

B.U.

LUNAR LANDMARK MAPS

LEGEND

CONTROL POINTS -

PSEUDO LANDING SITE LANDMARKS -

INITIAL POINTS (IP's) -

TERMINATORS -

SUBSOLAR POINT -

SUBEARTH POINT -

SCT SIGHTING SCHEDULE SUMMARY

LAUNCH DATE DEC. 21, 1968 TO LANDING SITE EAST TWO

TYPE	NUMBER	LATITUDE	LONGITUDE	DIAMETER*	GRAPHIC NO.
CONTROL POINTS AND INITIAL POINTS	IP-I	-02.780°S	-153.200°W		
	IP-II	-04.400°S	-157.250°W		
	504	-05.250°S	-162.700°W	5700	CP-1
	IP-I	-11.100°S	+165.000°E		
	IP-II	-10.700°S	+160.750°E		
	526	-10.200°S	+155.100°E	3900	CP-2
	IP-I	-08.250°S	+105.750°E		
	IP-II	-09.650°S	+100.500°E		
	334	-09.000°S	+96.350°E	16400	CP-3
PSEUDO LANDING SITE LANDMARKS AND INITIAL POINTS	IP-I	+00.580°N	+43.730°E		
	IP-II	+01.500°N	+40.100°E		G20X
	B1	+02.675°N	+35.025°E	2	G20X
	B2	+02.675°N	+33.850°E	2	G20X
	B3	+03.575°N	+32.150°E	2	G20X
	B4	+03.775°N	+31.100°E	2	G20X
LANDING SITE EAST TWO LANDMARKS	108	+02.683°N	+34.283°E	2400	G19,a,b
	110	+03.117°N	+34.067°E	3700	G19,a,b
	116	+02.733°N	+33.183°E	8000	G19,a,b
SURVEYOR LOCATION	V	+01.500°N	+23.190°E		G22,a,b

*(1) 1000-2000 ft
 (2) 2500-5000 ft
 (3) 10,000-20,000 ft

SCALE 1:630,000

26° EAST SUN ANGLE

PSEUDO LANDING SITE LANDMARK

DATA SHEET

MISSION C-PRIME

G-20X

LANDMARK NUMBER	LATITUDE (0.001°)	LONG/2 (0.001°)	LONGITUDE (0.001°)	ALTITUDE (0.01 nm)	DIAMETER* (ft)
IP-I	+00.580°N	+21.865°	+43.730°E		
IP-II	+01.500°N	+20.050°	+40.100°E		
B1	+02.675°N	+17.512°	+35.025°E	-000.99	2
B2	+02.675°N	+16.925°	+33.850°E	-000.86	2
B3	+03.575°N	+16.075°	+32.150°E	-001.09	2
B4	+03.775°N	+15.550°	+31.100°E	-000.94	2

HORIZONTAL UNCERTAINTY: 2.7 nm

*(1) 1000-2000ft

ALTITUDE UNCERTAINTY: 1.9 nm

(2) 2500-5000ft

(3) 10,000-20,000 ft

SCALE 1:2,320,000

20° WEST SUN ANGLE

CONTROL POINT DATA SHEET
MISSION C-PRIME

CP-1

PRIMARY CONTROL POINT

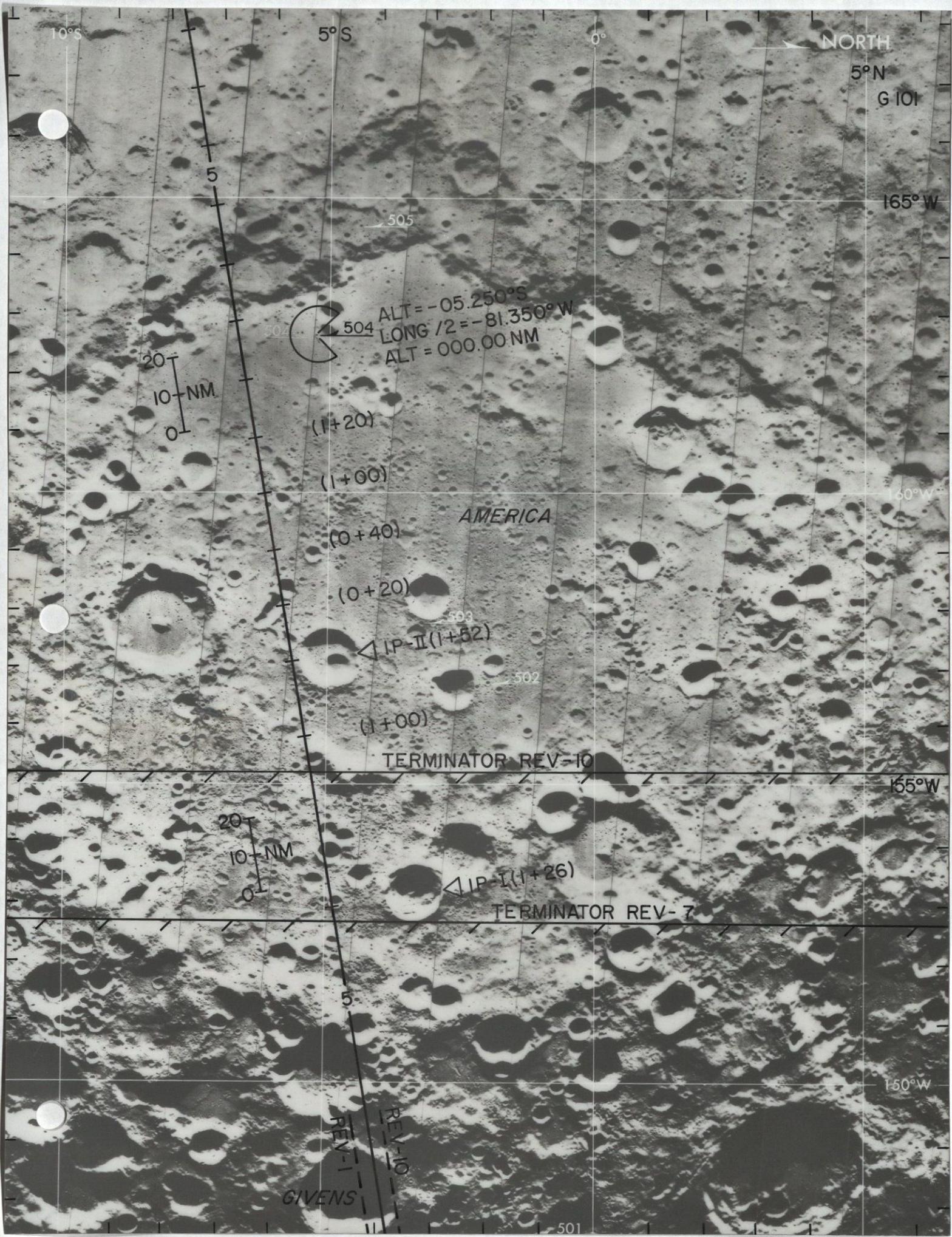
CONTROL POINT NO.	LATITUDE (0.001°)	LONG/2 (0.001°)	LONGITUDE (0.001°)	ALTITUDE (0.01 nm)	DIAMETER (ft)
IP-I	-02.780°S	-76.600°	-153.200°W		
IP-II	-04.400°S	-78.625°	-157.250°W		
504	-05.250°S	-81.350°	-162.700°W	+000.00	1900 ft

ALTERNATE CONTROL POINTS

CONTROL POINT NO.	LATITUDE (0.001°)	LONG/2 (0.001°)	LONGITUDE (0.001°)	ALTITUDE (0.01 nm)	DIAMETER (ft)
501	-01.200°S	-73.800°	-147.600°W	+000.00	4600
502	-01.900°S	-78.350°	-156.700°W	+000.00	6800
503	-03.250°S	-78.875°	-157.750°W	+000.00	8400
505	-04.400°S	-82.250°	-164.500°W	+000.00	5700

HORIZONTAL UNCERTAINTY: 160 nm

ALTITUDE UNCERTAINTY : 3 nm



SCALE 1:2,400,000

20° WEST SUN ANGLE

CONTROL POINT DATA SHEET
MISSION C-PRIME
CP-2

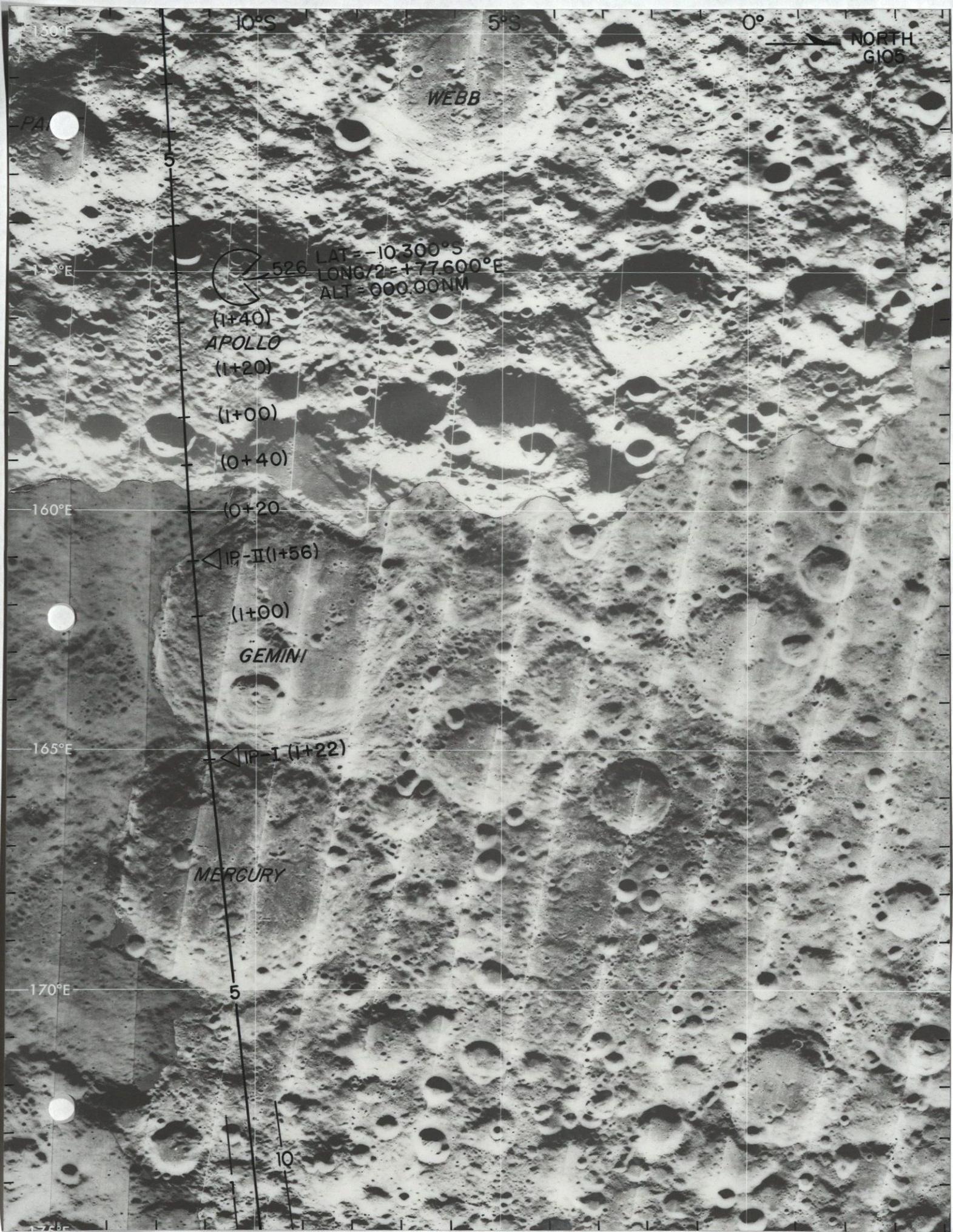
PRIMARY CONTROL POINT

CONTROL POINT NO.	LATITUDE (0.001°)	LONG/2 (0.001°)	LONGITUDE (0.001°)	ALTITUDE (0.01 nm)	DIAMETER (ft)
IP-I	-11.100°S	+82.500°	+165.000°E		
IP-II	-10.700°S	+80.375°	+160.750°E		
526	-10.200°S	+77.550°	+155.100°E	+000.00	8600 ft

ALTERNATE CONTROL POINTS

CONTROL POINT NO.	LATITUDE (0.001°)	LONG/2 (0.001°)	LONGITUDE (0.001°)	ALTITUDE (0.01 nm)	DIAMETER (ft)
522	-08.400°S	+79.125°	+158.250°E	+000.00	4700
523	-08.400°S	+78.500°	+157.000°E	+000.00	2400
524	-05.000°S	+78.100°	+156.200°E	+000.00	3100
525	-10.100°S	+77.675°	+155.350°E	+000.00	7900
527	-13.100°S	+75.900°	+151.800°E	+000.00	3900
528	-03.100°S	+74.900°	+149.800°E	+000.00	5200

HORIZONTAL UNCERTAINTY: 160 nm
 ALTITUDE UNCERTAINTY : 3 nm



SCALE 1:2,600,000

21° WEST SUN ANGLE

CONTROL POINT DATA SHEET
MISSION C-PRIME
CP-3

PRIMARY CONTROL POINT

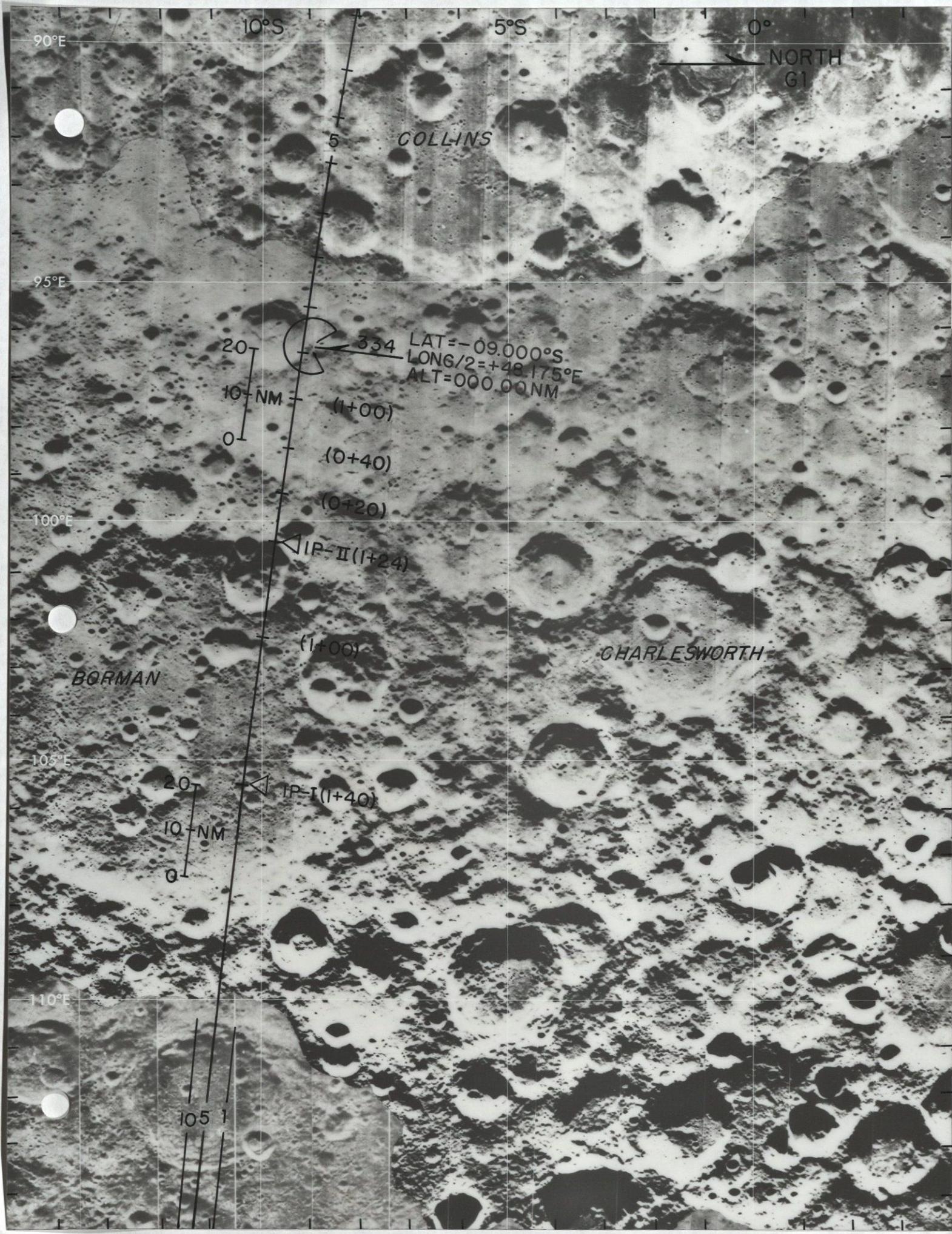
CONTROL POINT NO.	LATITUDE (0.001°)	LONG/2 (0.001°)	LONGITUDE (0.001°)	ALTITUDE (0.01 nm)	DIAMETER (ft)
IP-I	-08.250°S	+52.875	+105.750°E		
IP-II	-09.650°S	+50.250°	+100.500°E		
334	-09.000°S	+48.175°	+96.350°E	+000.00	16400

ALTERNATE CONTROL POINT

CONTROL POINT NO.	LATITUDE (0.001°)	LONG/2 (0.001°)	LONGITUDE (0.001°)	ALTITUDE (0.01 nm)	DIAMETER (ft)
559	-03.300°S	+53.100°	+106.200°E	+000.00	3500
561	-05.500°S	+50.850°	+101.700°E	+000.00	4300
563	-09.000°S	+49.800°	+ 99.600°E	+000.00	6500
564	-12.300°S	+48.600°	+ 97.200°E	+000.00	3500
566	-12.100°S	+47.850°	+ 95.700°E	+000.00	1700

HORIZONTAL UNCERTAINTY: 160 nm
 ALTITUDE UNCERTAINTY : 3 nm

NOTE: THE GRAPHIC SHOWS SHADOWS
 PRODUCED BY A WESTERLEY SUN
 INSTEAD OF AN EASTERLY SUN.



SCALE: 1:630,000

25° EAST SUN ANGLE

SURVEYOR V ACQUISITION MAPS
MISSION C-PRIME
G22,A,B
SURVEYOR V LOCATION

LATITUDE (0.001°)	LONG/2 (0.001°)	LONGITUDE (0.001°)	ALTITUDE (0.01 nm)
+01.500°N	+11.595°	+23.190°E	001.72

DECEMBER 21, 1968

21° EAST SUN ANGLE

LANDING SITE LANDMARK

TRACKING MAPS

MISSION C-PRIME
G19,A,B

LUNAR LANDING SITE EAST TWO

LATITUDE (0.001°)	LONG/2 (0.001°)	LONGITUDE (0.001°)	ALTITUDE (0.01 nm)	HORIZONTAL UNCERT(nm)	ALTITUDE UNCERT (nm)
+02.631°N	+17.012°	+34.023°E	-0.82	1.6	0.8

LUNAR LANDING SITE EAST TWO LANDMARKS

LANDMARK NUMBER	LATITUDE (0.001°)	LONG/2 (0.001°)	LONGITUDE (0.001°)	ALTITUDE (0.01 nm)	LANDMARK DIAMETER(ft)
* 111(11)	+02.396°N	+16.954°	+33.908°E	-0.81	800
105	+02.288°N	+17.273°	+34.546°E	-0.92	800
107	+02.842°N	+17.160°	+34.319°E	-0.82	1200
109	+03.108°N	+17.100°	+34.200°E	-0.75	1400
114	+02.269°N	+16.889°	+33.778°E	-0.84	1500
113	+02.213°N	+16.897°	+33.793°E	-0.82	1000
115	+02.728°N	+16.767°	+33.533°E	-0.77	2500
* 108	+02.683°N	+17.143°	+34.285°E	-0.82	2400
103	+02.744°N	+17.409°	+34.817°E	-0.81	1850
106	+02.874°N	+17.180°	+34.360°E	-0.84	4700
112	+02.567°N	+16.898°	+33.796°E	-0.86	4600
* 110	+03.108°N	+17.034°	+34.068°E	-0.68	3700
* 116	+02.725°N	+16.593°	+33.185°E	-0.69	8000
104	+02.296°N	+17.377°	+34.753°E	-0.92	6000

* PREFERRED SIGHTING
OFFSET UNCERTAINTY 0.08 nm

2°N

4°N NORTH

SCALE
1:630,000

G19

116
115
114
113
112
111
108
106
107
105
104
103

PSV 000

34°E

36°E

LUNAR LANDING SITE EAST TWO LANDMARKS

2°N

116

NORTH

3°N

SCALE
1:200,000

33°30'E

115

113

114

112

111

34°E

110

109

108

107

106

34°30'E

105

104

103

LUNAR LANDING SITE EAST TWO LANDMARKS



NORTH

SCALE

1: 400,000

B4

B3

113 114 111 108 105 104 103
116 115 112 B2 110 109 107 106
B1

0°

NORTH
2°N

SCALE
1:630,000
G22

 SURVEYOR IV

133
132
131
127
126
128 (14)
129
125
123
122
124
120
121

-22°E

-24°E

-26°E

LUNAR LANDING SITE EAST ONE LANDMARKS

0°30'N

1°N

NORTH

1°30'N

SCALE
1:200,000

132

133

131

130

129

128
(14)

127

126

24°E

125

123

122

124

121

120

LUNAR LANDING SITE EAST ONE LANDMARKS

25°E

G22

G22B



NORTH

SCALE
1:400,000

SURVEYOR - V

131 132
127 126
133
128
120
123
122
121
124
125
129
130

LUNAR LANDING SITE EAST ONE LANDMARKS

G22A

