Δ 2770	73.4	-1°5'	73.49	-1.392	25.88
2935	24.0	-2°50'	24.24	1.20	26.07
2939	26.0	-4°30'	26.14	2.06	25.21
2940	26.0	-4°30'	26.14	2.06	25.21
2938	32.0	-3°45'	32.16	2.11	25.16
2937	30.6	-2°35'	30.84	1.39	25.88
2936	28.2	-1°50'	28.47	0.91	26.36
2846	9.8	-4°30'	10.04	1.79	25.48
2845	11.0	-6°0'	11.18	1.17	26.10
2843	13.0	-5°5'	13.20	1.18	26.09
2844	16.0	-5°45'	16.14	1.63	25.64
2941	23.4	-2°40'	23.65	1.11	26.16
2942	24.4	+0°10'	24.69		
2943	25.0	+0°10'	25.29		
2944	24.4	-1°30'	24.68		
2945	21.6	-0°30'	21.89		
2946	21.9	+0°25'	22.19		
2947	24.0	+0°50'	24.28		
2948	25.0	+0°20'	25.29		

8.444
5.732
5.604
4.694
3.258
14.698
4.848
5.228
5.228
6.432
6.168
5.694
2.008
2.236
2.640
3.214
4.730
4.938
5.058
4.936
4.378
4.438
4.856
5.058

					27.27	
2838	13.4	-3°15'	13.66	0.97	26.30	2.732
2839	11.8	-1°30'	12.09			2.418
2949	36.0	-8°15'	35.55	5.13	22.14	7.110
2869	24.0	-6°10'	24.14	1.53	25.74	4.828
2870	23.0	-5°45'	23.17	1.32	25.95	4.634
2871	23.0	-6°30'	23.13	1.49	25.78	4.626
2874	19.0	-6°55'	19.02	2.31	24.96	3.804
2868	17.8	-6°40'	17.86	2.08	25.19	3.572
2867	16.8	-7°45'	16.79	2.26	25.01	3.358
Mat 2841					21.89	
△2805	26.8	+11°44'	25.94	5.41	27.27	5.188
2950	15.4	+4°0'	15.63	+1.02	22.91	3.126
2951	37.0	-38°45'	22.78	-18.23	3.66	4.556
2952	57.0	-27°40'	45.10	-23.62	-1.73	9.020
Mat 2842					29.93	
△2805	33.8	-4°30'	33.80	2.65	27.27	6.760
△550	39.6	+12°16'	38.09	8.30	38.13	7.618
△744	31.4	+13°15'	30.08	7.05	36.88	6.016
△2840	50.4	-3°43'	50.49	-3.28	26.45	10.098
2965	8.0	-10°0'	8.05	-1.42	28.51	1.610
2966	6.4	-3°45'	6.67	-0.44	29.49	1.334
2968	13.0	-9°5'	12.97	-2.07	27.86	2.594
2968-a	16.0	-9°55'	15.82	-2.77	27.16	3.164
2969	19.8	-4°0'	20.00	-1.40	28.53	4.000
2889-a	23.6	-3°50'	23.80	-1.60	28.33	4.760

for △'s 744, 550
See Survey 1932.

2970	18.0	-4°0'	18.20	-1.34	28.59	3.640
2967	9.0	+3°45'	9.26	+0.61	30.54	1.852
2959	8.0	+11°15'	7.96	+1.65	31.58	1.592
2956	9.4	+14°50'	9.06	+2.41	32.34	1.812
2957	t 7.50					1.500
2958	t 6.68					1.336
2962	t 4.40					.880
2955	15.8	+21°20'	14.00	+5.30	35.23	2.800
2954	15.0	+21°45'	13.21	+5.28	35.21	2.642
2953	17.2	+20°35'	15.35	+5.78	35.71	3.070
2953-a	16.0	+16°50'	14.93	+4.52	34.45	2.986
2963	t 1.55					.310
2964	t 3.10					.620
Mat 2842	v				29.83	
2840	~					
2985	11.6	-12°0'	11.39	-2.42	27.41	2.278
2986	10.4	-8°40'	10.46	1.59	28.24	2.092
2977	10.4	-5°0'	10.62	0.93	28.90	2.124
2978	10.4	-3°0'	10.67	0.56	29.27	2.134
2979	13.6	-2°15'	13.88	0.54	29.29	2.776
2984	9.0	-3°35'	9.26	0.58	29.25	1.852
2981	24.0	-5°0'	24.12	2.11	27.72	4.824
2982	27.0	-5°15'	27.07	2.49	27.34	5.414
2983	29.0	-6°45'	28.90	3.42	26.41	5.780
2992	26.0	-3°0'	26.23	1.38	28.45	5.246

2993	26.4	-1°30'	26.68		
2994	22.0	+1°25'	22.28		
2995	20.0	+0°15'	20.29		
2975-a	24.0	+3°0'	24.23	+1.37	31.20
2976	8.4	+1°15'	8.69		
2980	11.8	+1°15'	12.09		
2972	15.0	+7°15'	15.06	+1.96	31.79
2973	12.6	+1°15'	12.89		
3001	16.4	+7°15'	16.43	+2.09	31.92
3002	11.6	+9°20'	11.61	1.74	31.57
3000	17.6	+6°0'	17.71	1.86	31.89
2999	15.0	+13°45'	14.44	3.53	33.36
2960	10.0	+13°30'	9.74	2.34	31.17
2961	8.6	+9°10'	8.66	1.40	31.23
2997	V6.0	+9°0'	-	-	-
2998	24.4	+8°15'	24.19	3.51	33.34
2974	24.0	+6°40'	23.97	2.80	32.63
2975	21.4	+2°35	21.66	0.98	30.81
At 2840	-	-			26.57
△ 2805	40.0	+0°53'	40.20	0.60	27.17
△ 2842	50.2	+3°43'	50.28	3.27	29.84
△ 775-a (1932)	36.2	+3°50'	36.29	2.44	29.91
3011	t 6.25				
3012					
2991	t 9.05				

SEE COMPUTATIONS
BOOK # 2 1933

5.336
4.456
4.058
4.846
1.738
2.418
3.012
2.578
3.286
2.322
3.542
2.888
1.948
1.732
4.838
4.794
4.332
8.040
10.056
7.258
1.250
1.810

for △ 775 Rec
Survey 1932
Page 48

1932. Survey
Elev of △ 775 = 29.12
1933 " " " 29.91
Coming from
△ 2867 to △ 2840
Rec Map

Pages START WITH #81