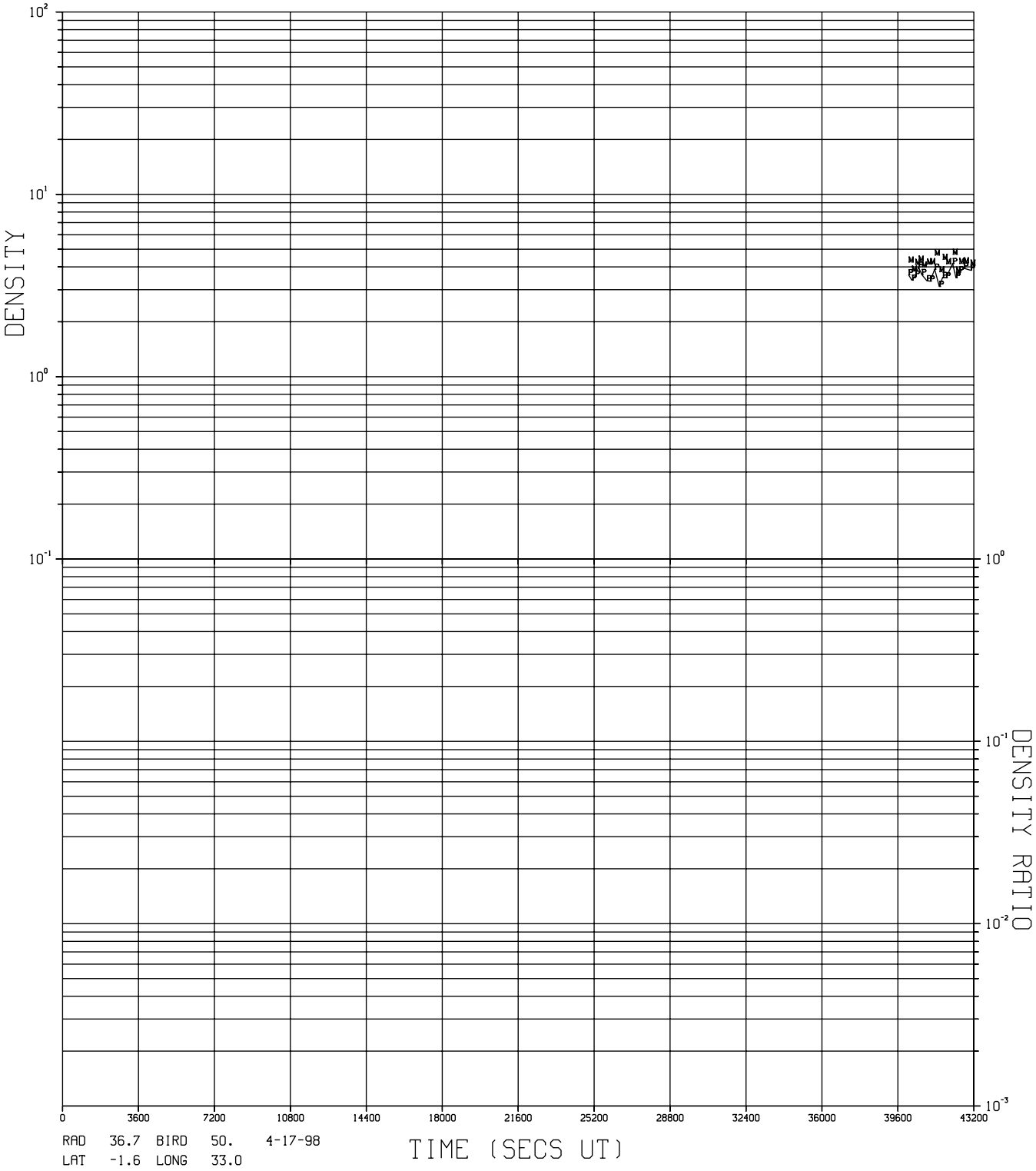
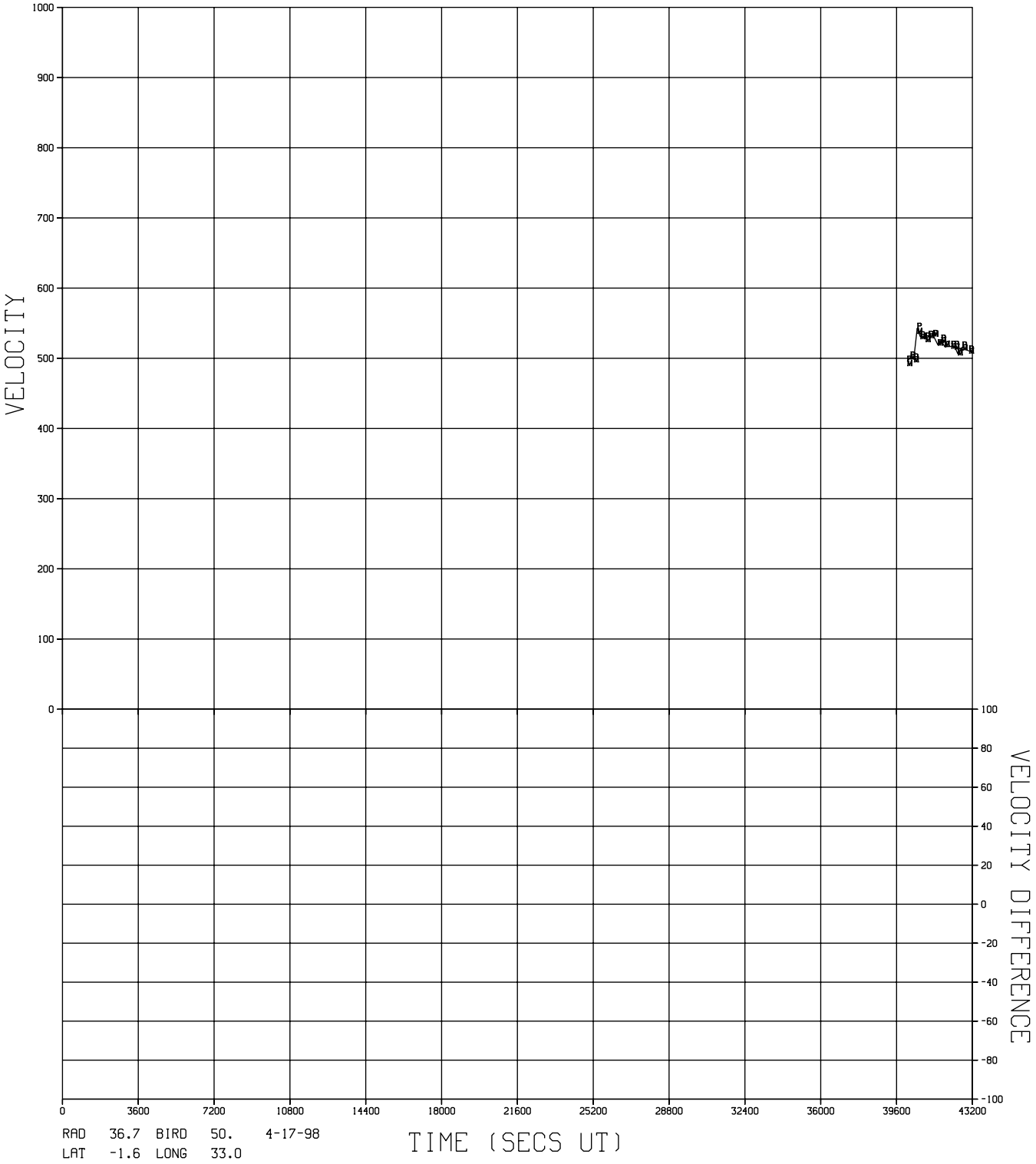
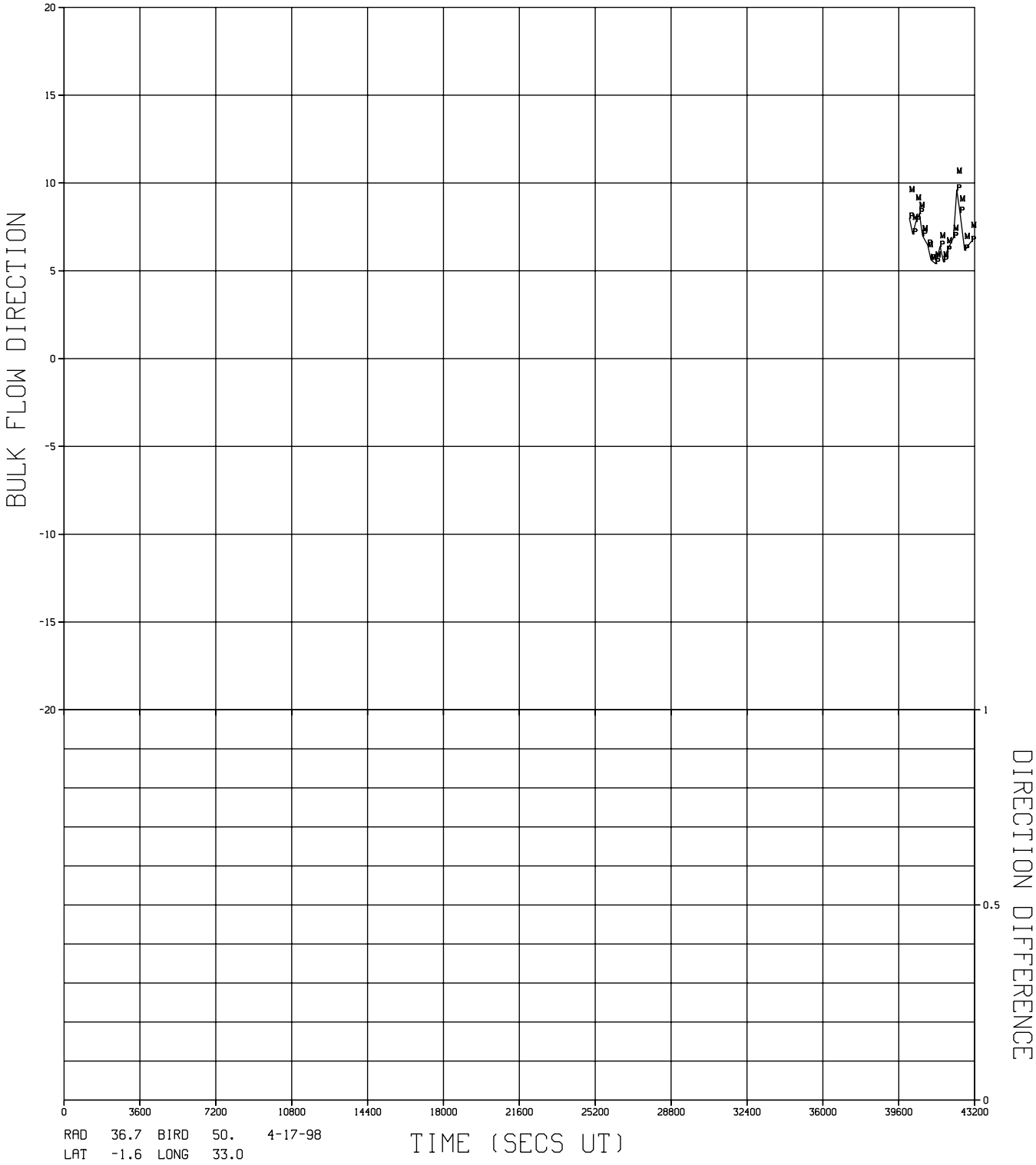
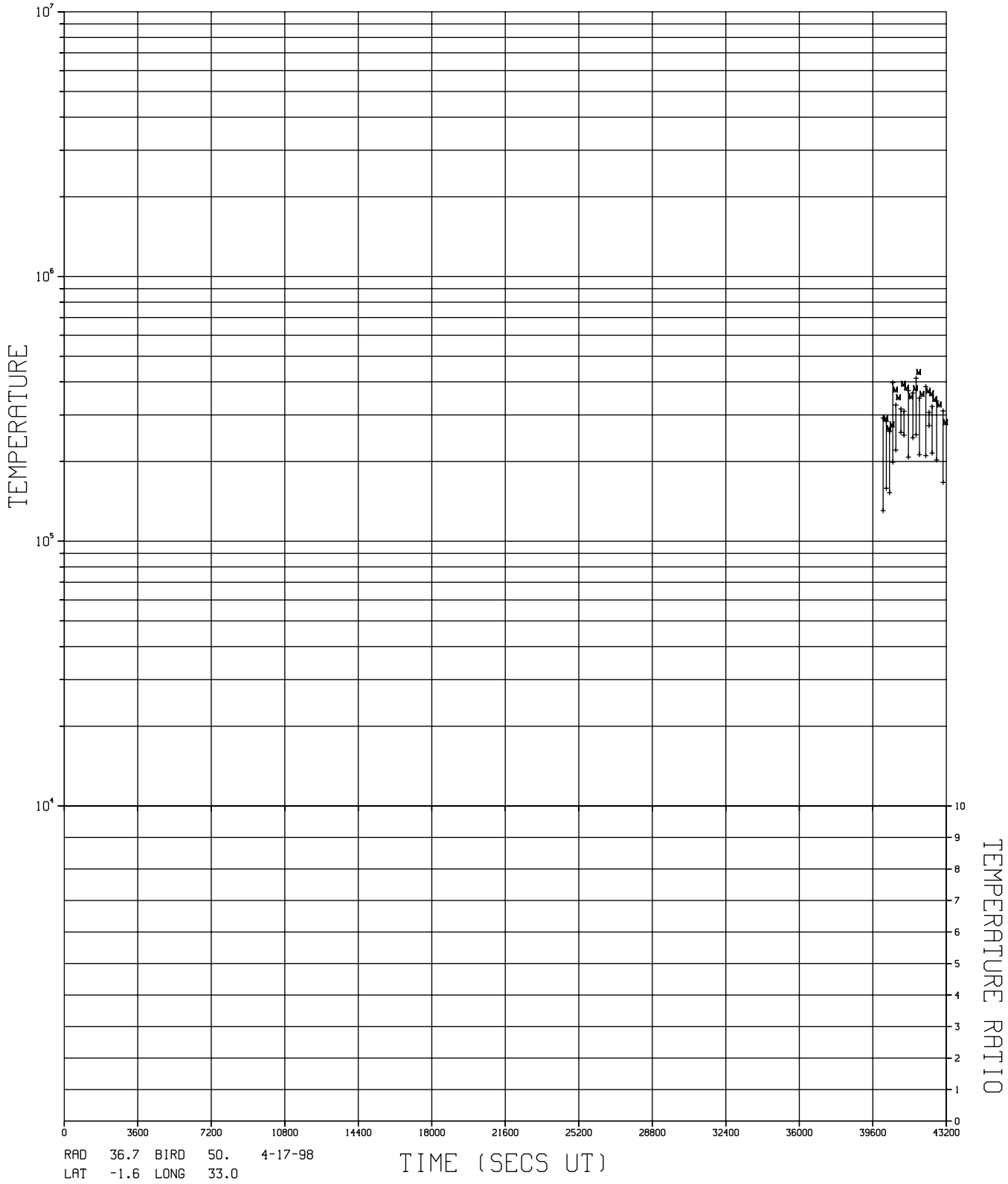
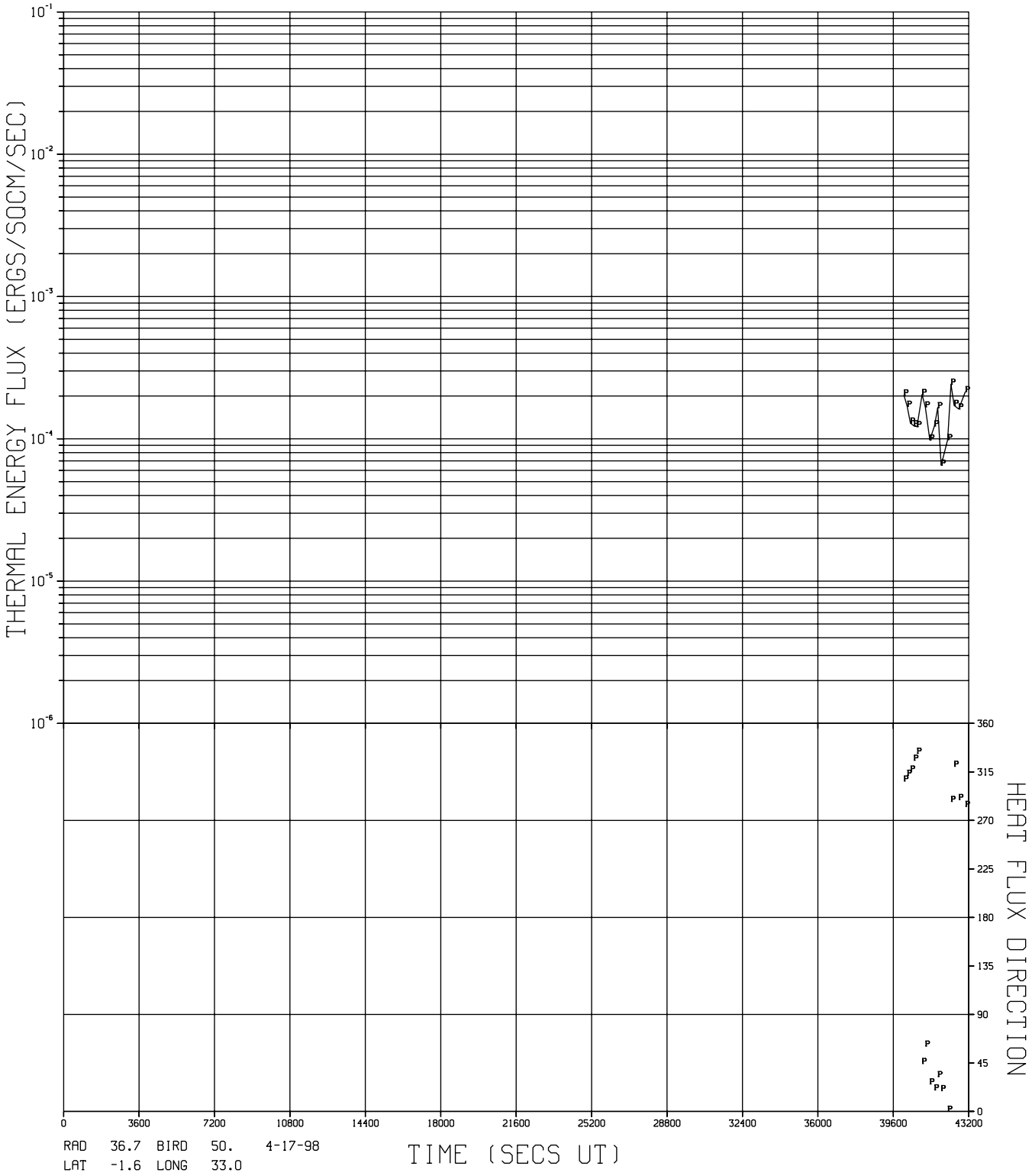
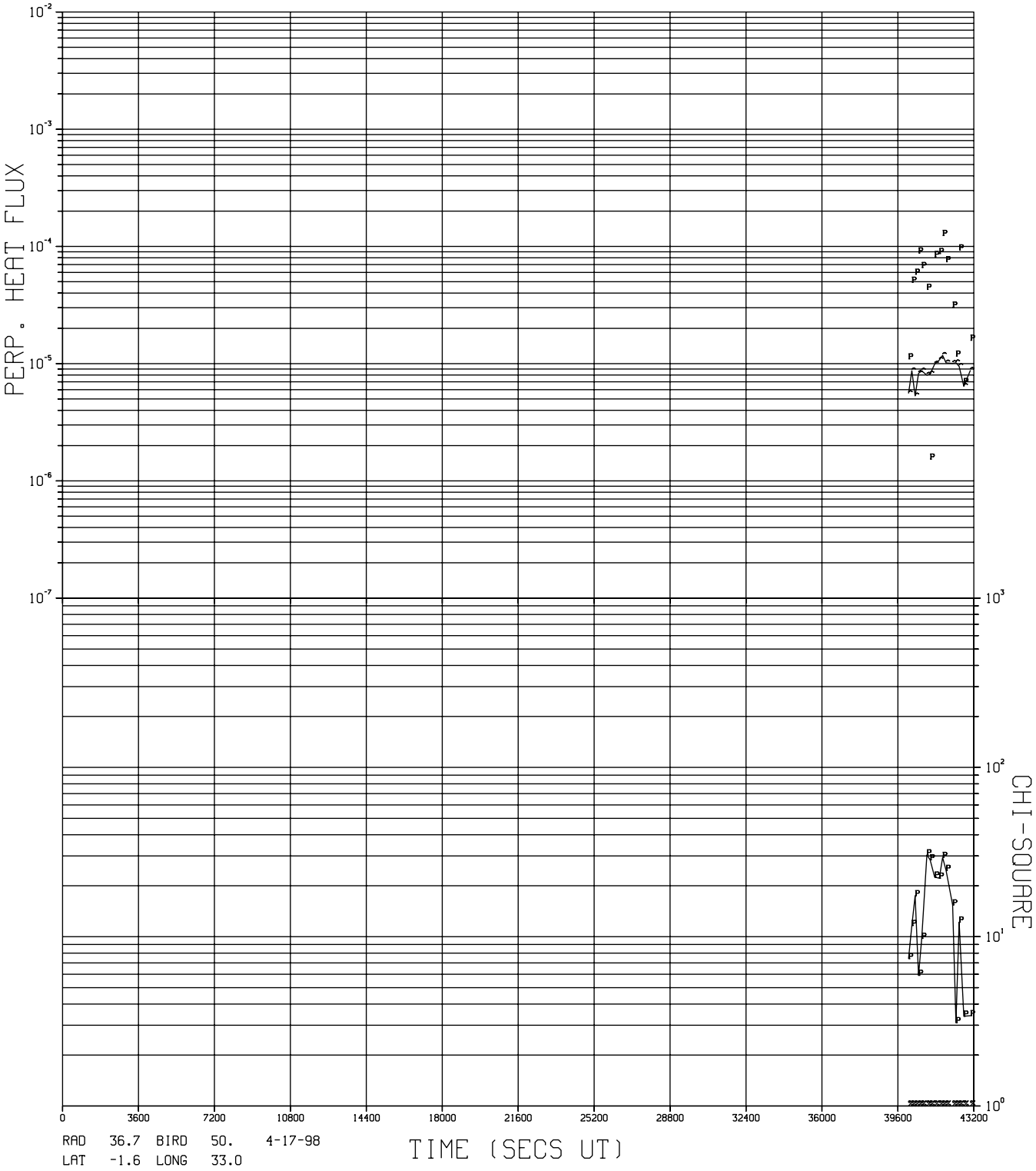

DENSITY
DENSITY RATIO
TIME (SECS UT)
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 36.7 BIRD 50. 4-17-98
LAT -1.6 LONG 33.0

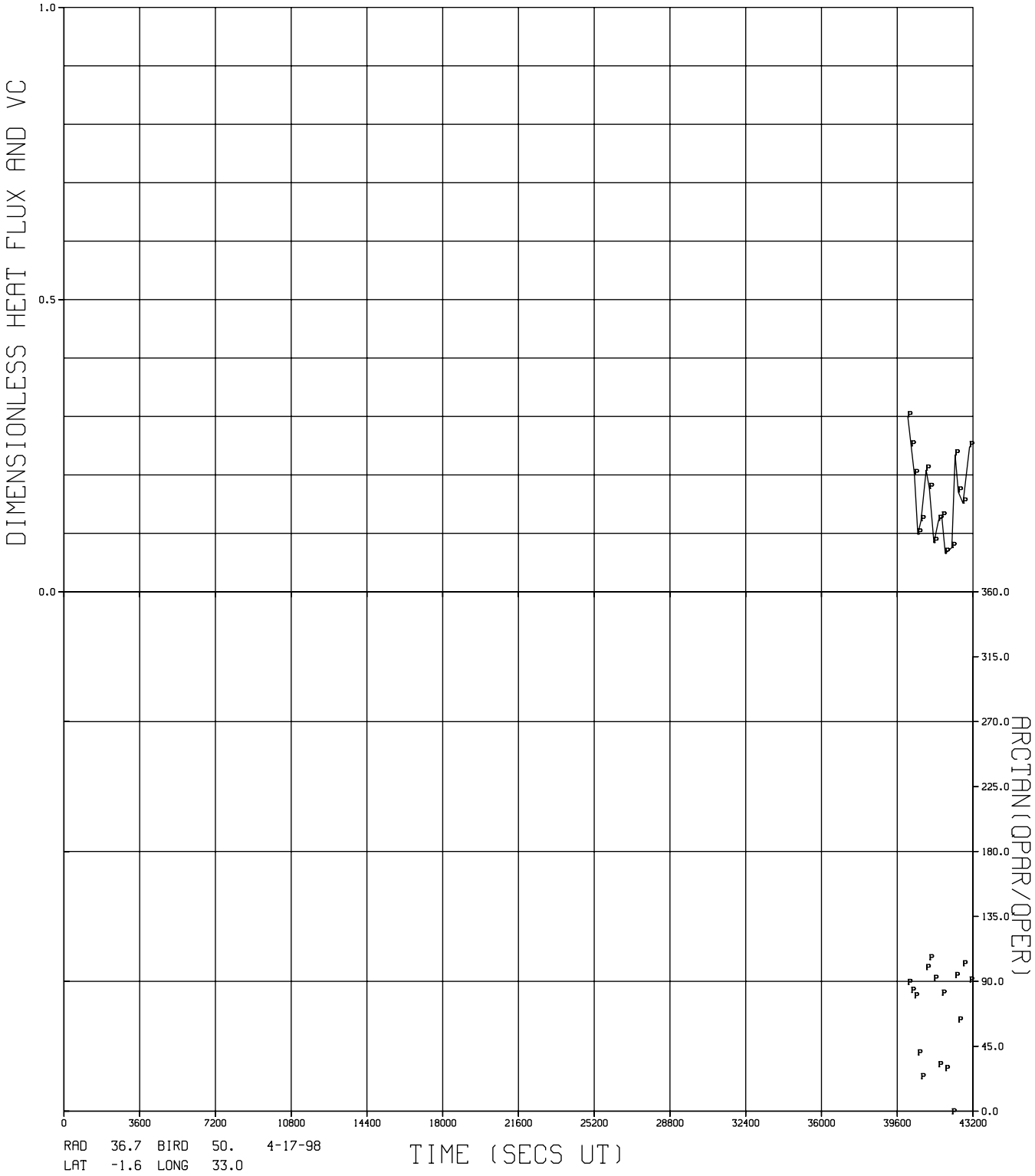

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 36.7 BIRD 50. 4-17-98
LAT -1.6 LONG 33.0

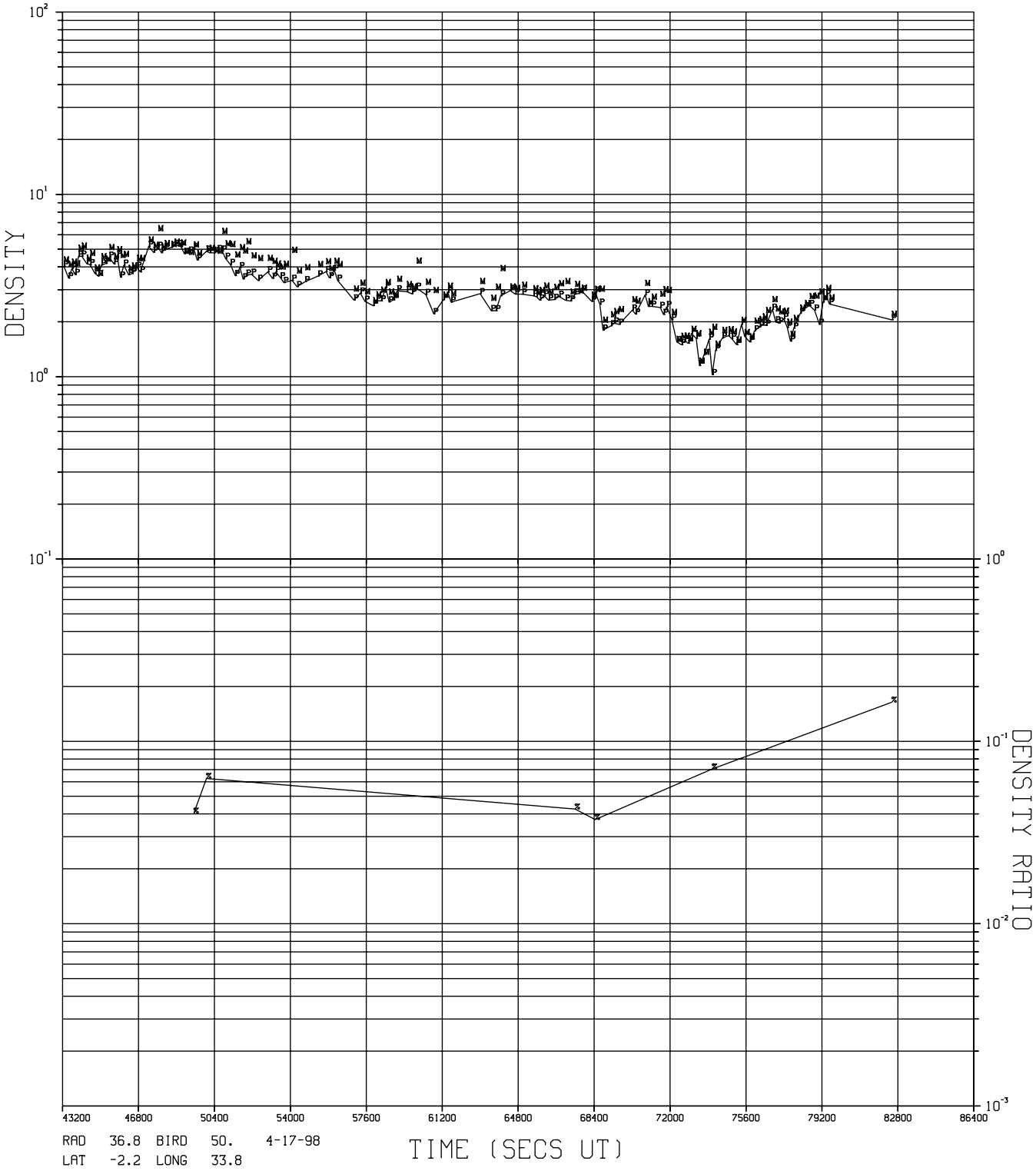

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 36.7 BIRD 50. 4-17-98
LAT -1.6 LONG 33.0

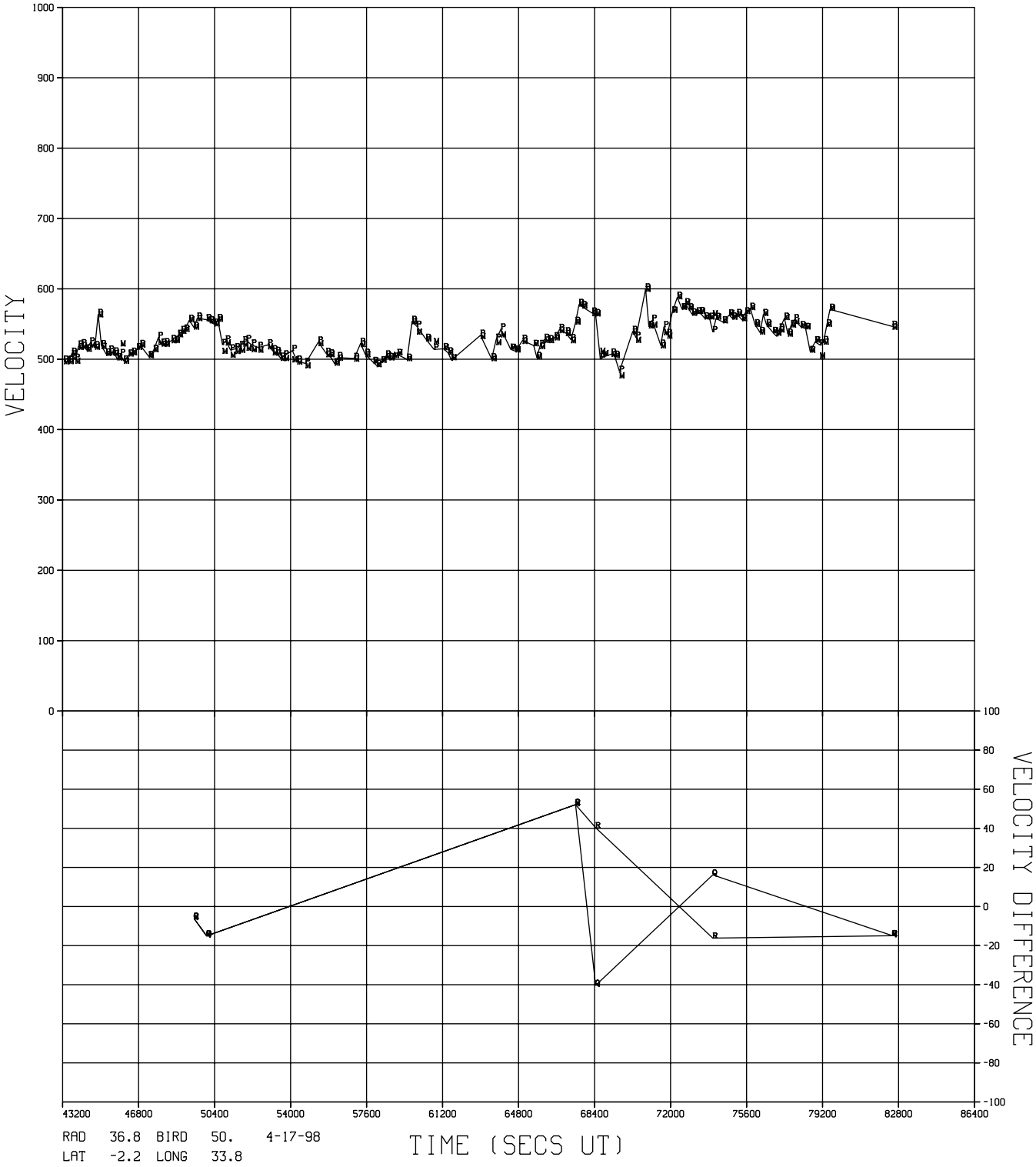

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 36.7 BIRD 50. 4-17-98
LAT -1.6 LONG 33.0


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
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 36.7 BIRD 50. 4-17-98
LAT -1.6 LONG 33.0

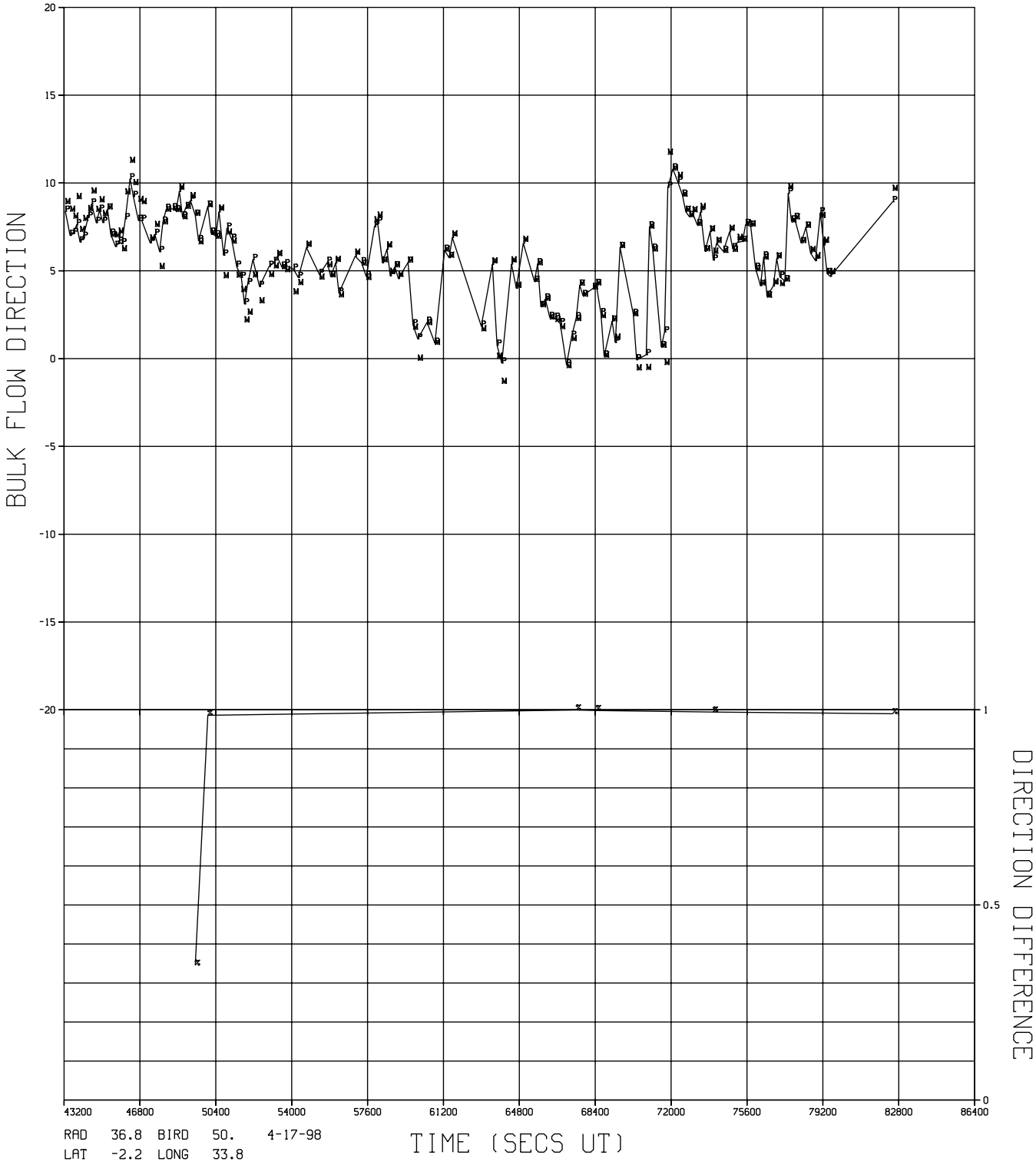

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 36.7 BIRD 50. 4-17-98
LAT -1.6 LONG 33.0

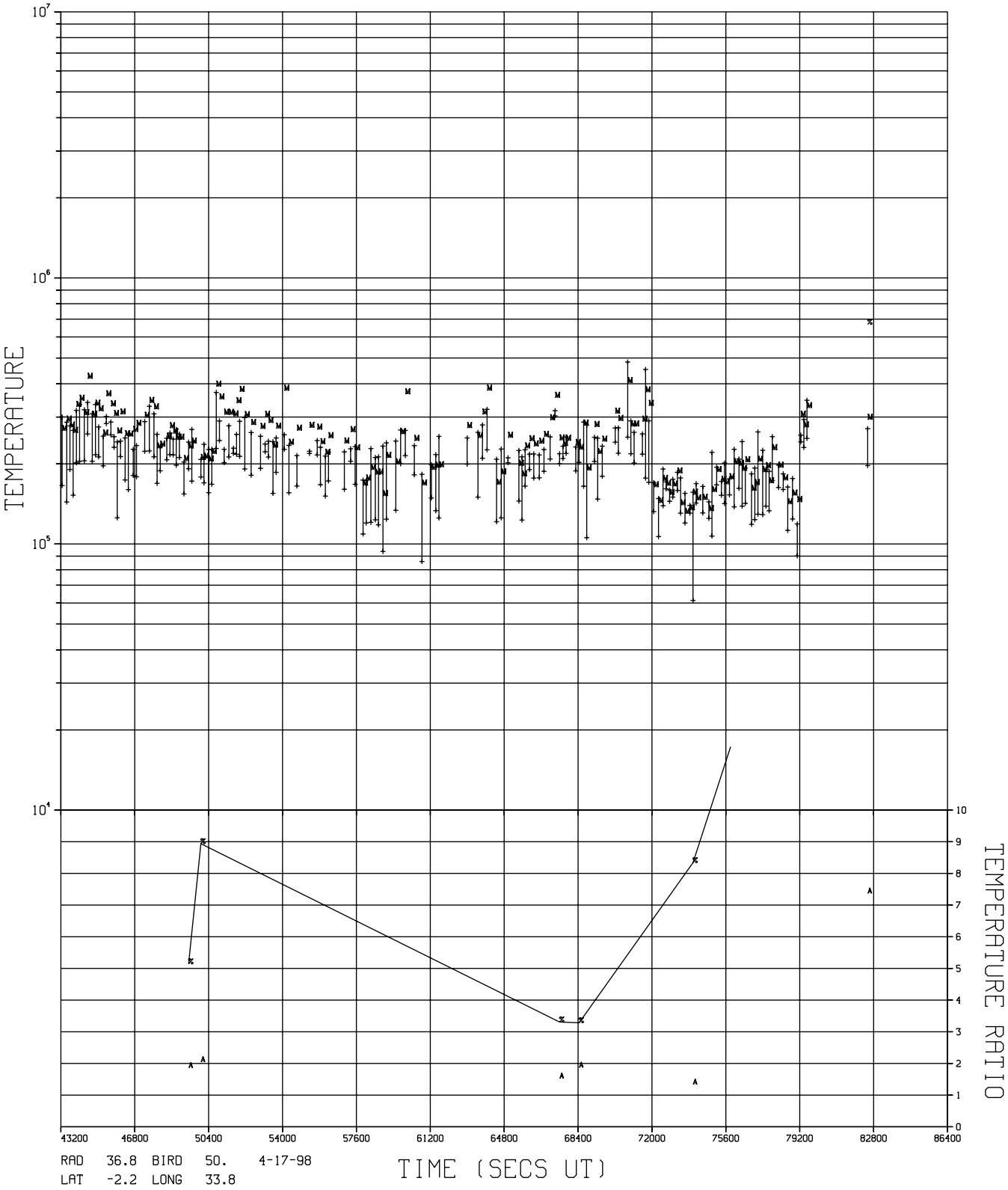

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 36.7 BIRD 50. 4-17-98
LAT -1.6 LONG 33.0

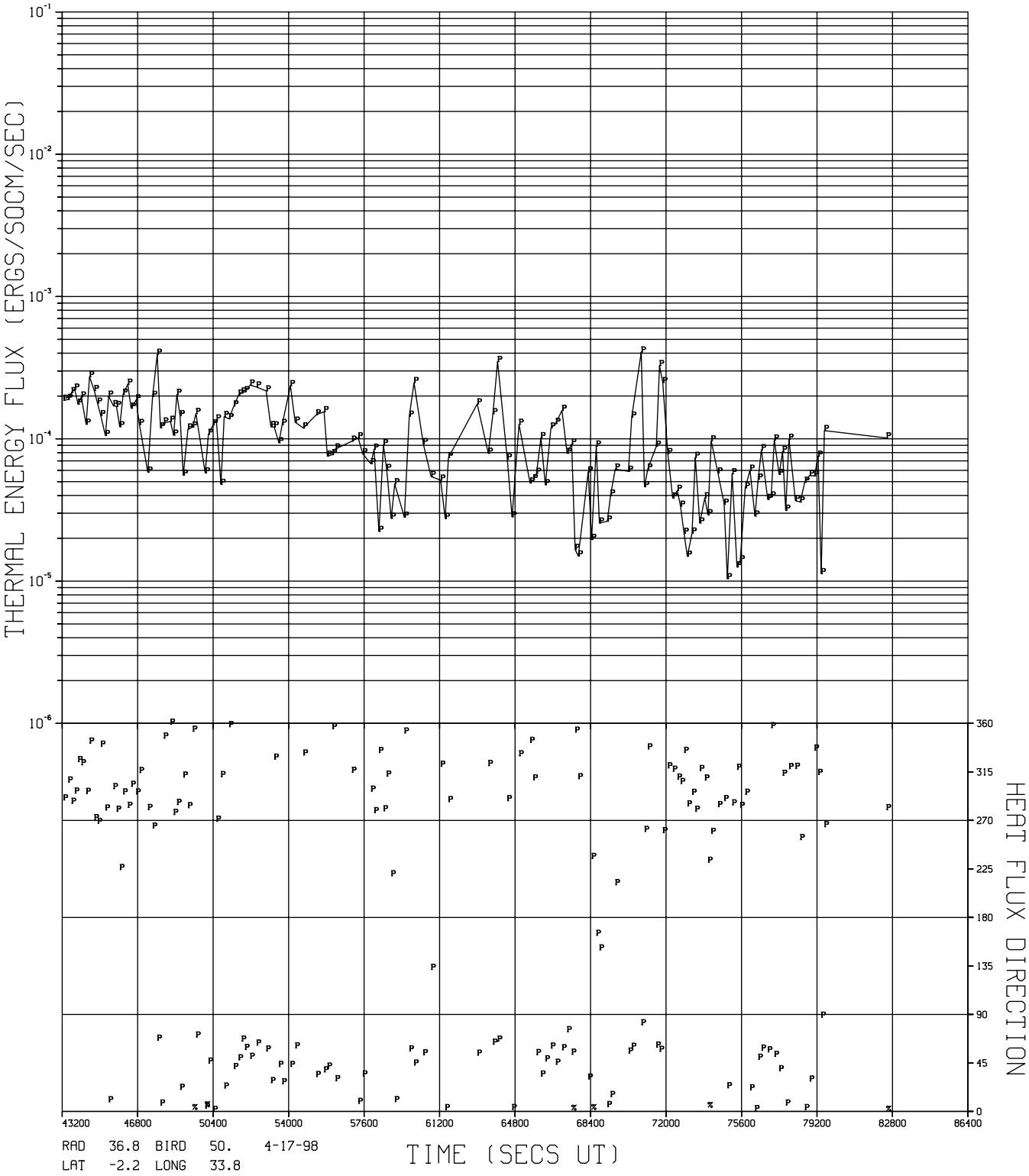

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.8 BIRD 50. 4-17-98
LAT -2.2 LONG 33.8

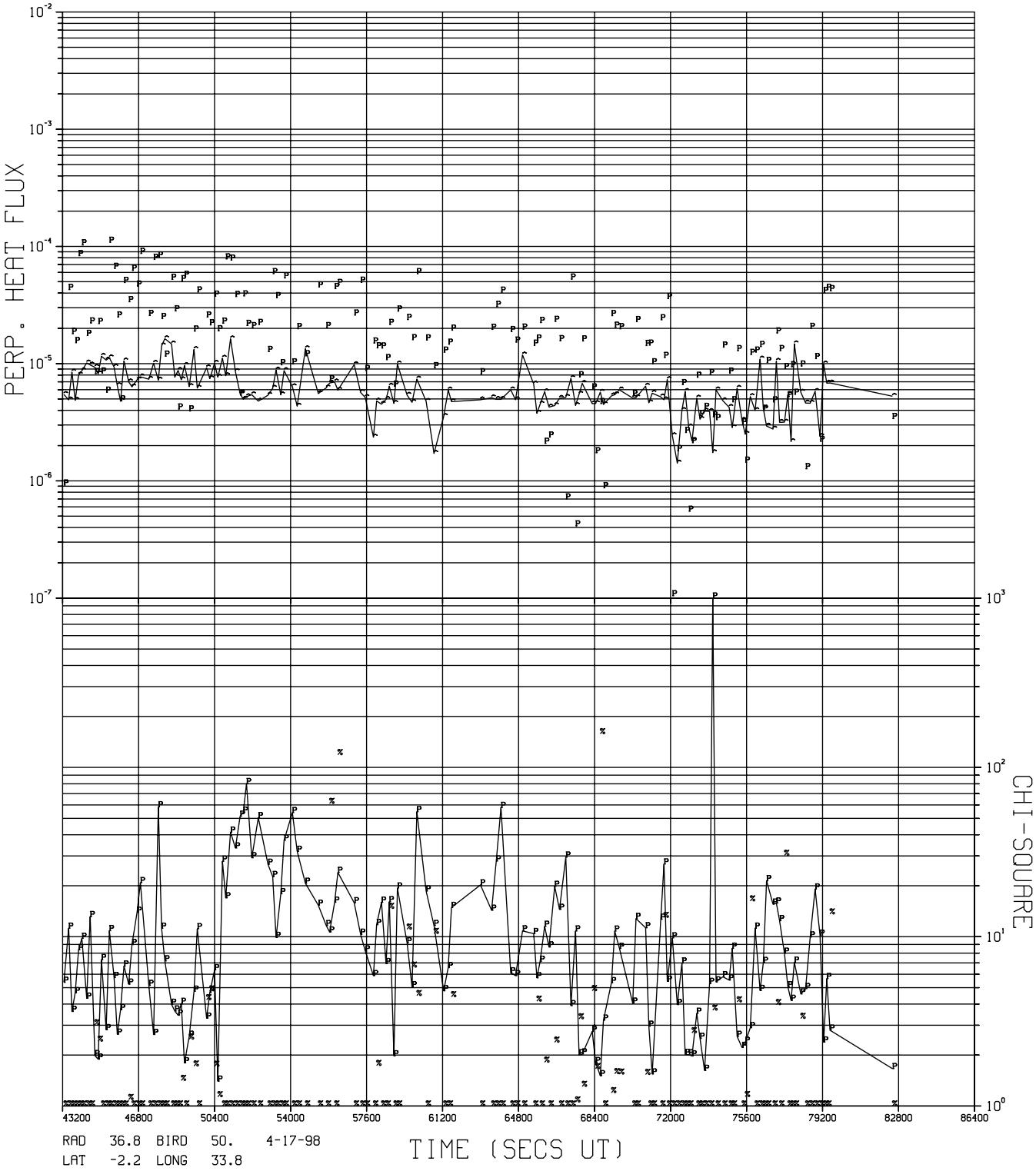


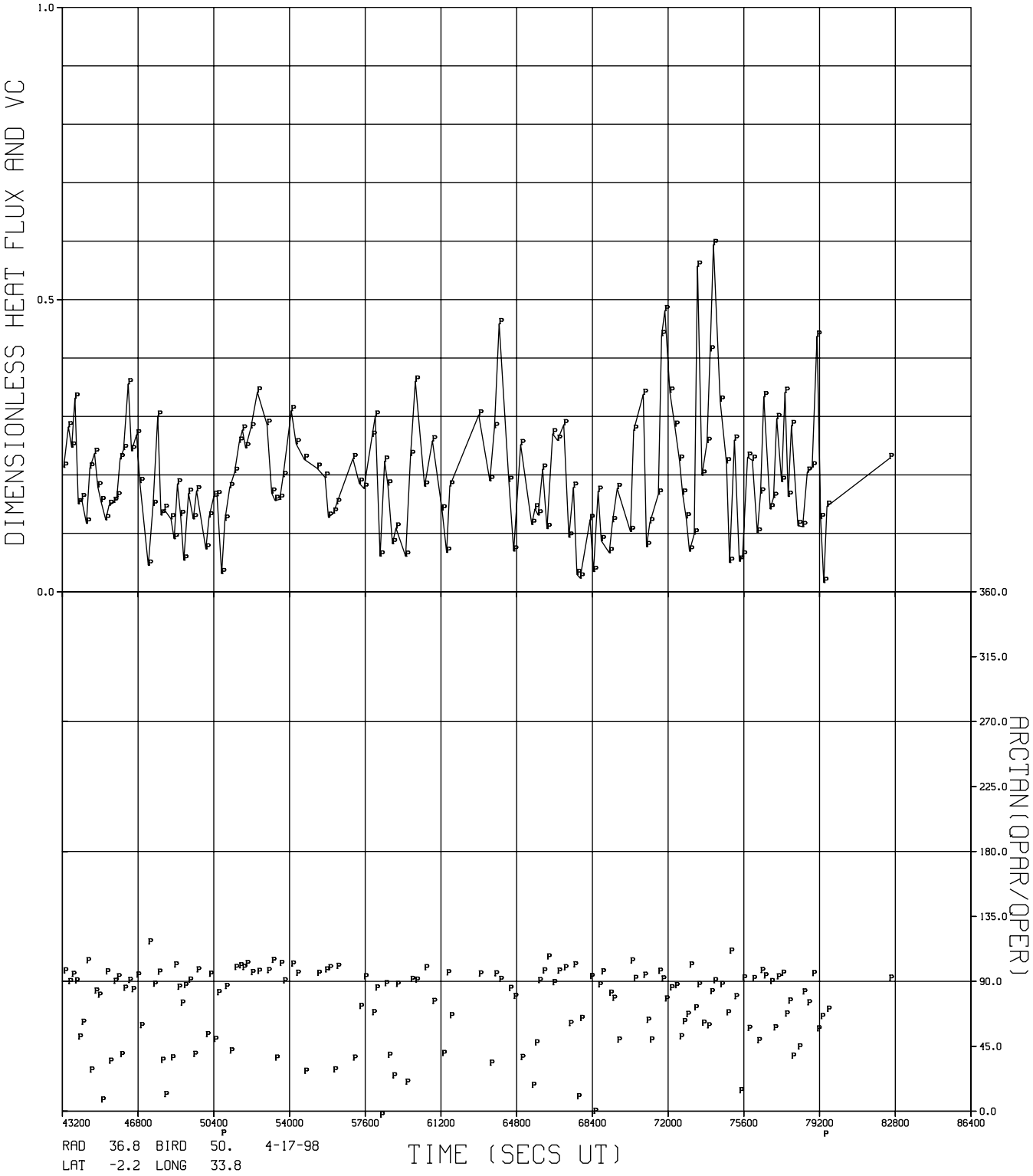
RAD 36.8 BIRD 50. 4-17-98
LAT -2.2 LONG 33.8

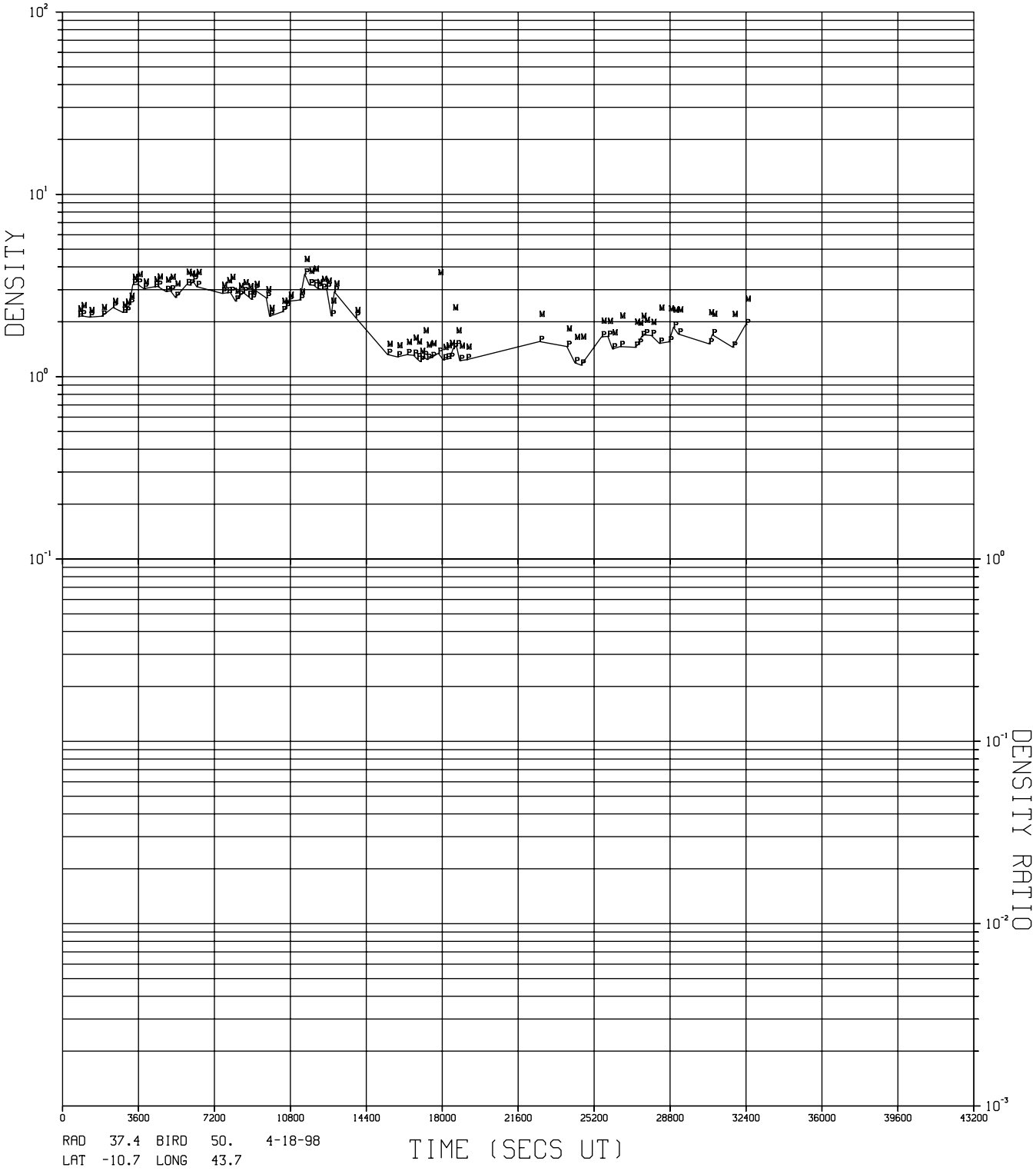

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.8 BIRD 50. 4-17-98
LAT -2.2 LONG 33.8

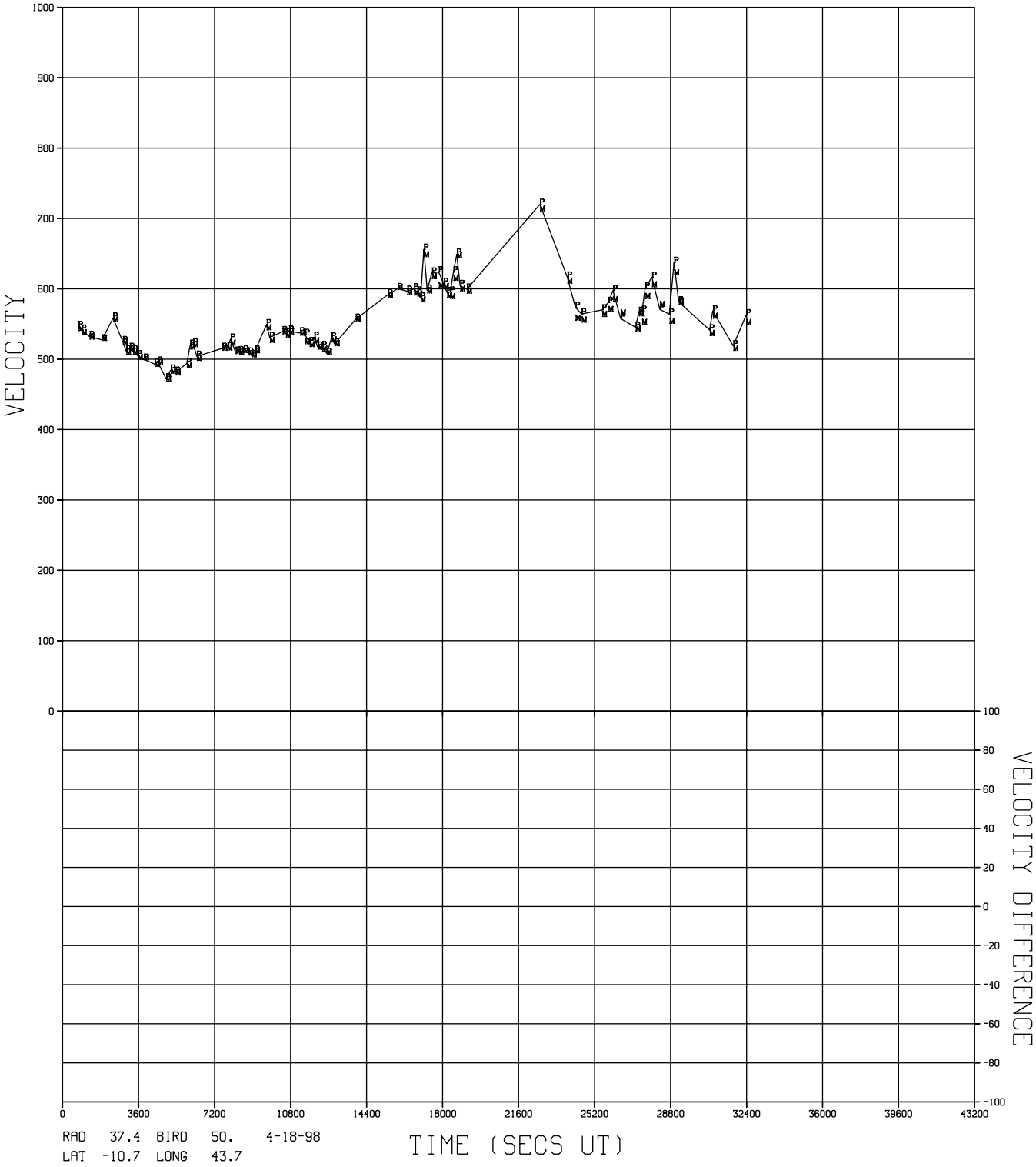

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 36.8 BIRD 50. 4-17-98
LAT -2.2 LONG 33.8

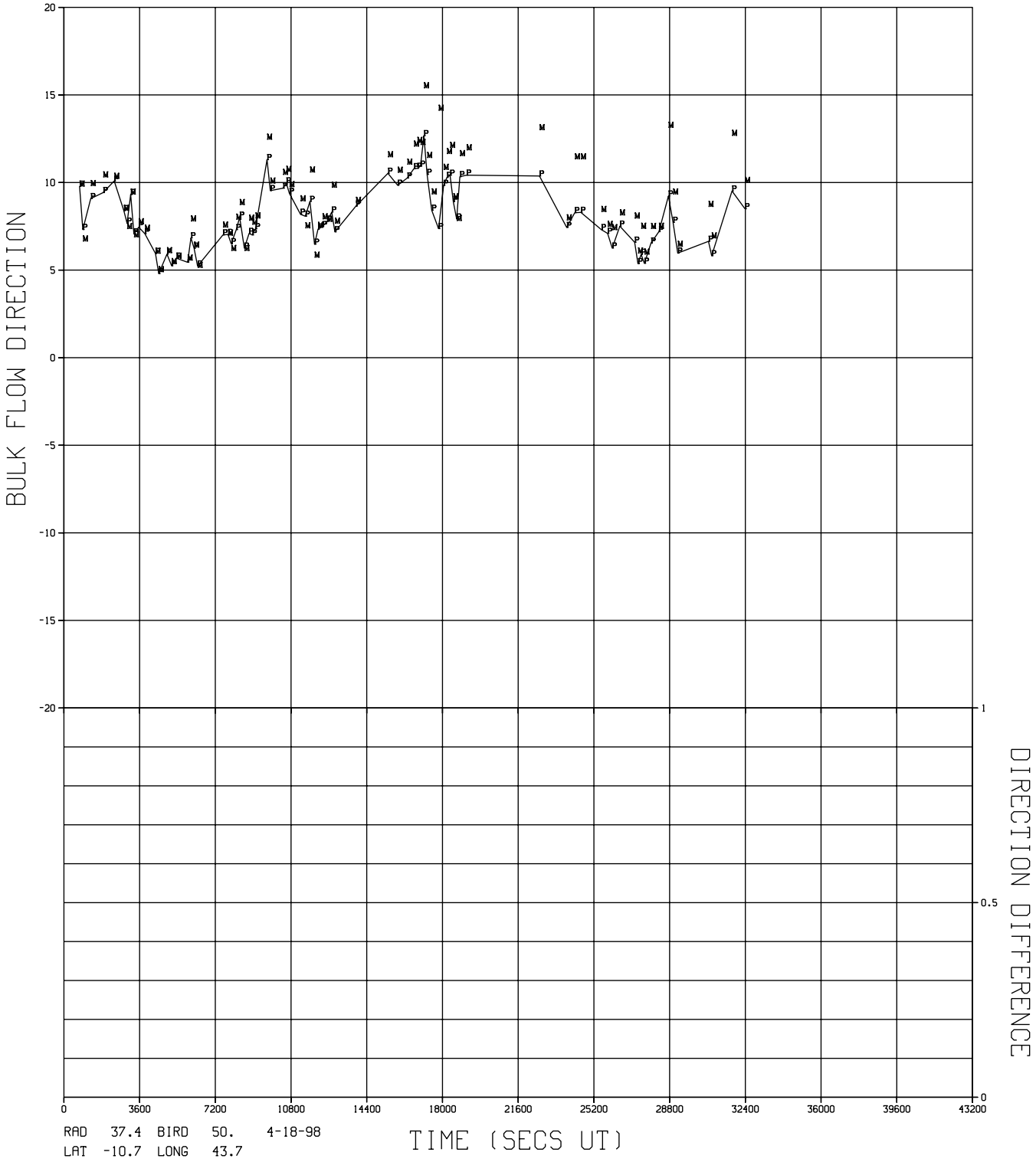

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 36.8 BIRD 50. 4-17-98
LAT -2.2 LONG 33.8

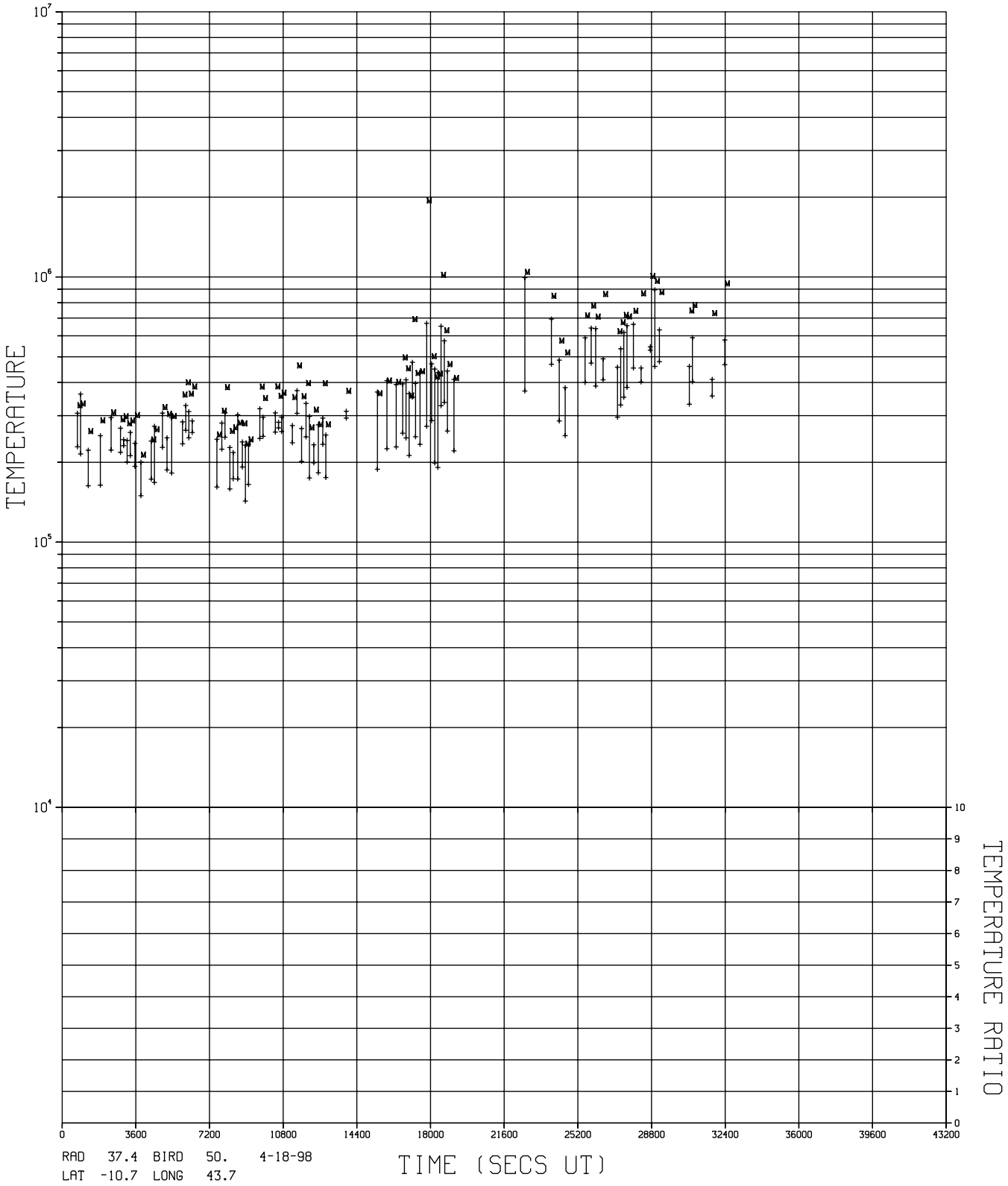

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.8 BIRD 50. 4-17-98
LAT -2.2 LONG 33.8

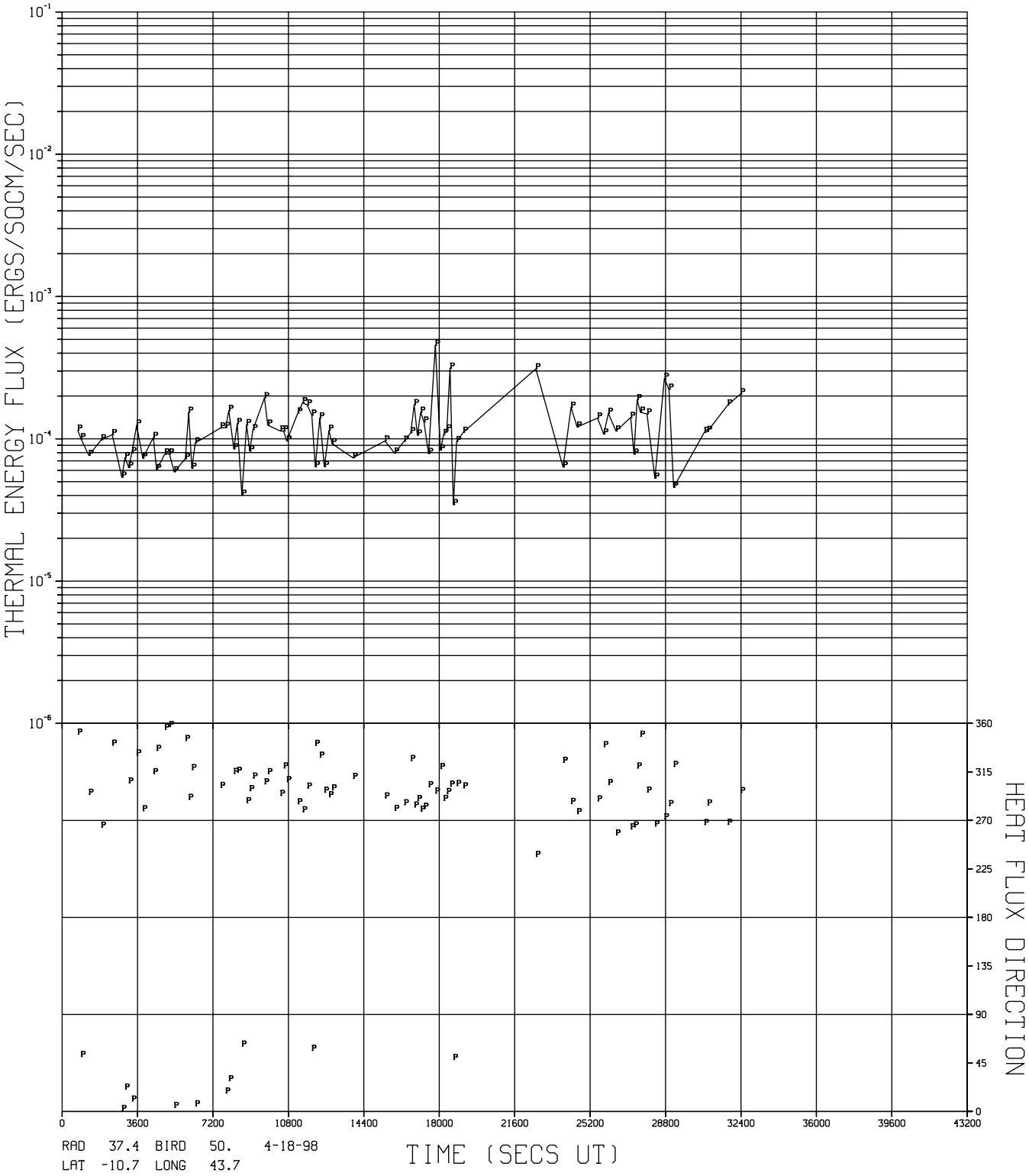

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.8 BIRD 50. 4-17-98
LAT -2.2 LONG 33.8

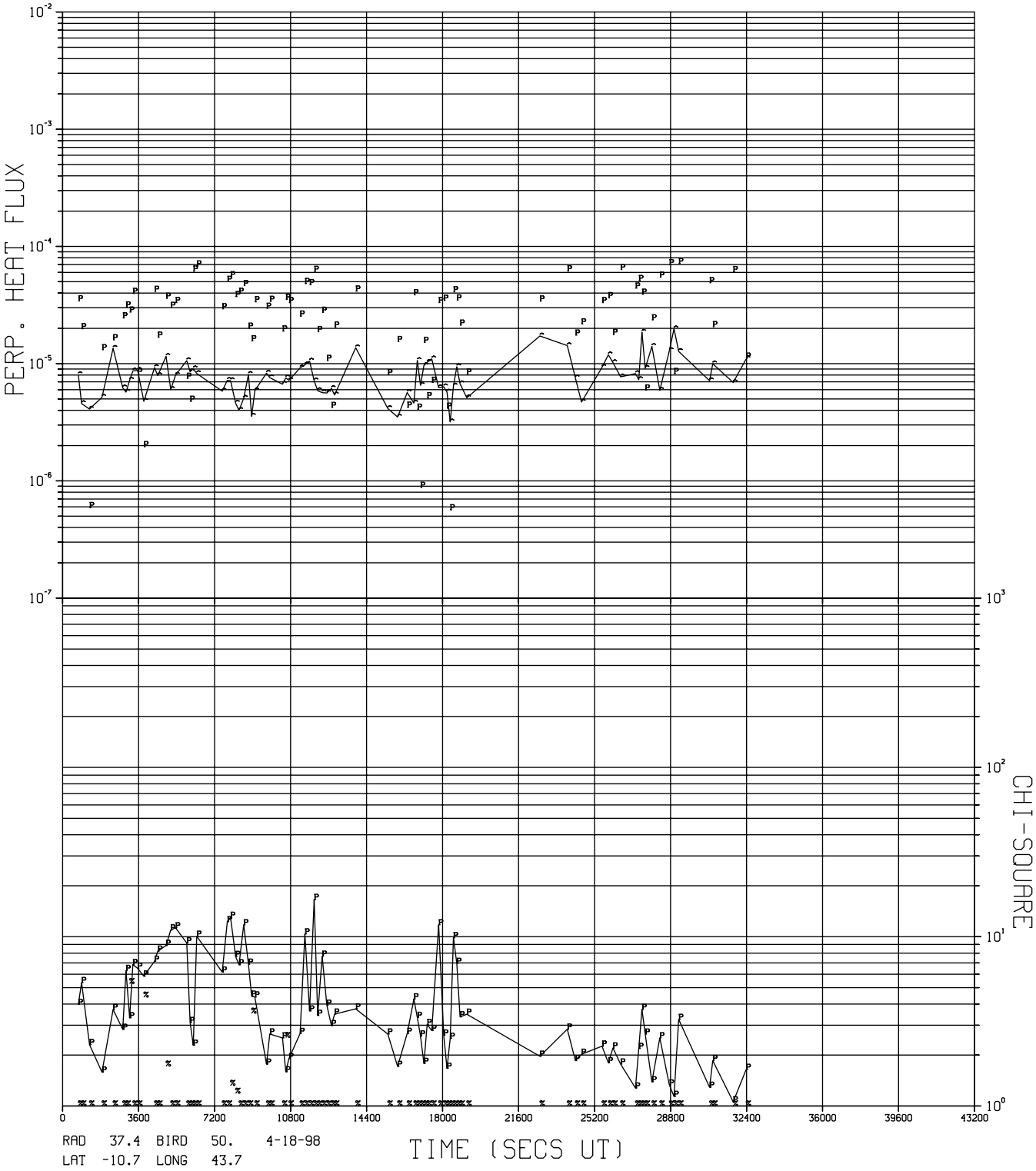

DENSITY
DENSITY RATIO
TIME (SECS UT)
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.4 BIRD 50. 4-18-98
LAT -10.7 LONG 43.7

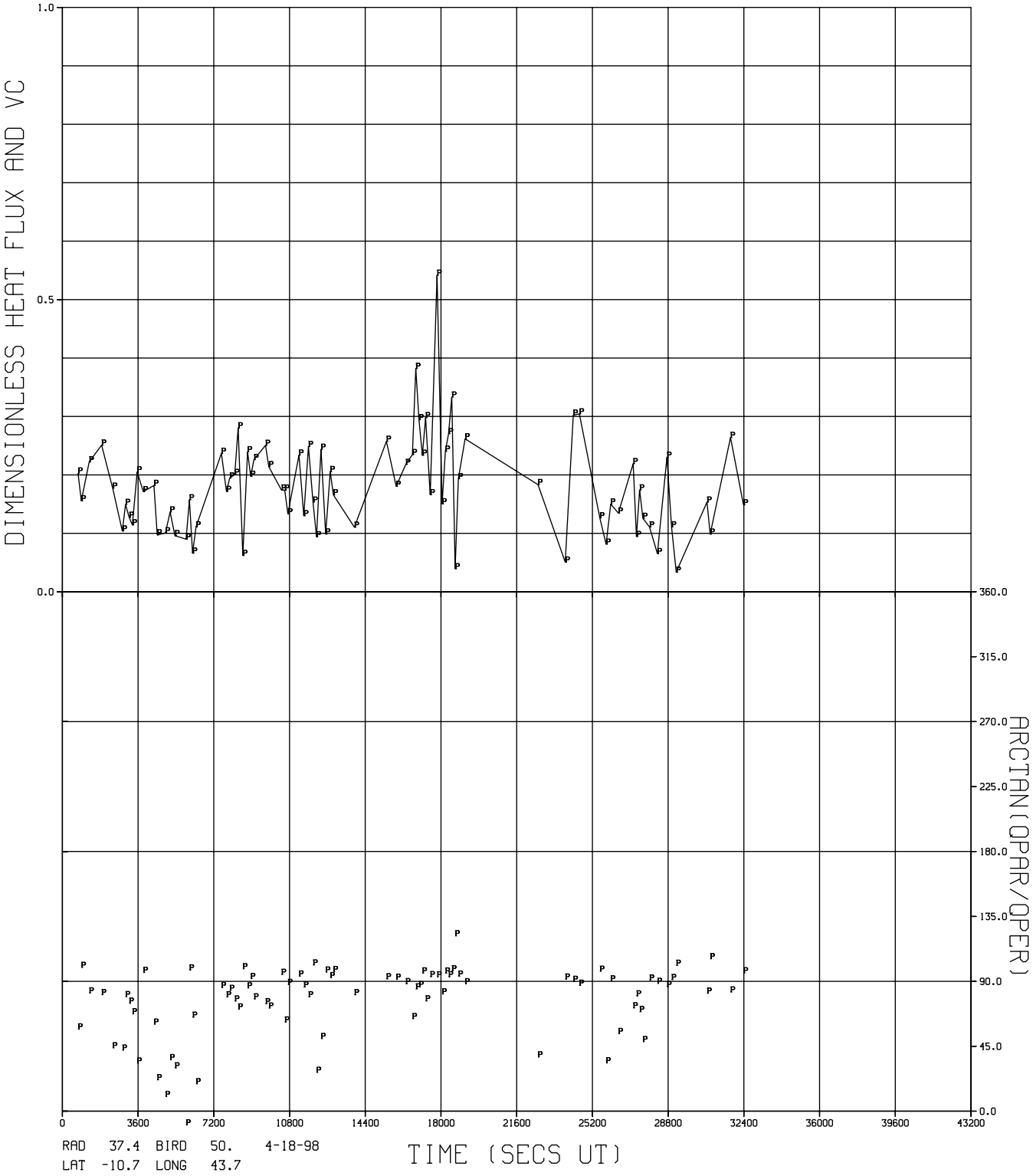

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
1000
900
800
700
600
500
400
300
200
100
0
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.4 BIRD 50. 4-18-98
LAT -10.7 LONG 43.7

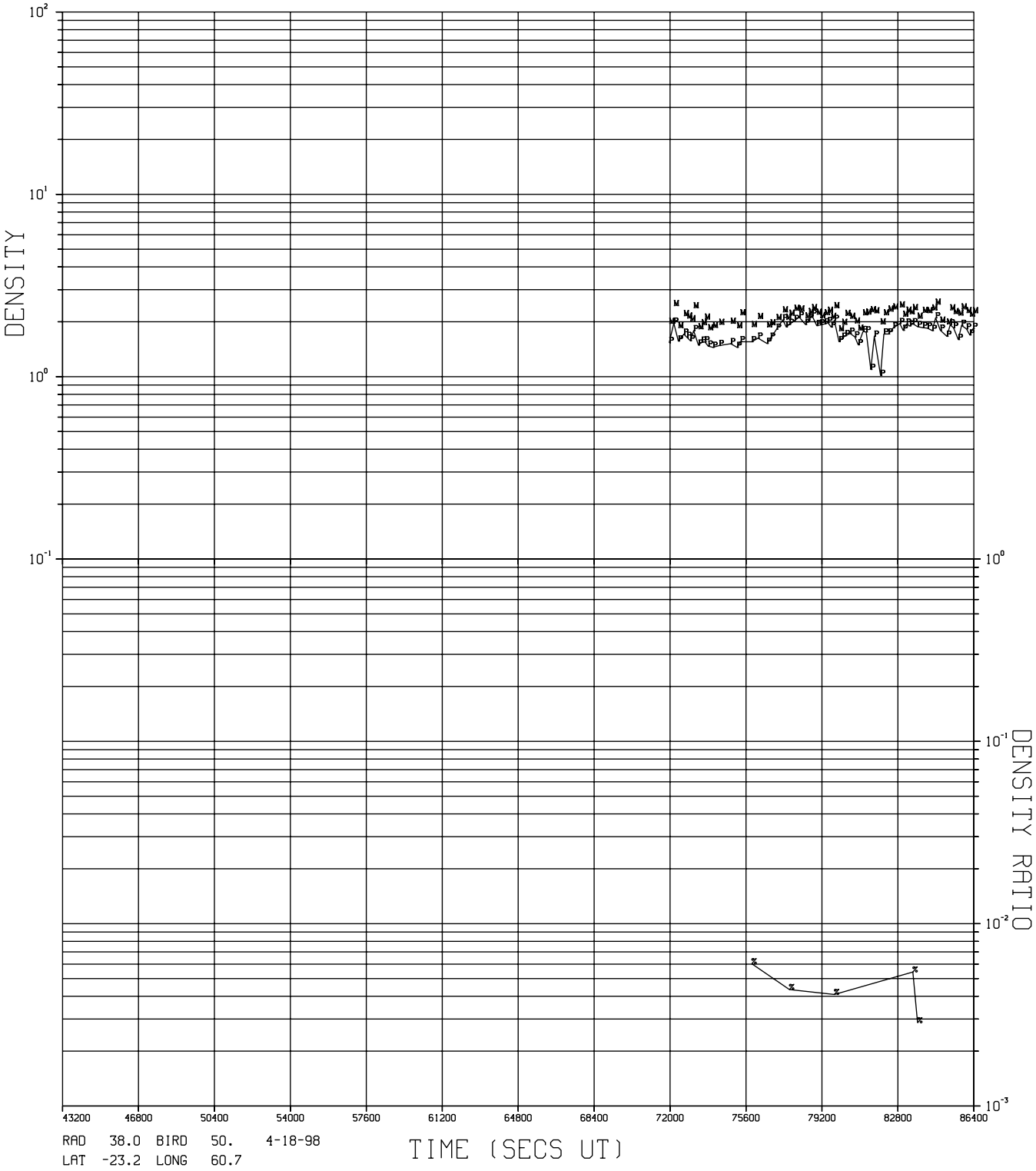

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.4 BIRD 50. 4-18-98
LAT -10.7 LONG 43.7

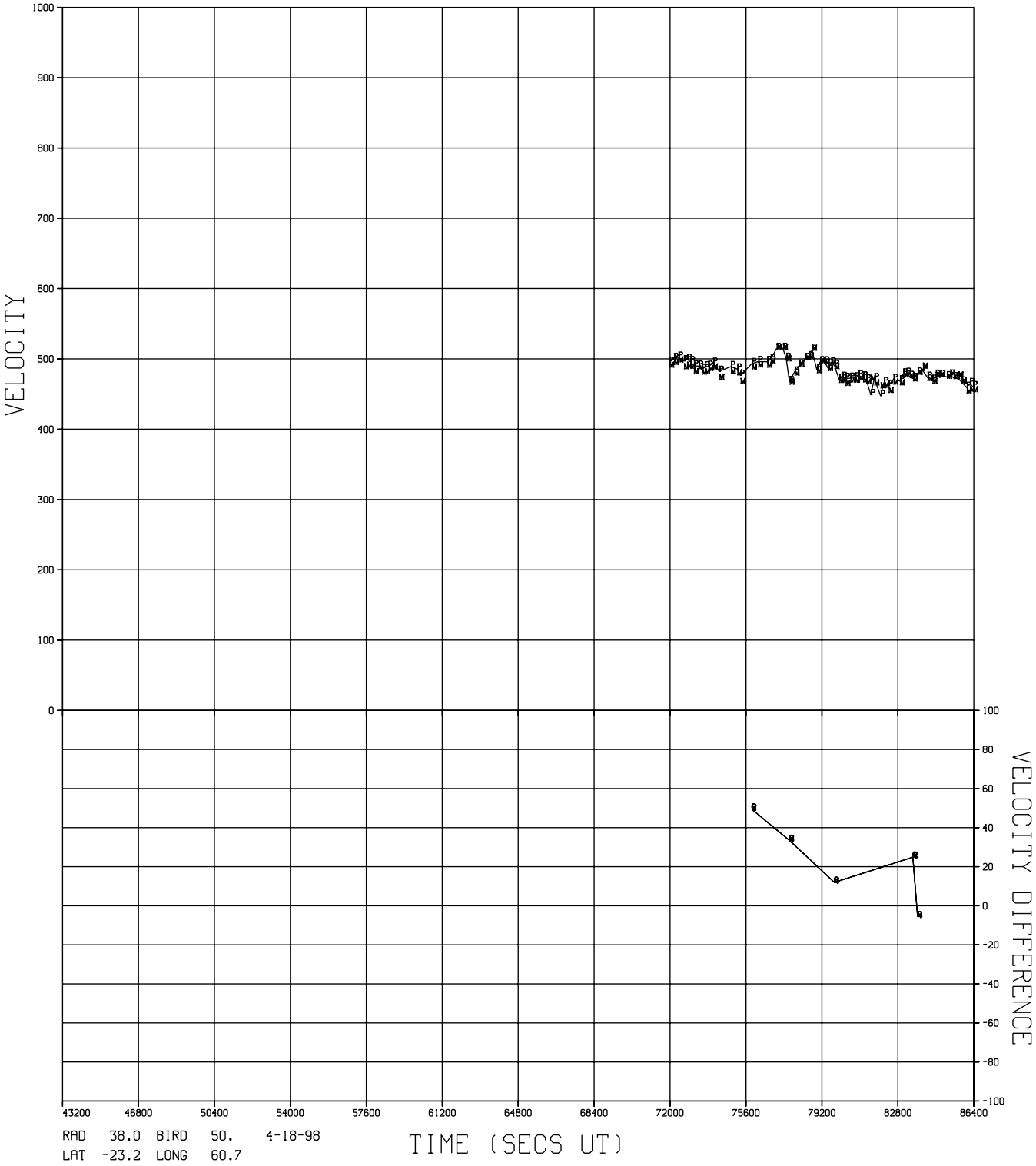

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 37.4 BIRD 50. 4-18-98
LAT -10.7 LONG 43.7

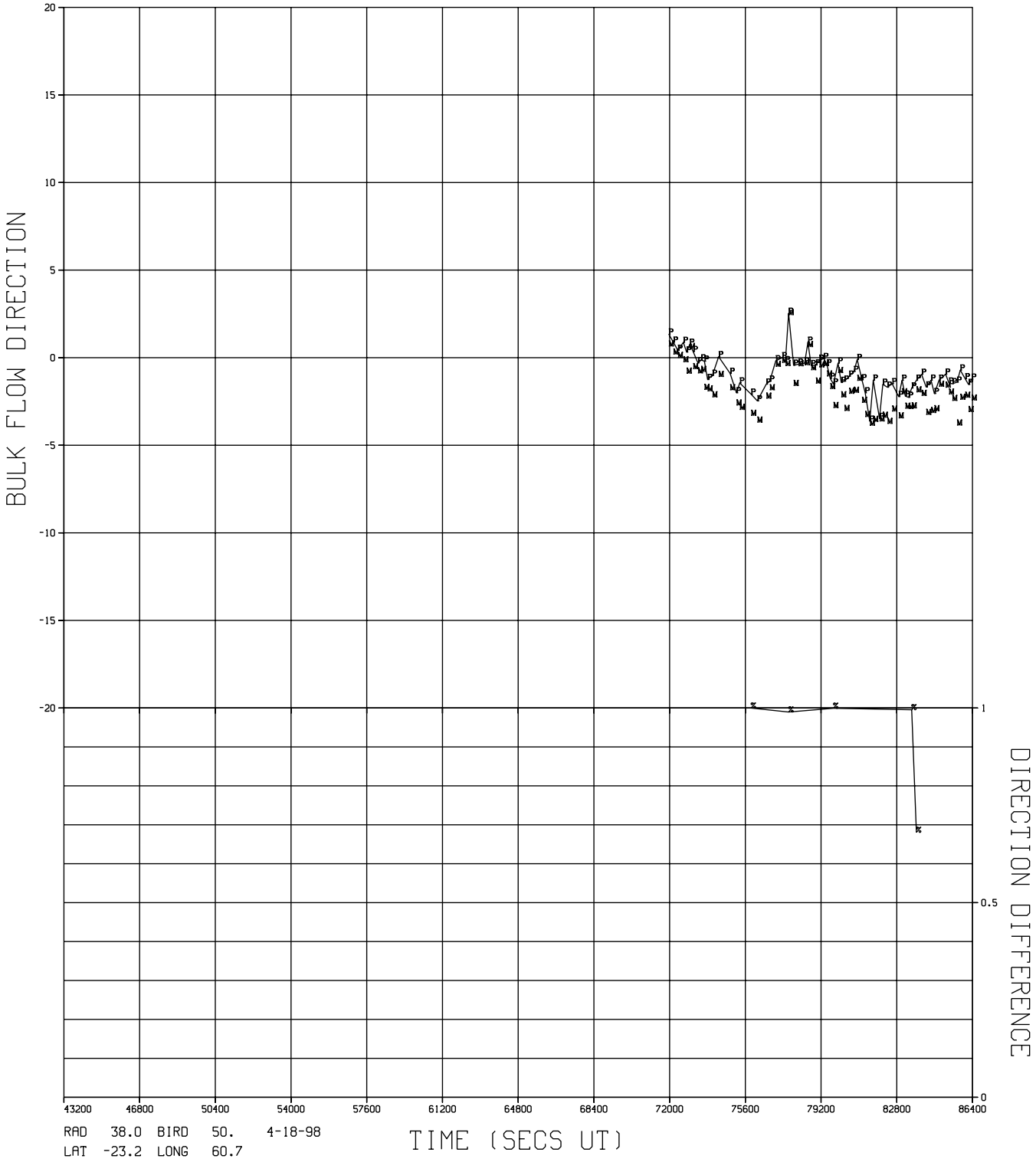

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.4 BIRD 50. 4-18-98
LAT -10.7 LONG 43.7

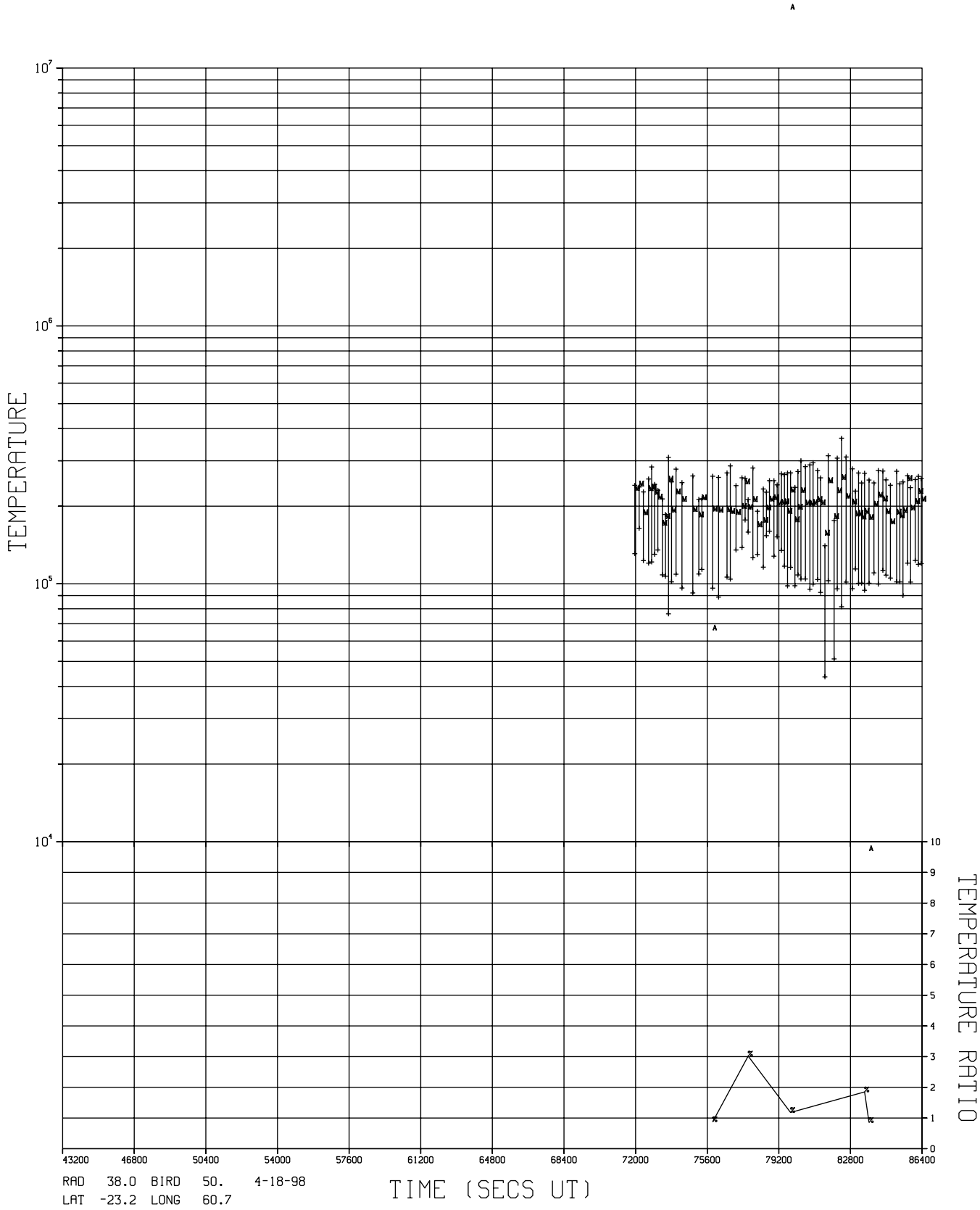

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 37.4 BIRD 50. 4-18-98
LAT -10.7 LONG 43.7

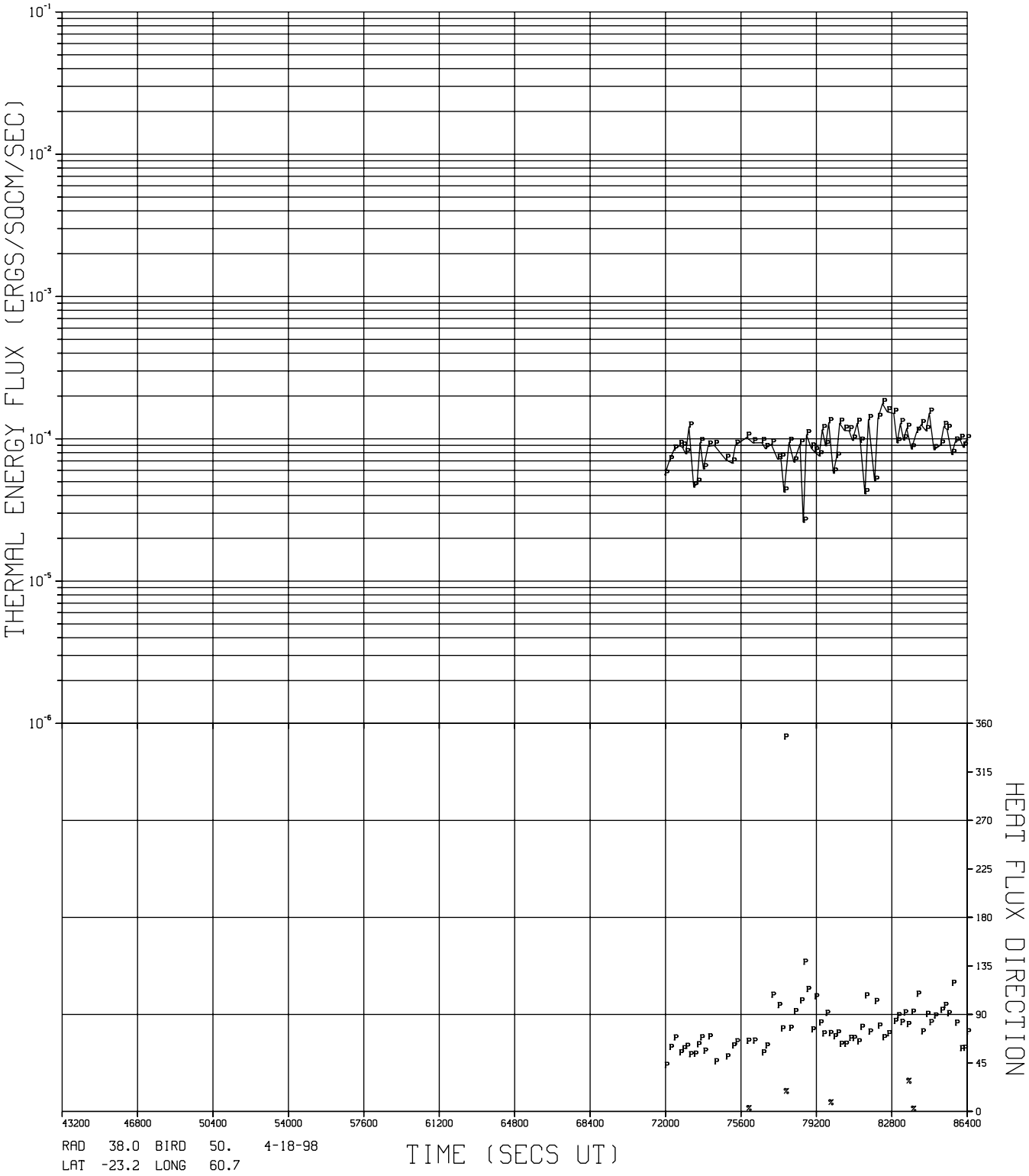

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 37.4 BIRD 50. 4-18-98
LAT -10.7 LONG 43.7

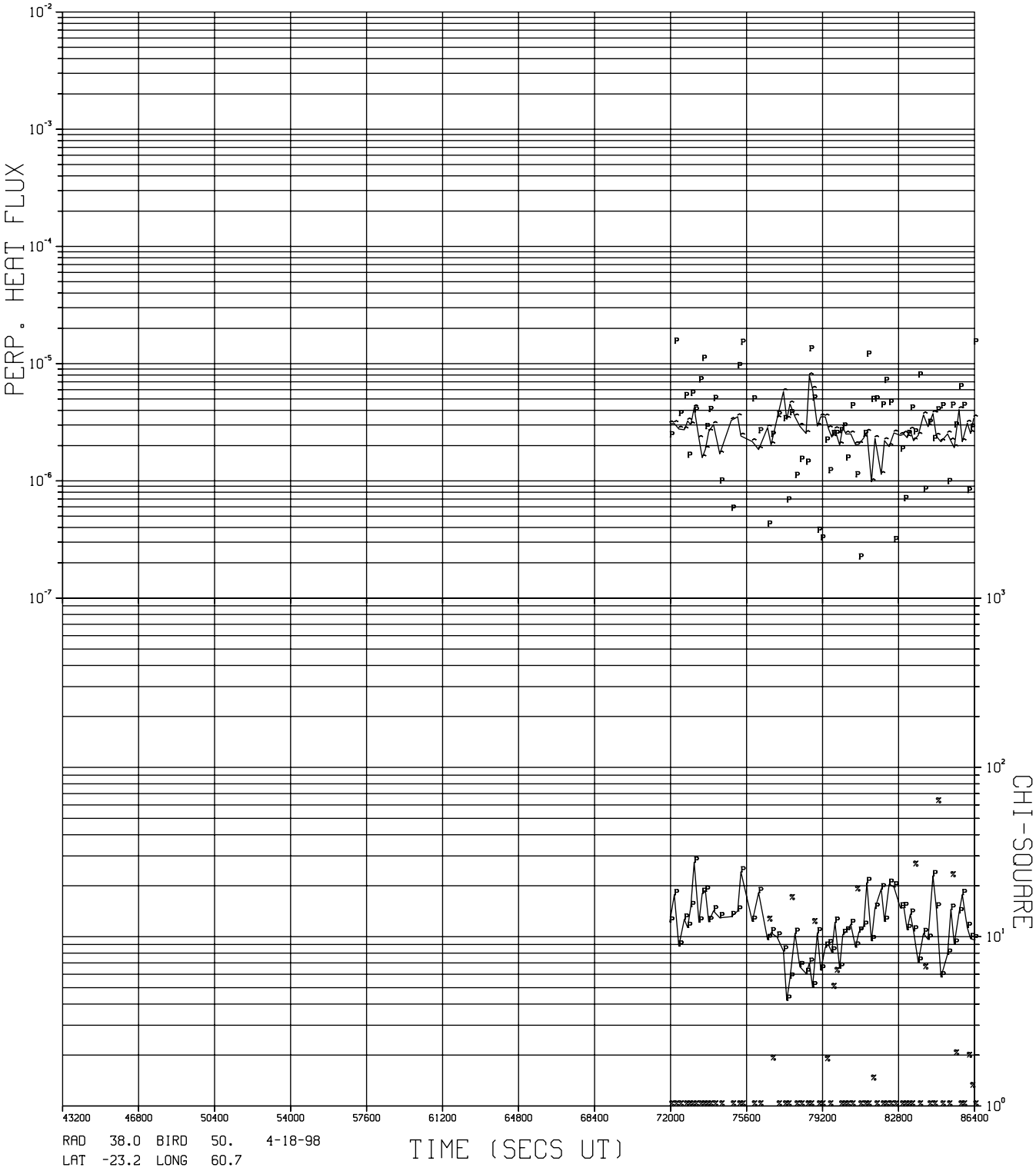

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 38.0 BIRD 50. 4-18-98
LAT -23.2 LONG 60.7

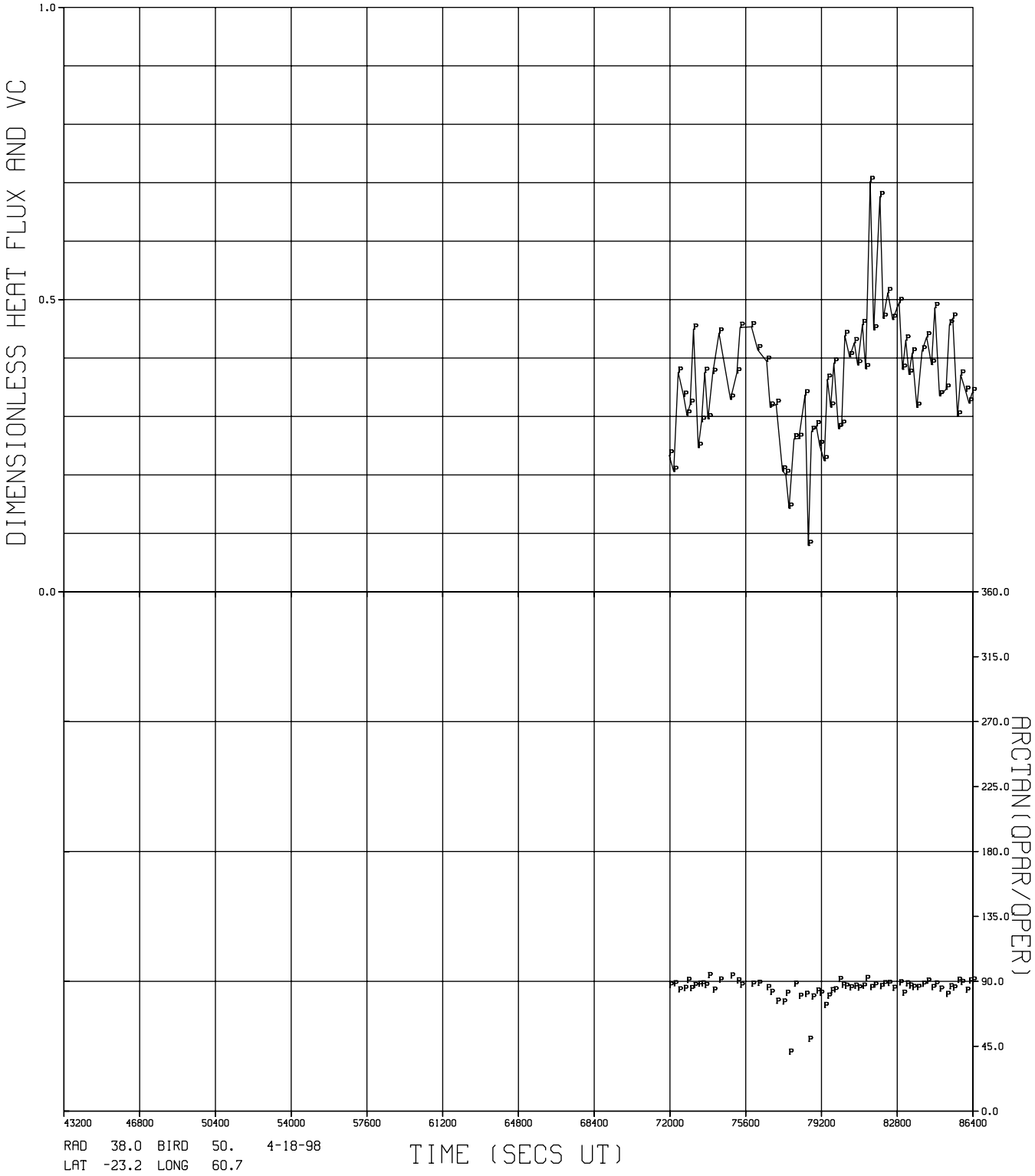

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 38.0 BIRD 50. 4-18-98
LAT -23.2 LONG 60.7

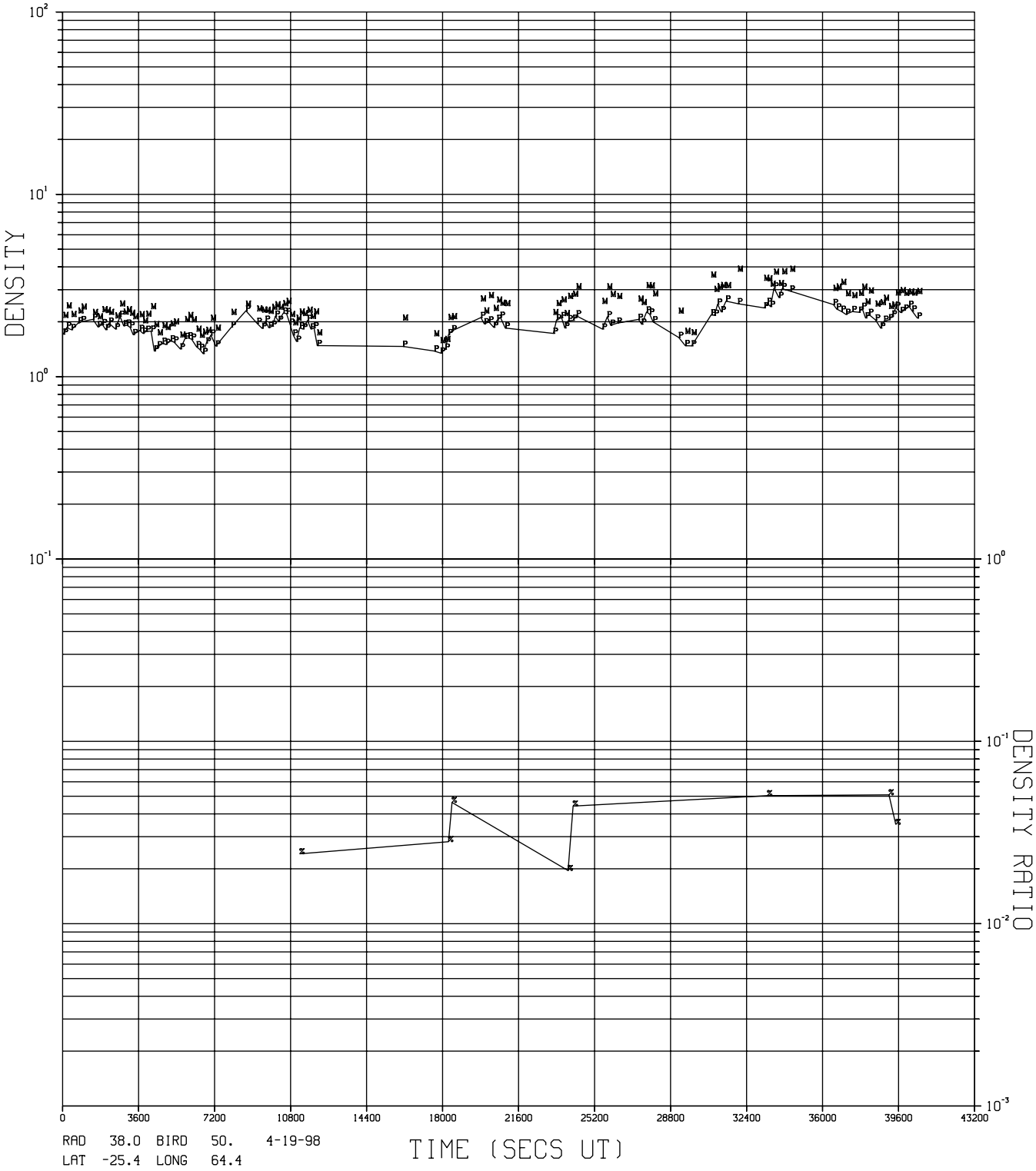

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 38.0 BIRD 50. 4-18-98
LAT -23.2 LONG 60.7

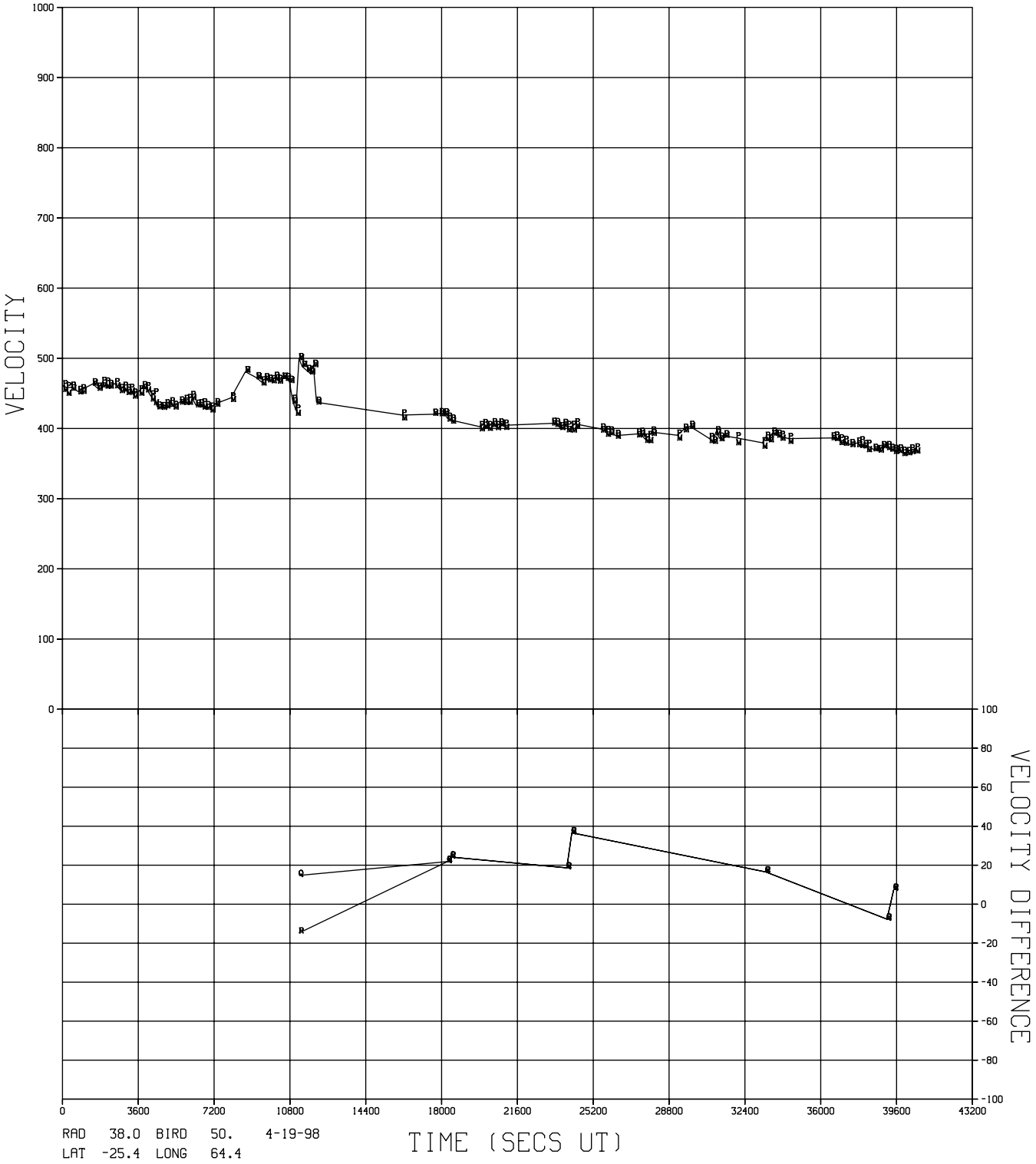

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 38.0 BIRD 50. 4-18-98
LAT -23.2 LONG 60.7
TIME (SECS UT)

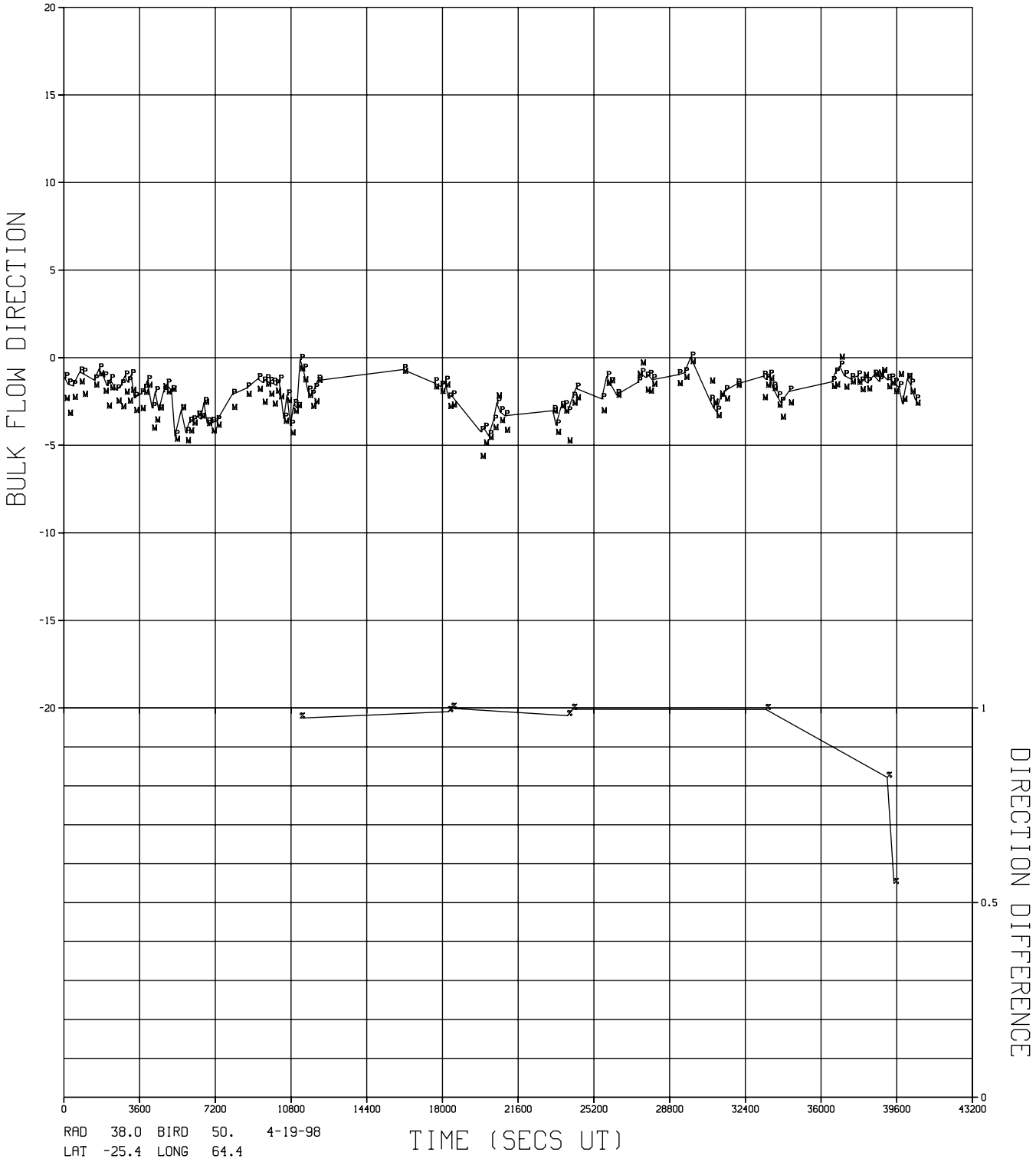

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 38.0 BIRD 50. 4-18-98
LAT -23.2 LONG 60.7

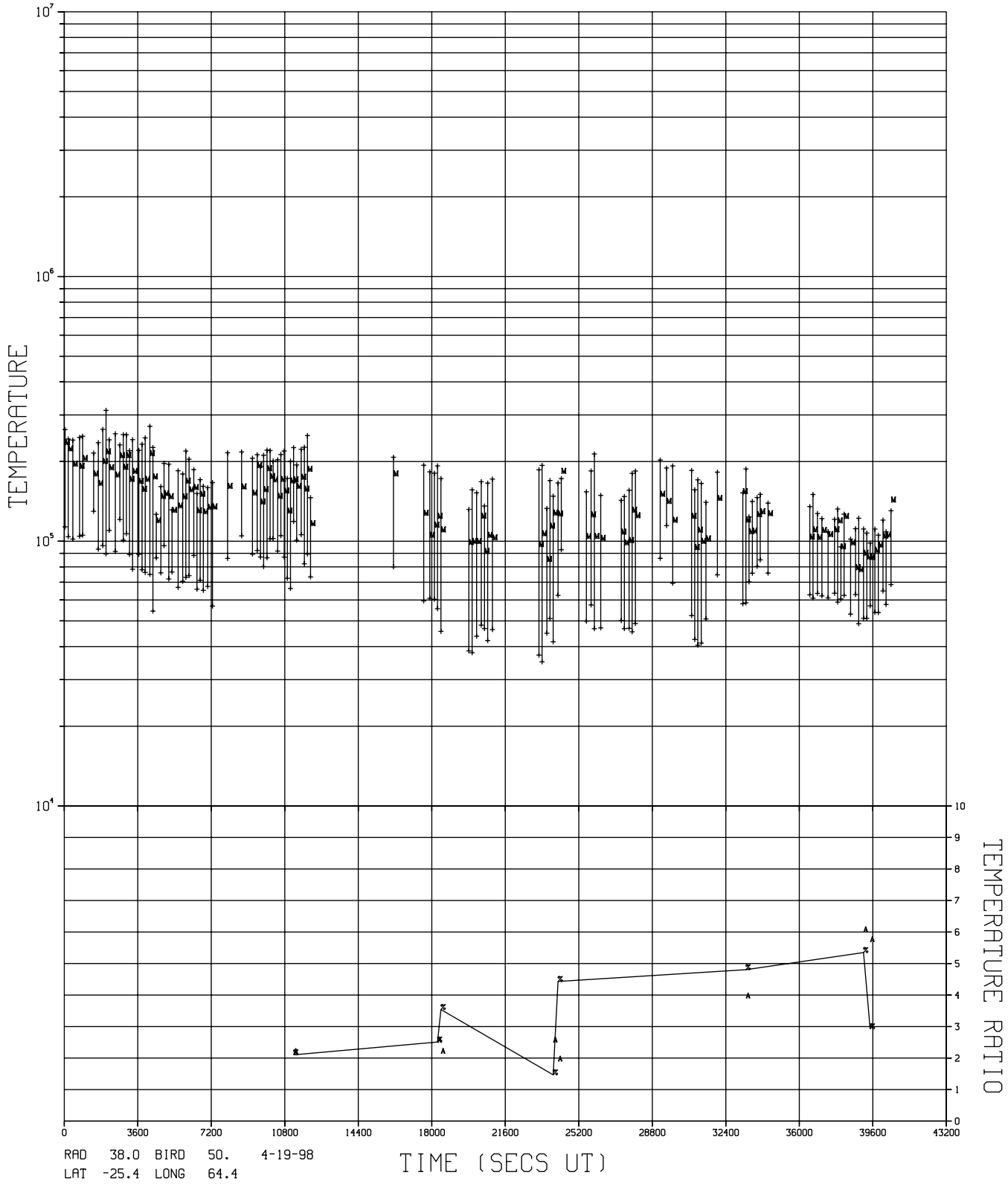

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 38.0 BIRD 50. 4-18-98
LAT -23.2 LONG 60.7

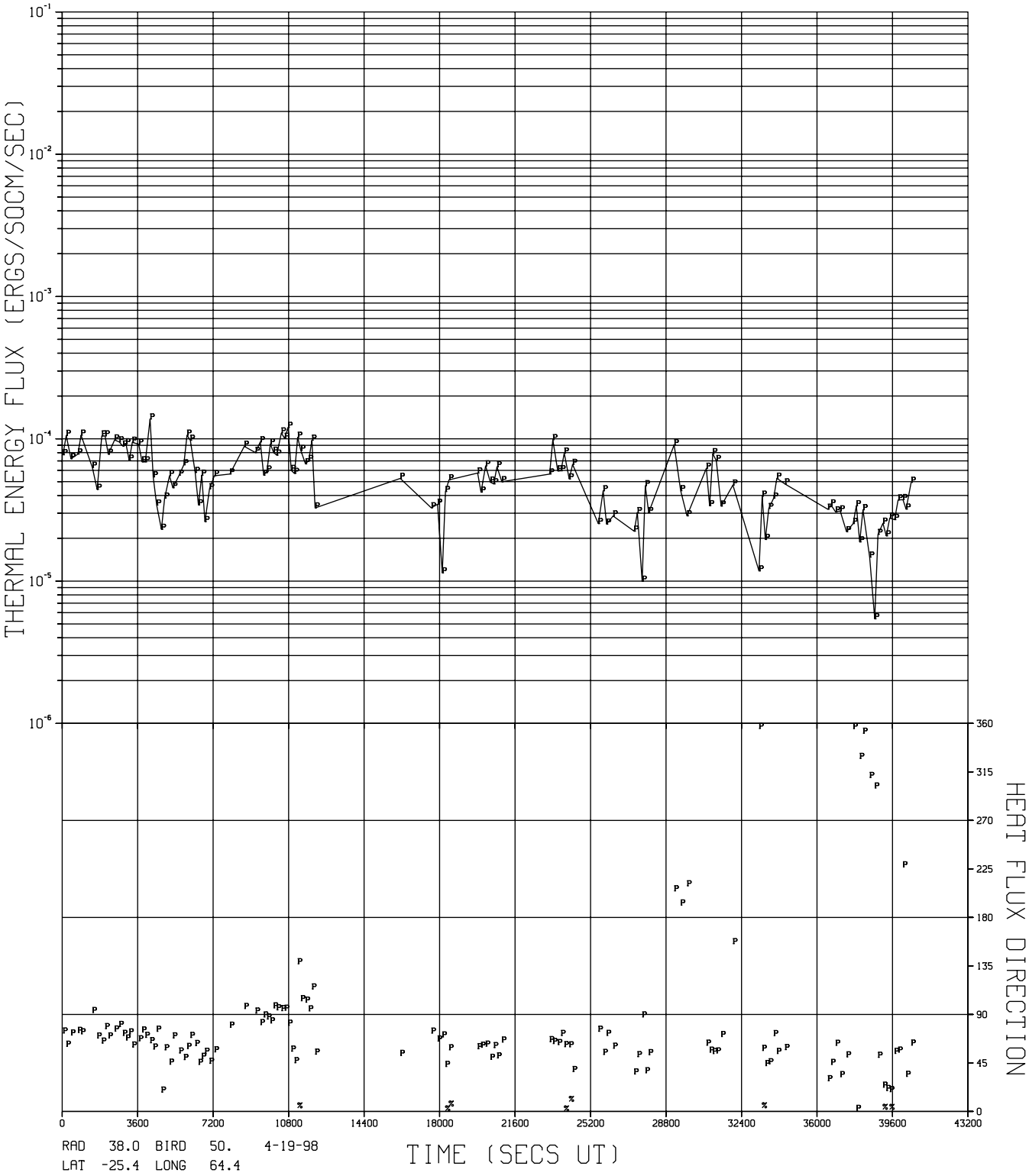

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 38.0 BIRD 50. 4-18-98
LAT -23.2 LONG 60.7

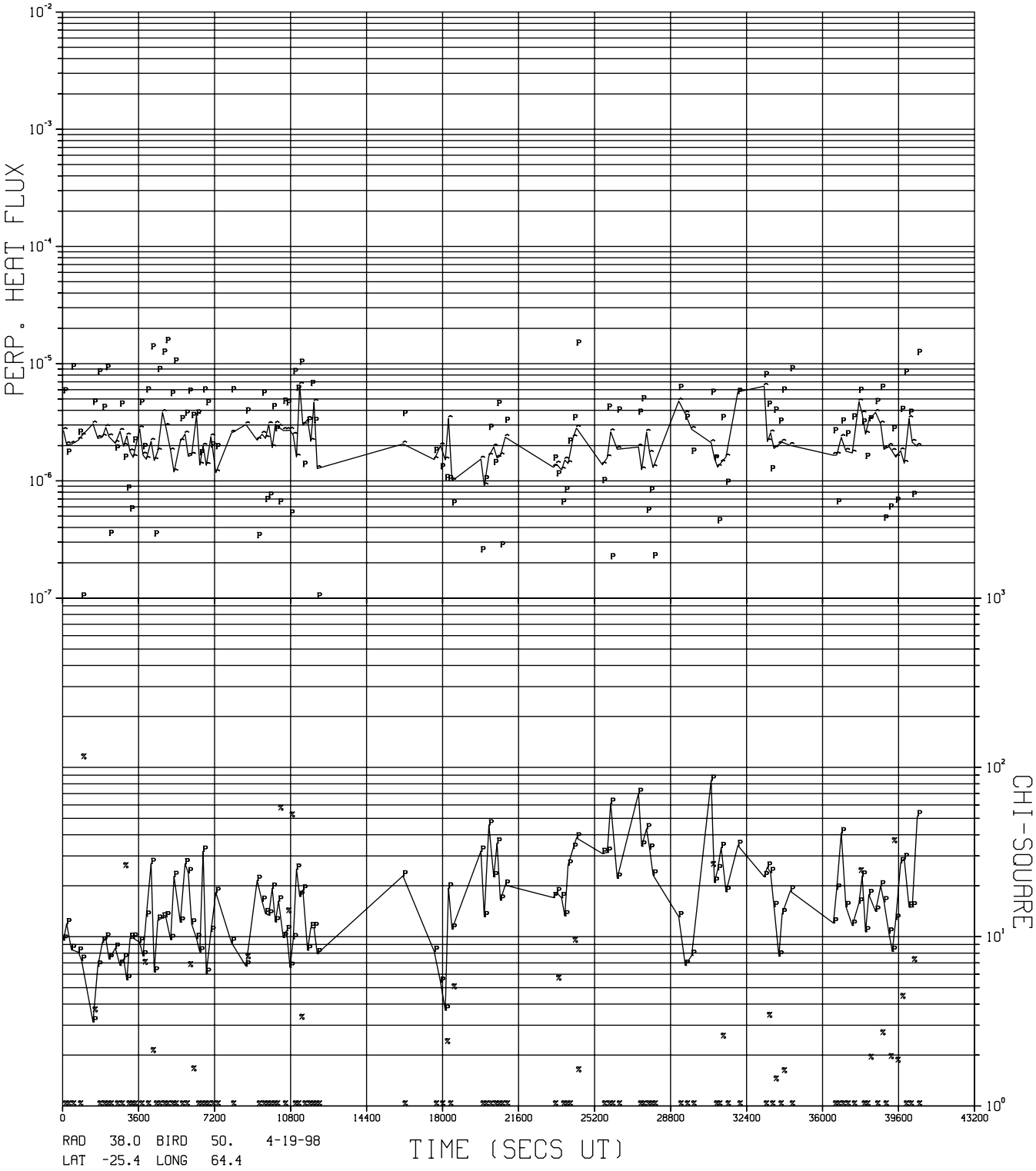

DENSITY
DENSITY RATIO
TIME (SECS UT)
RAD 38.0 BIRD 50. 4-19-98
LAT -25.4 LONG 64.4

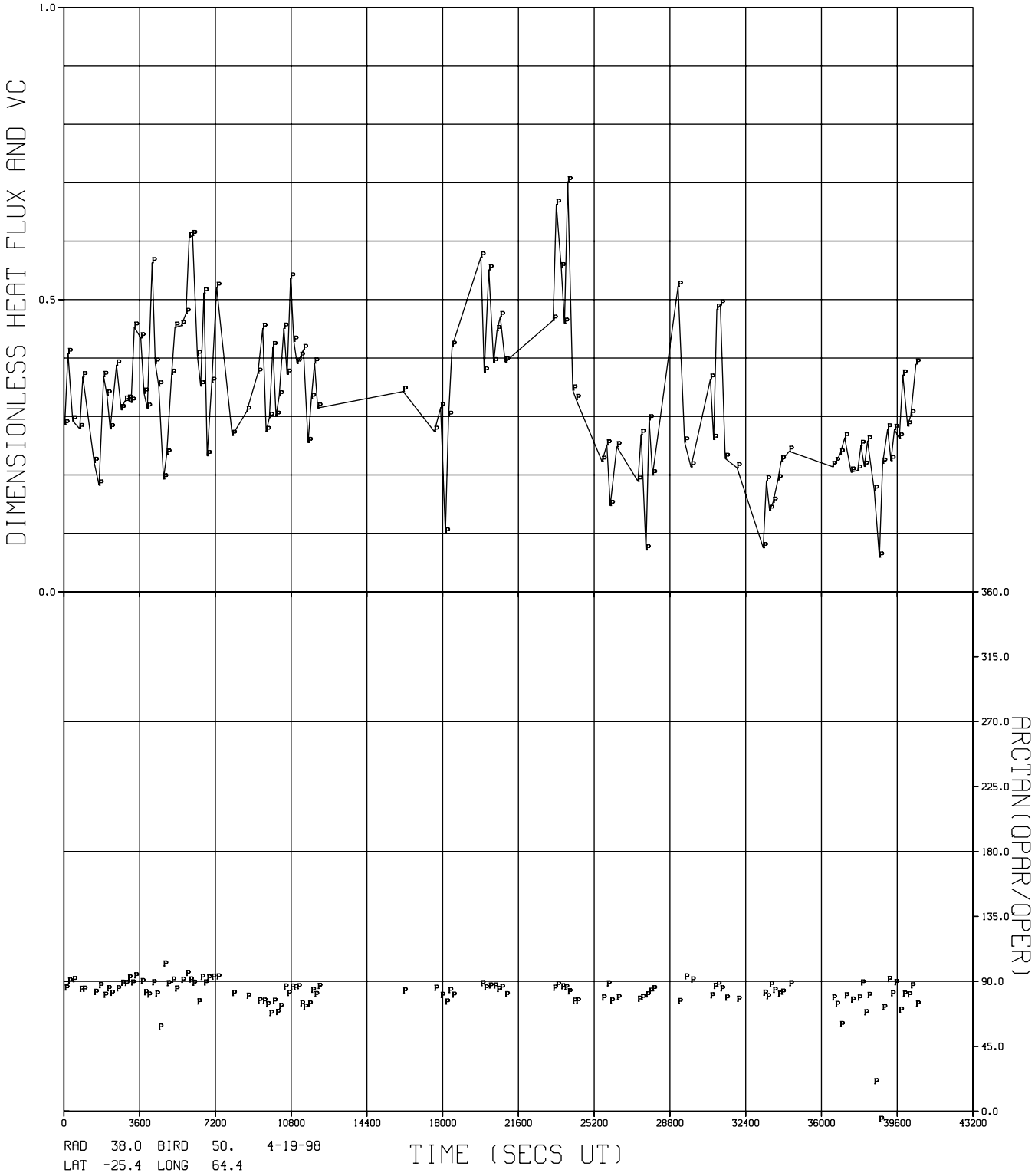

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 38.0 BIRD 50. 4-19-98
LAT -25.4 LONG 64.4

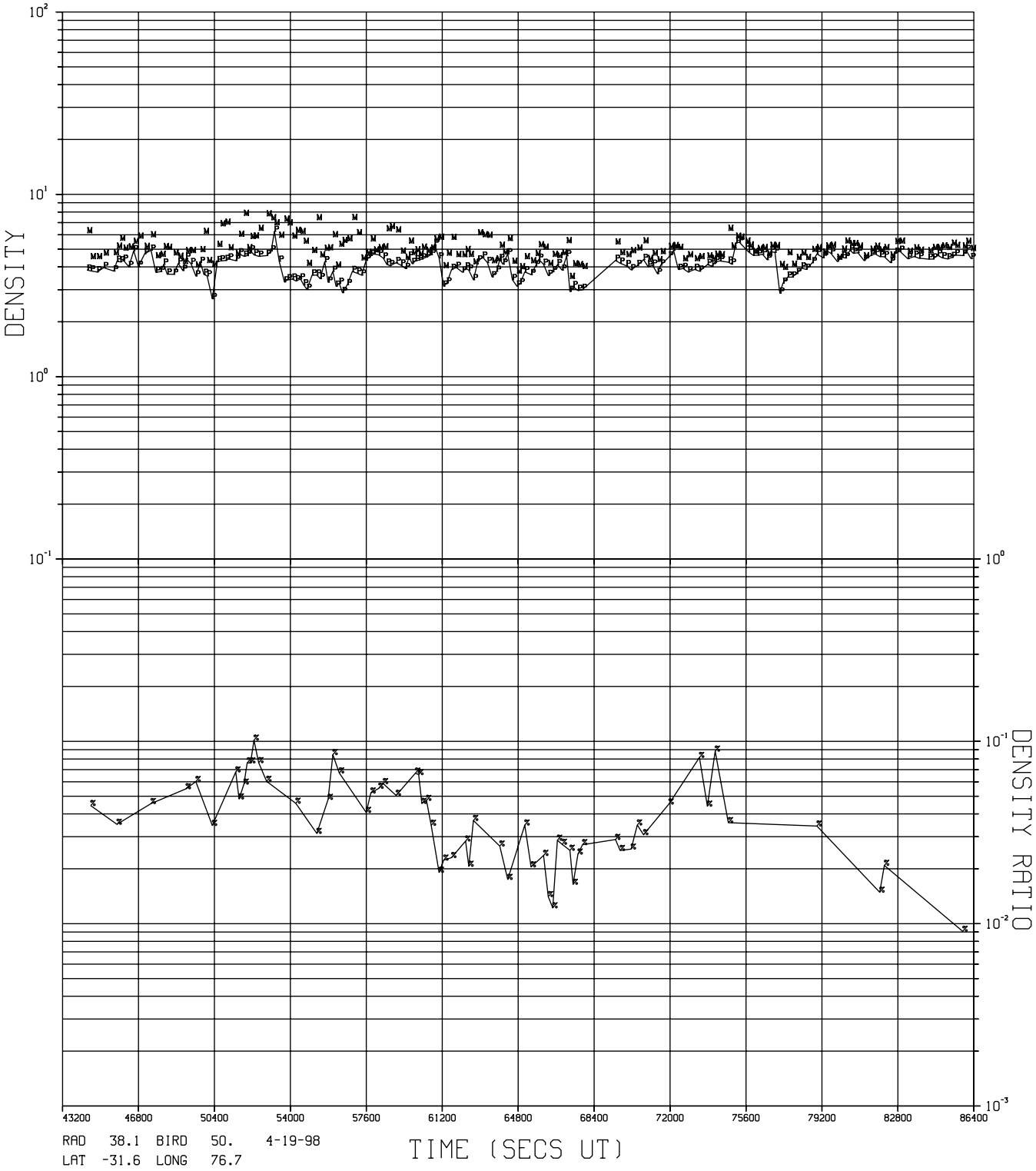

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 38.0 BIRD 50. 4-19-98
LAT -25.4 LONG 64.4

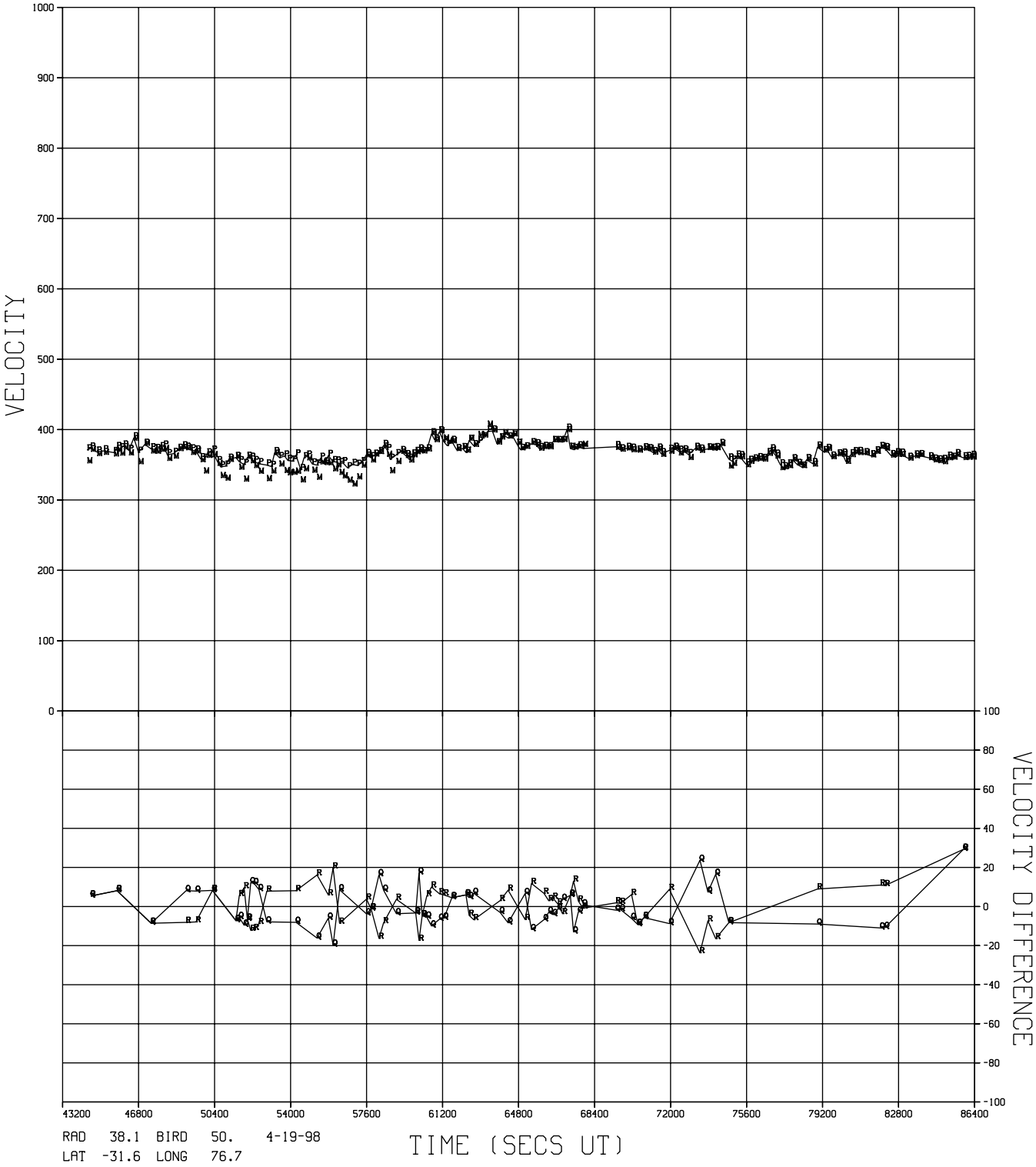

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 38.0 BIRD 50. 4-19-98
LAT -25.4 LONG 64.4

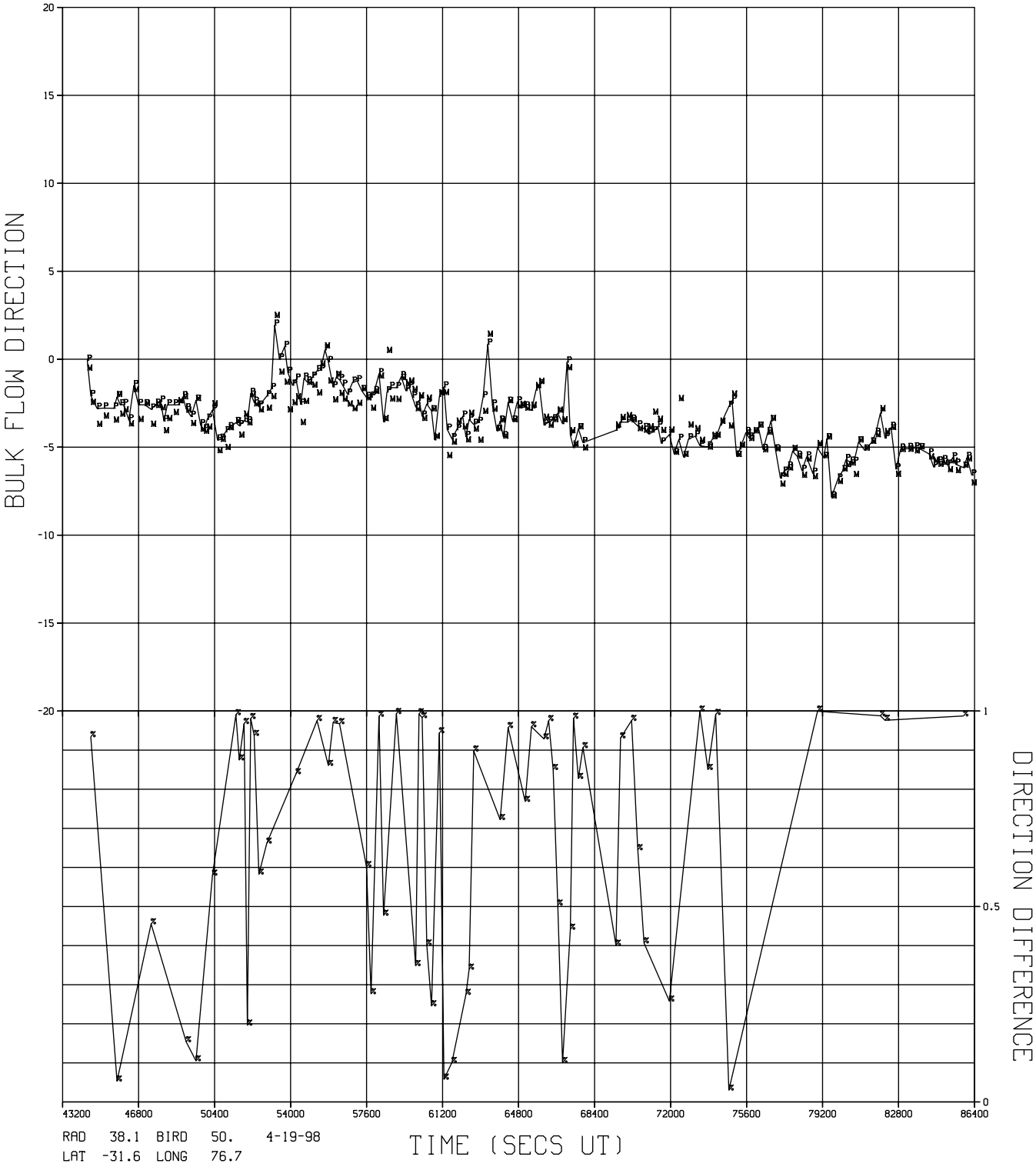

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 38.0 BIRD 50. 4-19-98
LAT -25.4 LONG 64.4

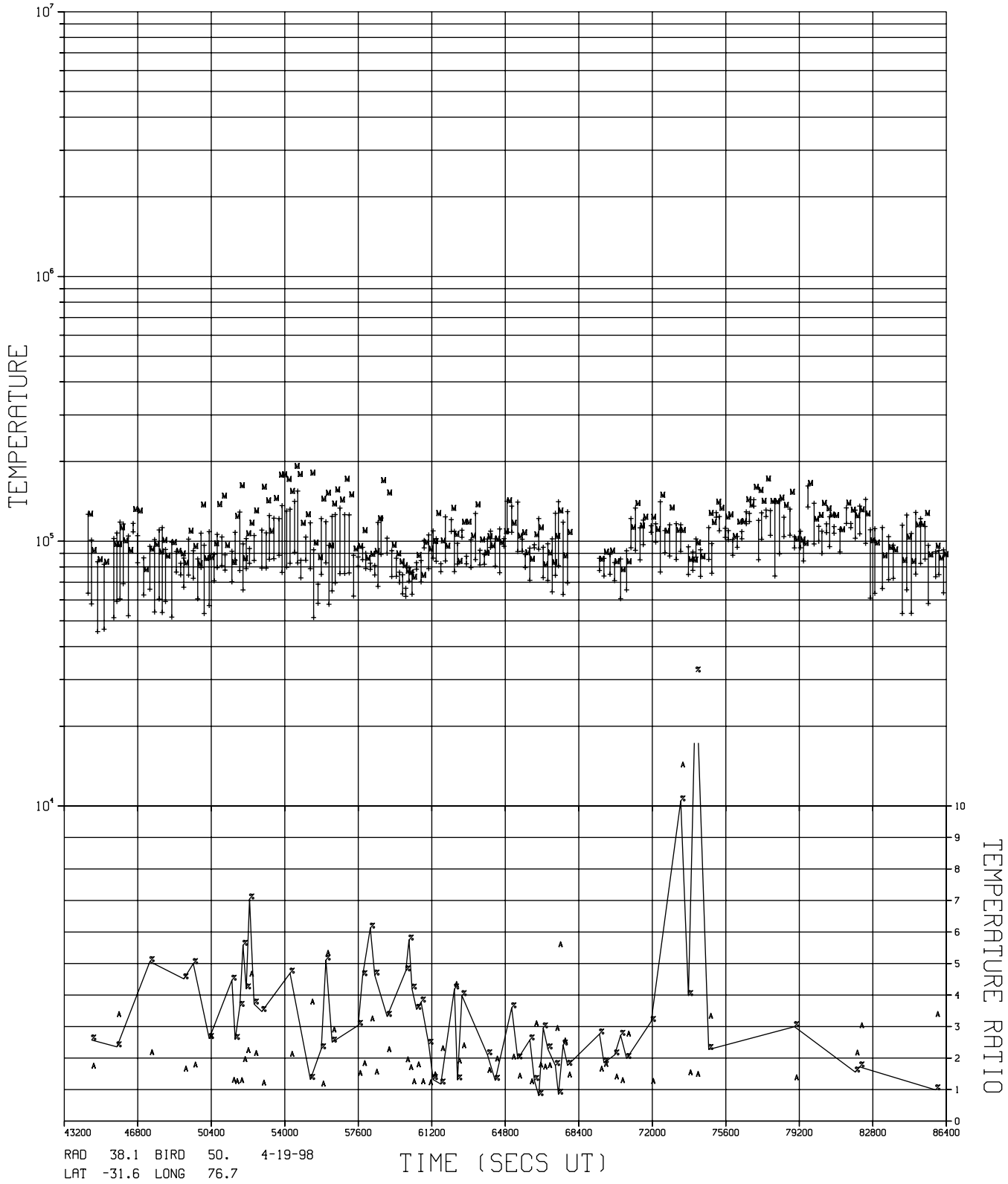

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 38.0 BIRD 50. 4-19-98
LAT -25.4 LONG 64.4

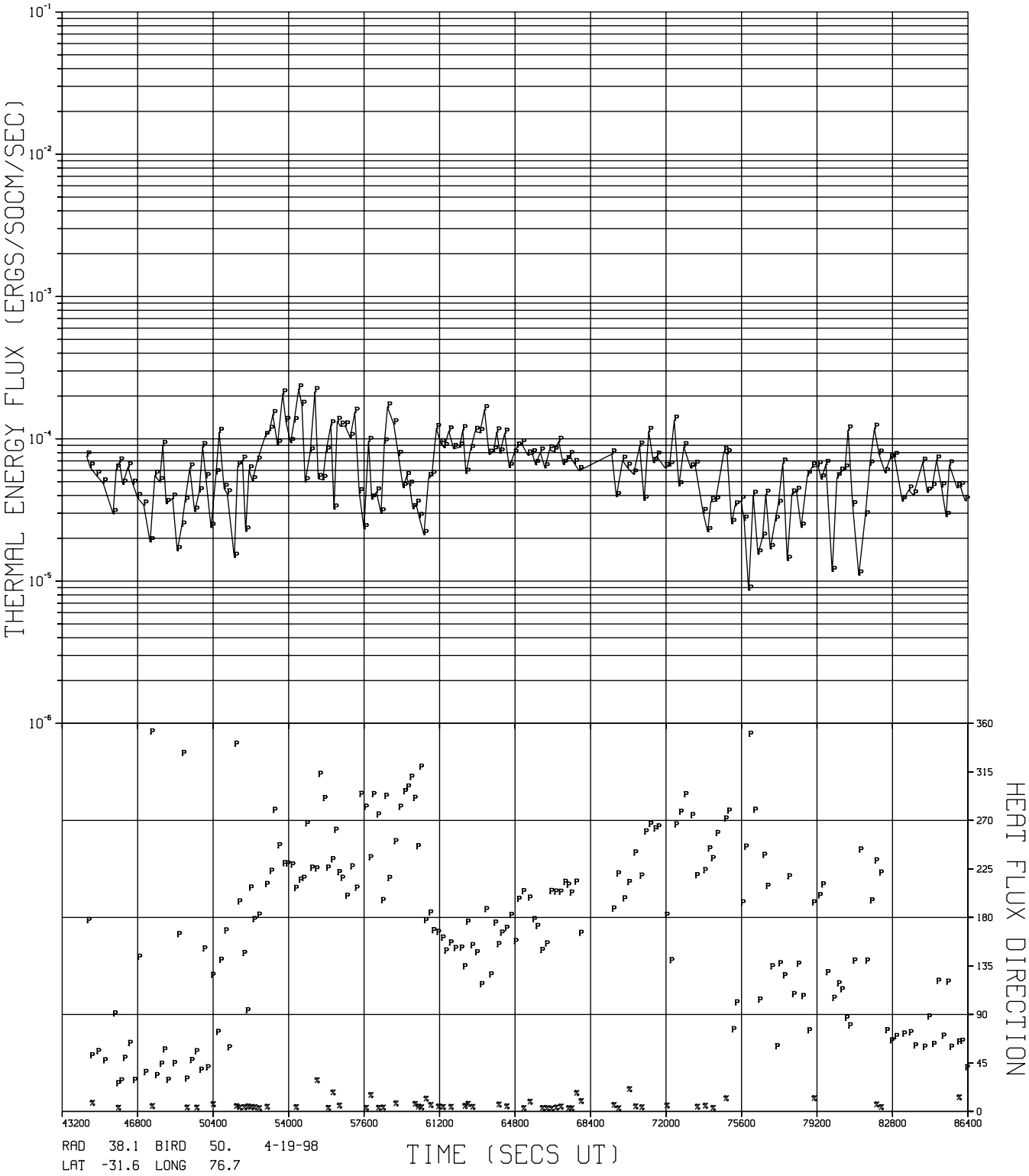

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 38.0 BIRD 50. 4-19-98
LAT -25.4 LONG 64.4

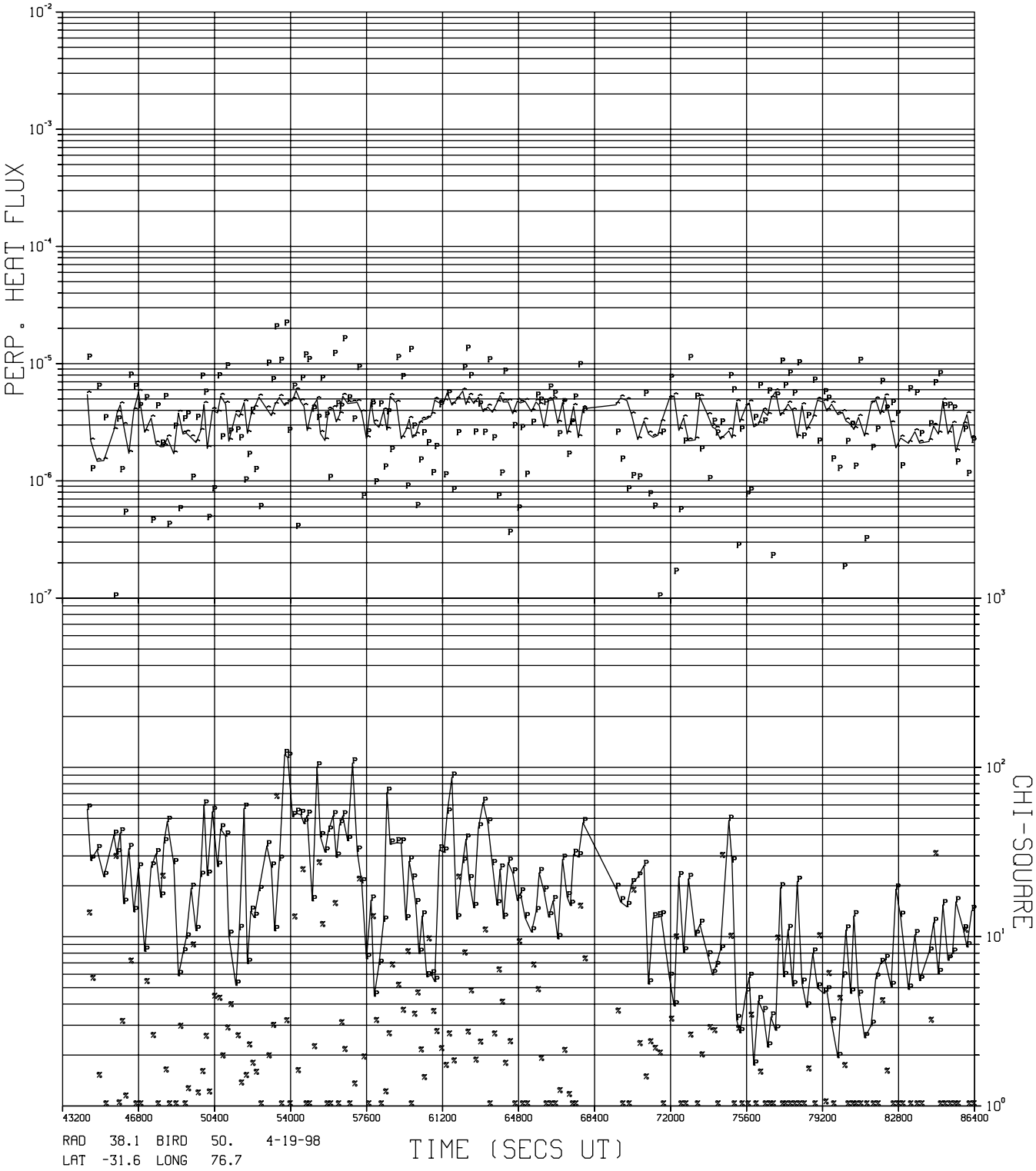

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 38.1 BIRD 50. 4-19-98
LAT -31.6 LONG 76.7

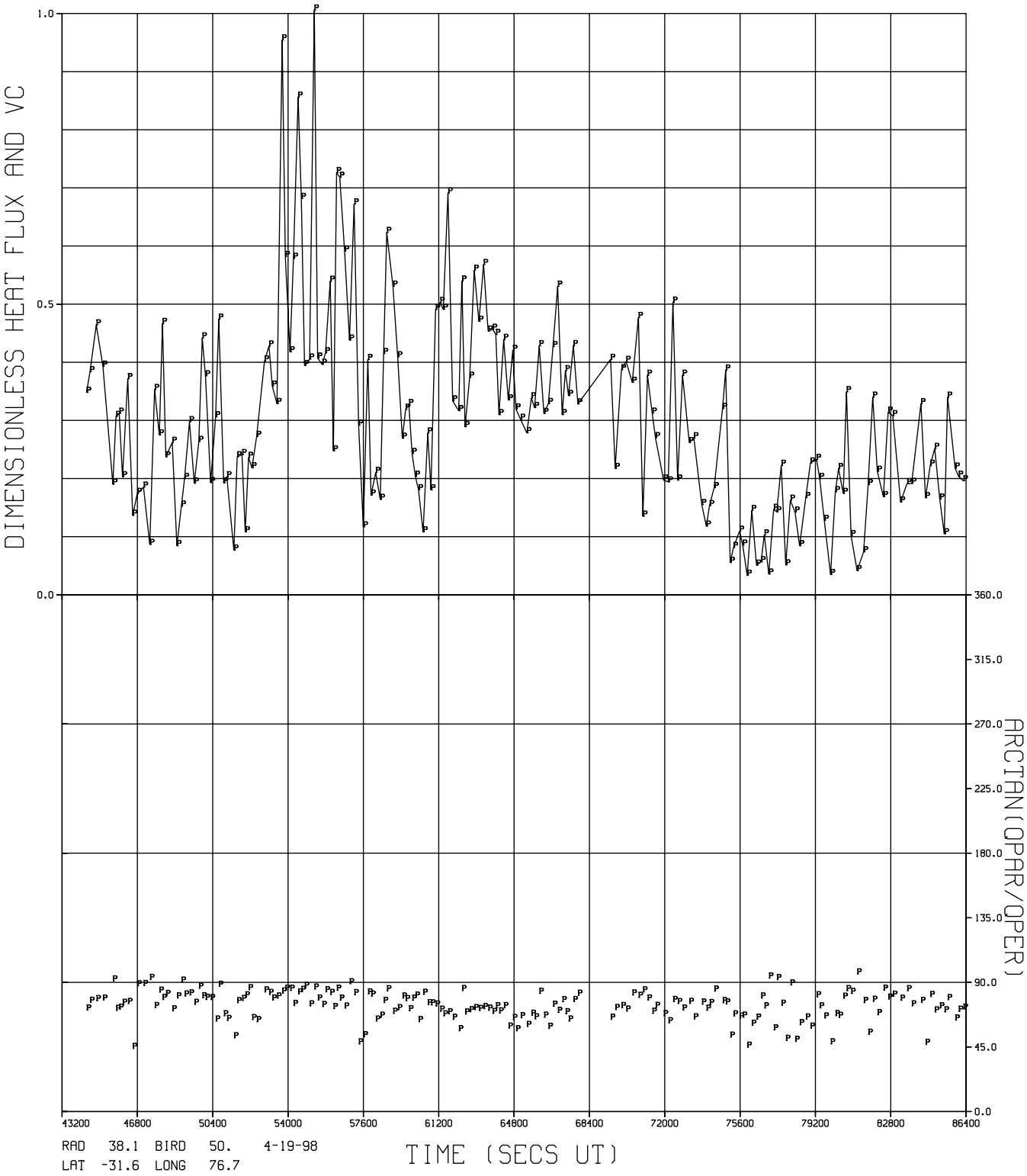

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 38.1 BIRD 50. 4-19-98
LAT -31.6 LONG 76.7


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 38.1 BIRD 50. 4-19-98
LAT -31.6 LONG 76.7

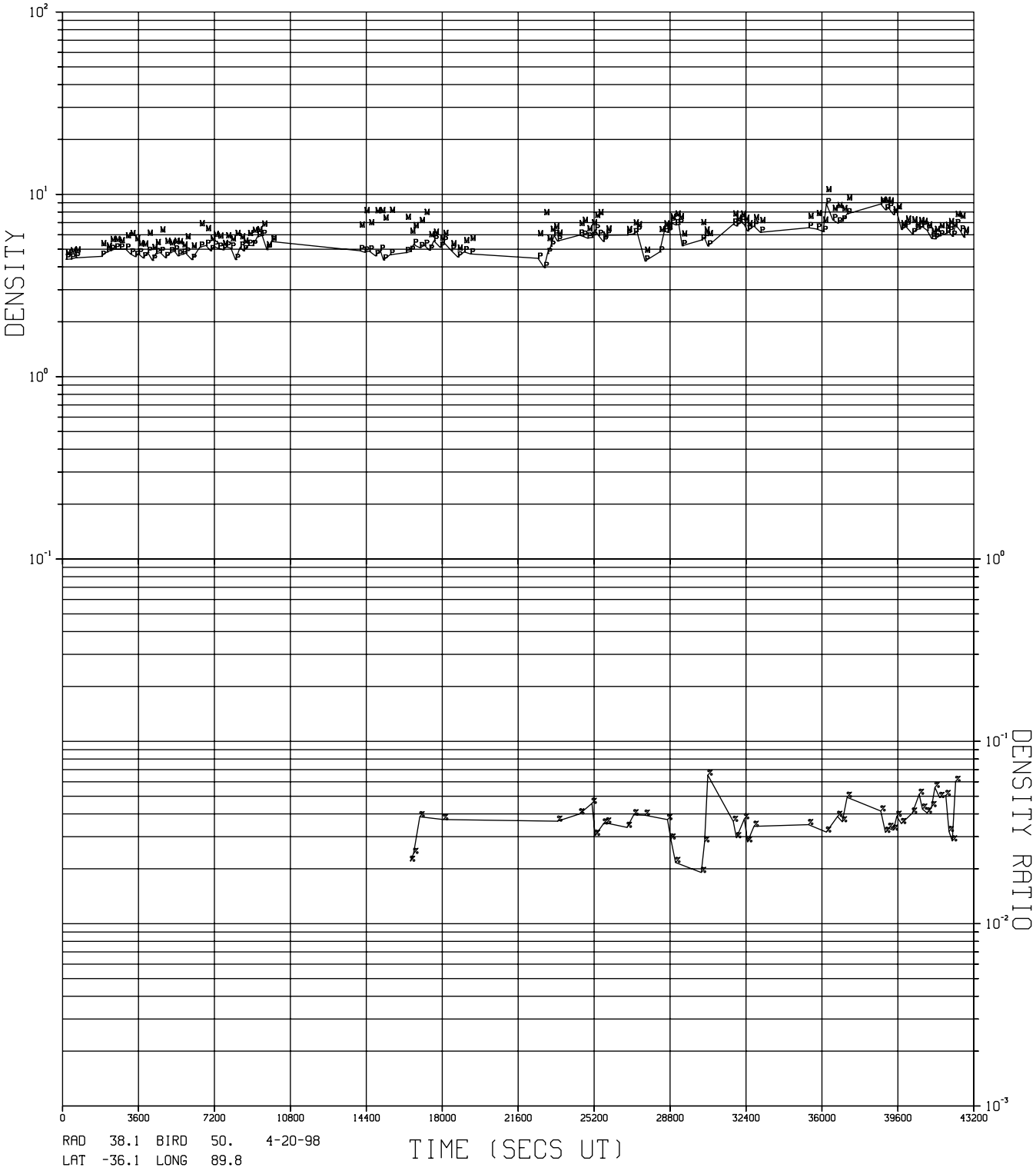

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 38.1 BIRD 50. 4-19-98
LAT -31.6 LONG 76.7

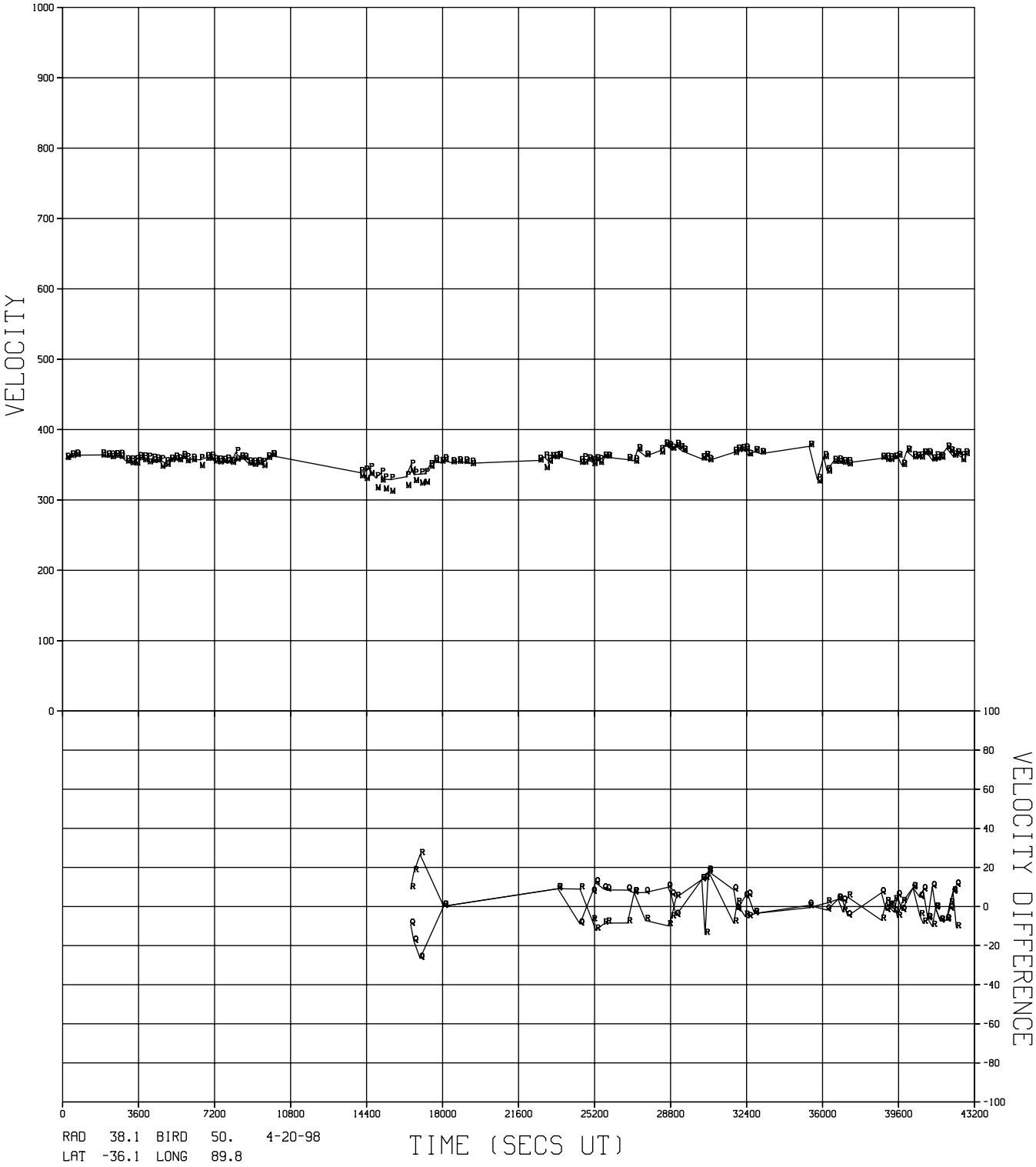

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 38.1 BIRD 50. 4-19-98
LAT -31.6 LONG 76.7

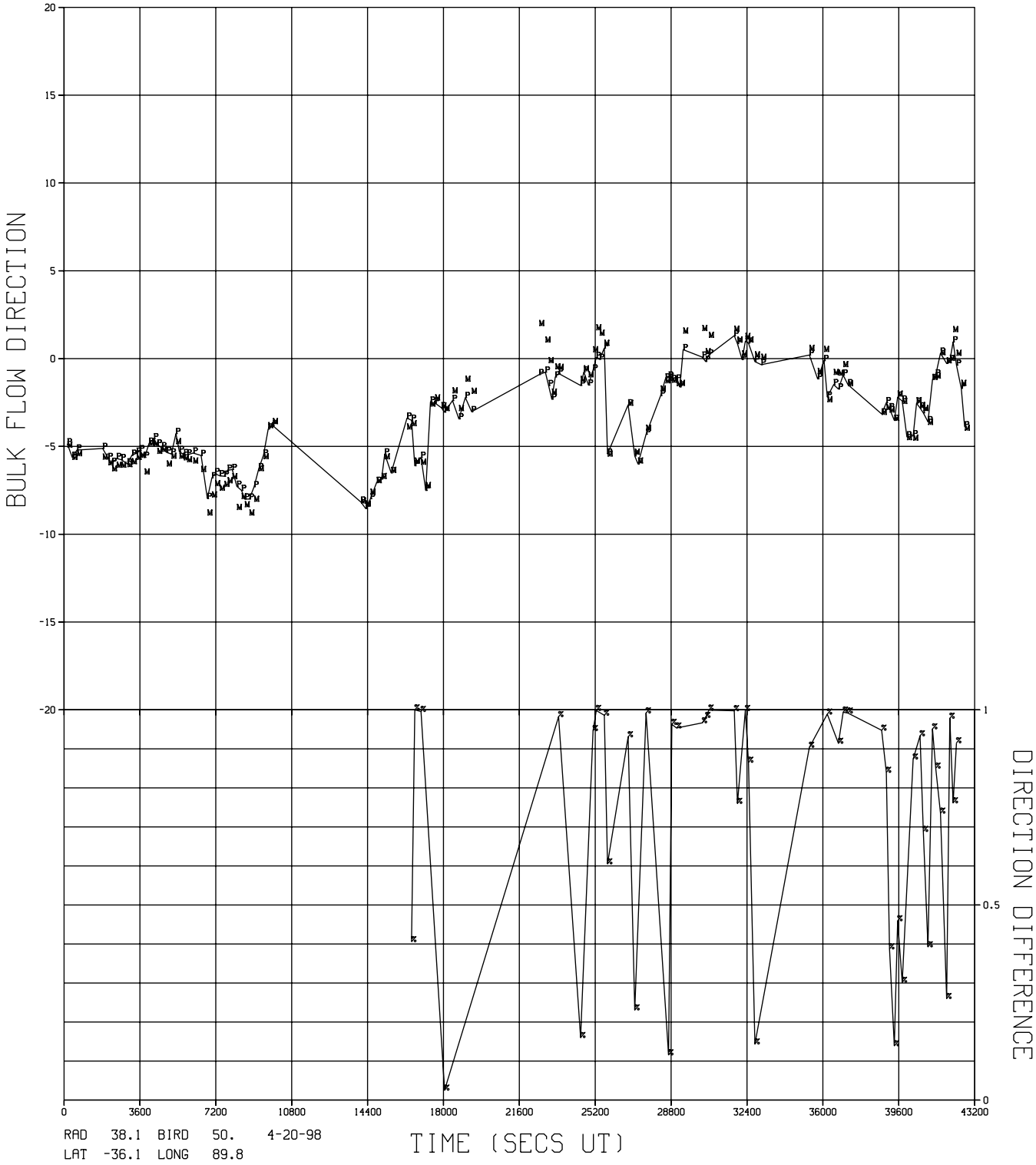

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 38.1 BIRD 50. 4-19-98
LAT -31.6 LONG 76.7

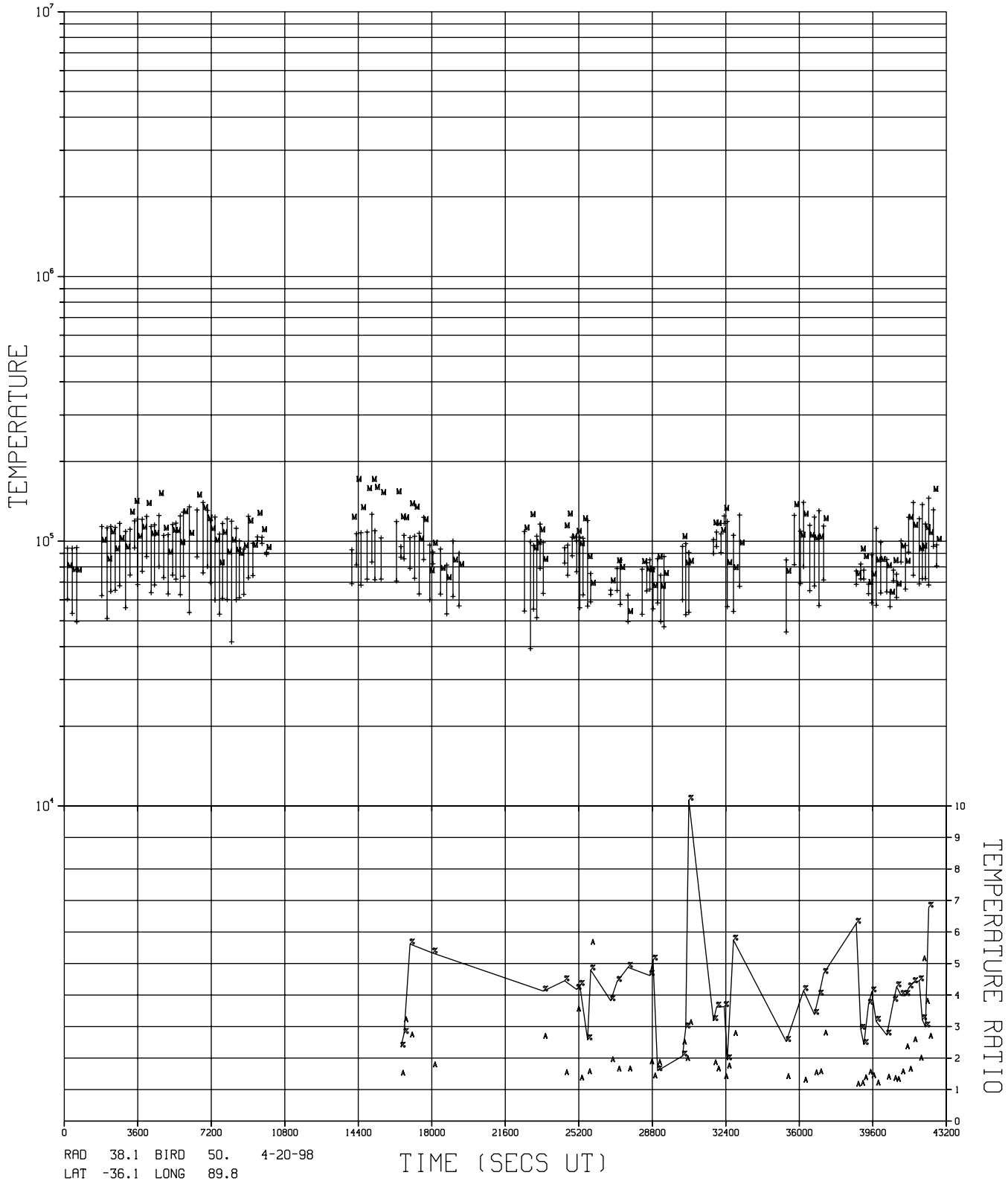


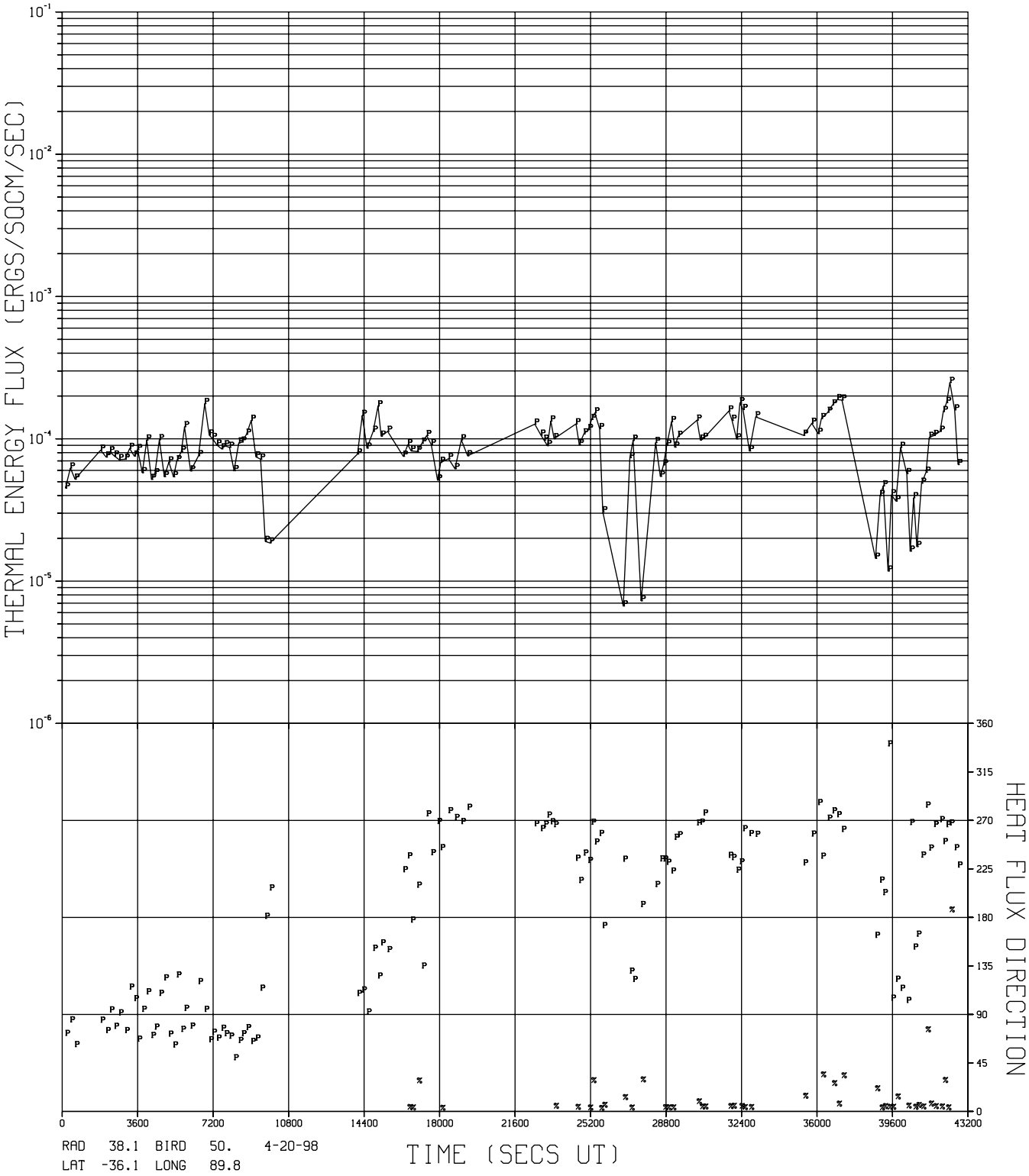
RAD 38.1 BIRD 50. 4-19-98
LAT -31.6 LONG 76.7

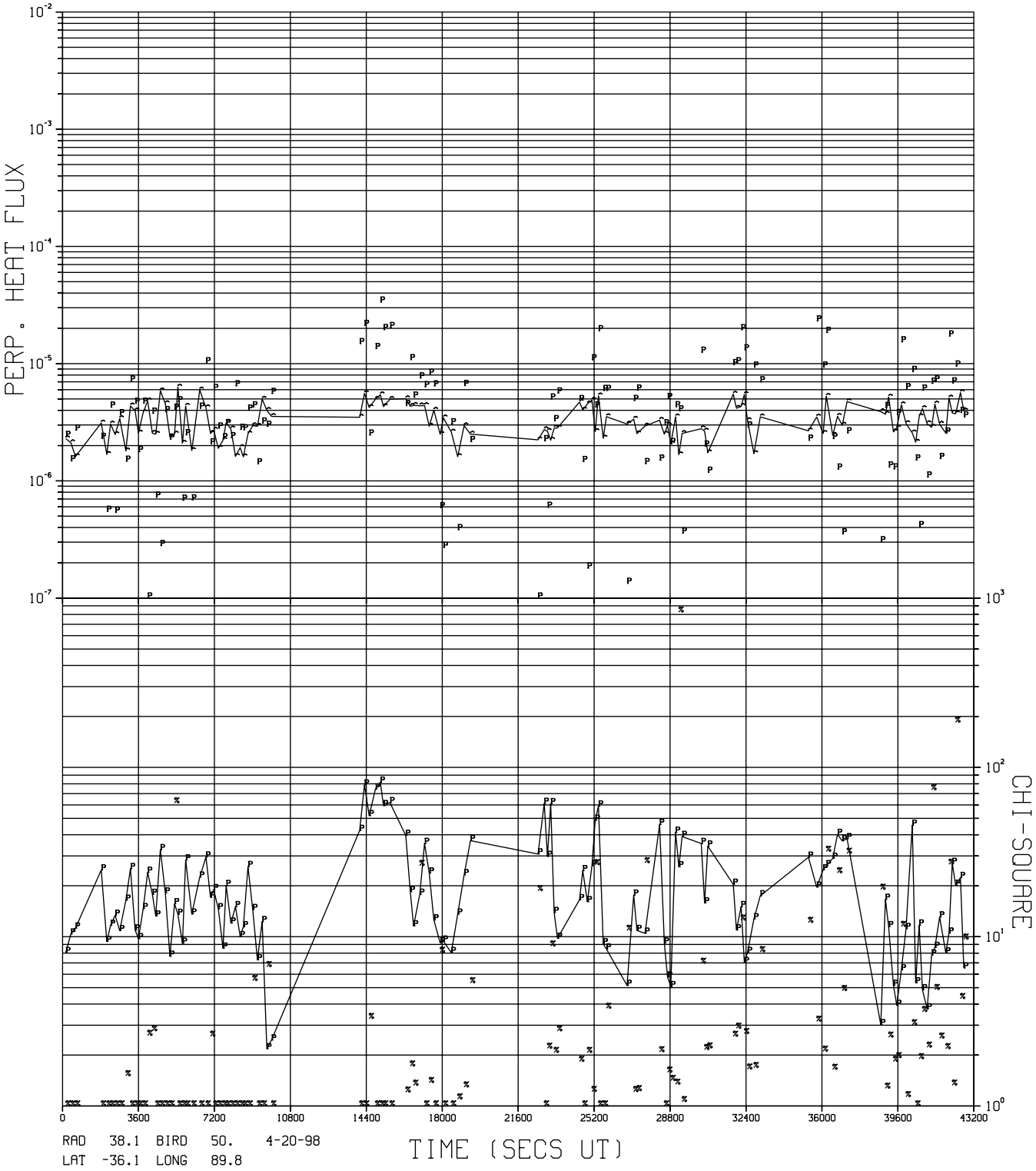

DENSITY
DENSITY RATIO
TIME (SECS UT)
RAD 38.1 BIRD 50. 4-20-98
LAT -36.1 LONG 89.8

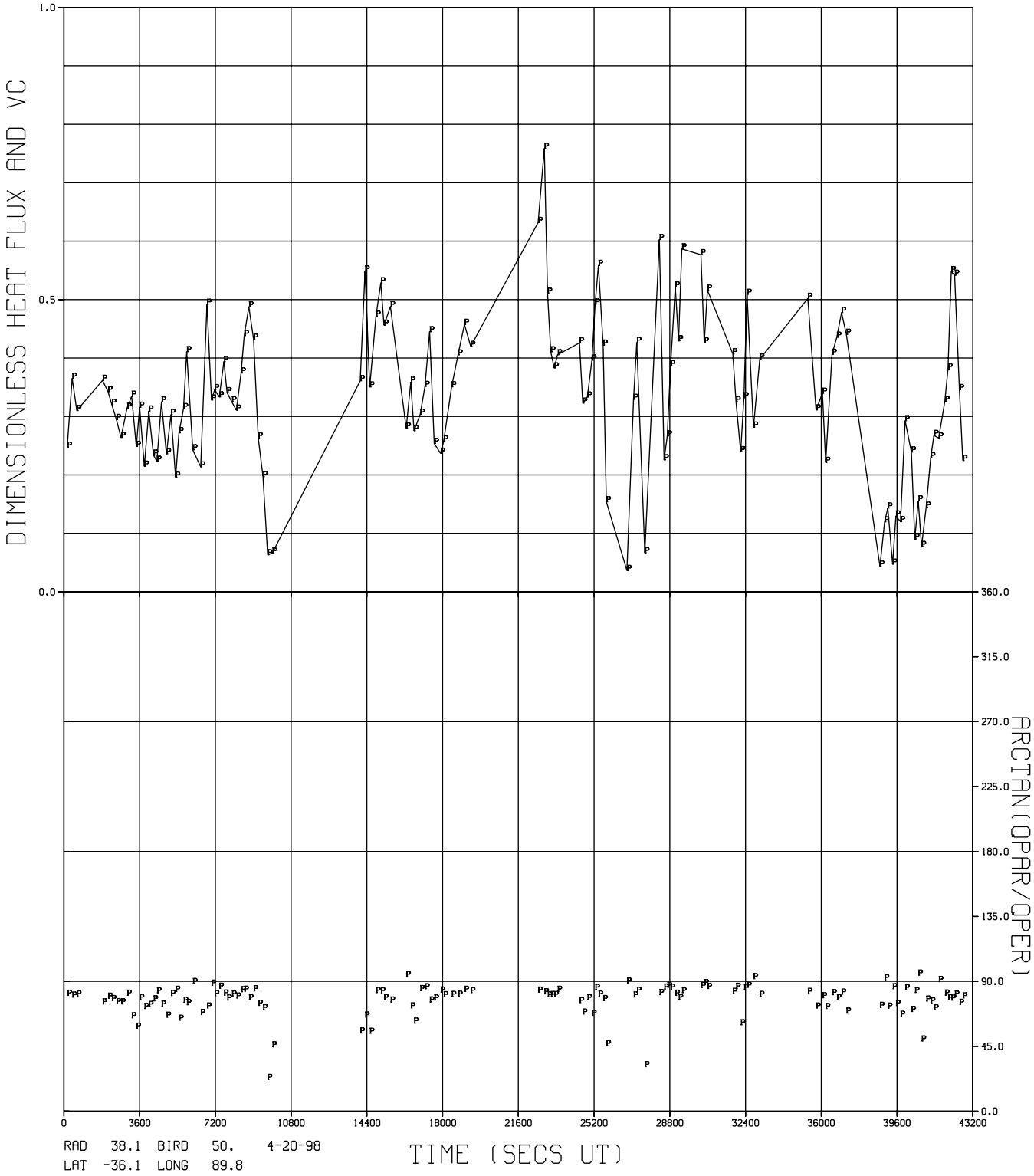

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 38.1 BIRD 50. 4-20-98
LAT -36.1 LONG 89.8

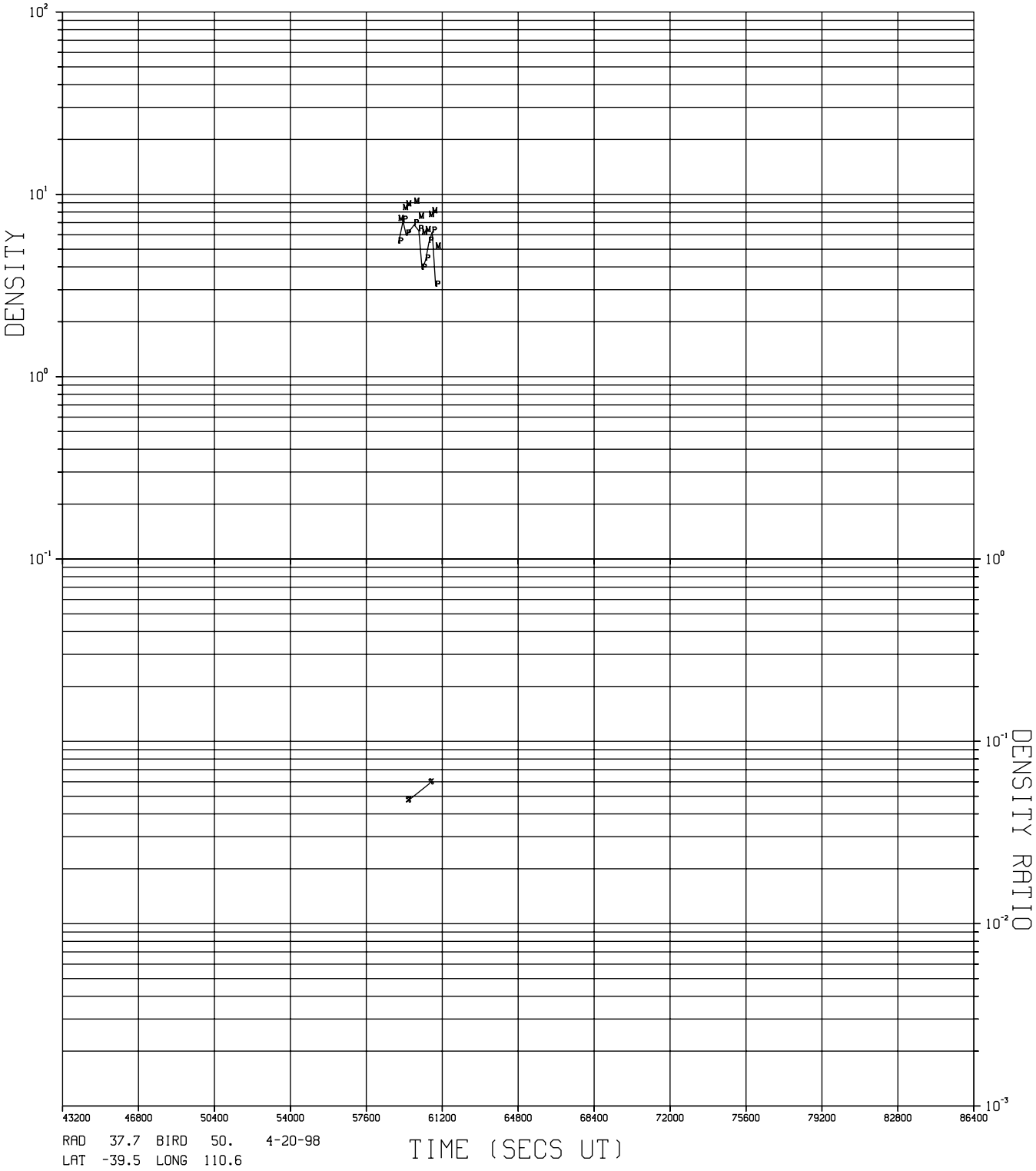

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 38.1 BIRD 50. 4-20-98
LAT -36.1 LONG 89.8

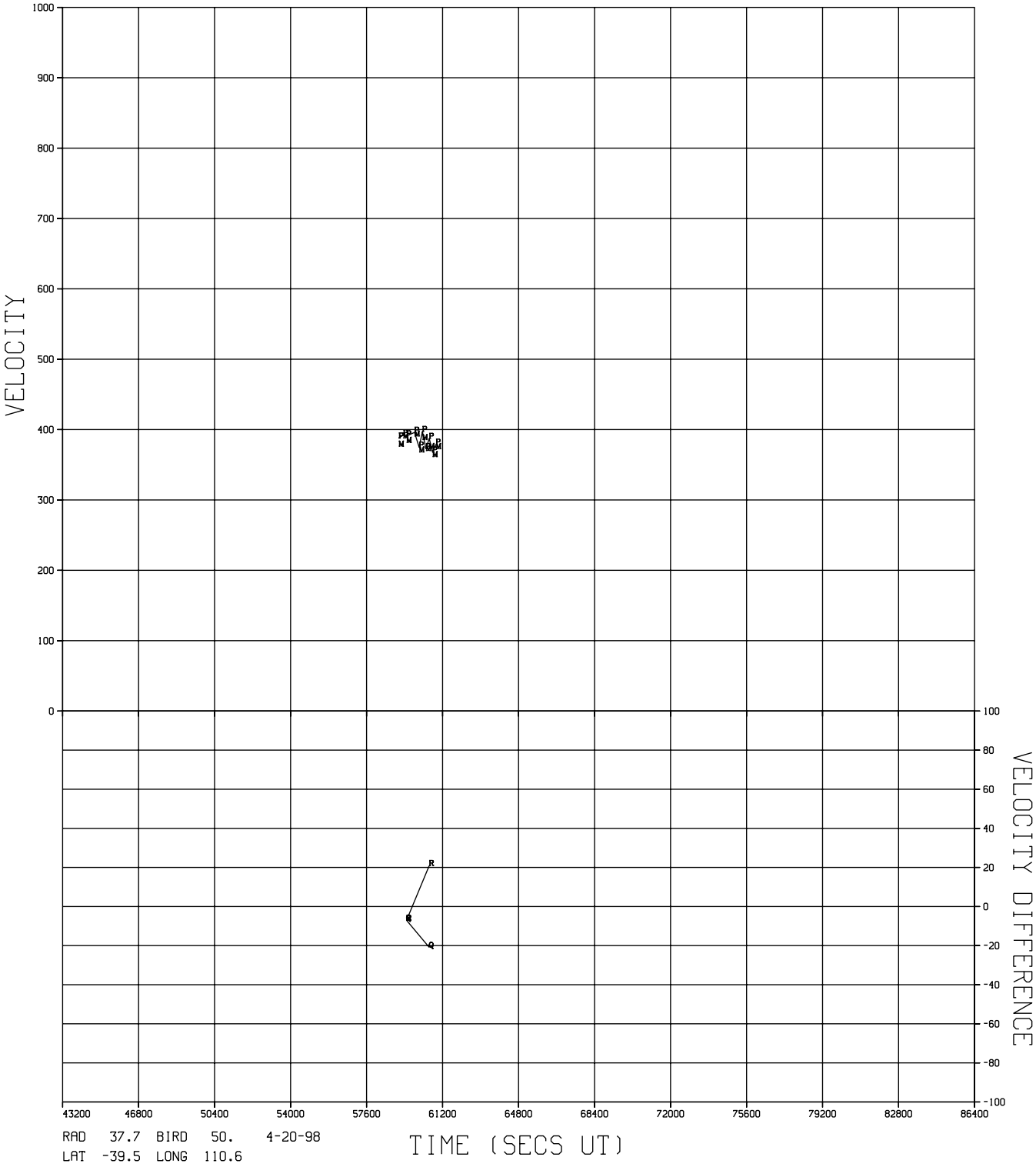

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 38.1 BIRD 50. 4-20-98
LAT -36.1 LONG 89.8

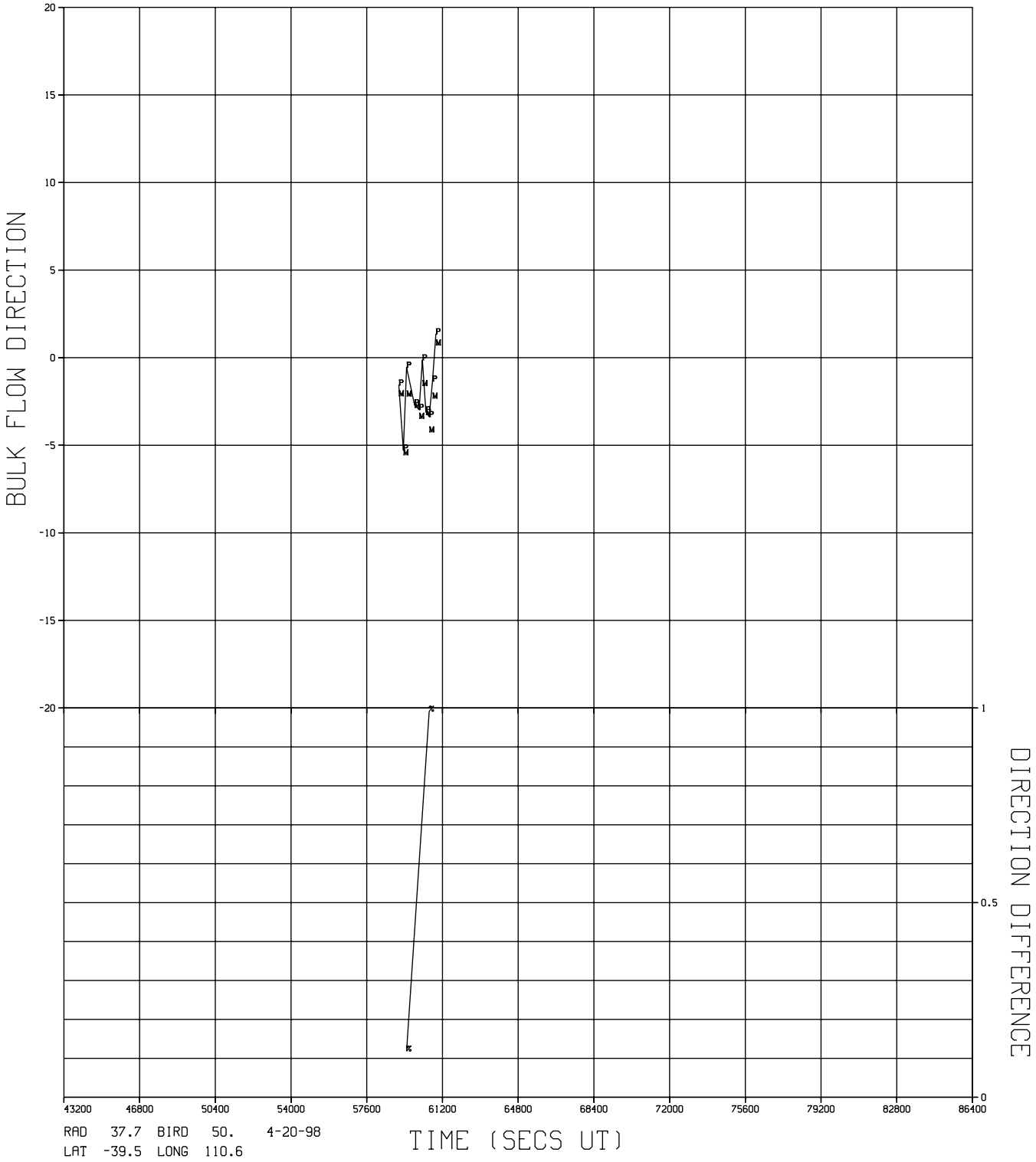

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 38.1 BIRD 50. 4-20-98
LAT -36.1 LONG 89.8

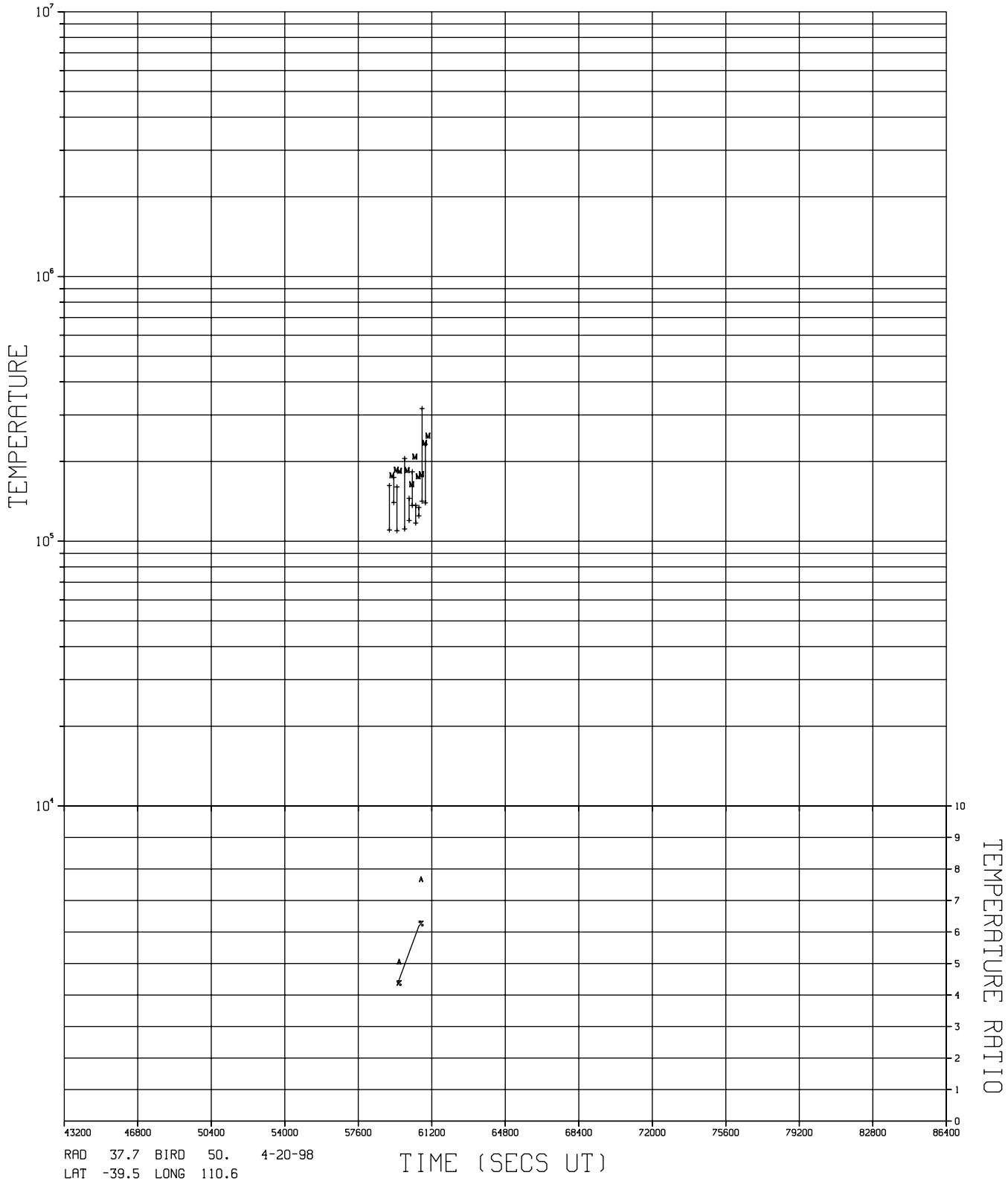

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 38.1 BIRD 50. 4-20-98
LAT -36.1 LONG 89.8

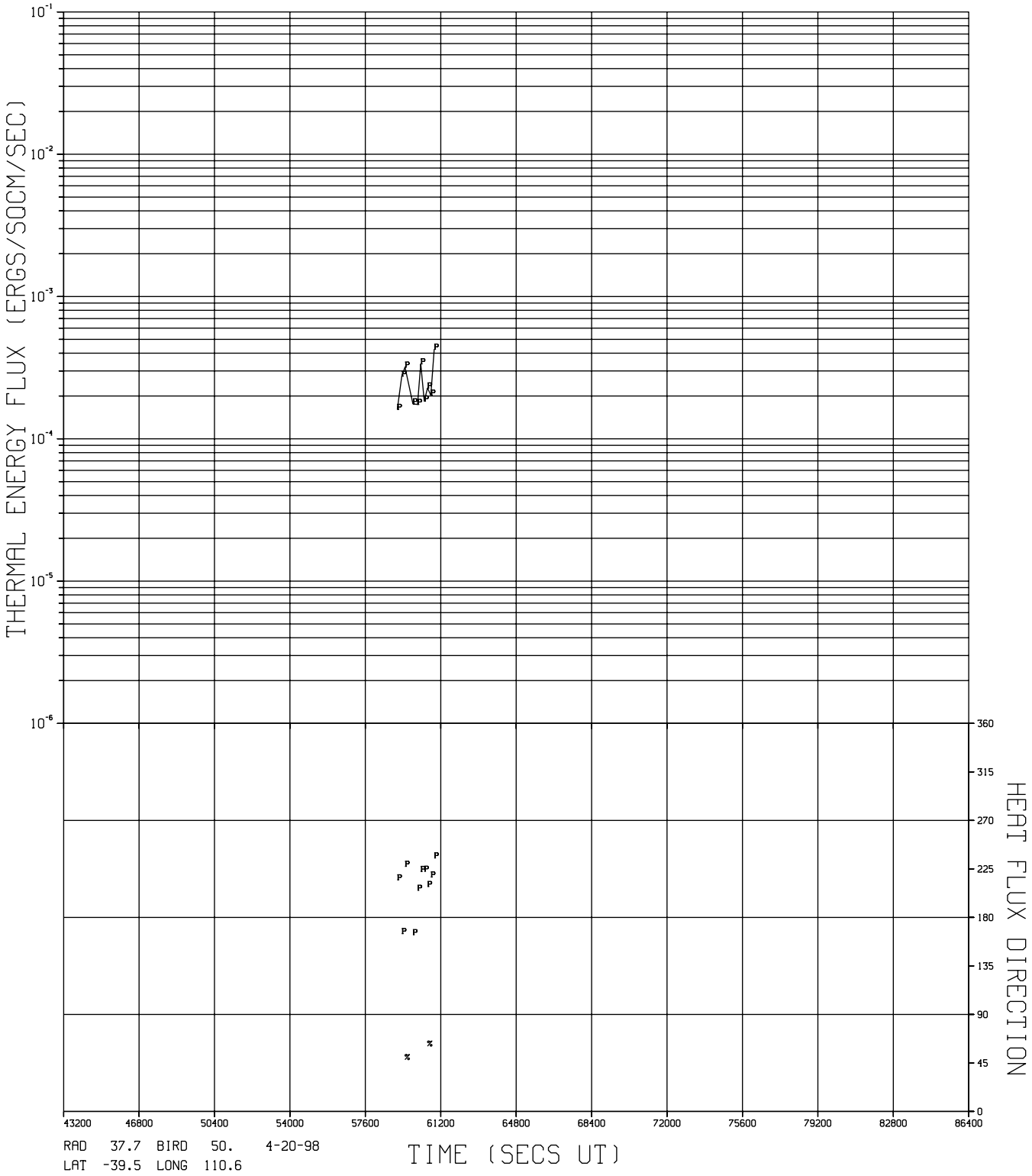

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 38.1 BIRD 50. 4-20-98
LAT -36.1 LONG 89.8

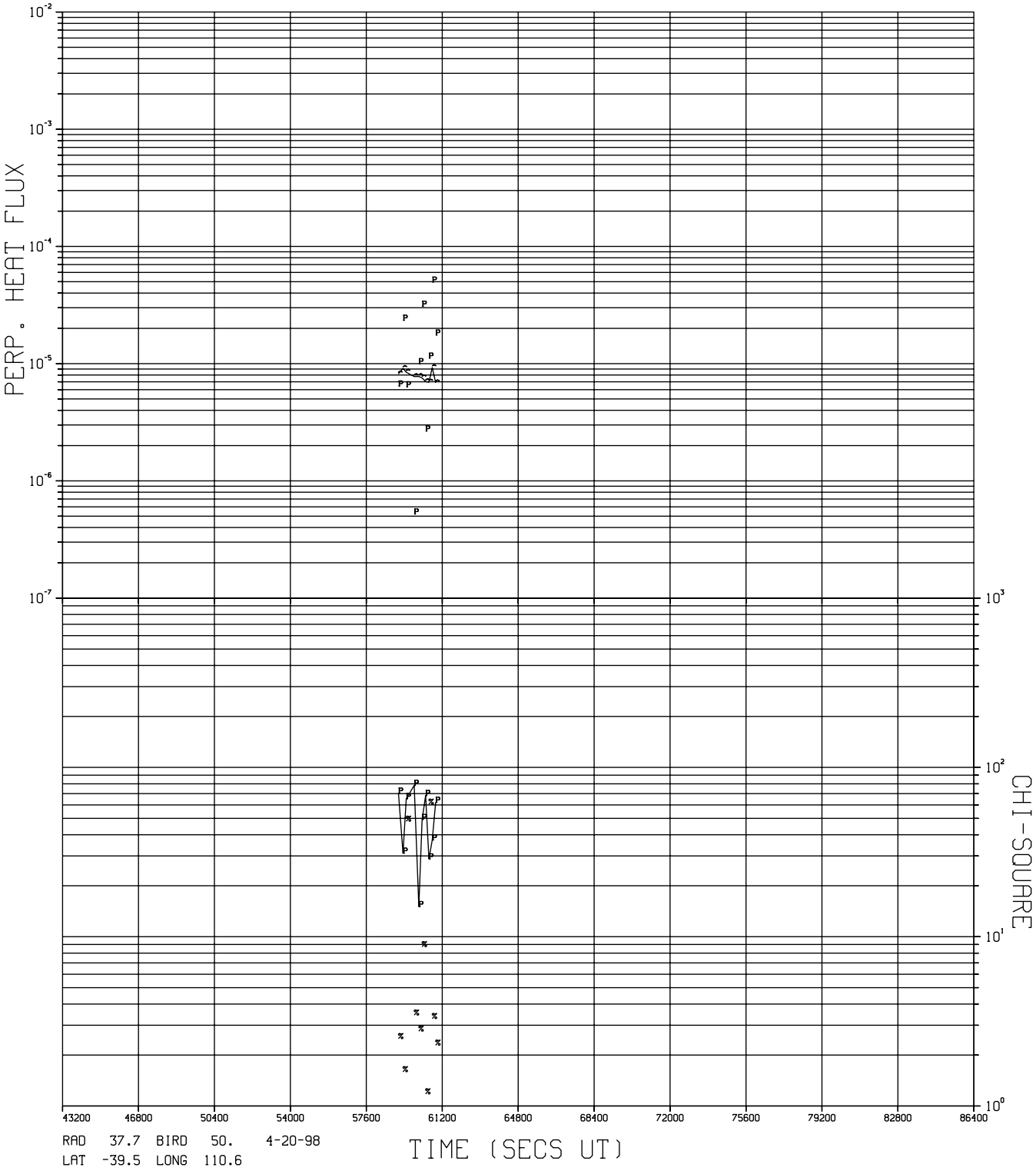

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.7 BIRD 50. 4-20-98
LAT -39.5 LONG 110.6

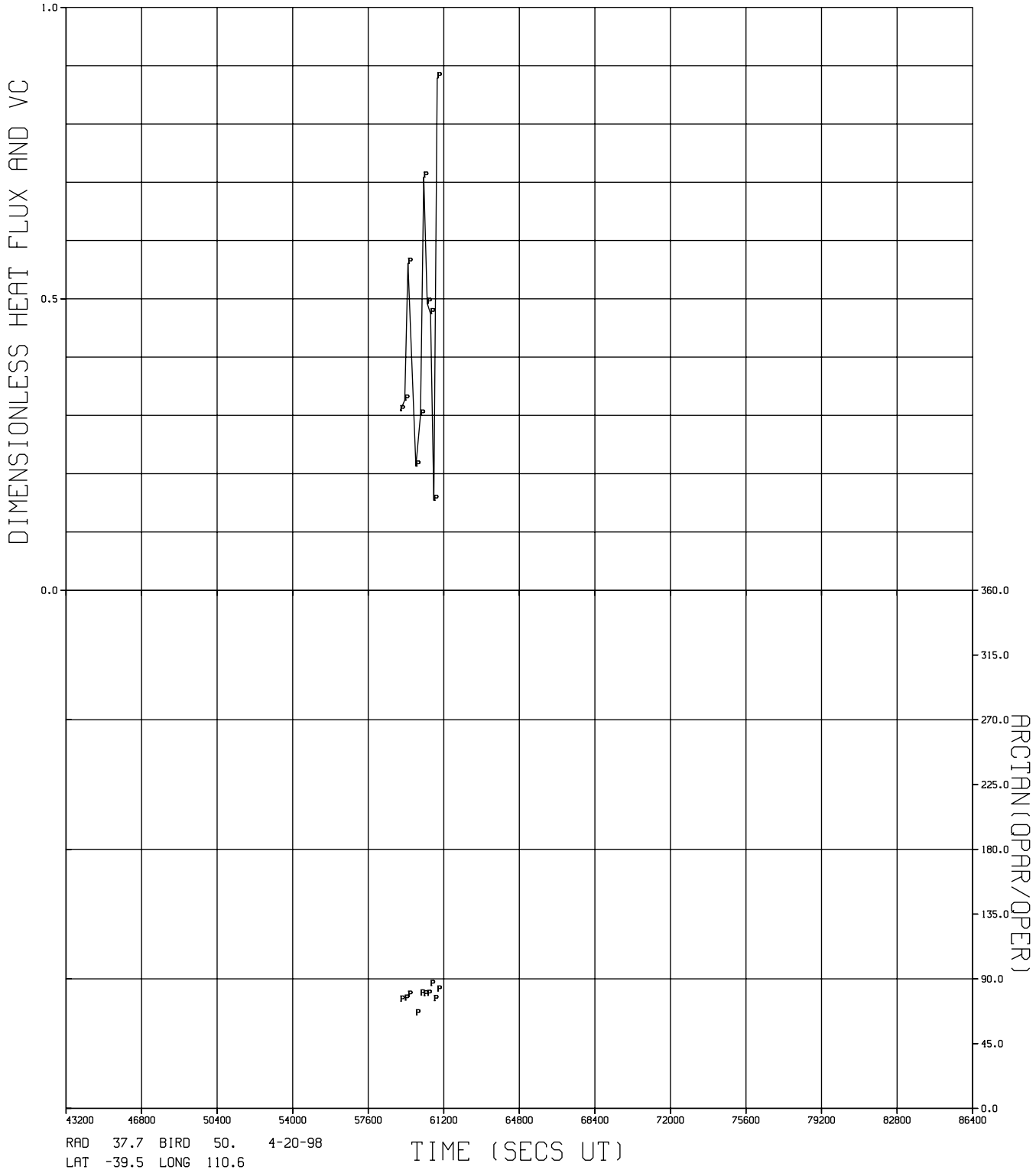

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 37.7 BIRD 50. 4-20-98
LAT -39.5 LONG 110.6


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 37.7 BIRD 50. 4-20-98
LAT -39.5 LONG 110.6


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. 4-20-98
LAT -39.5 LONG 110.6


THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.7 BIRD 50. 4-20-98
LAT -39.5 LONG 110.6


PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 37.7 BIRD 50. 4-20-98
LAT -39.5 LONG 110.6


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. 4-20-98
LAT -39.5 LONG 110.6