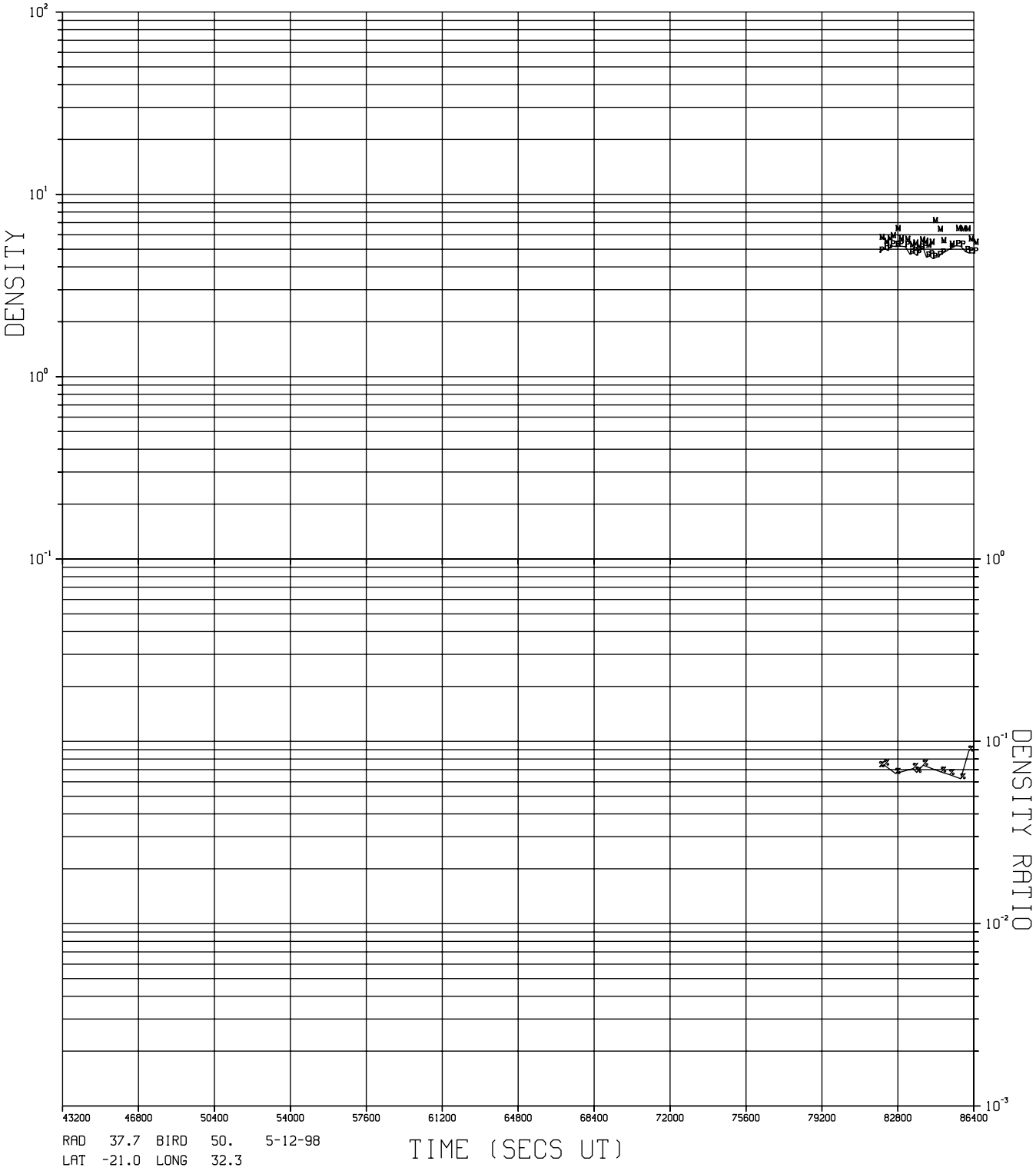
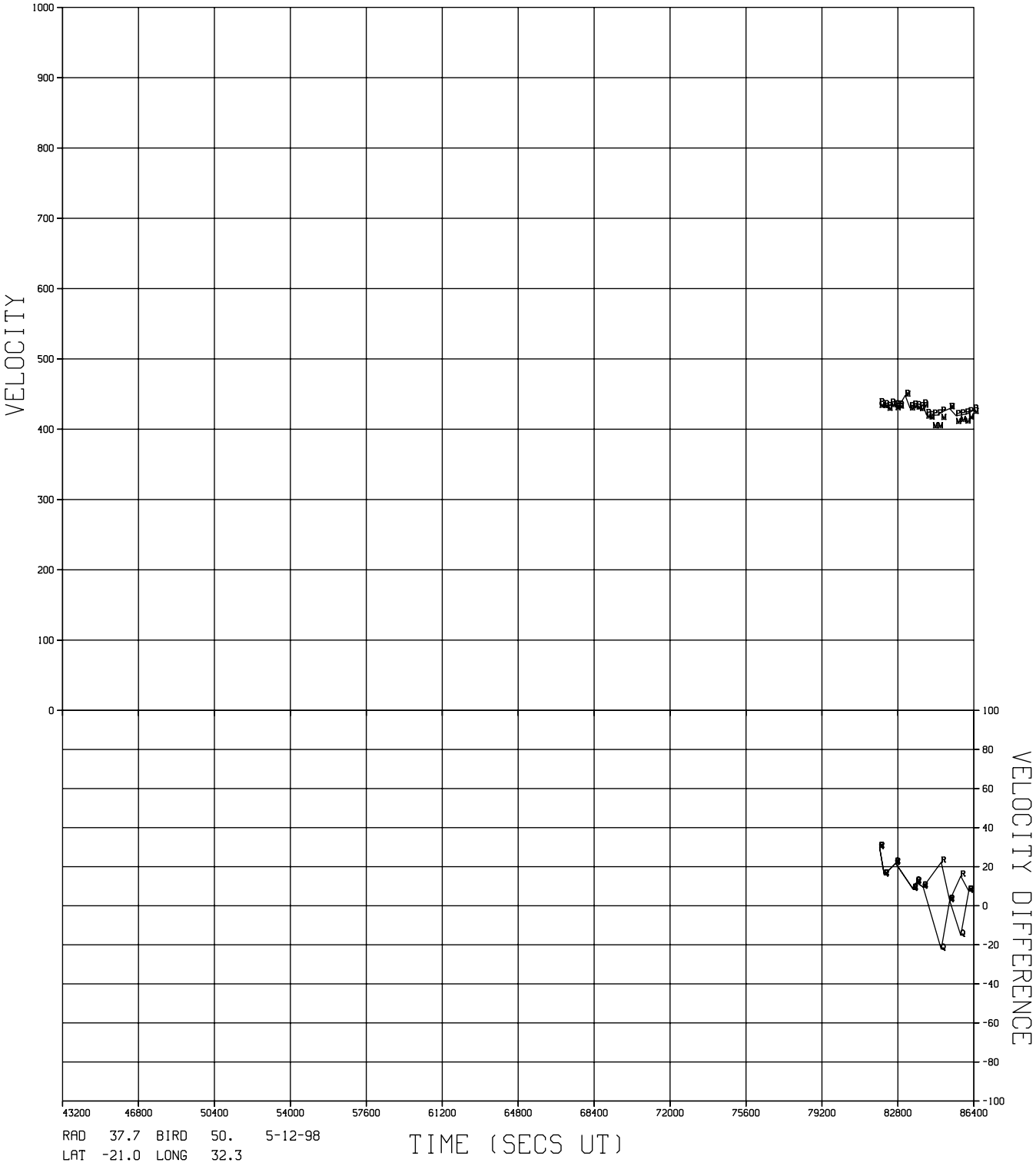
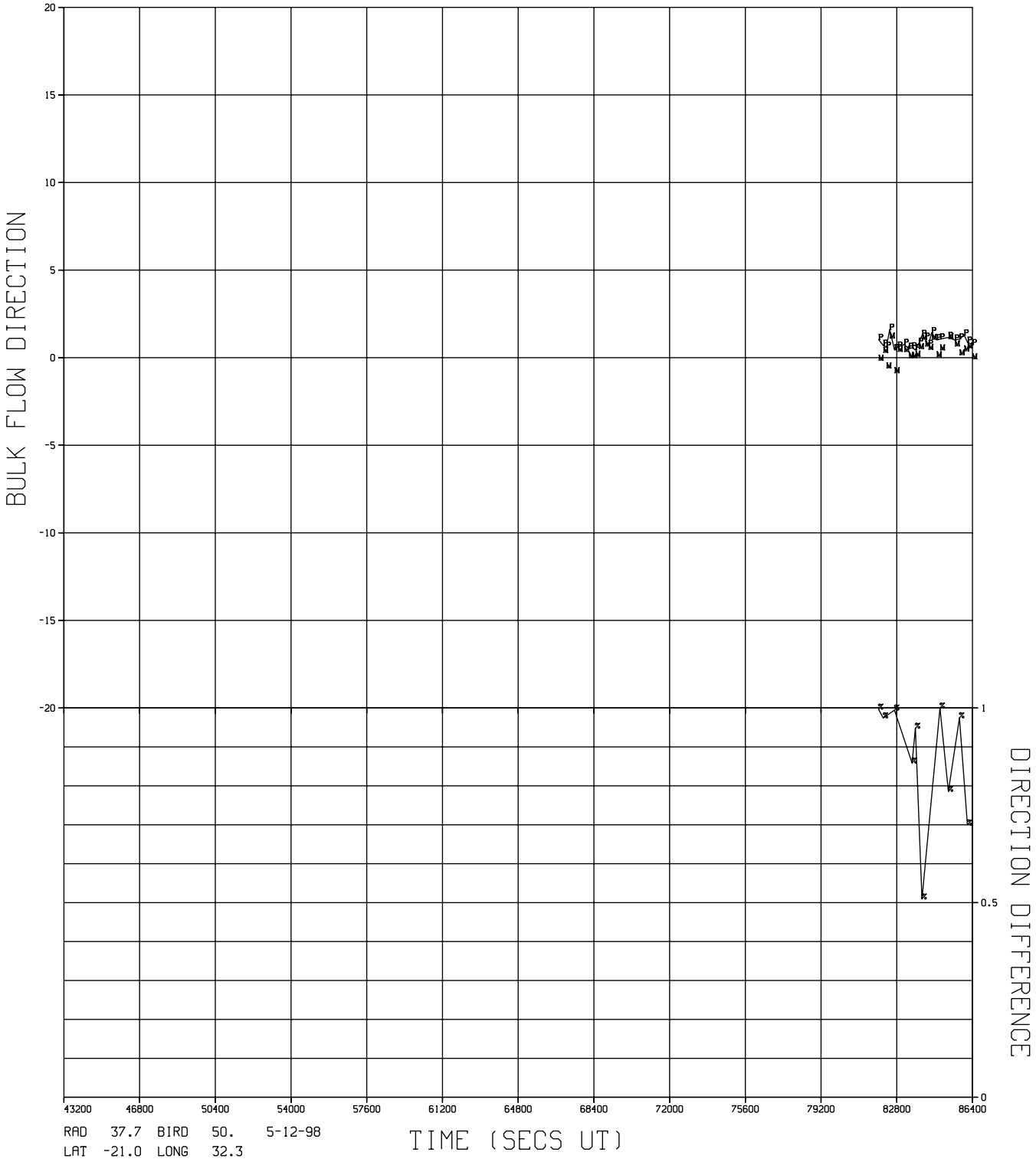
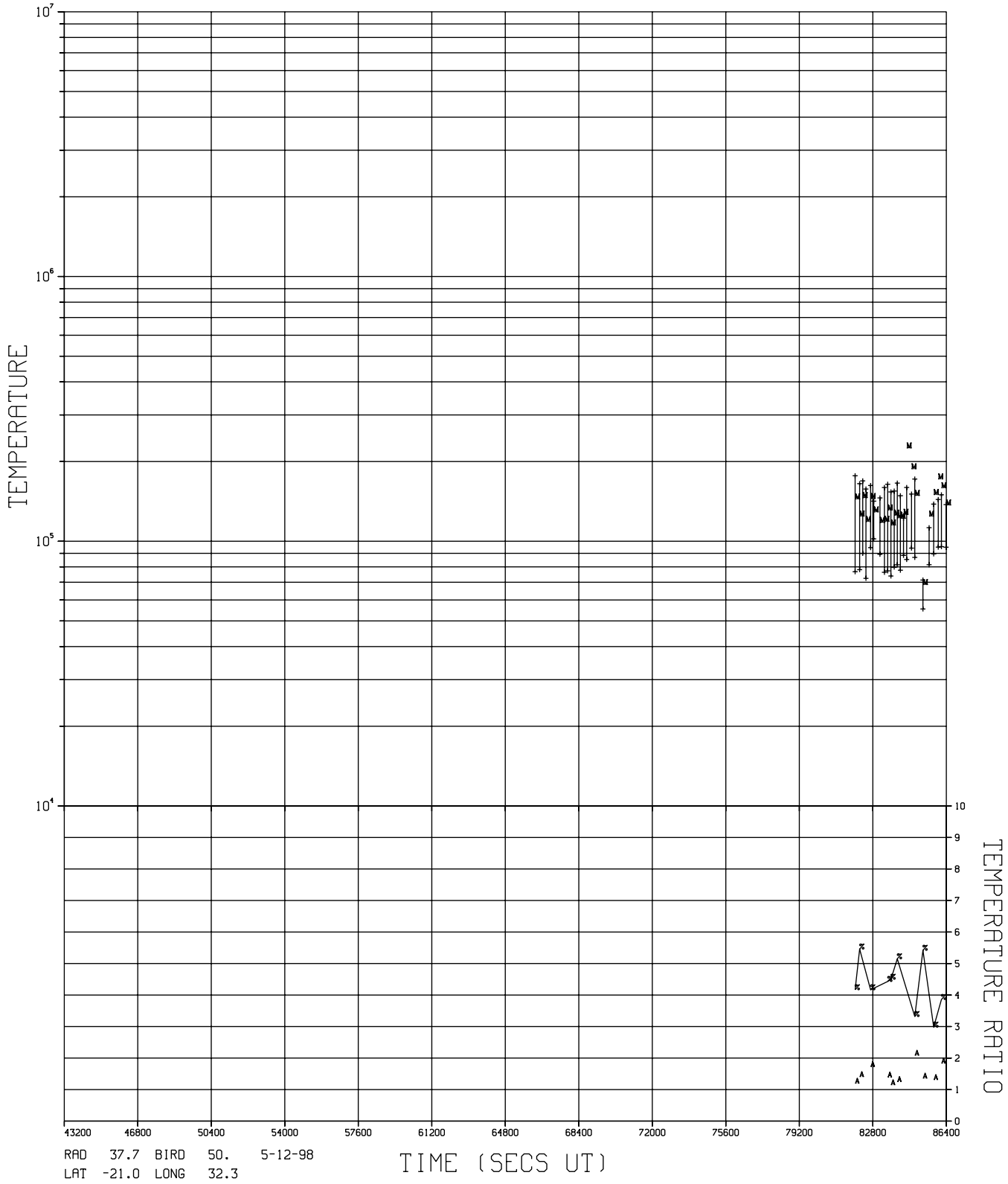
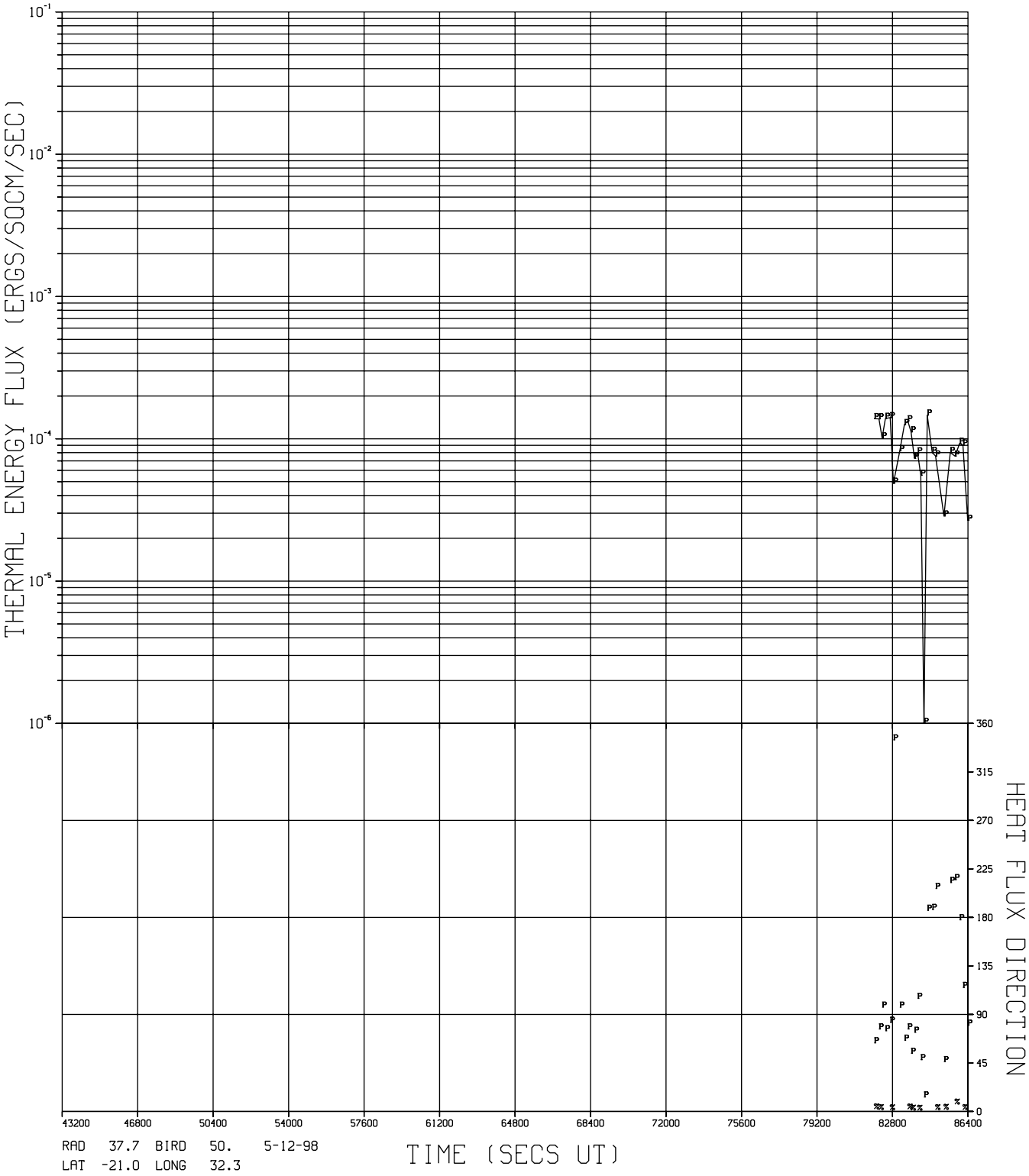
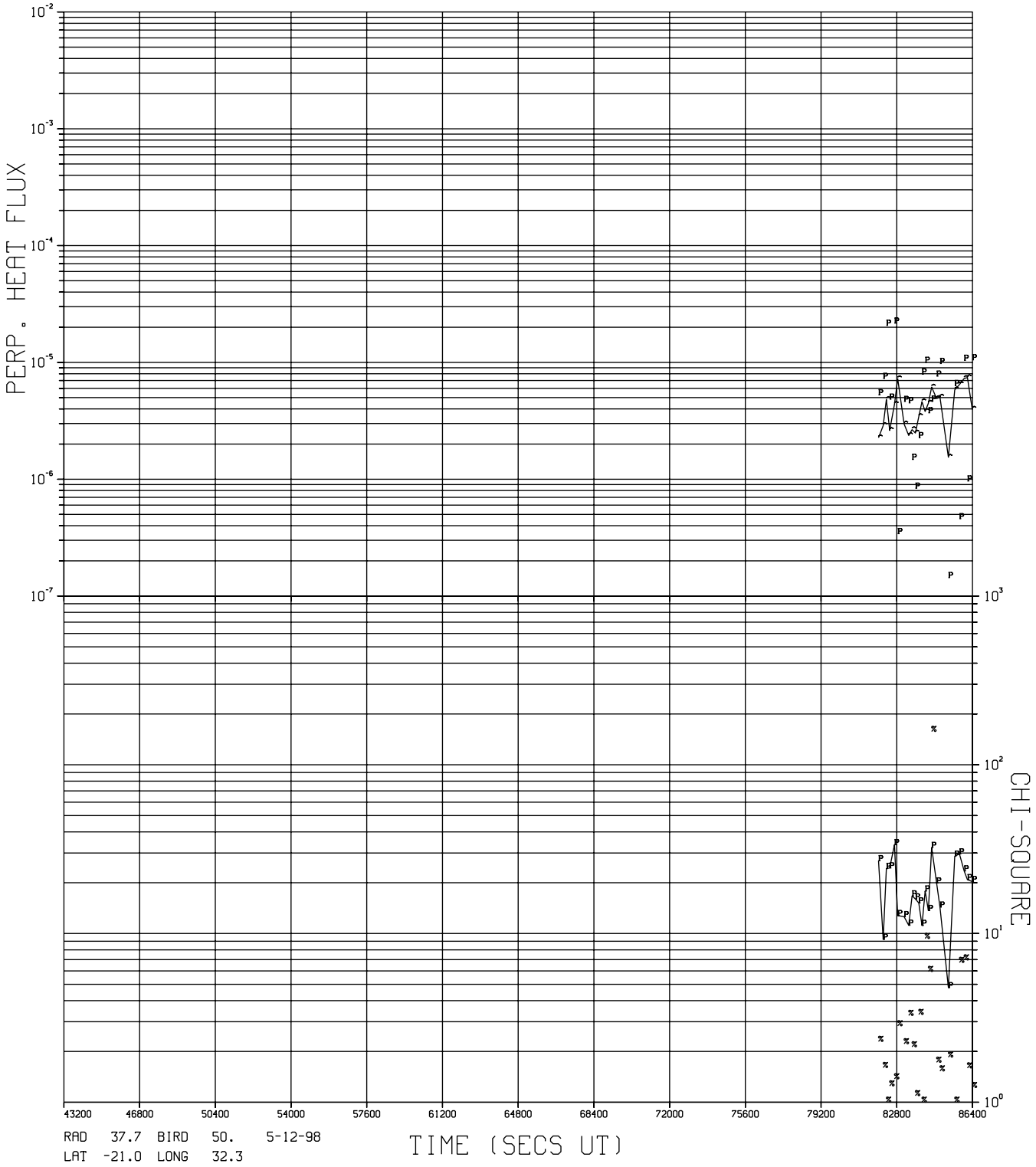

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.7 BIRD 50. 5-12-98
LAT -21.0 LONG 32.3

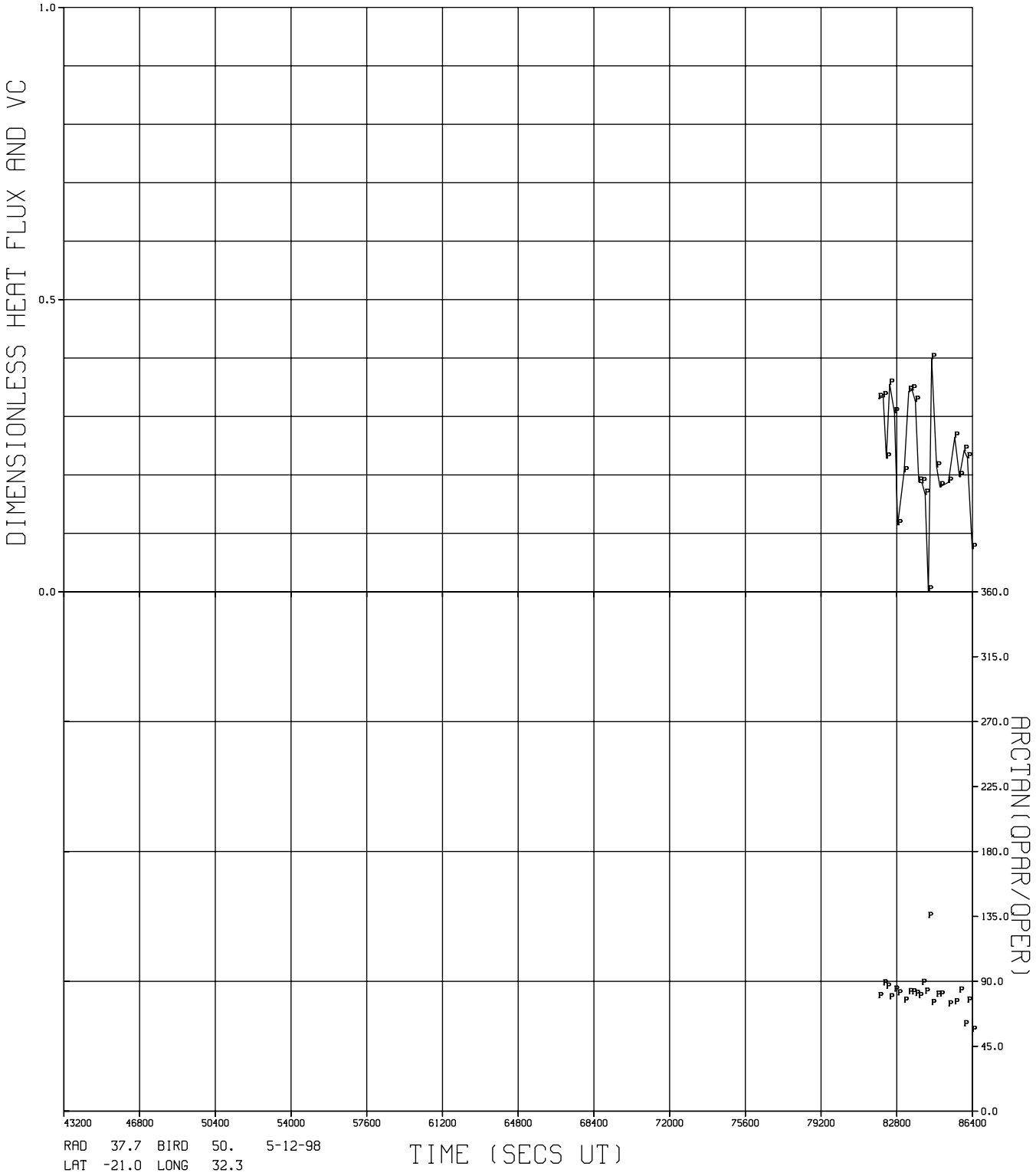

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.7 BIRD 50. 5-12-98
LAT -21.0 LONG 32.3
TIME (SECS UT)

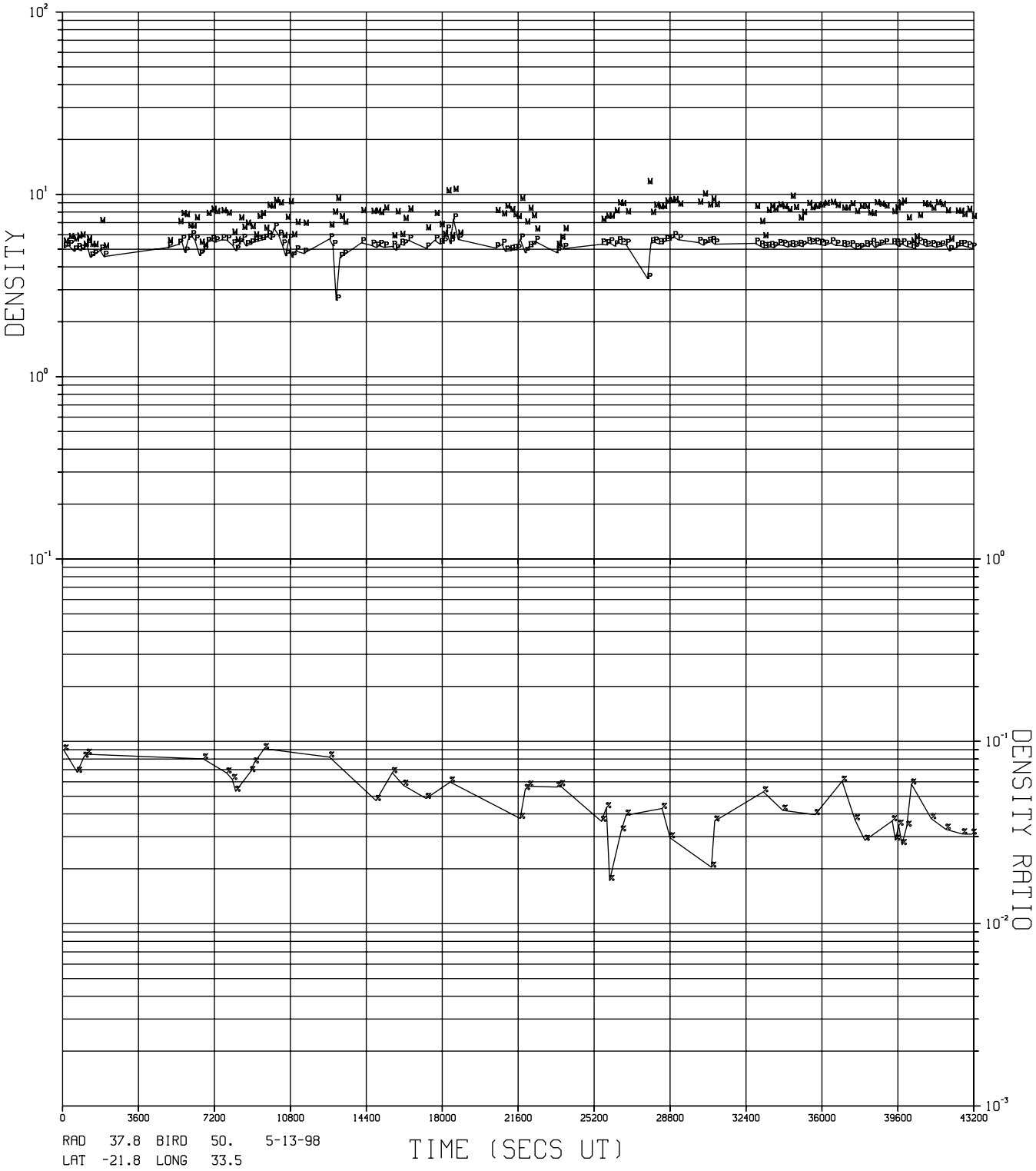

BULK FLOW DIRECTION
20
15
10
5
0
-5
-10
-15
-20
DIRECTION DIFFERENCE
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 37.7 BIRD 50. 5-12-98
LAT -21.0 LONG 32.3

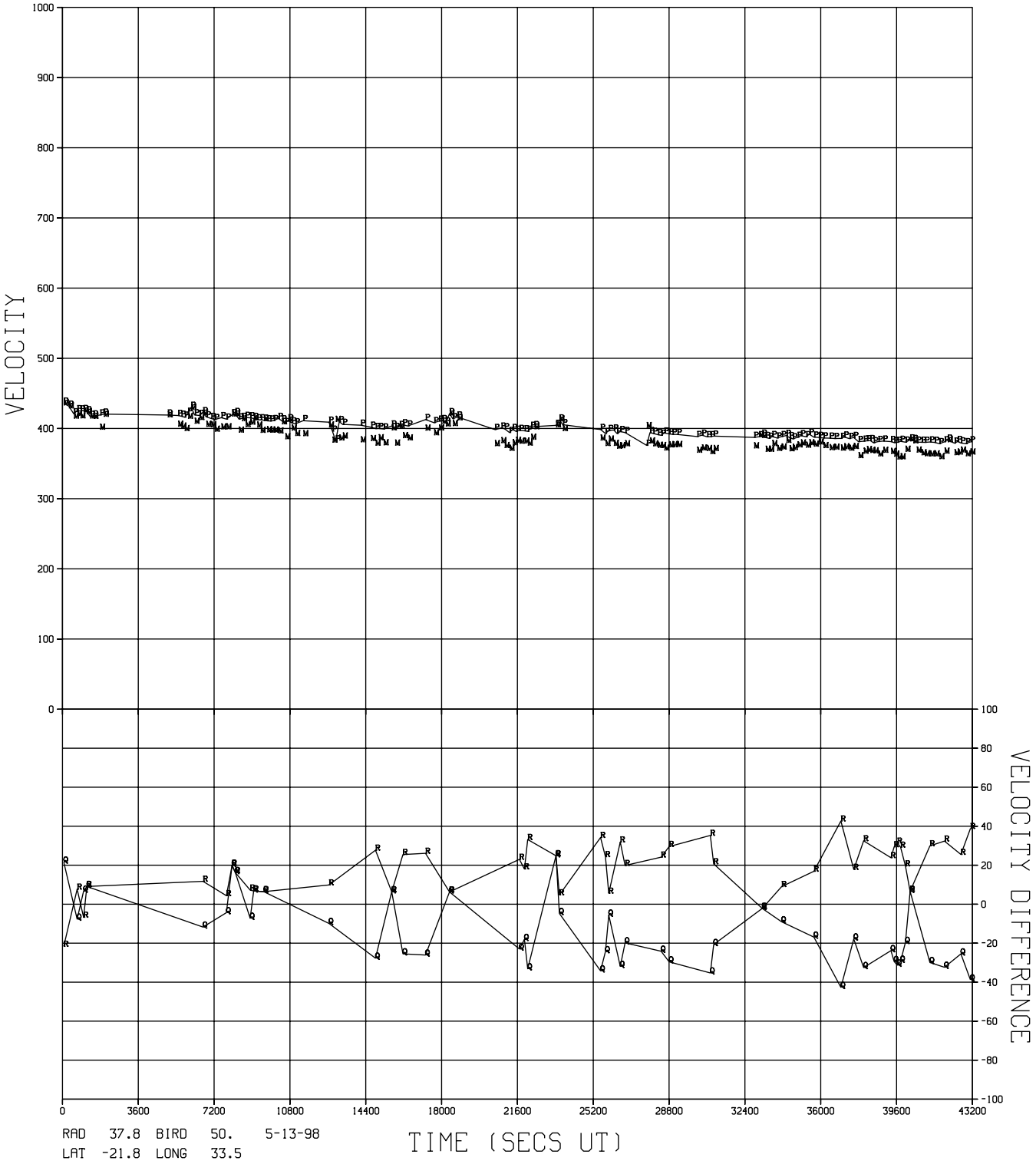

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 37.7 BIRD 50. 5-12-98
LAT -21.0 LONG 32.3

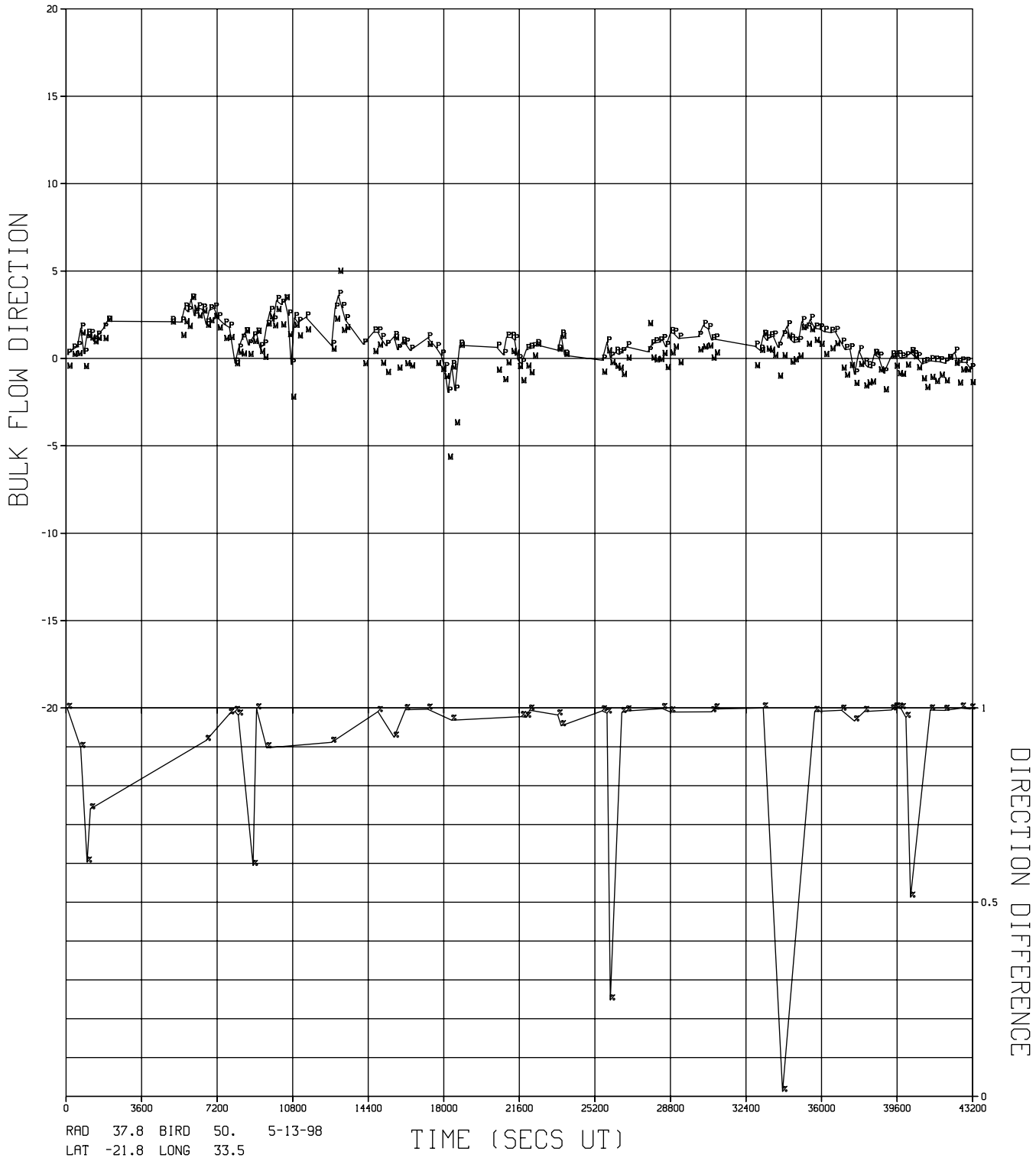

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.7 BIRD 50. 5-12-98
LAT -21.0 LONG 32.3

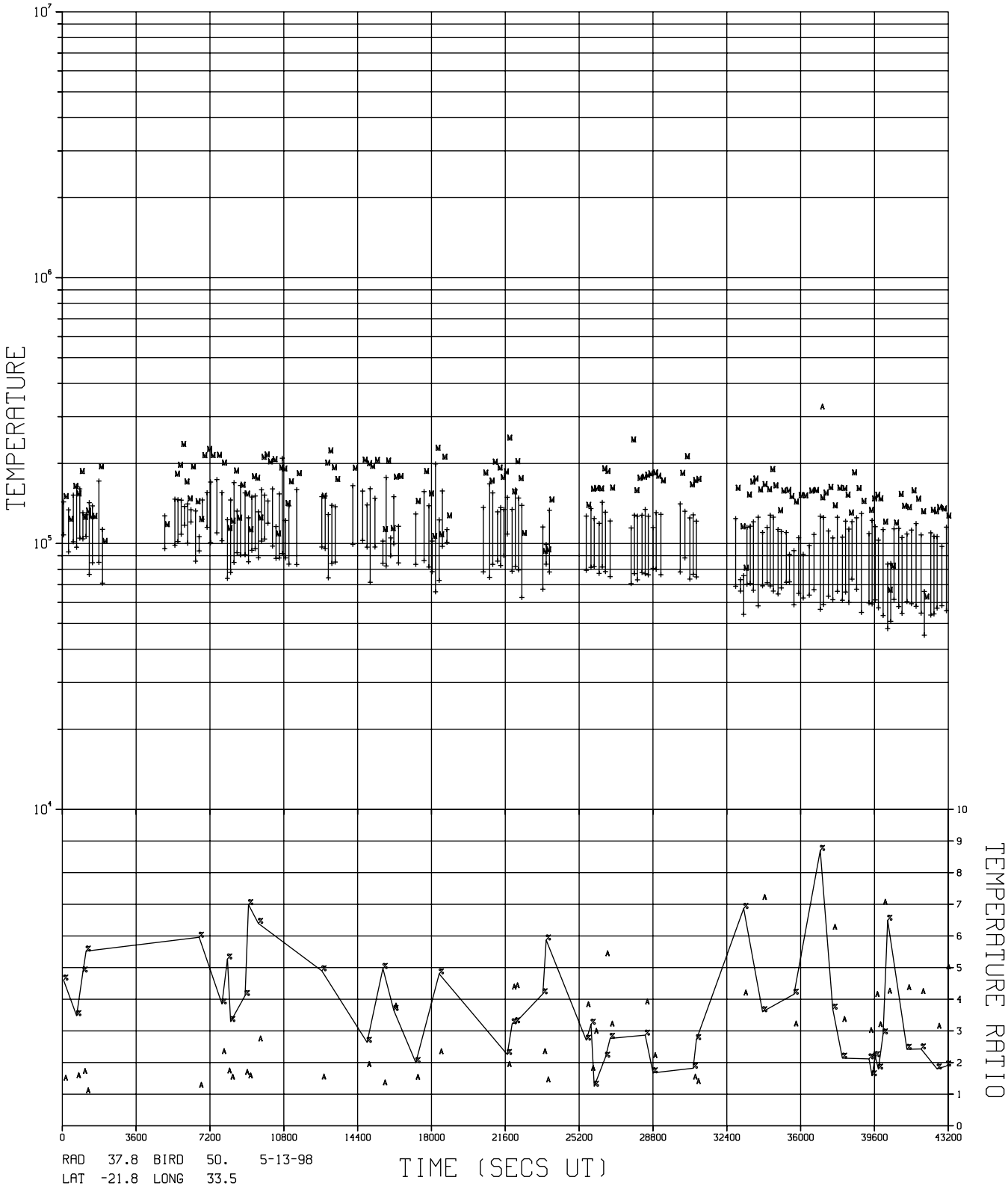

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 37.7 BIRD 50. 5-12-98
LAT -21.0 LONG 32.3

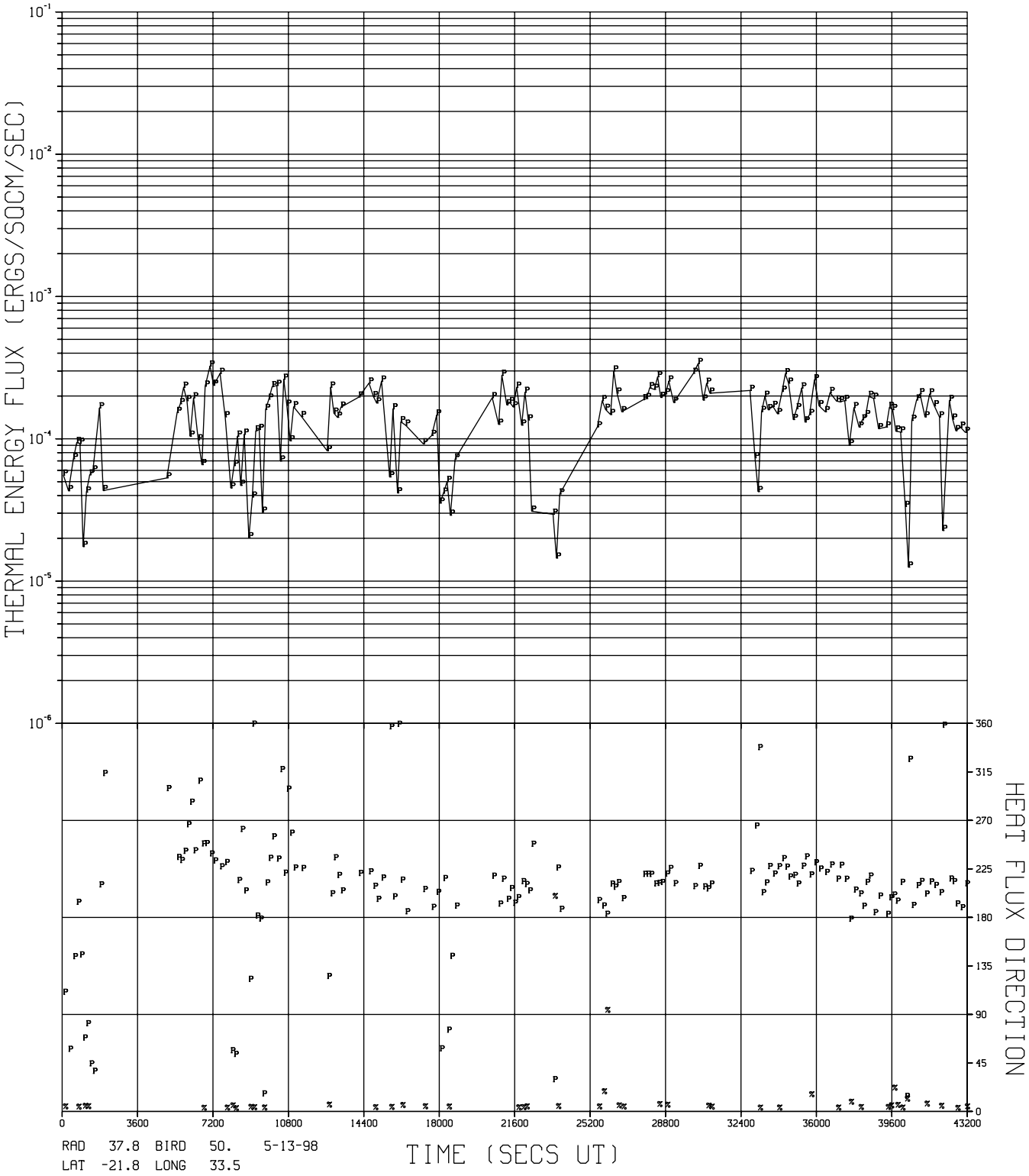

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 37.7 BIRD 50. 5-12-98
LAT -21.0 LONG 32.3

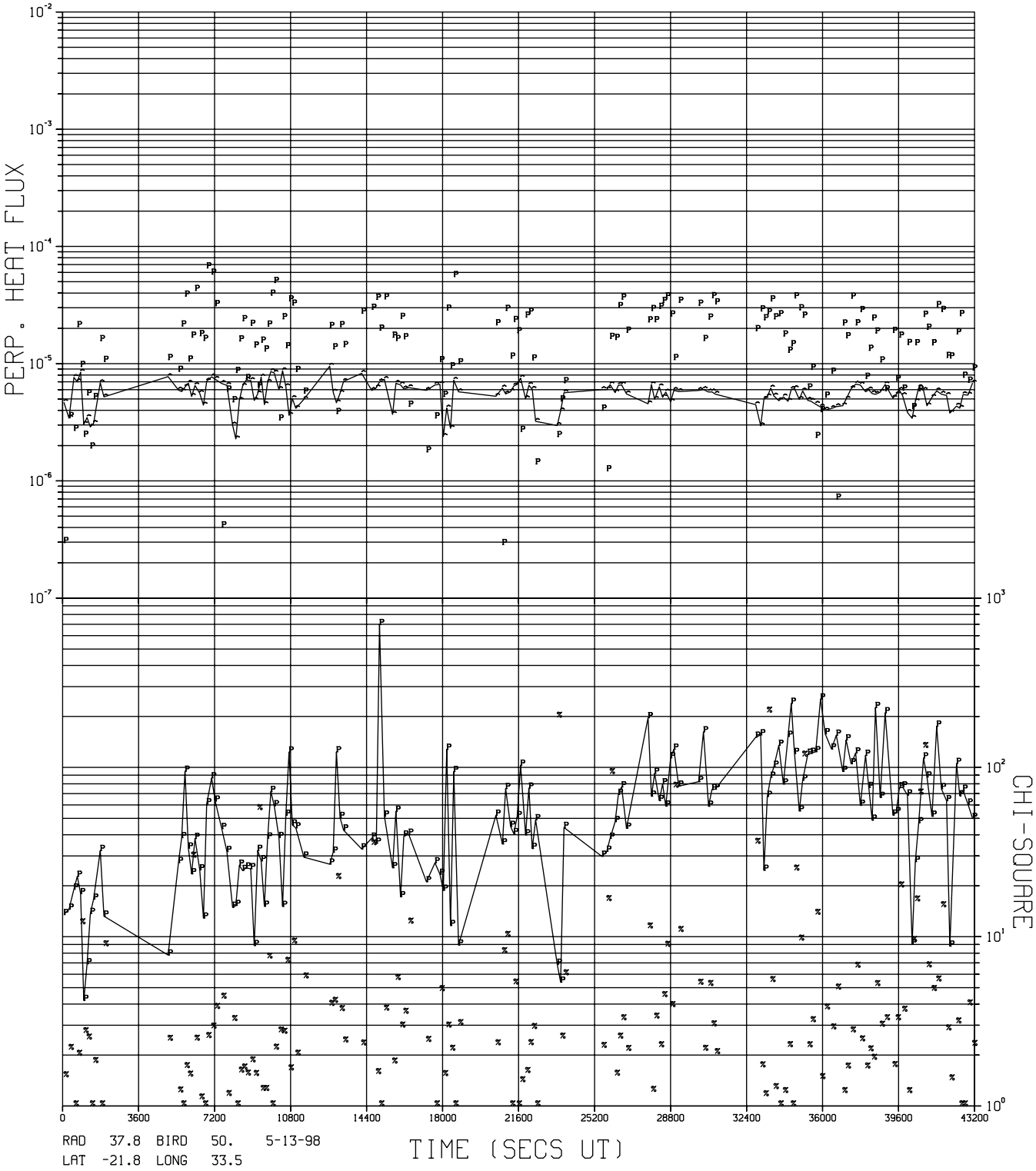

DENSITY
DENSITY RATIO
TIME (SECS UT)
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.8 BIRD 50. 5-13-98
LAT -21.8 LONG 33.5

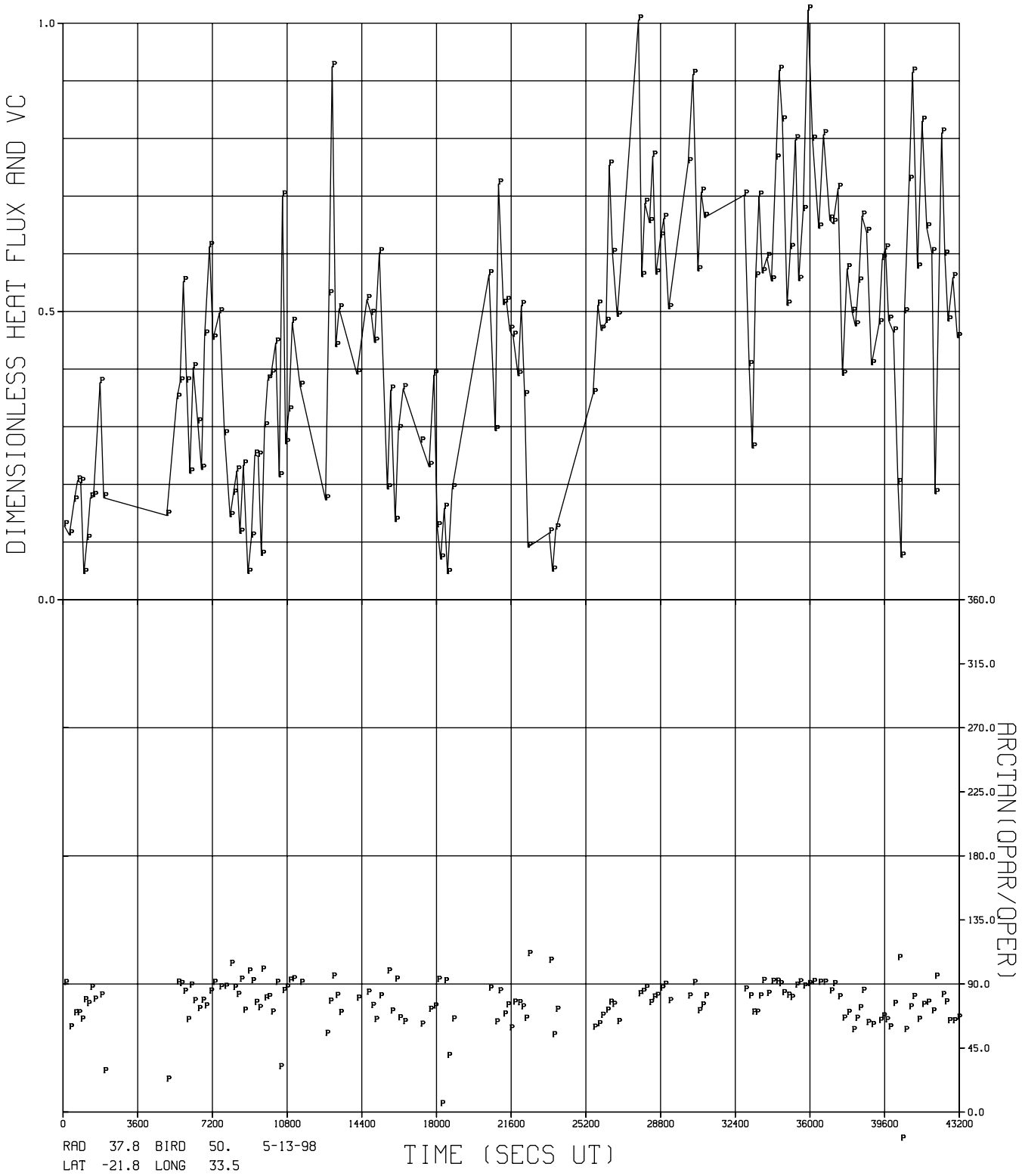

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 37.8 BIRD 50. 5-13-98
LAT -21.8 LONG 33.5

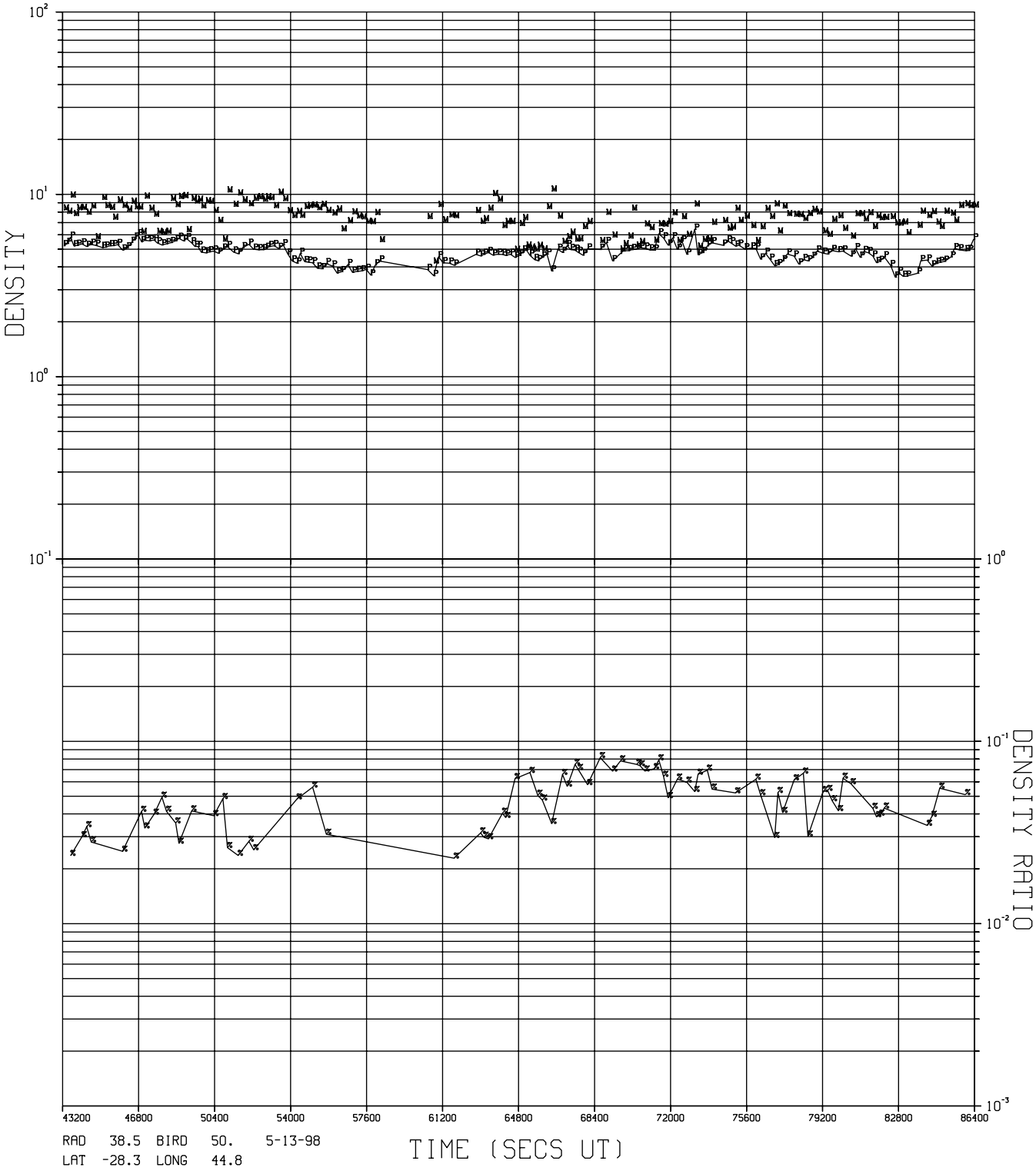

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.8 BIRD 50. 5-13-98
LAT -21.8 LONG 33.5

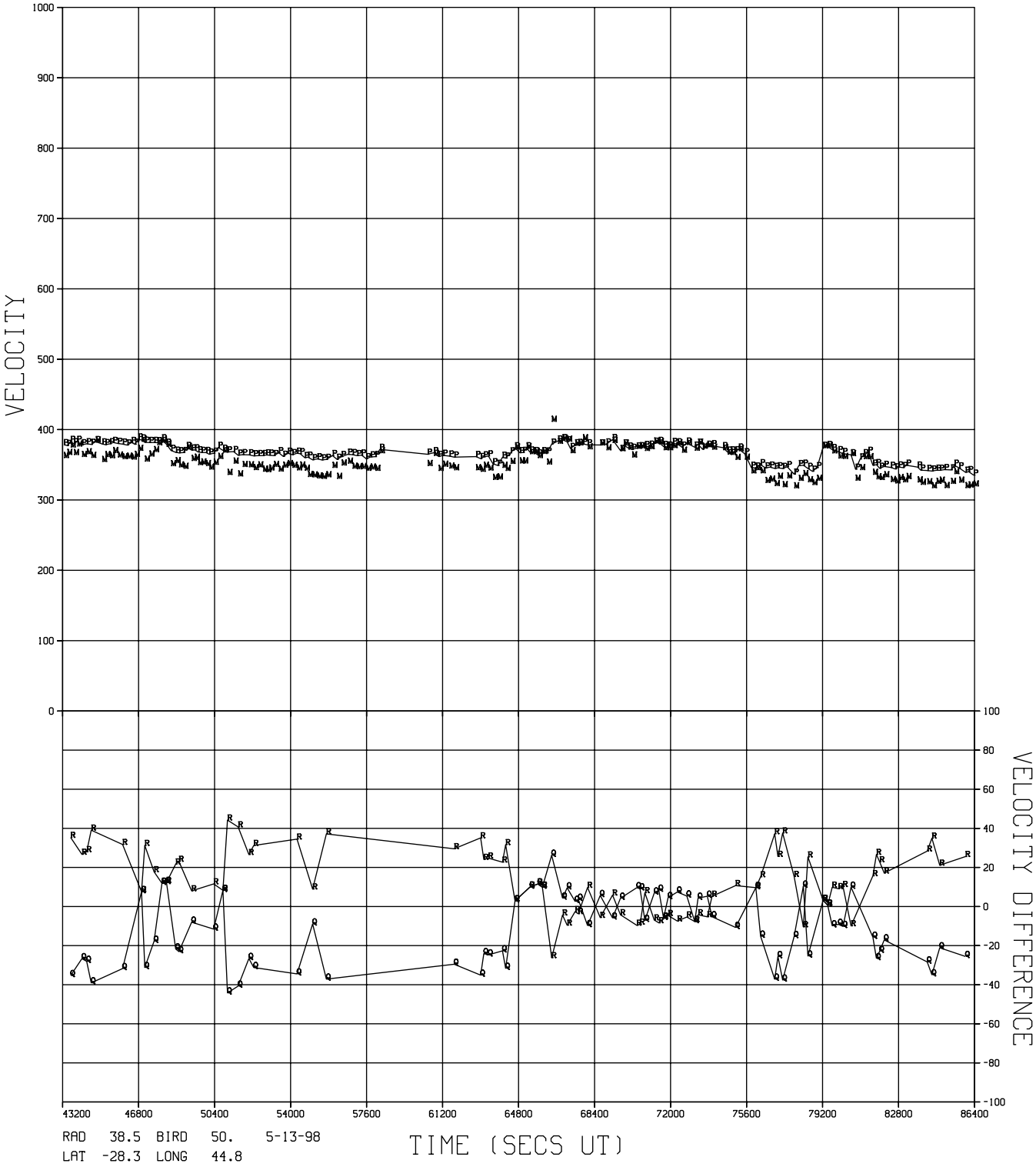

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 37.8 BIRD 50. 5-13-98
LAT -21.8 LONG 33.5

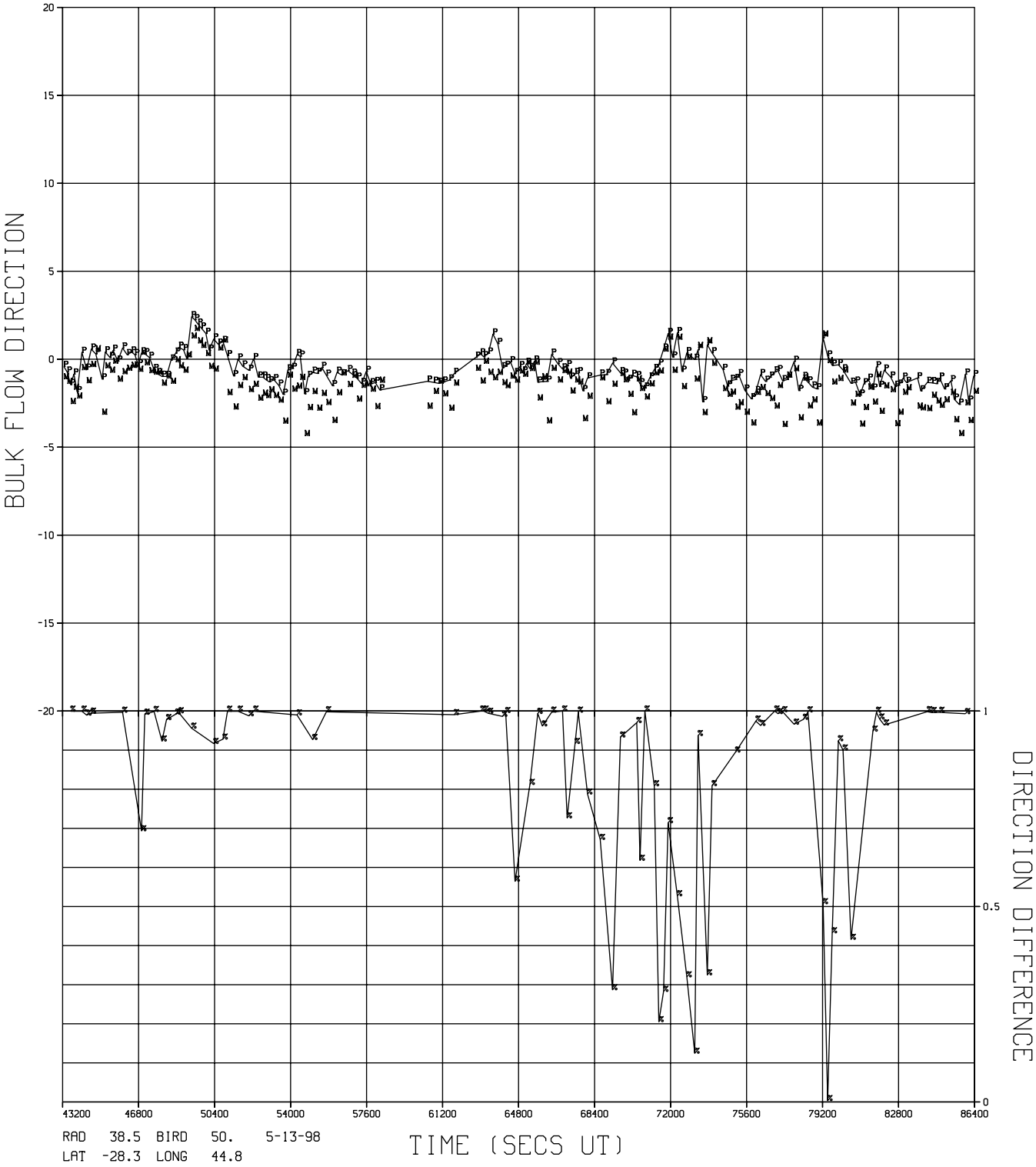

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.8 BIRD 50. 5-13-98
LAT -21.8 LONG 33.5

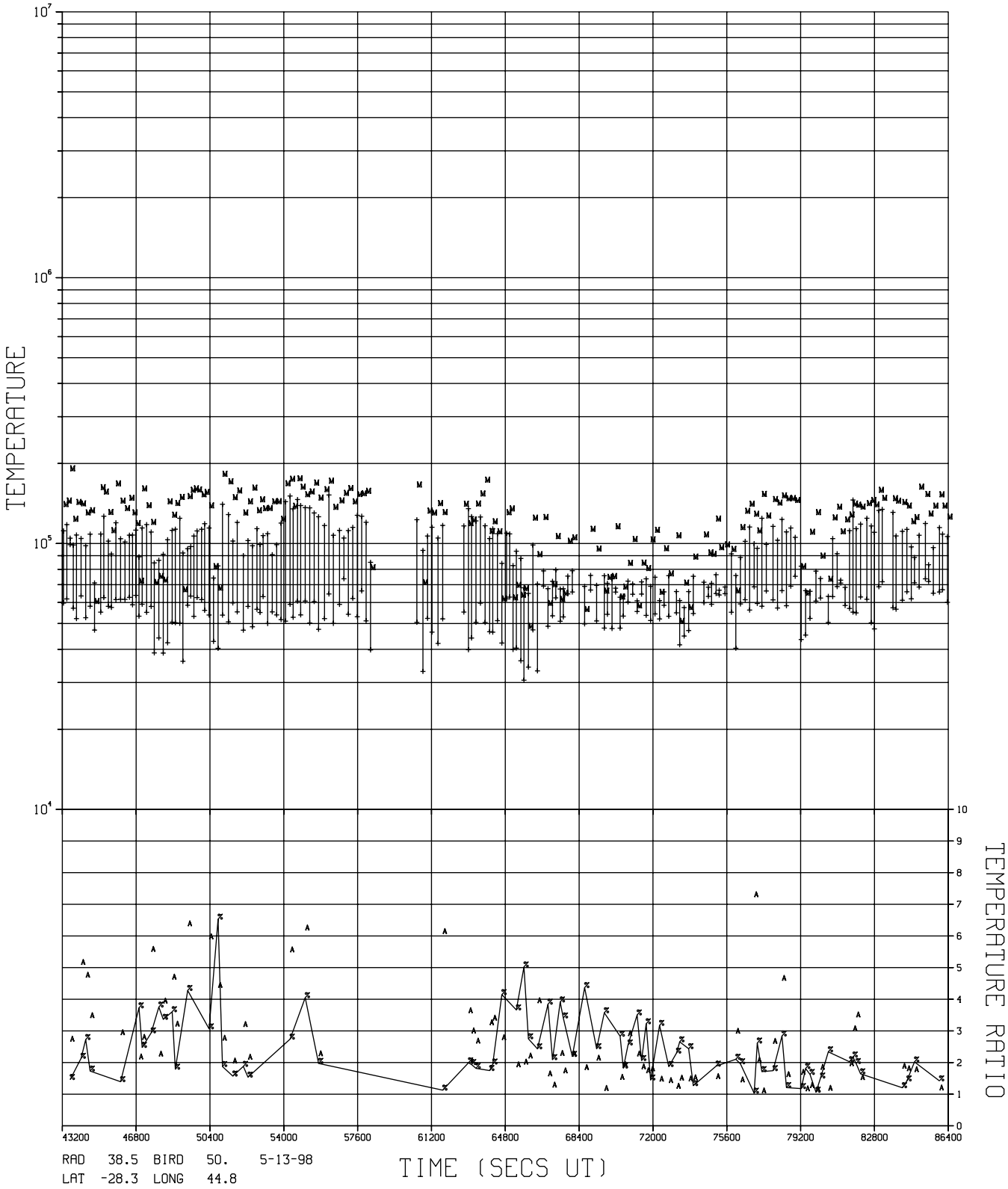

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 37.8 BIRD 50. 5-13-98
LAT -21.8 LONG 33.5

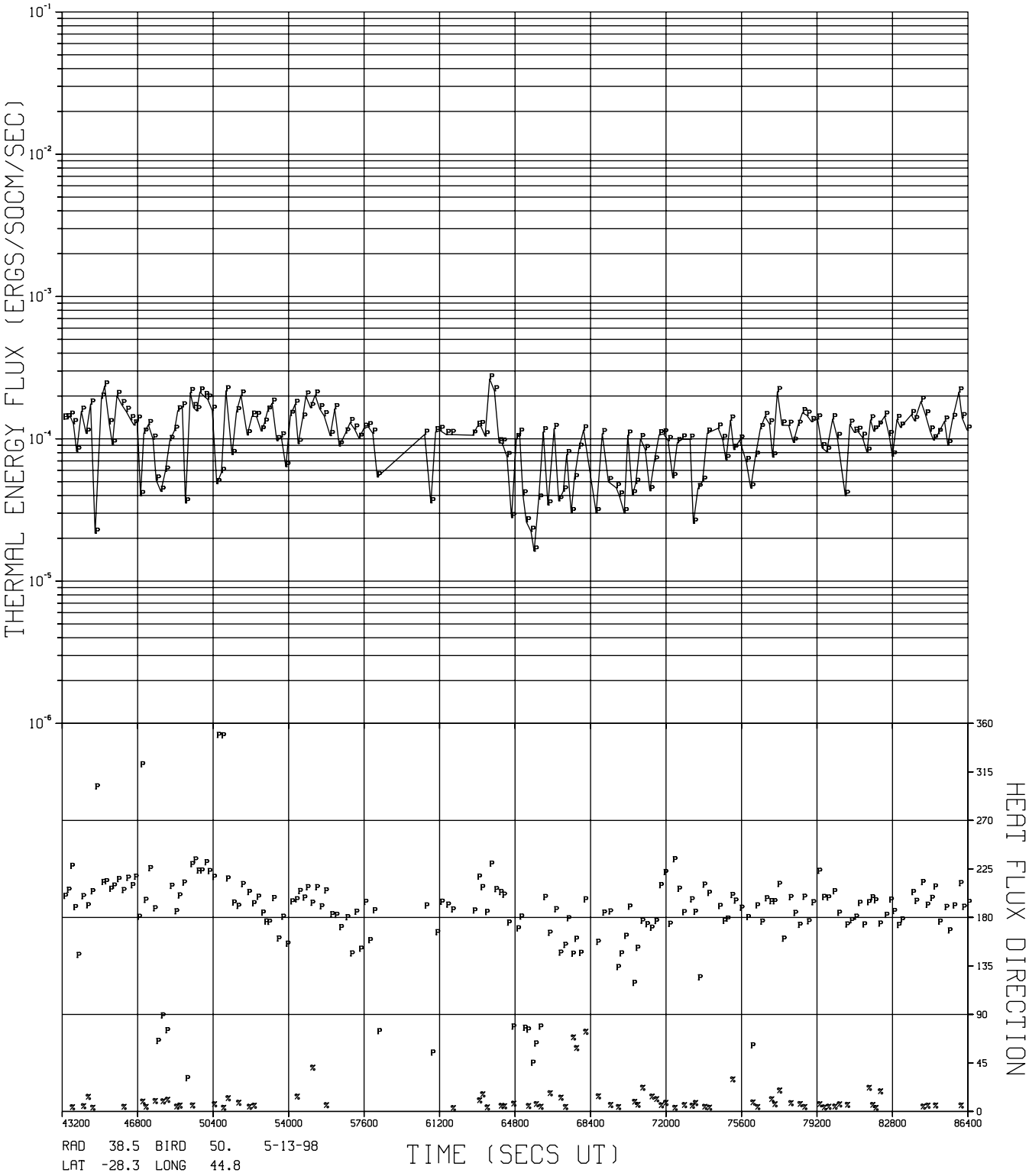

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 37.8 BIRD 50. 5-13-98
LAT -21.8 LONG 33.5

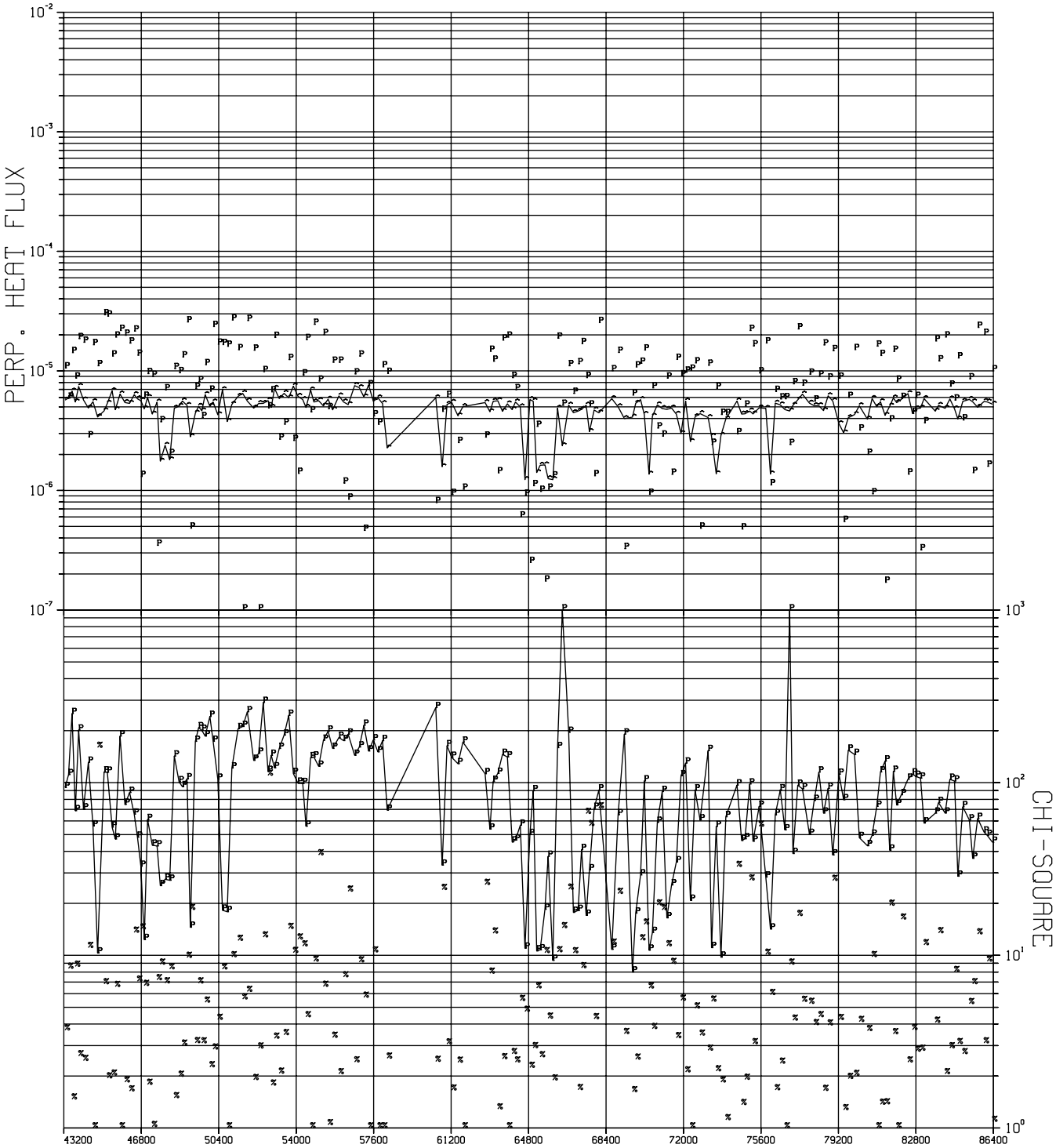

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 38.5 BIRD 50. 5-13-98
LAT -28.3 LONG 44.8


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
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 38.5 BIRD 50. 5-13-98
LAT -28.3 LONG 44.8

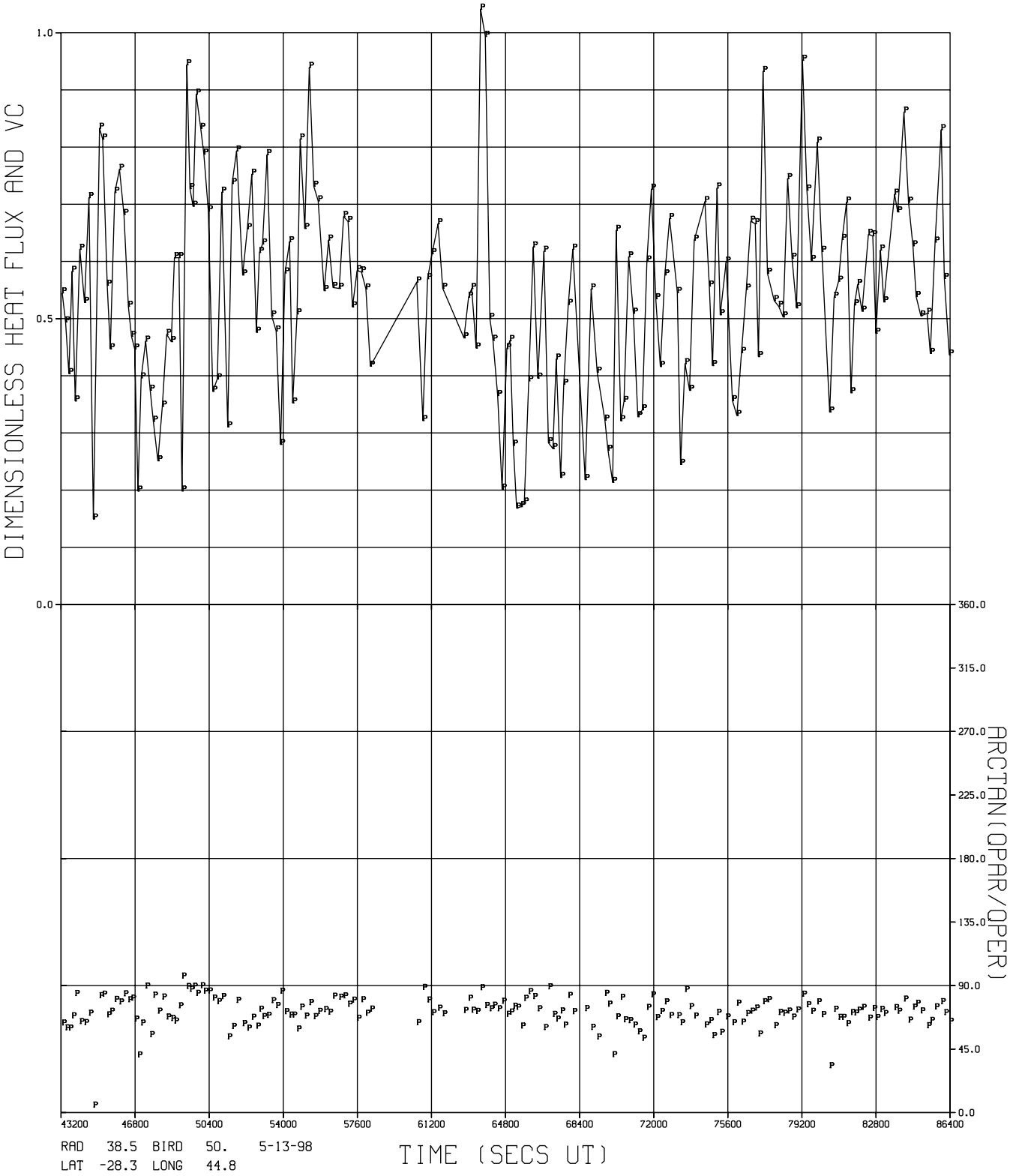

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 38.5 BIRD 50. 5-13-98
LAT -28.3 LONG 44.8


TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 38.5 BIRD 50. 5-13-98
LAT -28.3 LONG 44.8

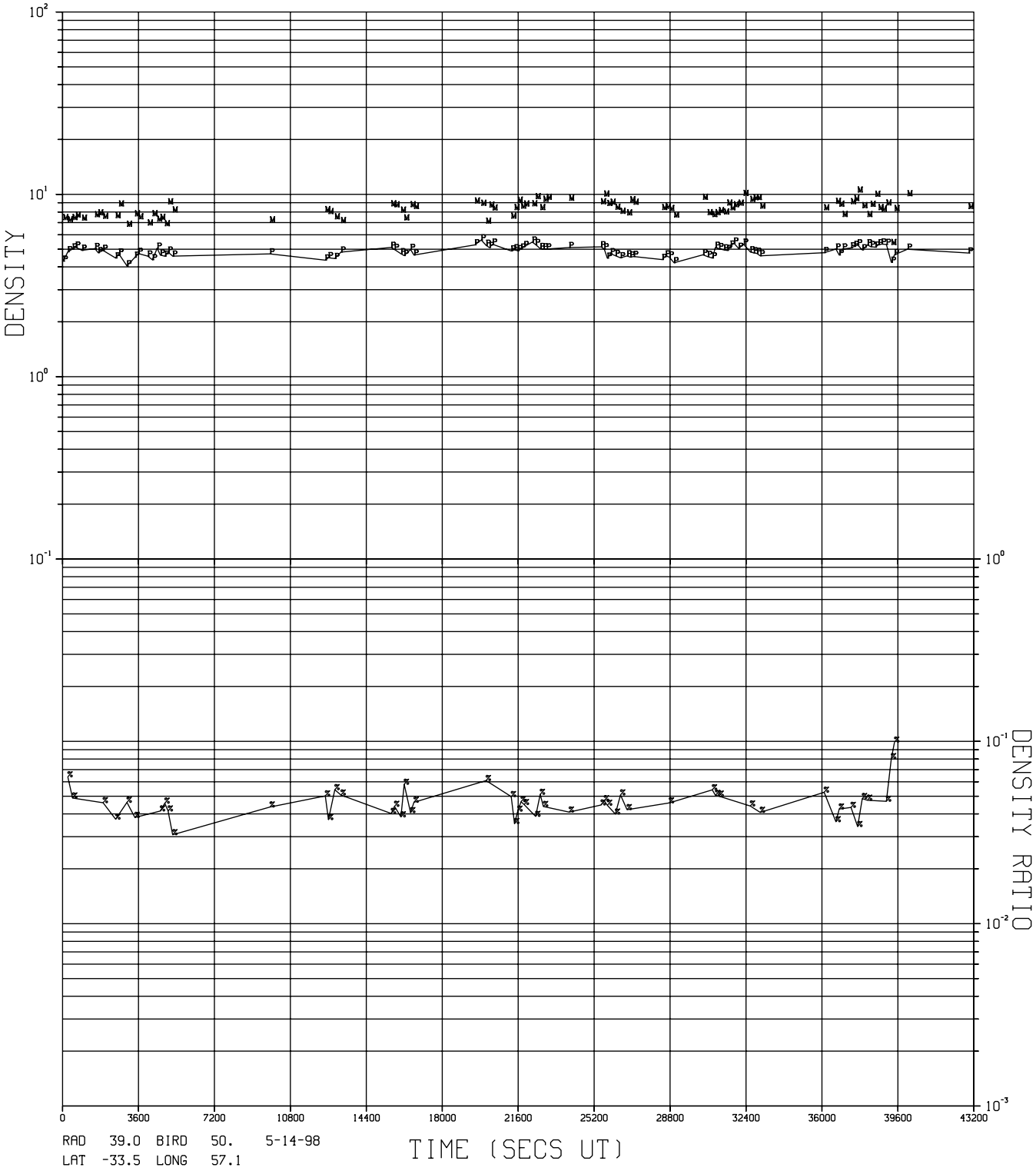

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 38.5 BIRD 50. 5-13-98
LAT -28.3 LONG 44.8

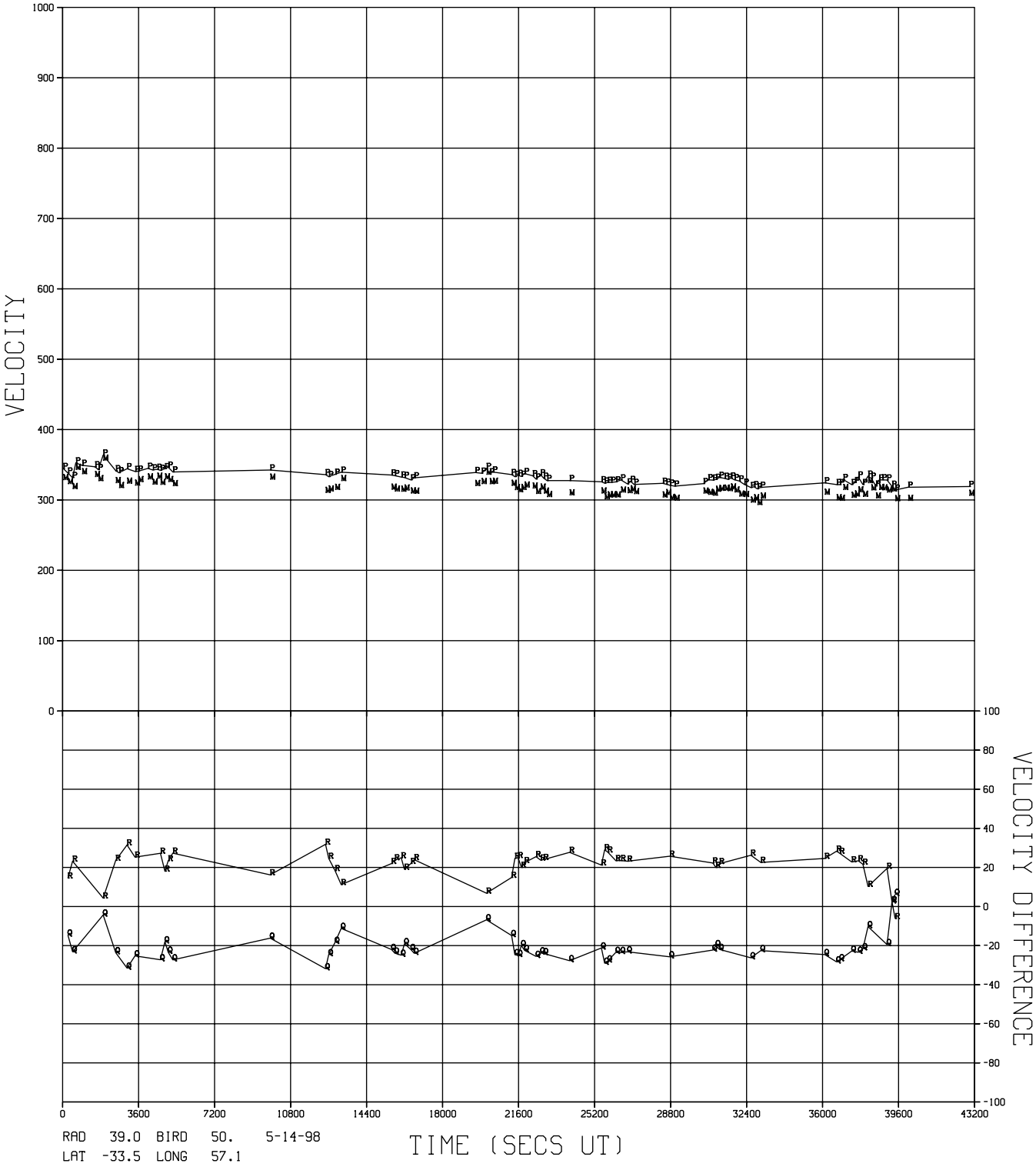


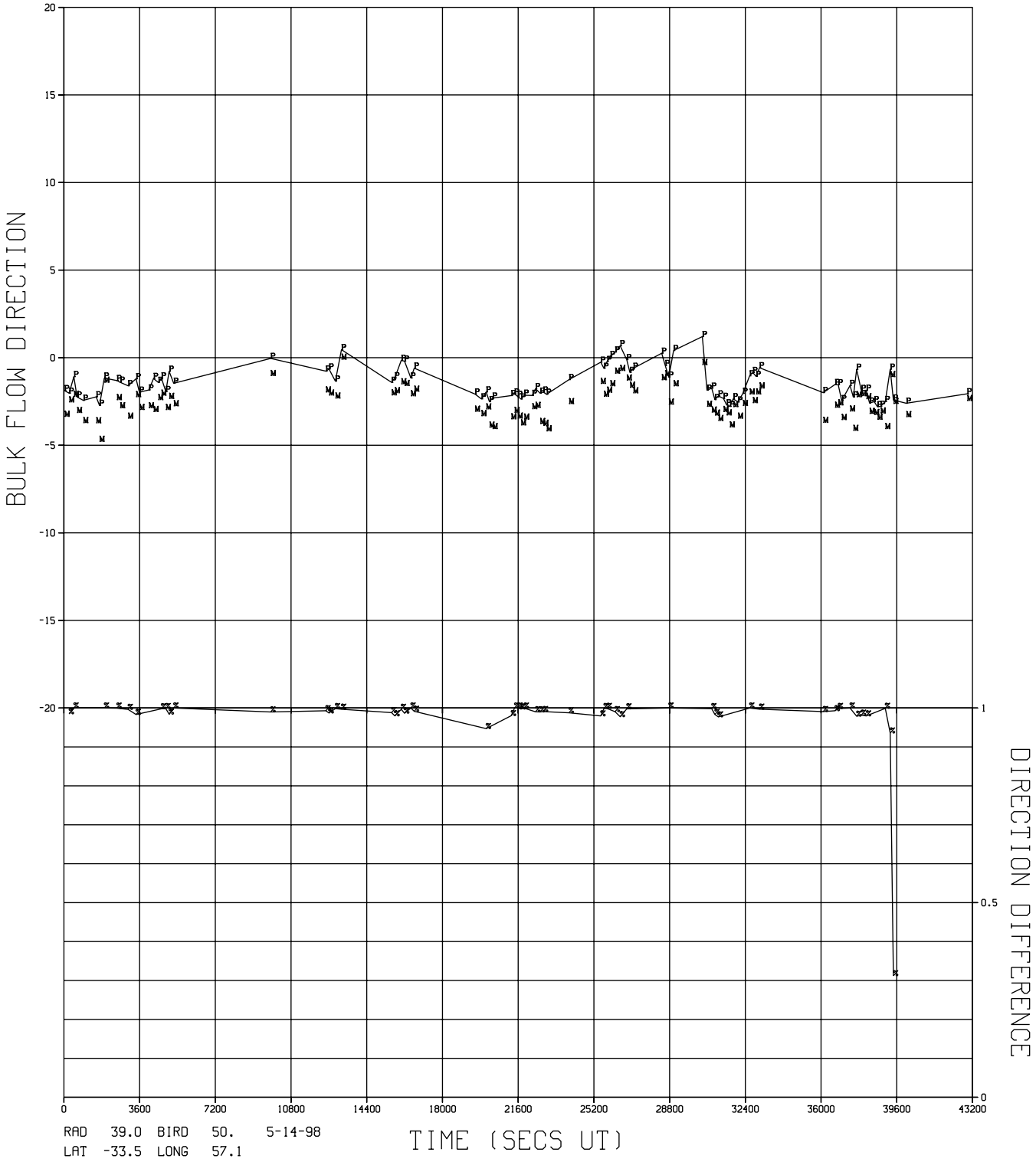
RAD 38.5 BIRD 50. 5-13-98
LAT -28.3 LONG 44.8

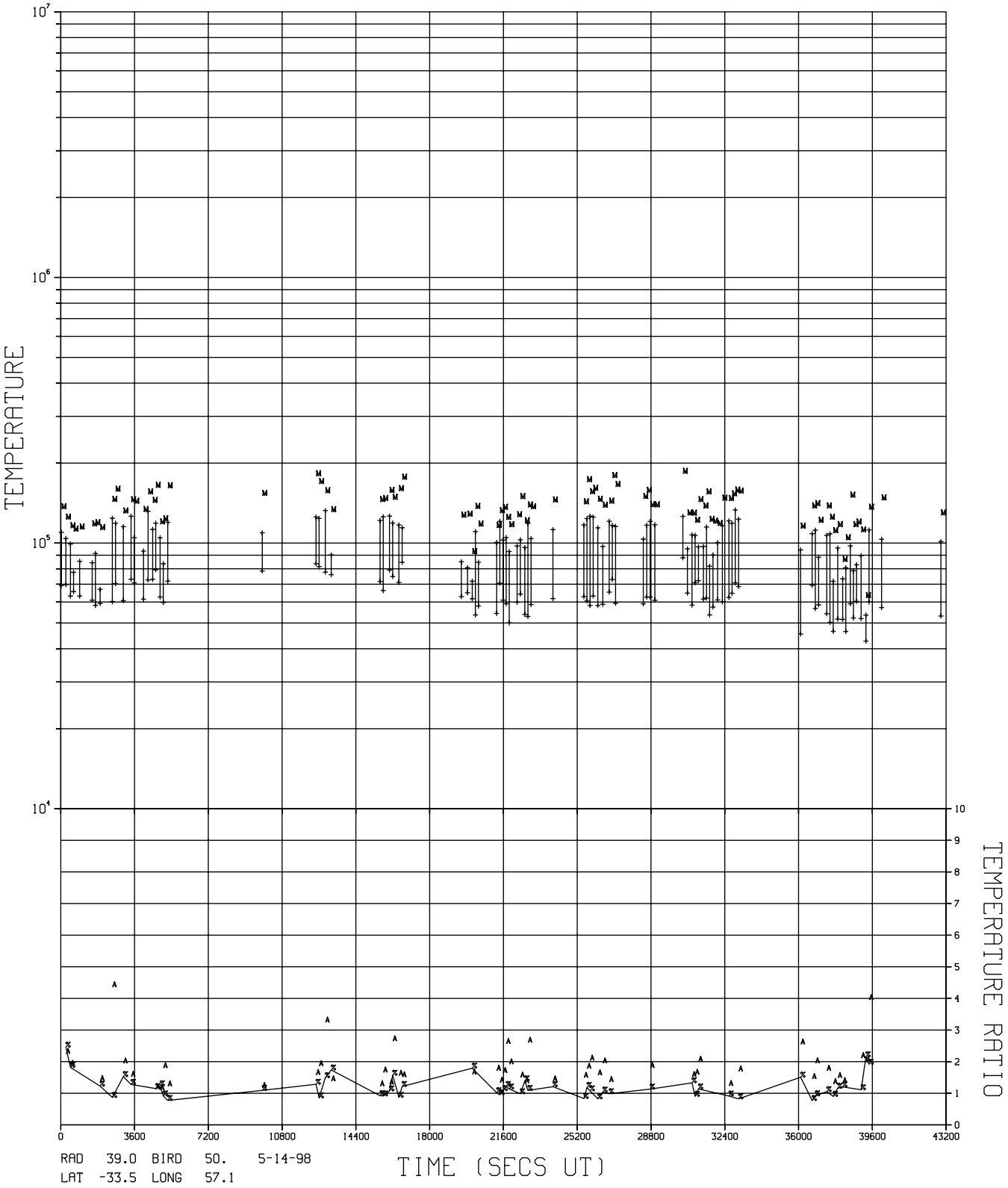


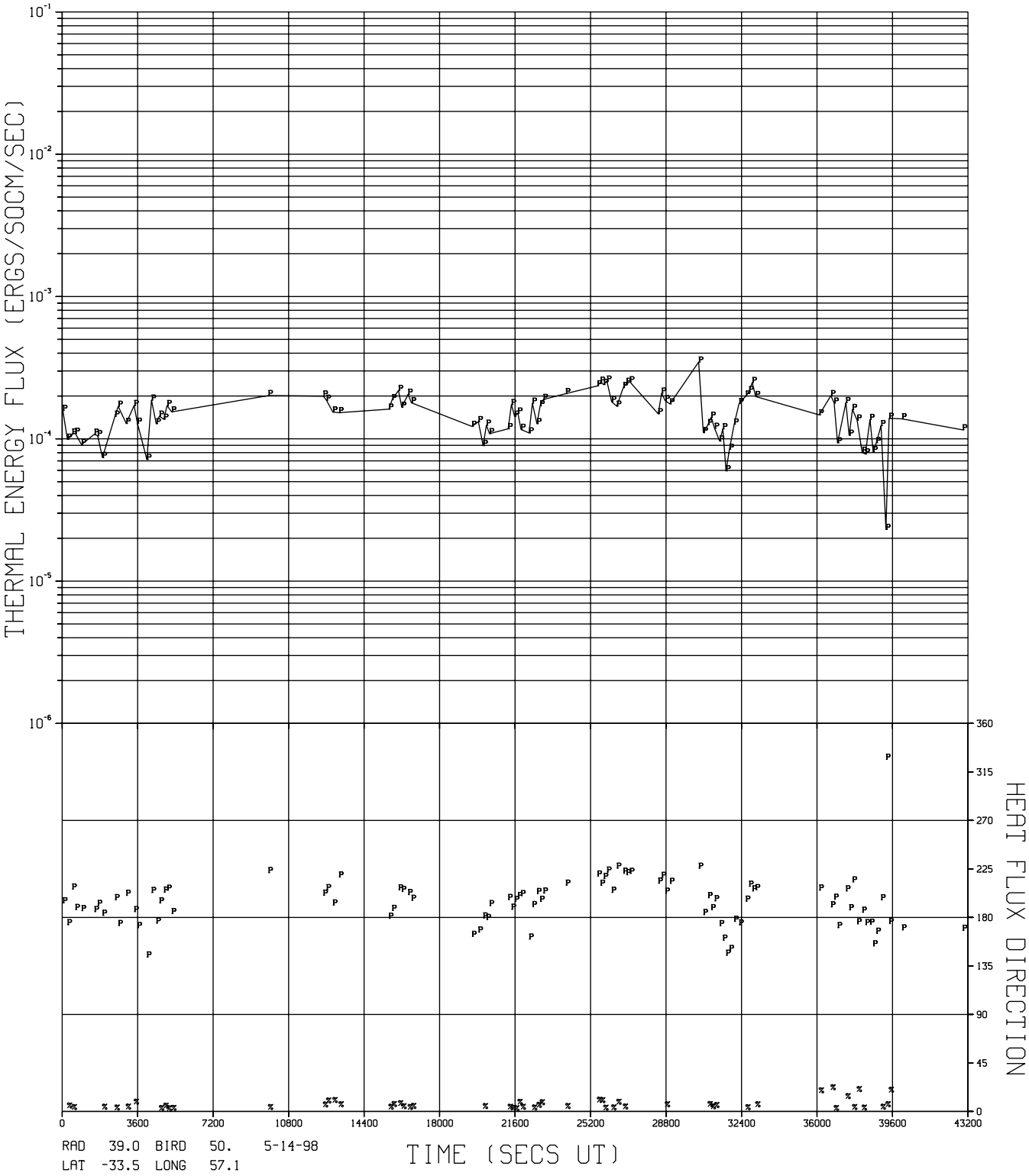
RAD 38.5 BIRD 50. 5-13-98
LAT -28.3 LONG 44.8

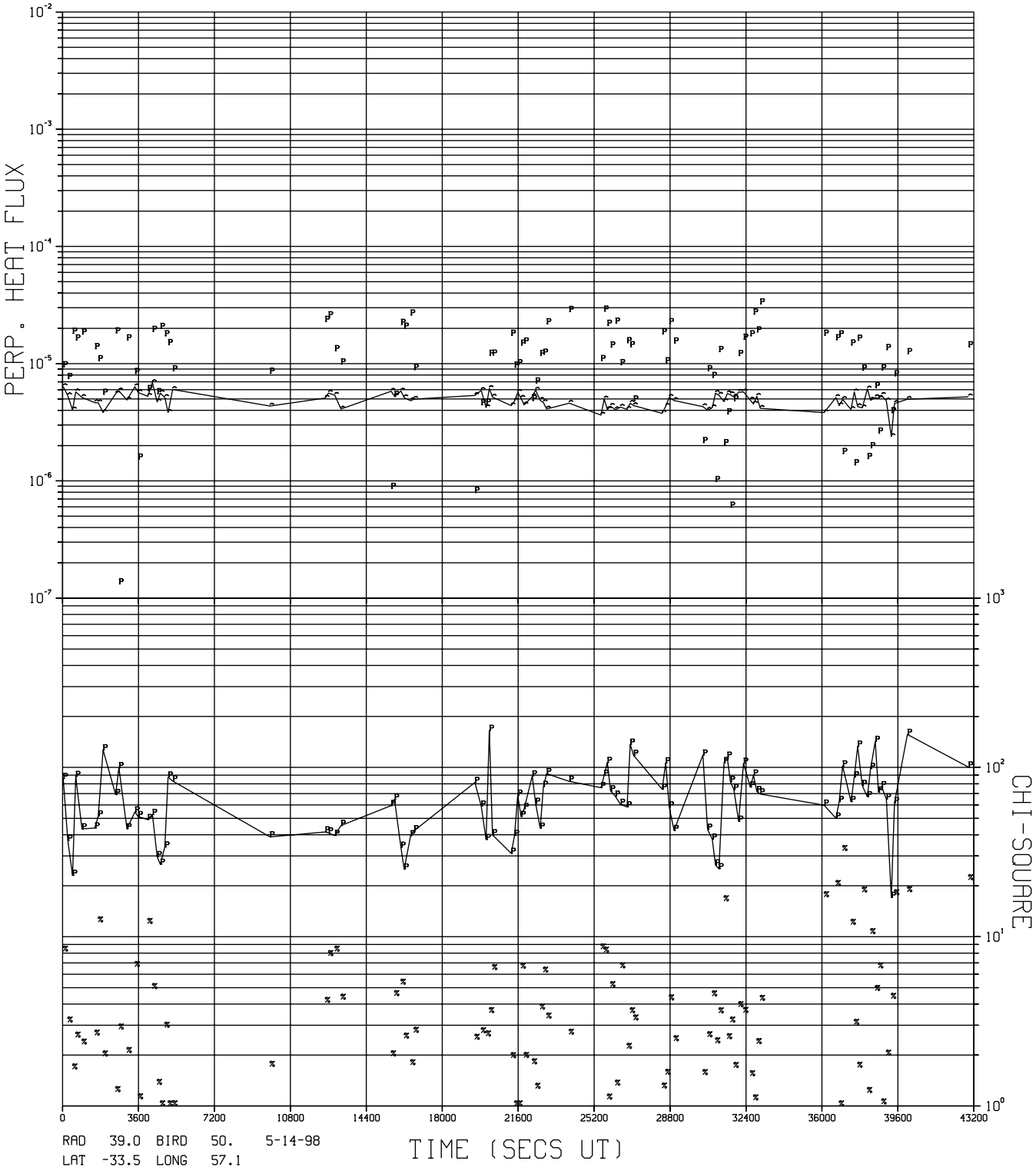

DENSITY
DENSITY RATIO
TIME (SECS UT)
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 39.0 BIRD 50. 5-14-98
LAT -33.5 LONG 57.1

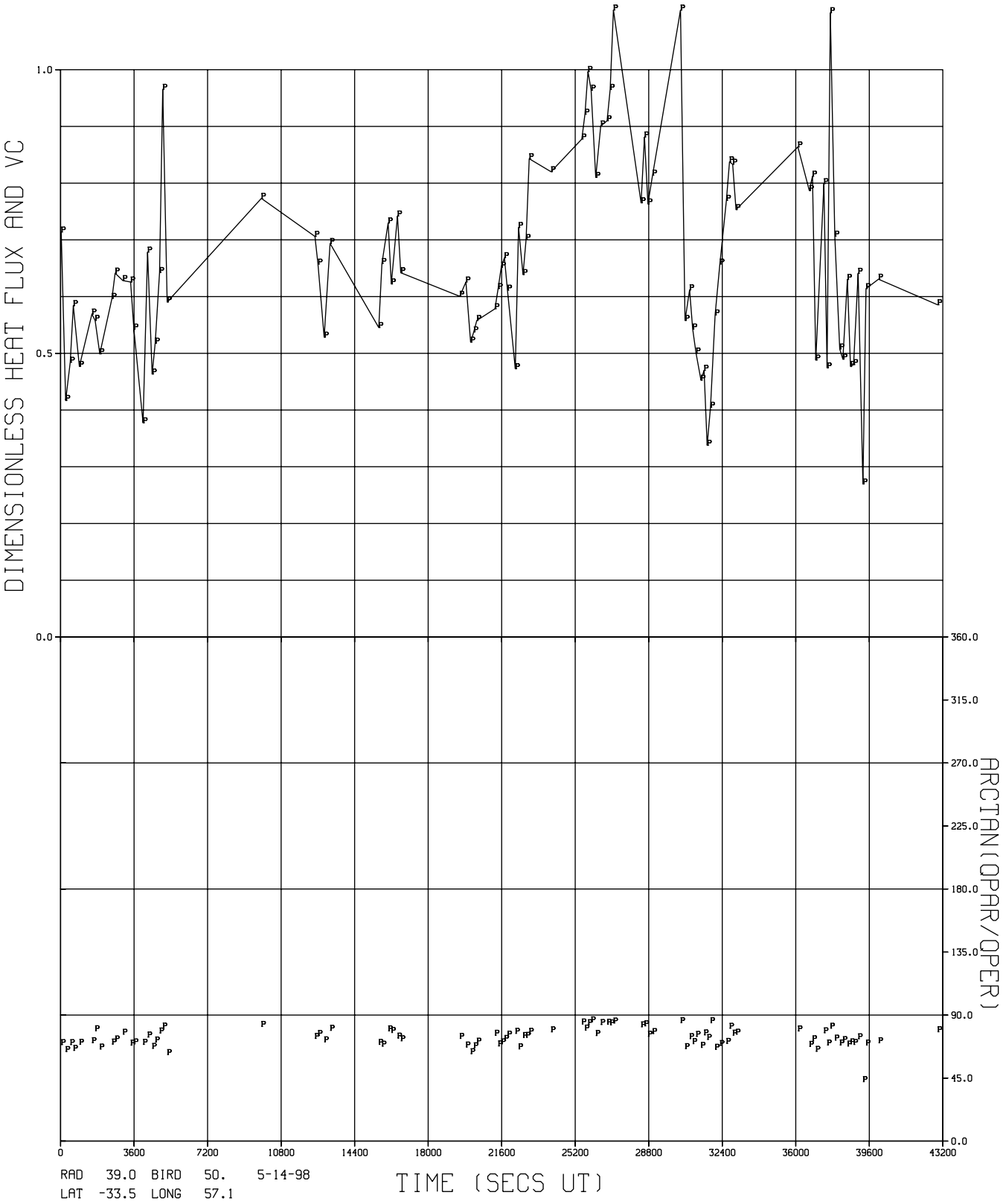

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 39.0 BIRD 50. 5-14-98
LAT -33.5 LONG 57.1

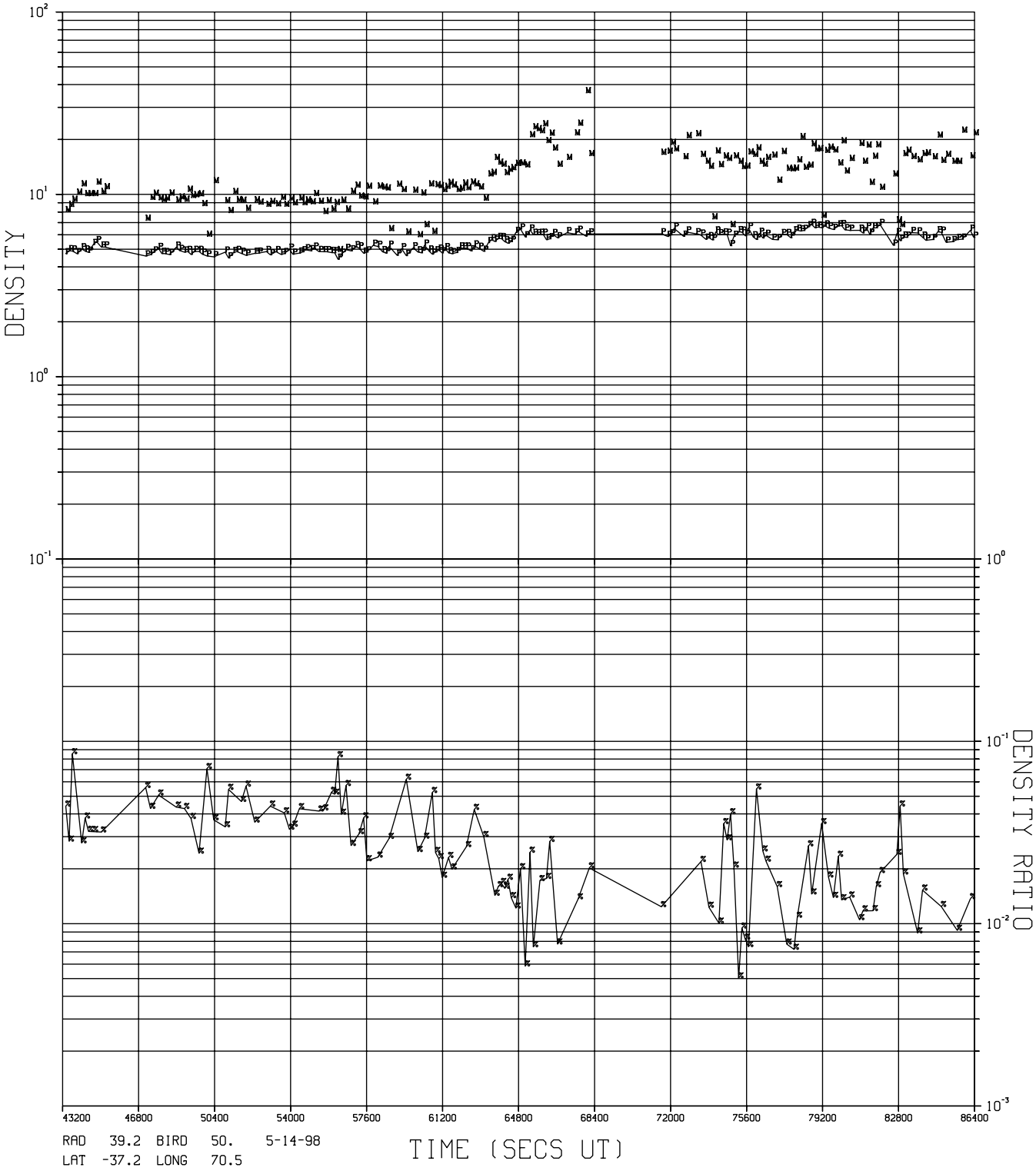

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 39.0 BIRD 50. 5-14-98
LAT -33.5 LONG 57.1

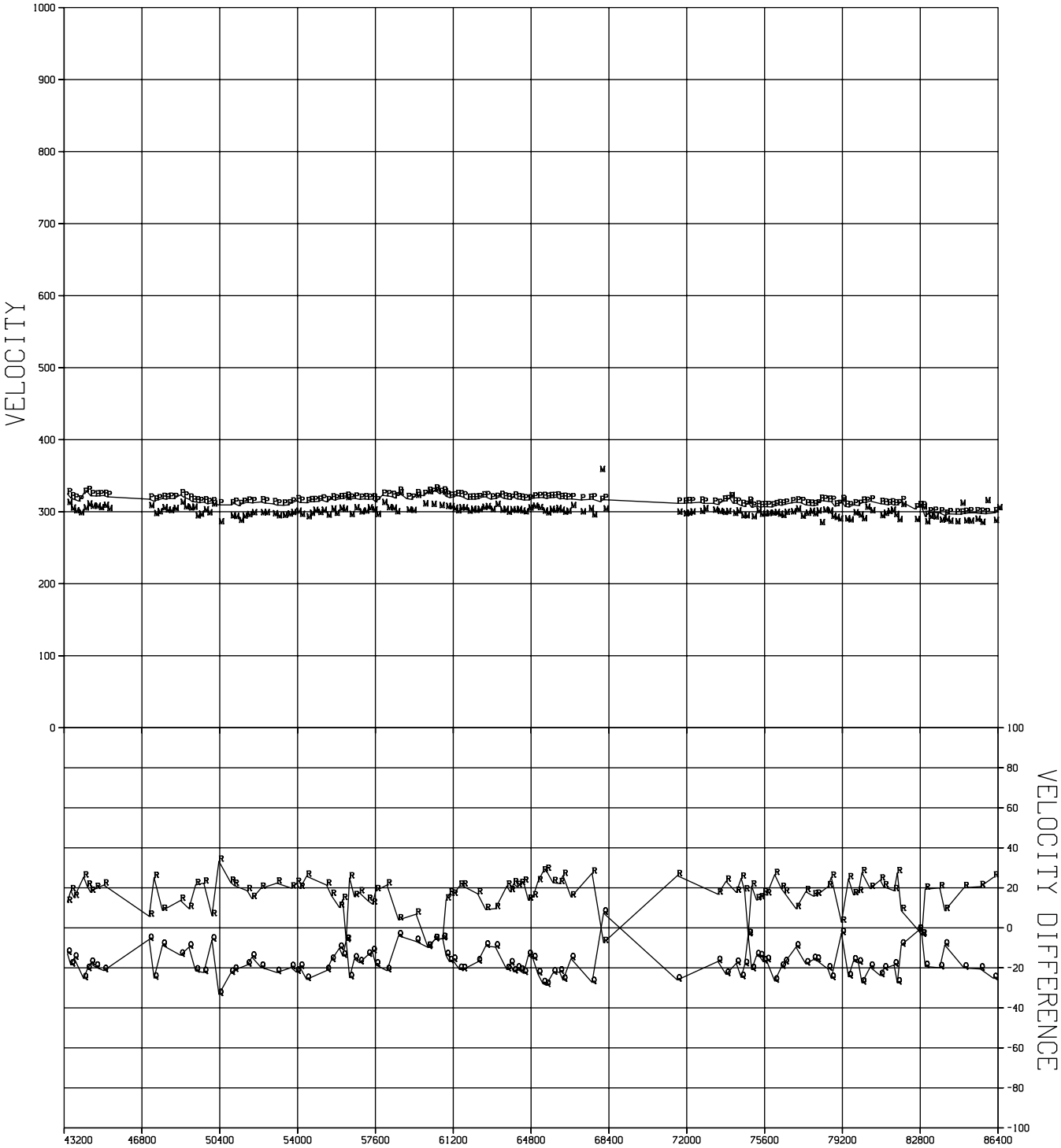

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 39.0 BIRD 50. 5-14-98
LAT -33.5 LONG 57.1


THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 39.0 BIRD 50. 5-14-98
LAT -33.5 LONG 57.1

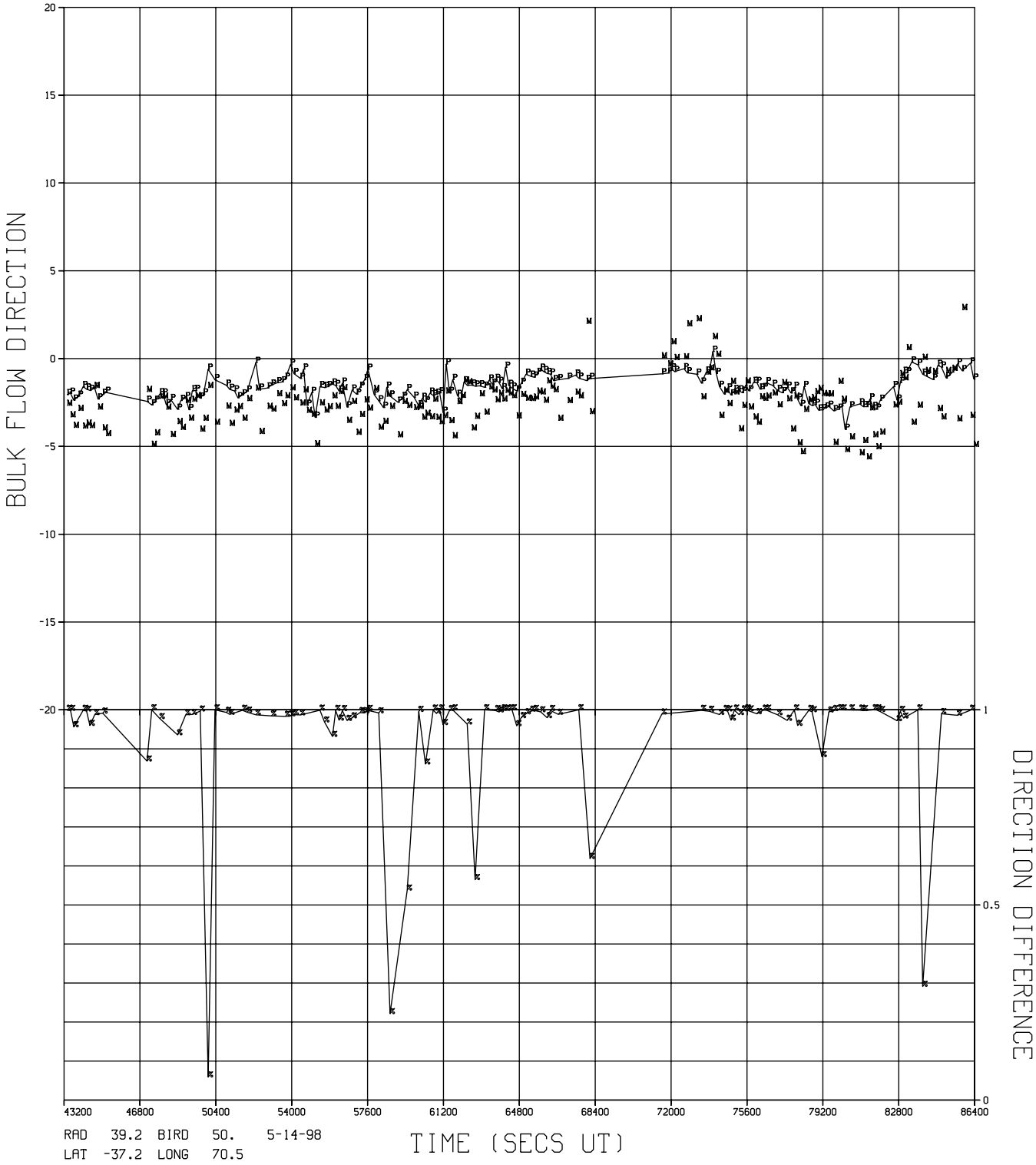

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 39.0 BIRD 50. 5-14-98
LAT -33.5 LONG 57.1

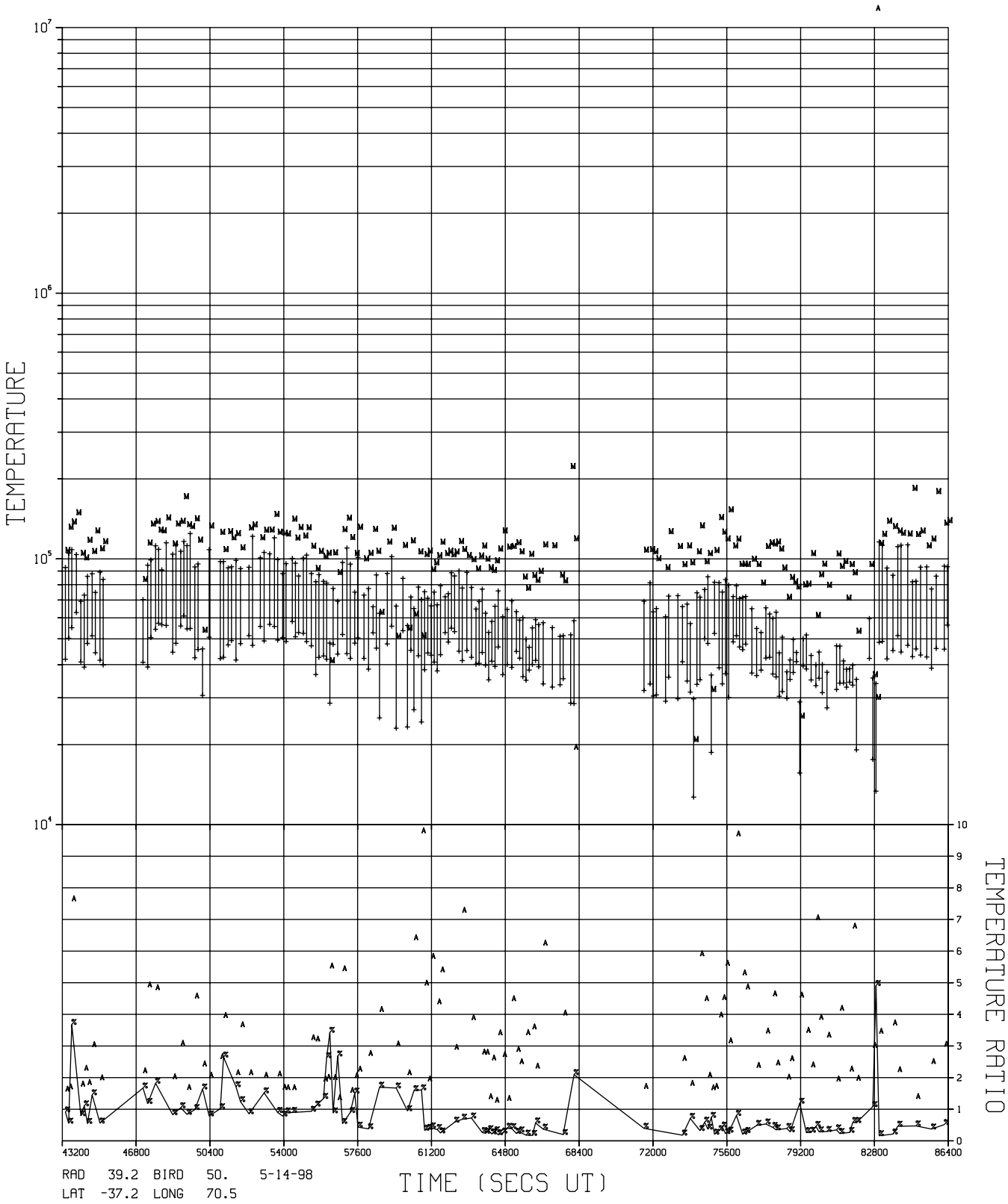

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 39.0 BIRD 50. 5-14-98
LAT -33.5 LONG 57.1

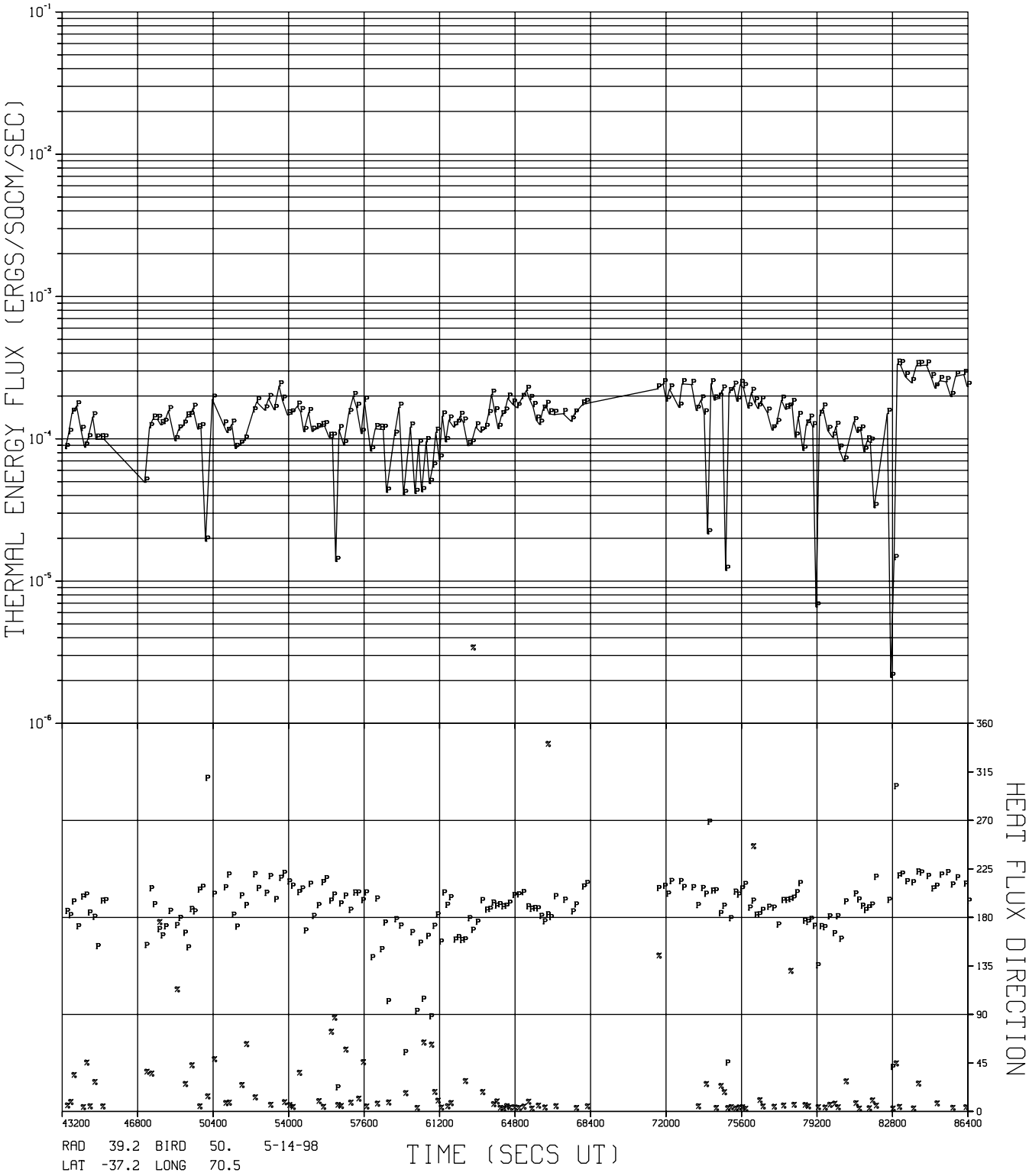

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 39.2 BIRD 50. 5-14-98
LAT -37.2 LONG 70.5

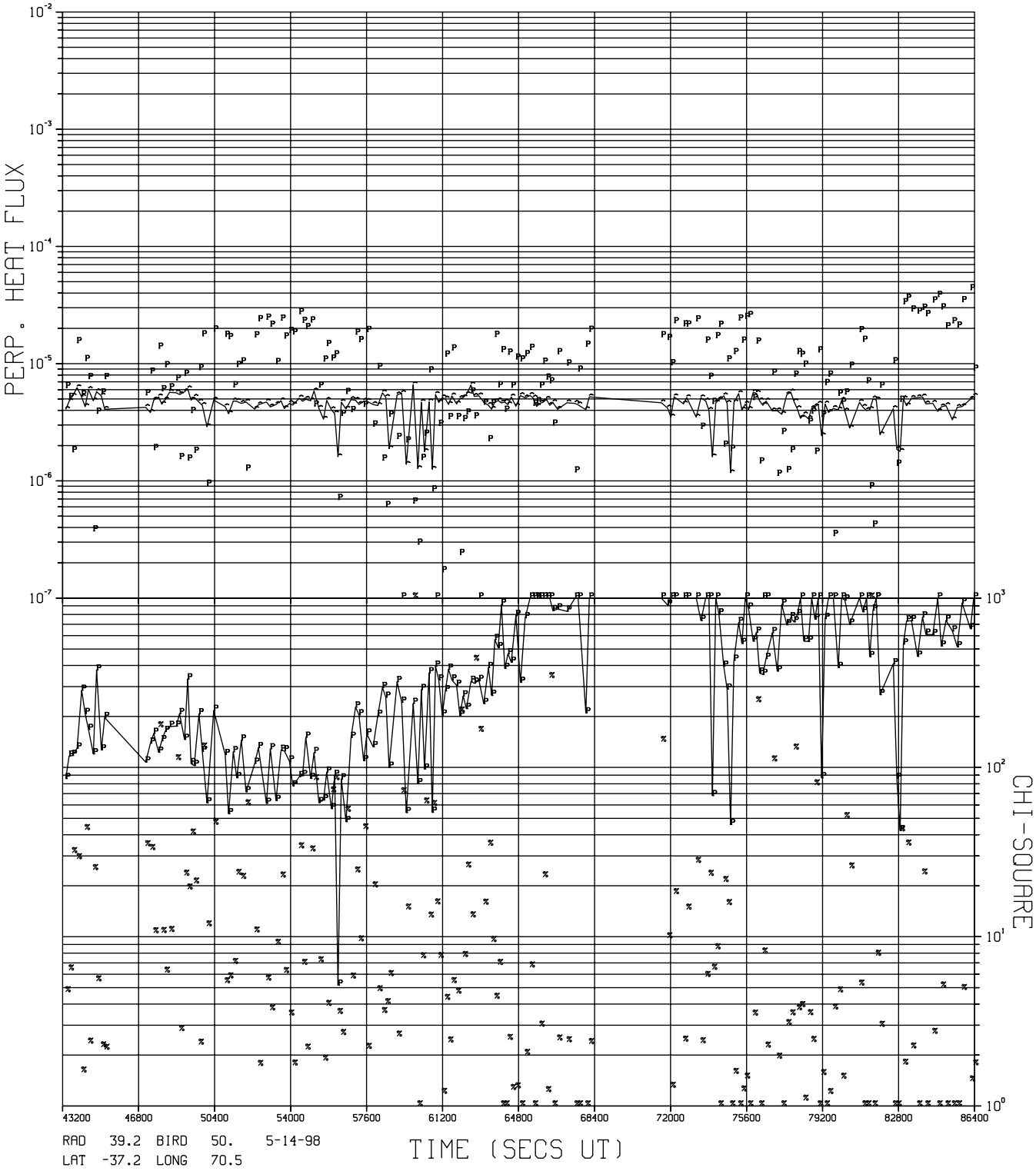


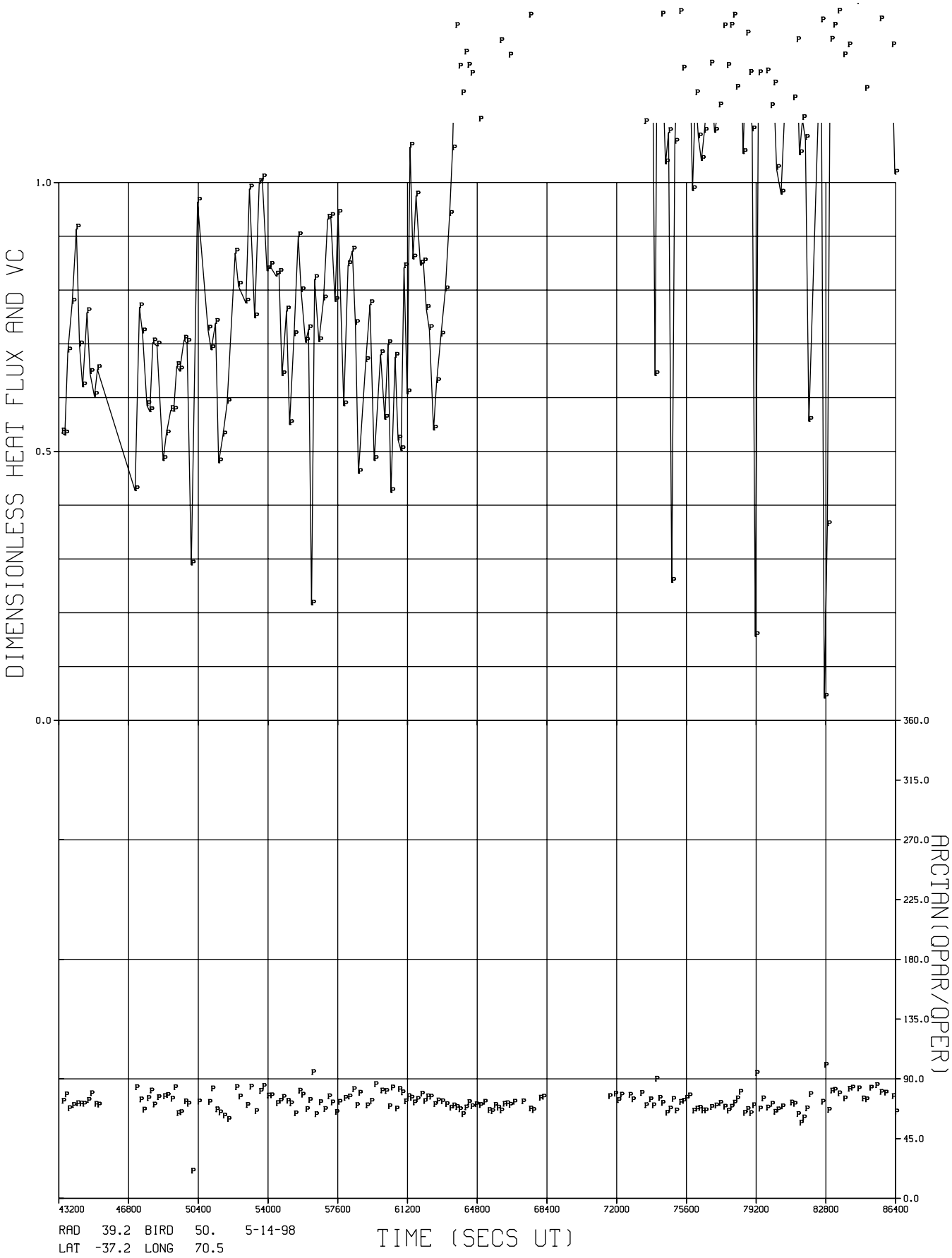
RAD 39.2 BIRD 50. 5-14-98
LAT -37.2 LONG 70.5

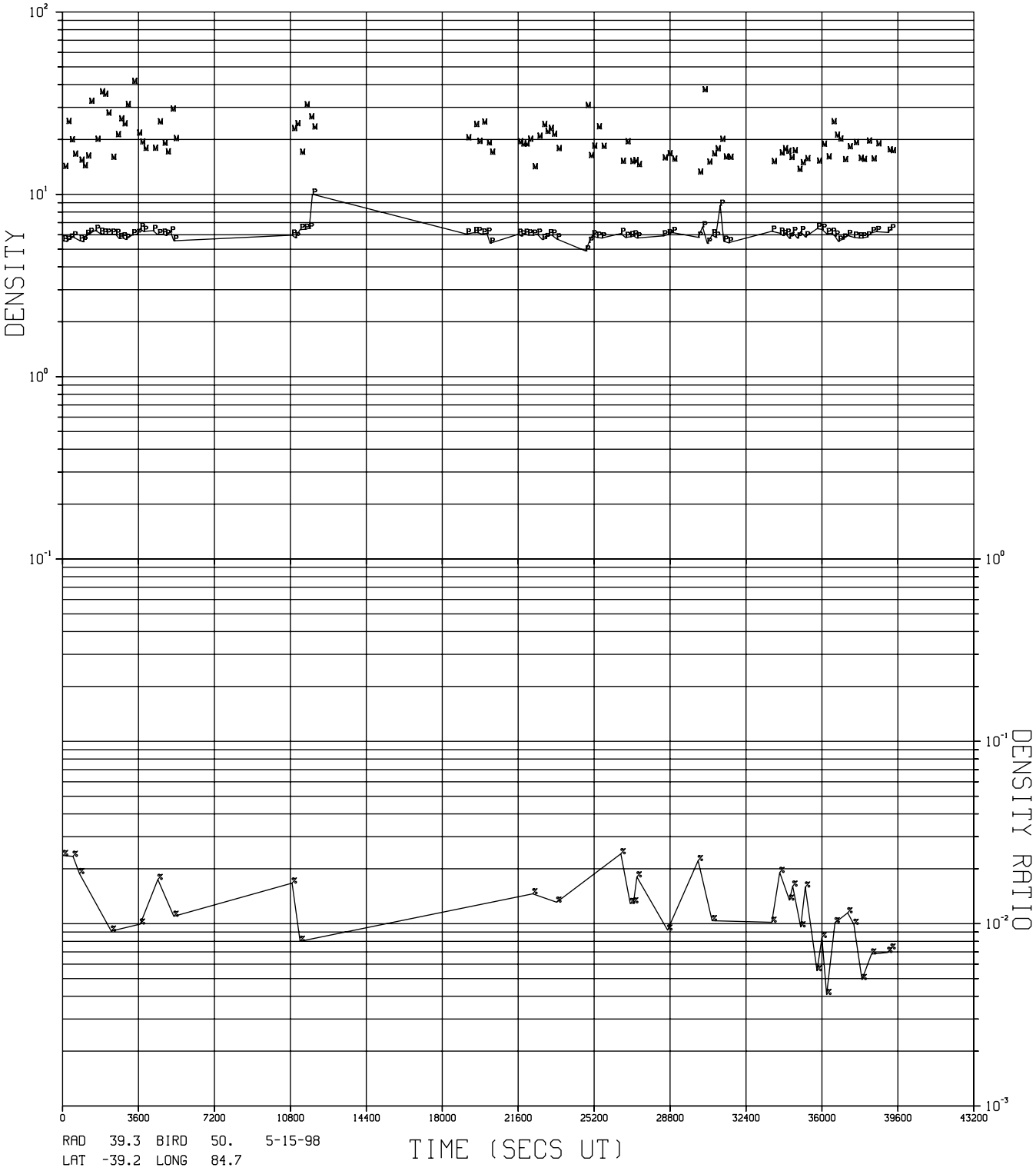

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 39.2 BIRD 50. 5-14-98
LAT -37.2 LONG 70.5

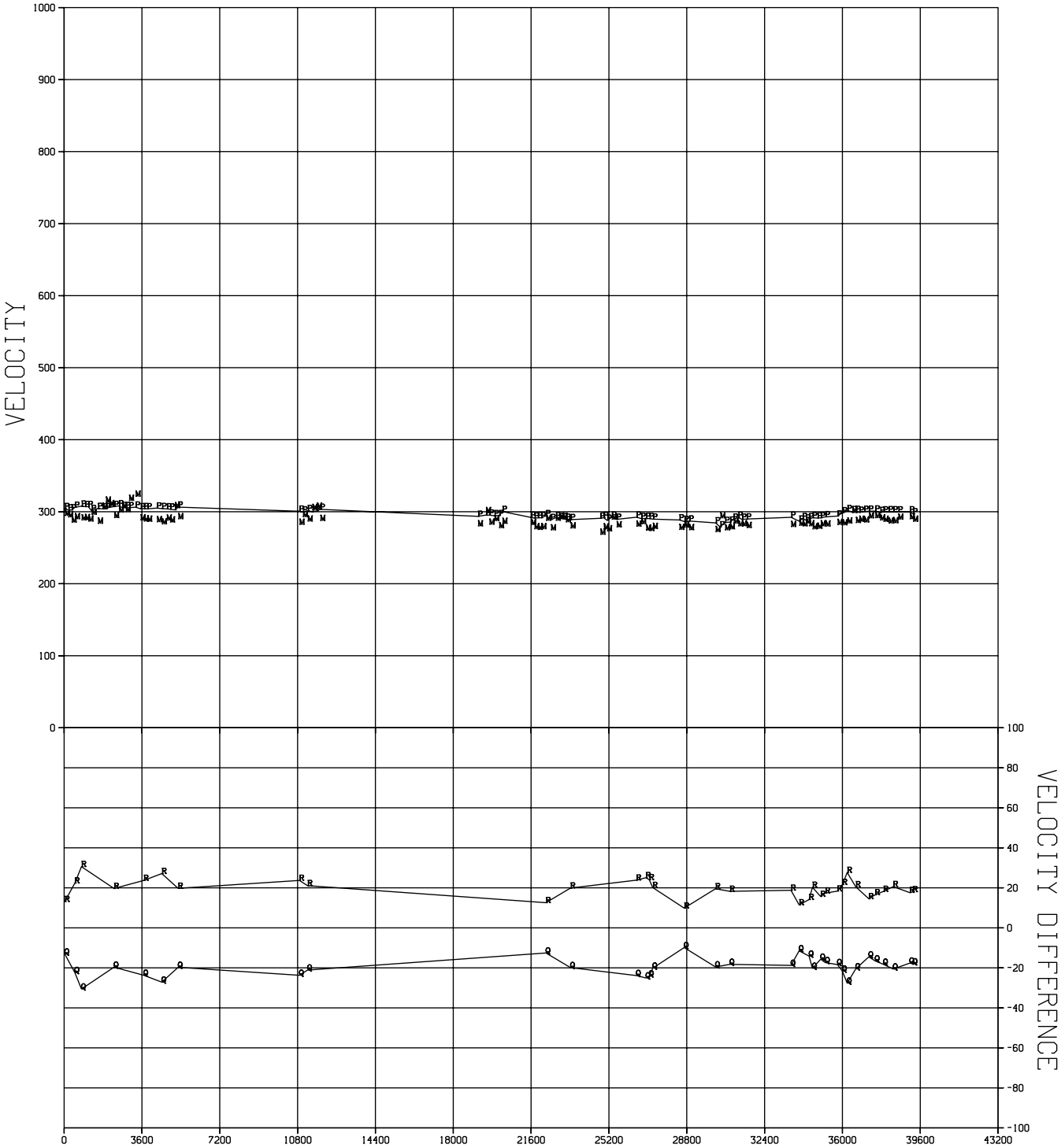

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 39.2 BIRD 50. 5-14-98
LAT -37.2 LONG 70.5


THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 39.2 BIRD 50. 5-14-98
LAT -37.2 LONG 70.5

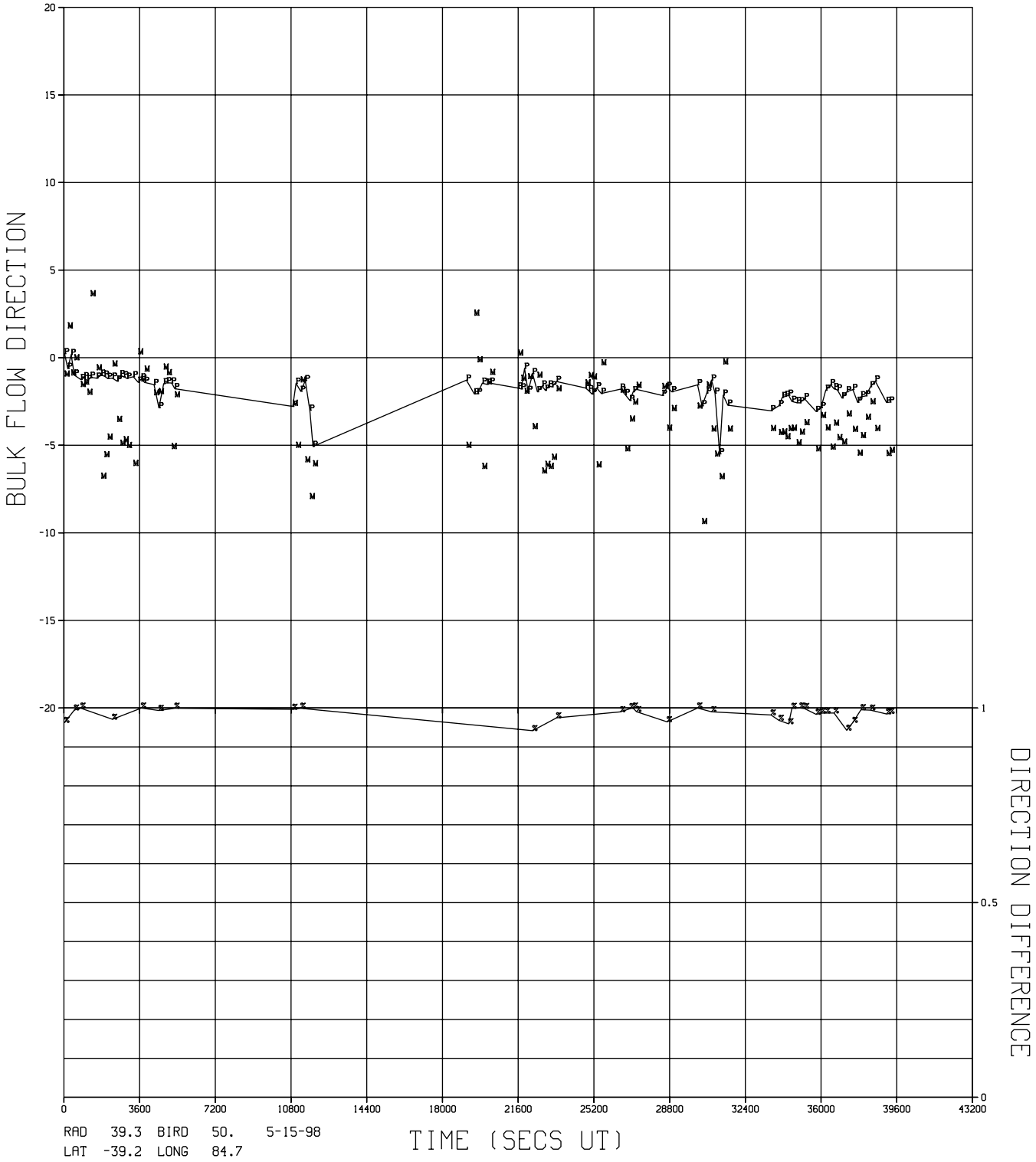

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 39.2 BIRD 50. 5-14-98
LAT -37.2 LONG 70.5

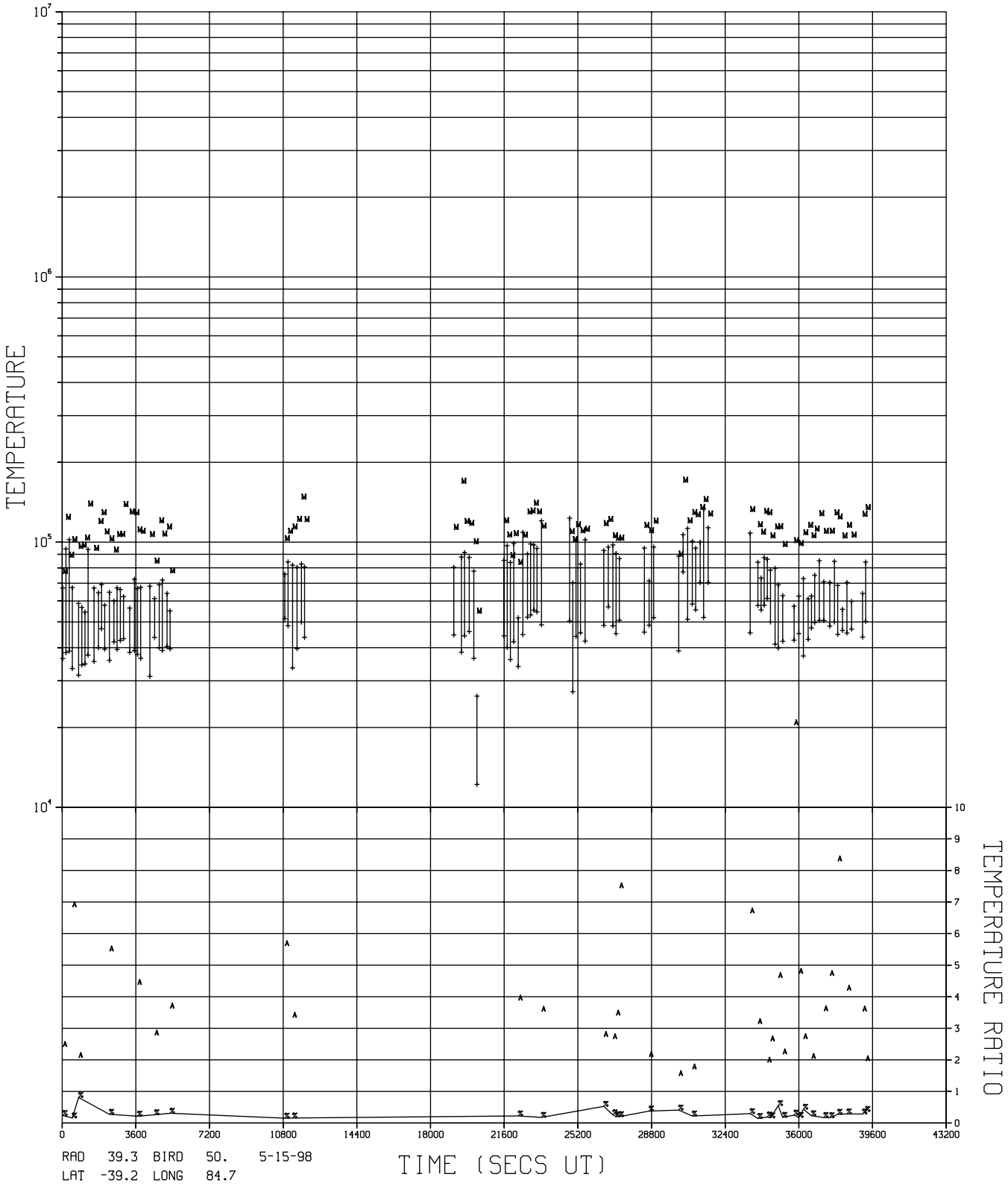

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 39.2 BIRD 50. 5-14-98
LAT -37.2 LONG 70.5

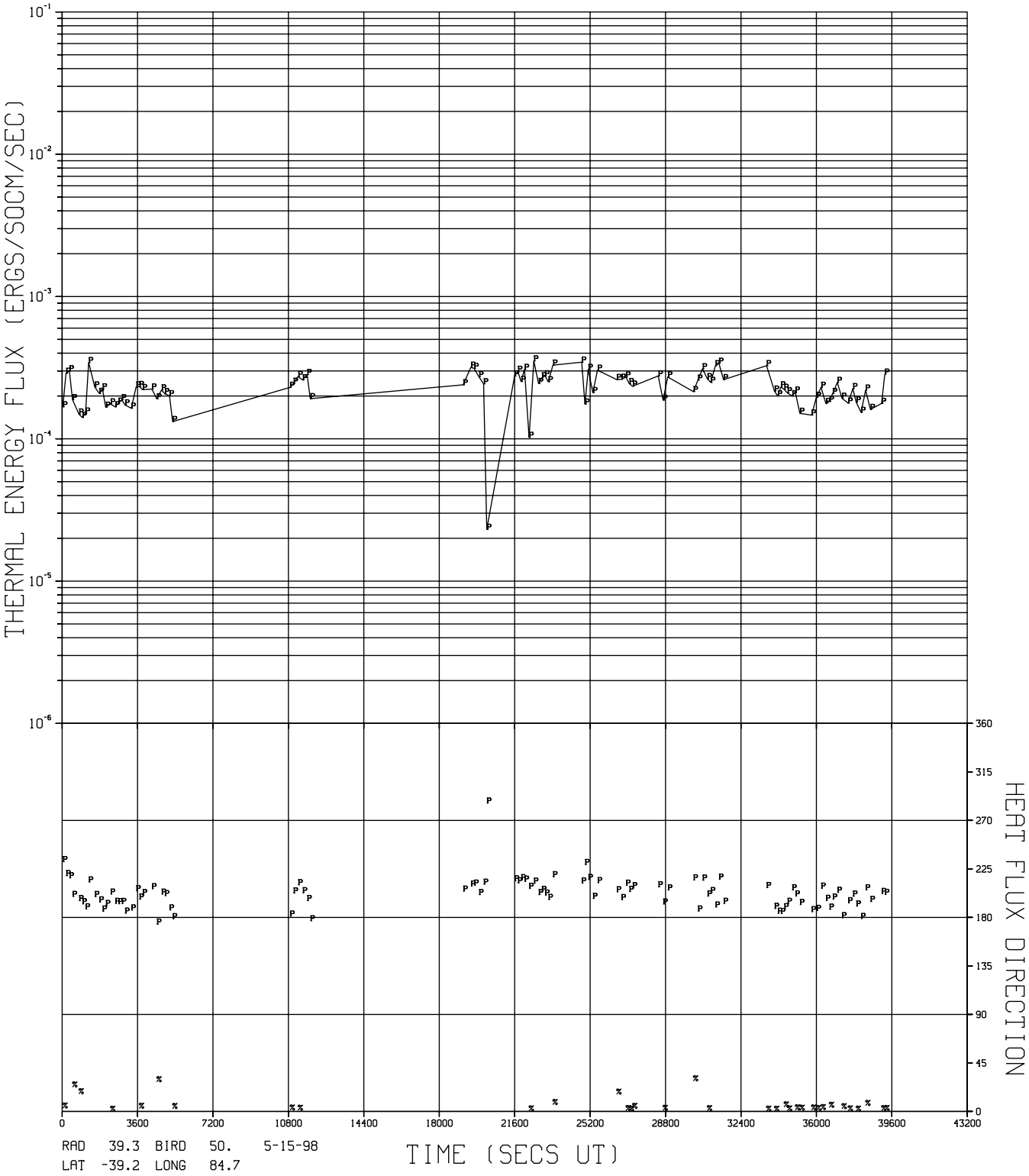

DENSITY
DENSITY RATIO
TIME (SECS UT)
RAD 39.3 BIRD 50. 5-15-98
LAT -39.2 LONG 84.7

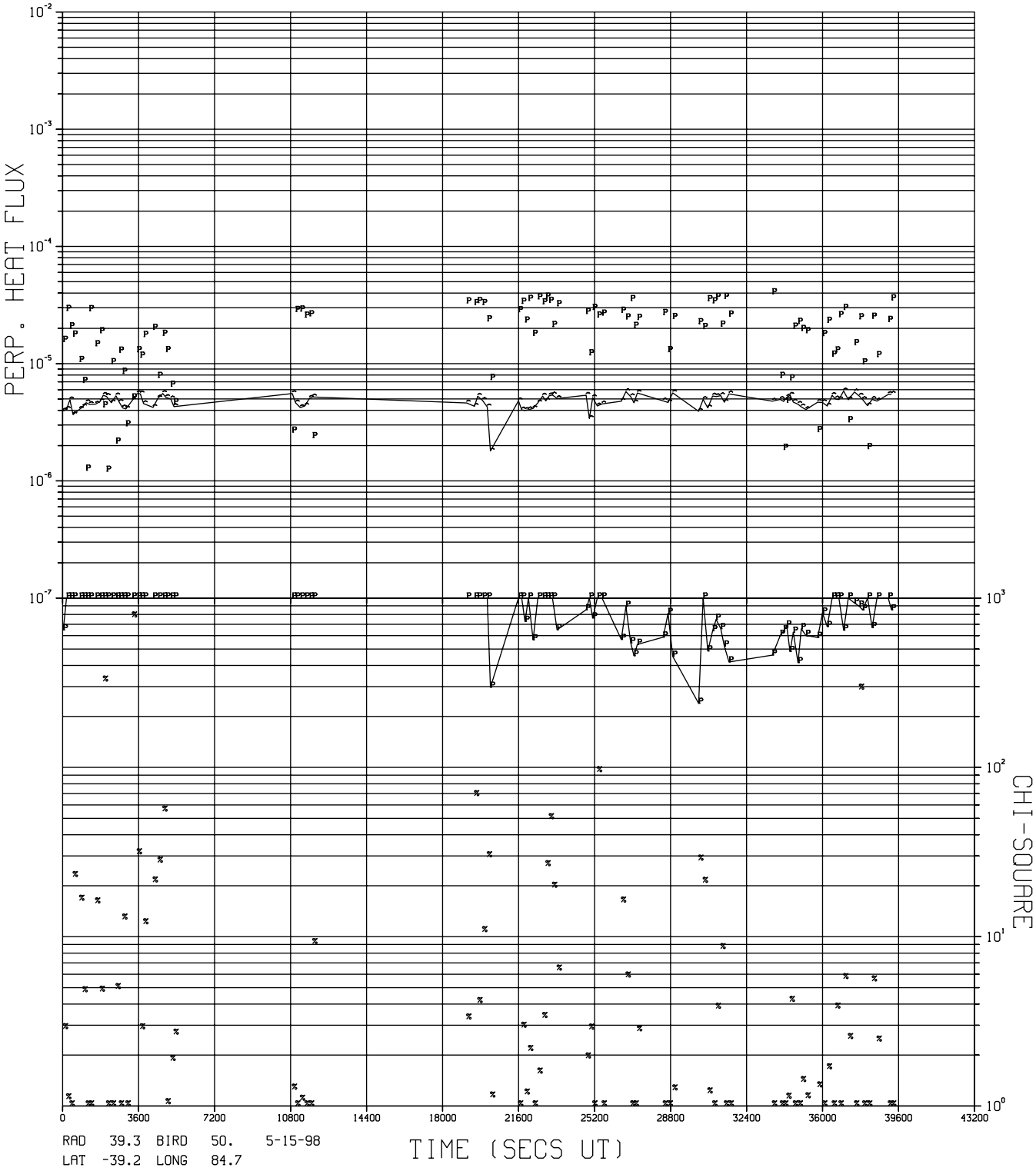


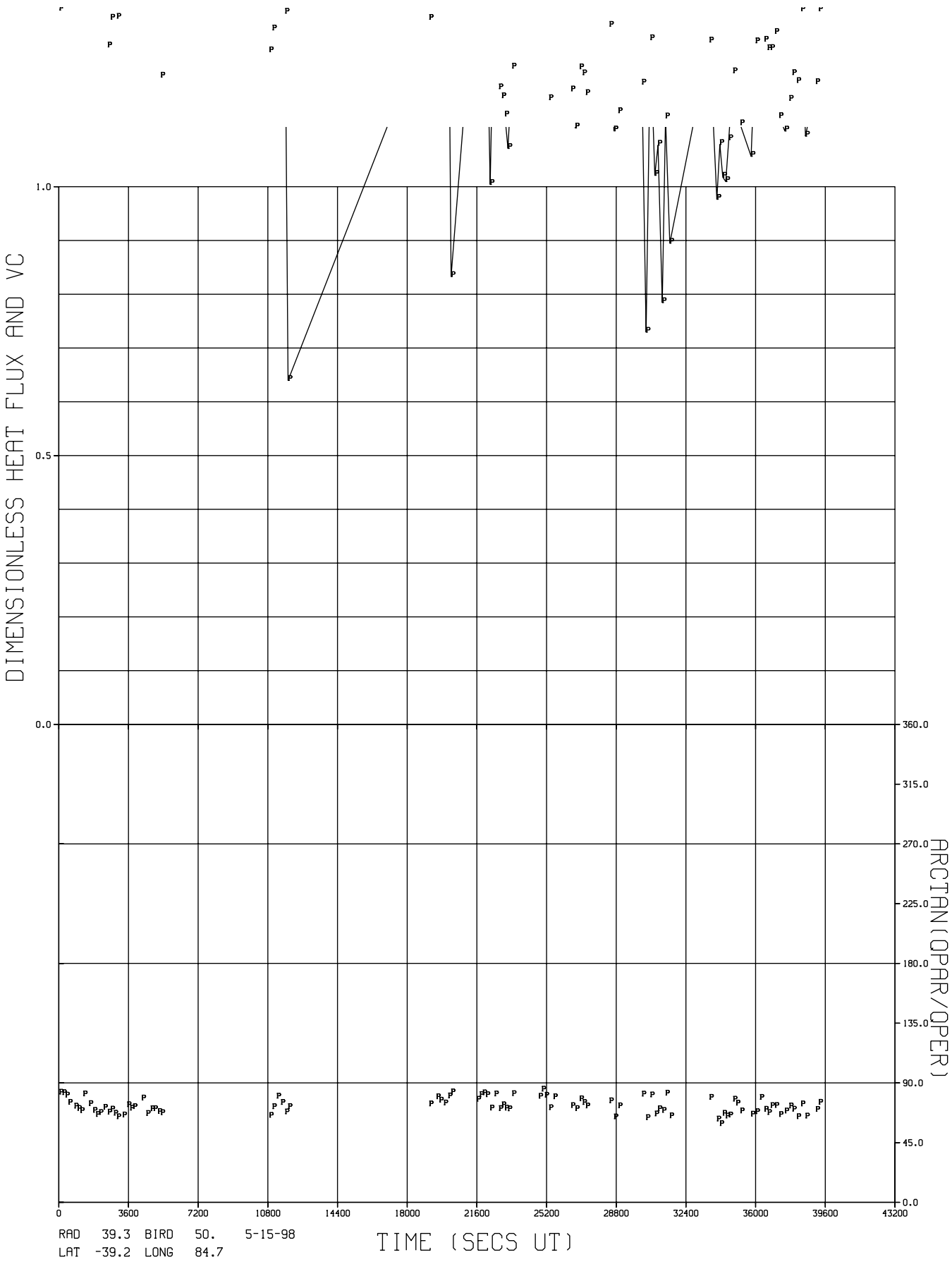
RAD 39.3 BIRD 50. 5-15-98
LAT -39.2 LONG 84.7

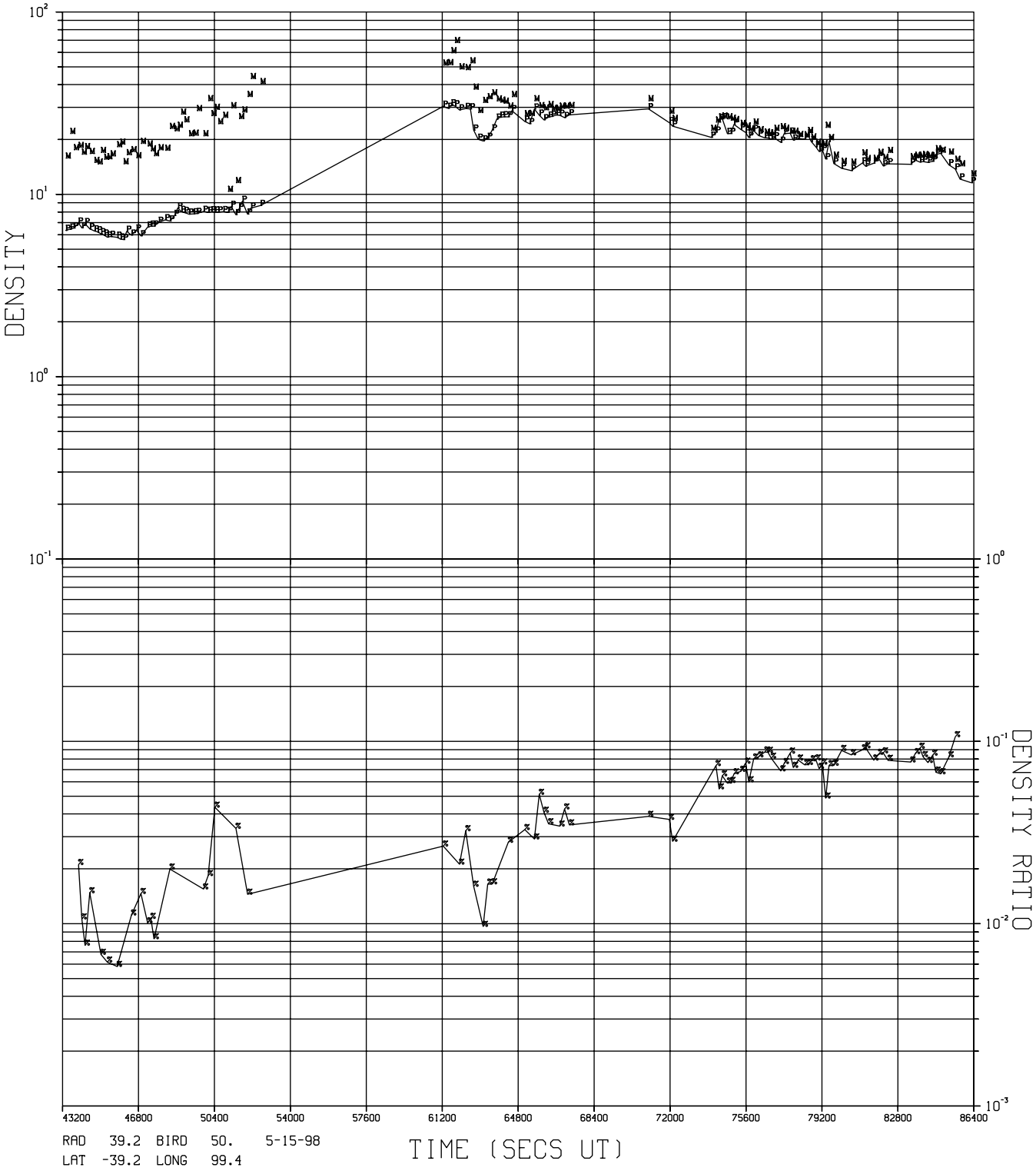

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 39.3 BIRD 50. 5-15-98
LAT -39.2 LONG 84.7

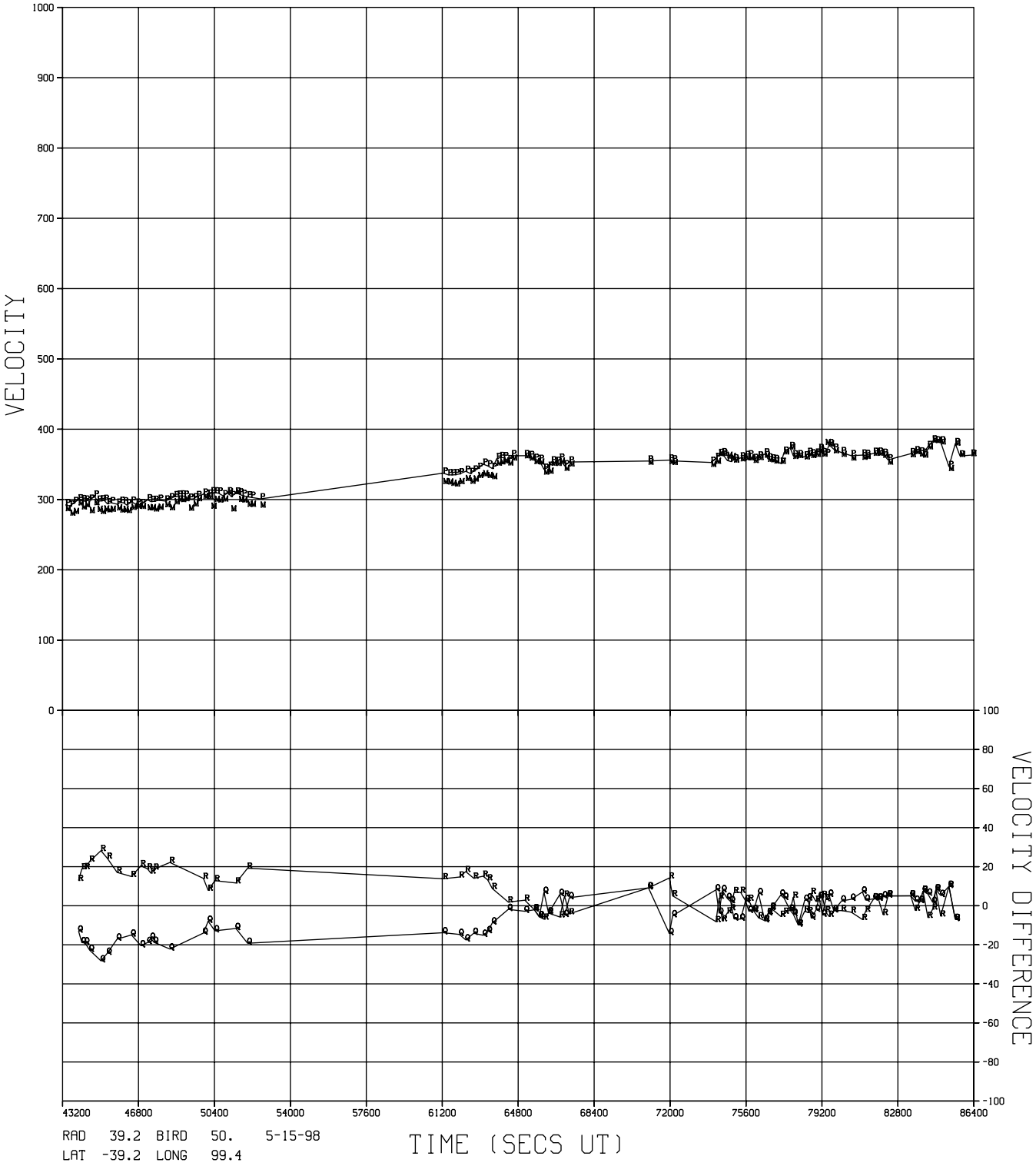

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 39.3 BIRD 50. 5-15-98
LAT -39.2 LONG 84.7

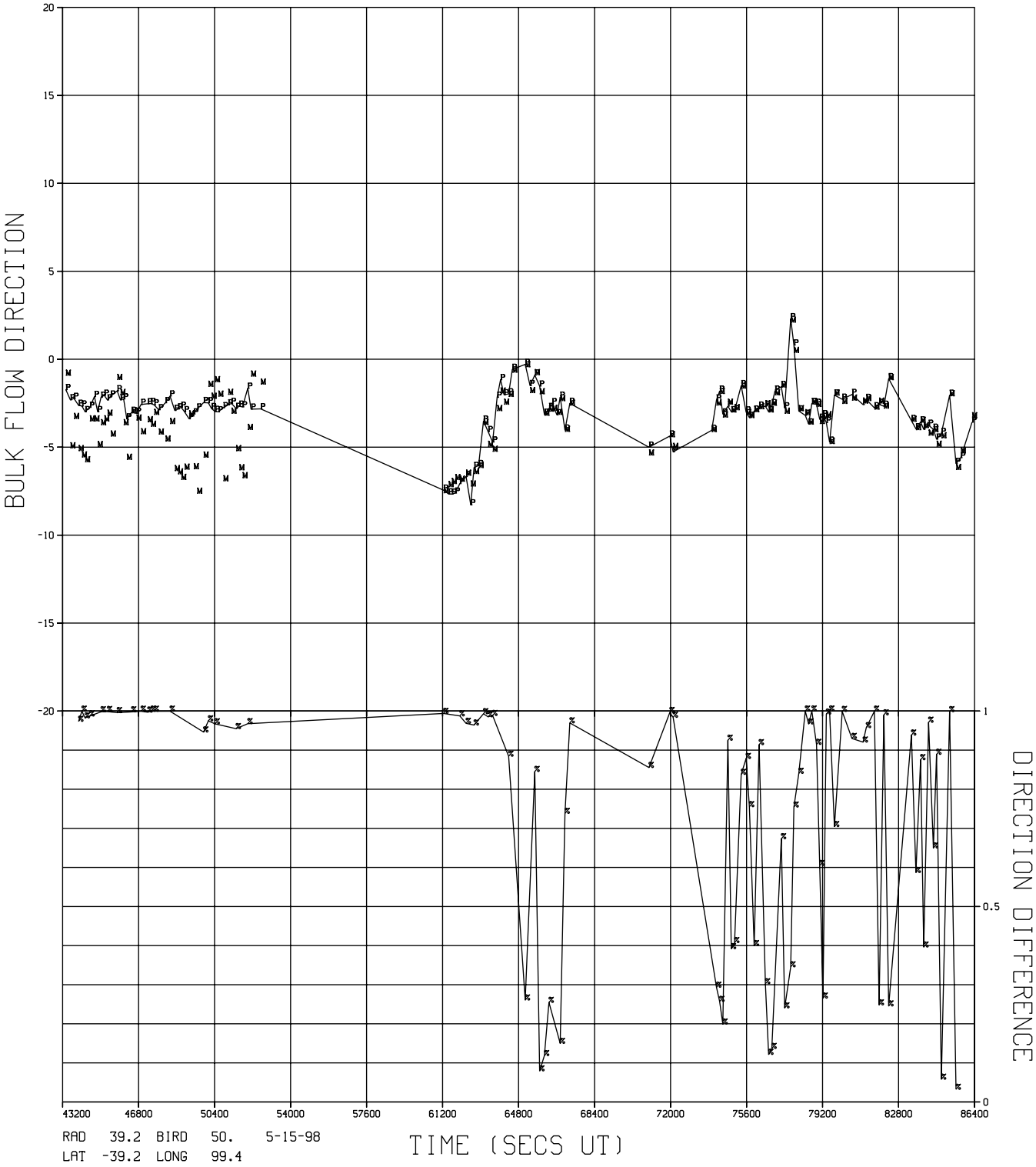

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 39.3 BIRD 50. 5-15-98
LAT -39.2 LONG 84.7

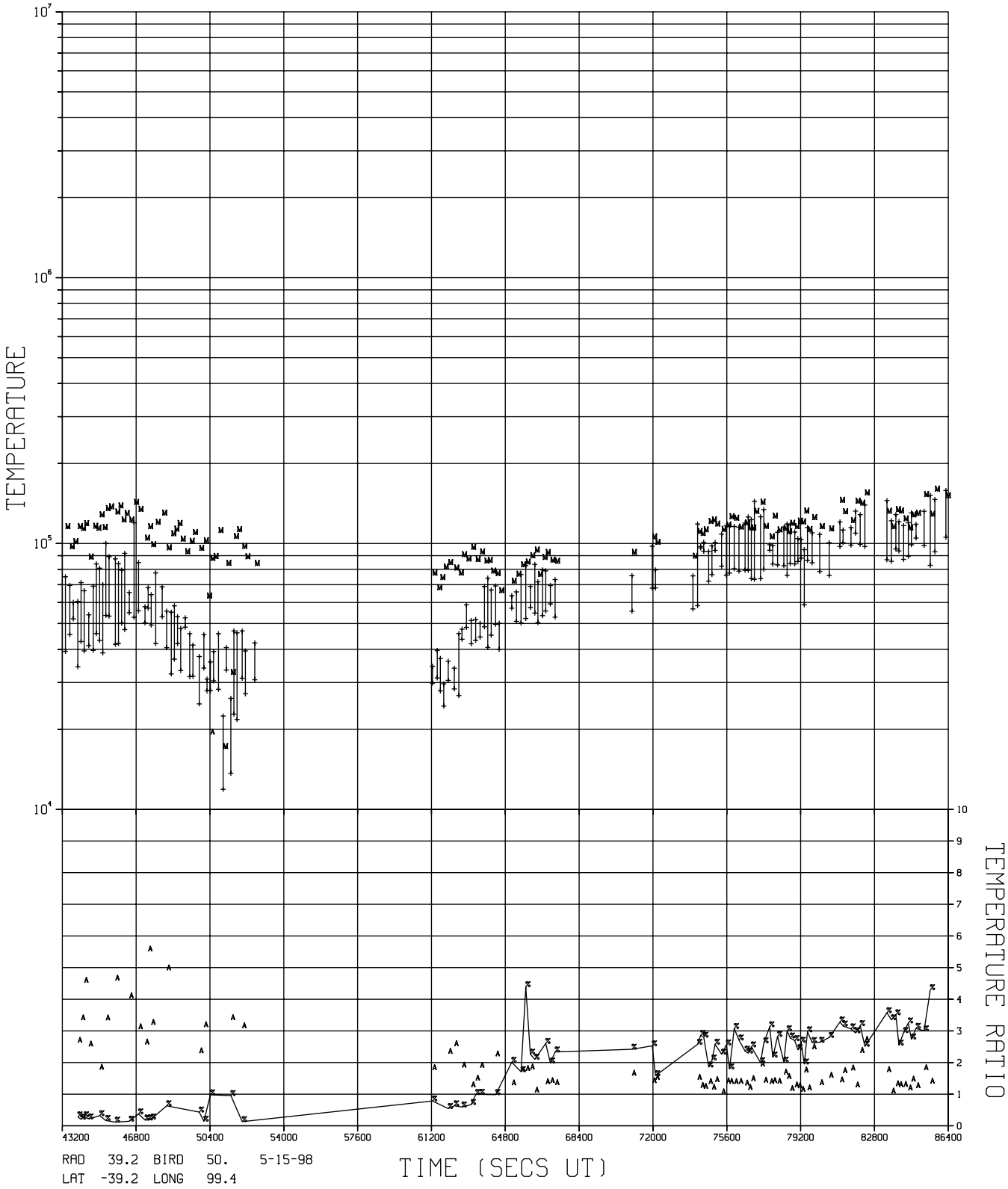

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 39.3 BIRD 50. 5-15-98
LAT -39.2 LONG 84.7

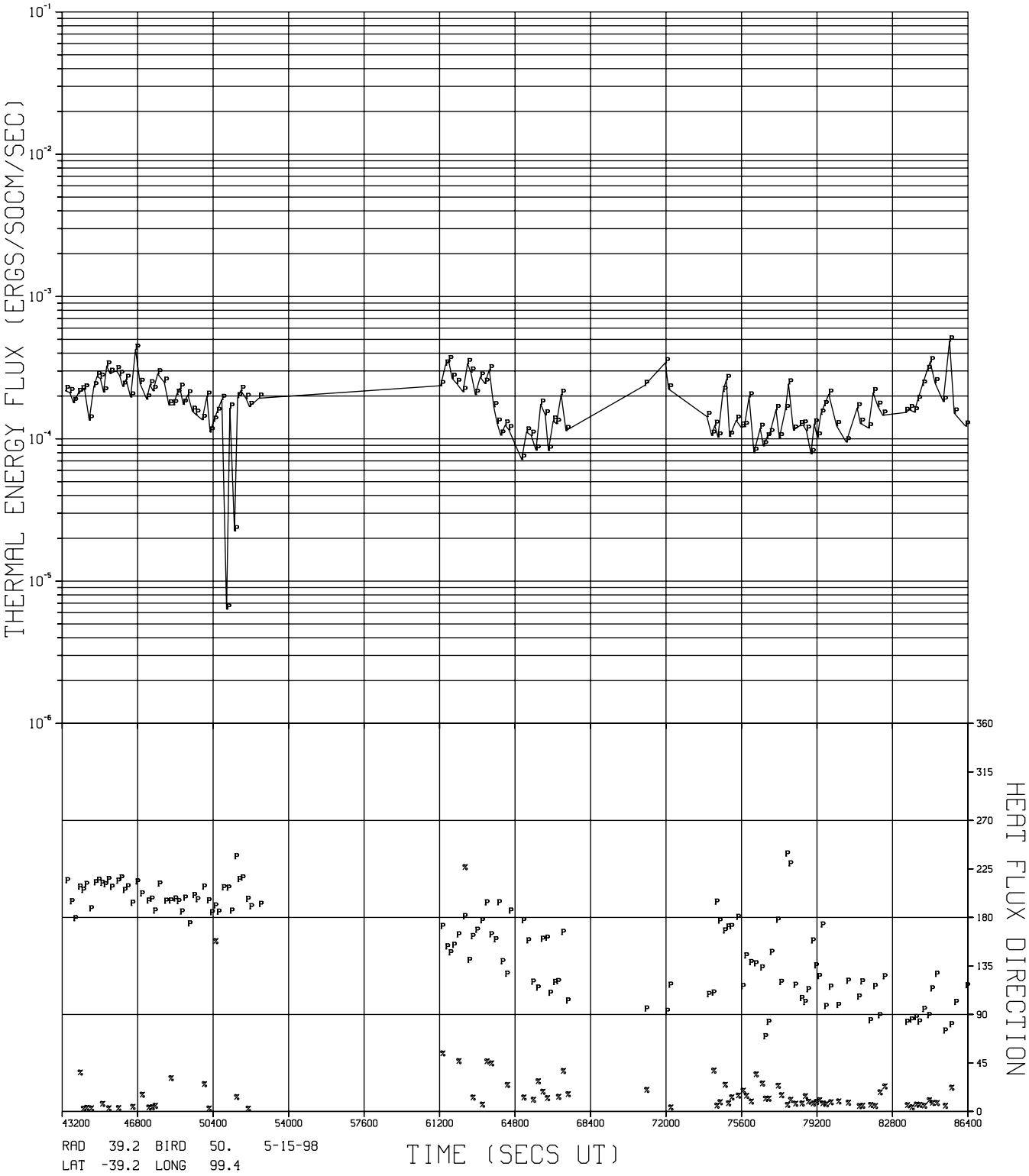

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 39.3 BIRD 50. 5-15-98
LAT -39.2 LONG 84.7

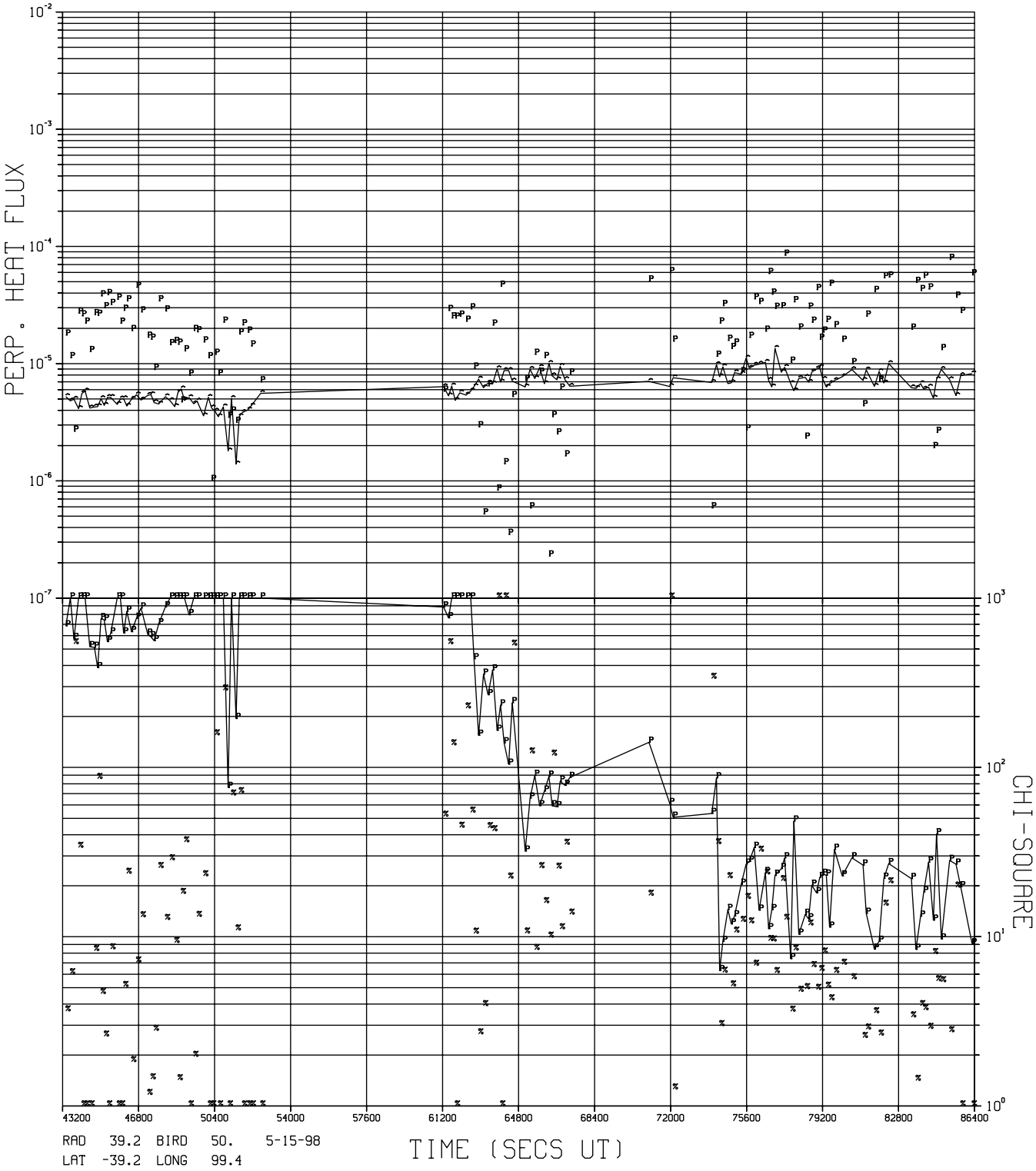

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 39.2 BIRD 50. 5-15-98
LAT -39.2 LONG 99.4

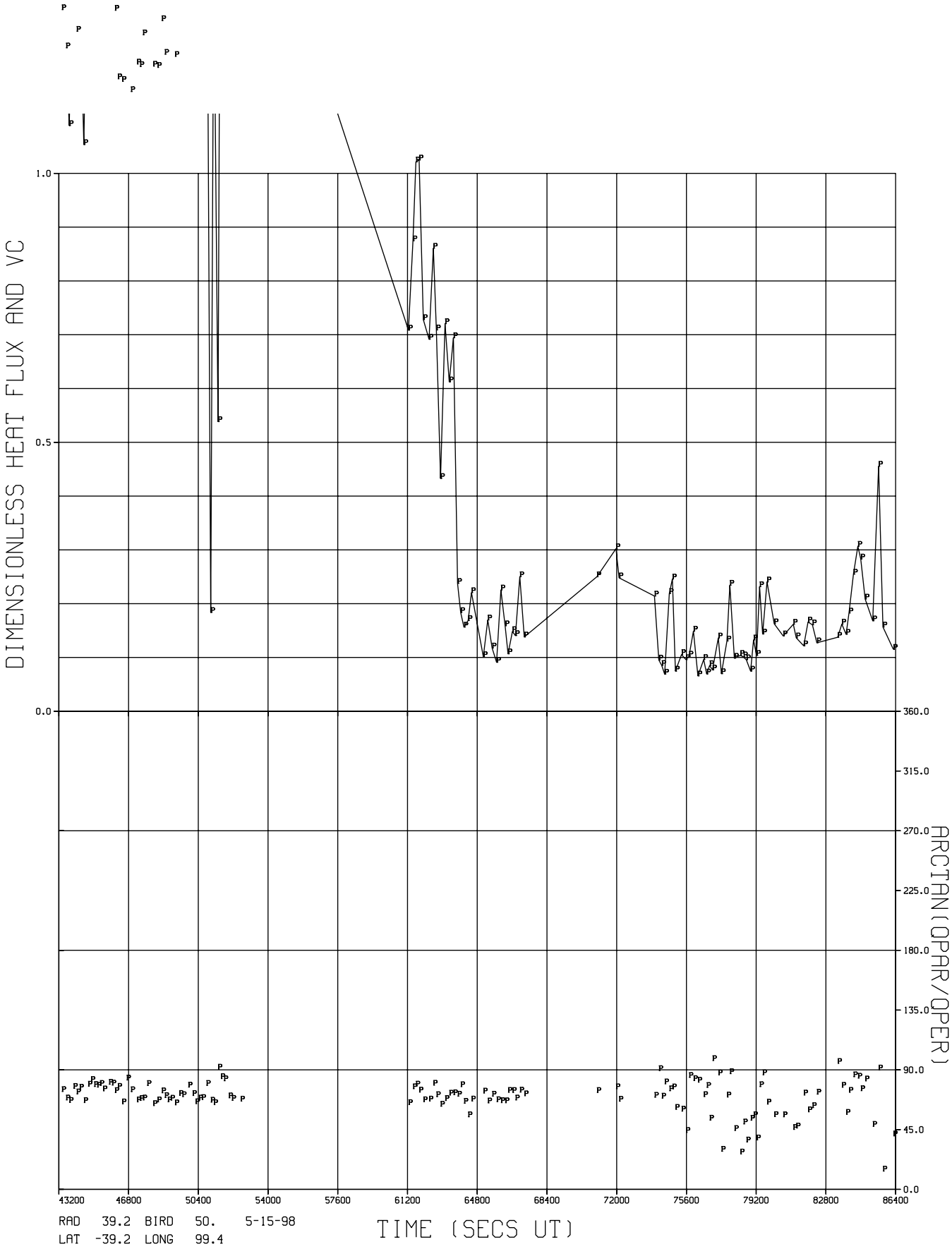

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
1000
900
800
700
600
500
400
300
200
100
0
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 39.2 BIRD 50. 5-15-98
LAT -39.2 LONG 99.4

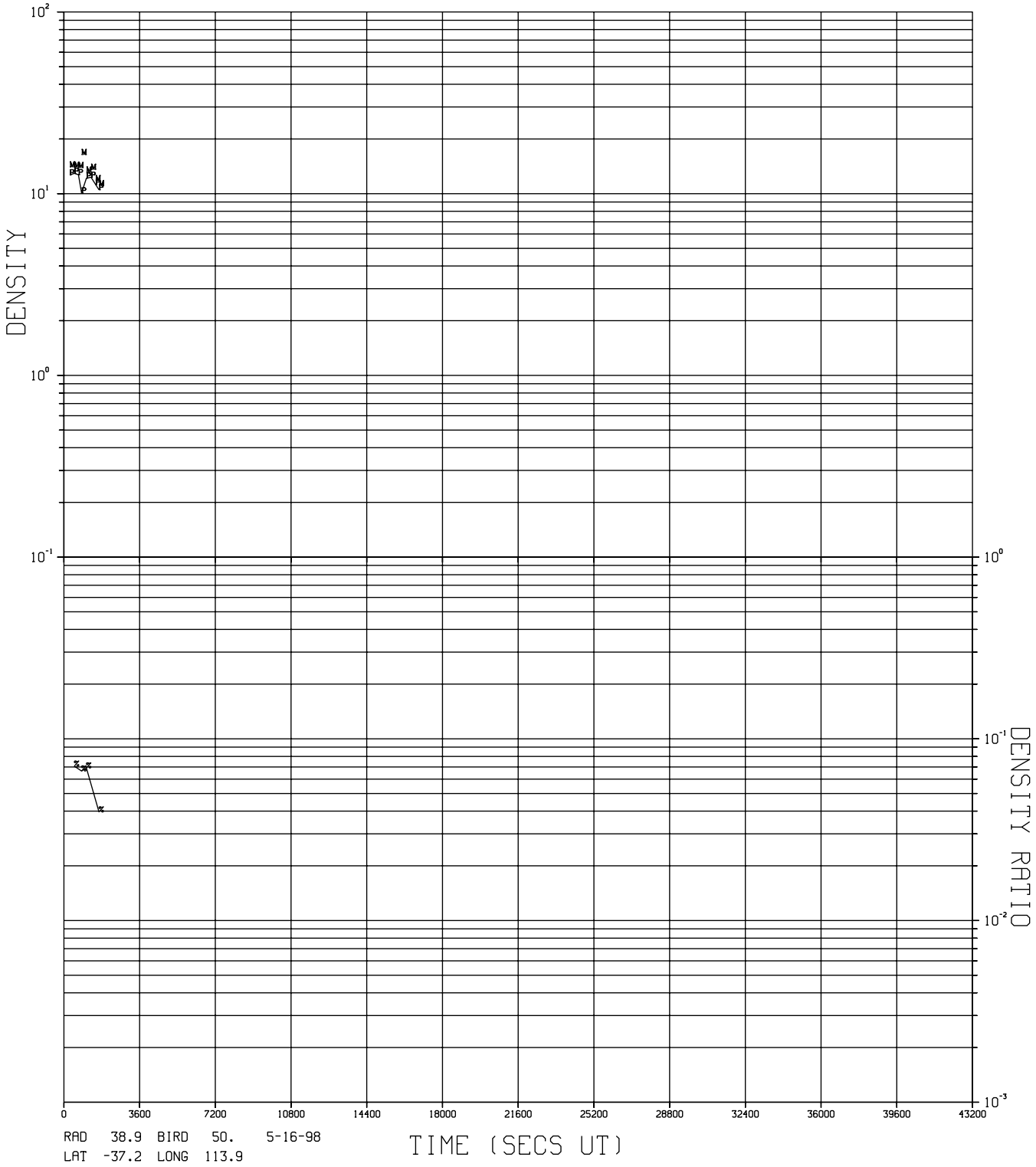

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 39.2 BIRD 50. 5-15-98
LAT -39.2 LONG 99.4

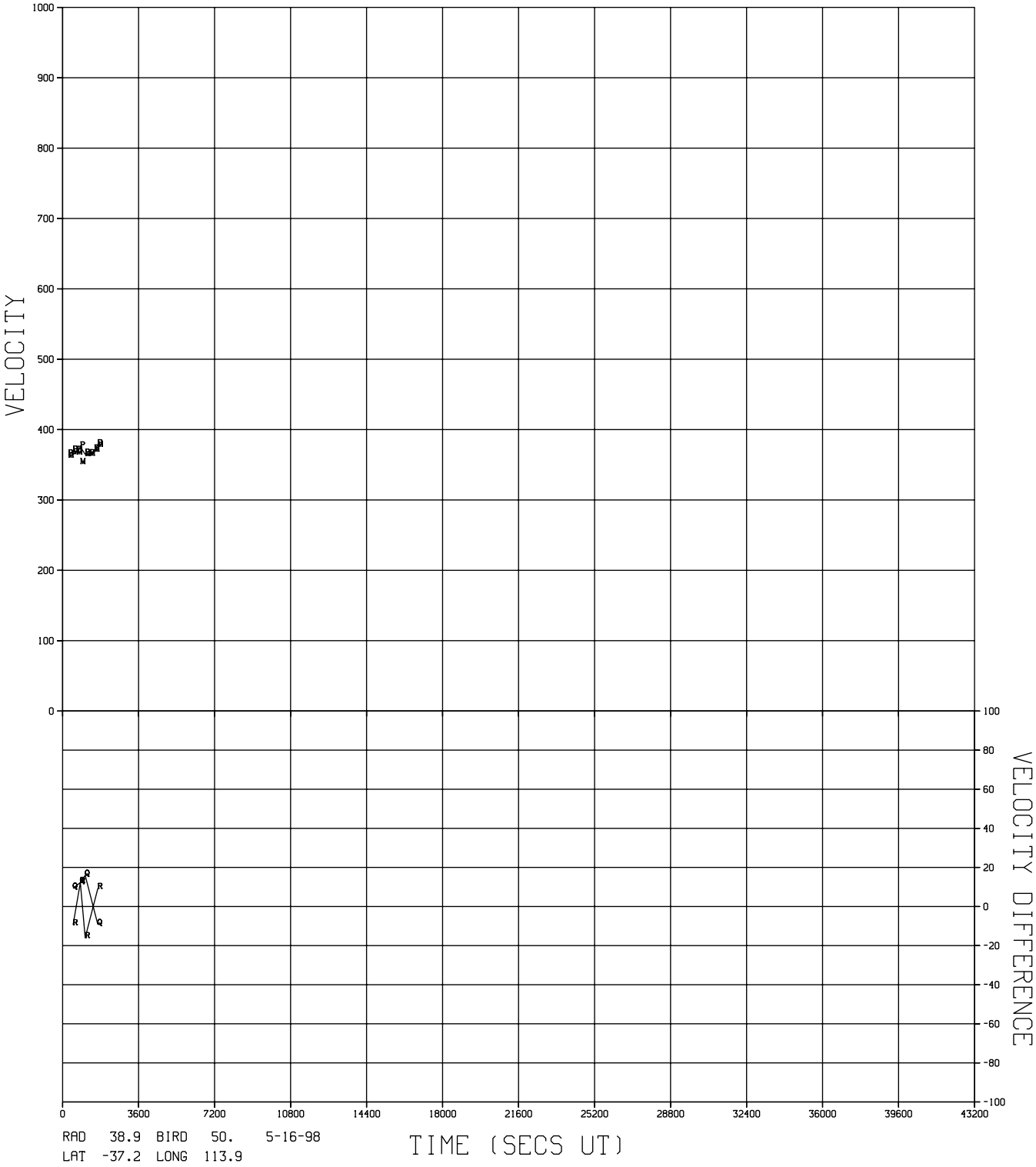

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 39.2 BIRD 50. 5-15-98
LAT -39.2 LONG 99.4

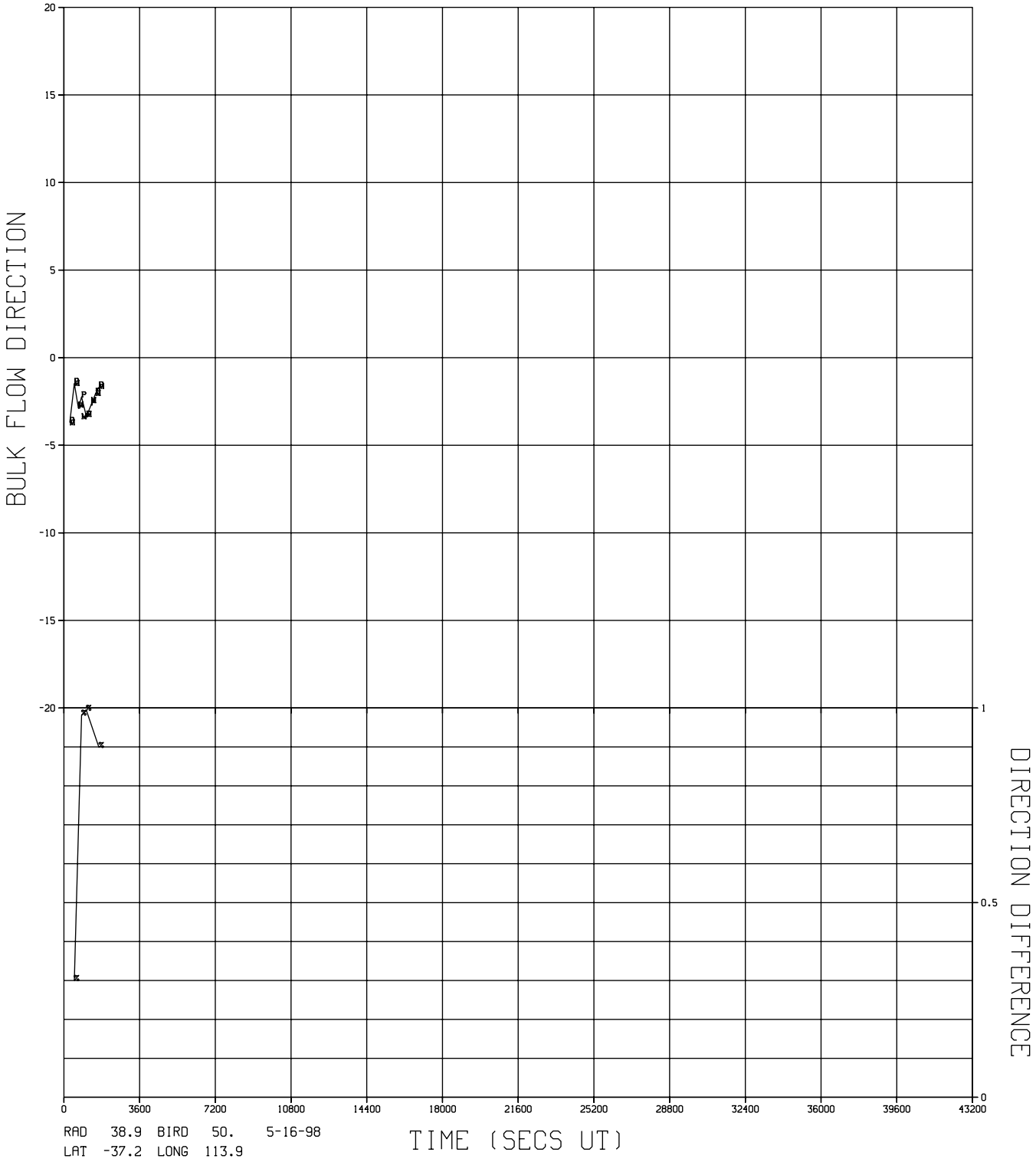

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 39.2 BIRD 50. 5-15-98
LAT -39.2 LONG 99.4

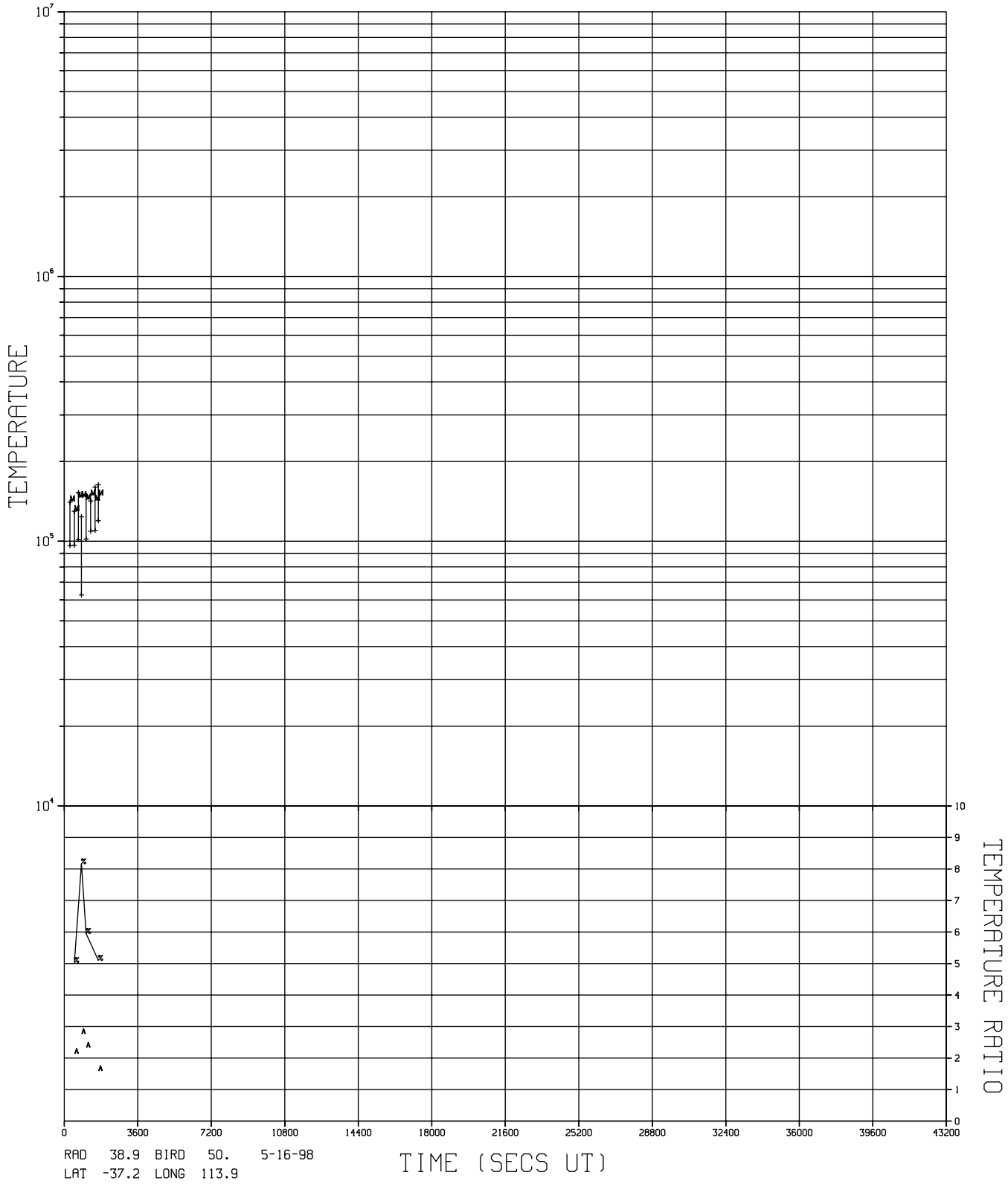

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 39.2 BIRD 50. 5-15-98
LAT -39.2 LONG 99.4

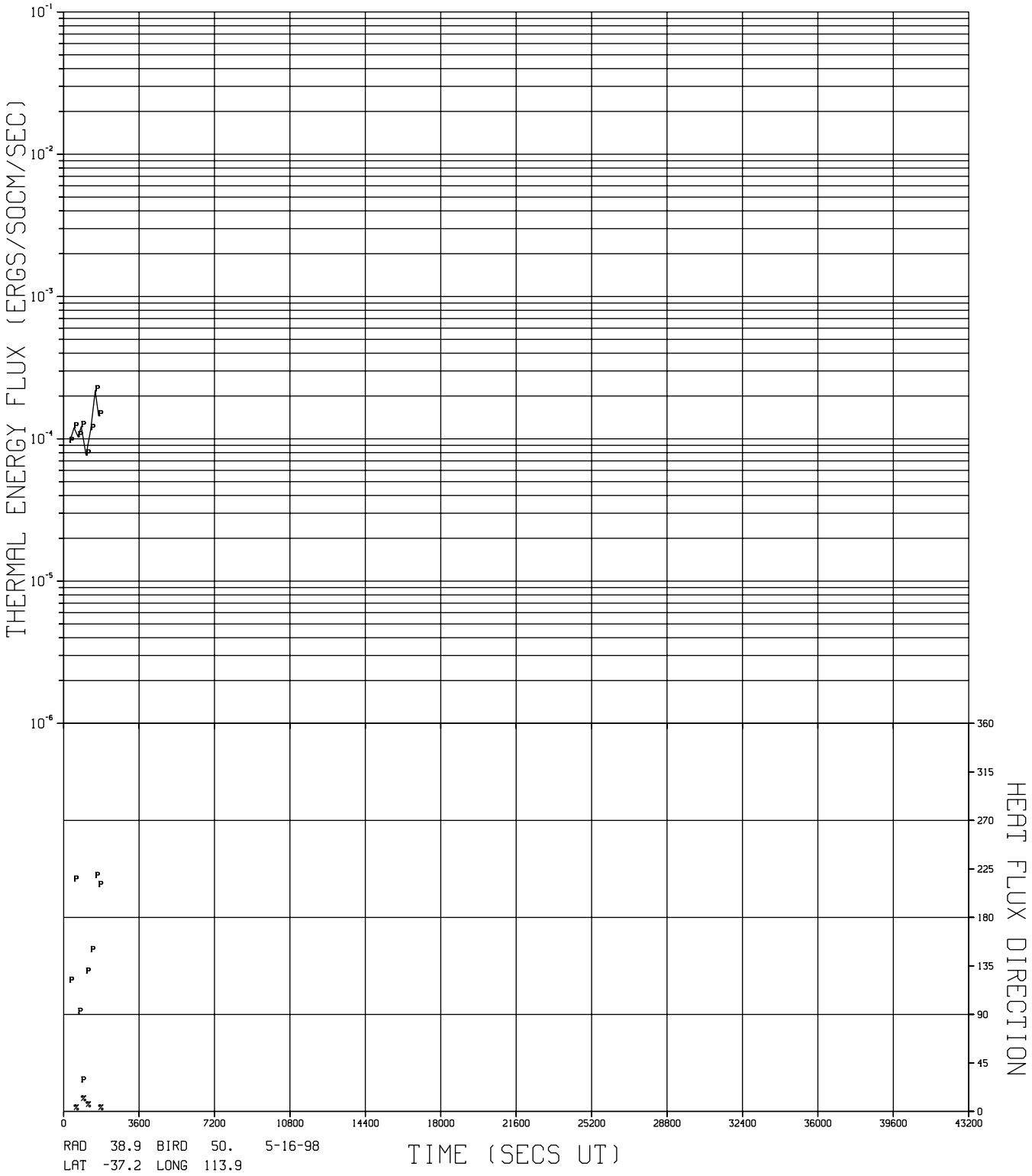

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 39.2 BIRD 50. 5-15-98
LAT -39.2 LONG 99.4

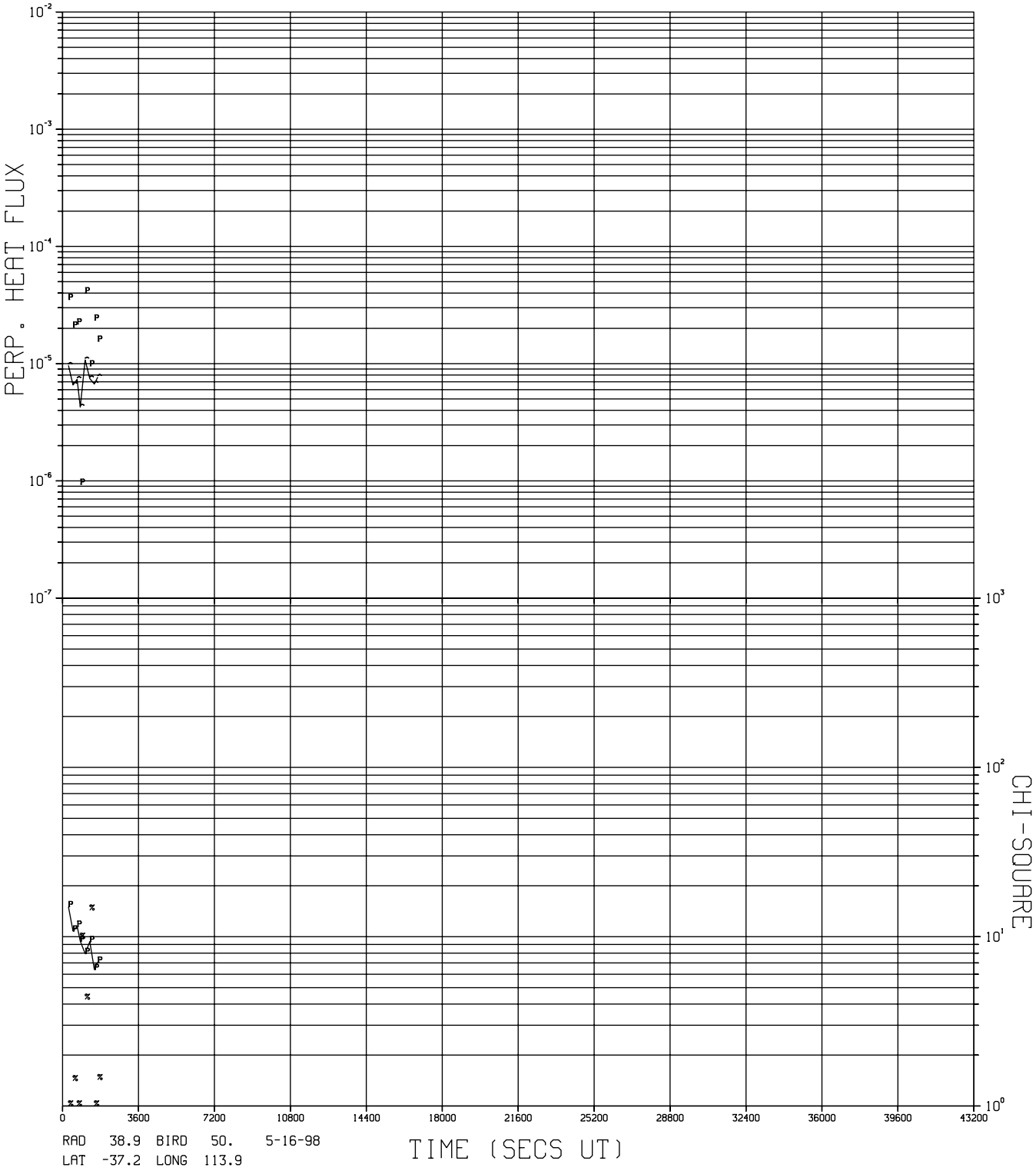

DENSITY
DENSITY RATIO
TIME (SECS UT)
10^2
10^1
10^0
10^{-1}
10^{-2}
10^{-3}
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 38.9 BIRD 50. 5-16-98
LAT -37.2 LONG 113.9

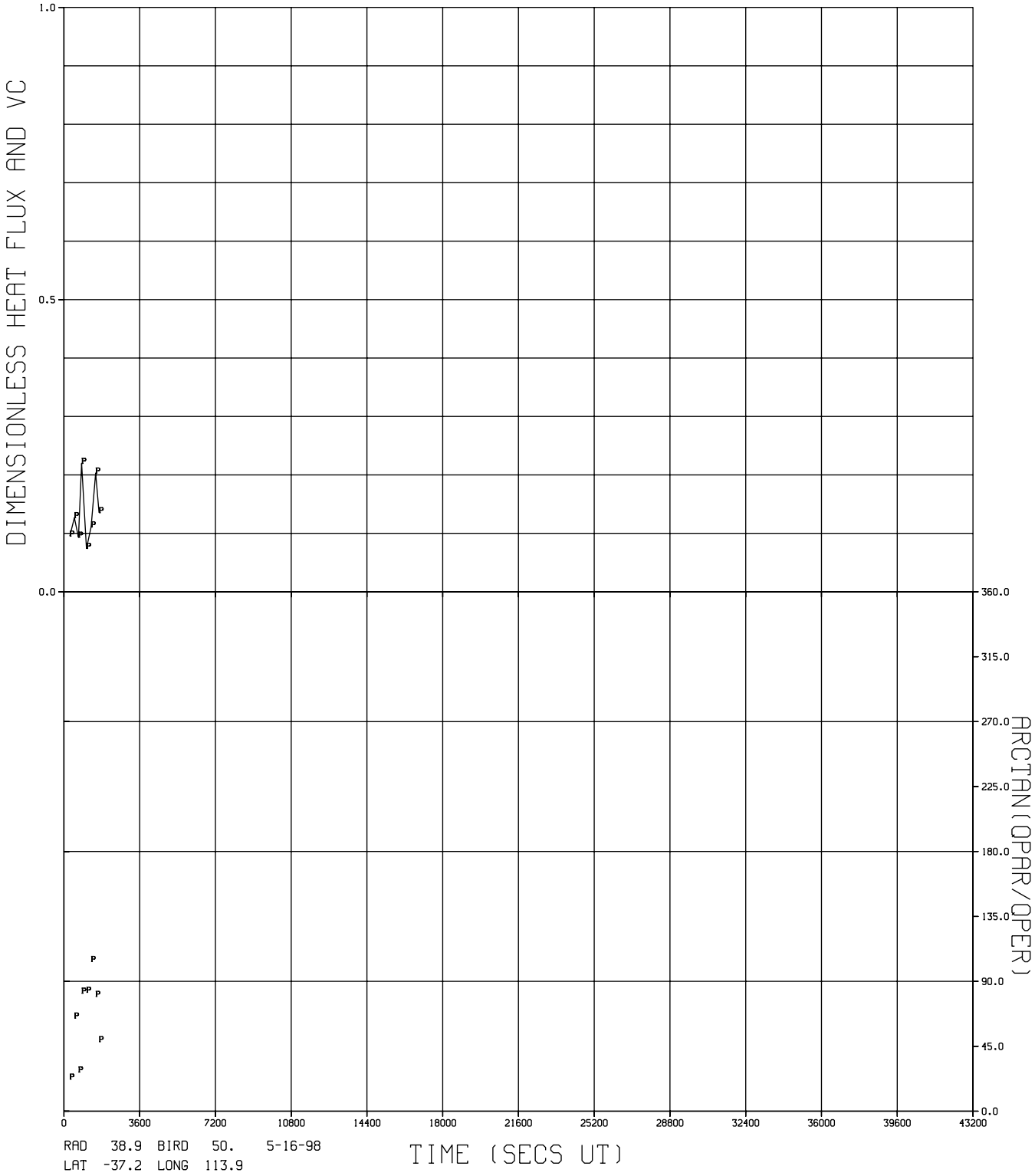

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
1000
900
800
700
600
500
400
300
200
100
0
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 38.9 BIRD 50. 5-16-98
LAT -37.2 LONG 113.9


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 38.9 BIRD 50. 5-16-98
LAT -37.2 LONG 113.9


TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 38.9 BIRD 50. 5-16-98
LAT -37.2 LONG 113.9


THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 38.9 BIRD 50. 5-16-98
LAT -37.2 LONG 113.9


PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 38.9 BIRD 50. 5-16-98
LAT -37.2 LONG 113.9


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
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 38.9 BIRD 50. 5-16-98
LAT -37.2 LONG 113.9