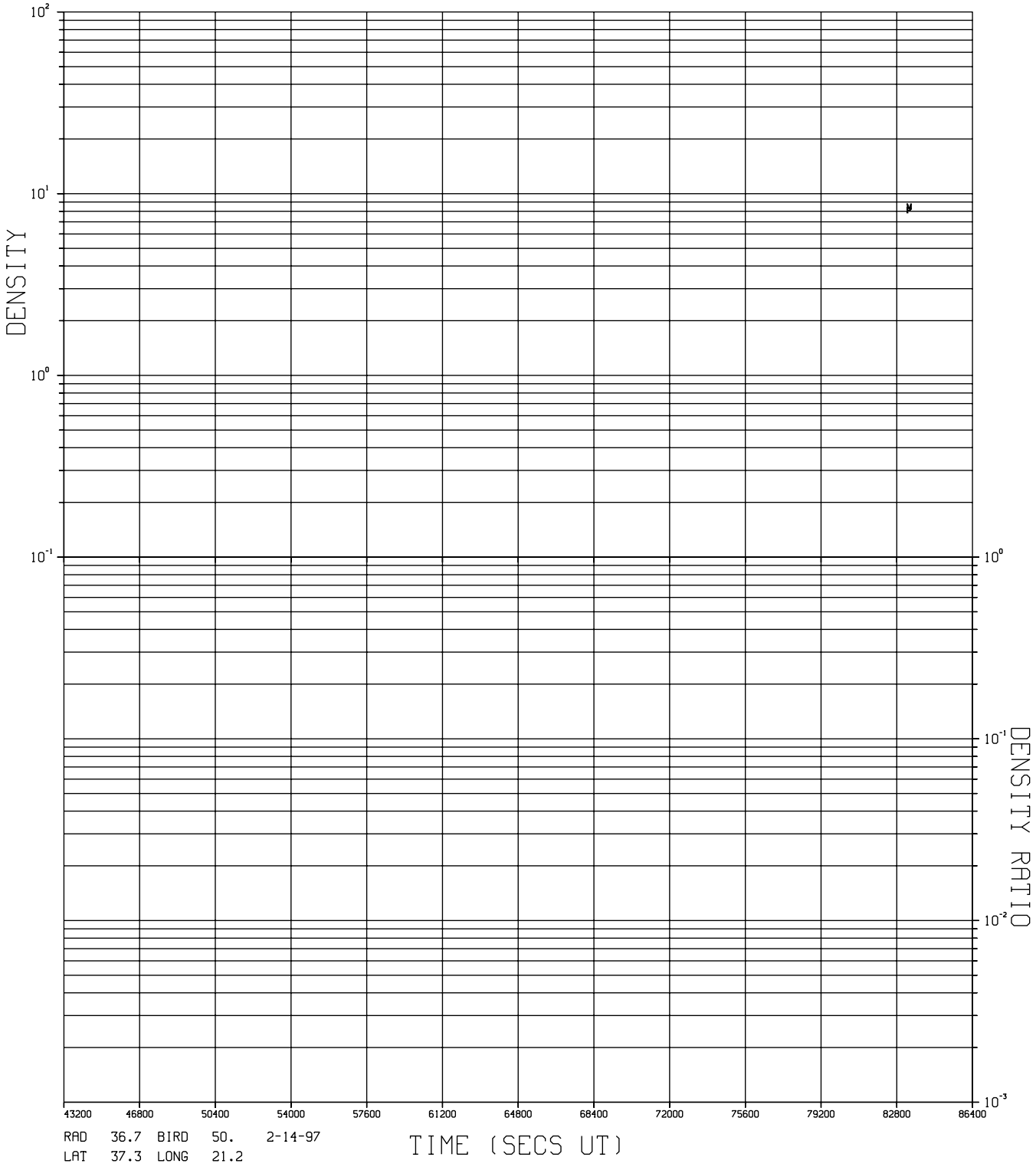
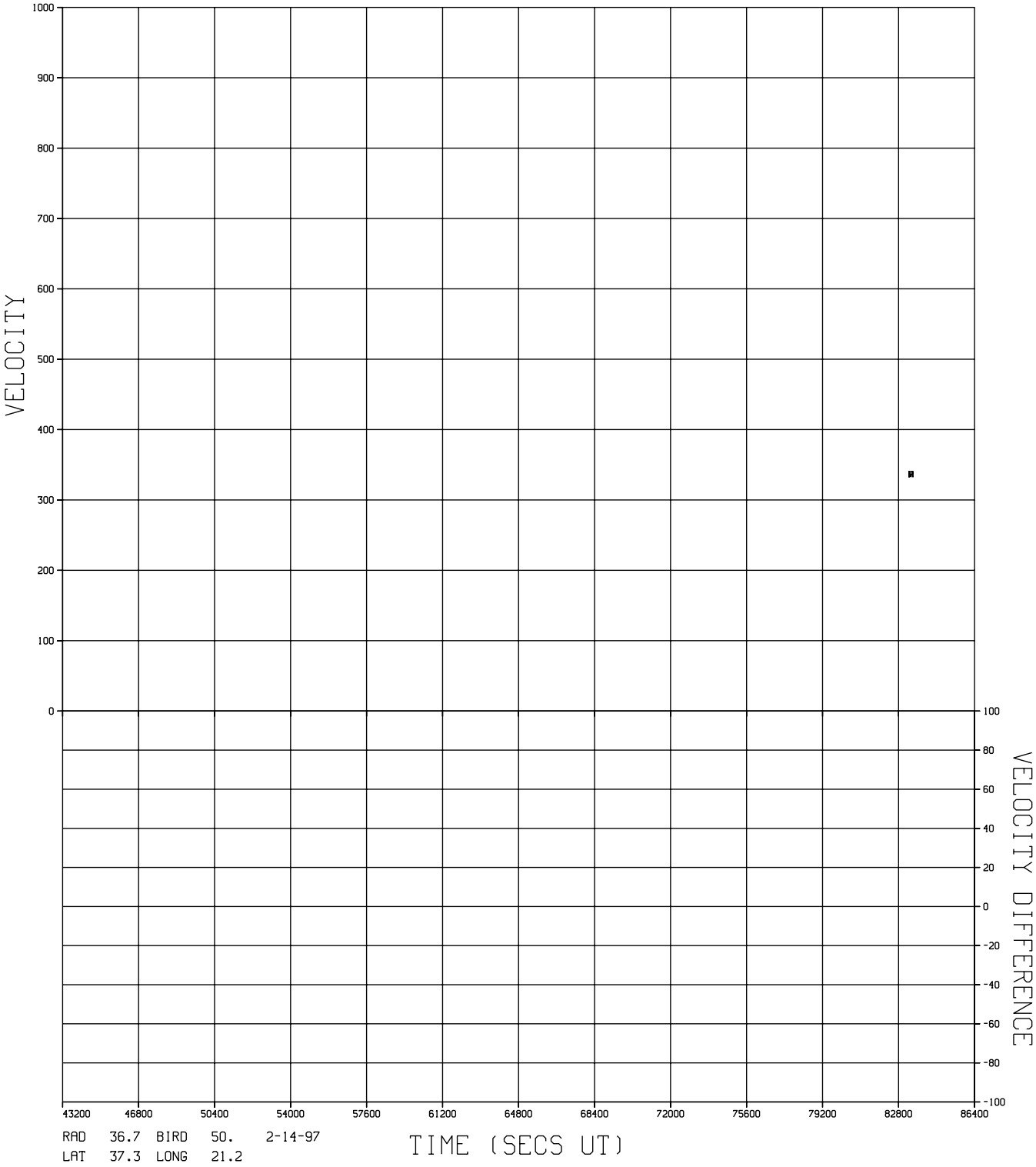
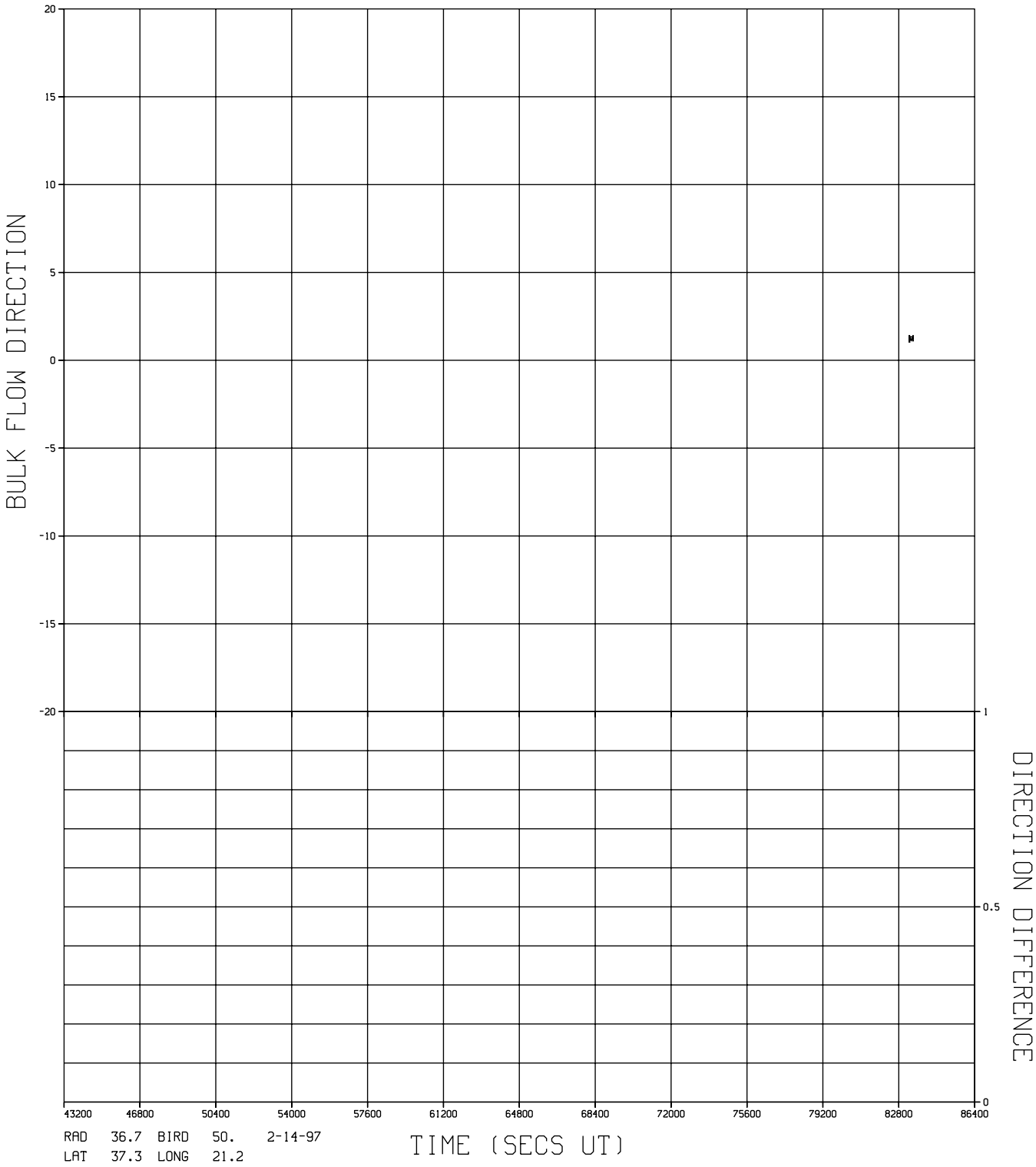
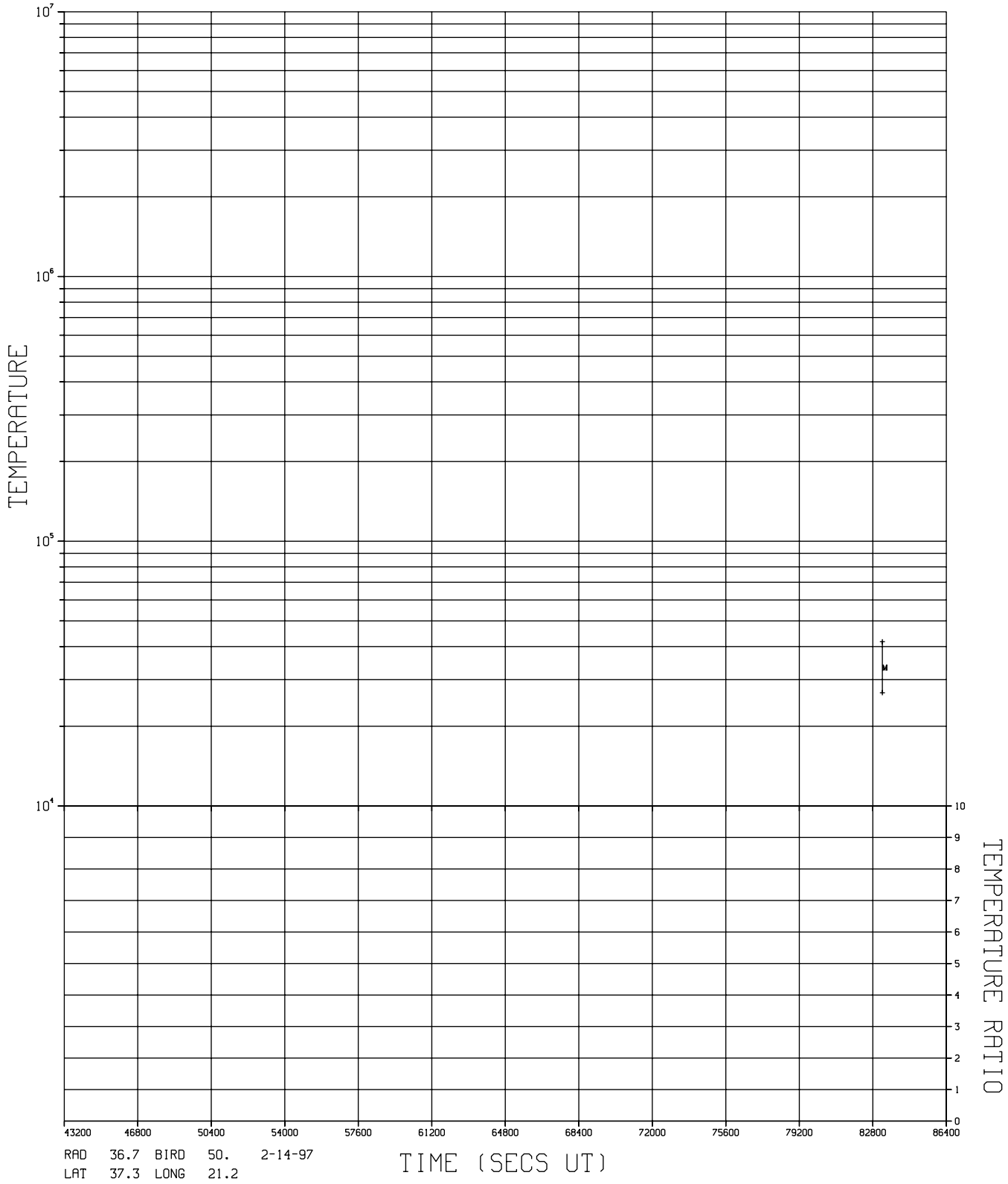
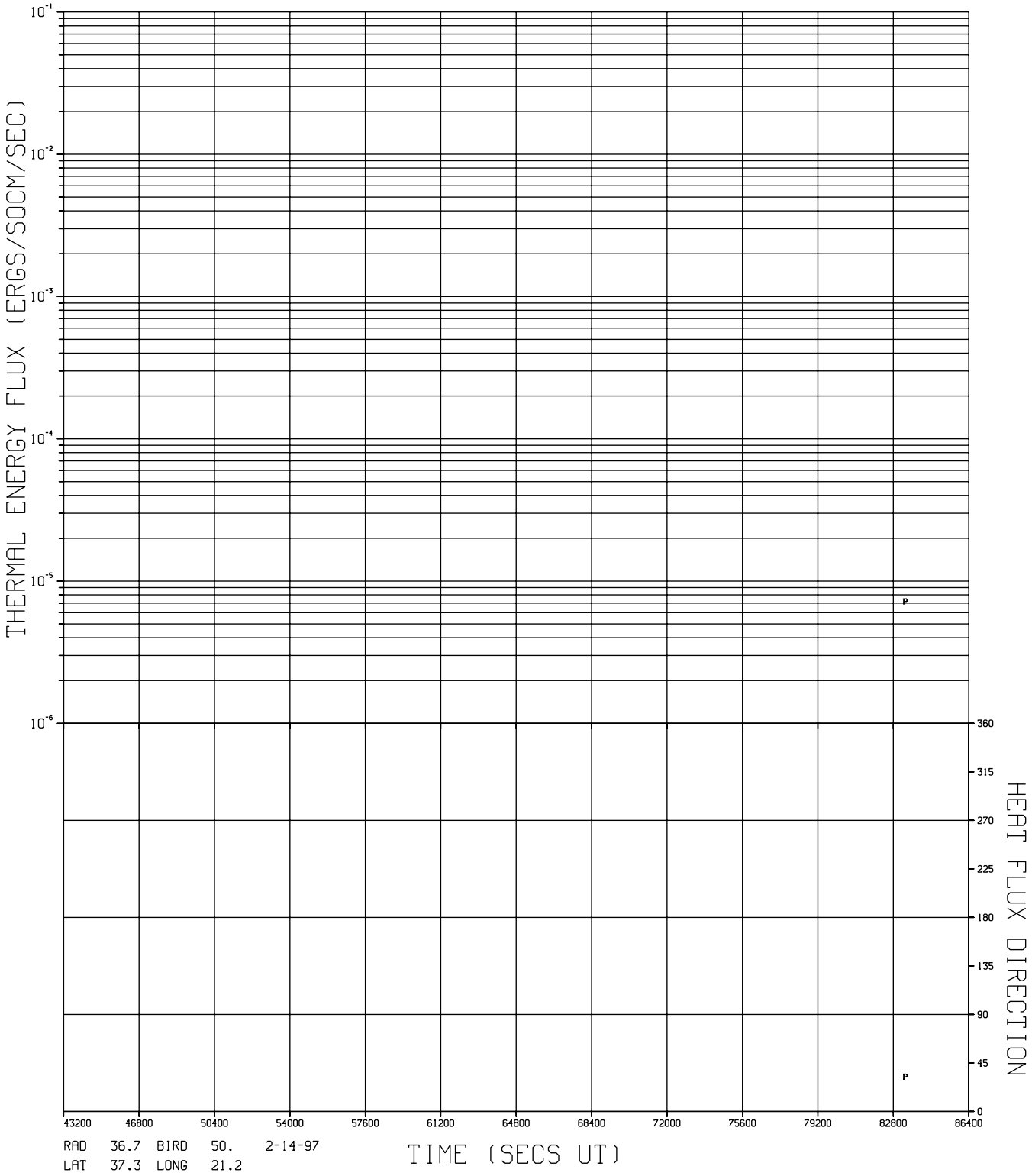
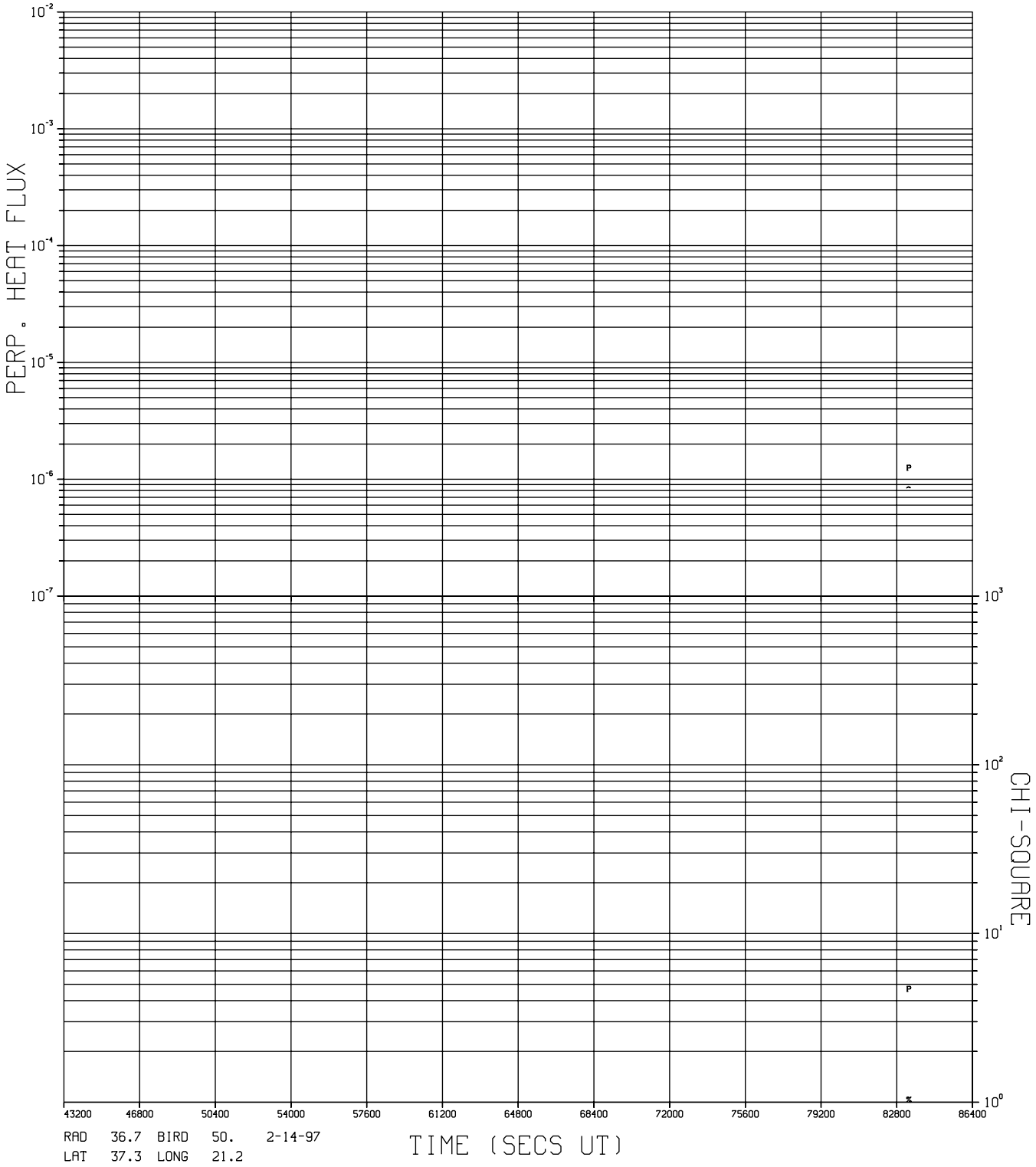

DENSITY
10^2
10^1
10^0
10^{-1}
DENSITY RATIO
10^0
10^{-1}
10^{-2}
10^{-3}
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.7 BIRD 50. 2-14-97
LAT 37.3 LONG 21.2

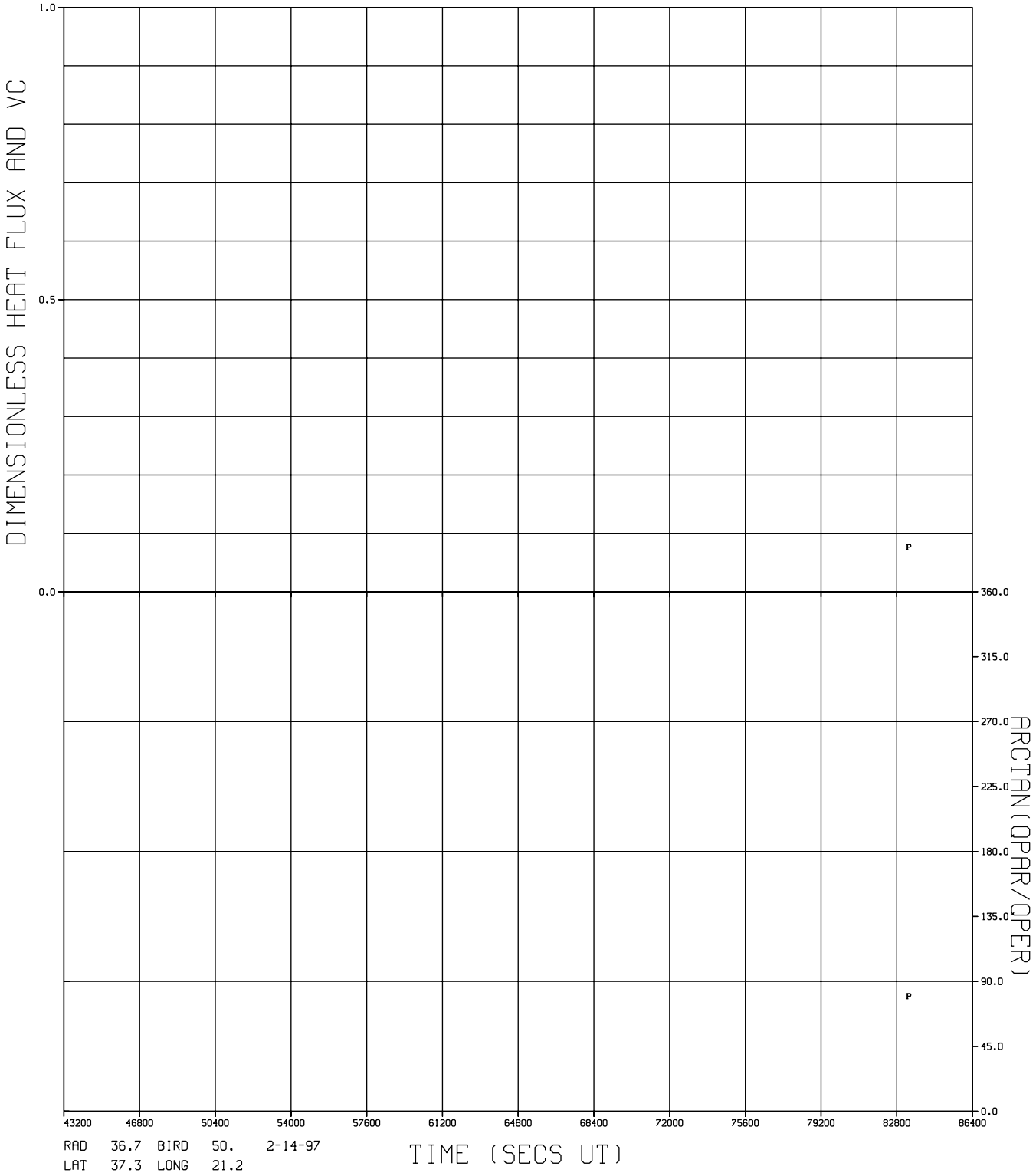

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.7 BIRD 50. 2-14-97
LAT 37.3 LONG 21.2
TIME (SECS UT)

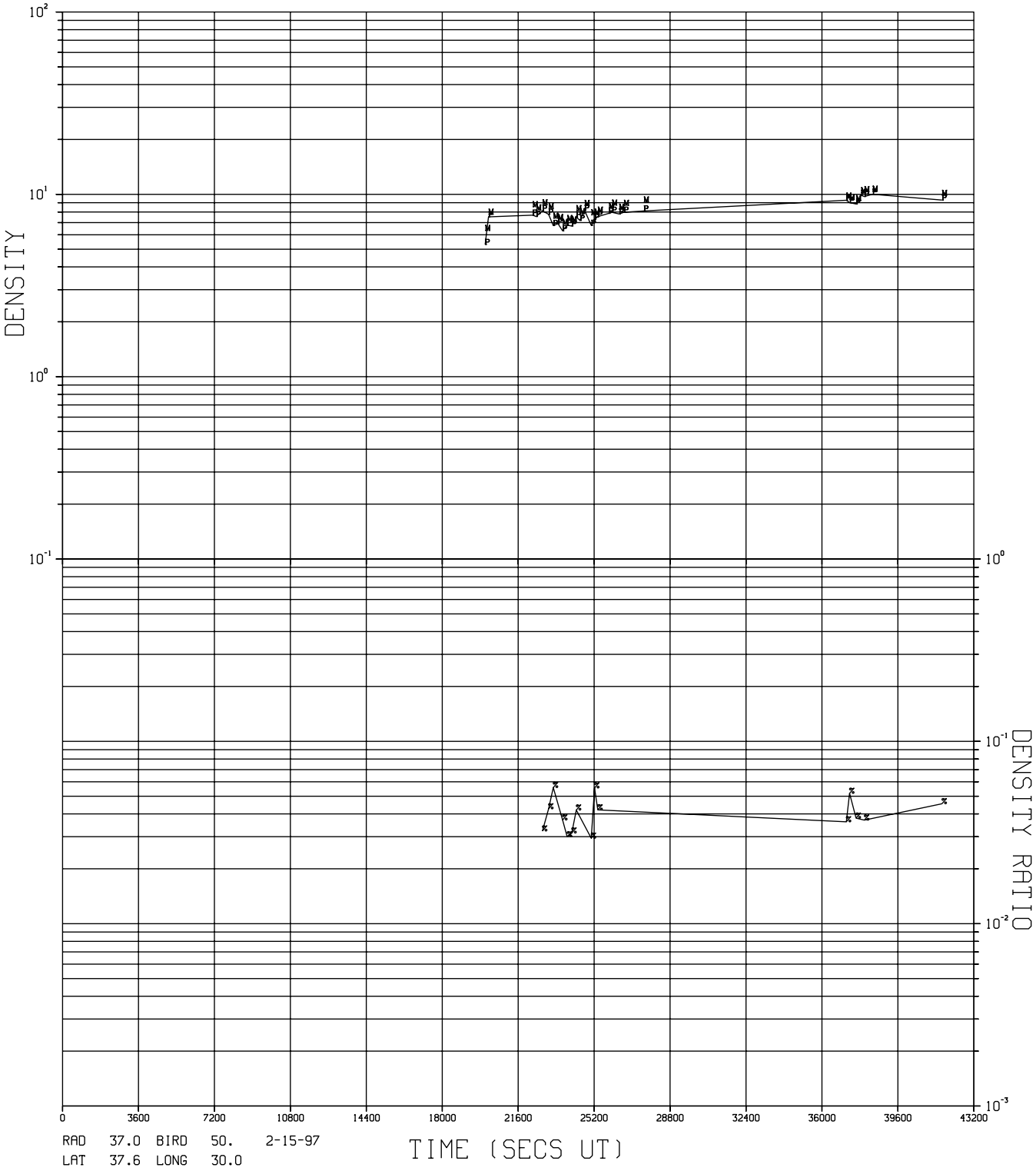

BULK FLOW DIRECTION
20
15
10
5
0
-5
-10
-15
-20
DIRECTION DIFFERENCE
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.7 BIRD 50. 2-14-97
LAT 37.3 LONG 21.2

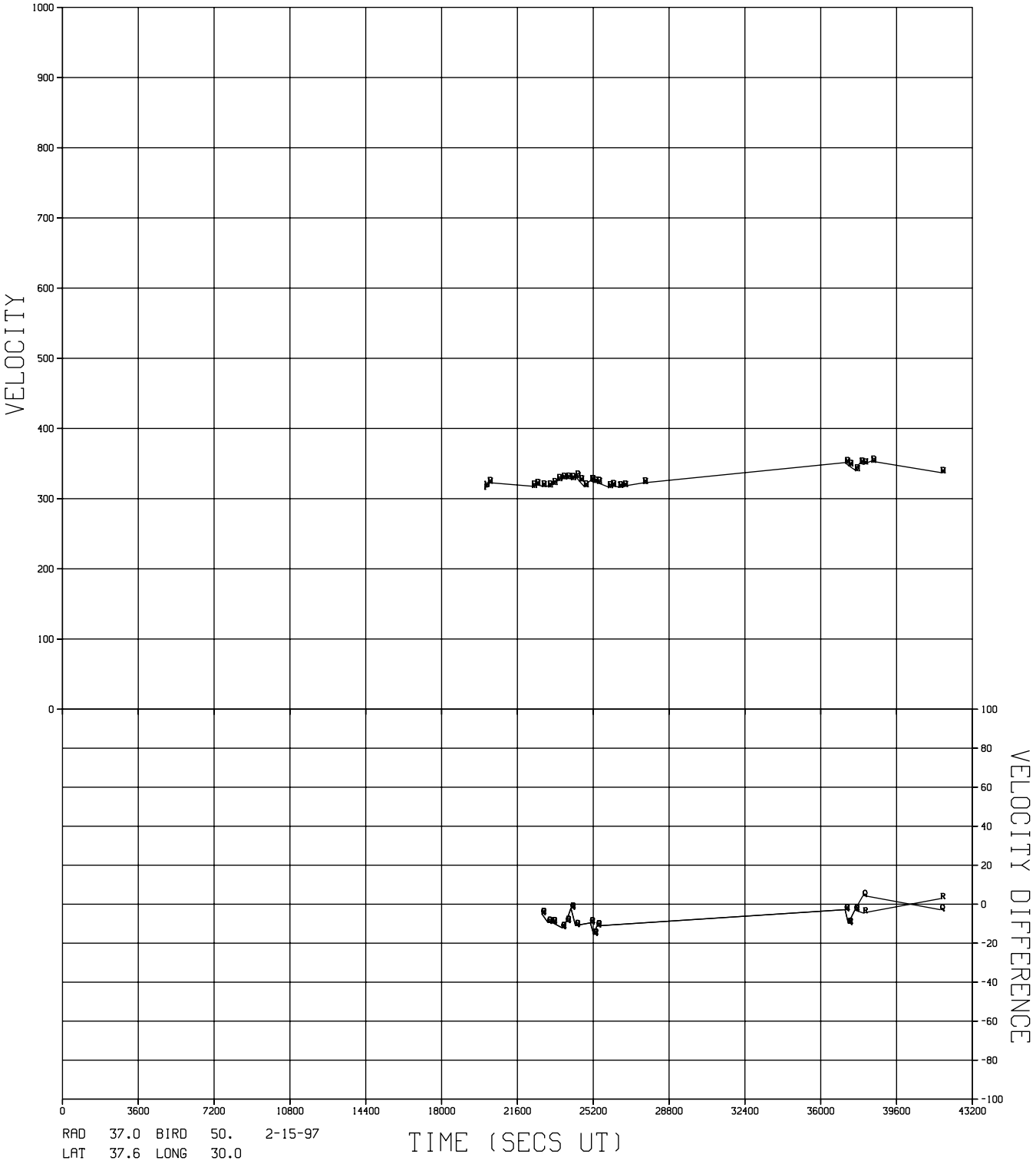

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.7 BIRD 50. 2-14-97
LAT 37.3 LONG 21.2

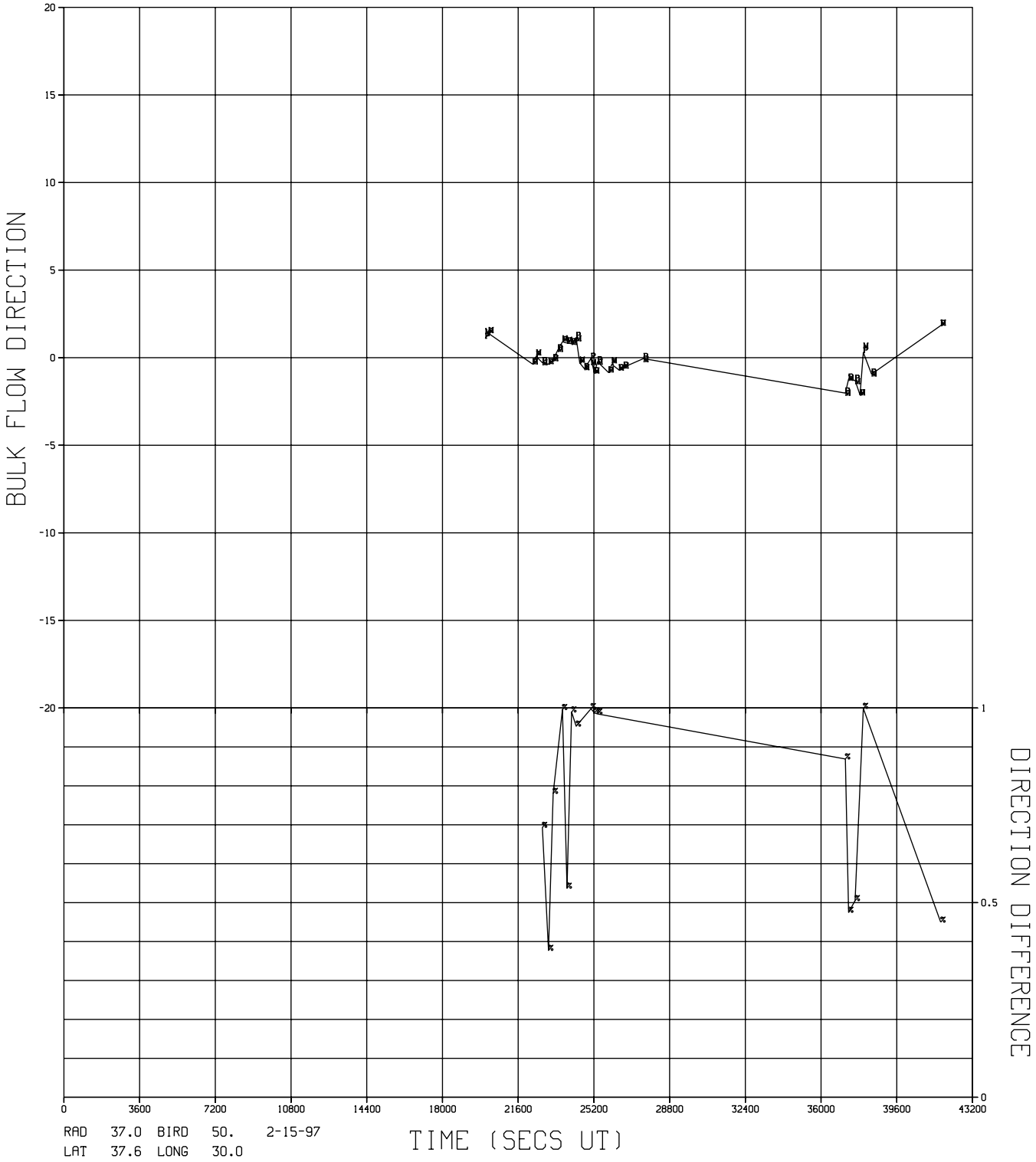

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
HEAT FLUX DIRECTION
360
315
270
225
180
135
90
45
0
P
P
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.7 BIRD 50. 2-14-97
LAT 37.3 LONG 21.2

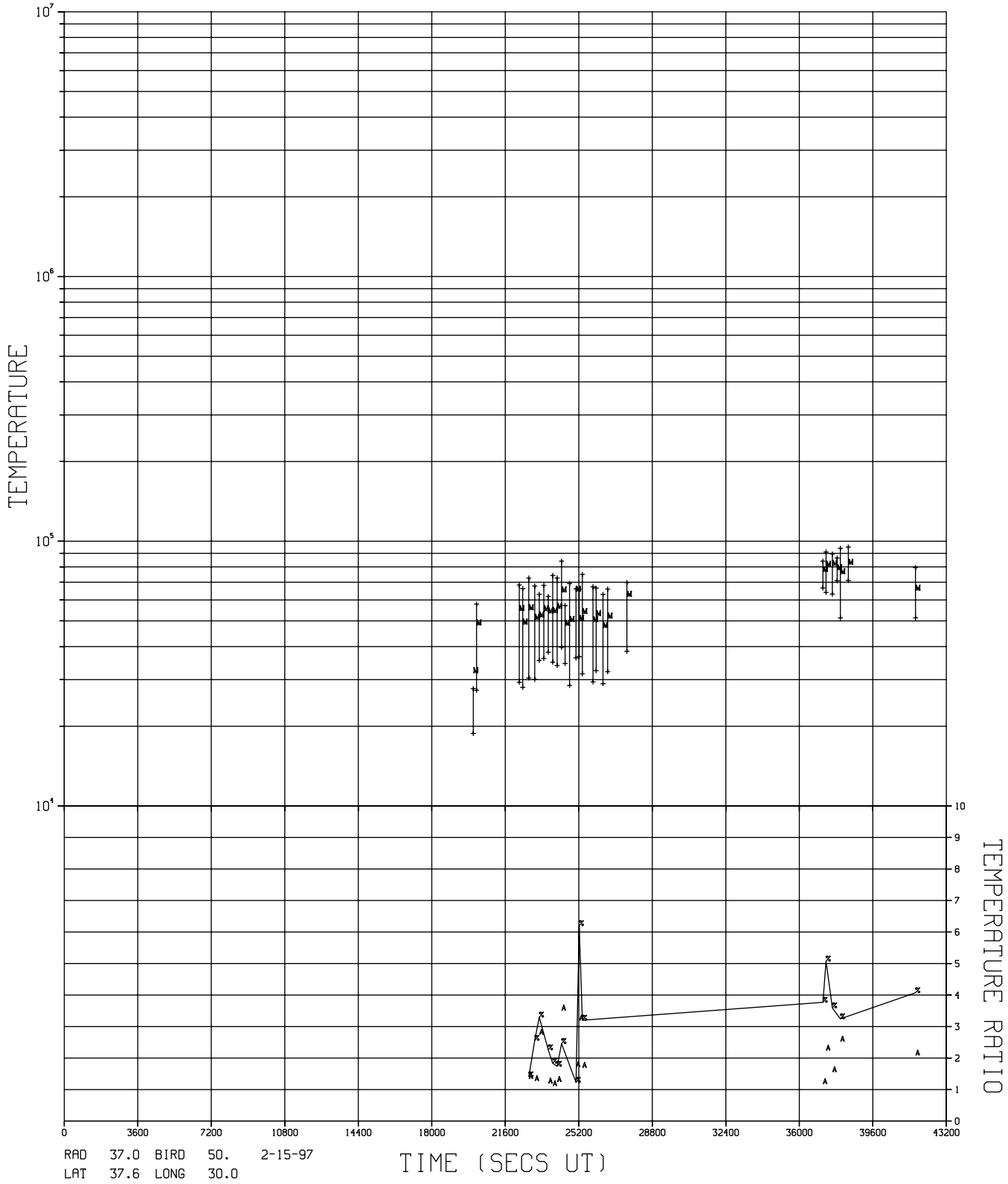

PERP. HEAT FLUX
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
CHI-SQUARE
10^{3}
10^{2}
10^{1}
10^{0}
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.7 BIRD 50. 2-14-97
LAT 37.3 LONG 21.2

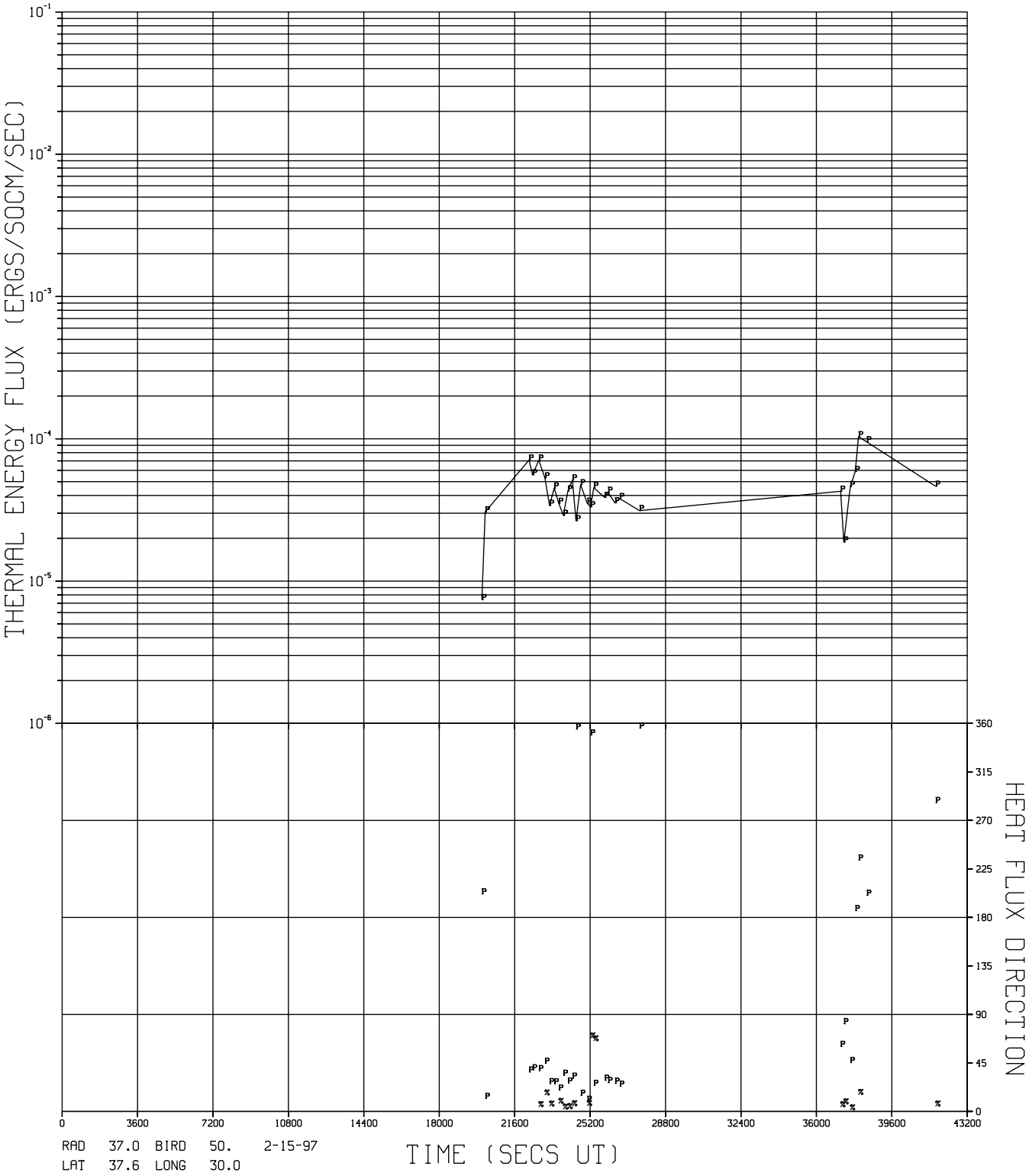

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
P
P
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
ARCTAN(QPAR/QPER)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.7 BIRD 50. 2-14-97
LAT 37.3 LONG 21.2
TIME (SECS UT)

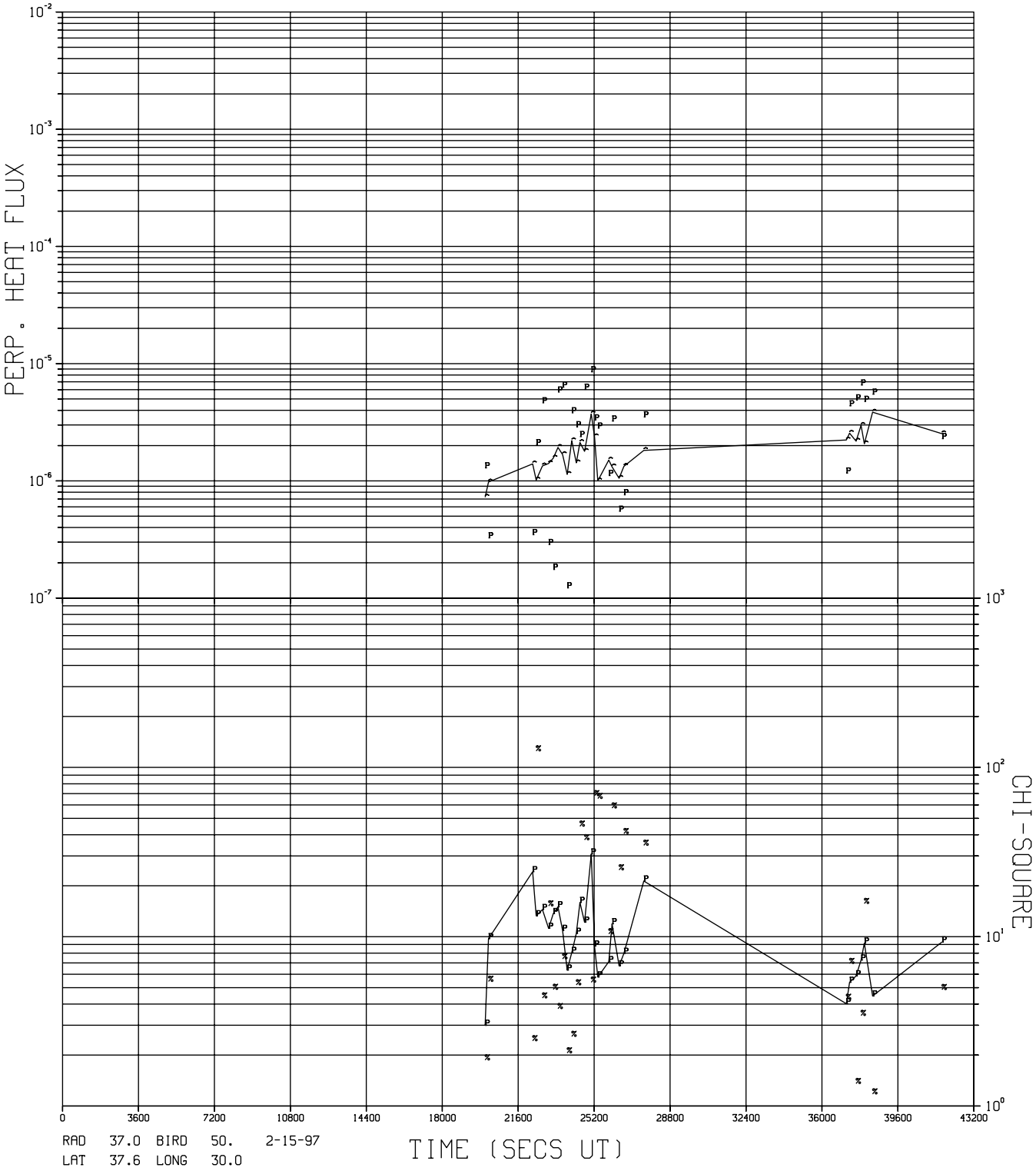

DENSITY
DENSITY RATIO
TIME (SECS UT)
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.0 BIRD 50. 2-15-97
LAT 37.6 LONG 30.0

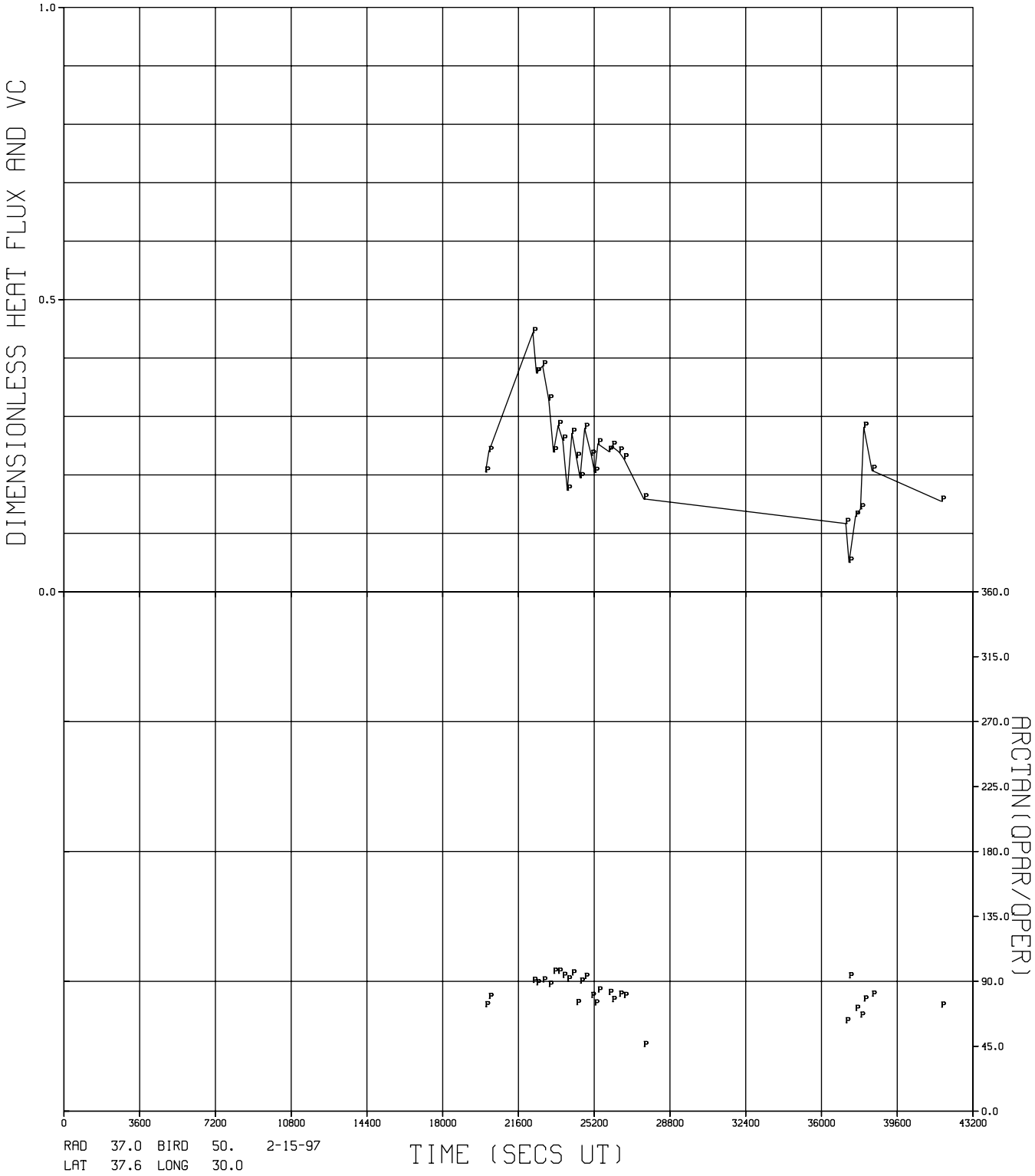

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
1000
900
800
700
600
500
400
300
200
100
0
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.0 BIRD 50. 2-15-97
LAT 37.6 LONG 30.0

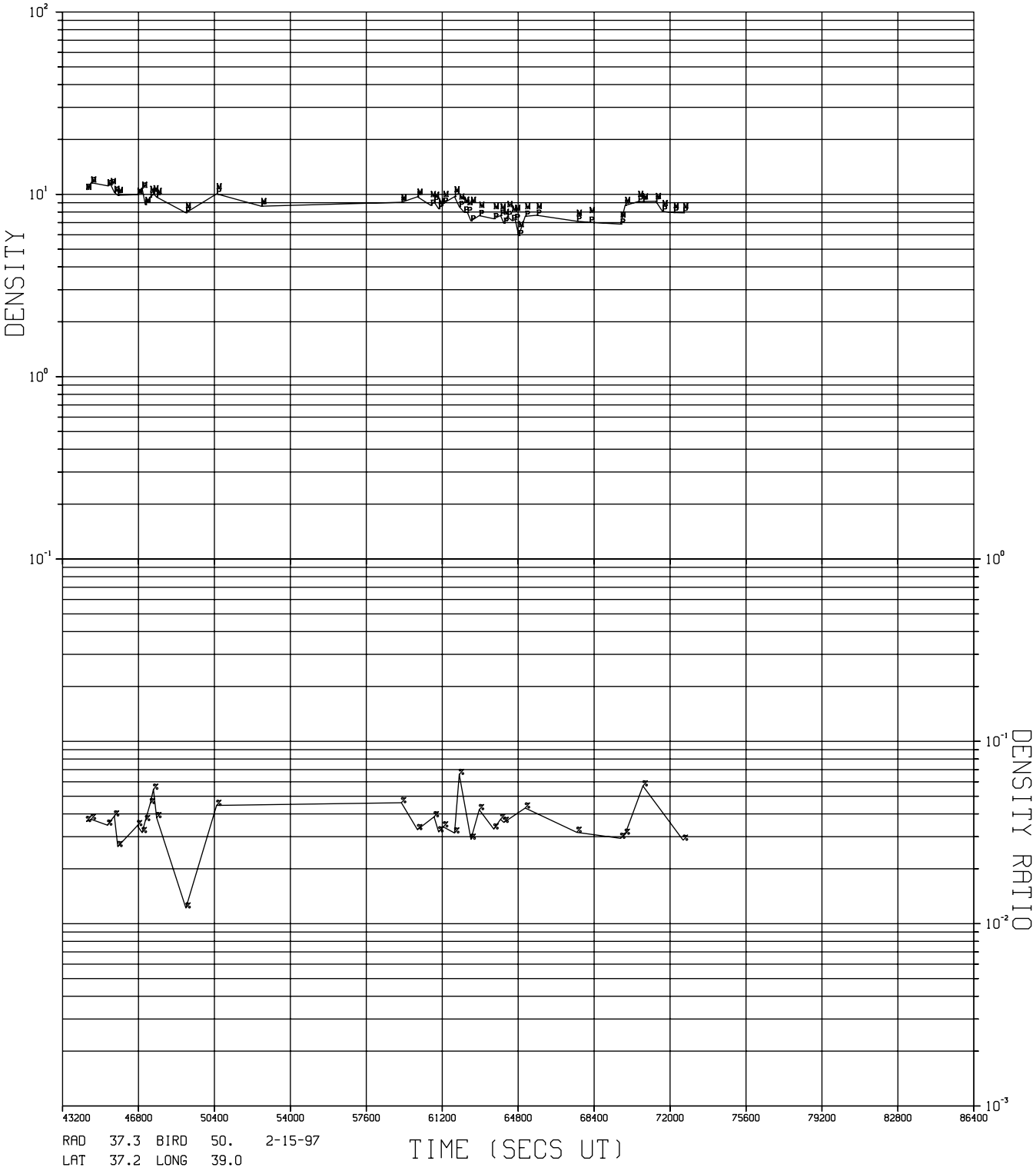

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.0 BIRD 50. 2-15-97
LAT 37.6 LONG 30.0

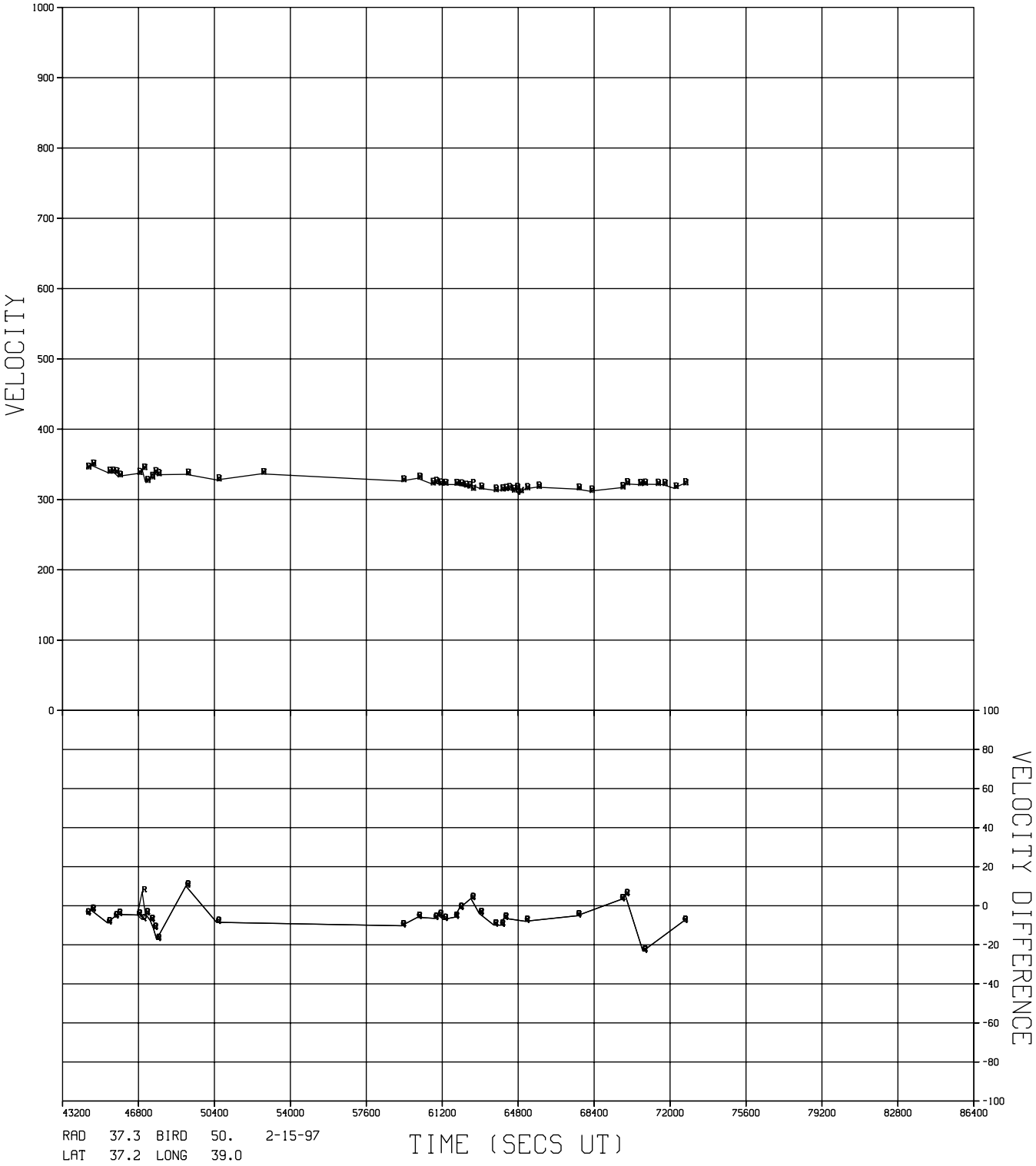

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 37.0 BIRD 50. 2-15-97
LAT 37.6 LONG 30.0

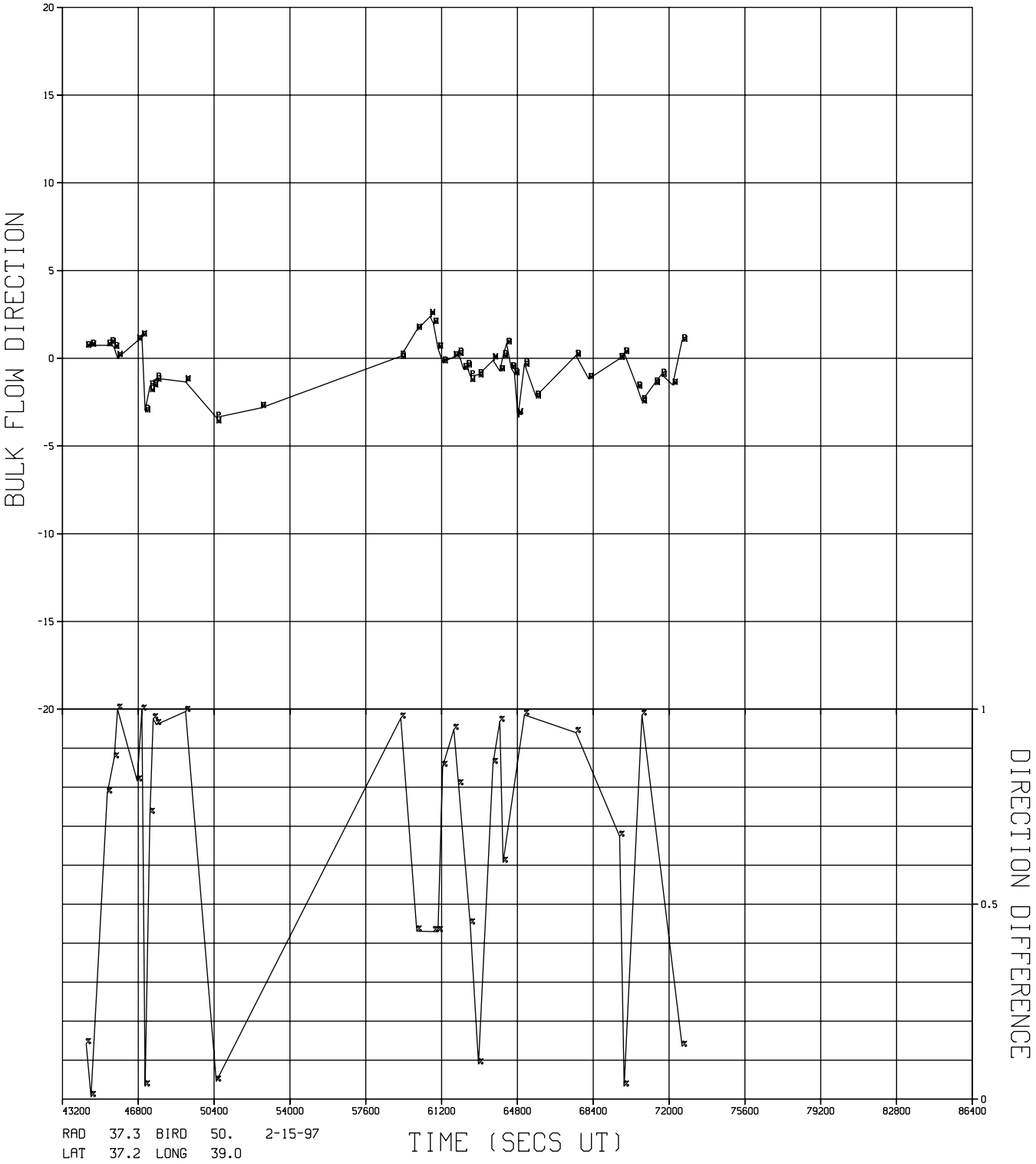

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.0 BIRD 50. 2-15-97
LAT 37.6 LONG 30.0

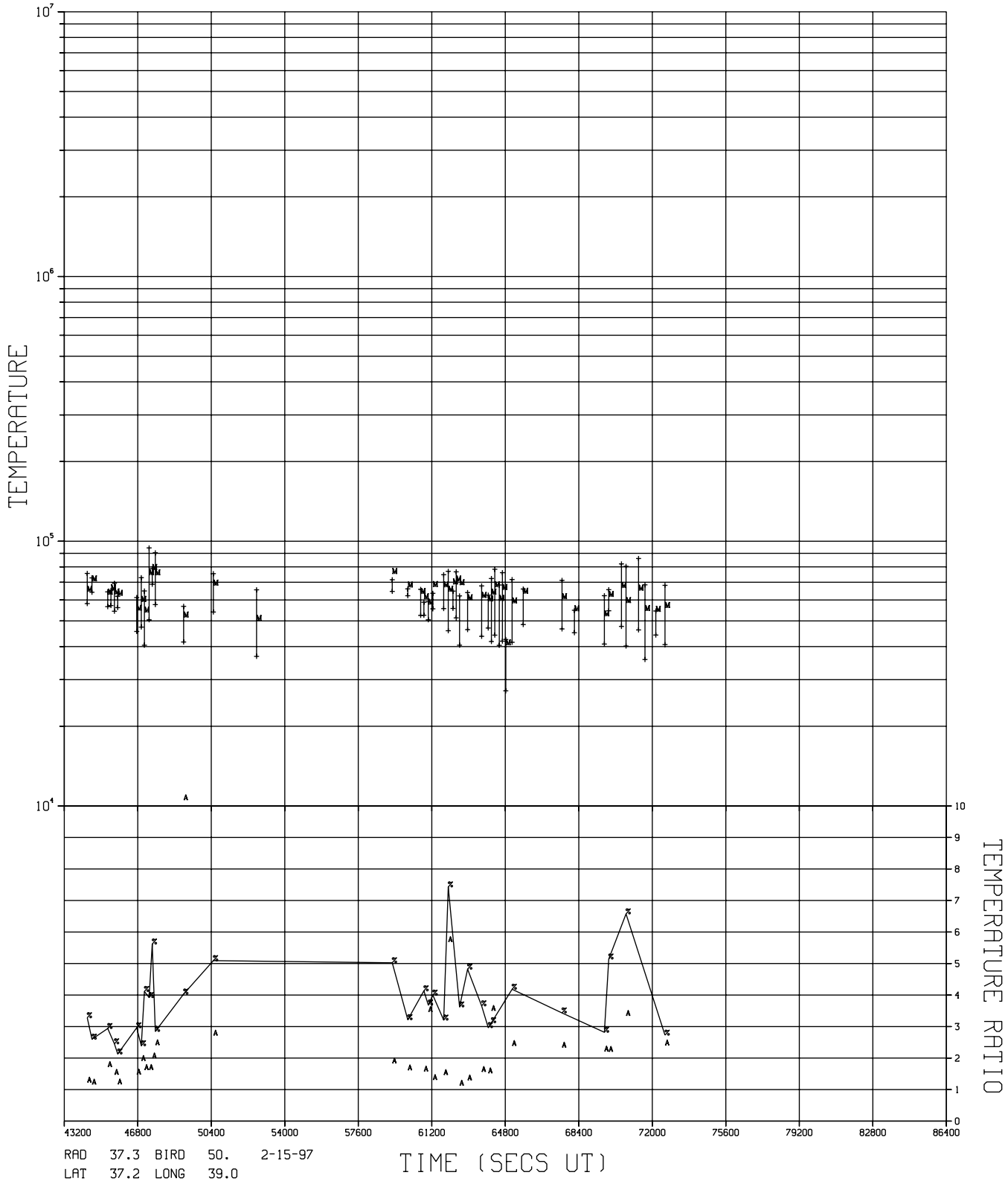

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 37.0 BIRD 50. 2-15-97
LAT 37.6 LONG 30.0

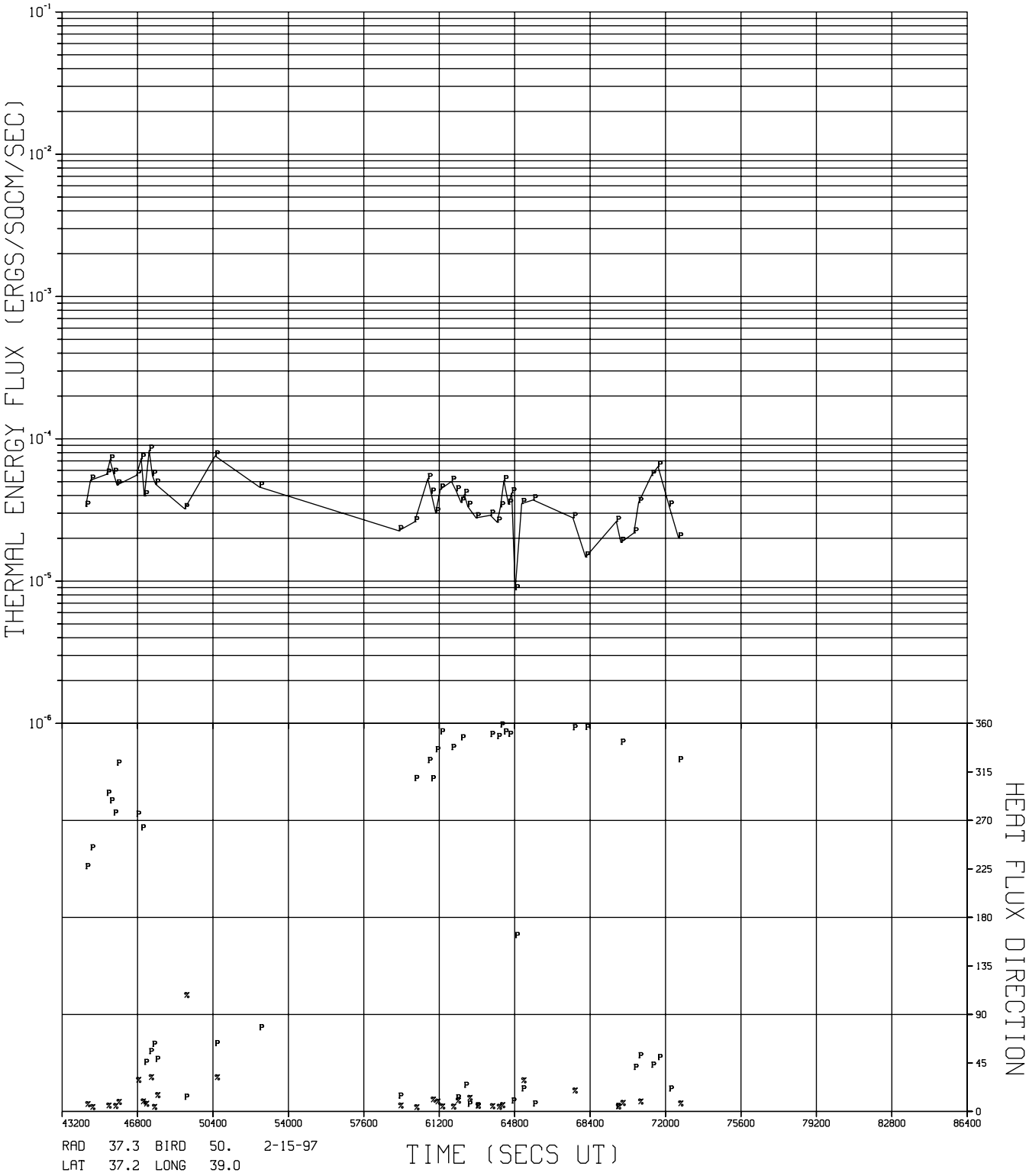

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 37.0 BIRD 50. 2-15-97
LAT 37.6 LONG 30.0

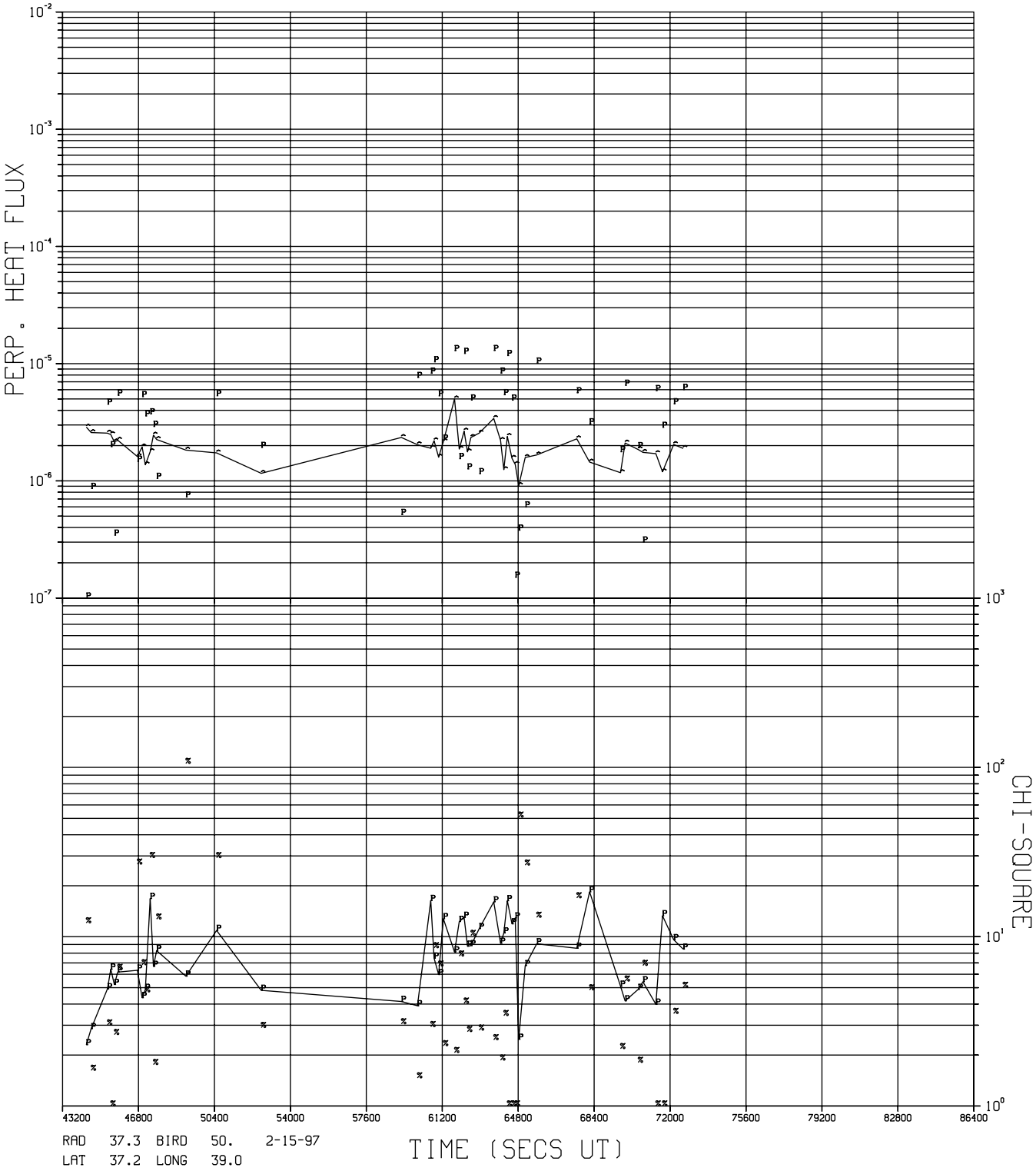

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.3 BIRD 50. 2-15-97
LAT 37.2 LONG 39.0

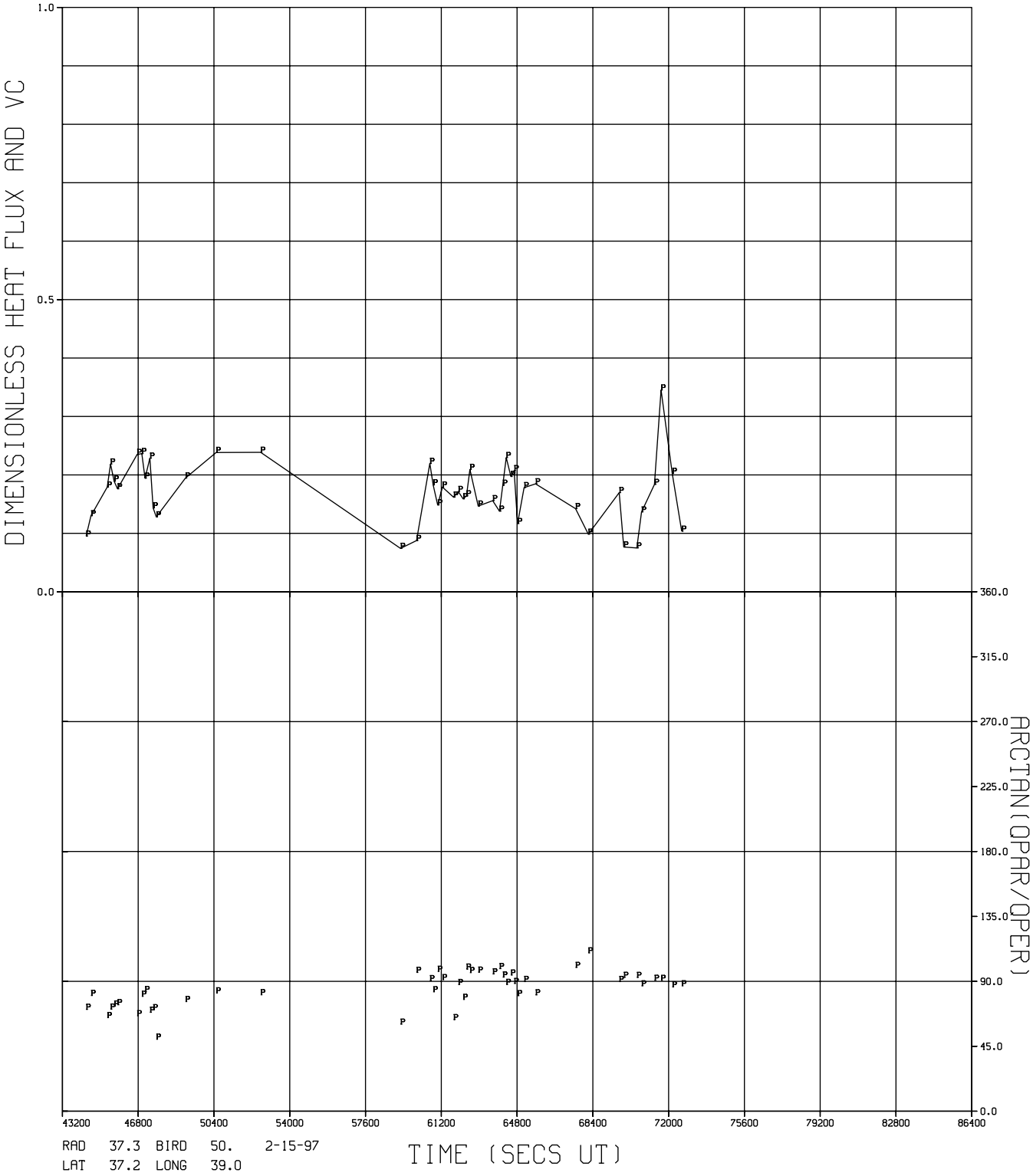

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 37.3 BIRD 50. 2-15-97
LAT 37.2 LONG 39.0

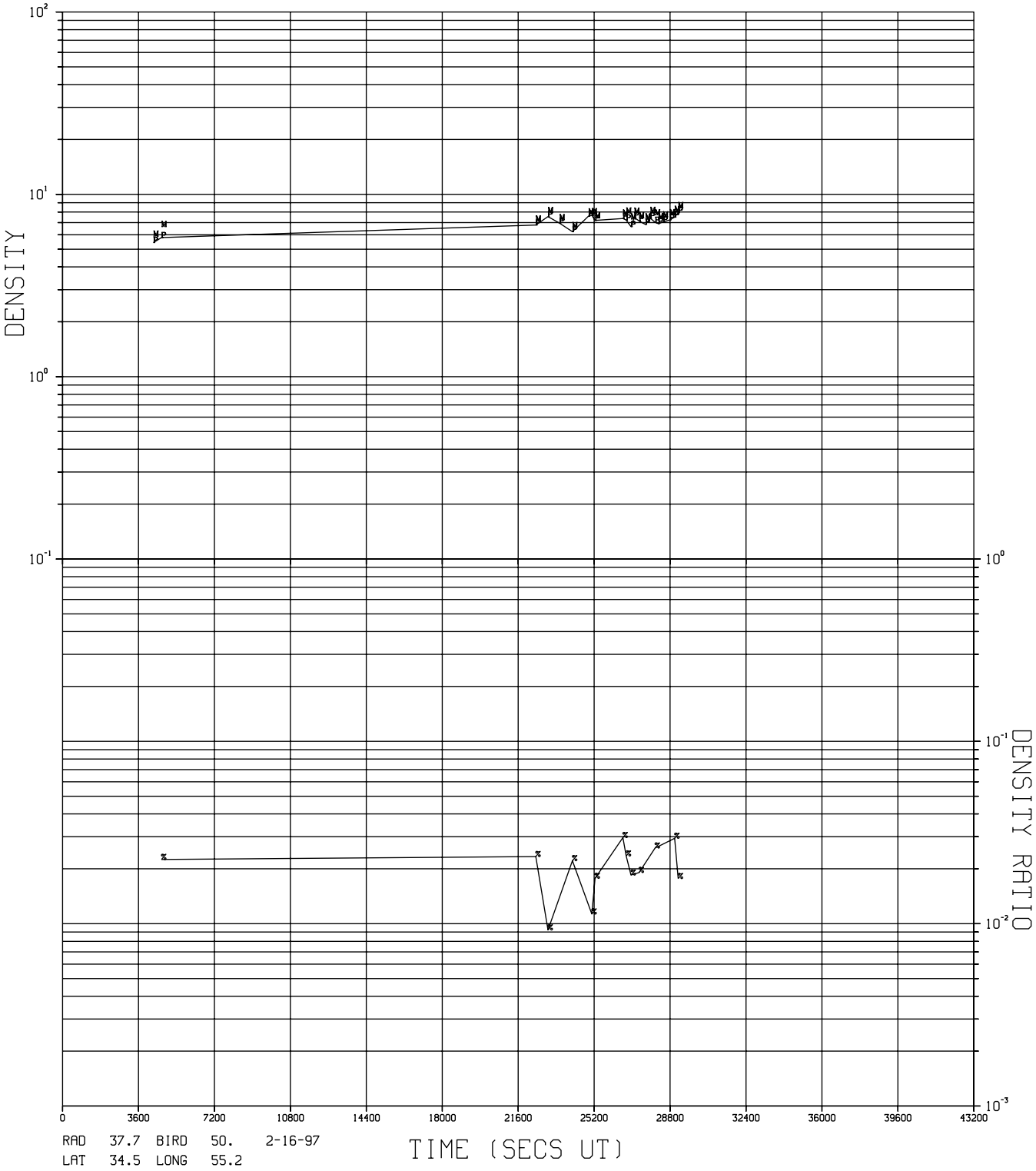

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.3 BIRD 50. 2-15-97
LAT 37.2 LONG 39.0

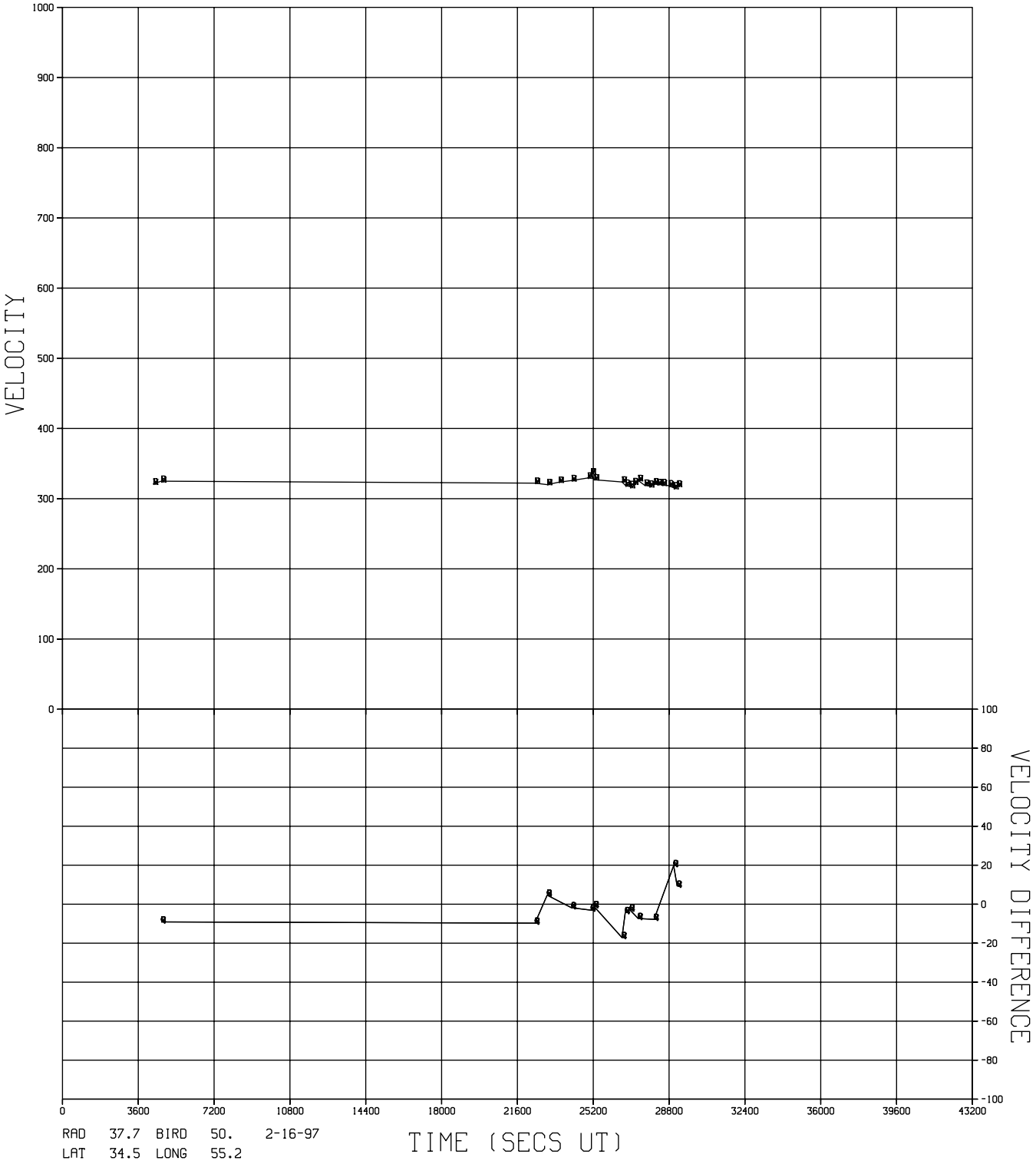

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 37.3 BIRD 50. 2-15-97
LAT 37.2 LONG 39.0

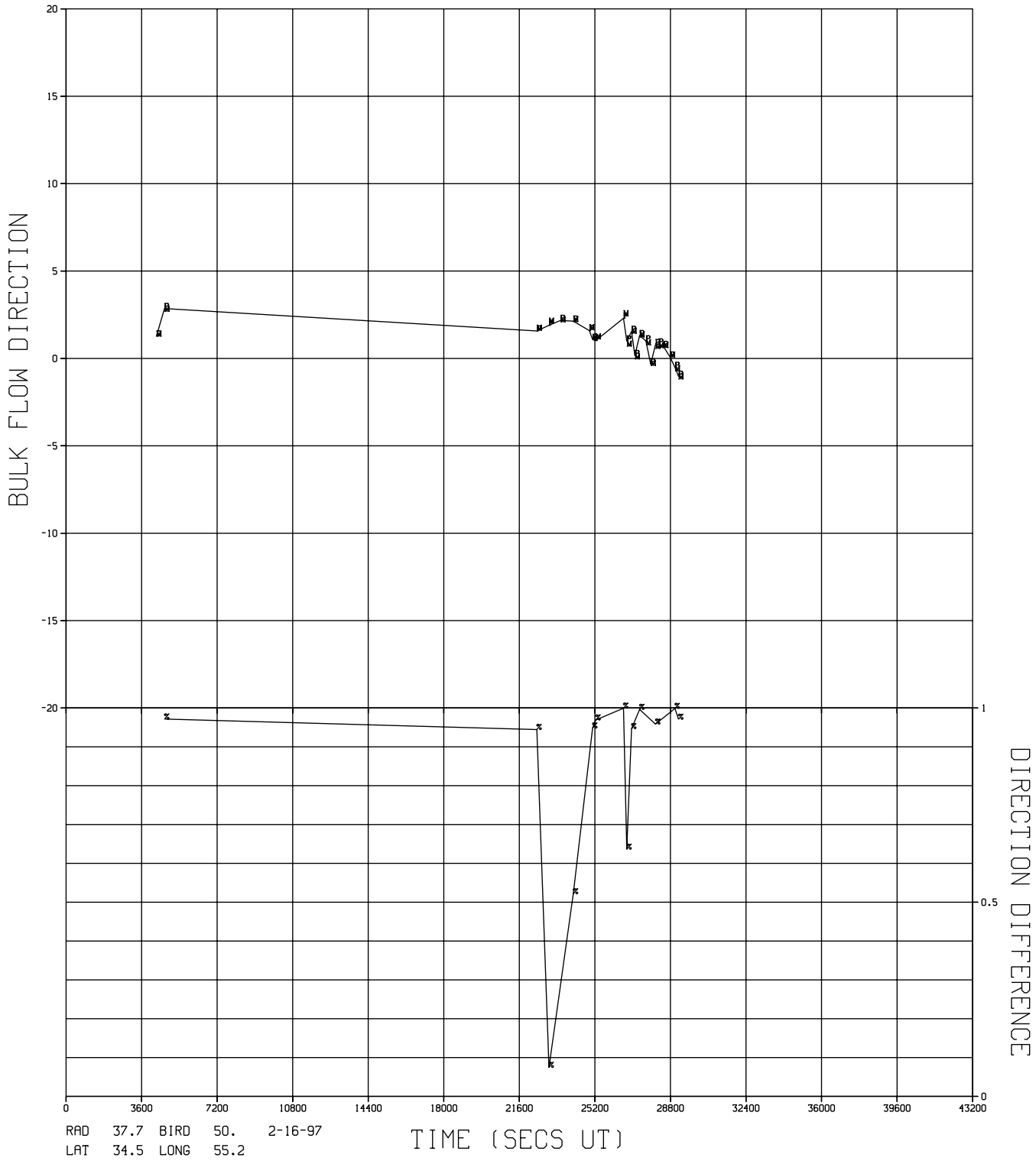

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.3 BIRD 50. 2-15-97
LAT 37.2 LONG 39.0

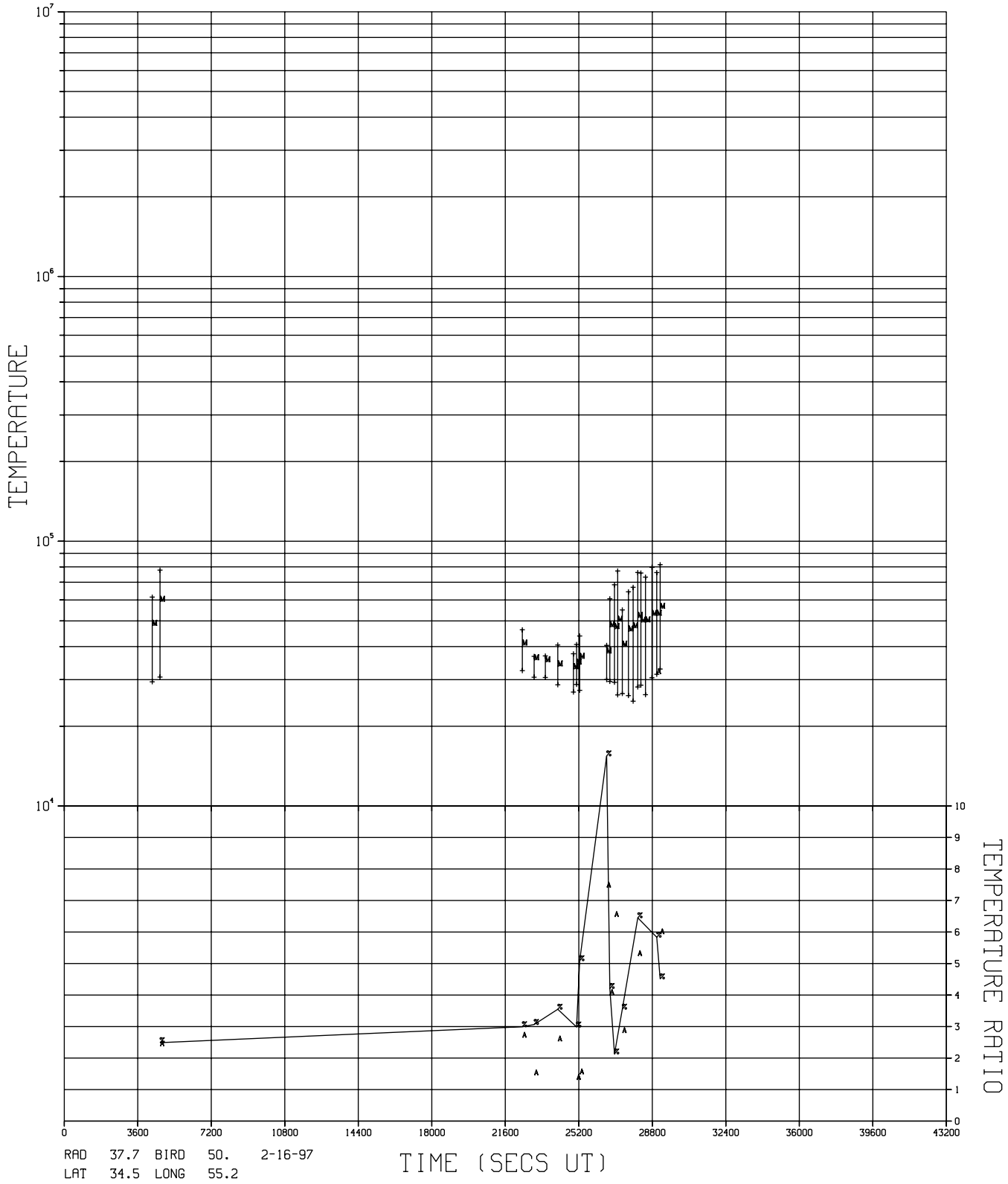

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 37.3 BIRD 50. 2-15-97
LAT 37.2 LONG 39.0

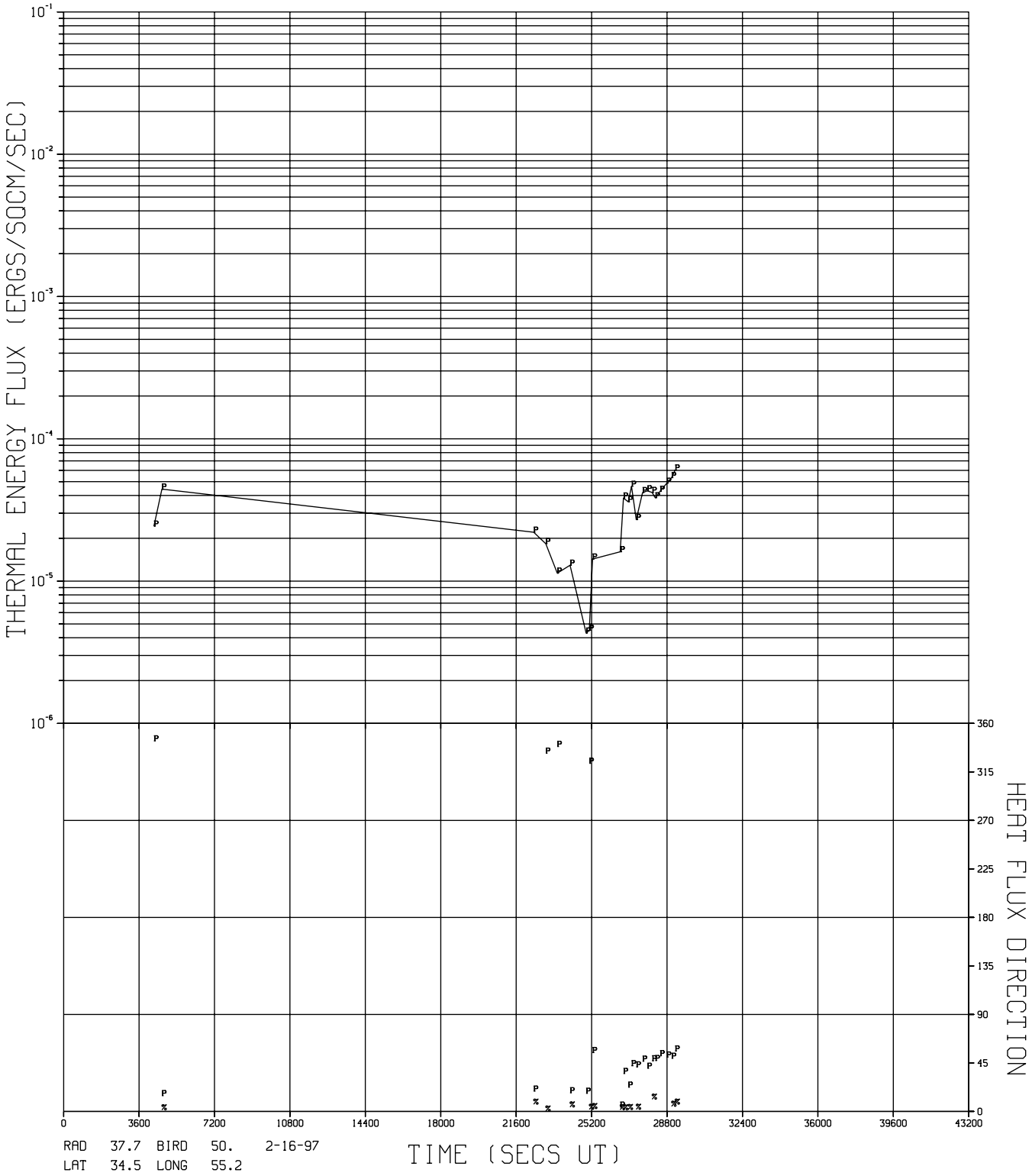

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 37.3 BIRD 50. 2-15-97
LAT 37.2 LONG 39.0

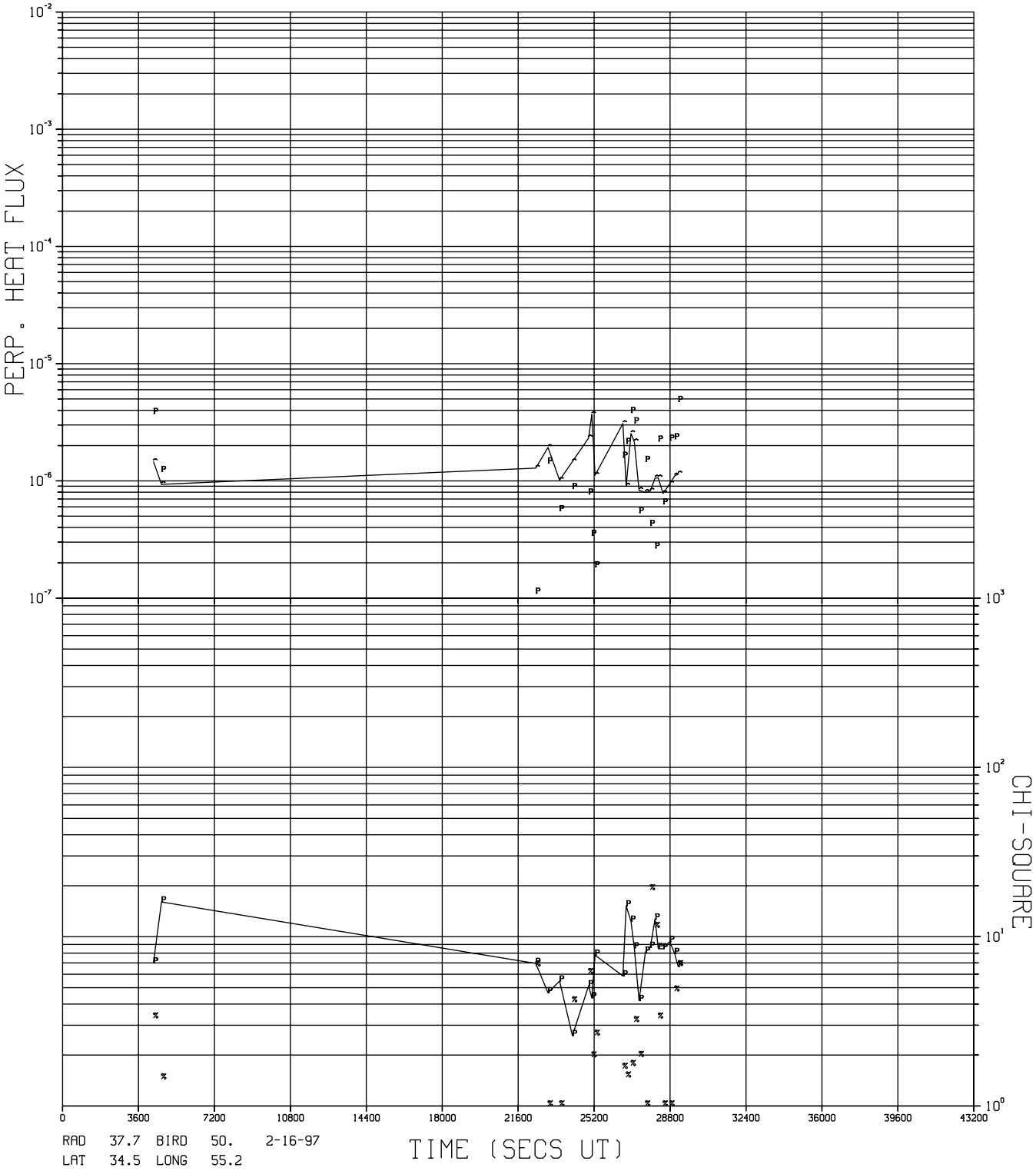

DENSITY
DENSITY RATIO
TIME (SECS UT)
10^2
10^1
10^0
10^{-1}
10^{-2}
10^{-3}
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.7 BIRD 50. 2-16-97
LAT 34.5 LONG 55.2

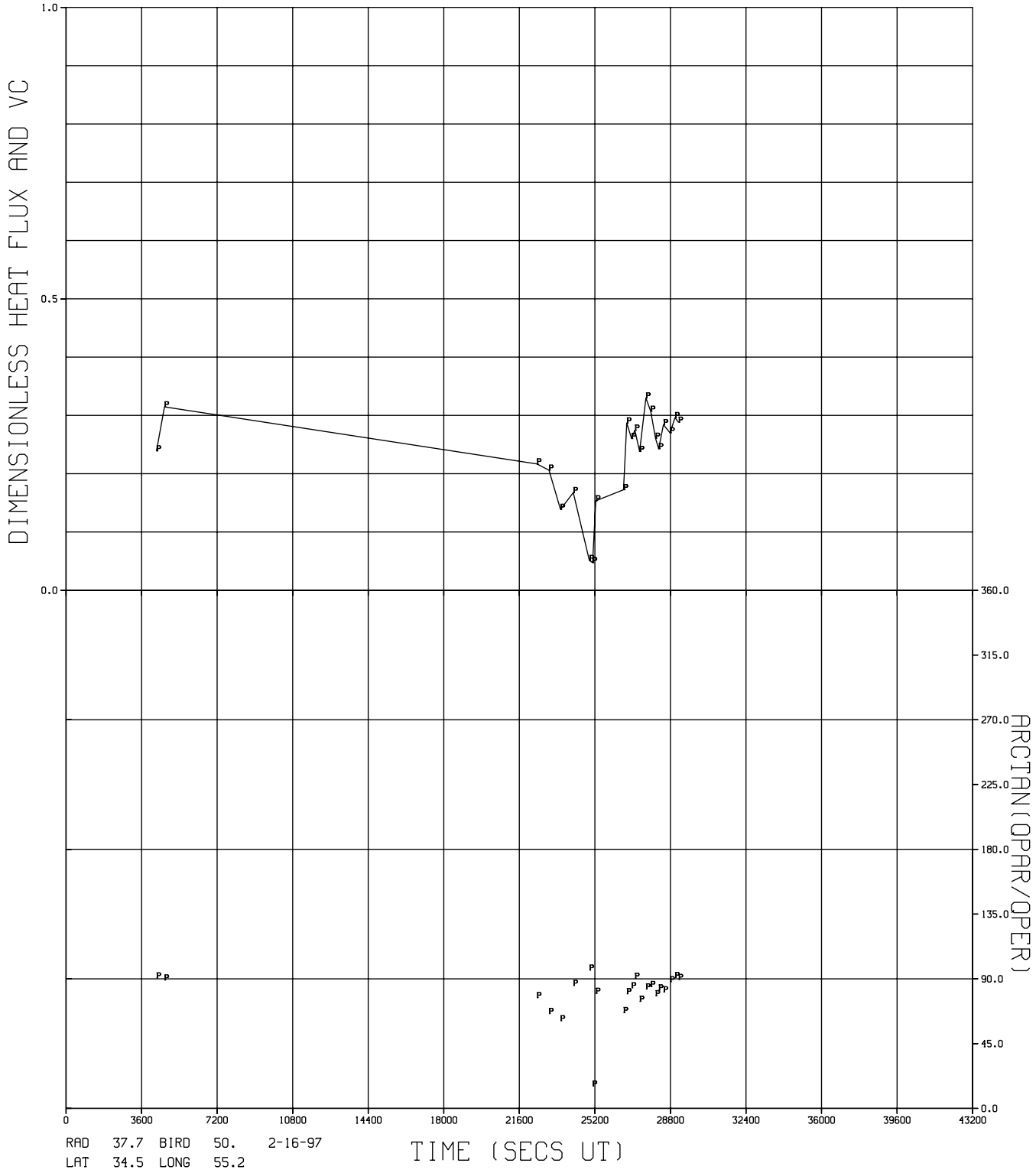

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
1000
900
800
700
600
500
400
300
200
100
0
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.7 BIRD 50. 2-16-97
LAT 34.5 LONG 55.2

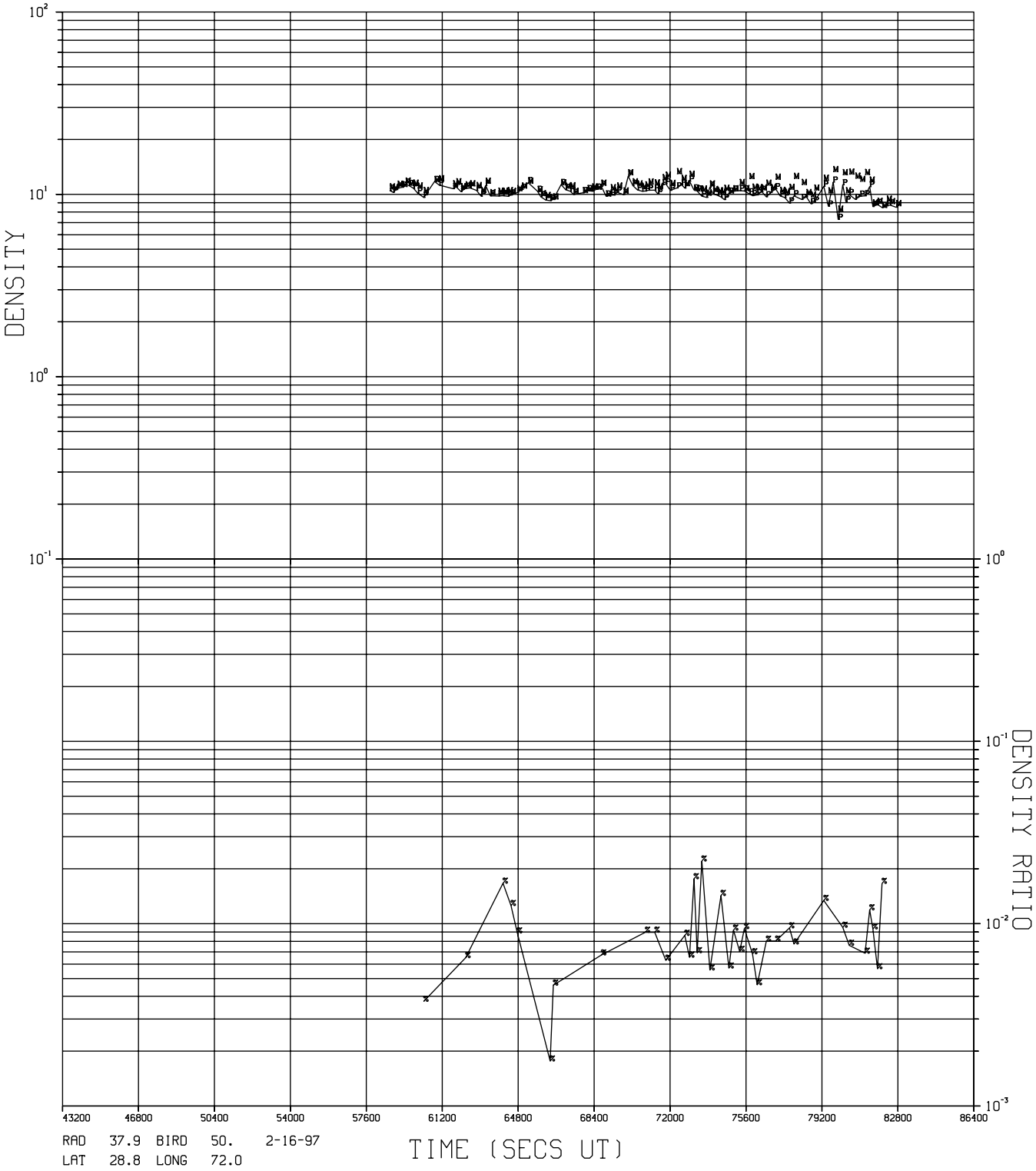

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.7 BIRD 50. 2-16-97
LAT 34.5 LONG 55.2

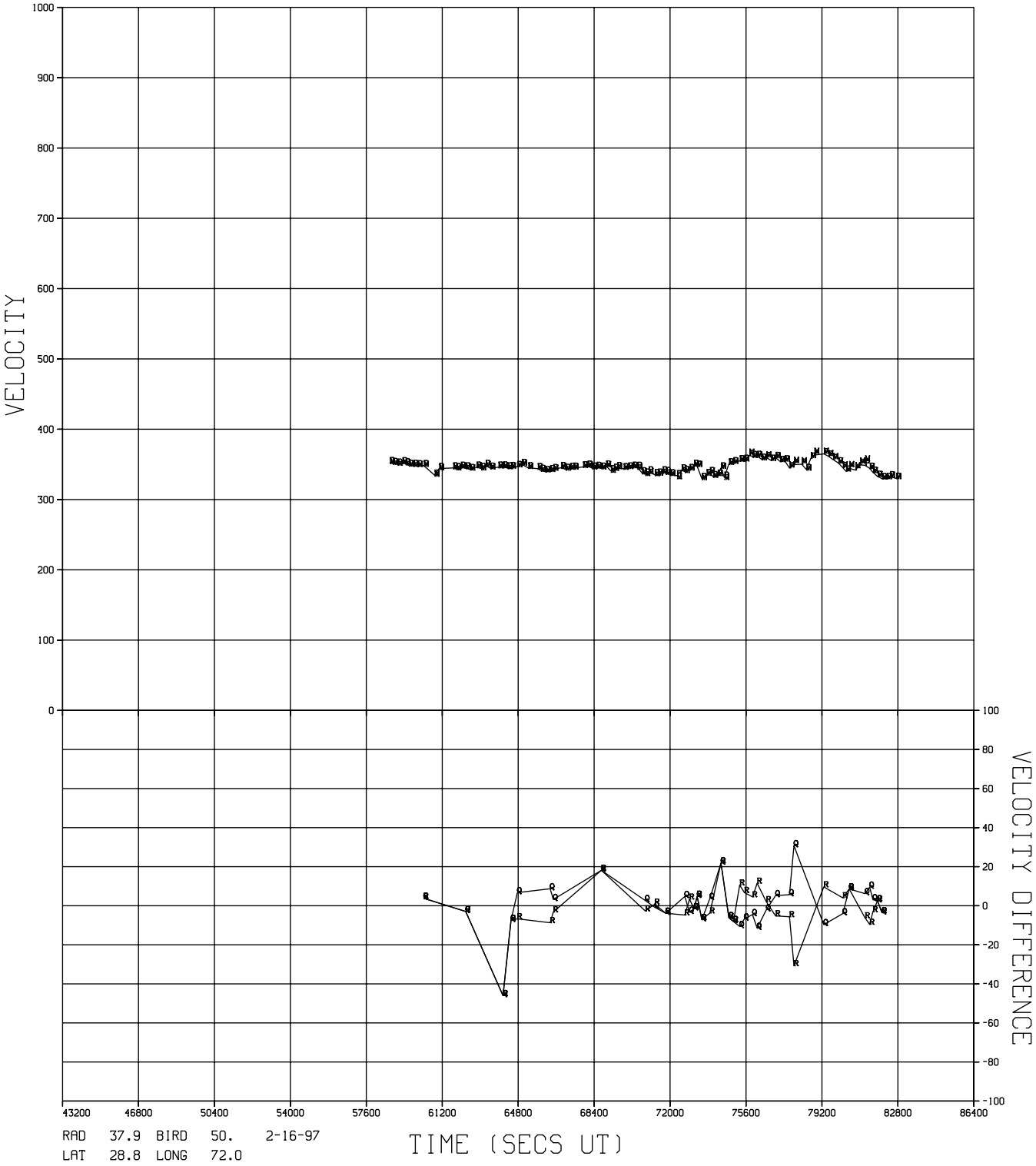

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 37.7 BIRD 50. 2-16-97
LAT 34.5 LONG 55.2

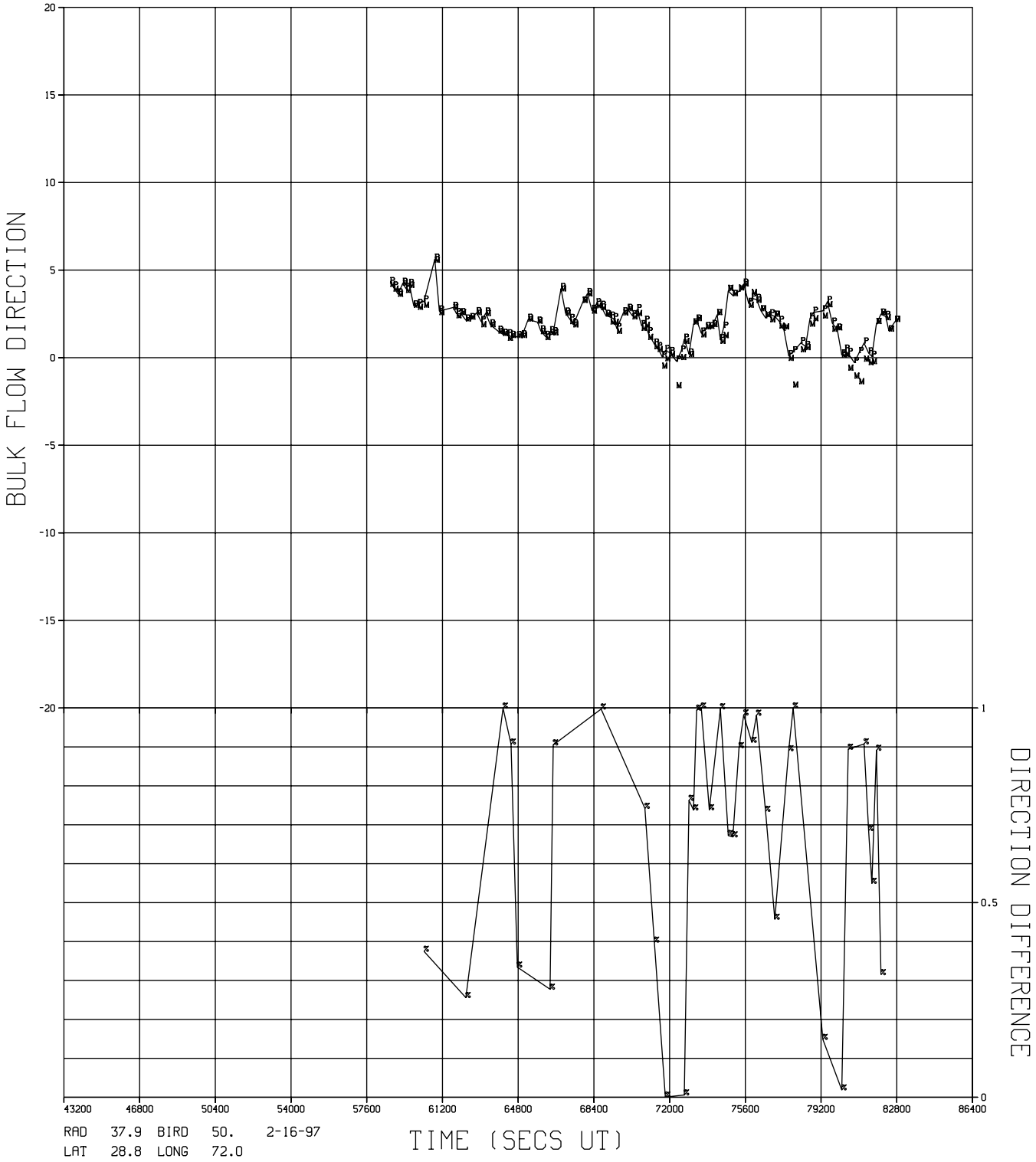

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.7 BIRD 50. 2-16-97
LAT 34.5 LONG 55.2

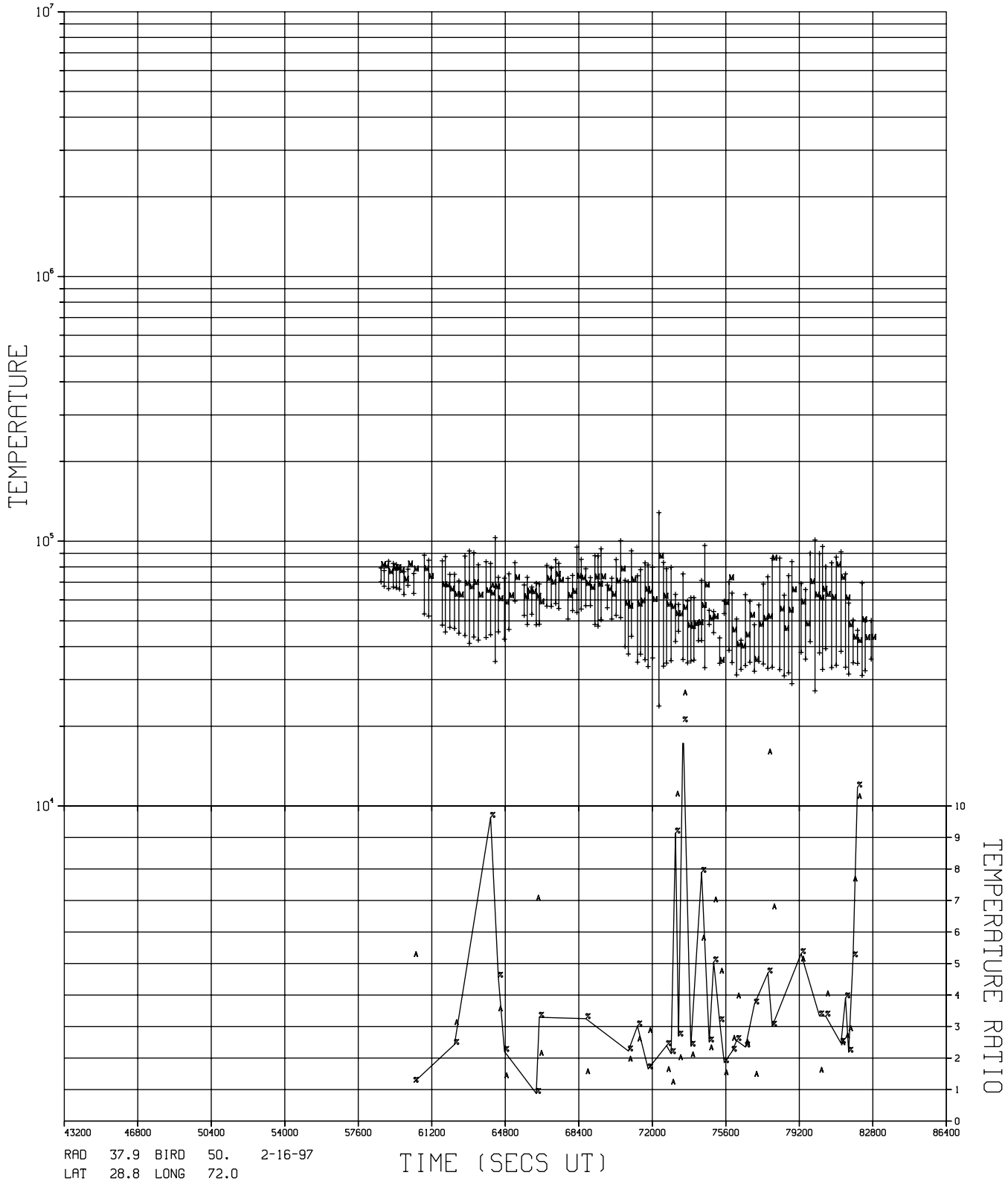

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 37.7 BIRD 50. 2-16-97
LAT 34.5 LONG 55.2

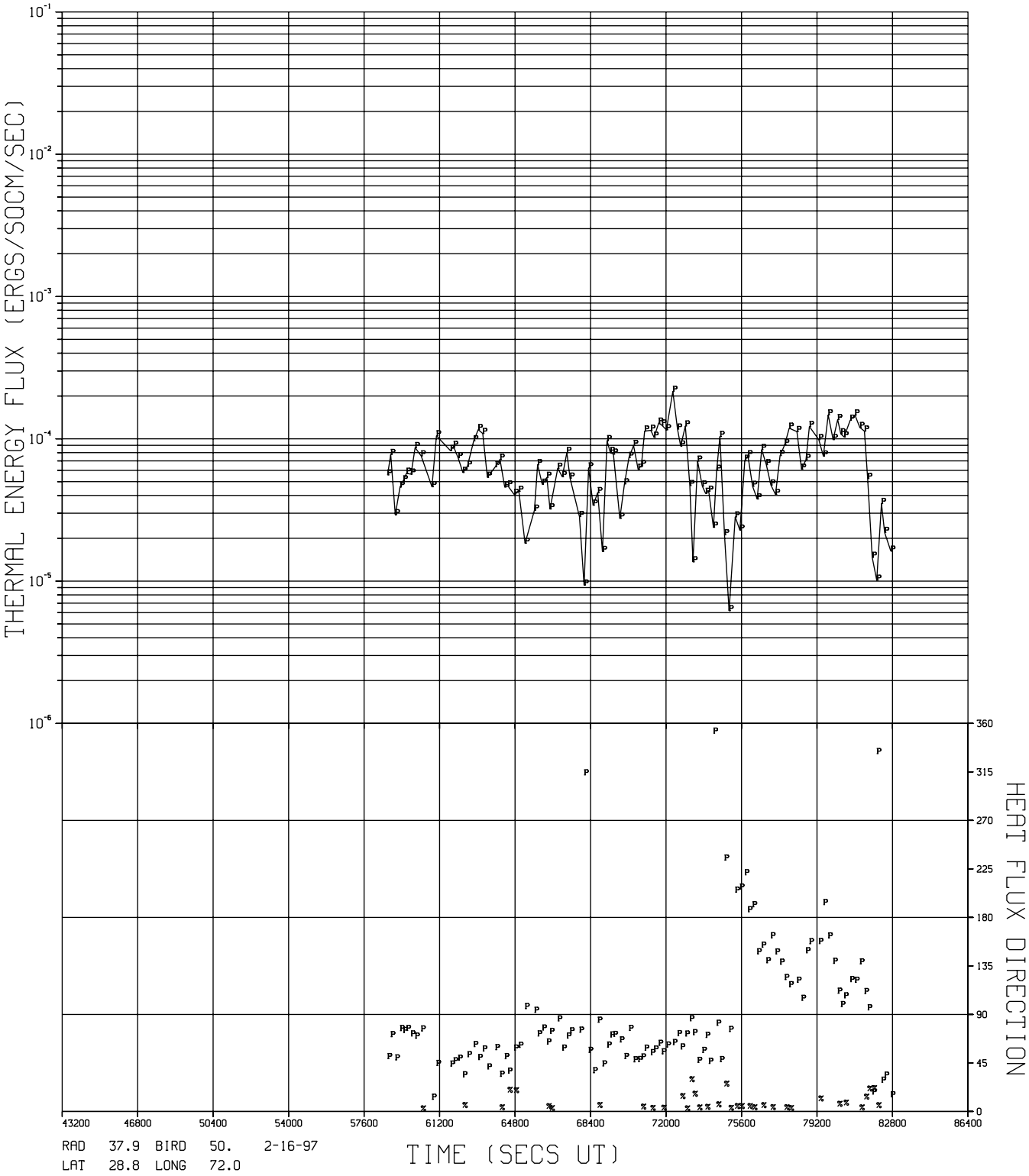

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 37.7 BIRD 50. 2-16-97
LAT 34.5 LONG 55.2

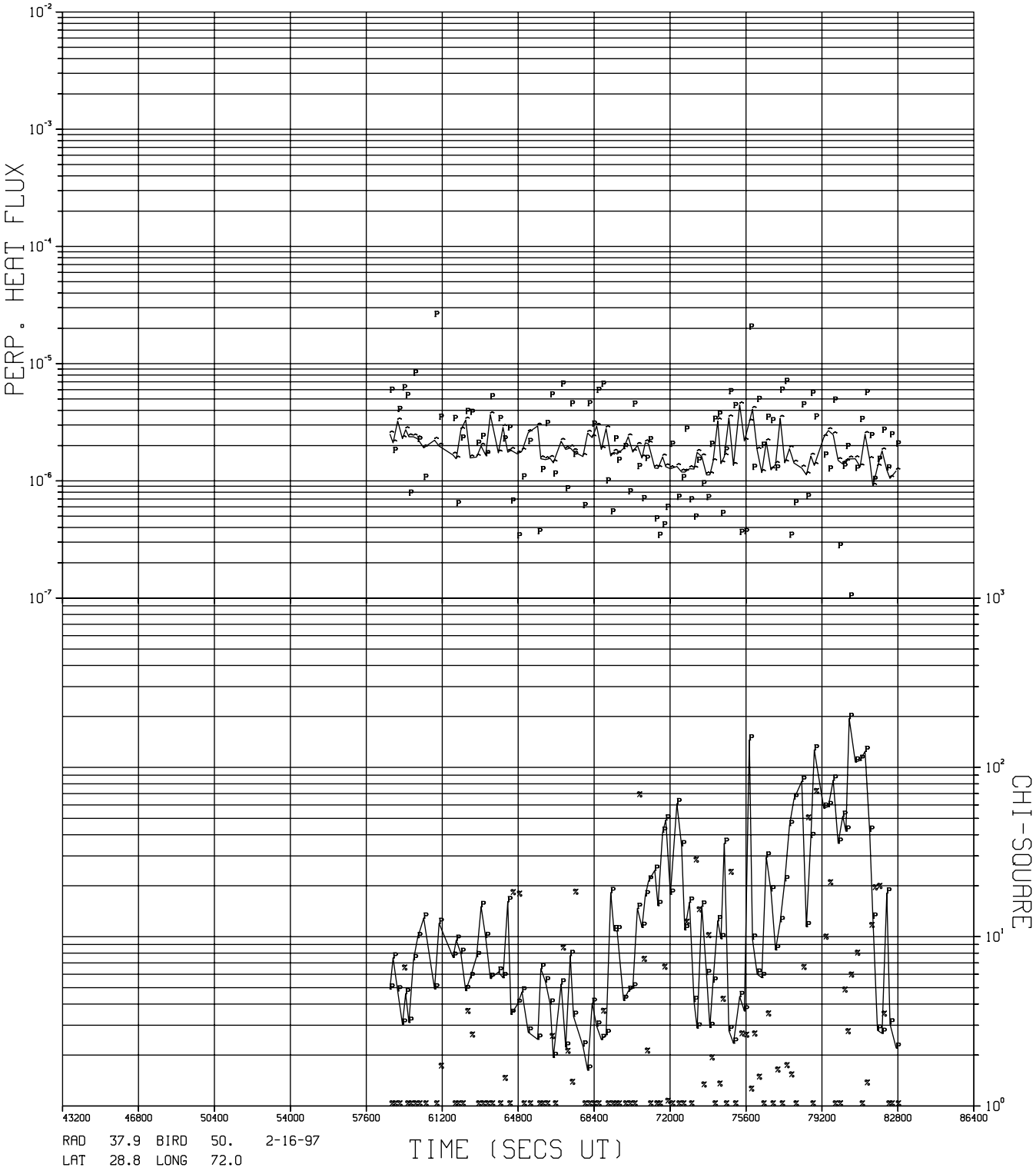

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.9 BIRD 50. 2-16-97
LAT 28.8 LONG 72.0

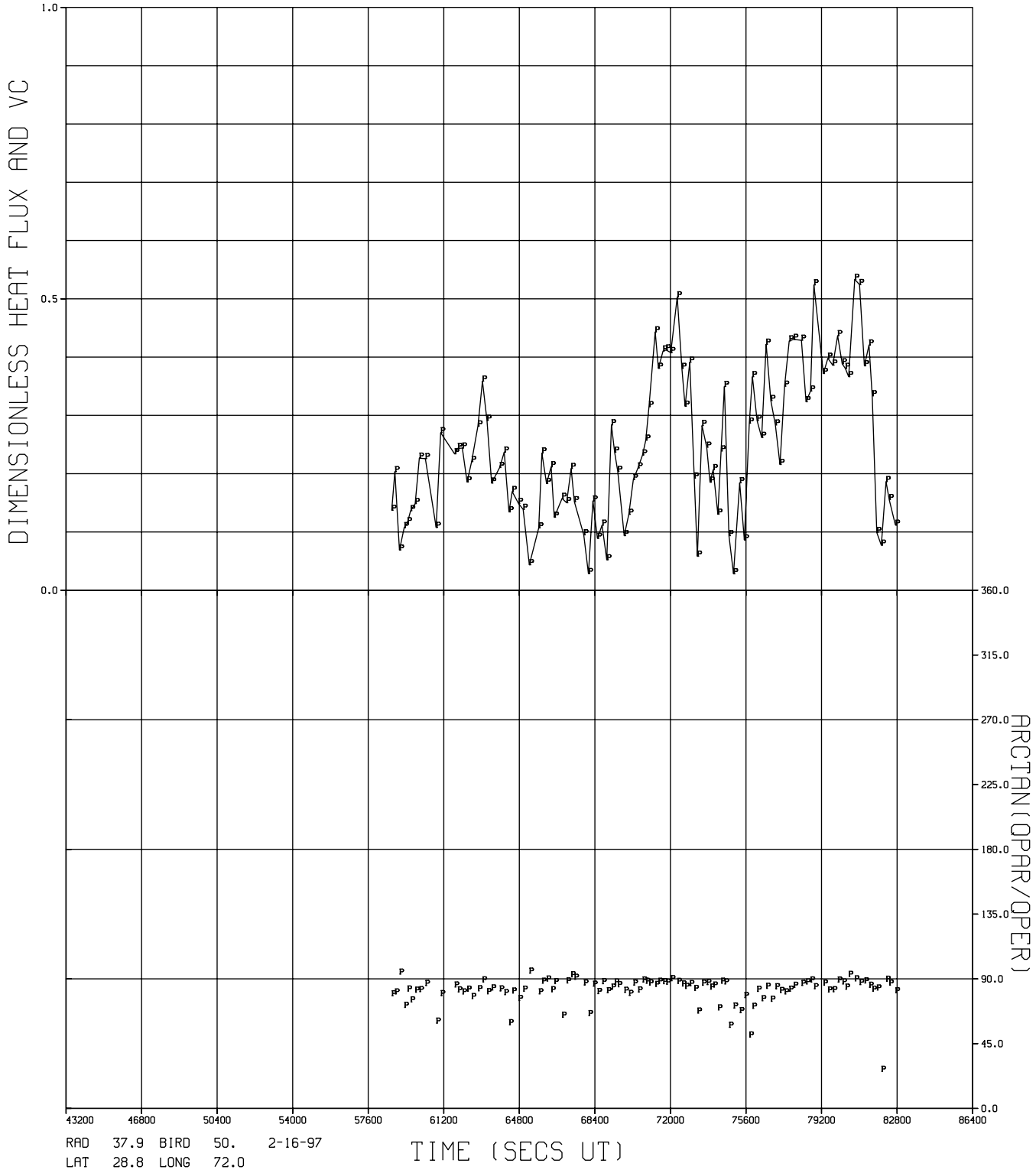

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.9 BIRD 50. 2-16-97
LAT 28.8 LONG 72.0
TIME (SECS UT)

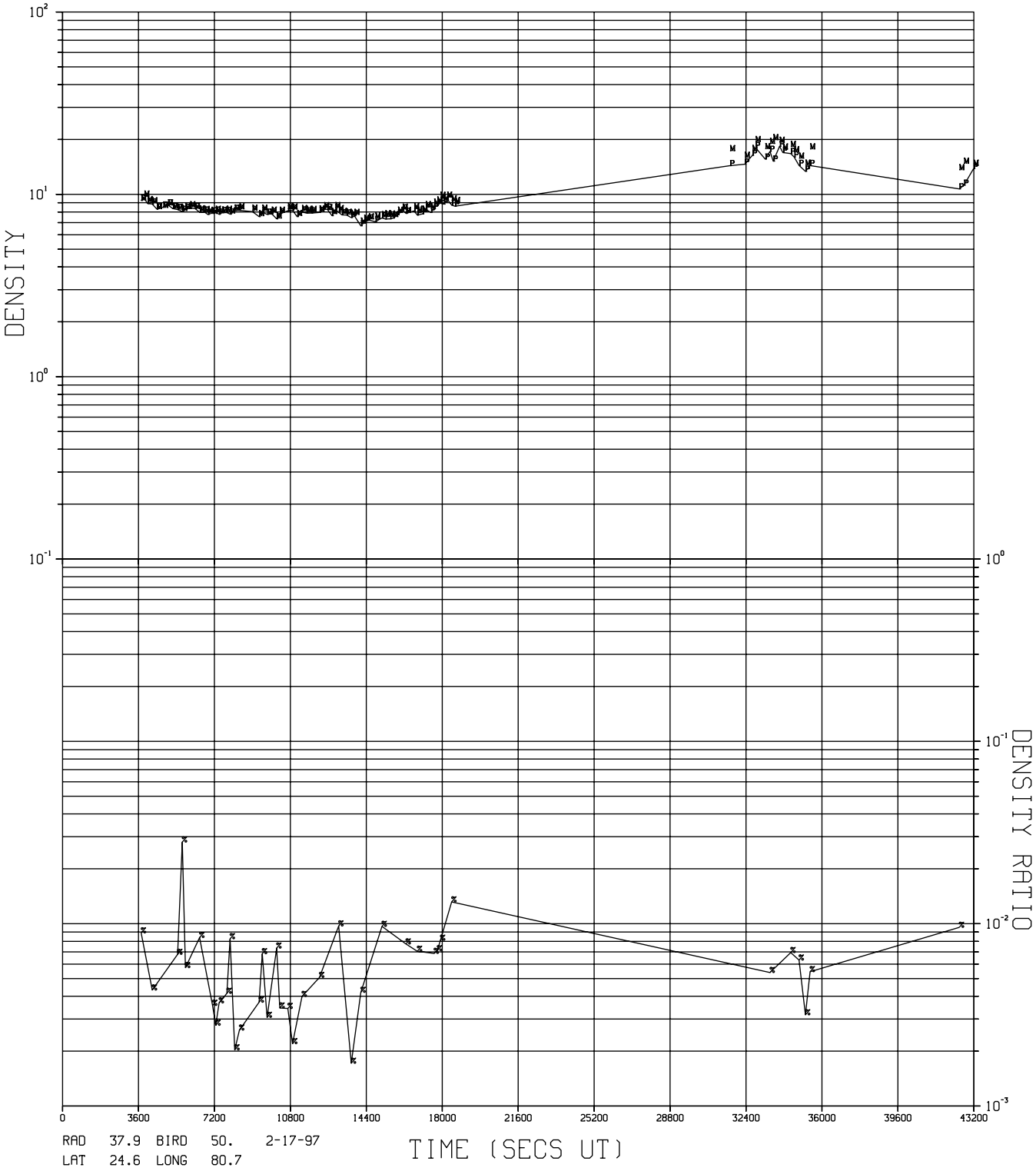

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.9 BIRD 50. 2-16-97
LAT 28.8 LONG 72.0

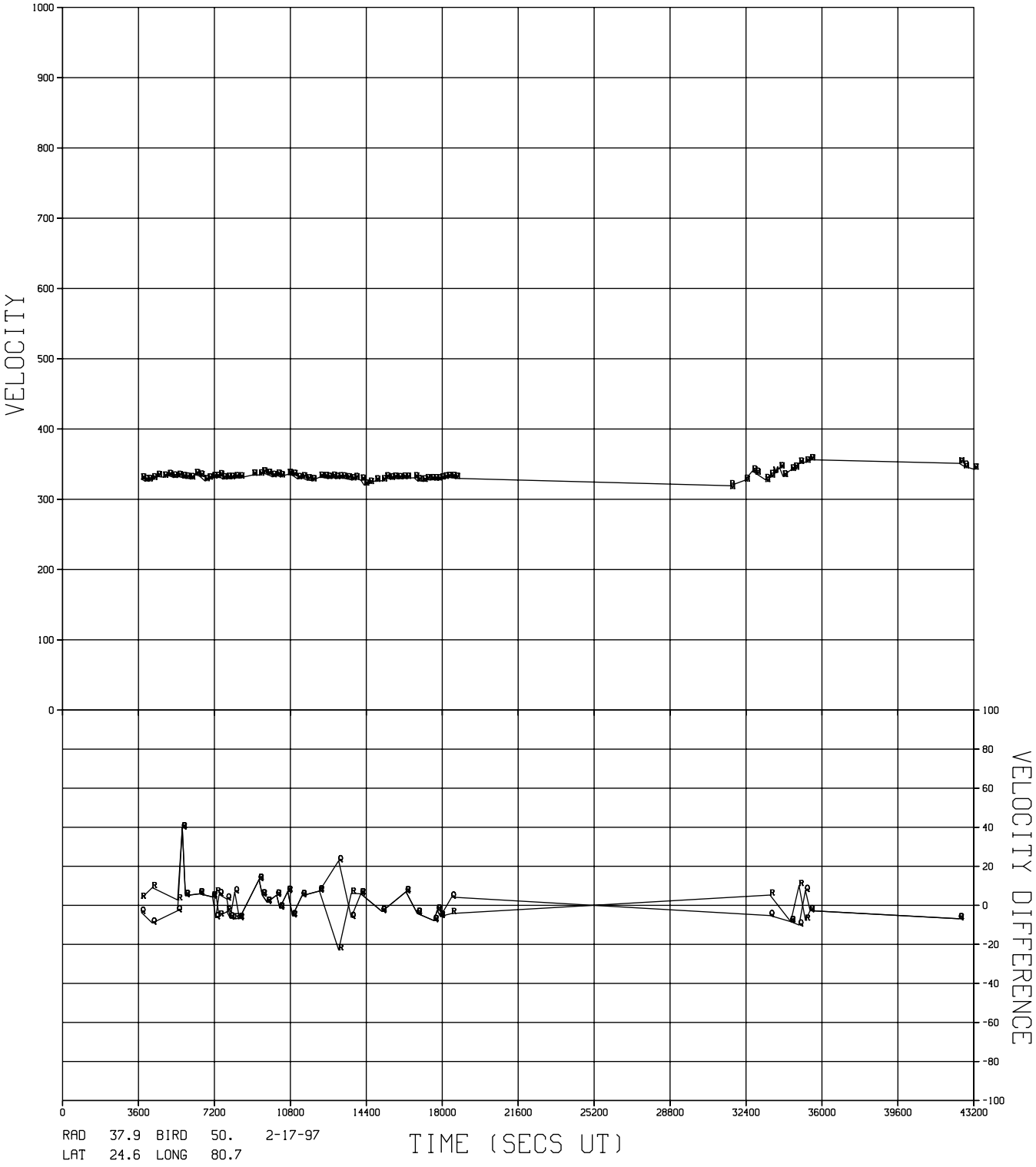

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 37.9 BIRD 50. 2-16-97
LAT 28.8 LONG 72.0

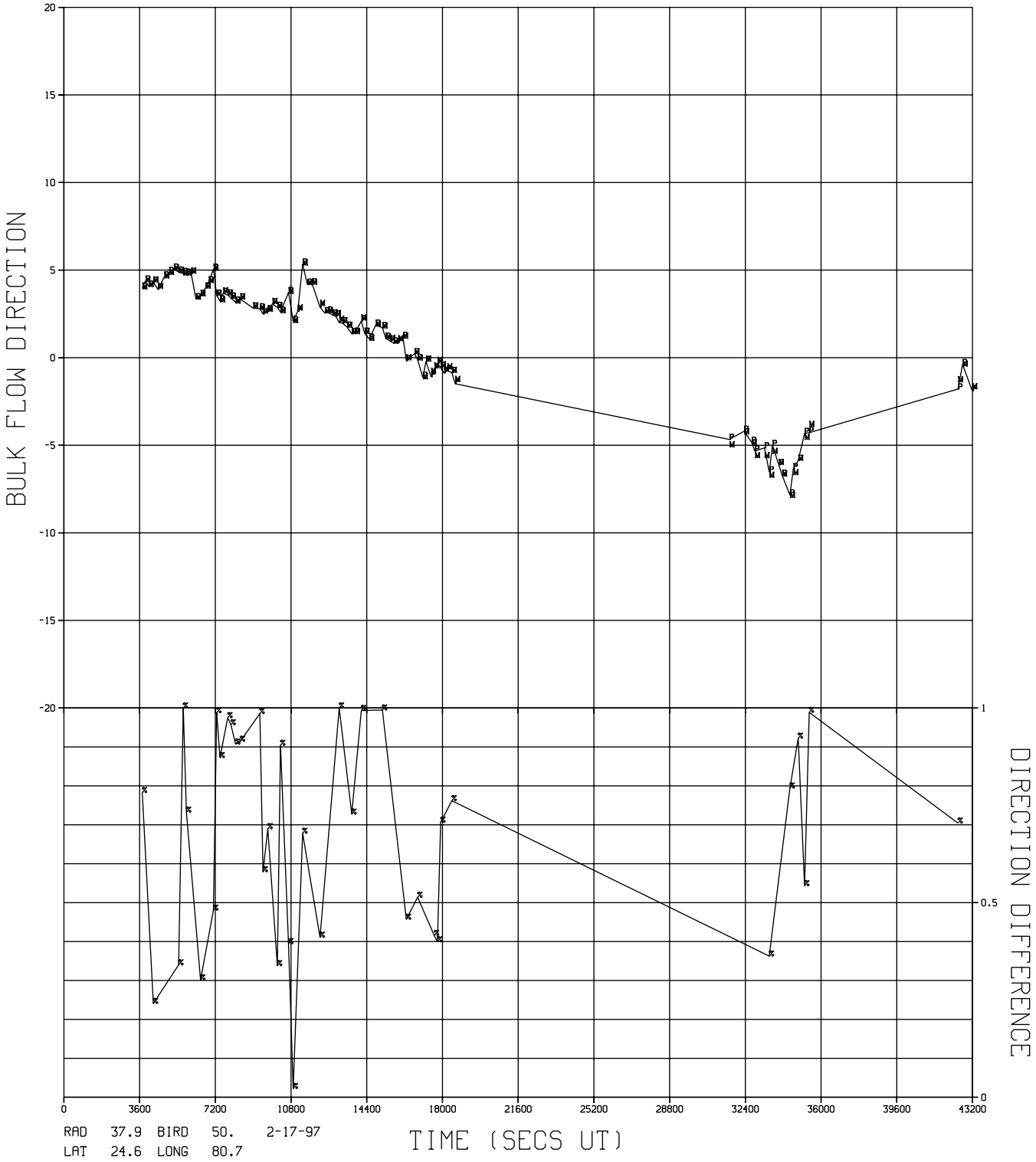

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.9 BIRD 50. 2-16-97
LAT 28.8 LONG 72.0

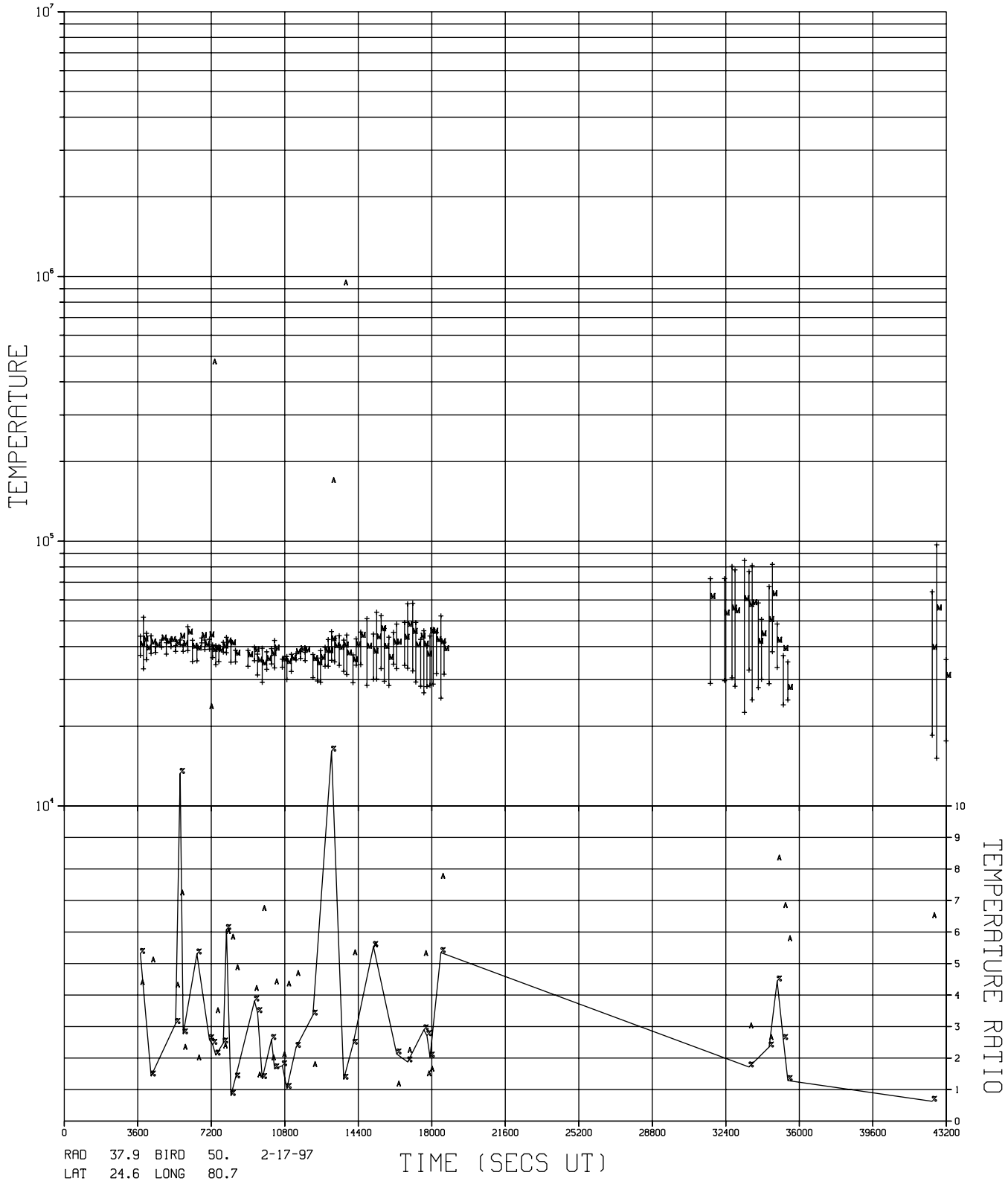

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 37.9 BIRD 50. 2-16-97
LAT 28.8 LONG 72.0

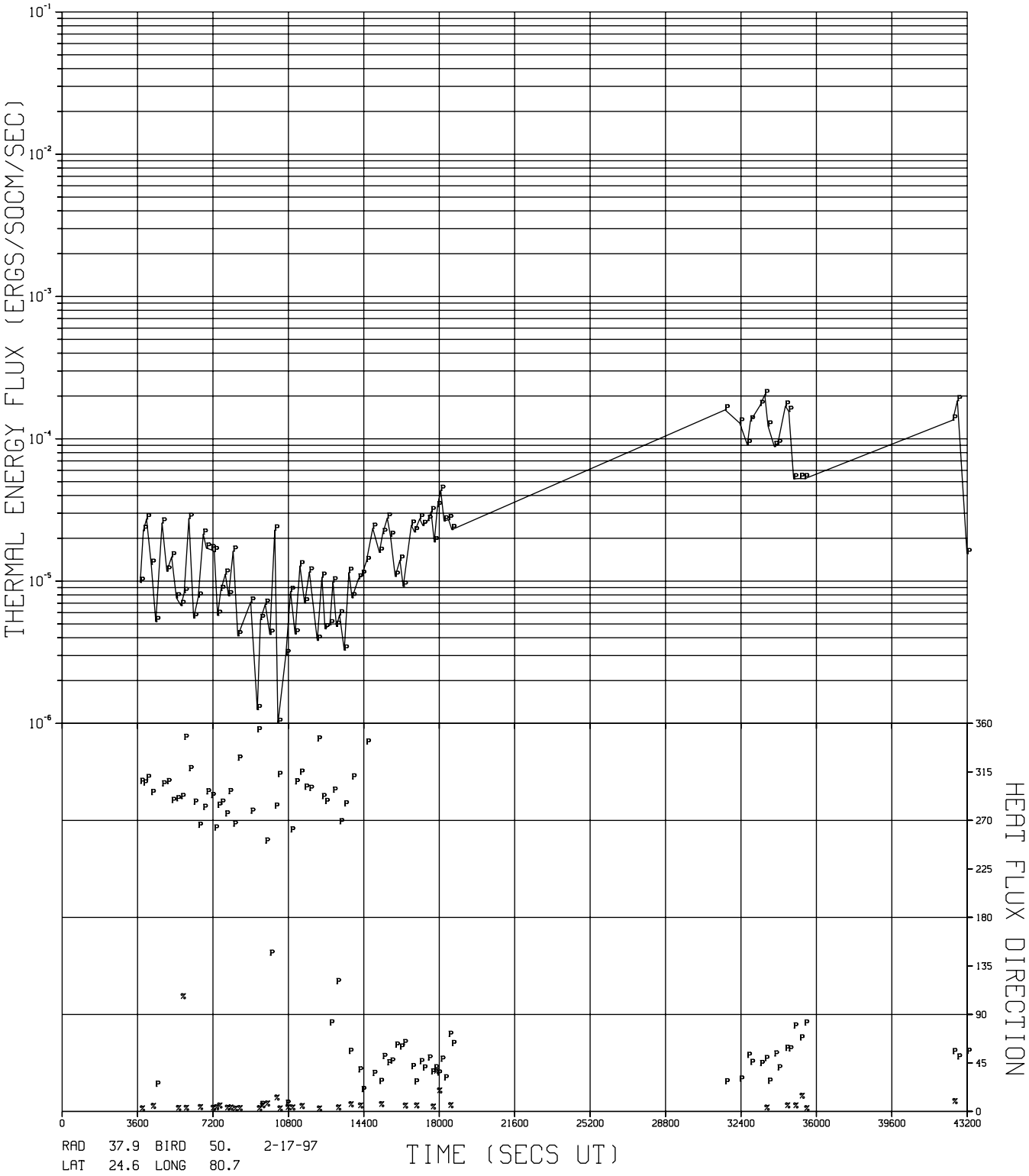

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 37.9 BIRD 50. 2-16-97
LAT 28.8 LONG 72.0

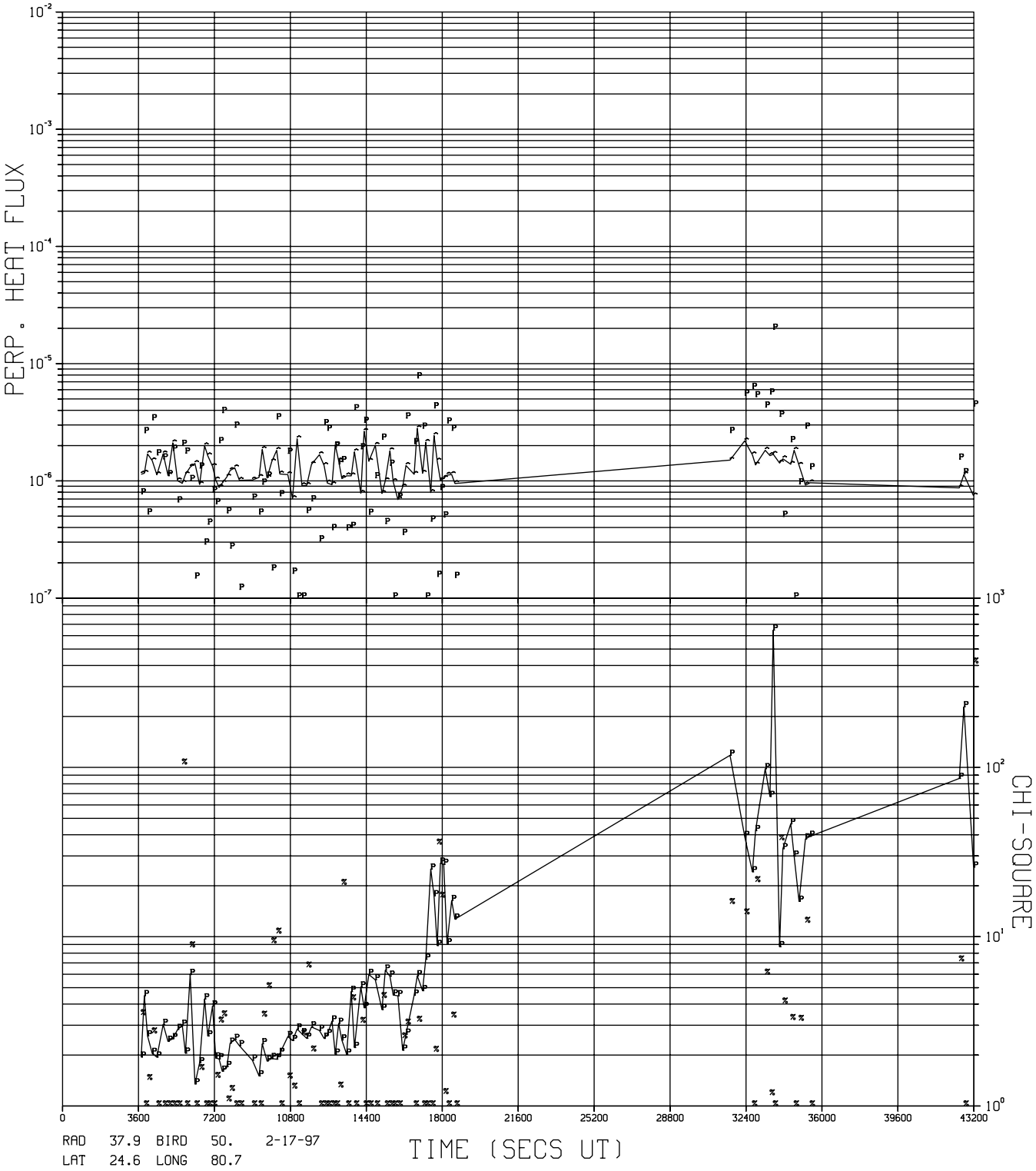

DENSITY
DENSITY RATIO
TIME (SECS UT)
RAD 37.9 BIRD 50. 2-17-97
LAT 24.6 LONG 80.7

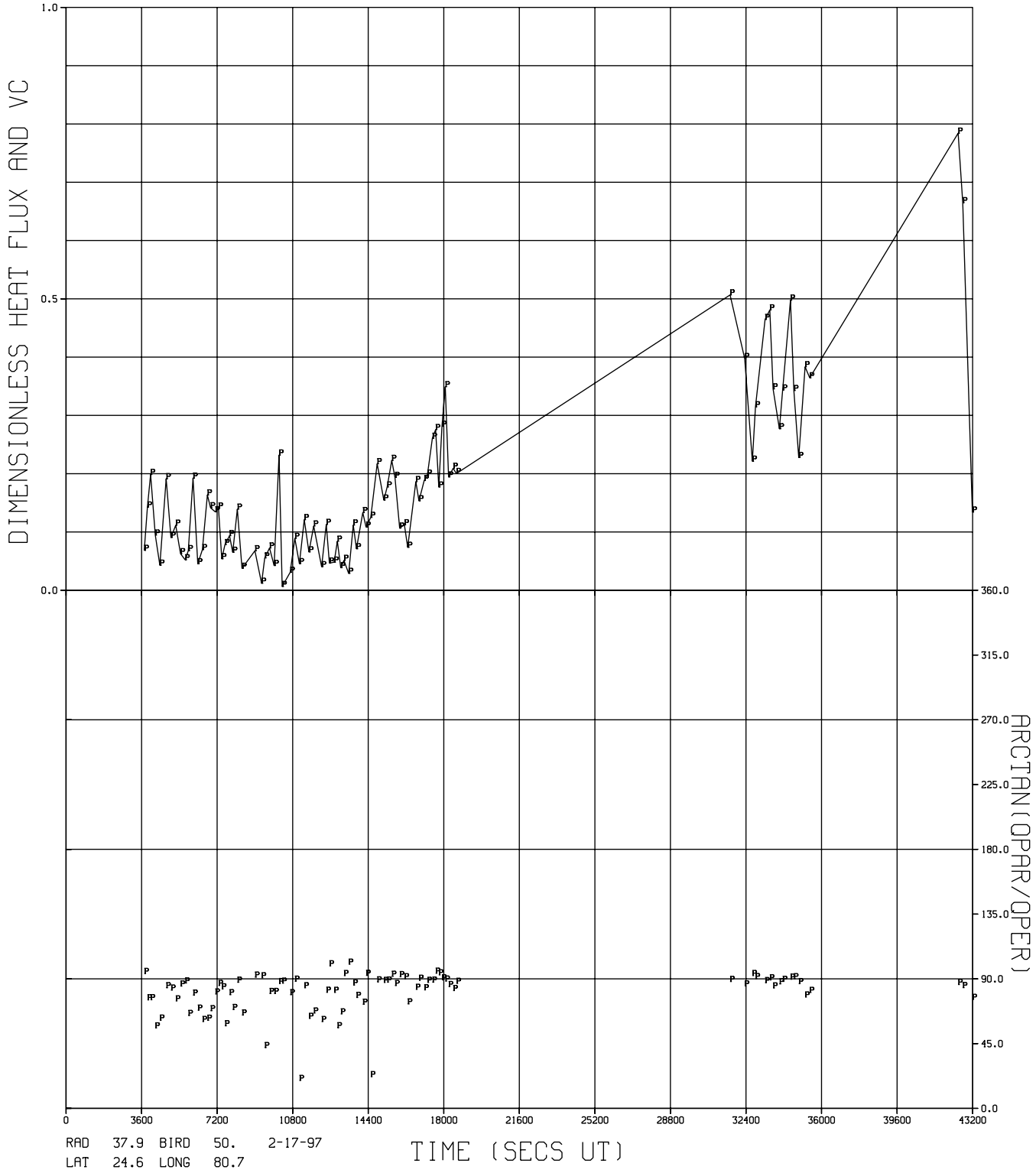

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 37.9 BIRD 50. 2-17-97
LAT 24.6 LONG 80.7

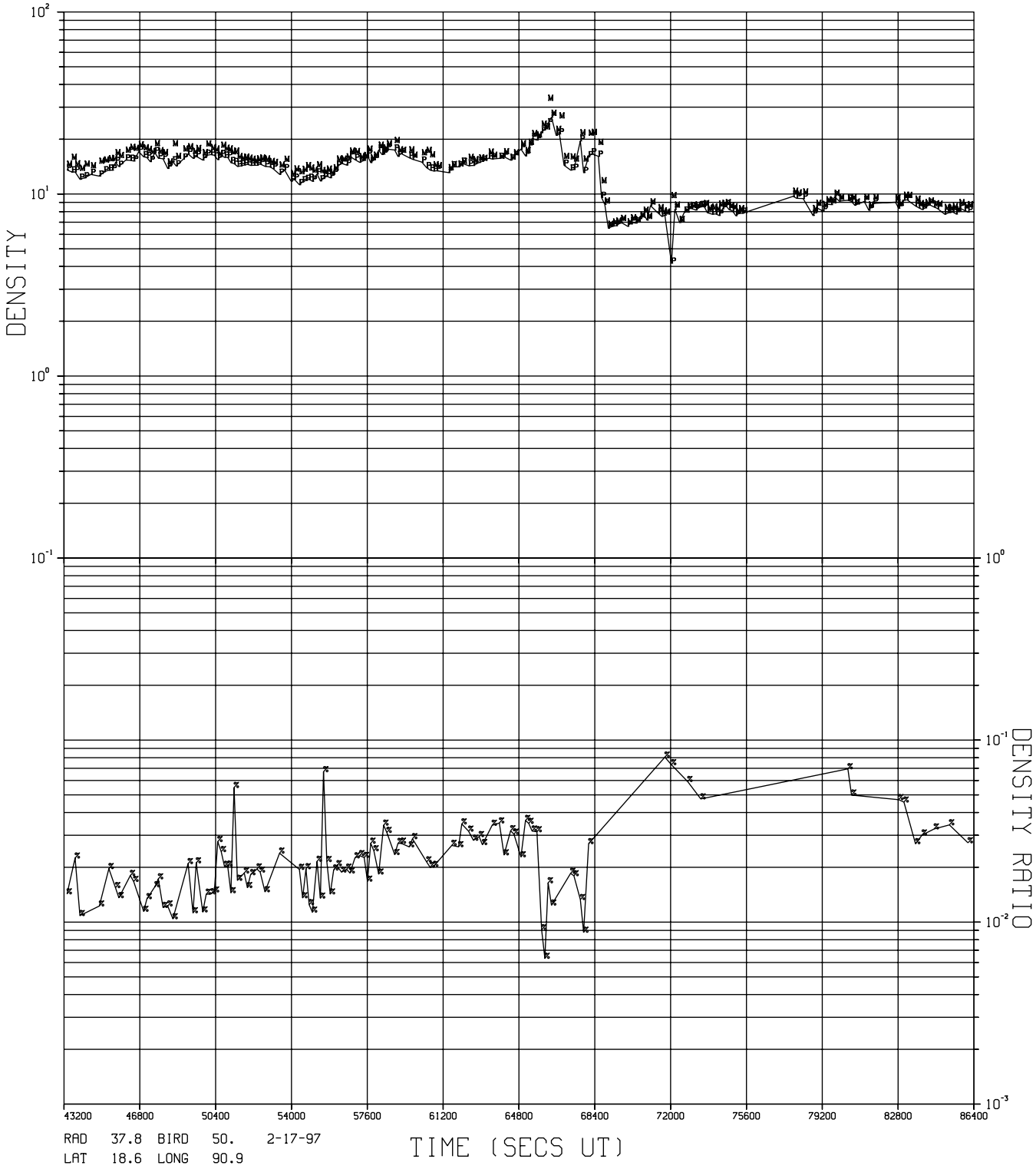

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.9 BIRD 50. 2-17-97
LAT 24.6 LONG 80.7

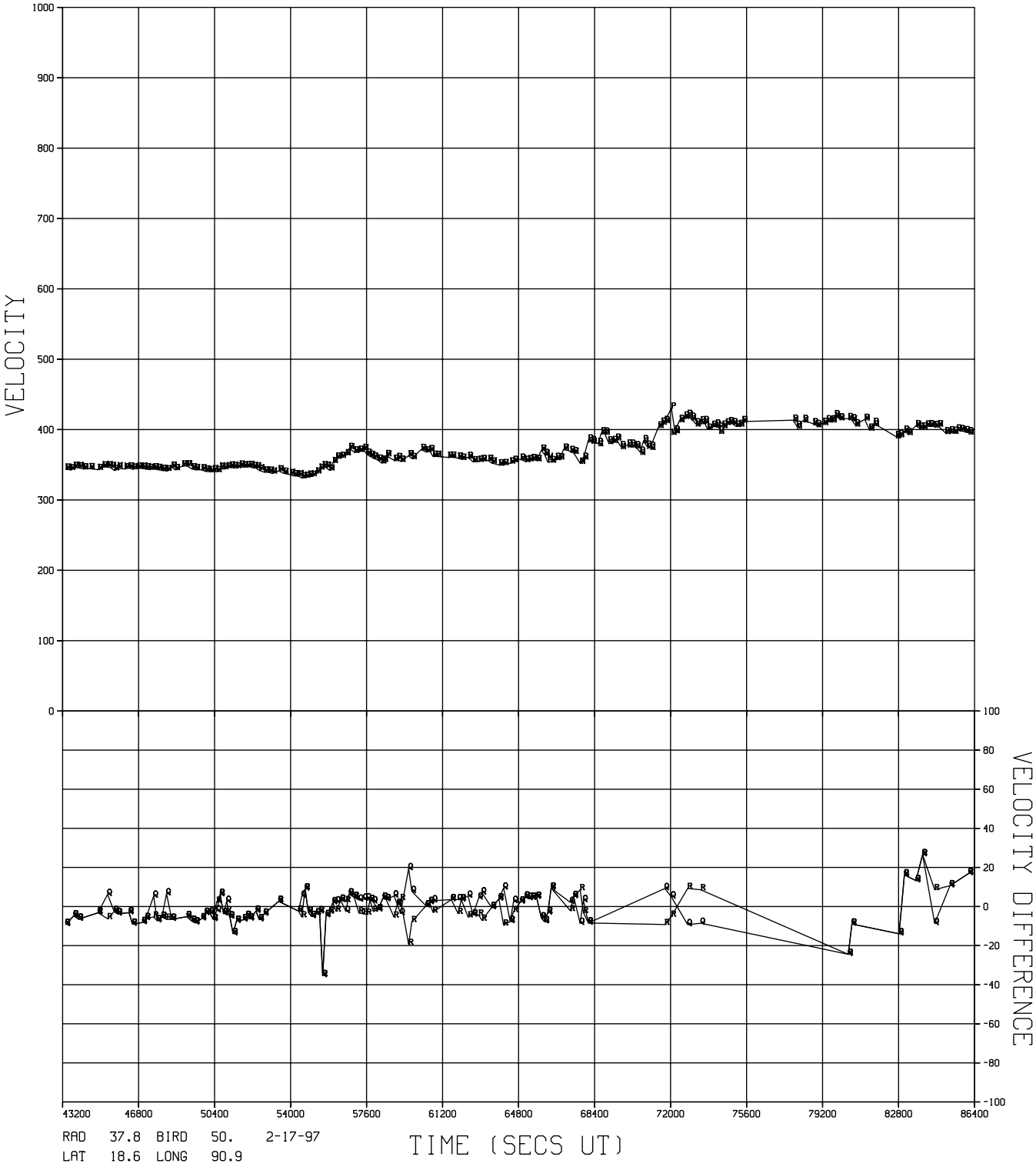

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 37.9 BIRD 50. 2-17-97
LAT 24.6 LONG 80.7

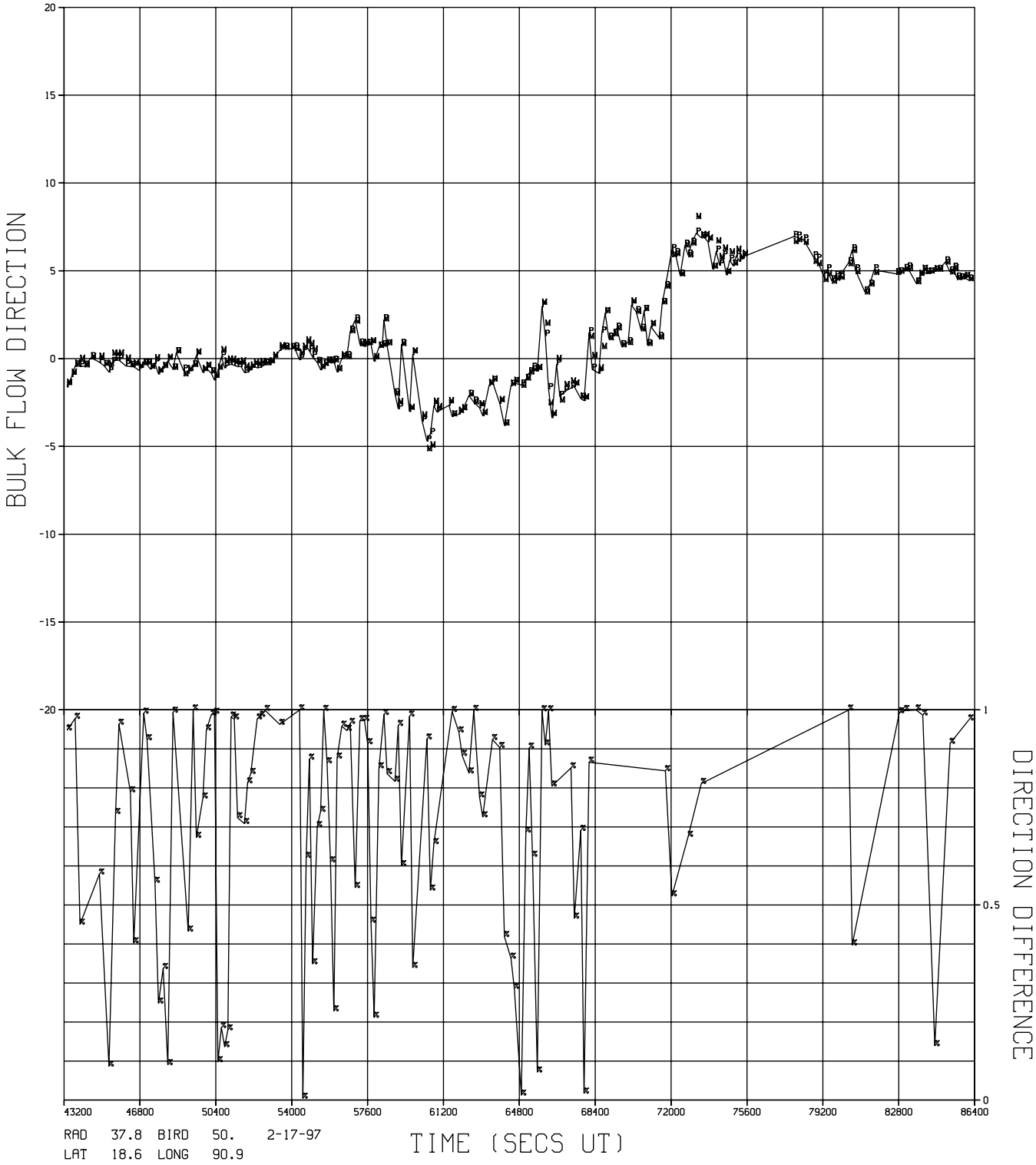

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.9 BIRD 50. 2-17-97
LAT 24.6 LONG 80.7

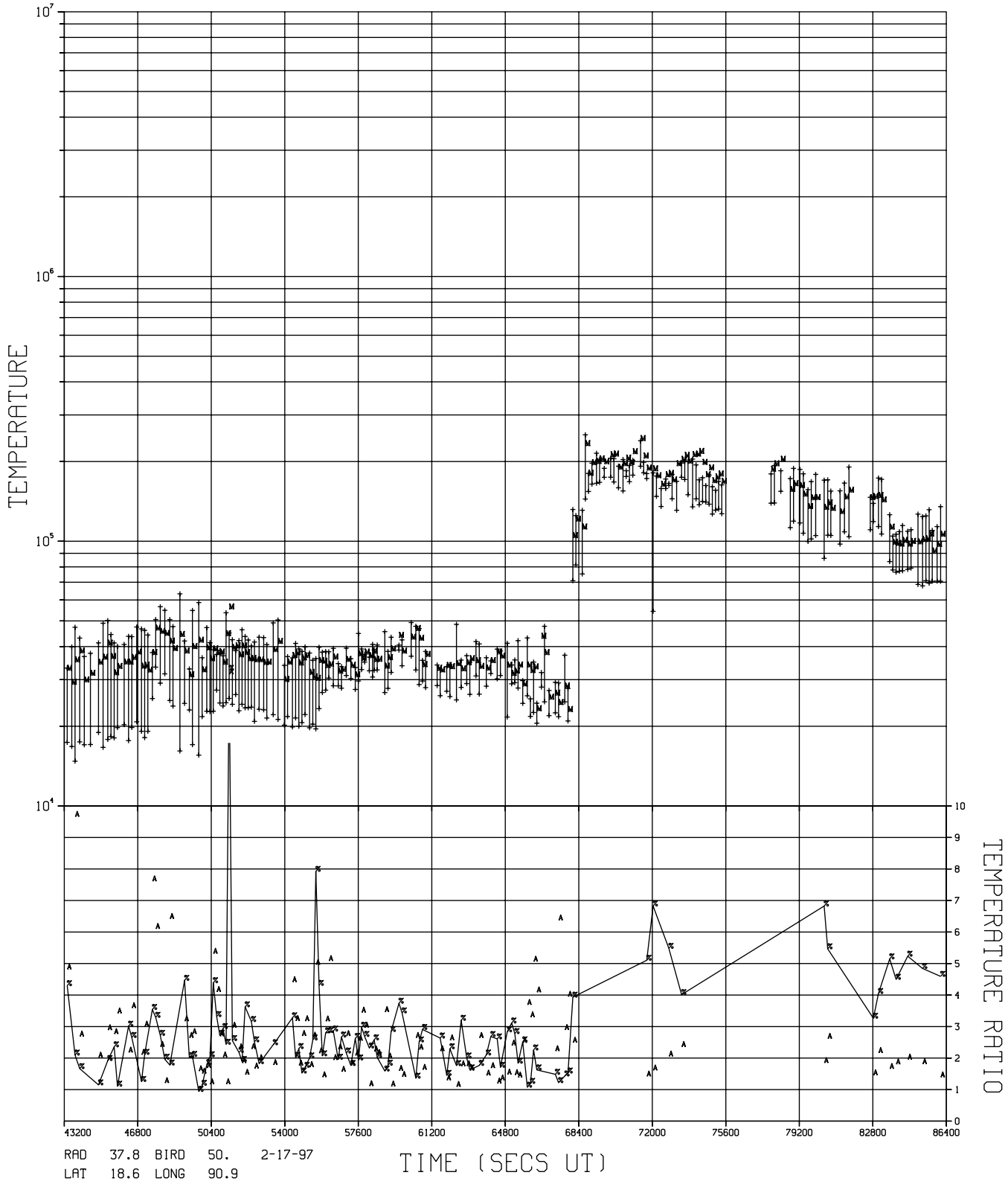

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 37.9 BIRD 50. 2-17-97
LAT 24.6 LONG 80.7

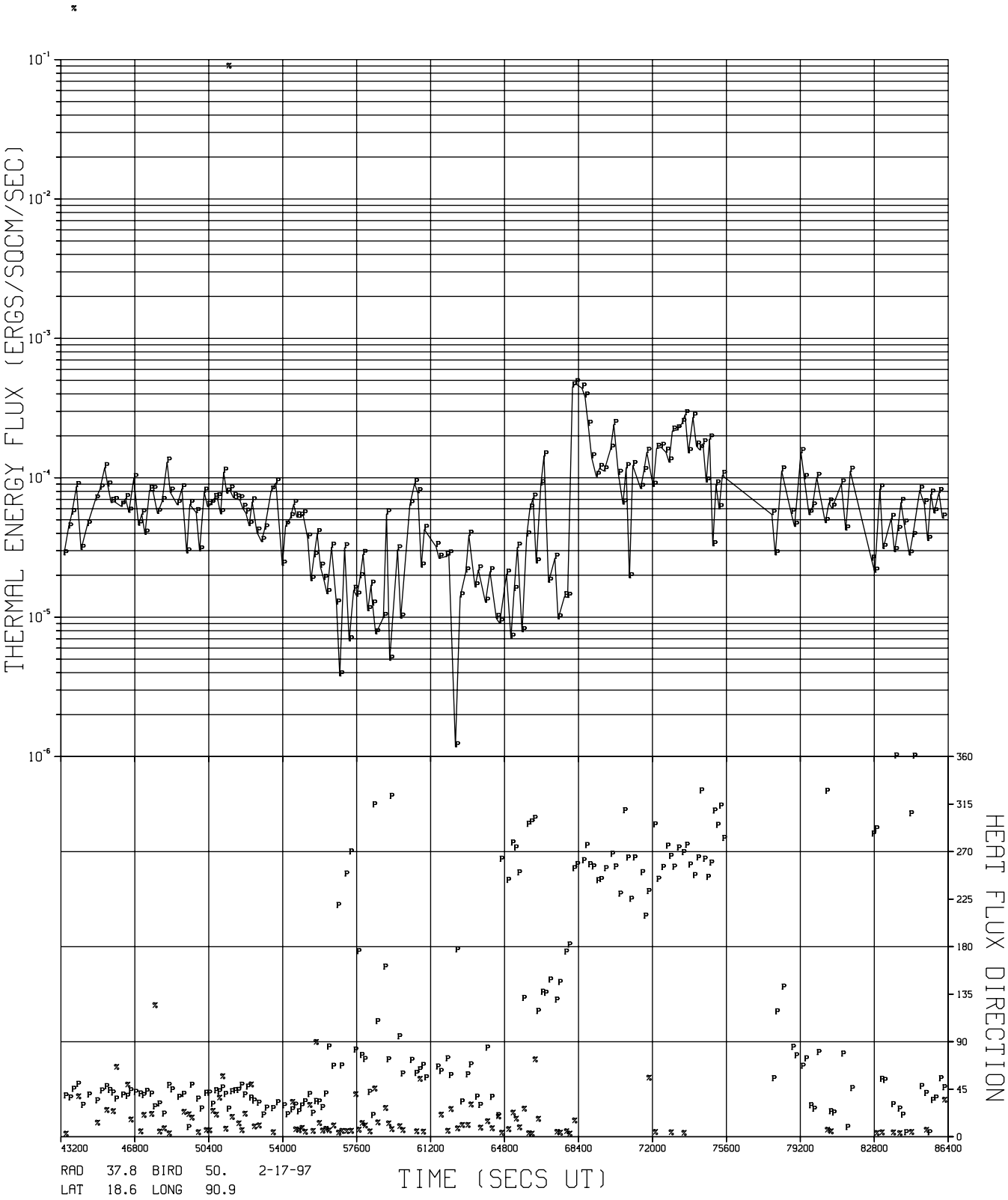

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 37.9 BIRD 50. 2-17-97
LAT 24.6 LONG 80.7

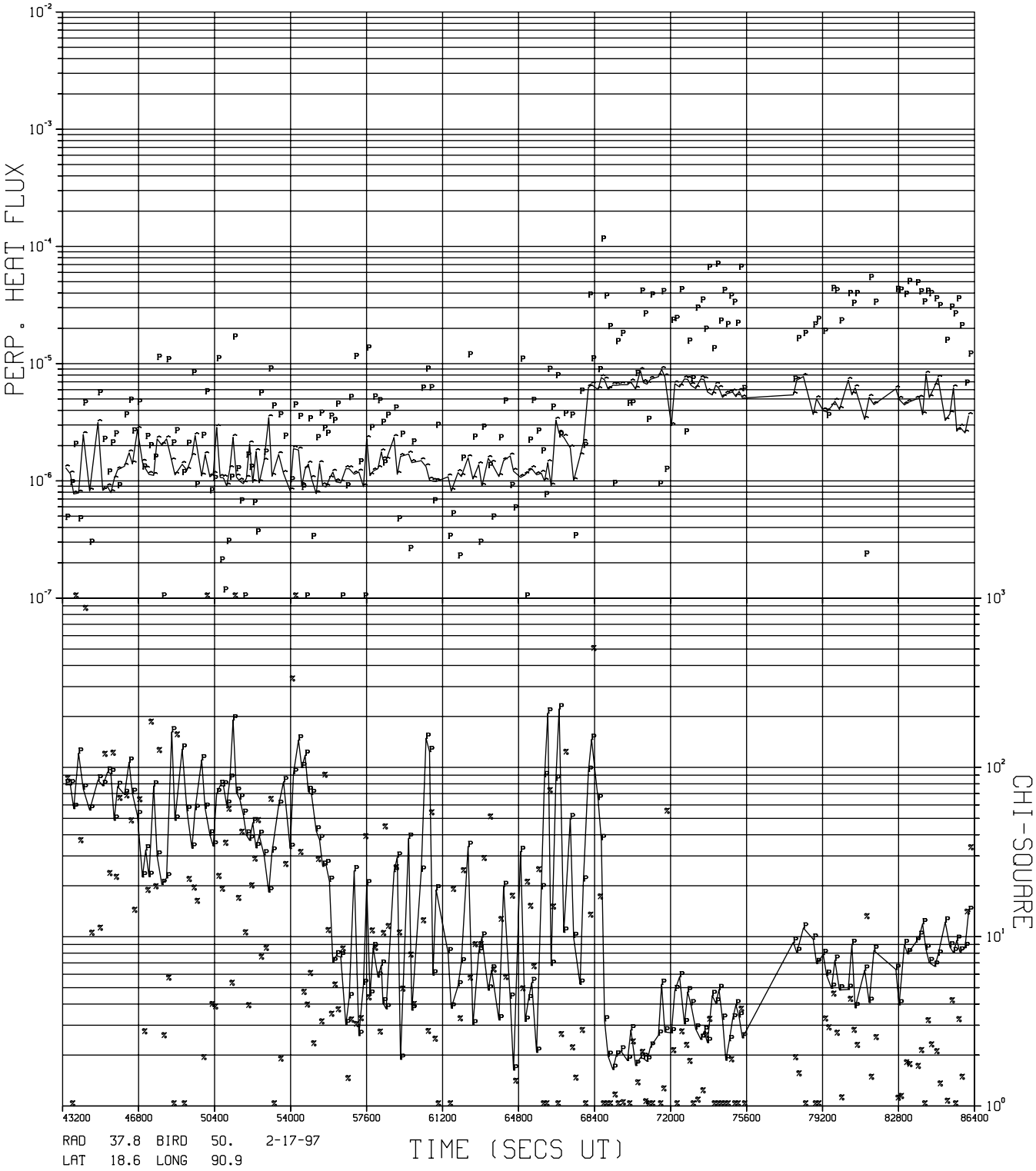

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.8 BIRD 50. 2-17-97
LAT 18.6 LONG 90.9

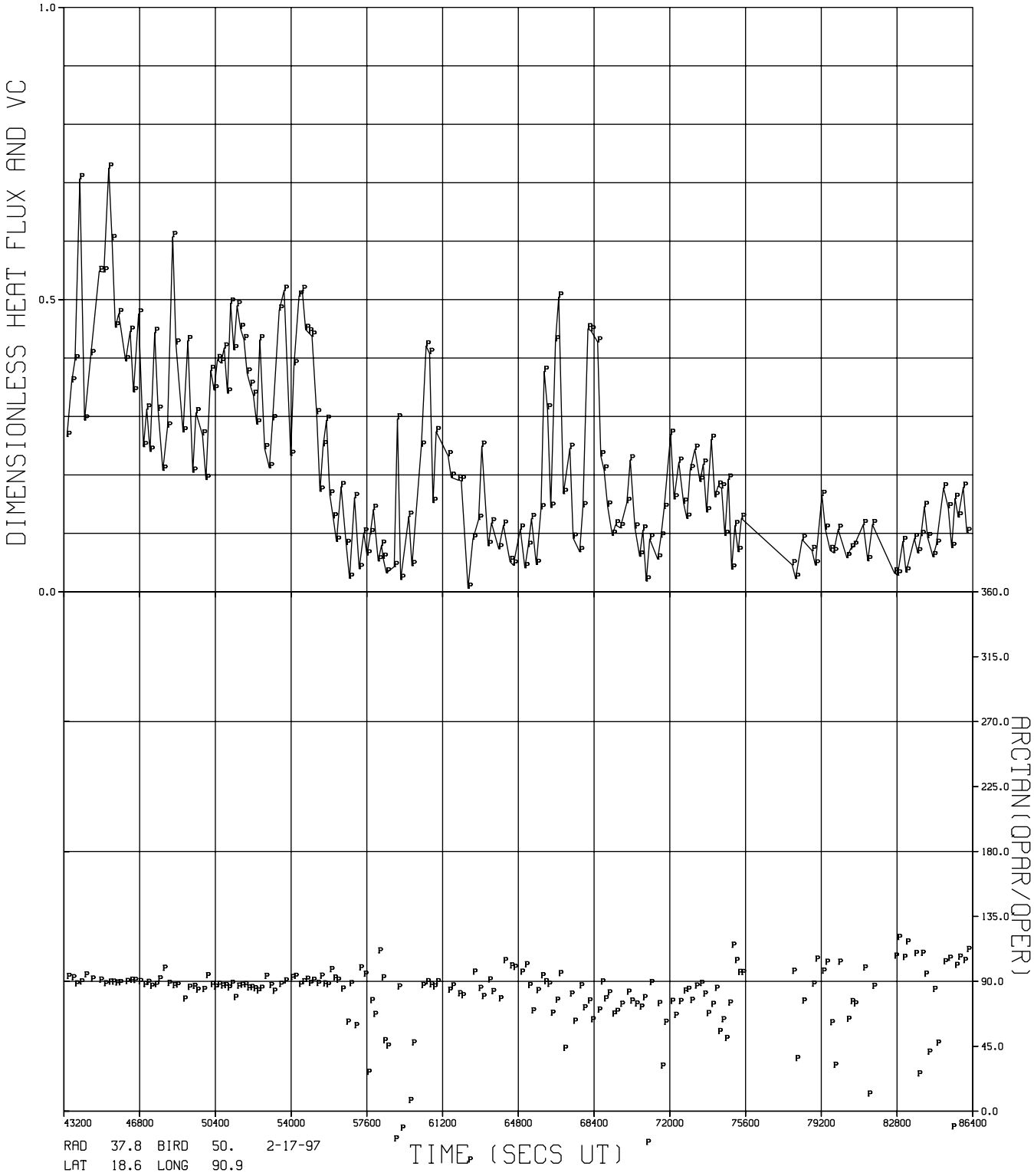

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 37.8 BIRD 50. 2-17-97
LAT 18.6 LONG 90.9

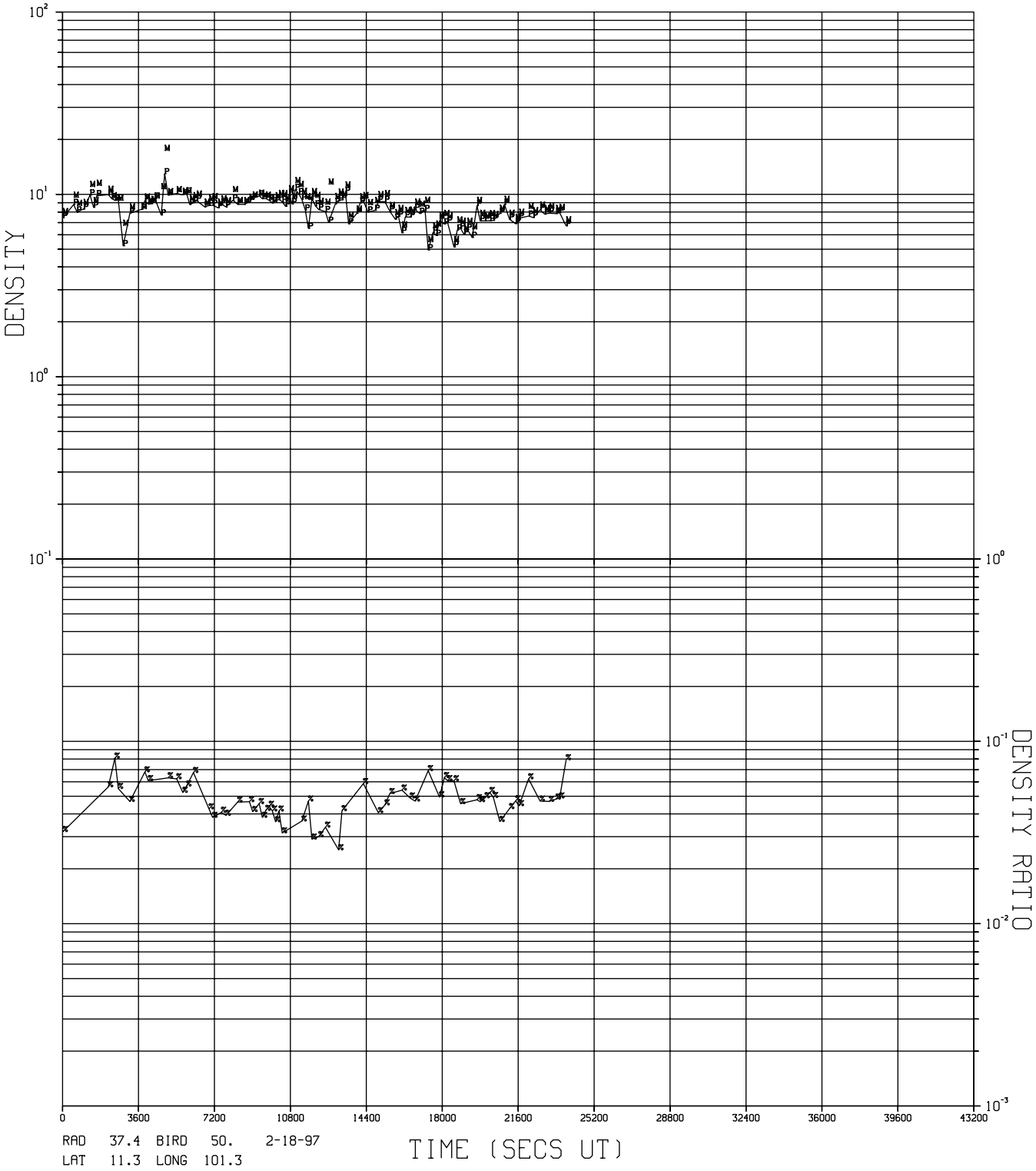

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.8 BIRD 50. 2-17-97
LAT 18.6 LONG 90.9

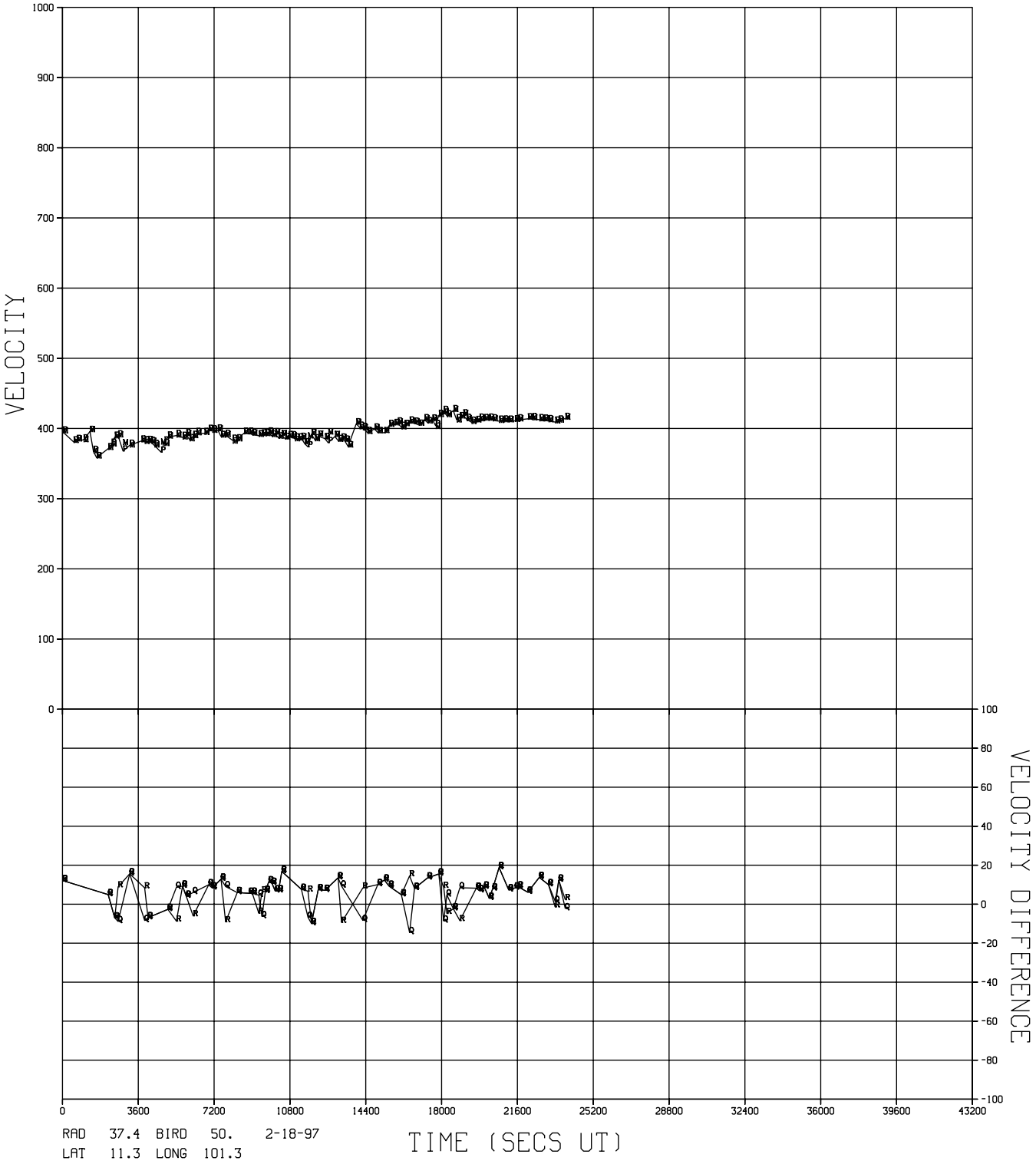

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 37.8 BIRD 50. 2-17-97
LAT 18.6 LONG 90.9

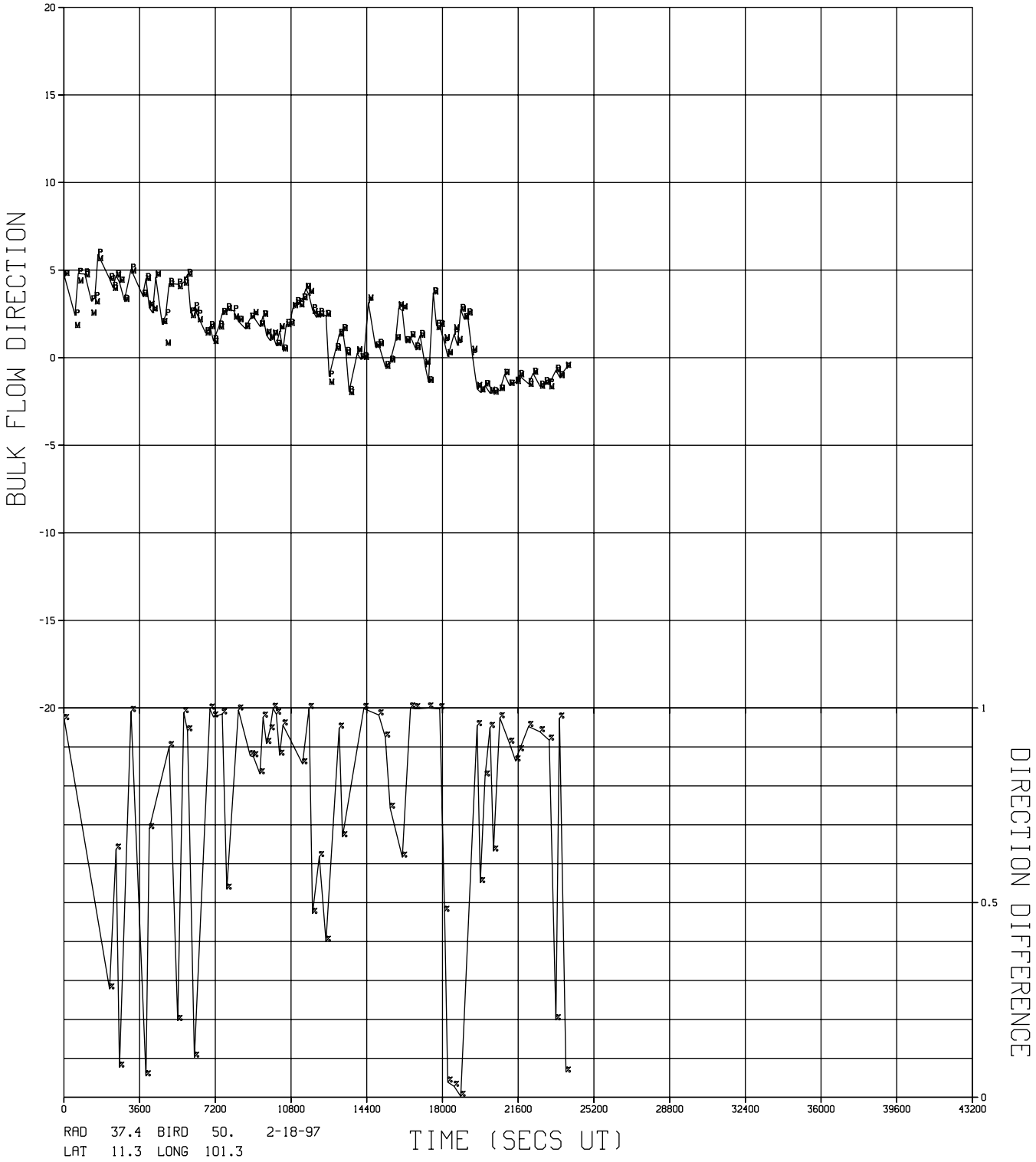

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.8 BIRD 50. 2-17-97
LAT 18.6 LONG 90.9

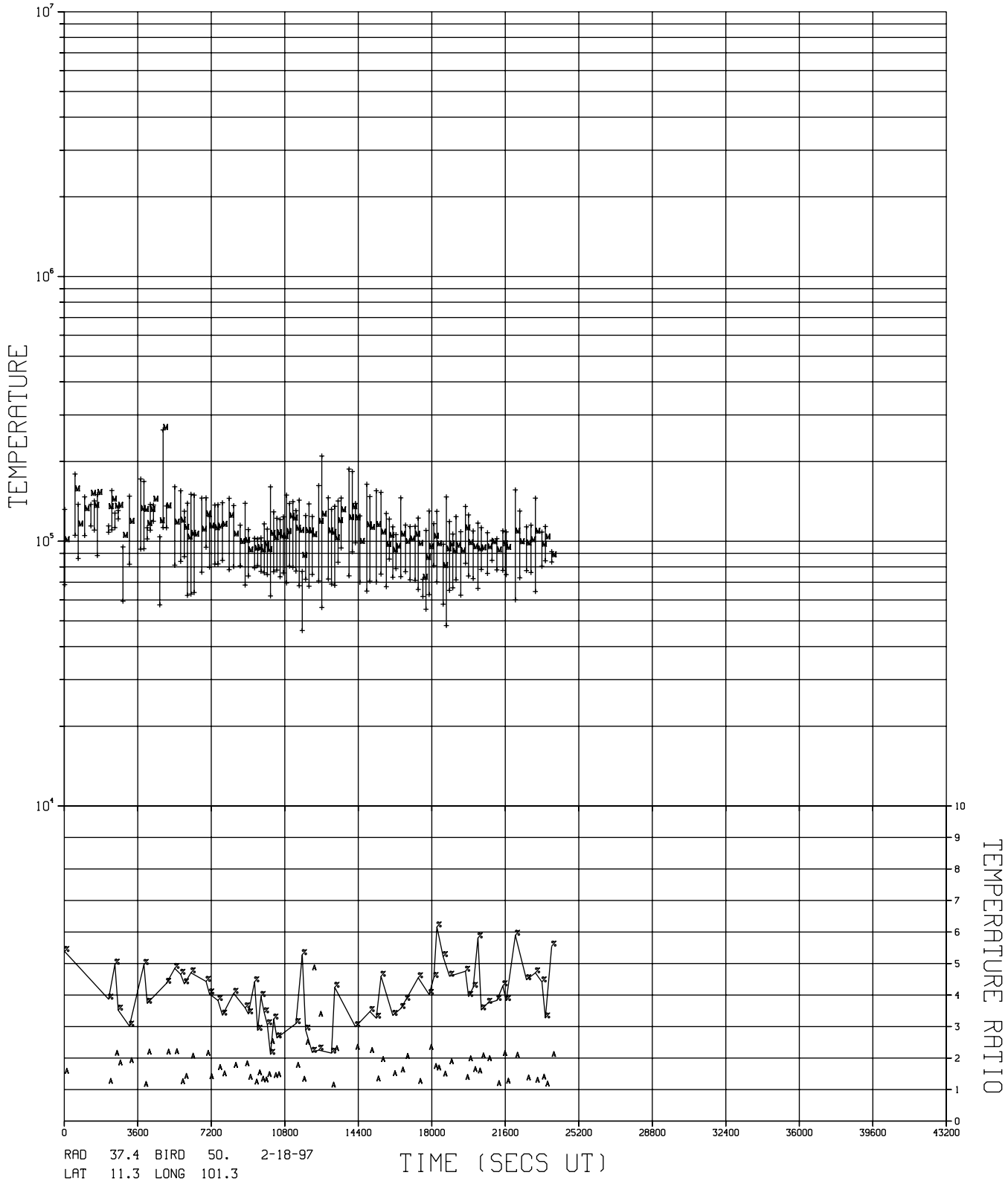

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 37.8 BIRD 50. 2-17-97
LAT 18.6 LONG 90.9

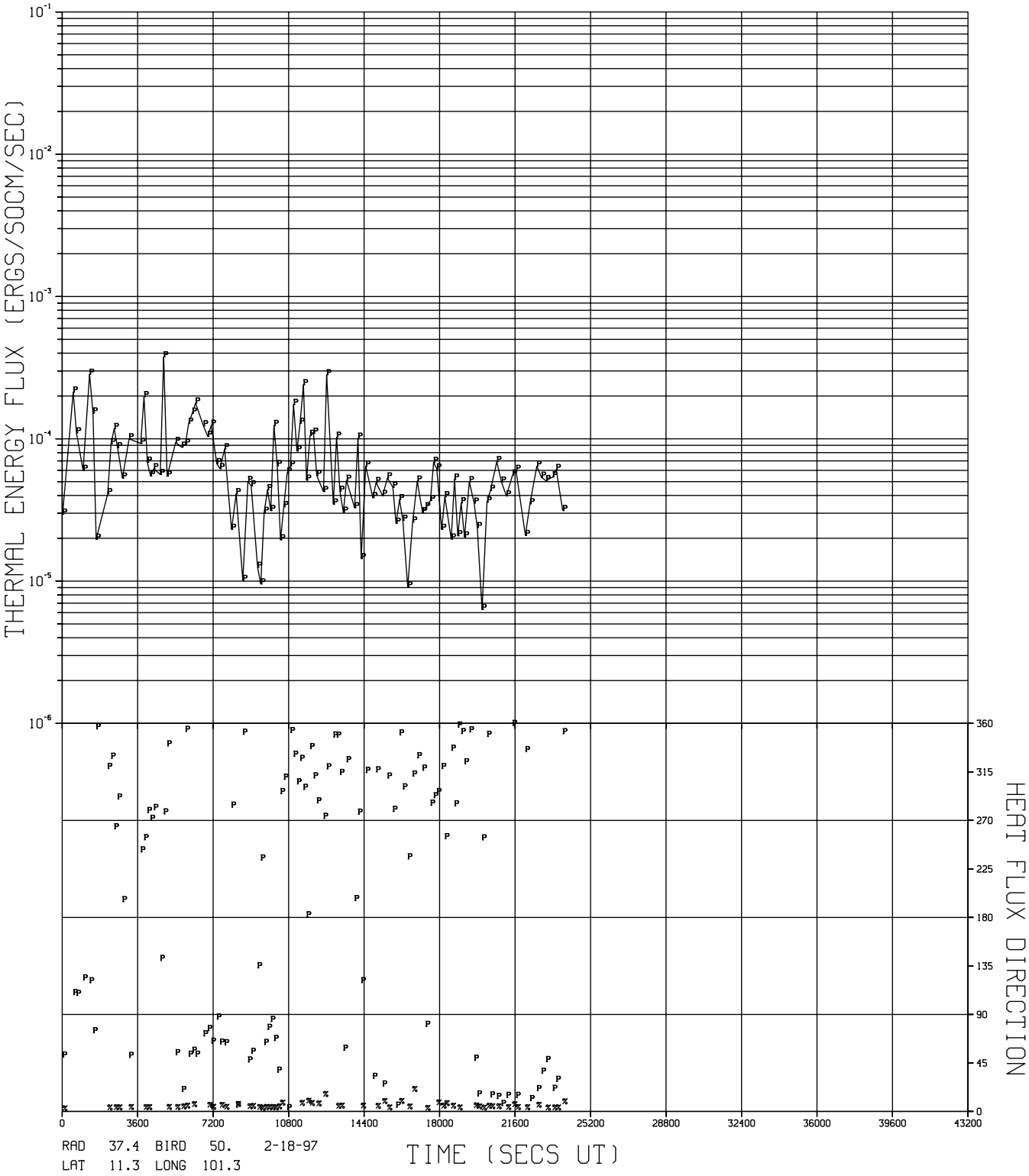

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 37.8 BIRD 50. 2-17-97
LAT 18.6 LONG 90.9

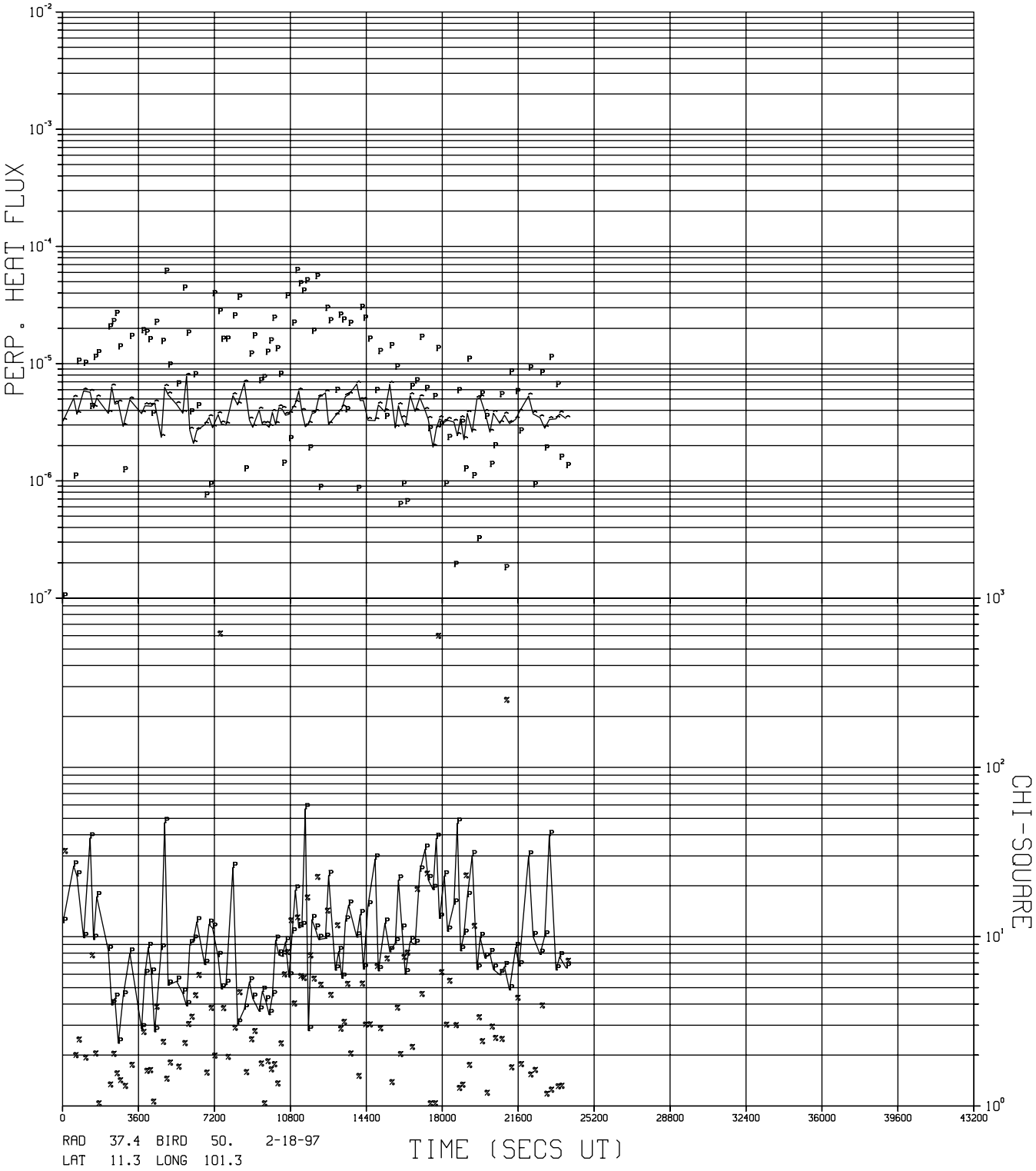

DENSITY
DENSITY RATIO
TIME (SECS UT)
RAD 37.4 BIRD 50. 2-18-97
LAT 11.3 LONG 101.3

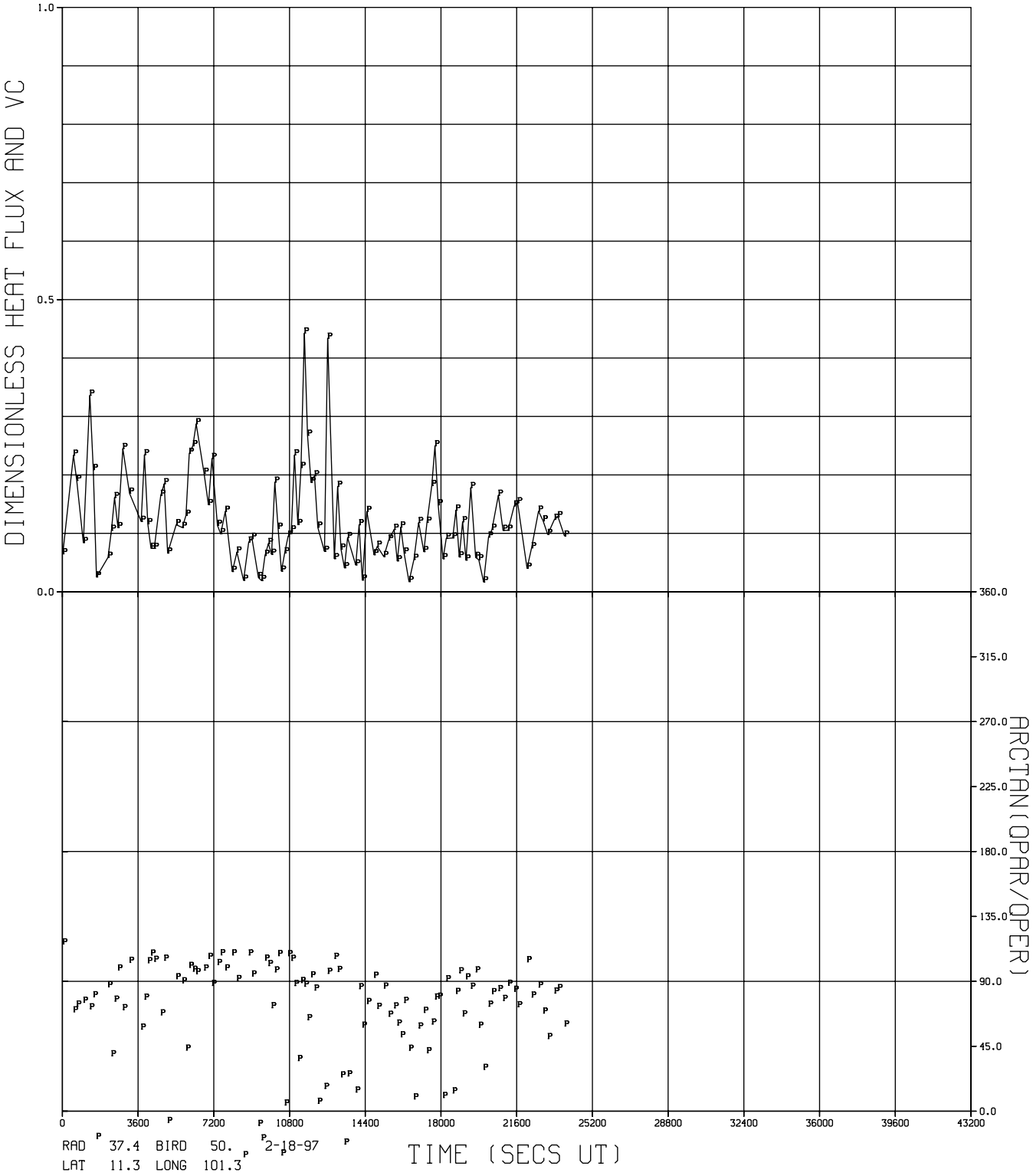

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 37.4 BIRD 50. 2-18-97
LAT 11.3 LONG 101.3

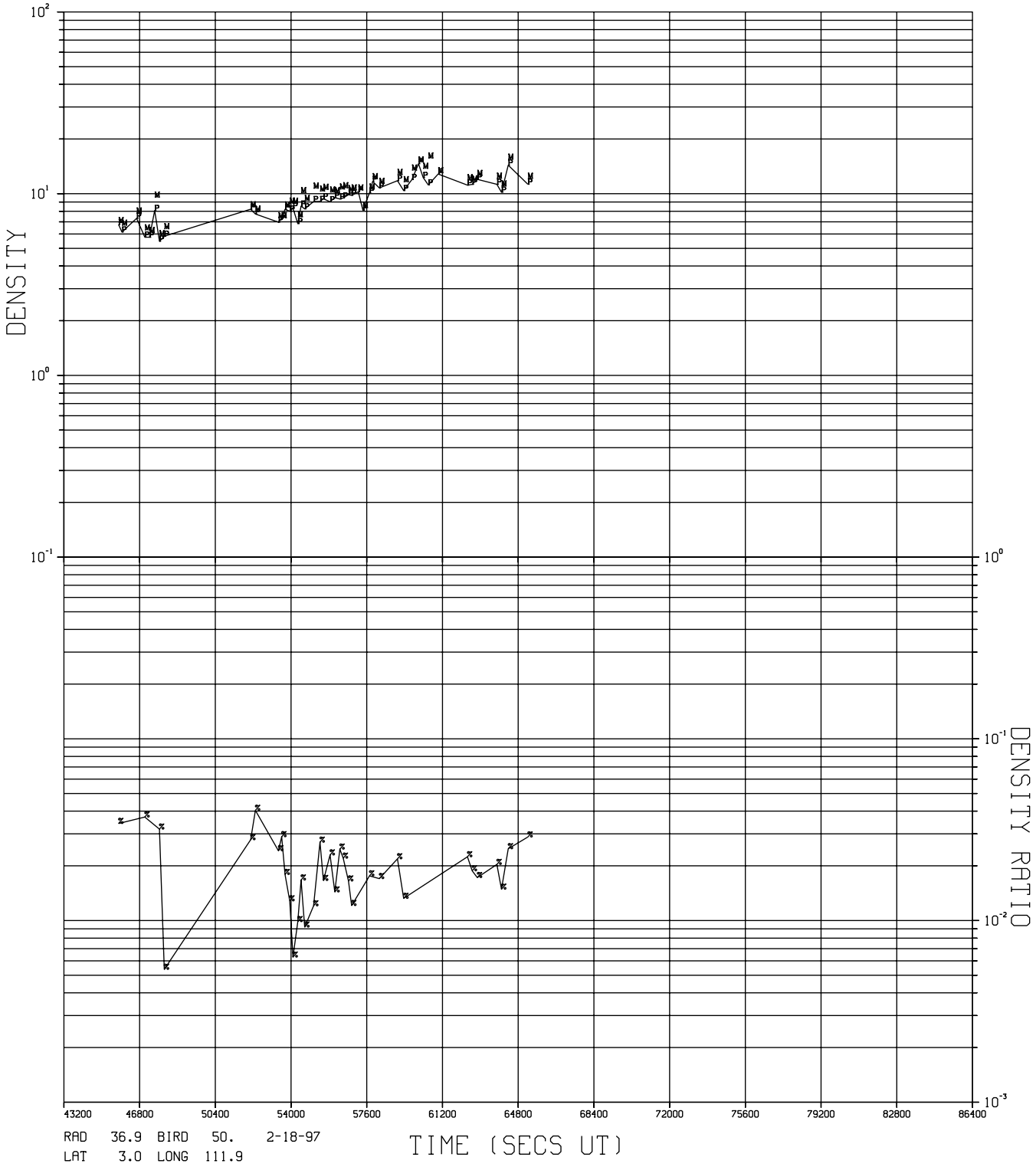

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.4 BIRD 50. 2-18-97
LAT 11.3 LONG 101.3

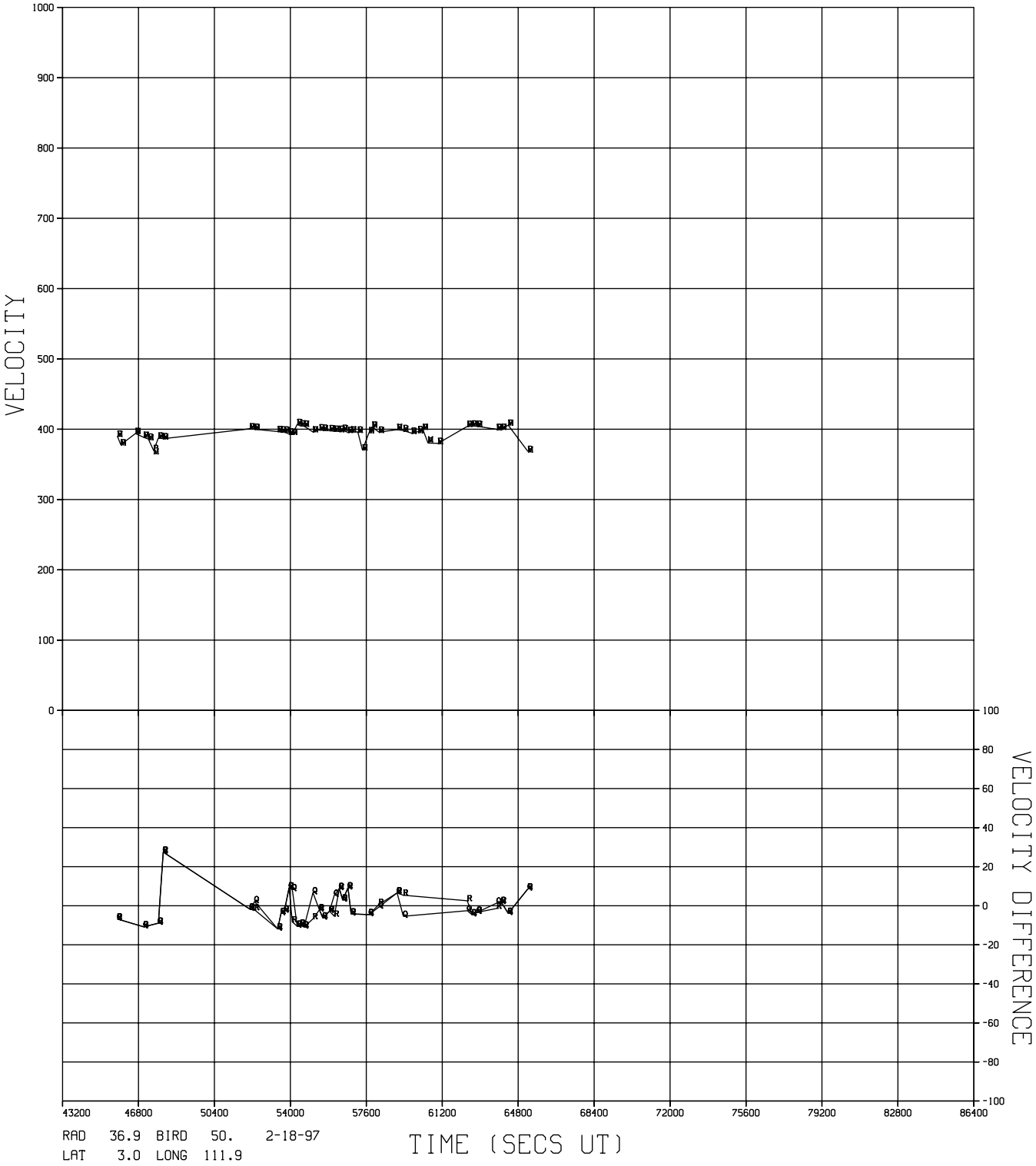

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 37.4 BIRD 50. 2-18-97
LAT 11.3 LONG 101.3

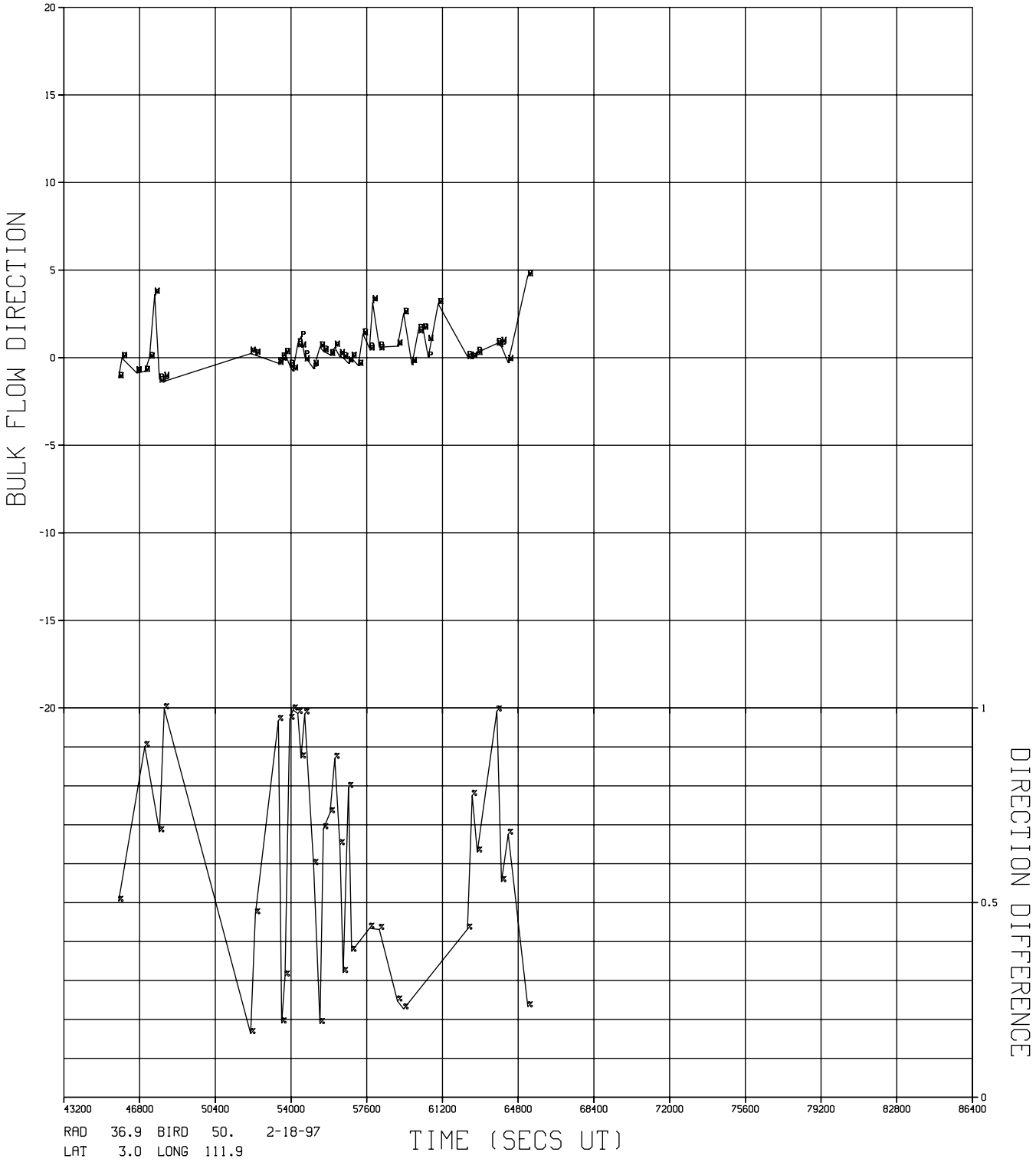

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.4 BIRD 50. 2-18-97
LAT 11.3 LONG 101.3

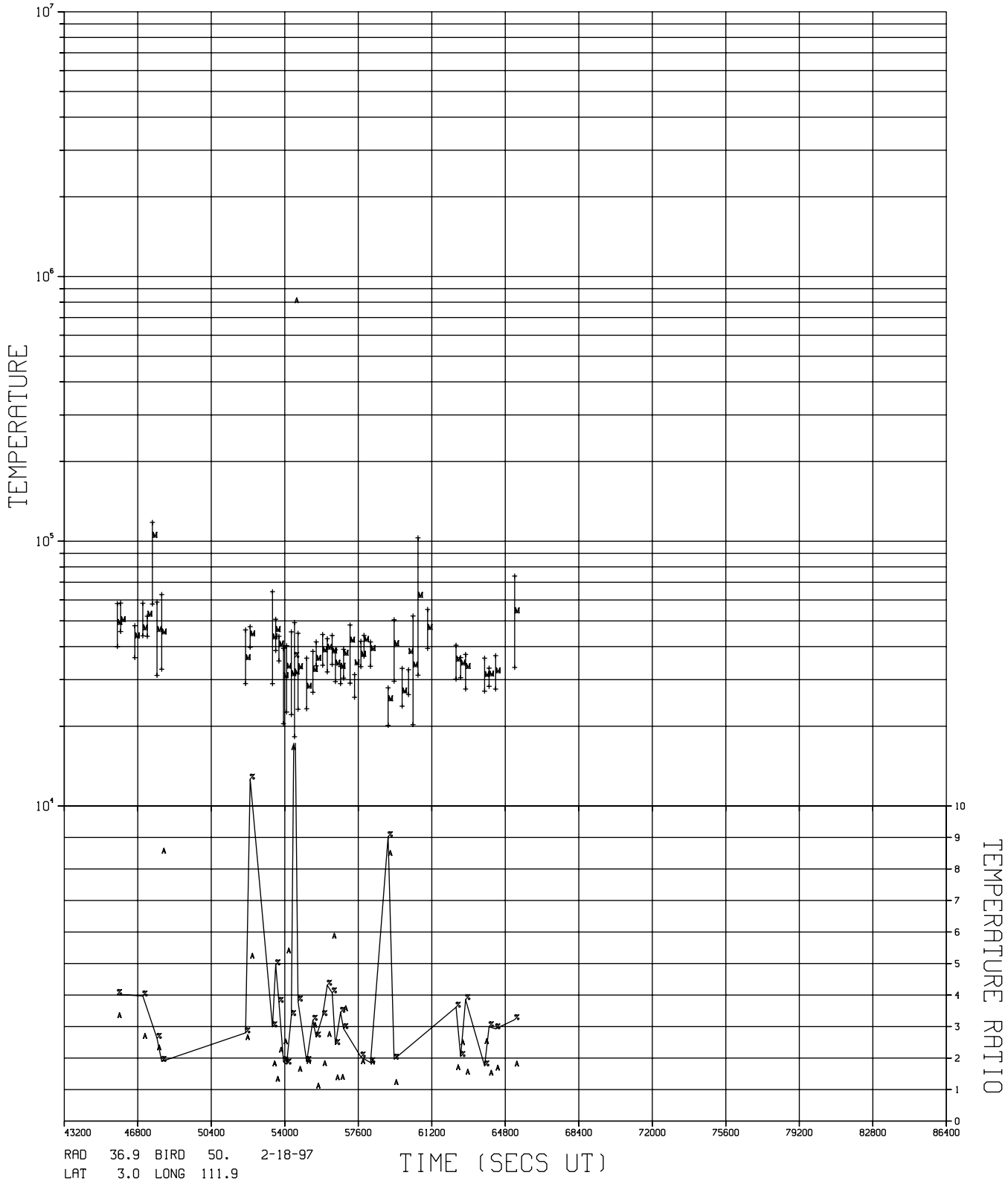

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 37.4 BIRD 50. 2-18-97
LAT 11.3 LONG 101.3

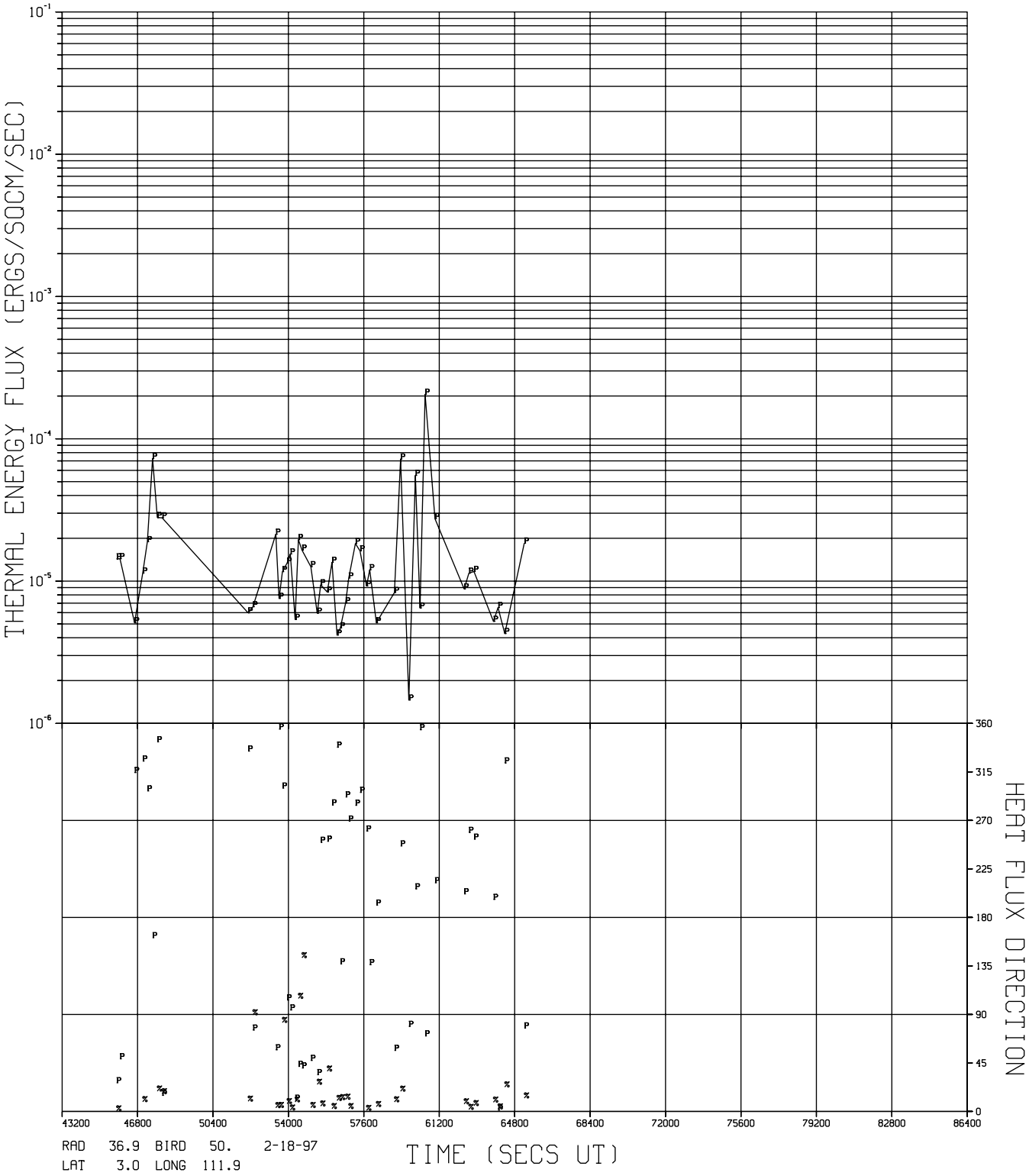

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 37.4 BIRD 50. 2-18-97
LAT 11.3 LONG 101.3

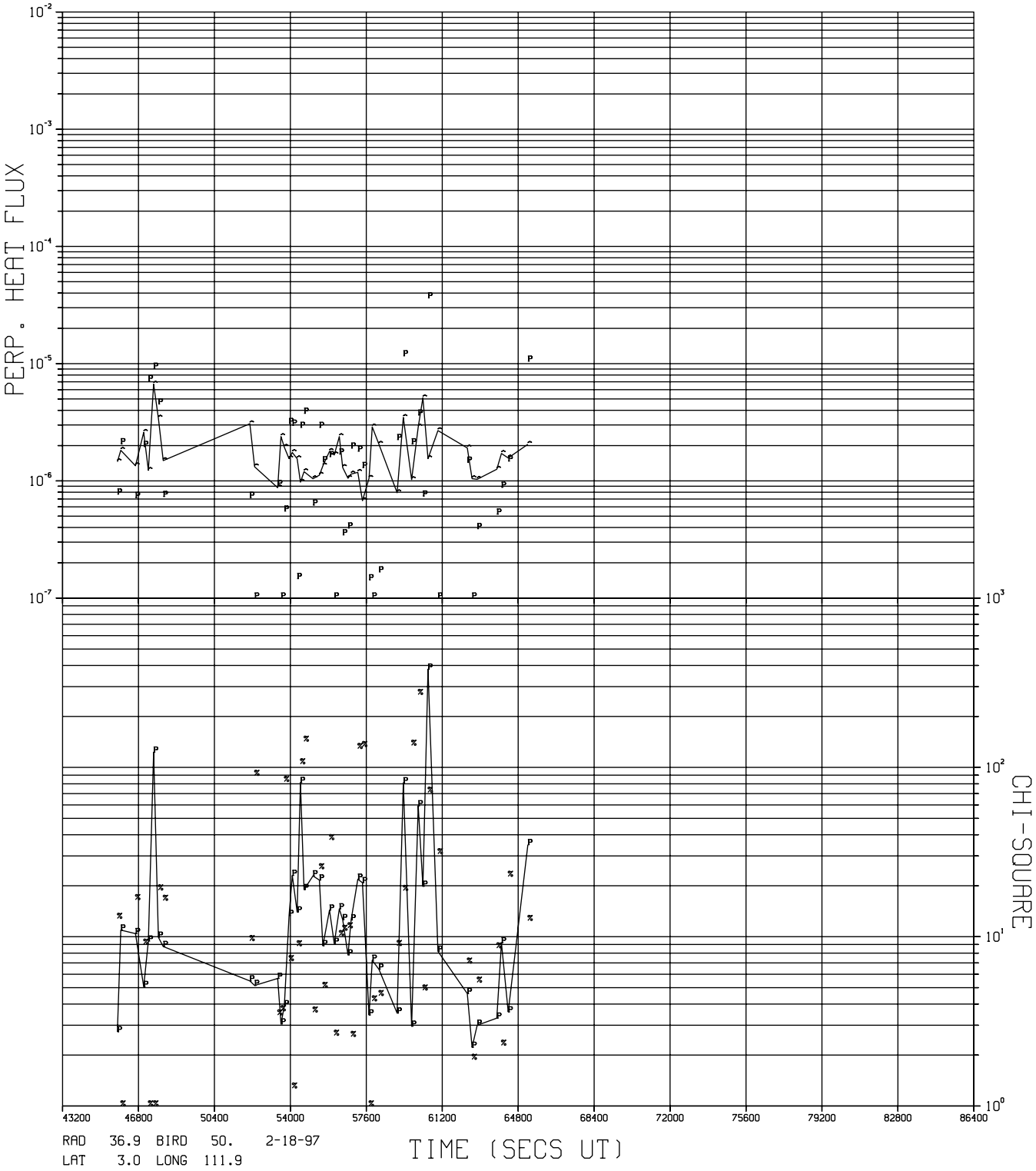

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.9 BIRD 50. 2-18-97
LAT 3.0 LONG 111.9

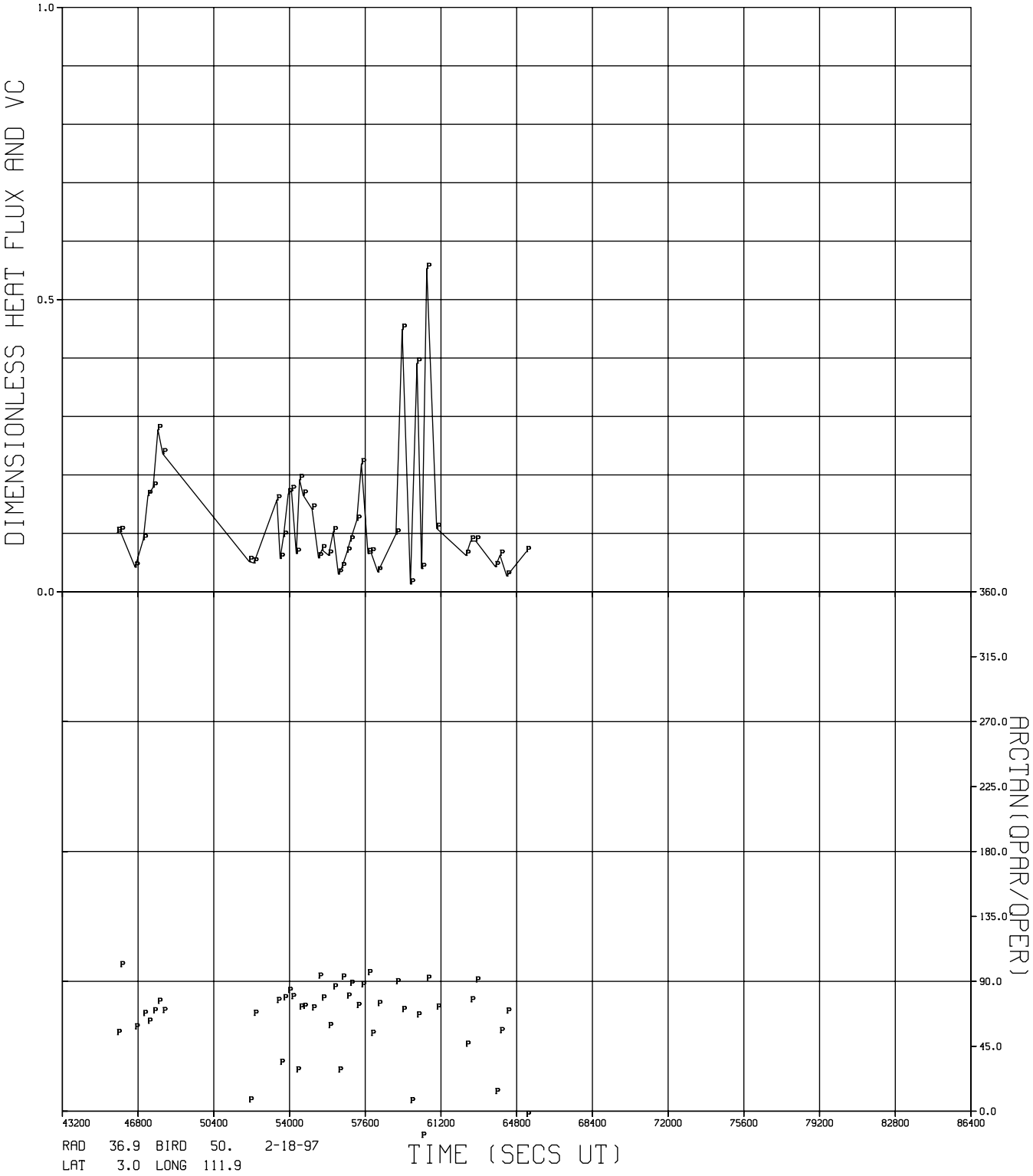

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.9 BIRD 50. 2-18-97
LAT 3.0 LONG 111.9
TIME (SECS UT)


BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.9 BIRD 50. 2-18-97
LAT 3.0 LONG 111.9


TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 36.9 BIRD 50. 2-18-97
LAT 3.0 LONG 111.9


THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 36.9 BIRD 50. 2-18-97
LAT 3.0 LONG 111.9


PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 36.9 BIRD 50. 2-18-97
LAT 3.0 LONG 111.9


DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.9 BIRD 50. 2-18-97
LAT 3.0 LONG 111.9