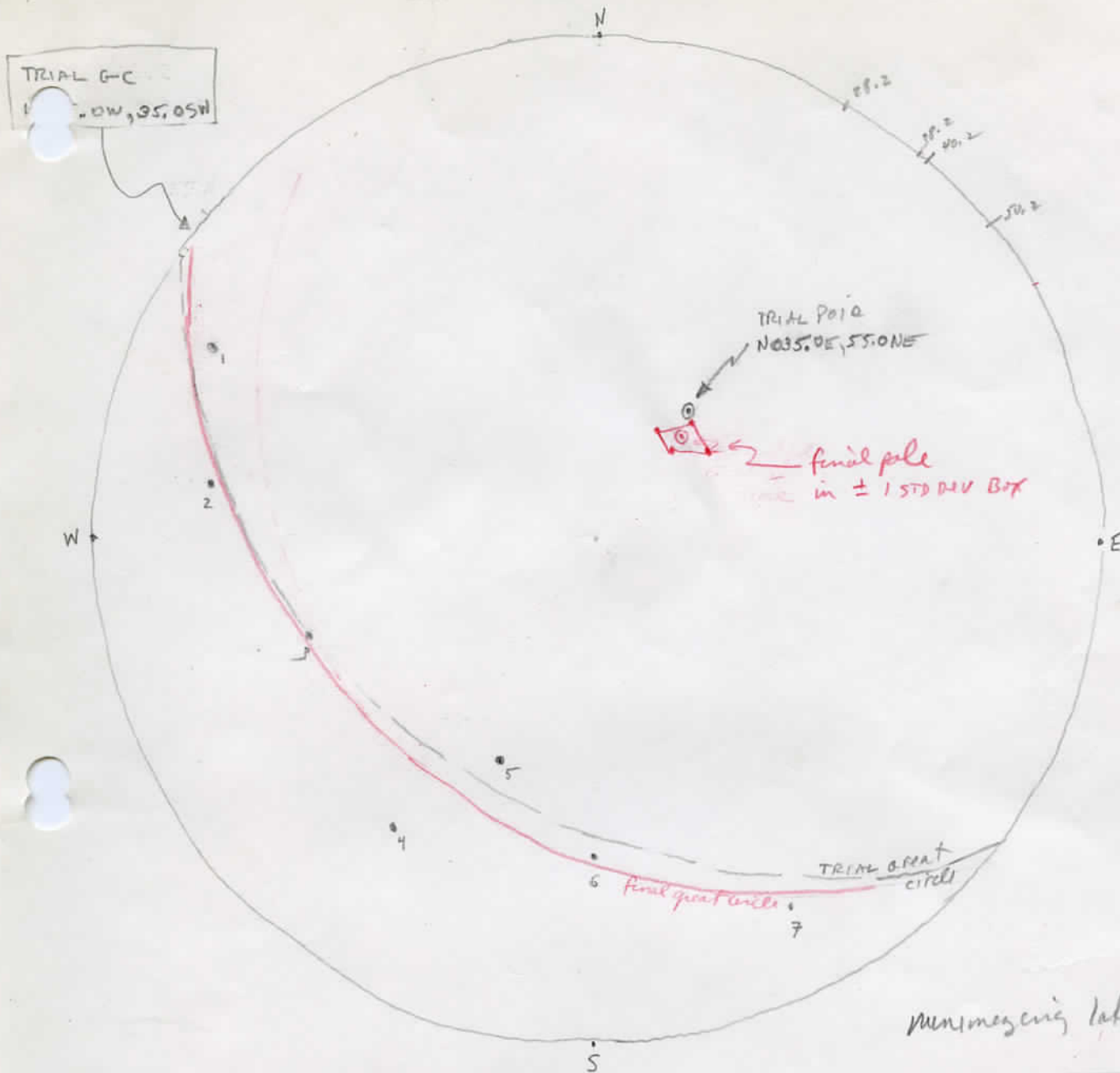


TEST of Great C

MRN 015



DATA

#	Pole position	Strike, DIP
1	N063.5W, 09.5NW	N026.5E, 80.5E
2	N082.0W, 15.0W	N008.0E, 75.0E
3	N109.5W, 29.0W	N019.5W, 61.0NE
4	N145.0W, 20.0W	N055.0W, 70.0NE
5	N154.0W, 39.0W	N064.0W, 51.0NE
	N179.0E, 26.0S	N089.0E, 64.0N
	N152.0E, 11.0SE	N062.0E, 79.0NW
final pole	N039.4E, 60.7N	

merging latitude

TRIAL	final
N045.0E, 20.0E	N40.4E, 60.0N
N060.0E, 41.5E	N44.0E, 59.4N
N010.0E, 77.0N	N39.1E, 59.5N
N170.0E, 10.0S	N38.9E, 59.4N
N055.0E, 35.0S	N39.4E, 60.7N

COMPARISON of final pole locations with trial poles

results: variation seems to be within error estimate.

OLD version minimized latitude error

A TEST OF THE PROGRAM GREATC WITH SEVEN DATA POINTS

7 DATA WERE INPUT. TRIAL POLE AT N 35.0E, 55.0NE

THE IMPROVED POLE IS AT N 39.4E, 60.7N

A BOX 2 STD DEVIATIONS WIDE HAS SIDES :

N 50.2E, 59.5E
N 28.2E, 60.5N
N 40.2E, 64.3N
N 38.8E, 57.0N

INPUT DATA	POLE OF DATA	RESIDUAL(DEG)
N 26.5E, 80.5E	N 63.5W, 9.5W	2.06
N 8.0E, 75.0E	N 82.0W, 15.0W	-1.20
N 19.5W, 61.0NE	N 109.5W, 29.0W	3.19
N 55.0W, 70.0NE	N 145.0W, 20.0S	-9.26
N 64.0W, 51.0NE	N 154.0W, 39.0S	10.27
N 89.0E, 64.0N	N 179.0E, 26.0S	2.69
N 62.0E, 79.0NW	N 152.0E, 11.0S	-1.05

Sum : 6.7

TEST OF IMPROVED VERSION (Minimize Perpendicular error)

7 DATA WERE INPUT. TRIAL POLE AT N 35.0E, 55.0NE

THE IMPROVED POLE IS AT N 39.8E, 59.3N

A BOX 2 STD DEVIATIONS WIDE HAS SIDES :

N 46.9E, 58.6E
 N 32.6E, 59.4N
 N 40.6E, 62.5N
 N 39.2E, 56.1N

INPUT DATA	POLE OF DATA	RESIDUAL(DEG)
N 26.5E, 80.5E	N 63.5W, 9.5W	1.49
N 8.0E, 75.0E	N 82.0W, 15.0W	-2.14
N 19.5W, 61.0NE	N 09.5W, 29.0W	1.89
N 55.0W, 70.0NE	N 14.5W, 20.0S	-10.60
N 64.0W, 51.0NE	N 154.0W, 39.0S	8.97
N 89.0E, 64.0N	N 179.0E, 26.0S	1.70
N 62.0E, 79.0NW	N 152.0E, 11.0S	-1.44

-0.13 → very close to zero.

OTHER TRIAL POLES :

TRIAL	Final
N035.0E, 55.0NE	N039.8E, 59.3N
N045.0E, 41.5E	N039.8E, 59.3N
N010.0E, 27.0N	NO convergence
N170.0E, 10.0S	N039.8E, 59.3N
N055.0E, 35.0S	N039.8E, 59.3N

↔ note: always converges to exactly the same pole.