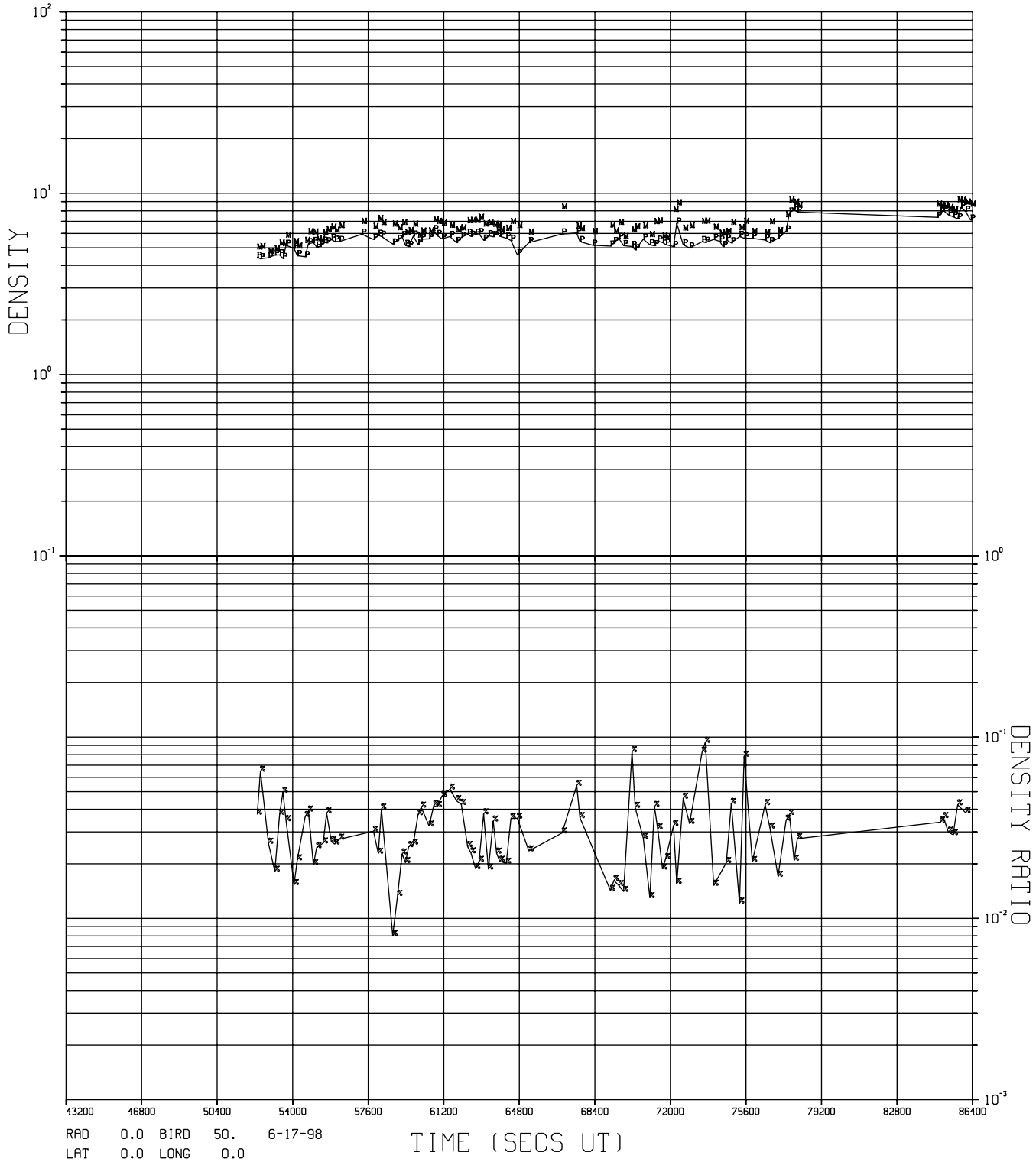
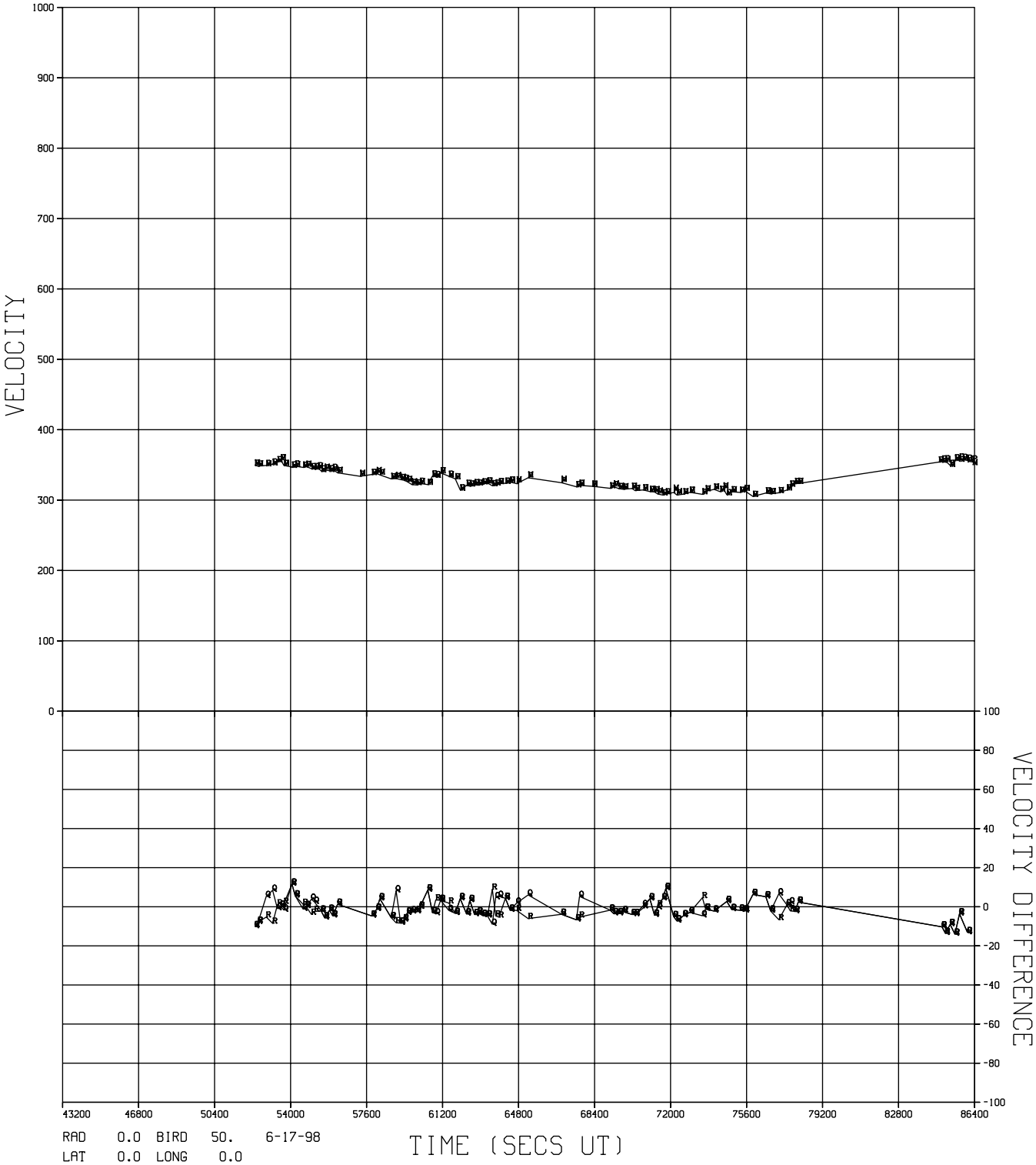
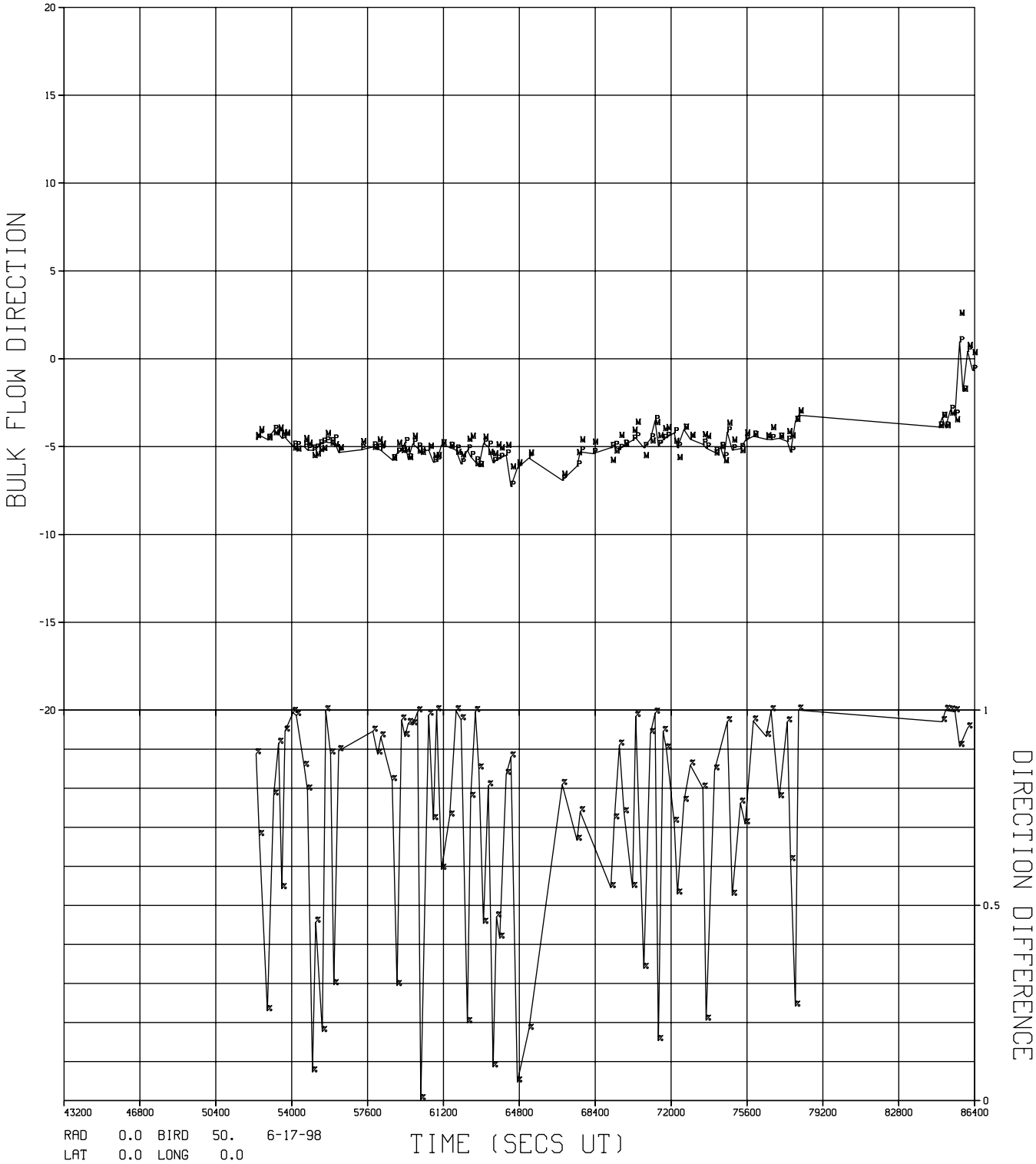
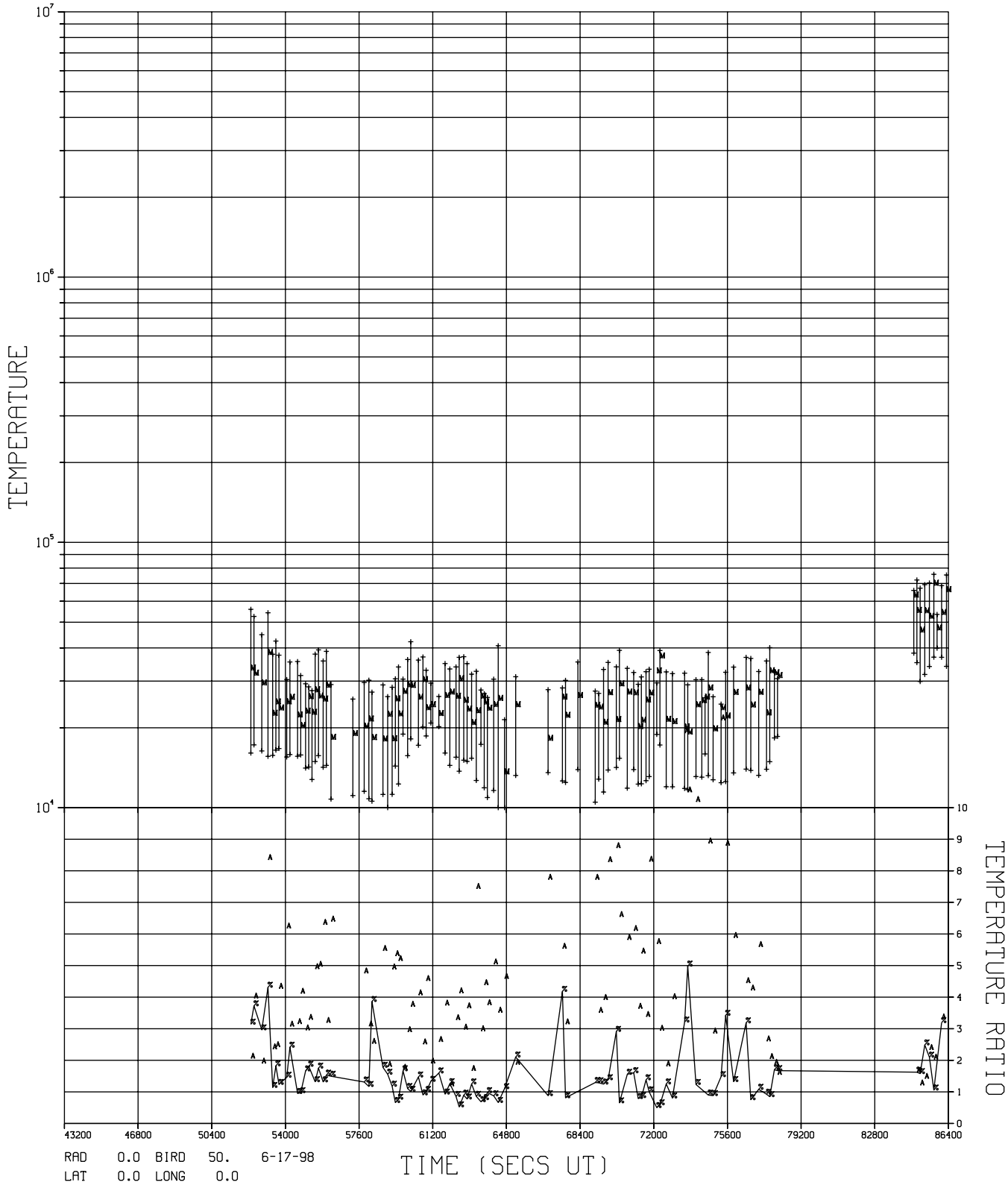
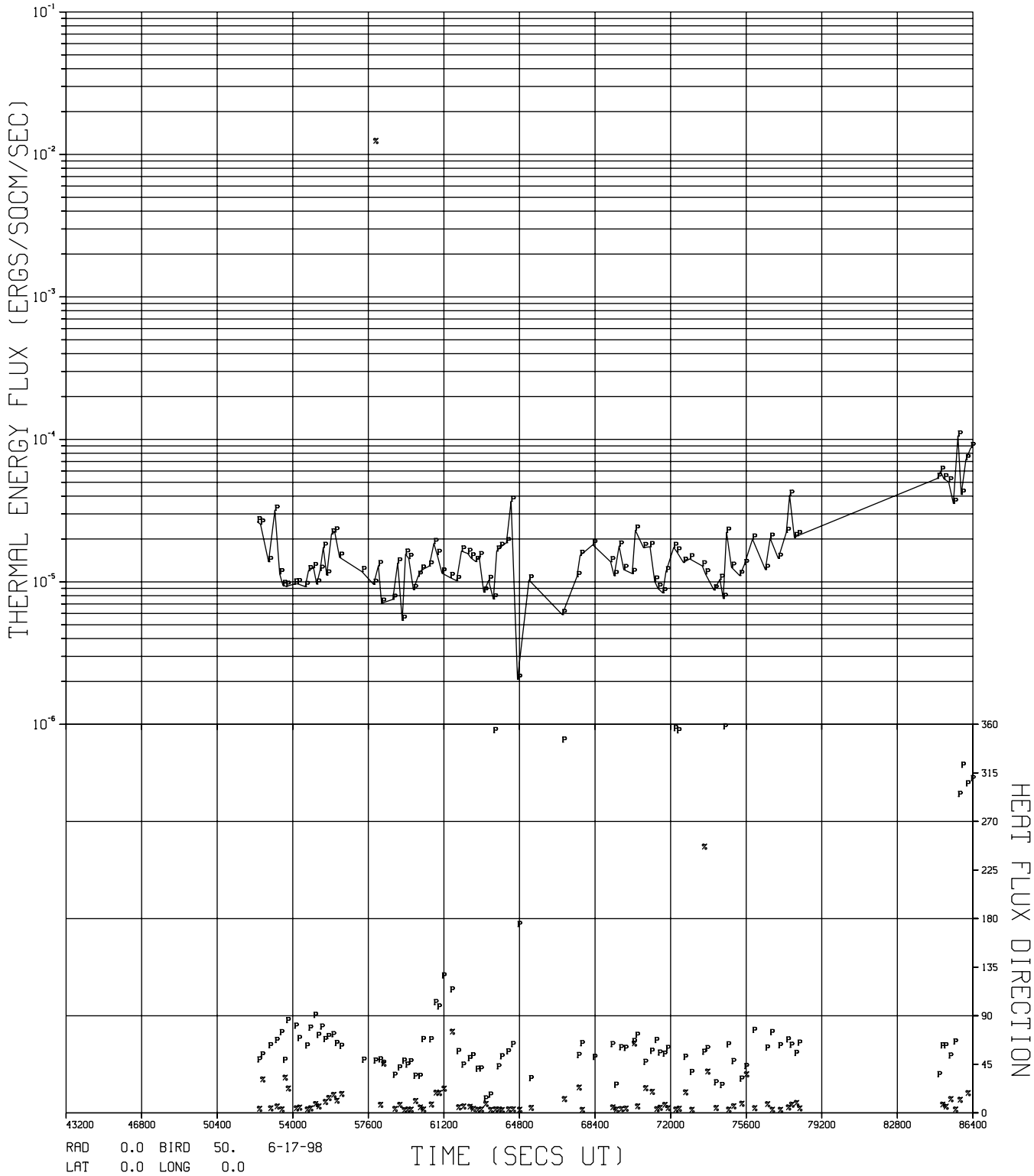
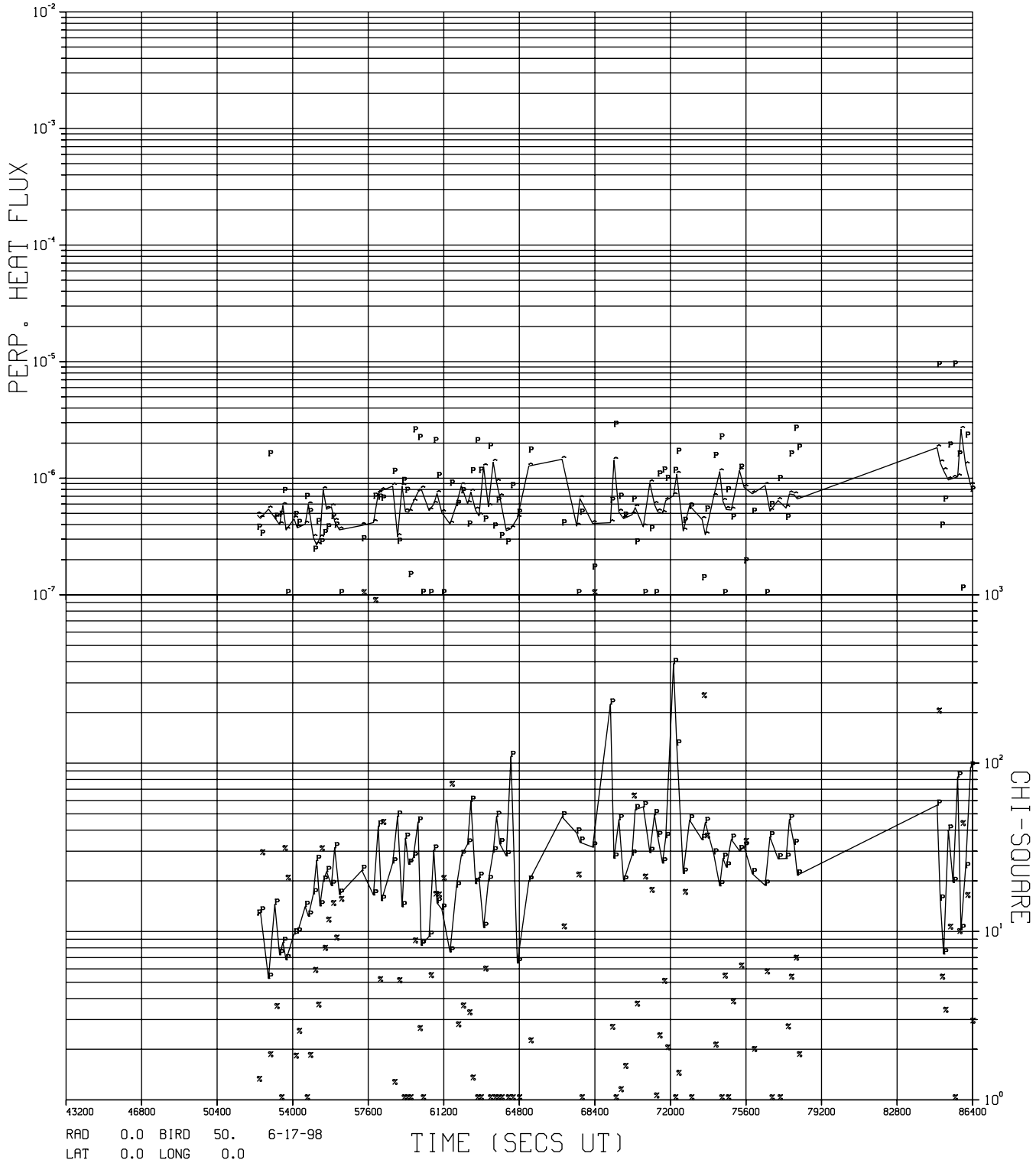

DENSITY
10^2
10^1
10^0
10^{-1}
DENSITY RATIO
10^0
10^{-1}
10^{-2}
10^{-3}
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 0.0 BIRD 50. 6-17-98
LAT 0.0 LONG 0.0
TIME (SECS UT)

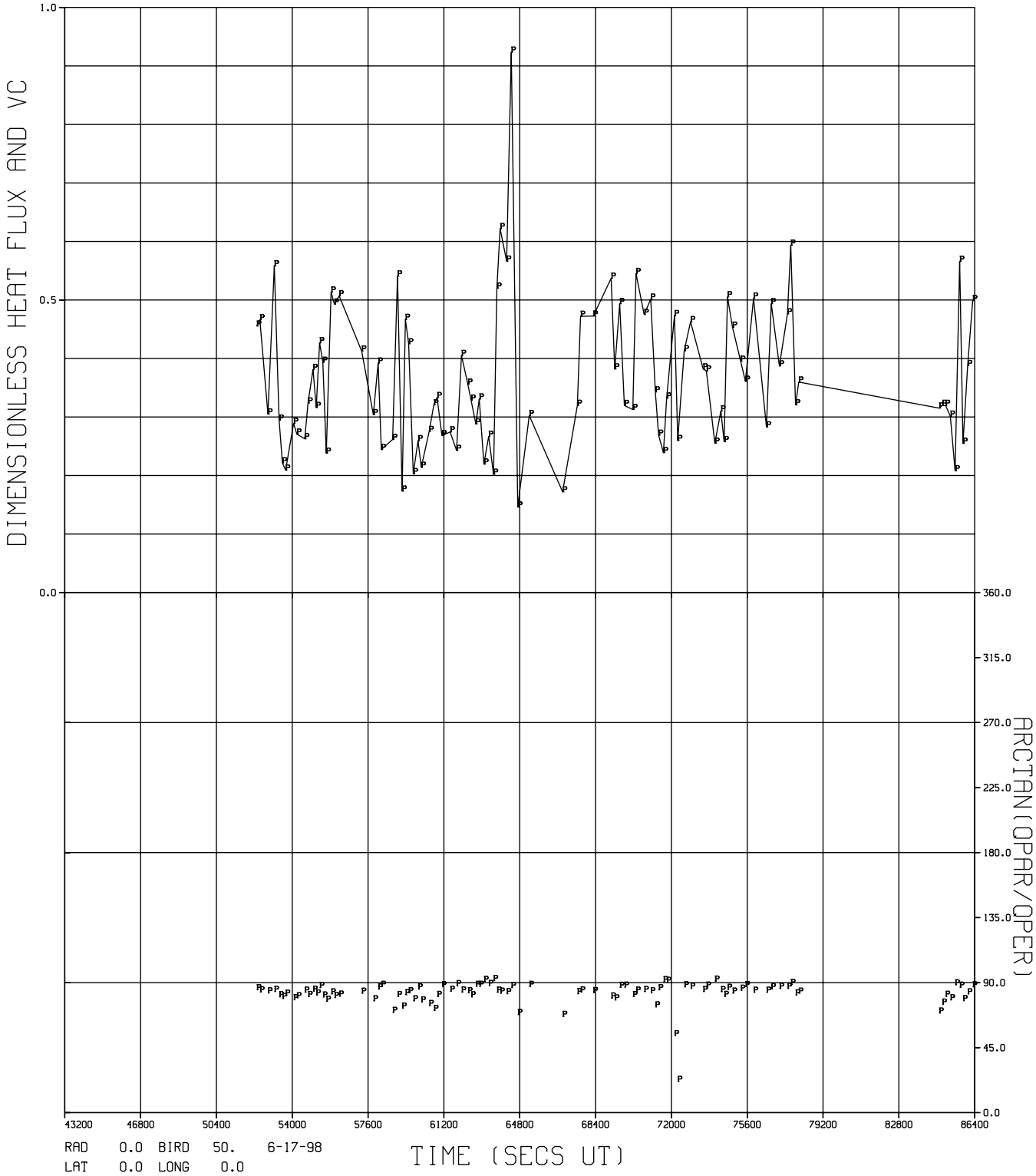

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 0.0 BIRD 50. 6-17-98
LAT 0.0 LONG 0.0

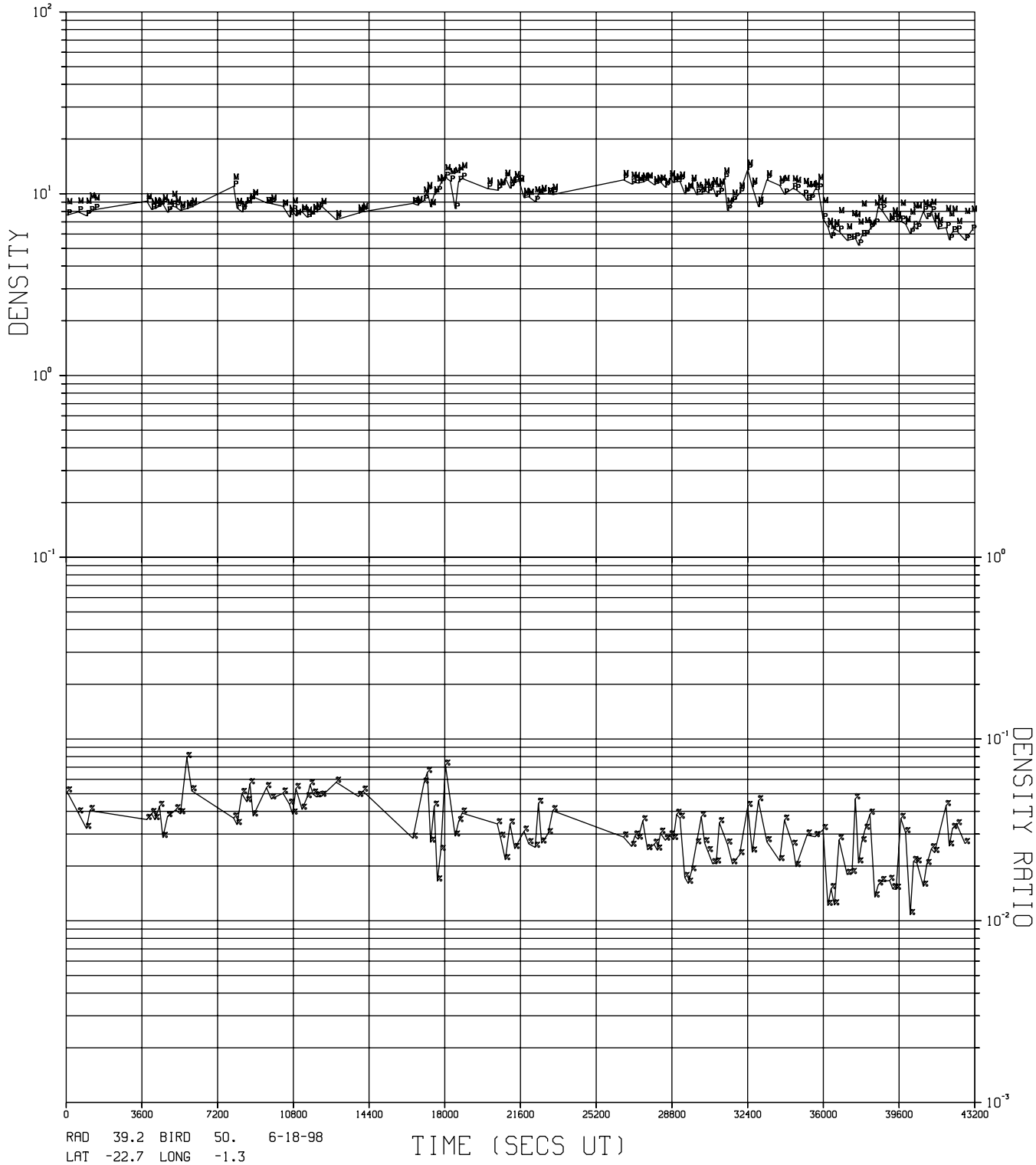

BULK FLOW DIRECTION
20
15
10
5
0
-5
-10
-15
-20
DIRECTION DIFFERENCE
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 0.0 BIRD 50. 6-17-98
LAT 0.0 LONG 0.0

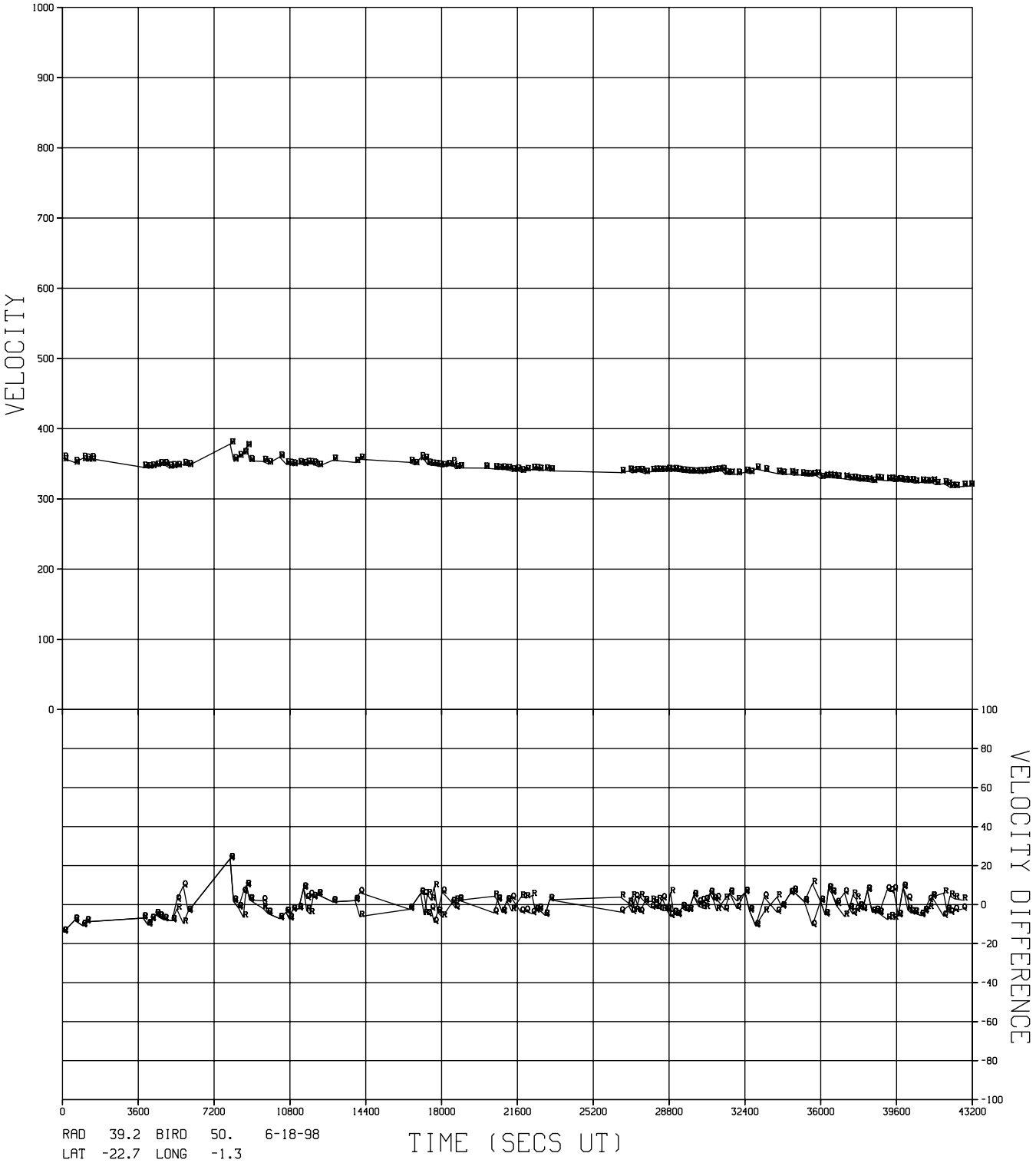

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 0.0 BIRD 50. 6-17-98
LAT 0.0 LONG 0.0

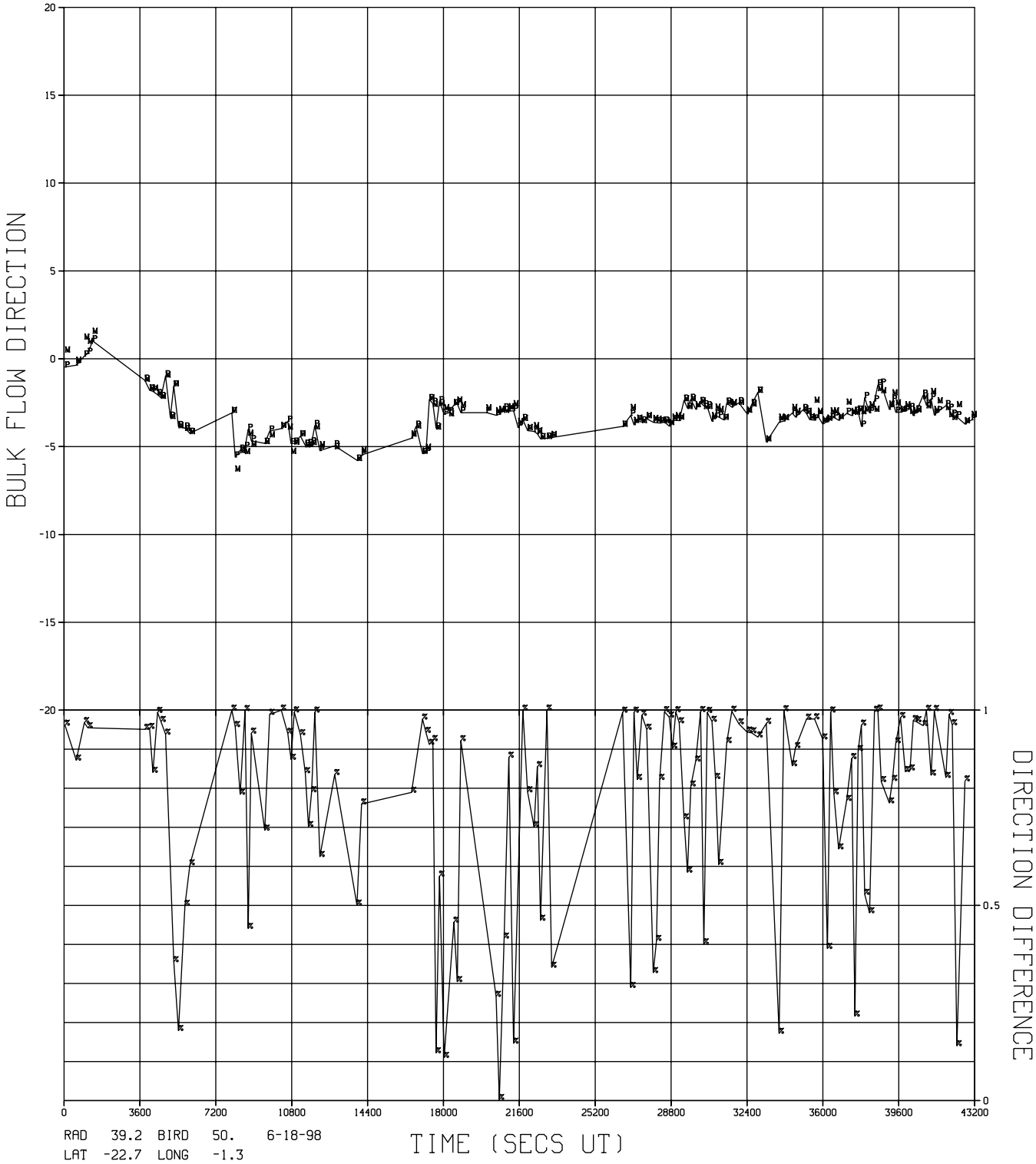

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
HEAT FLUX DIRECTION
360
315
270
225
180
135
90
45
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 0.0 BIRD 50. 6-17-98
LAT 0.0 LONG 0.0

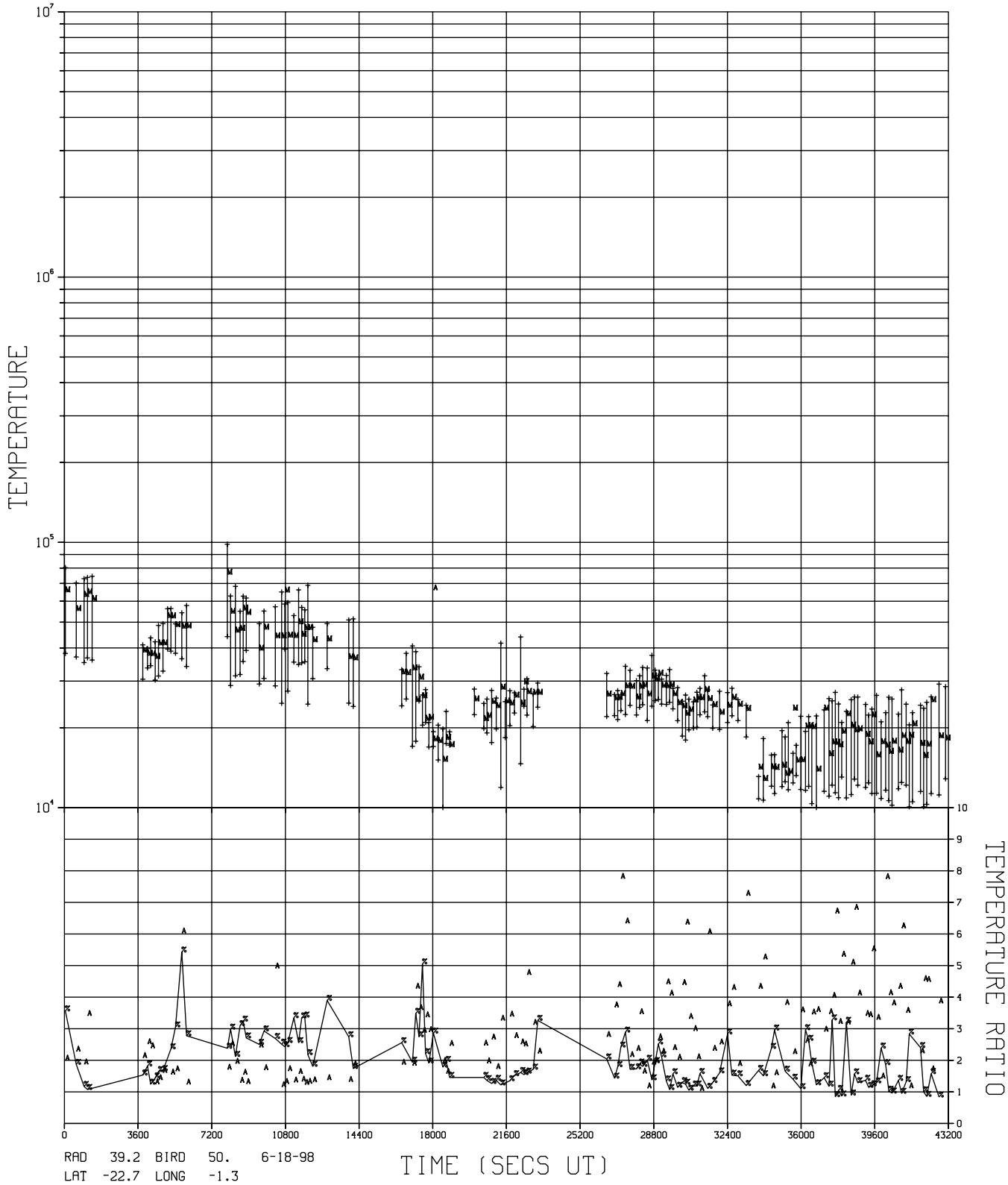

PERP. HEAT FLUX
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
CHI-SQUARE
10^{3}
10^{2}
10^{1}
10^{0}
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 0.0 BIRD 50. 6-17-98
LAT 0.0 LONG 0.0
TIME (SECS UT)

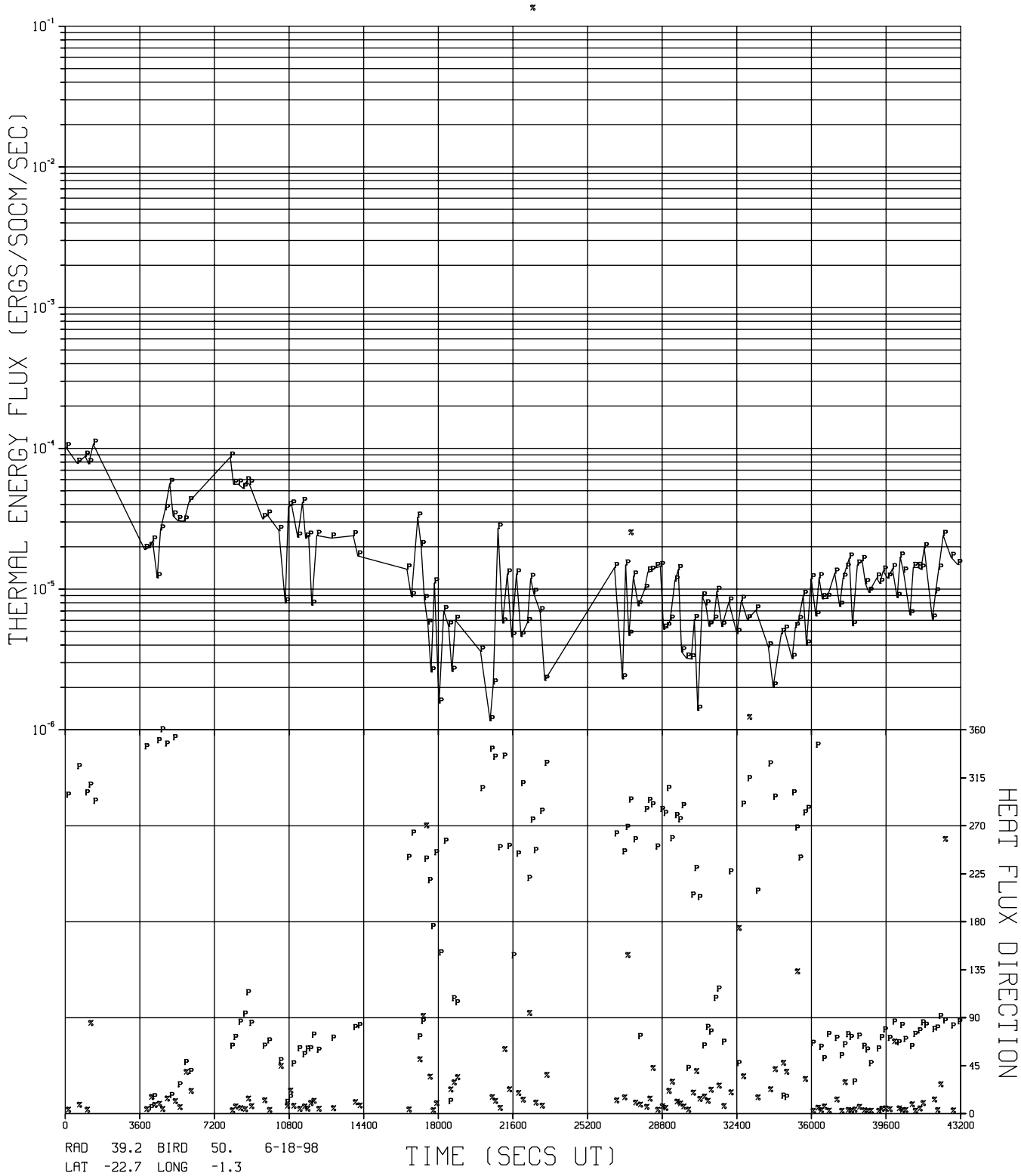

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 0.0 BIRD 50. 6-17-98
LAT 0.0 LONG 0.0
TIME (SECS UT)

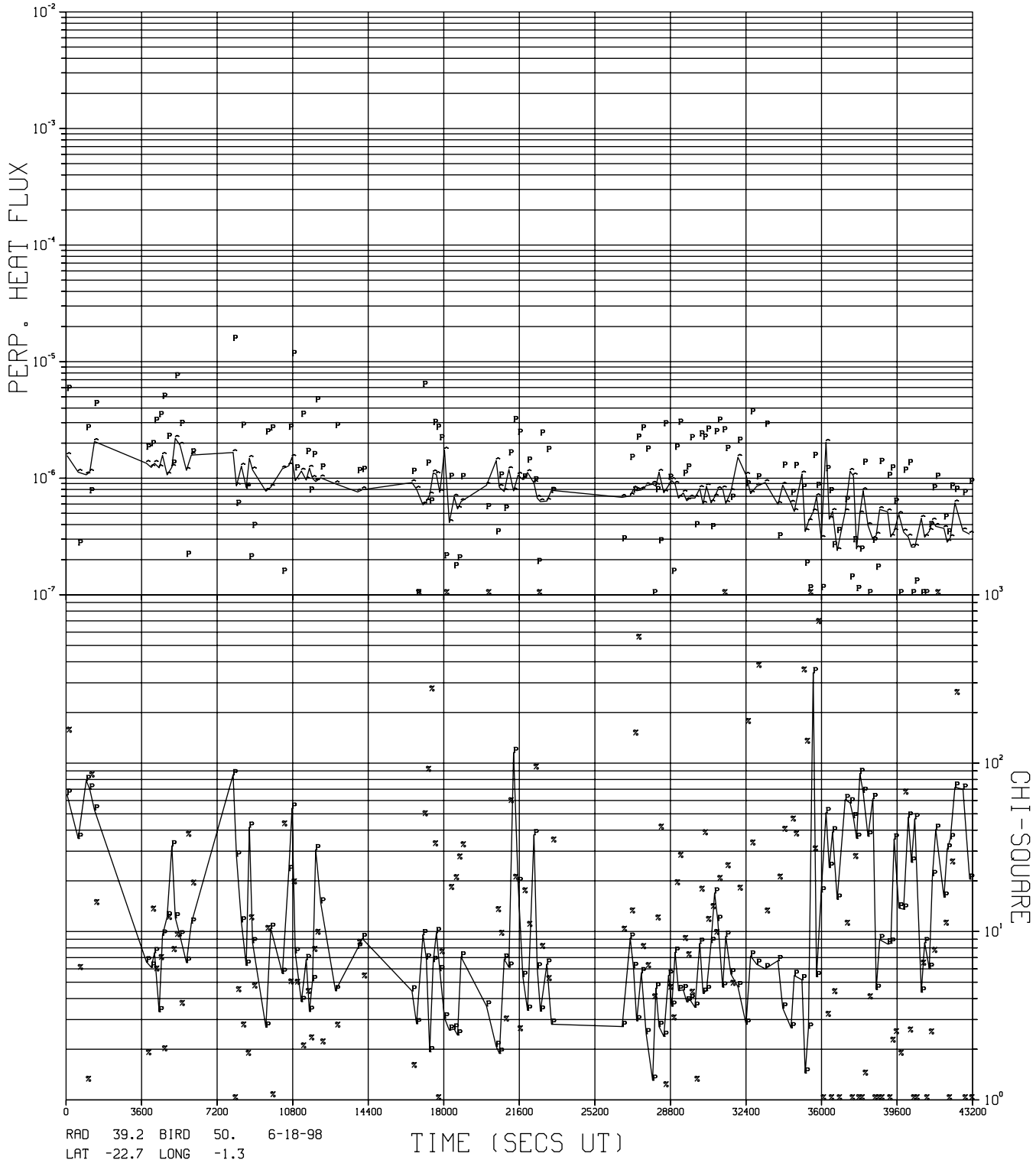

DENSITY
10^2
10^1
10^0
10^{-1}
DENSITY RATIO
10^0
10^{-1}
10^{-2}
10^{-3}
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 39.2 BIRD 50. 6-18-98
LAT -22.7 LONG -1.3

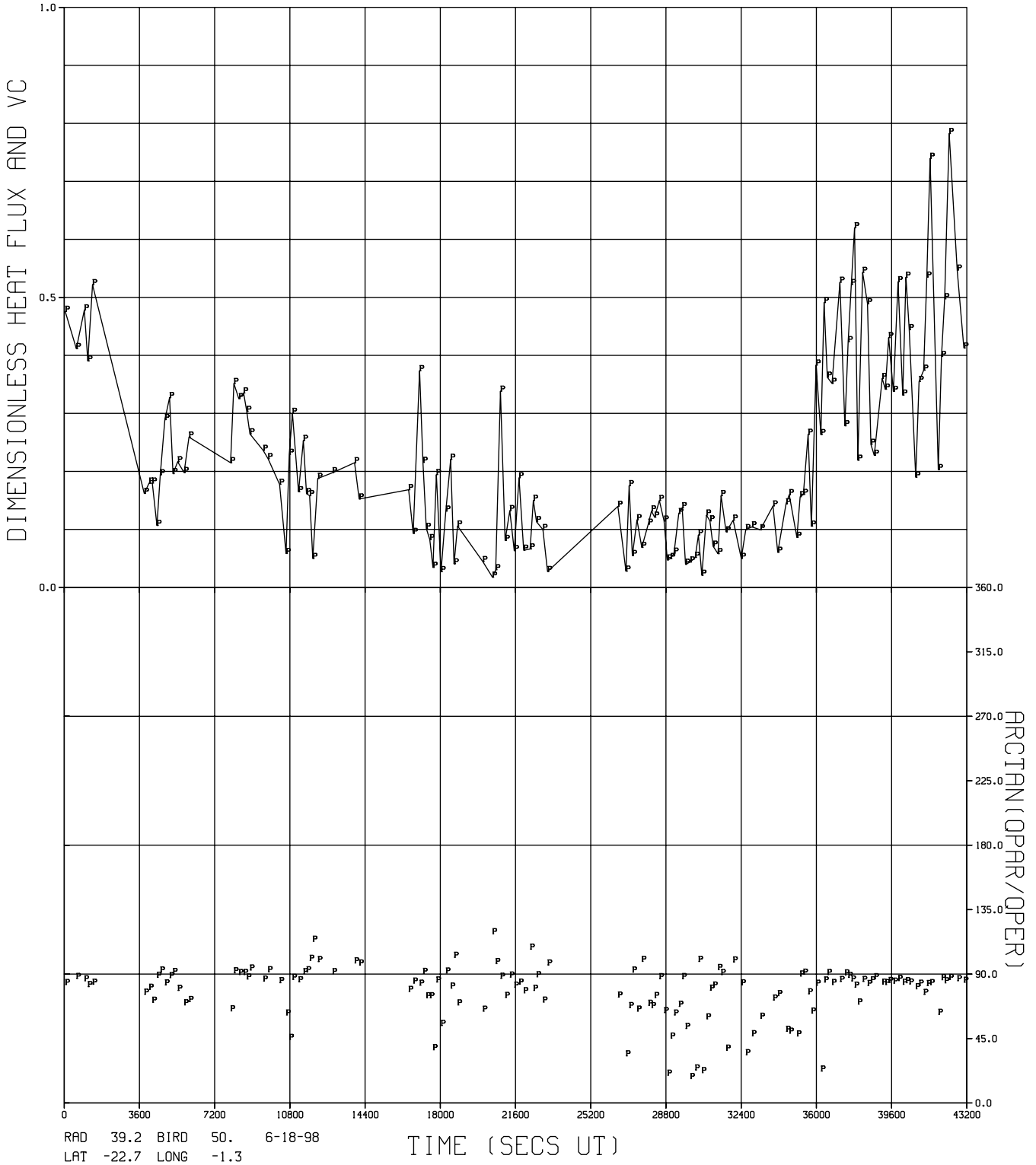

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 39.2 BIRD 50. 6-18-98
LAT -22.7 LONG -1.3

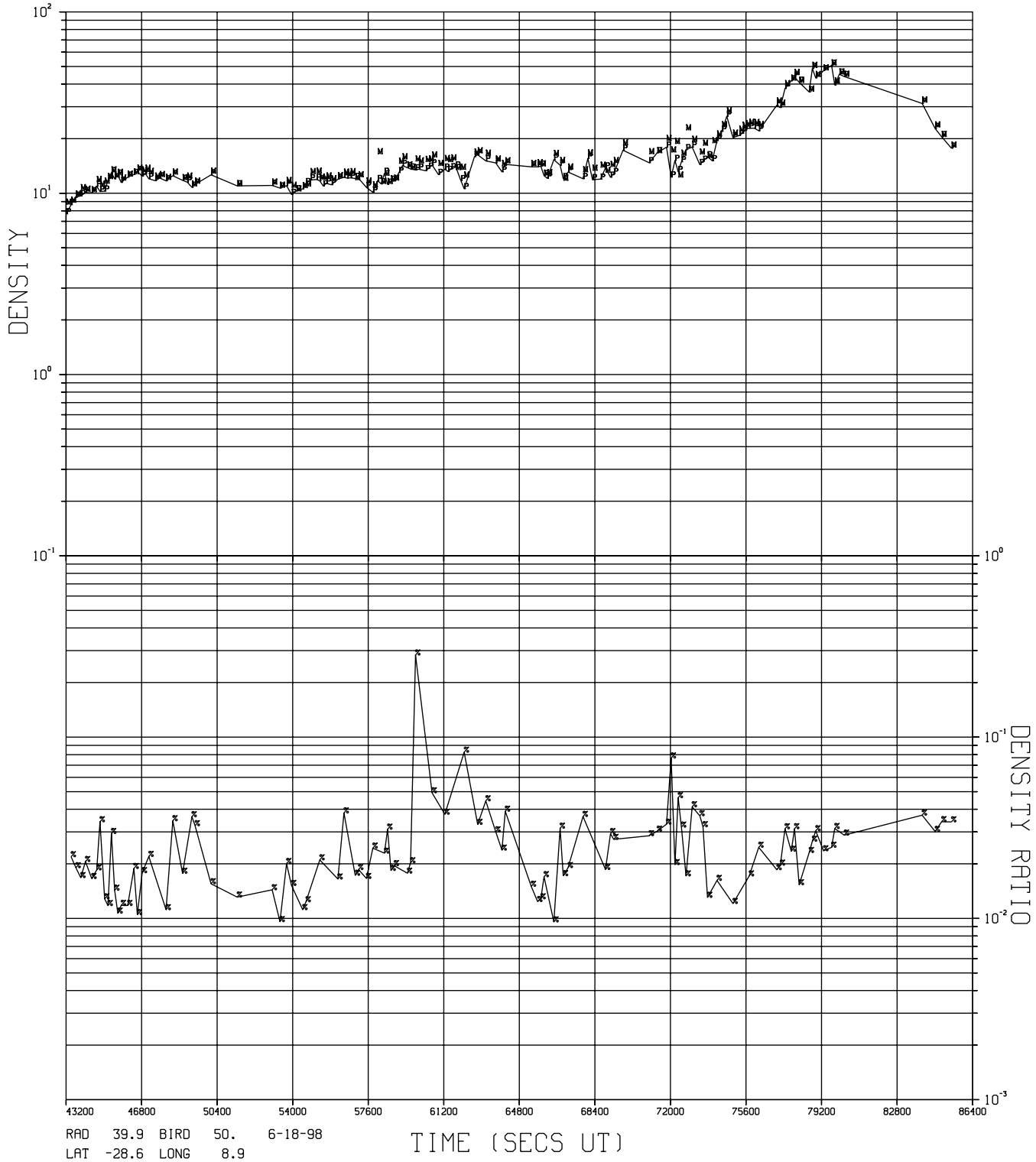

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 39.2 BIRD 50. 6-18-98
LAT -22.7 LONG -1.3

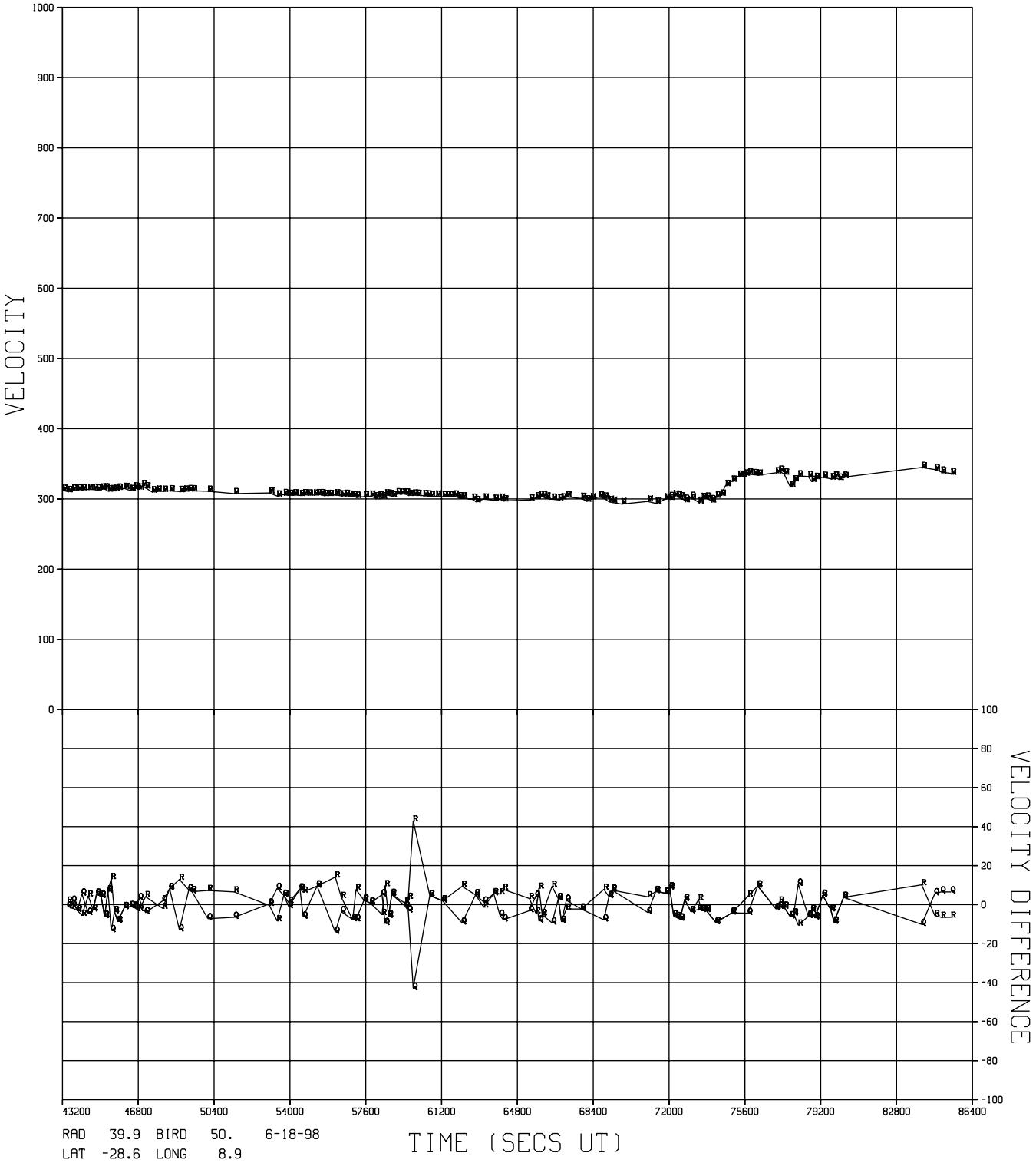

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 39.2 BIRD 50. 6-18-98
LAT -22.7 LONG -1.3

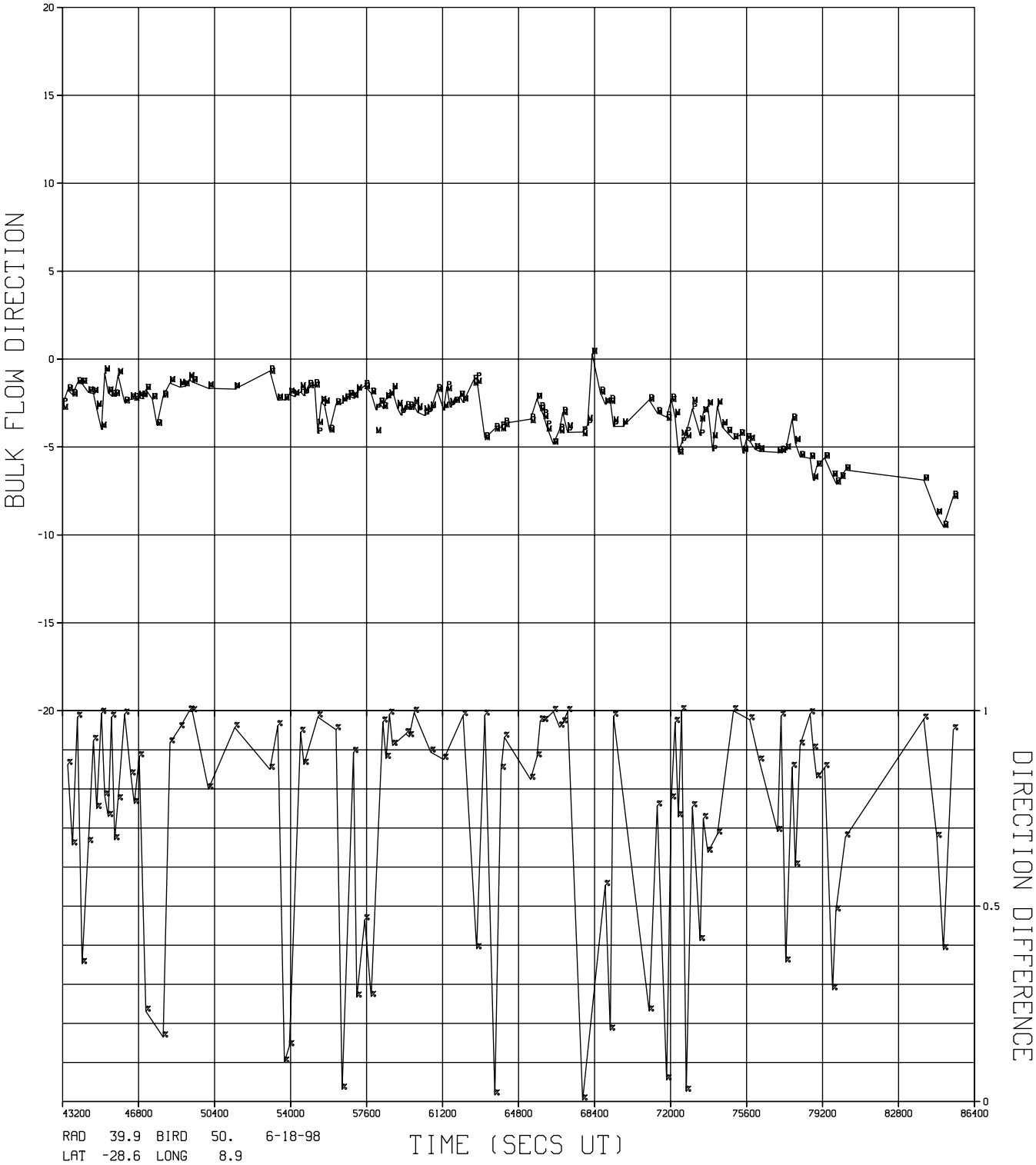

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
HEAT FLUX DIRECTION
360
315
270
225
180
135
90
45
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 39.2 BIRD 50. 6-18-98
LAT -22.7 LONG -1.3

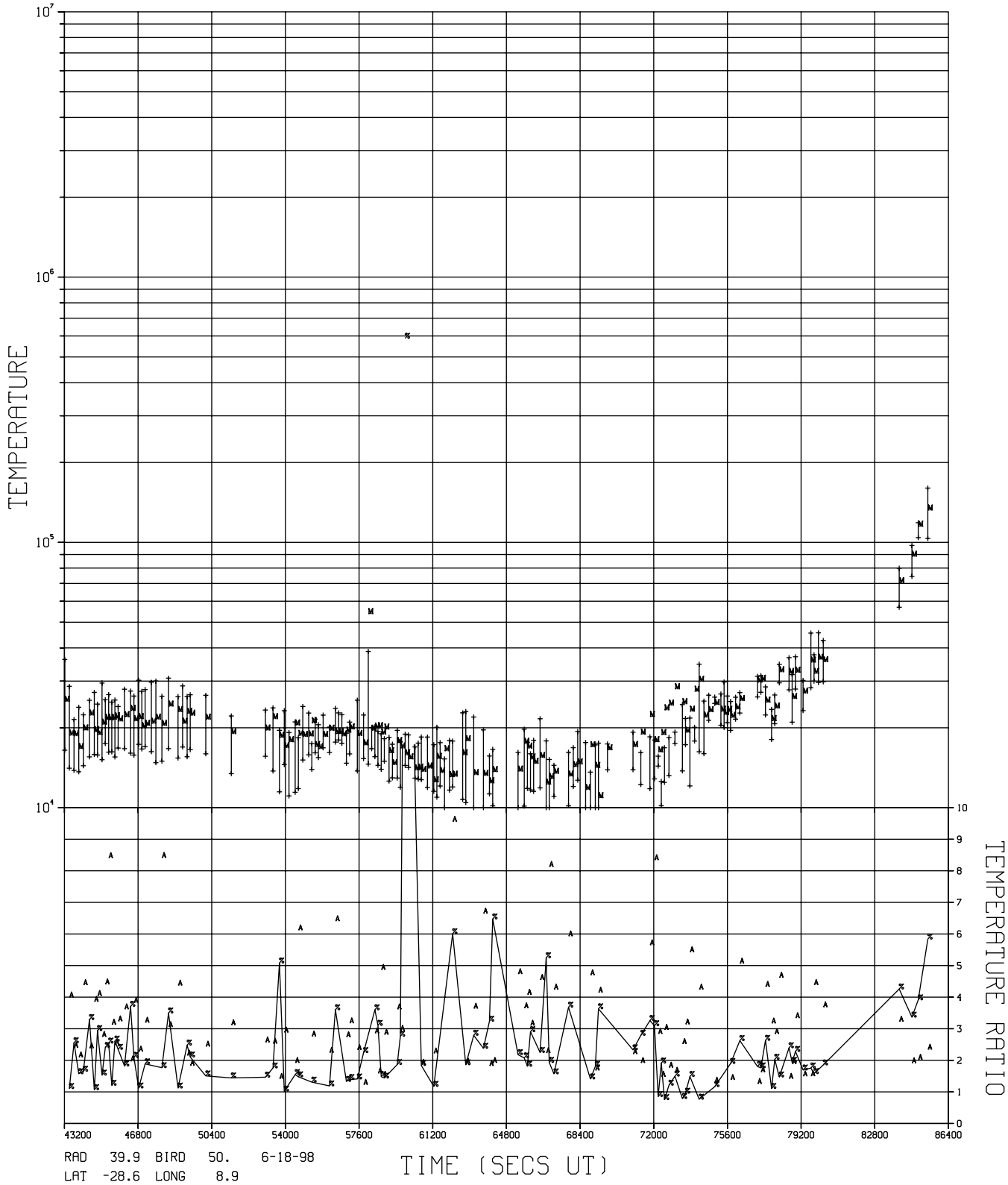

PERP. HEAT FLUX
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
CHI-SQUARE
10^{3}
10^{2}
10^{1}
10^{0}
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 39.2 BIRD 50. 6-18-98
LAT -22.7 LONG -1.3

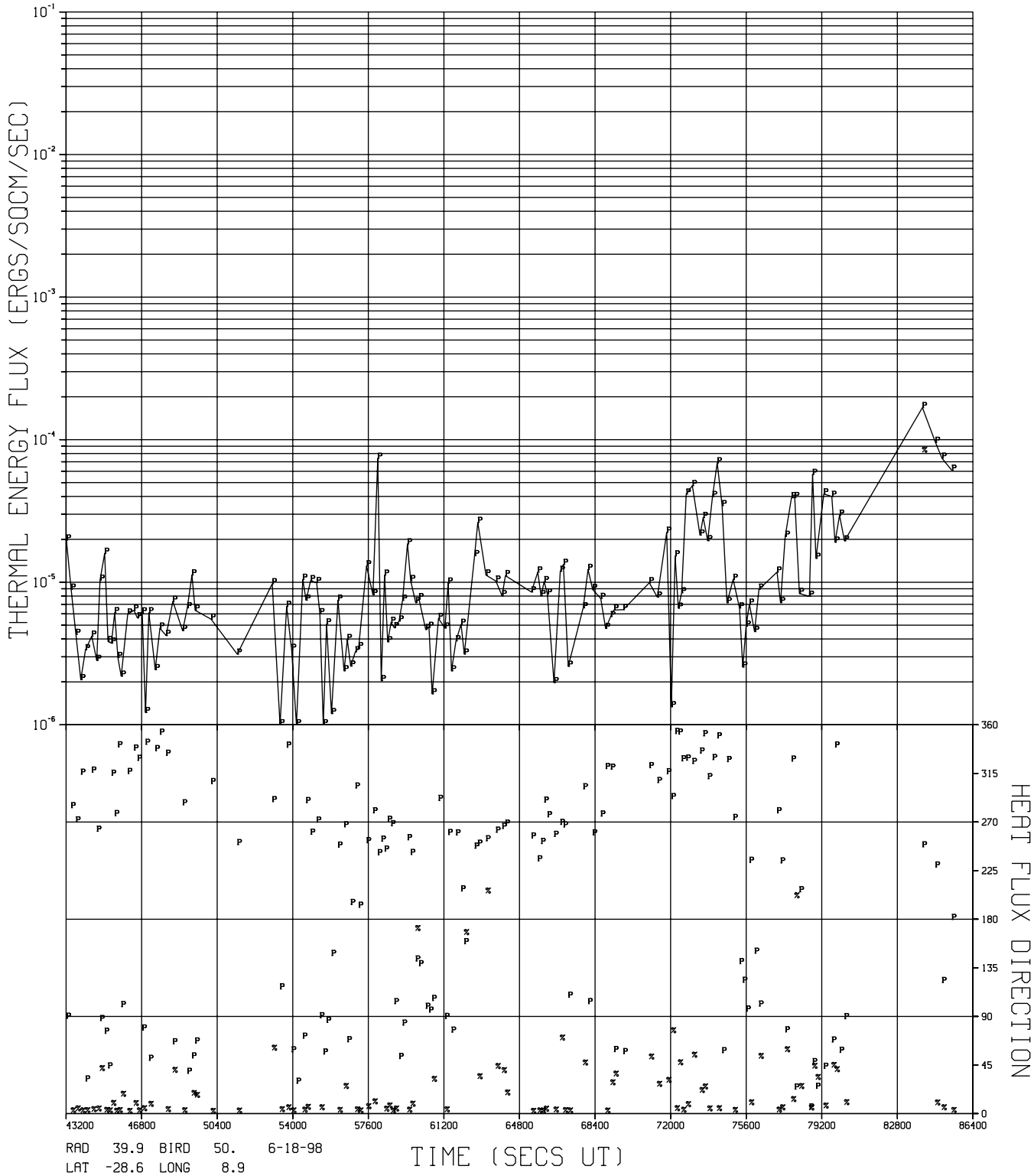

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 39.2 BIRD 50. 6-18-98
LAT -22.7 LONG -1.3

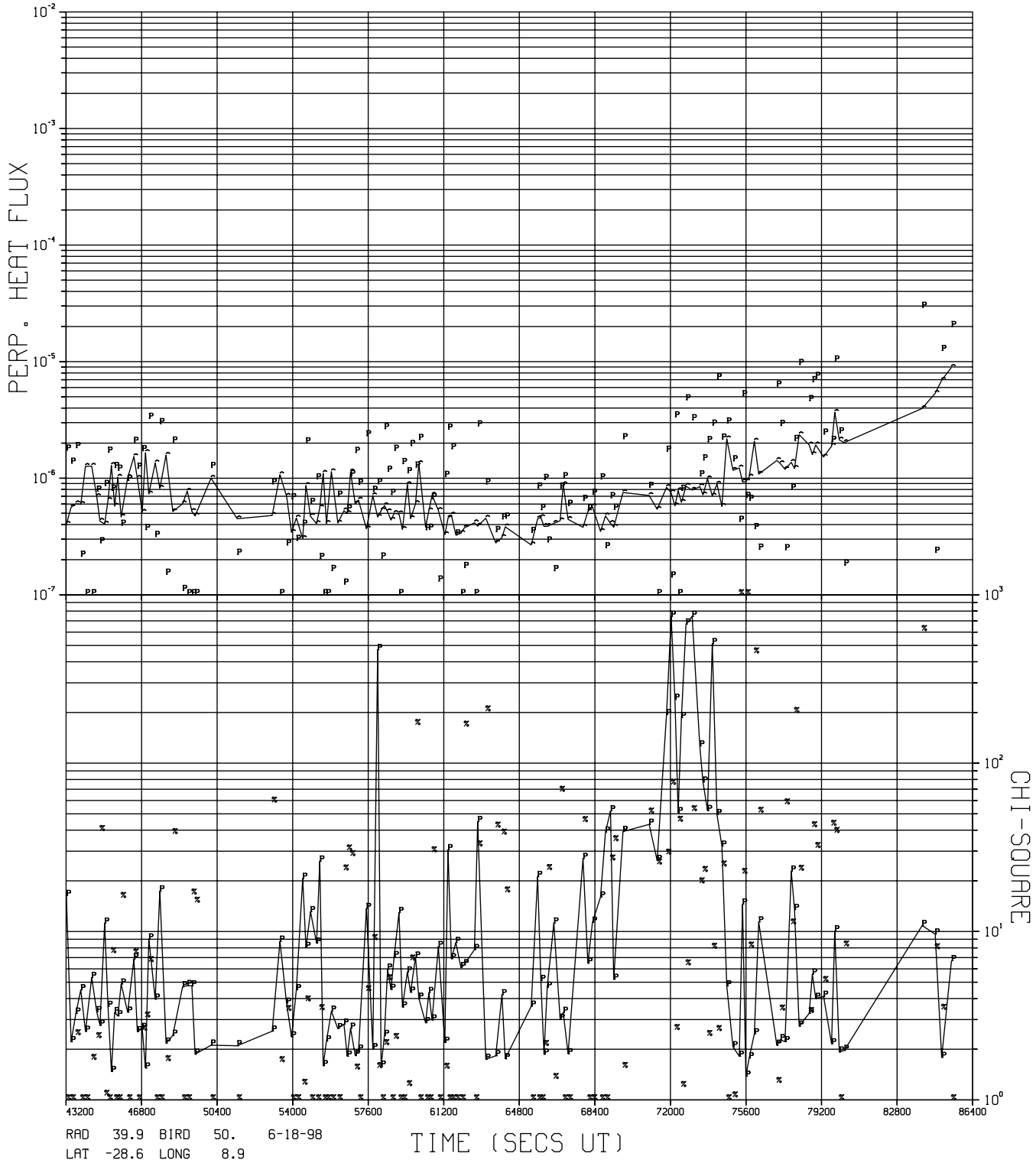

DENSITY
10^2
10^1
10^0
10^{-1}
DENSITY RATIO
10^0
10^{-1}
10^{-2}
10^{-3}
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 39.9 BIRD 50. 6-18-98
LAT -28.6 LONG 8.9
TIME (SECS UT)

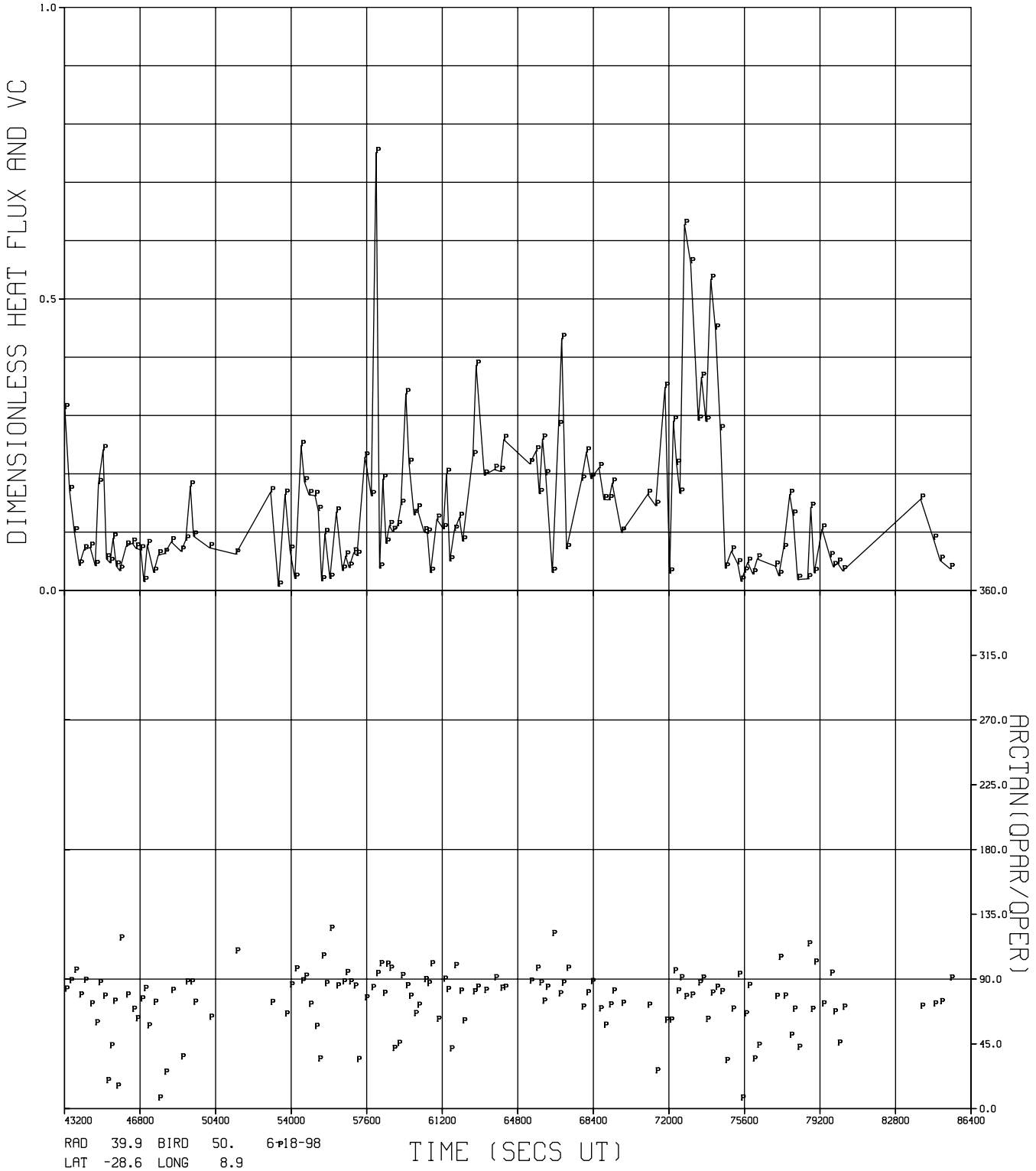

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 39.9 BIRD 50. 6-18-98
LAT -28.6 LONG 8.9
TIME (SECS UT)

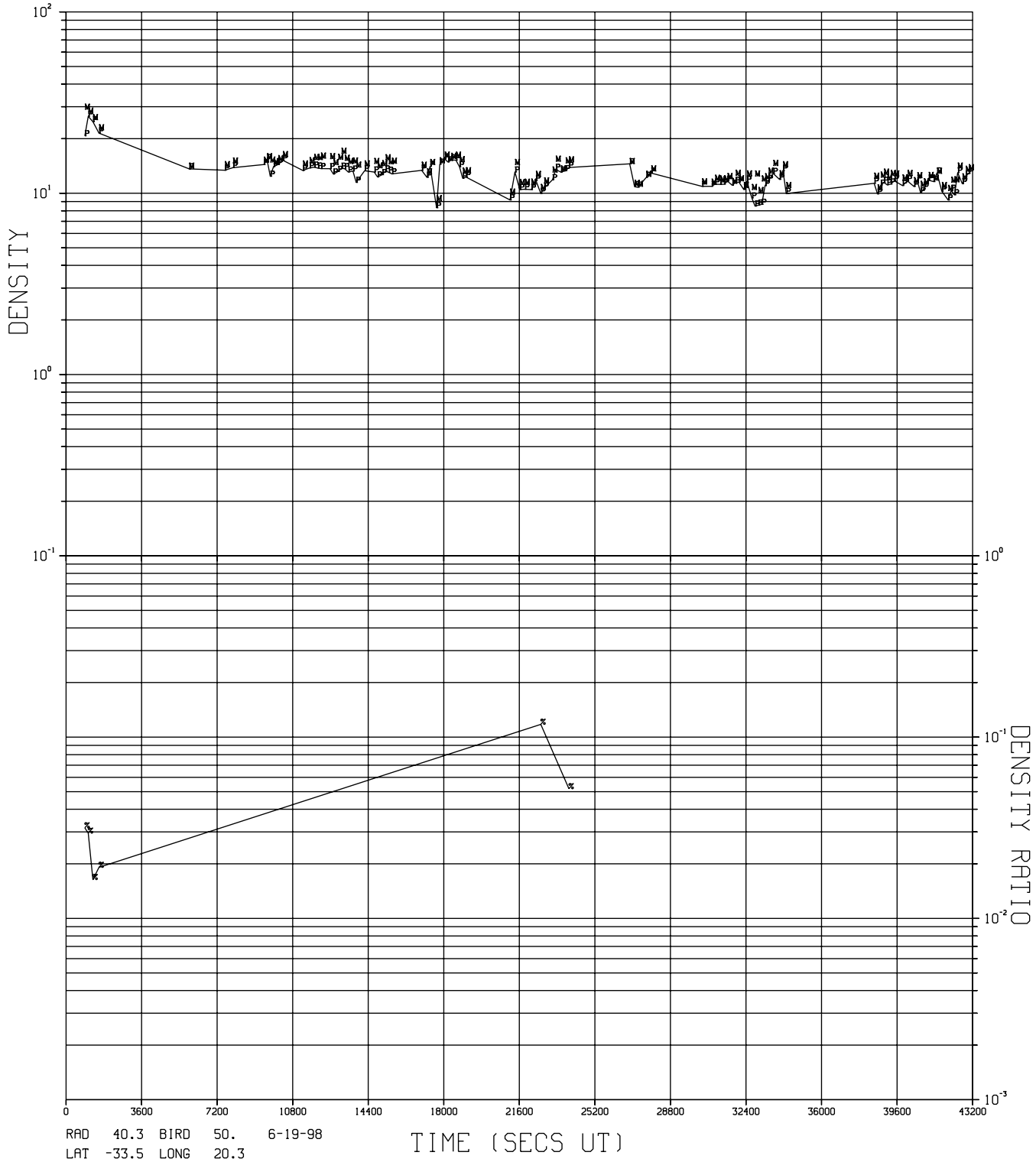

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 39.9 BIRD 50. 6-18-98
LAT -28.6 LONG 8.9

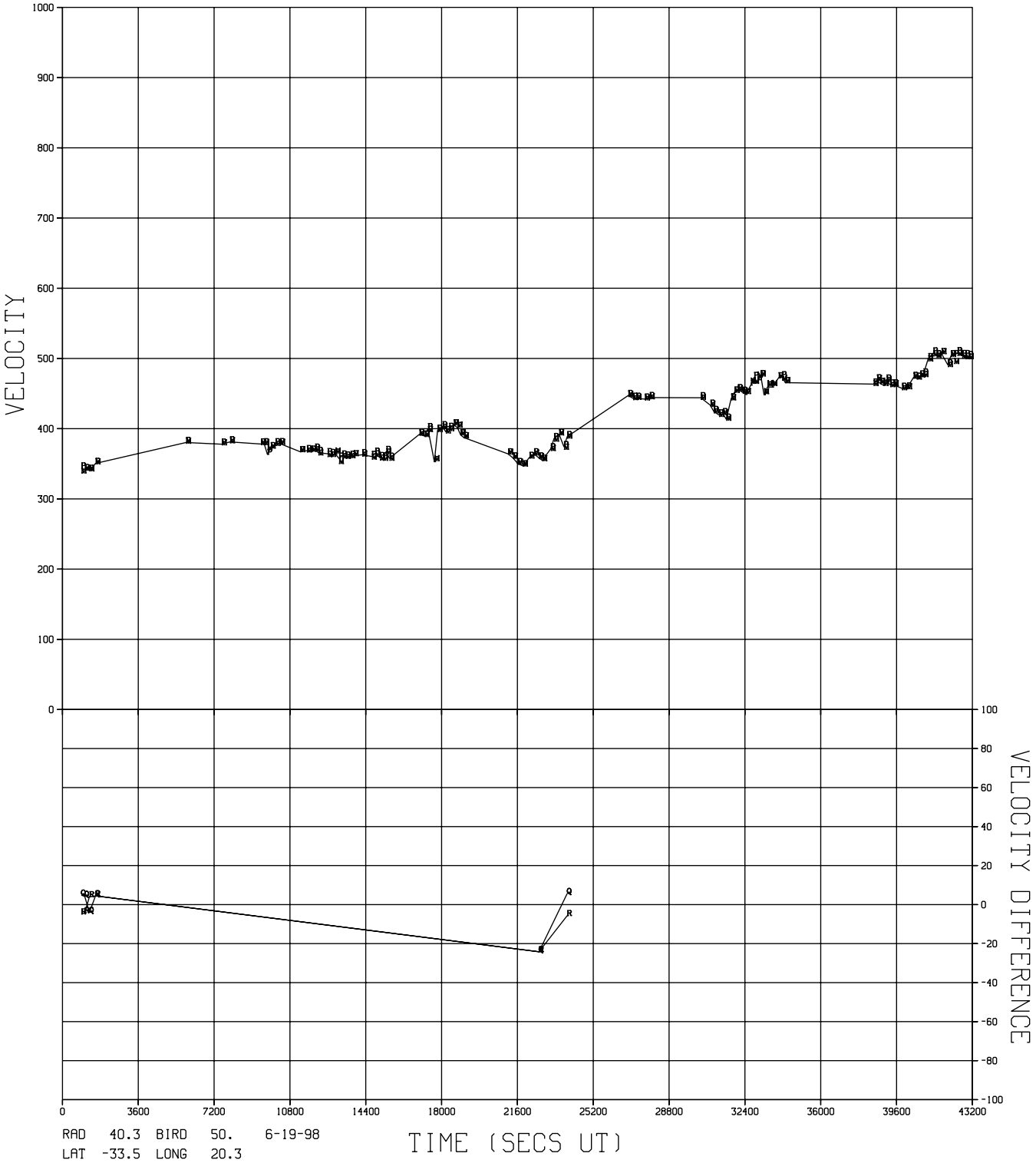

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 39.9 BIRD 50. 6-18-98
LAT -28.6 LONG 8.9

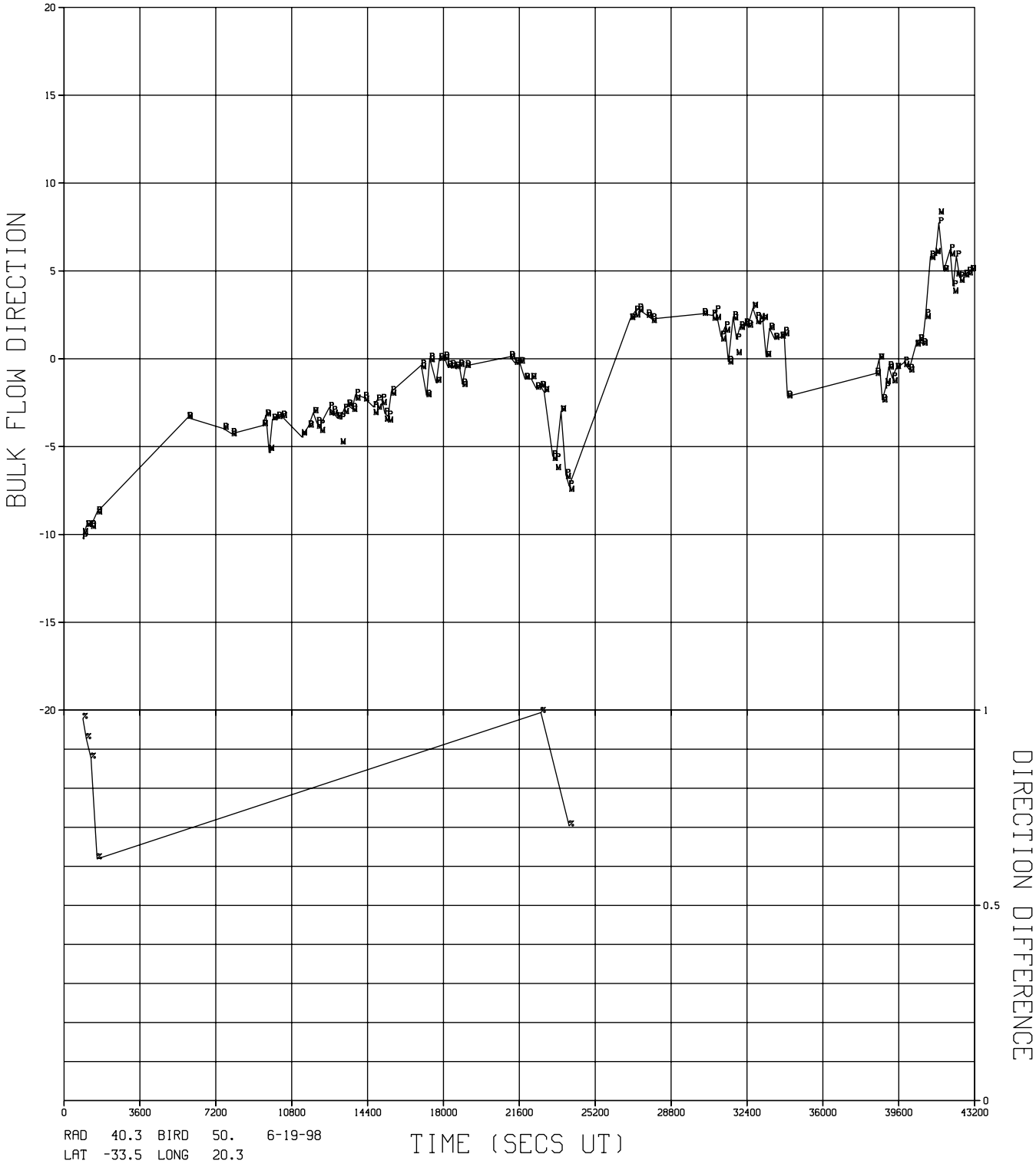

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
HEAT FLUX DIRECTION
360
315
270
225
180
135
90
45
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 39.9 BIRD 50. 6-18-98
LAT -28.6 LONG 8.9

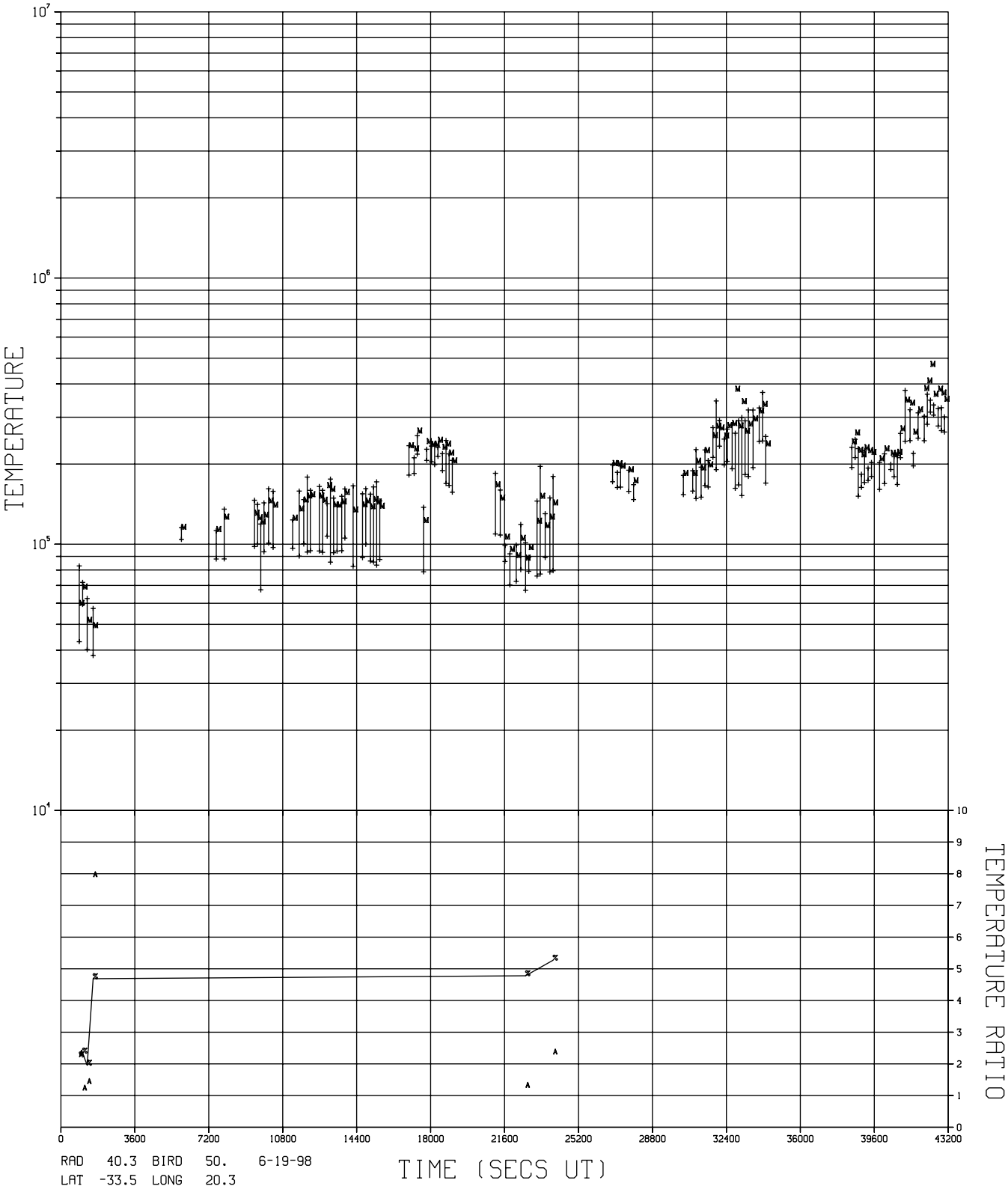

PERP. HEAT FLUX
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
CHI-SQUARE
10^{3}
10^{2}
10^{1}
10^{0}
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 39.9 BIRD 50. 6-18-98
LAT -28.6 LONG 8.9
TIME (SECS UT)

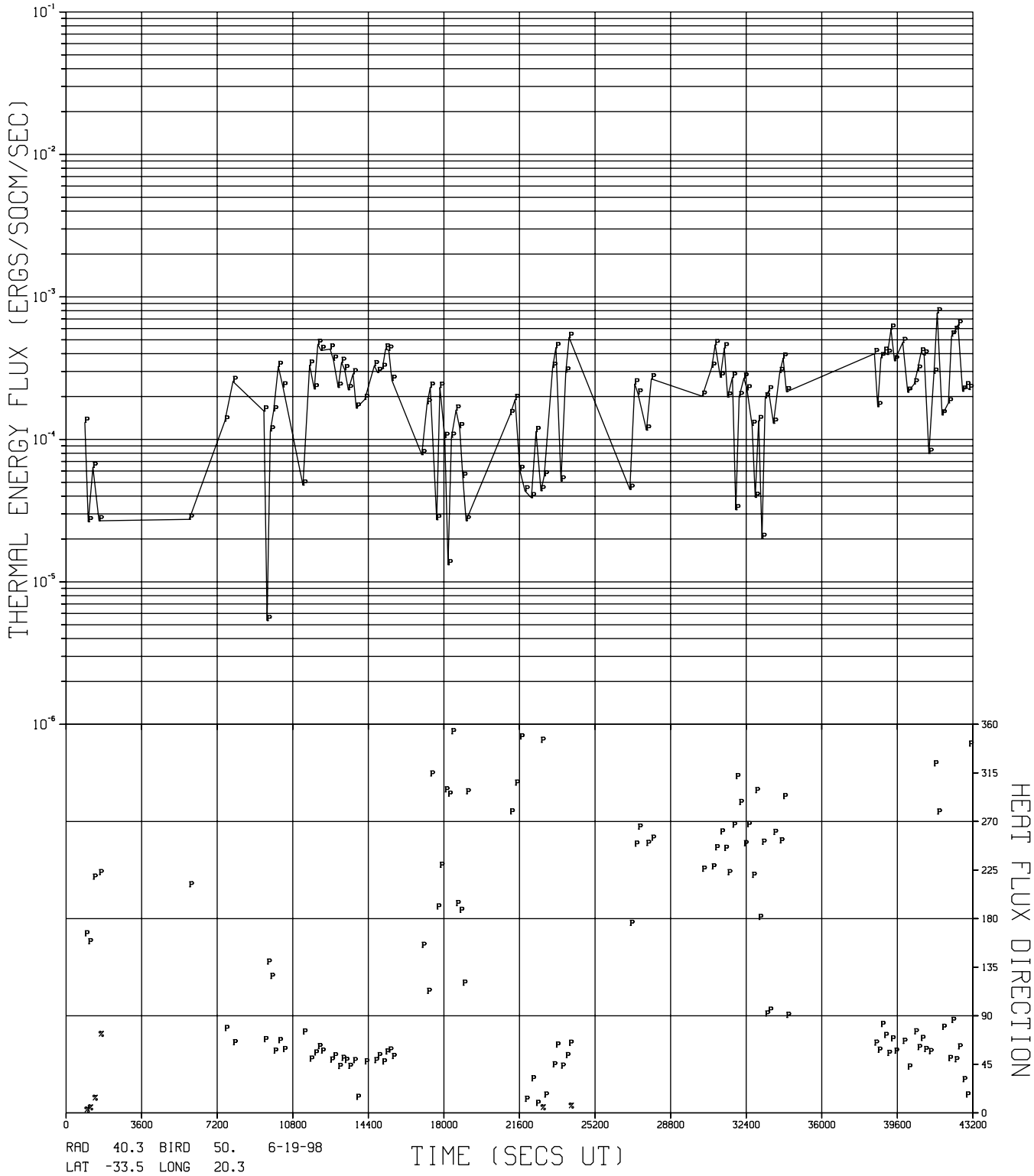

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 39.9 BIRD 50. 6-18-98
LAT -28.6 LONG 8.9
TIME (SECS UT)

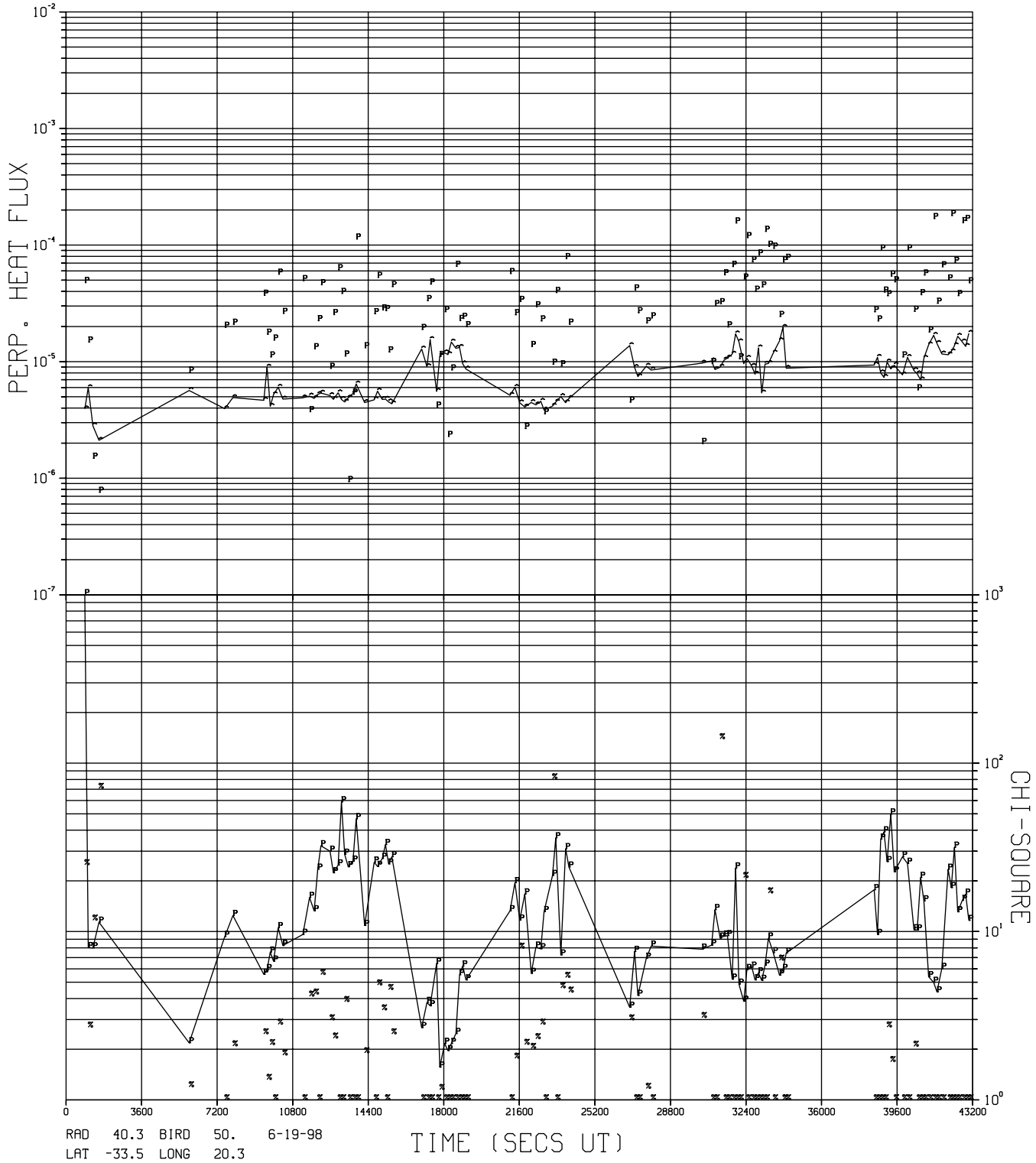

DENSITY
10^2
10^1
10^0
10^{-1}
DENSITY RATIO
10^0
10^{-1}
10^{-2}
10^{-3}
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 40.3 BIRD 50. 6-19-98
LAT -33.5 LONG 20.3
TIME (SECS UT)

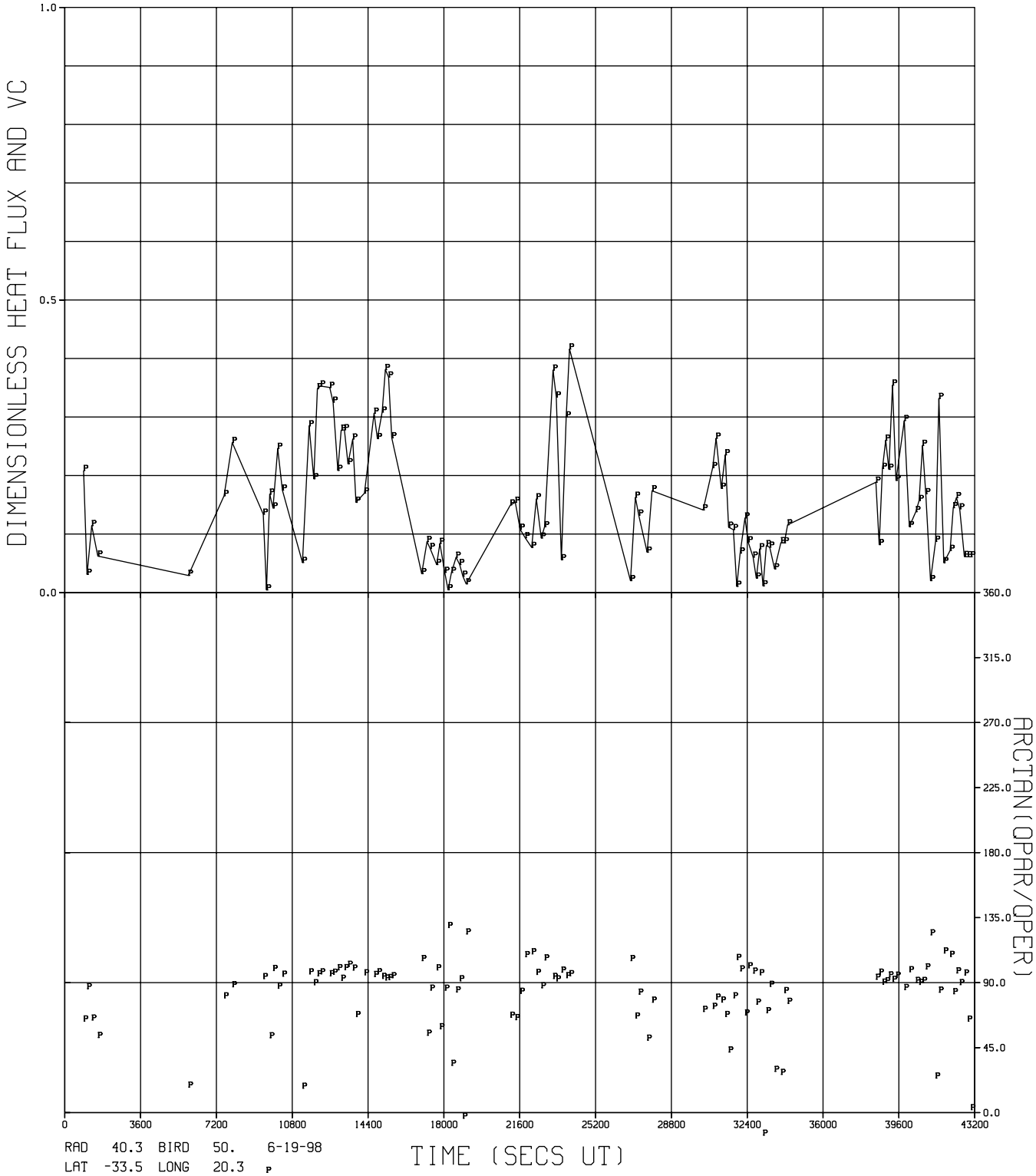

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 40.3 BIRD 50. 6-19-98
LAT -33.5 LONG 20.3

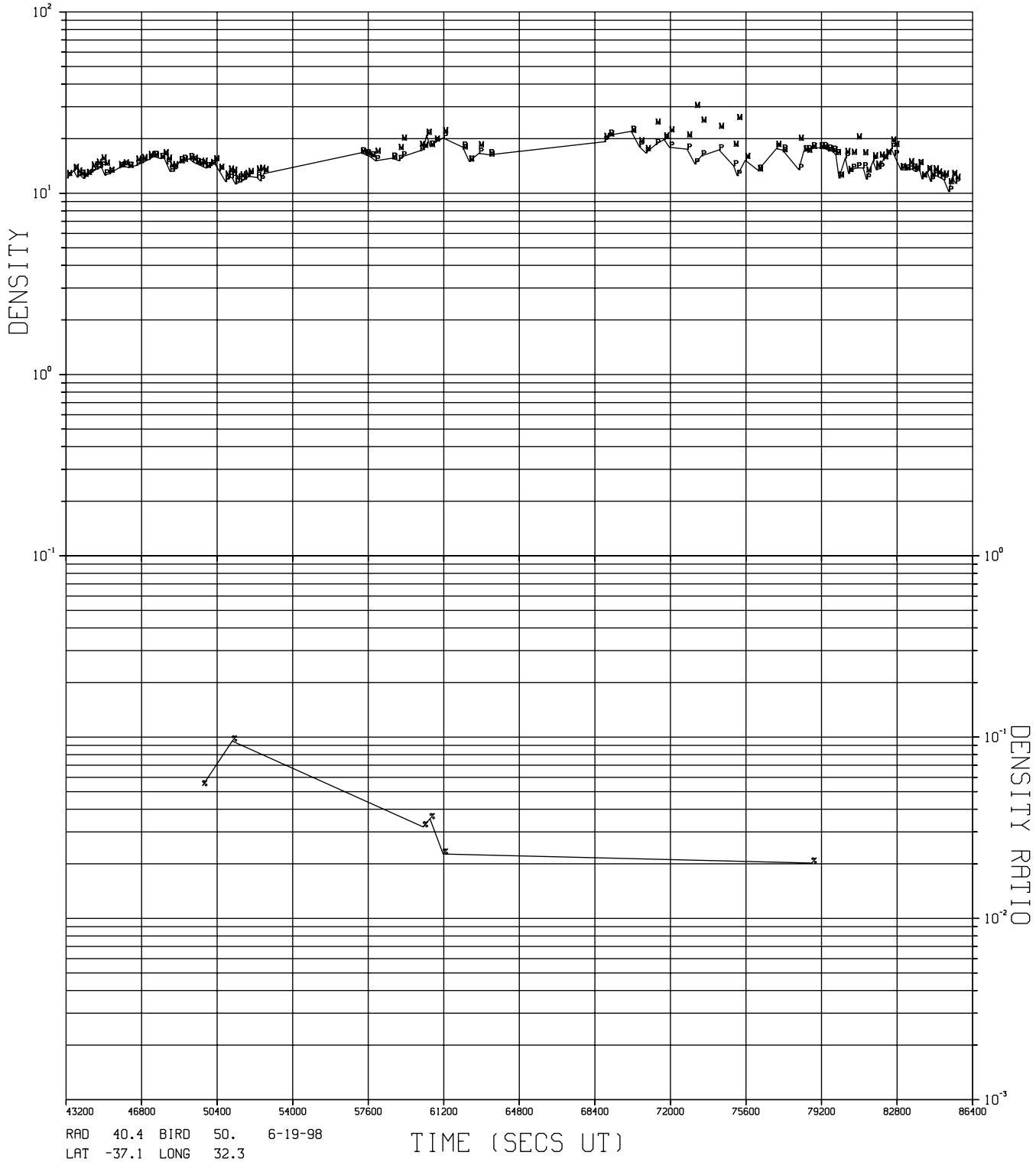

BULK FLOW DIRECTION
20
15
10
5
0
-5
-10
-15
-20
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
DIRECTION DIFFERENCE
1
0.5
0
RAD 40.3 BIRD 50. 6-19-98
LAT -33.5 LONG 20.3

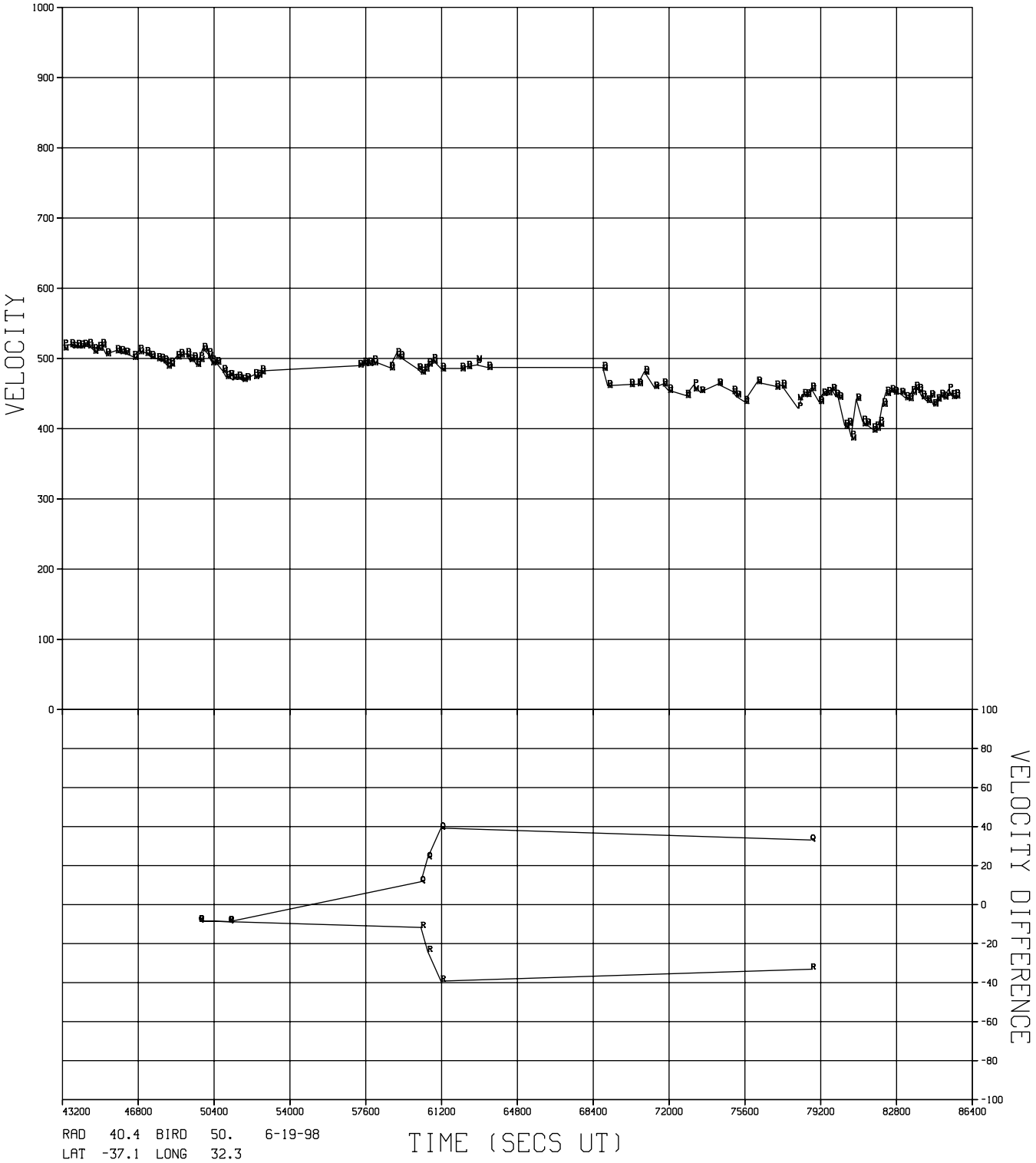

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
10
9
8
7
6
5
4
3
2
1
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 40.3 BIRD 50. 6-19-98
LAT -33.5 LONG 20.3

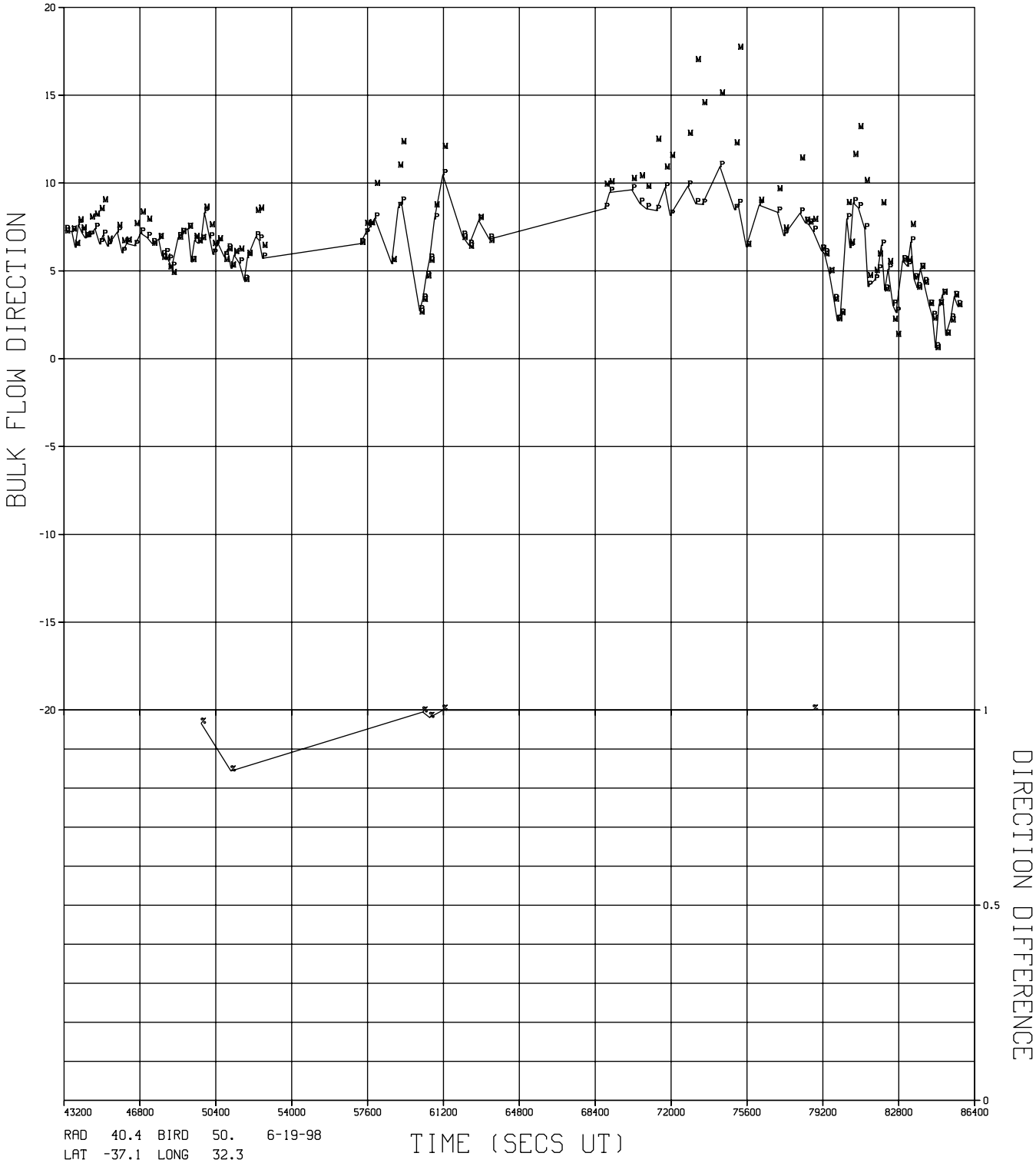

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
HEAT FLUX DIRECTION
360
315
270
225
180
135
90
45
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 40.3 BIRD 50. 6-19-98
LAT -33.5 LONG 20.3

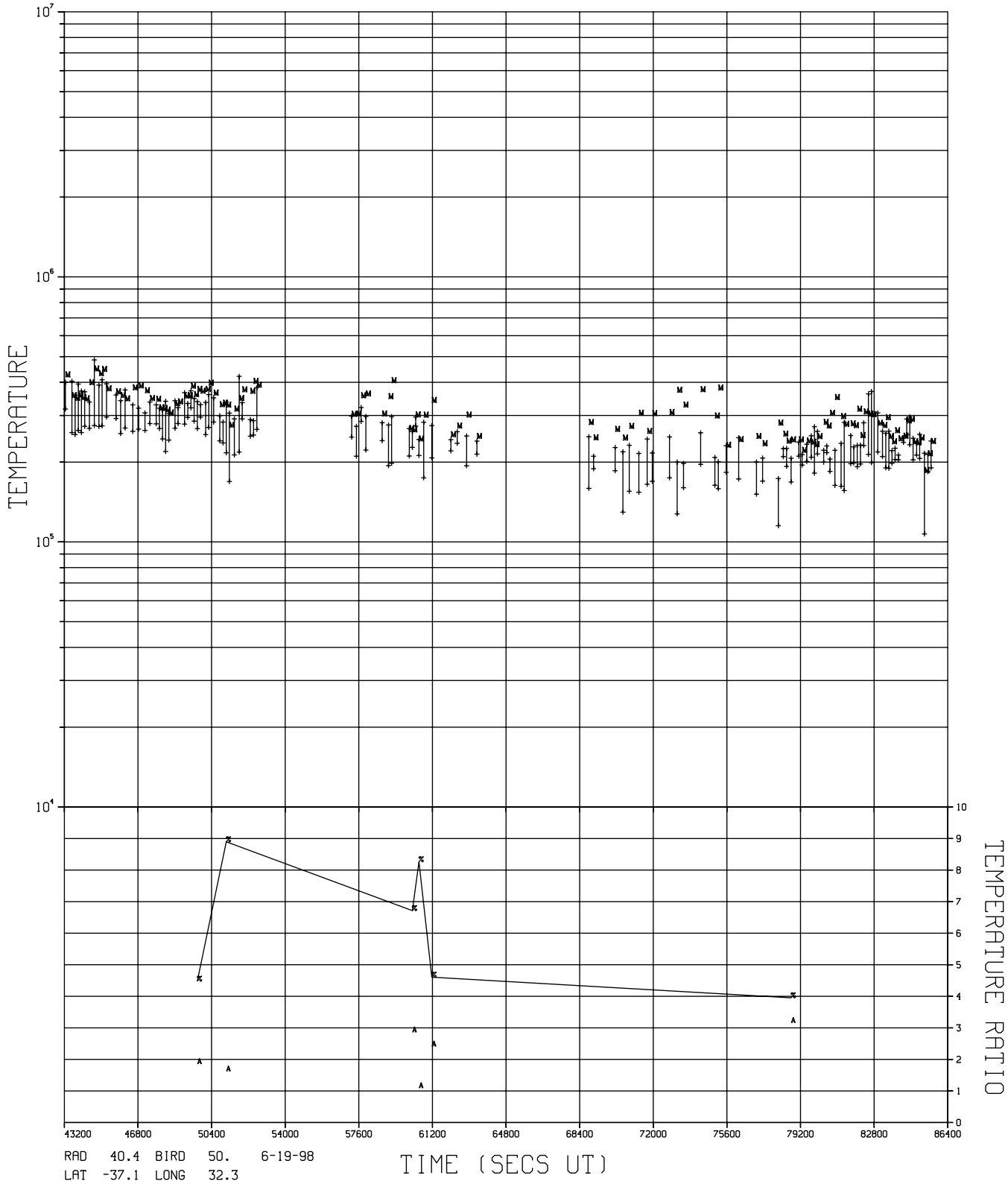

PERP. HEAT FLUX
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
CHI-SQUARE
10^{3}
10^{2}
10^{1}
10^{0}
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 40.3 BIRD 50. 6-19-98
LAT -33.5 LONG 20.3

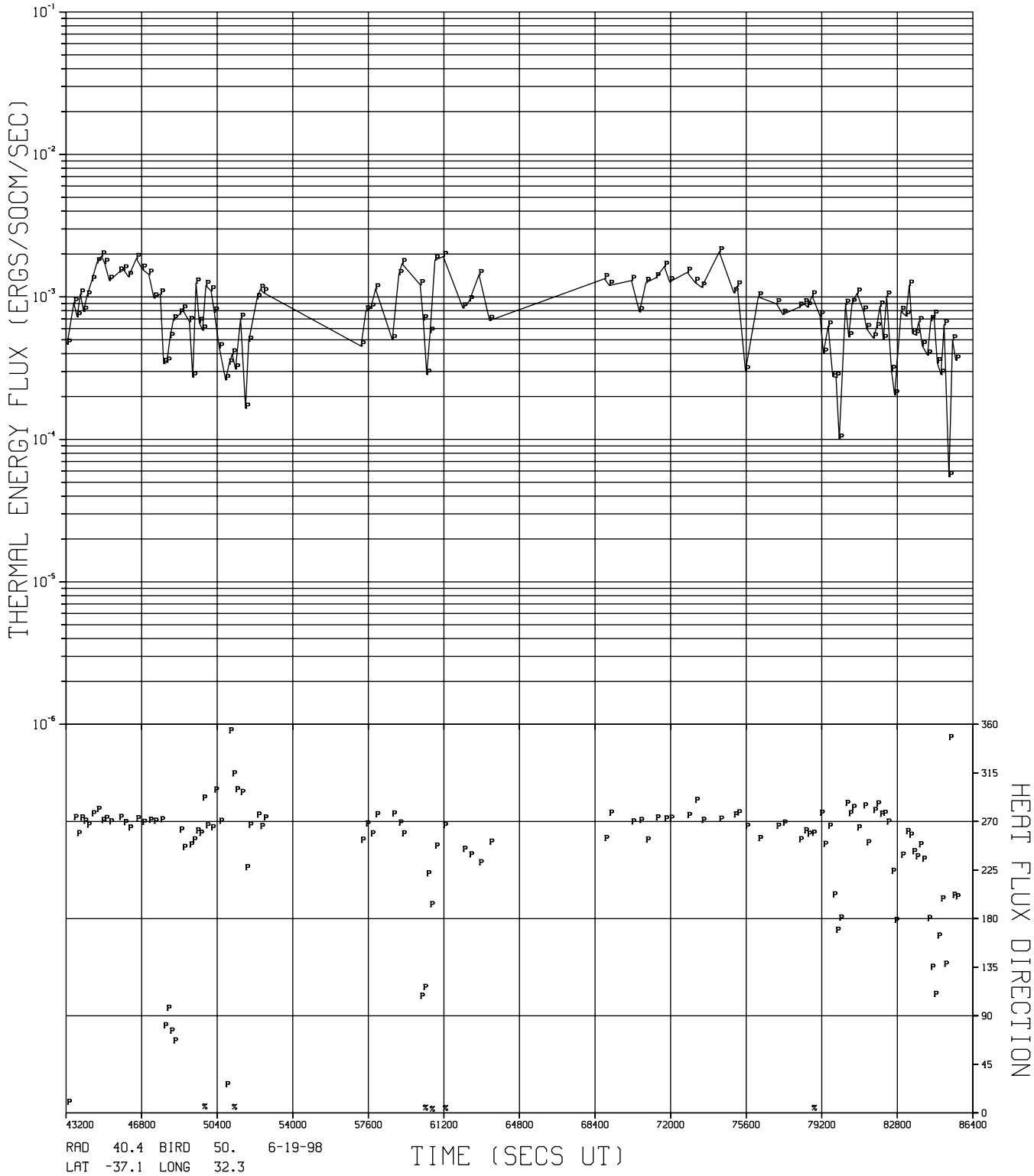

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 40.3 BIRD 50. 6-19-98
LAT -33.5 LONG 20.3

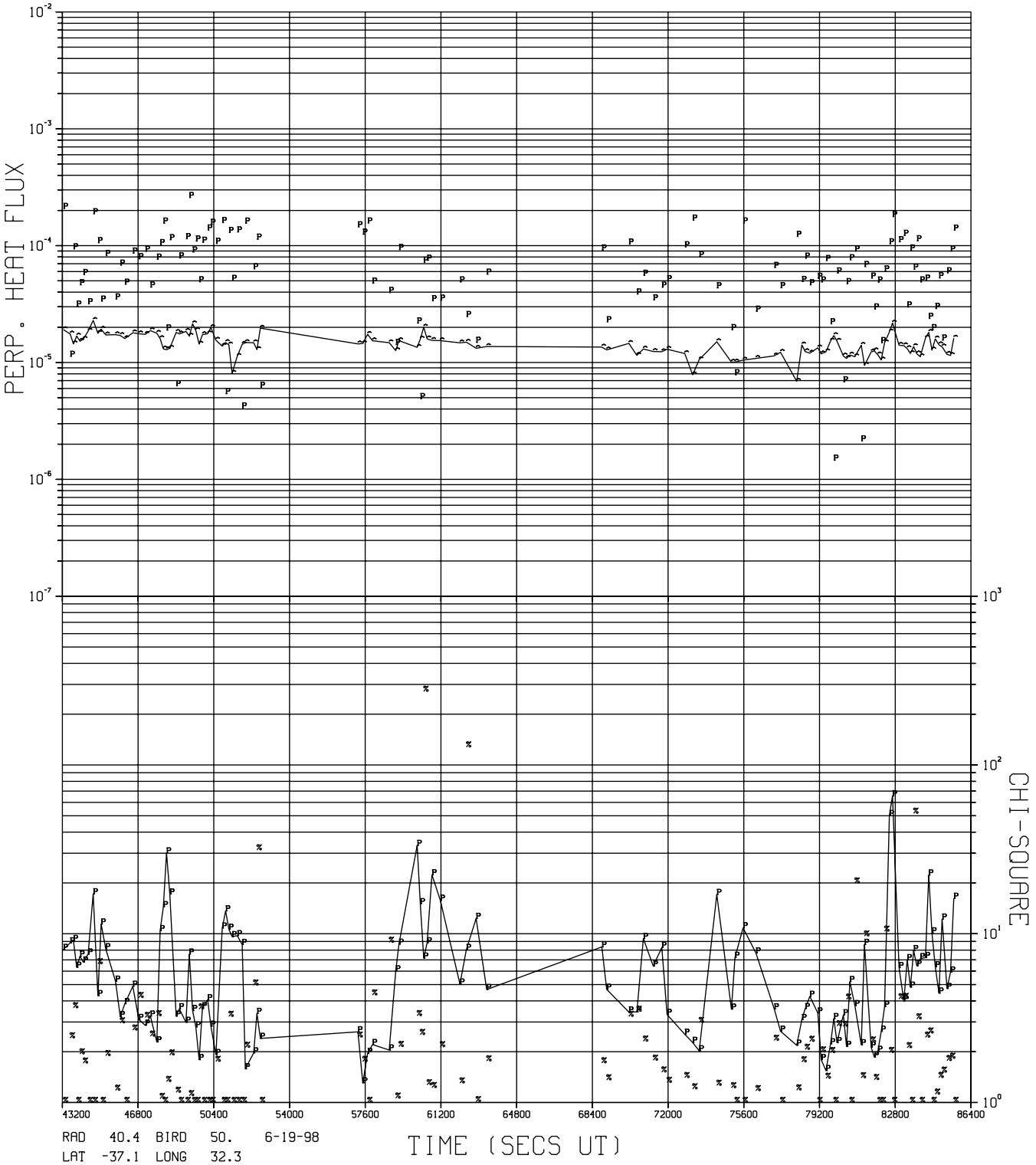

DENSITY
10^2
10^1
10^0
10^{-1}
DENSITY RATIO
10^0
10^{-1}
10^{-2}
10^{-3}
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 40.4 BIRD 50. 6-19-98
LAT -37.1 LONG 32.3

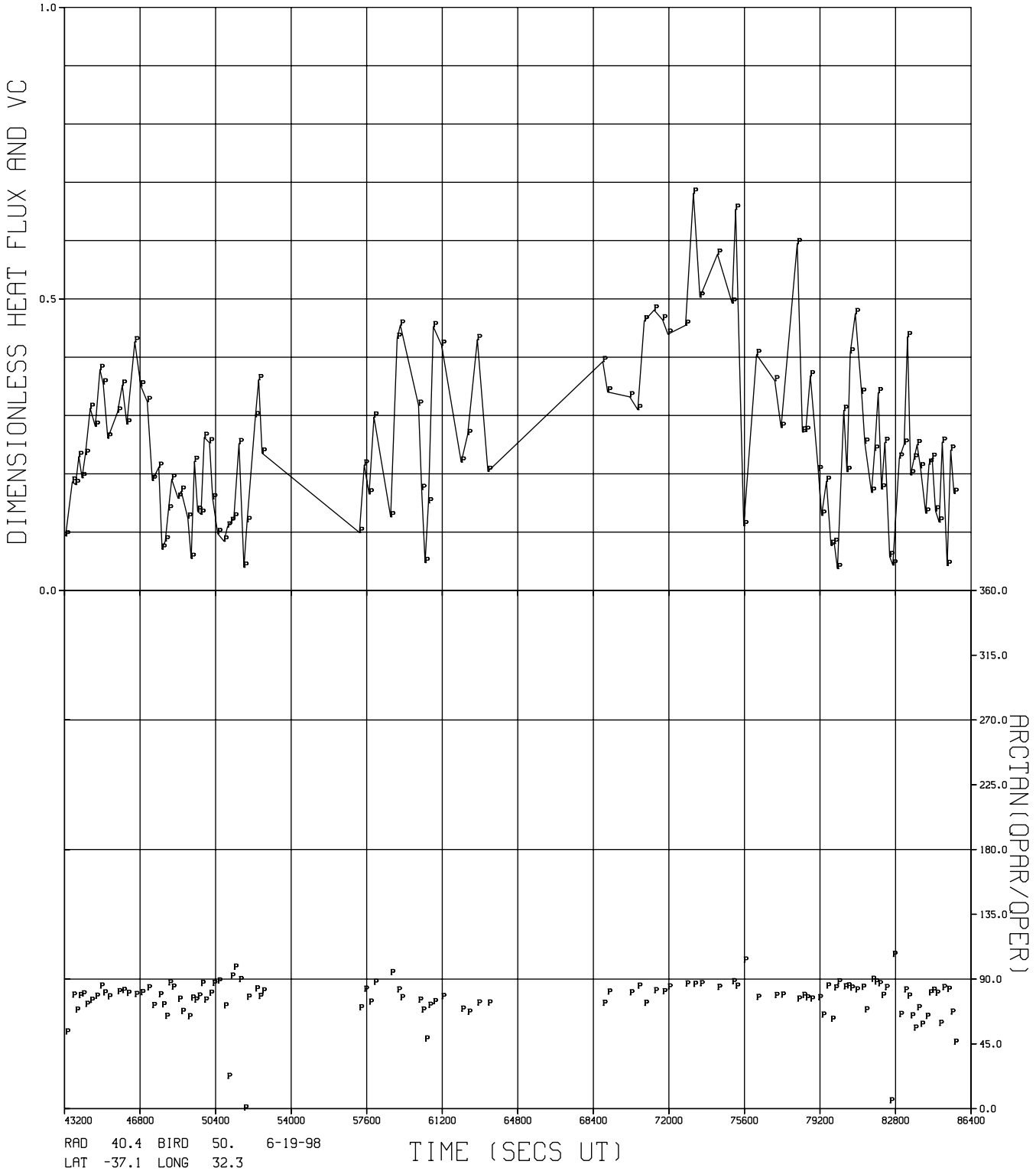

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 40.4 BIRD 50. 6-19-98
LAT -37.1 LONG 32.3

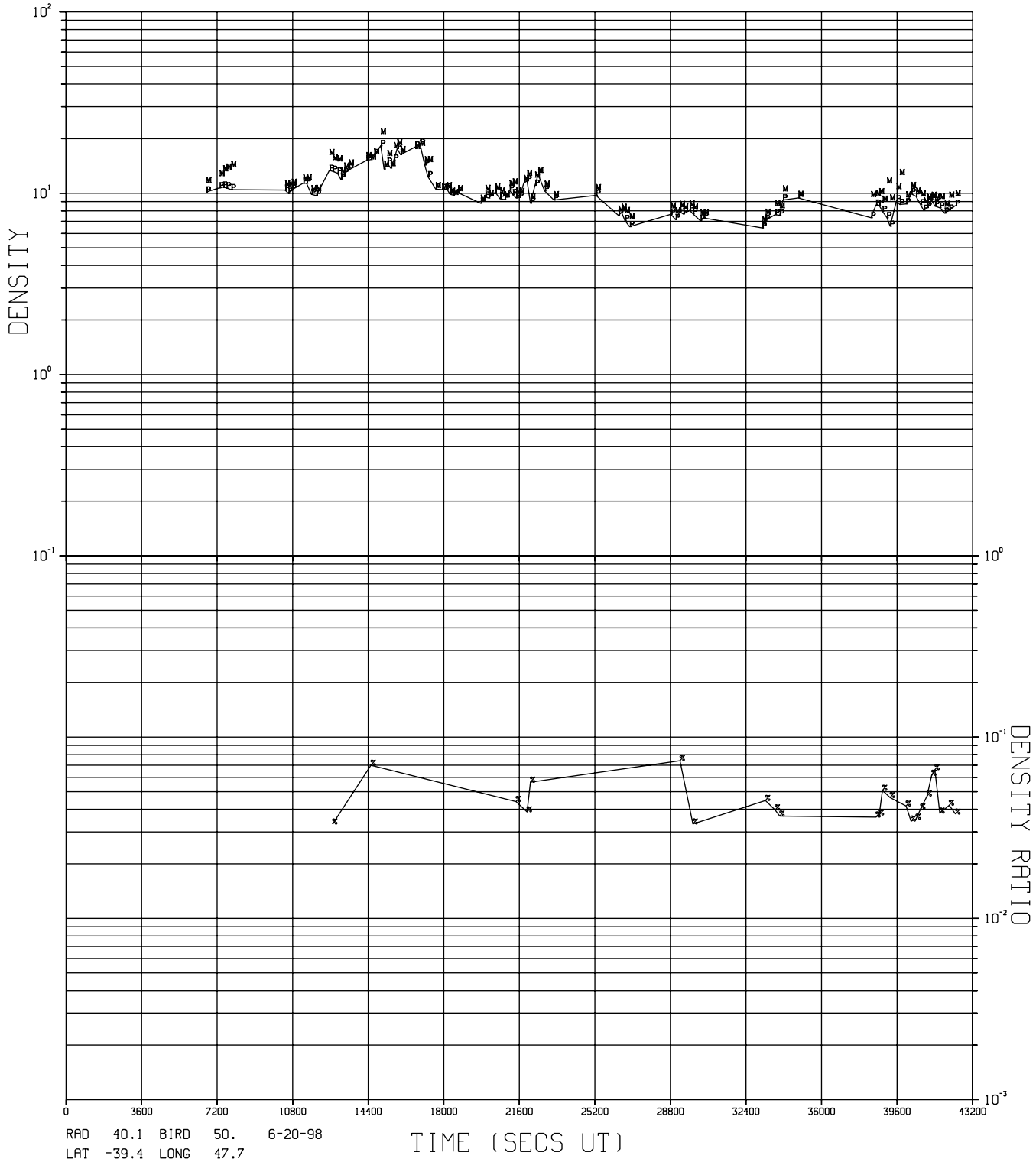

BULK FLOW DIRECTION
20
15
10
5
0
-5
-10
-15
-20
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
DIRECTION DIFFERENCE
1
0.5
0
RAD 40.4 BIRD 50. 6-19-98
LAT -37.1 LONG 32.3

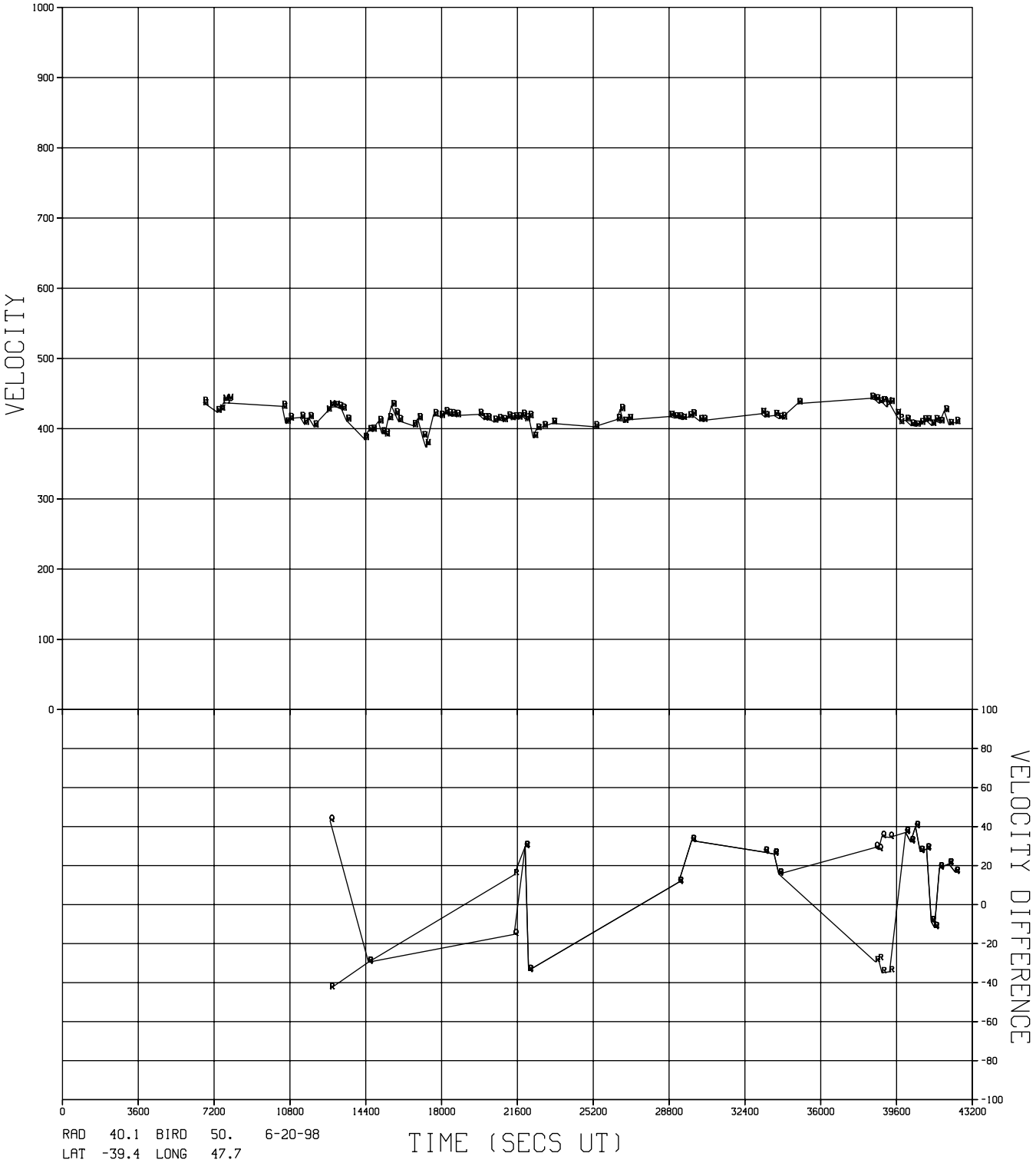

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 40.4 BIRD 50. 6-19-98
LAT -37.1 LONG 32.3

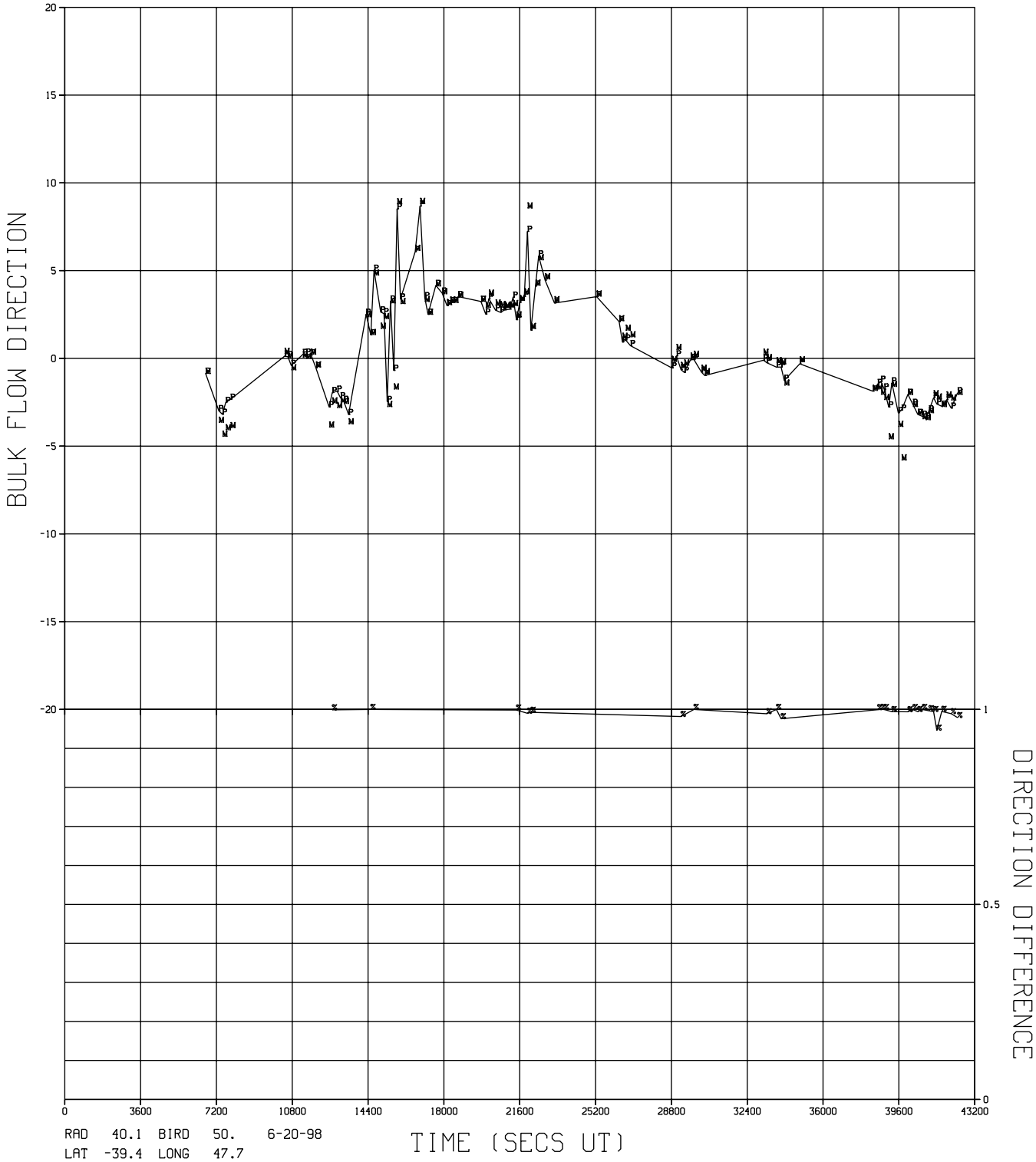

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
HEAT FLUX DIRECTION
360
315
270
225
180
135
90
45
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 40.4 BIRD 50. 6-19-98
LAT -37.1 LONG 32.3

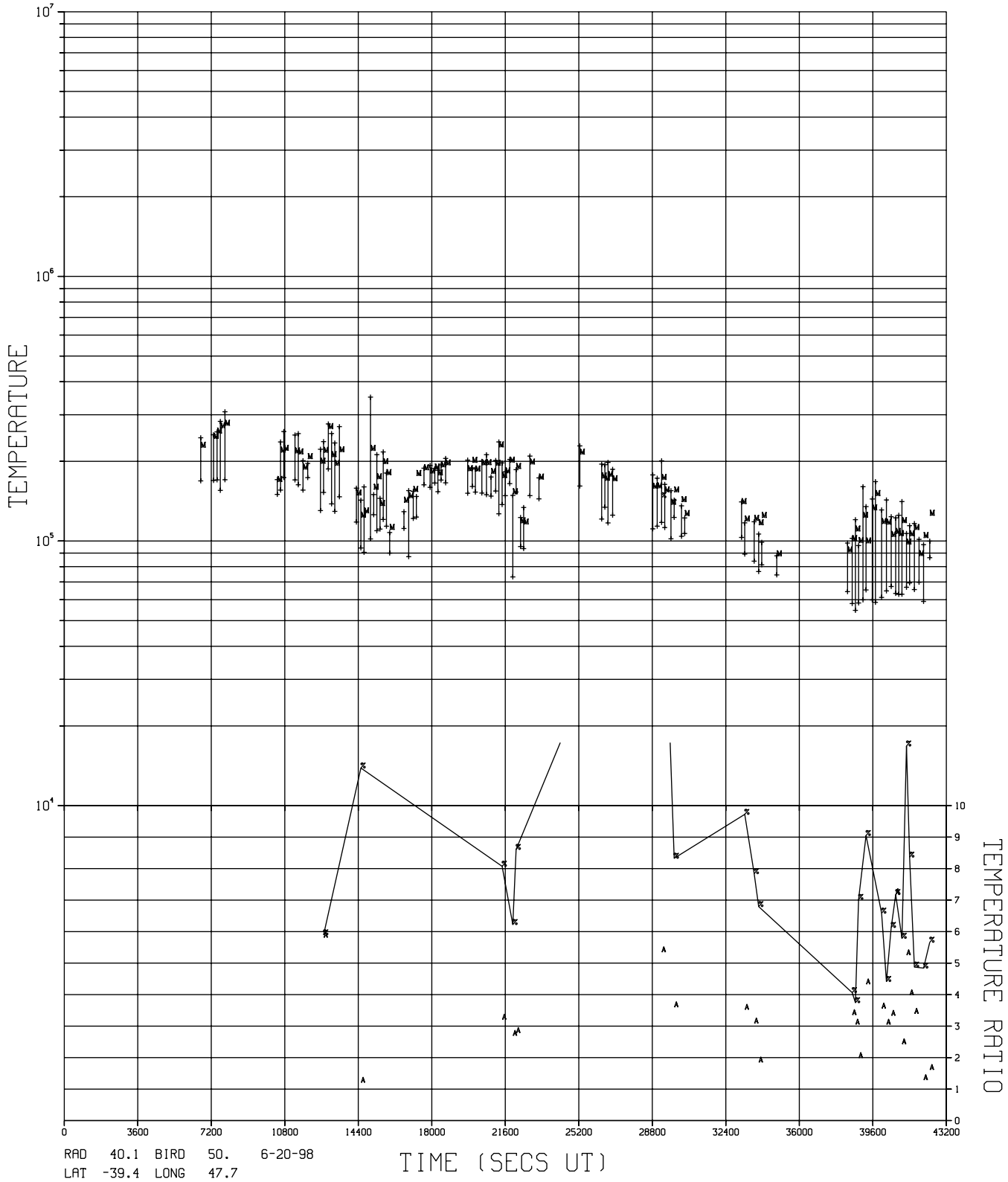

PERP. HEAT FLUX
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
CHI-SQUARE
10^{3}
10^{2}
10^{1}
10^{0}
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 40.4 BIRD 50. 6-19-98
LAT -37.1 LONG 32.3
TIME (SECS UT)

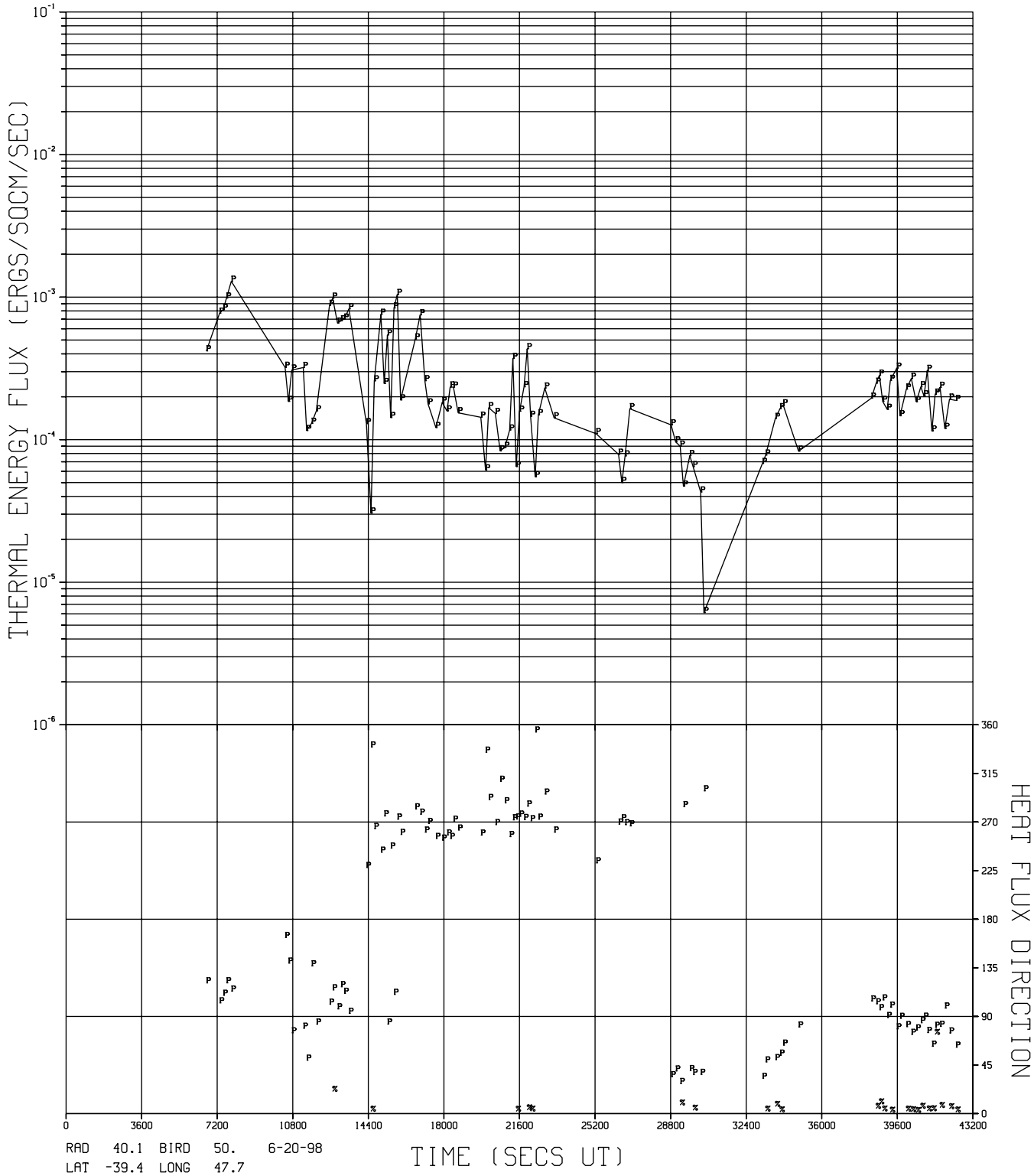

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 40.4 BIRD 50. 6-19-98
LAT -37.1 LONG 32.3
TIME (SECS UT)

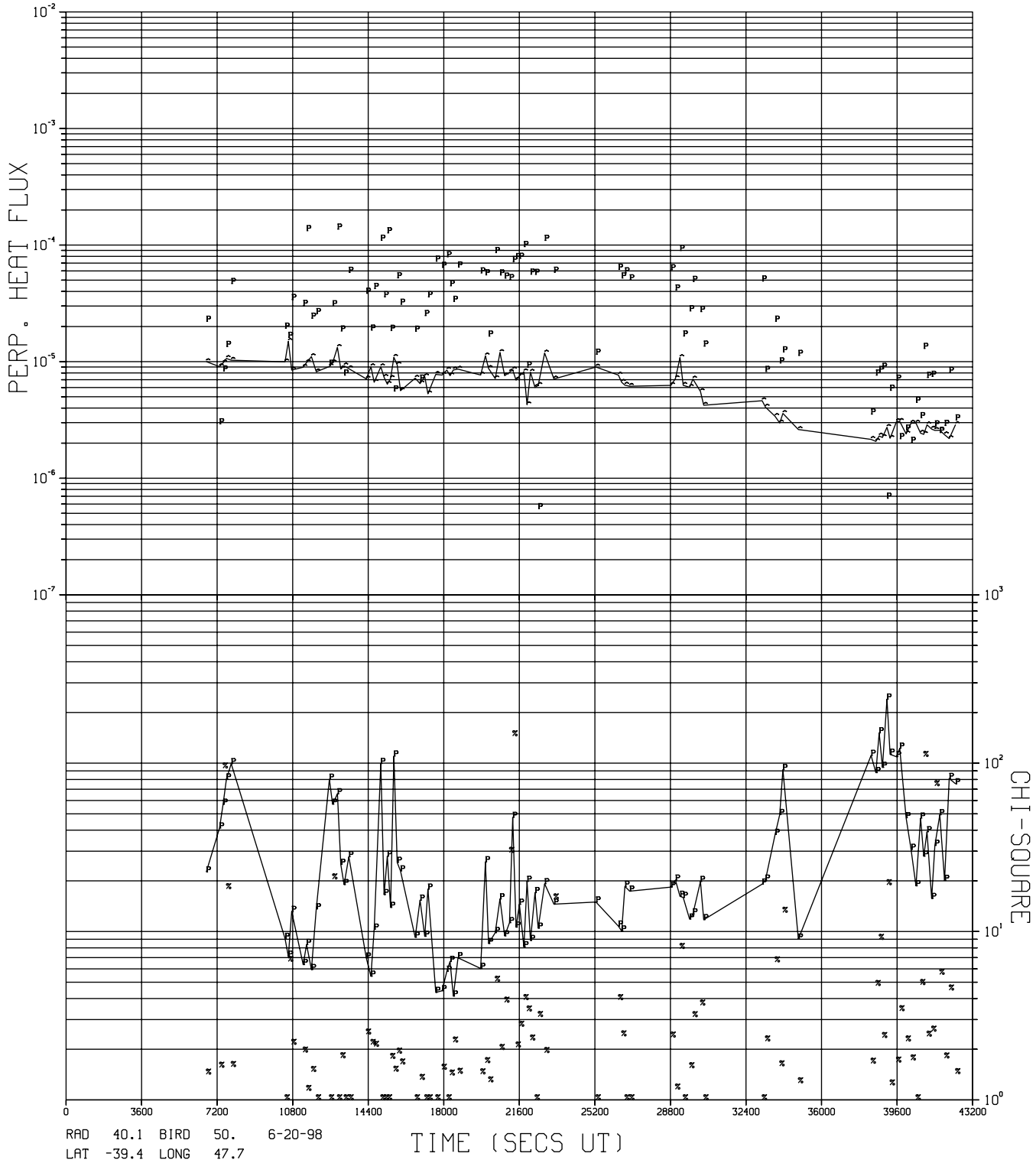

DENSITY
10^2
10^1
10^0
10^{-1}
DENSITY RATIO
10^0
10^{-1}
10^{-2}
10^{-3}
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 40.1 BIRD 50. 6-20-98
LAT -39.4 LONG 47.7
TIME (SECS UT)

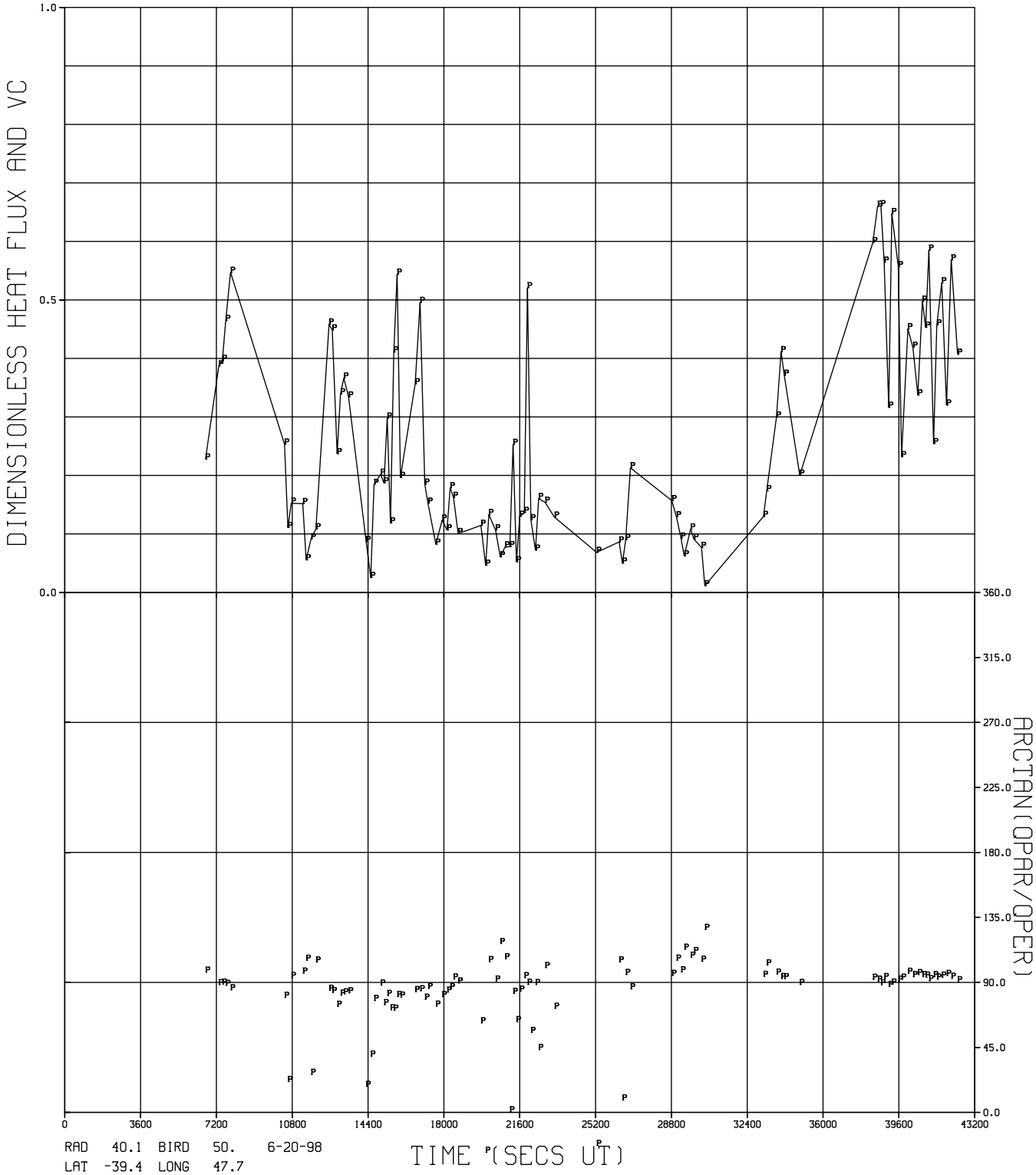

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 40.1 BIRD 50. 6-20-98
LAT -39.4 LONG 47.7

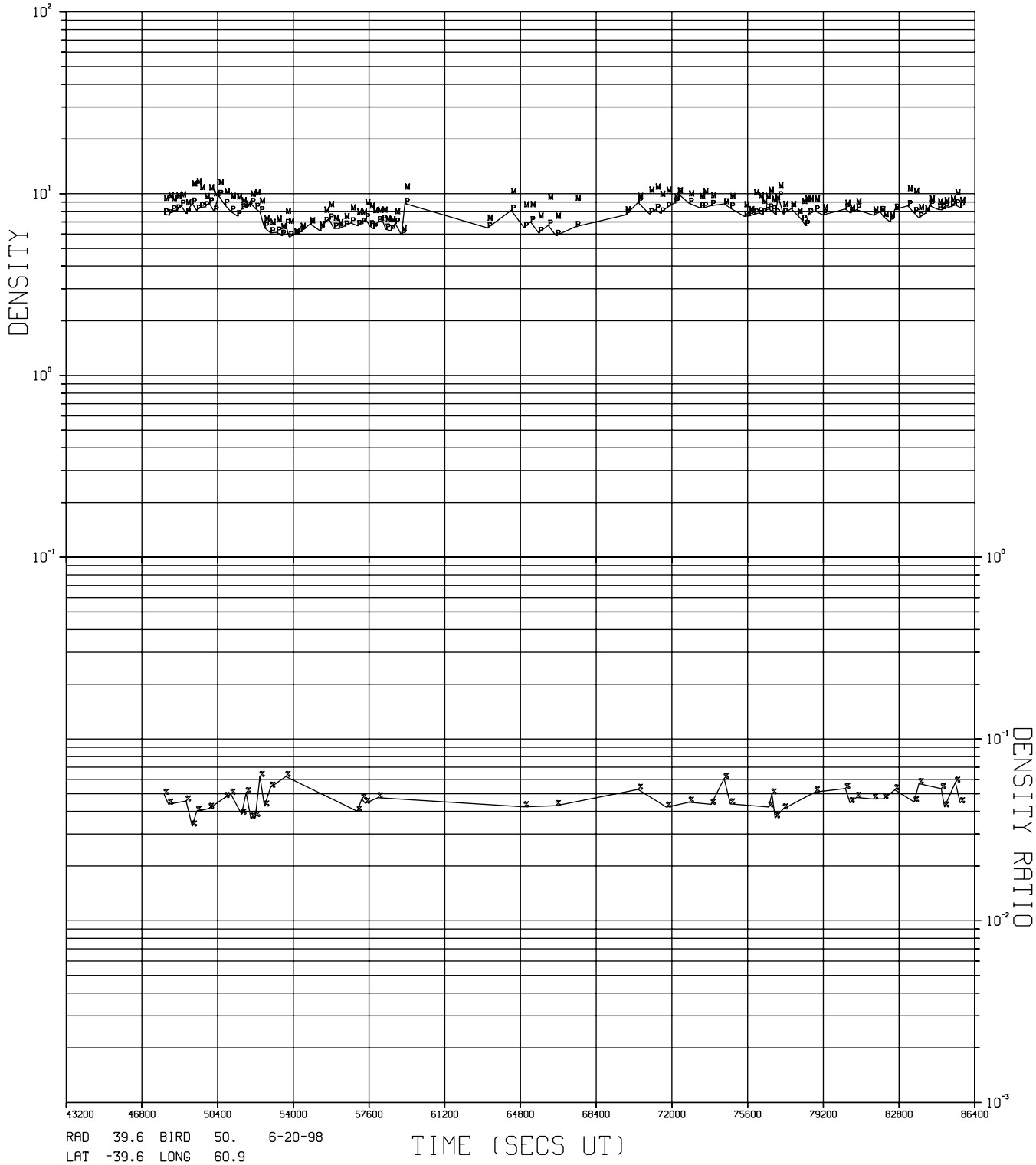

BULK FLOW DIRECTION
20
15
10
5
0
-5
-10
-15
-20
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
DIRECTION DIFFERENCE
1
0.5
0
RAD 40.1 BIRD 50. 6-20-98
LAT -39.4 LONG 47.7

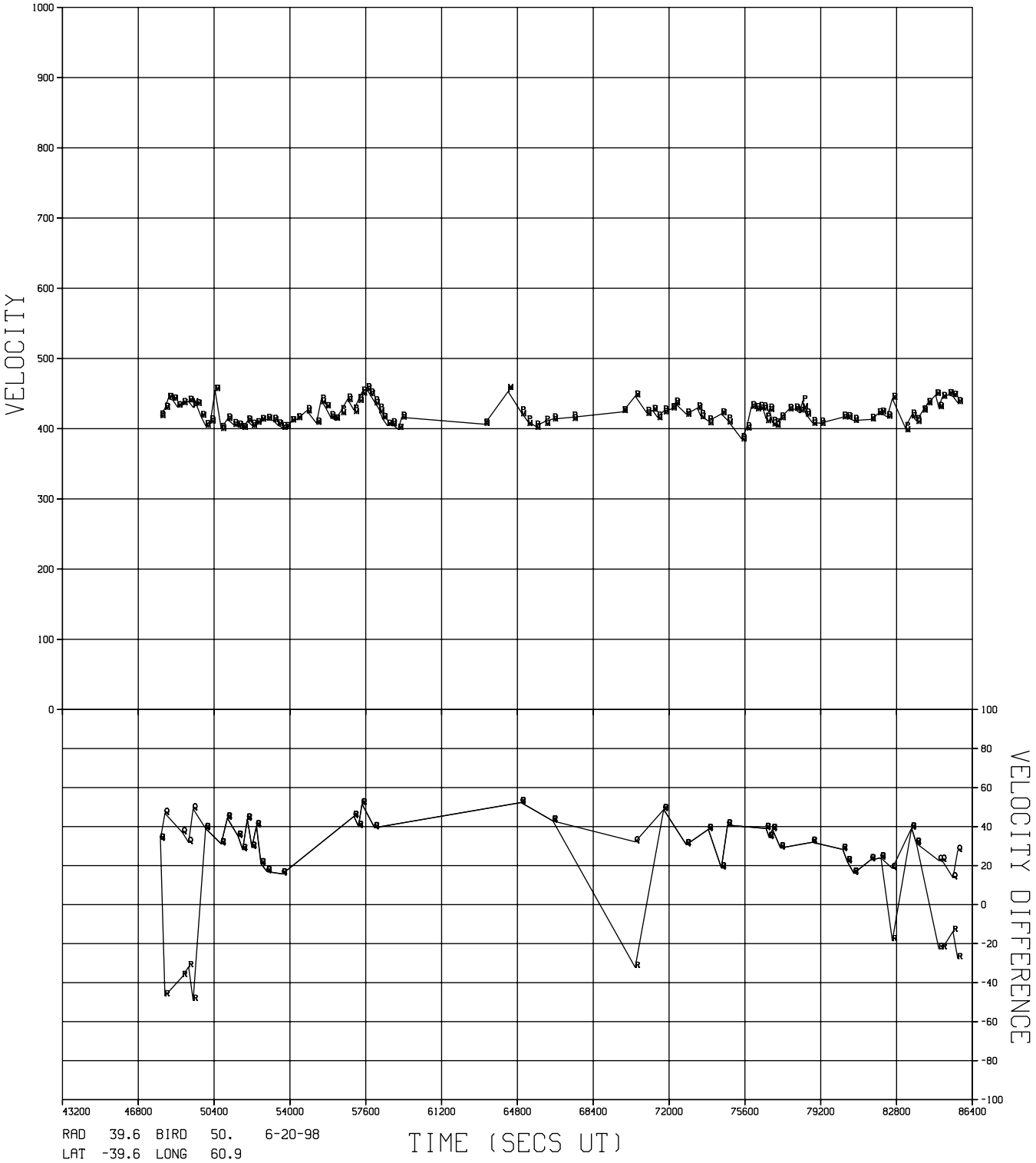

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 40.1 BIRD 50. 6-20-98
LAT -39.4 LONG 47.7

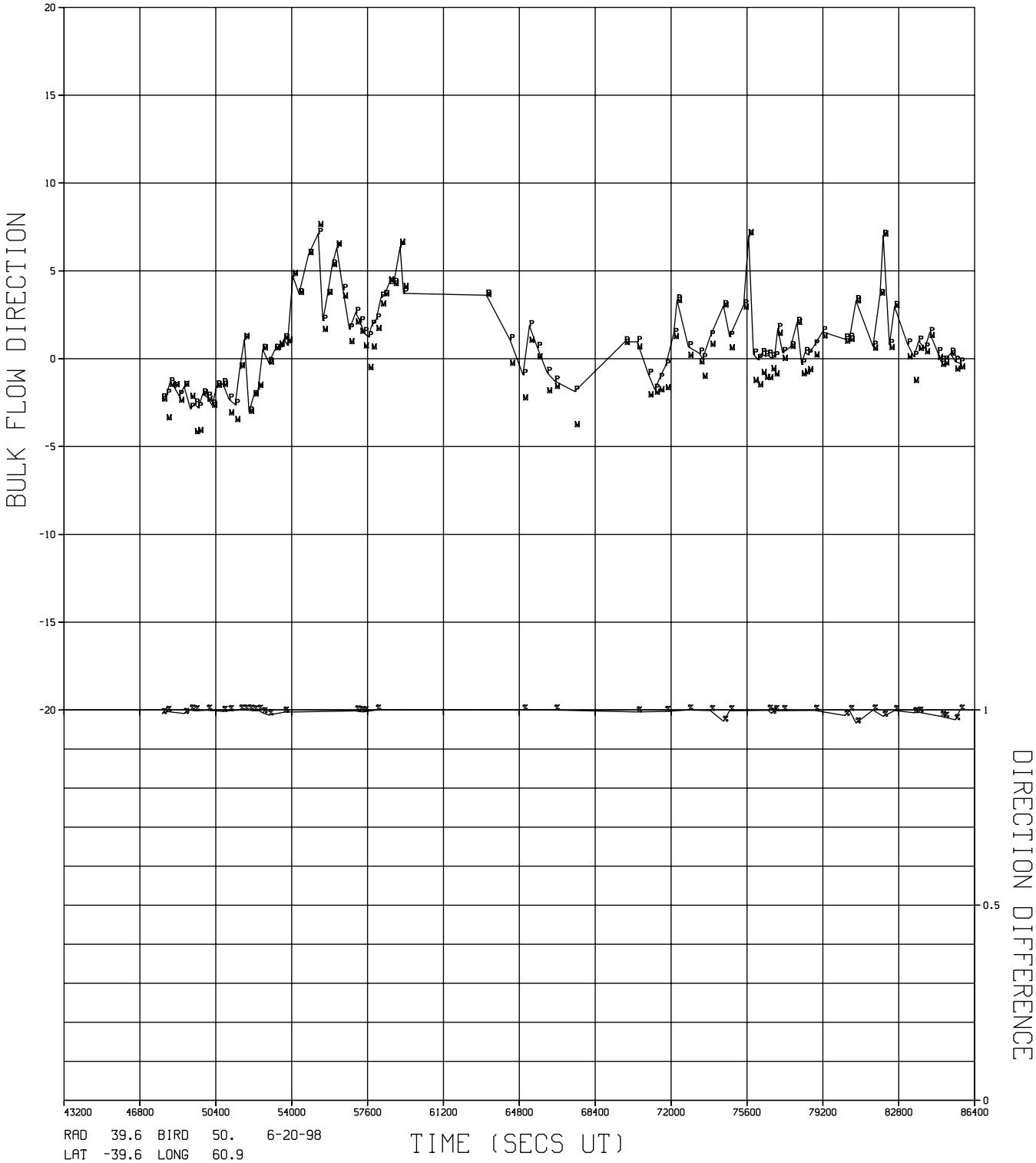

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
HEAT FLUX DIRECTION
360
315
270
225
180
135
90
45
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 40.1 BIRD 50. 6-20-98
LAT -39.4 LONG 47.7

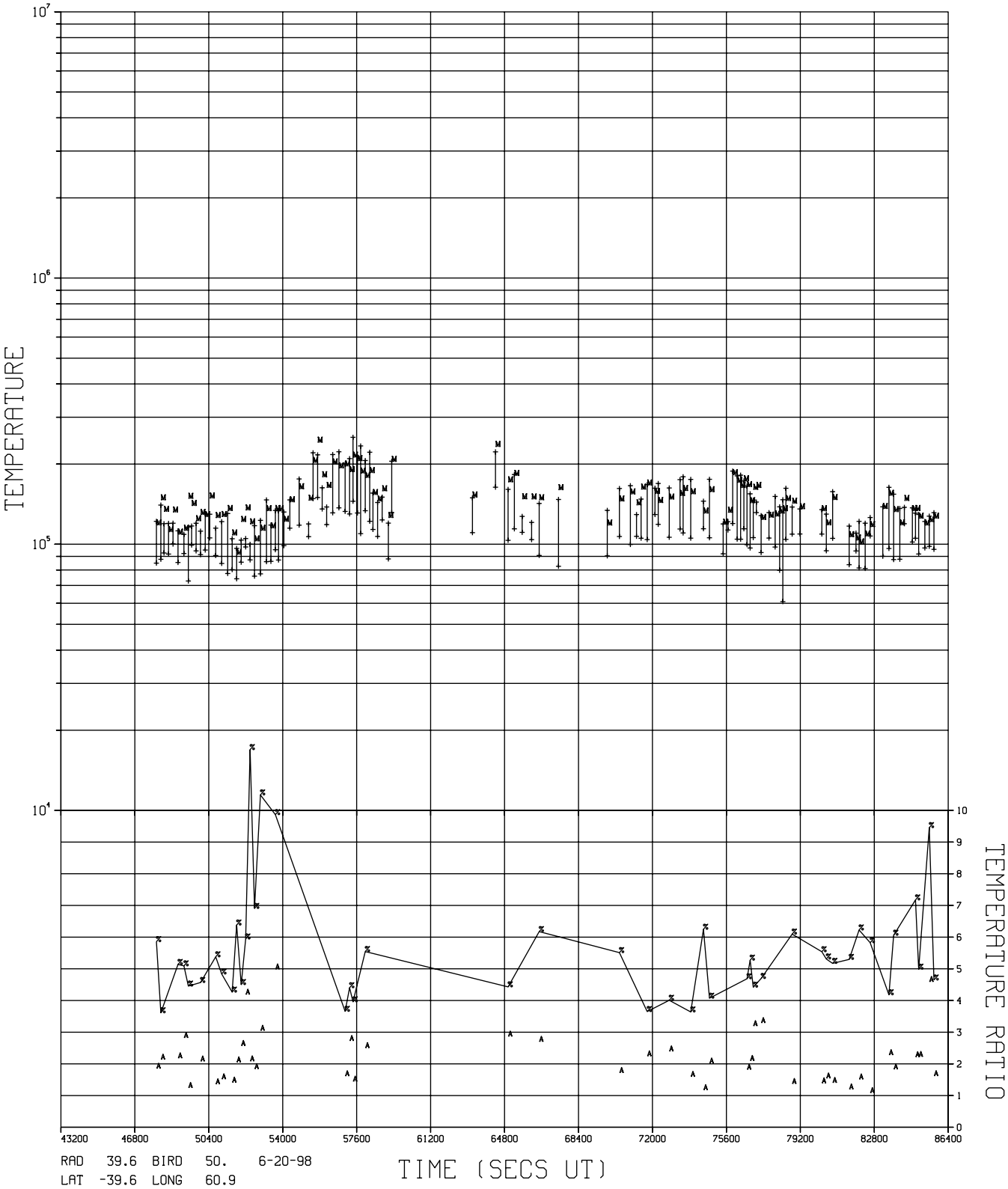

PERP. HEAT FLUX
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
CHI-SQUARE
10^{3}
10^{2}
10^{1}
10^{0}
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 40.1 BIRD 50. 6-20-98
LAT -39.4 LONG 47.7
TIME (SECS UT)

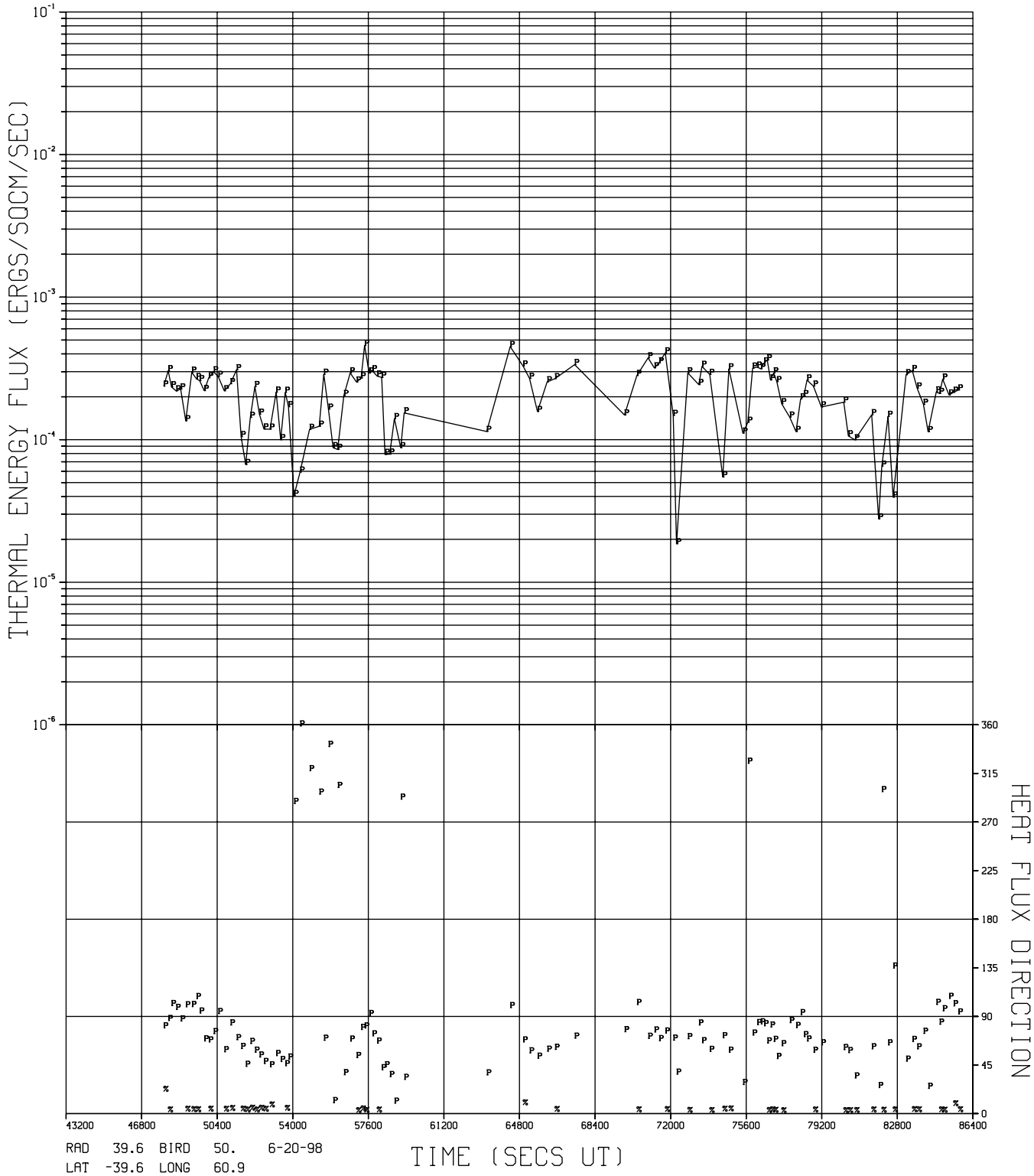

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 40.1 BIRD 50. 6-20-98
LAT -39.4 LONG 47.7

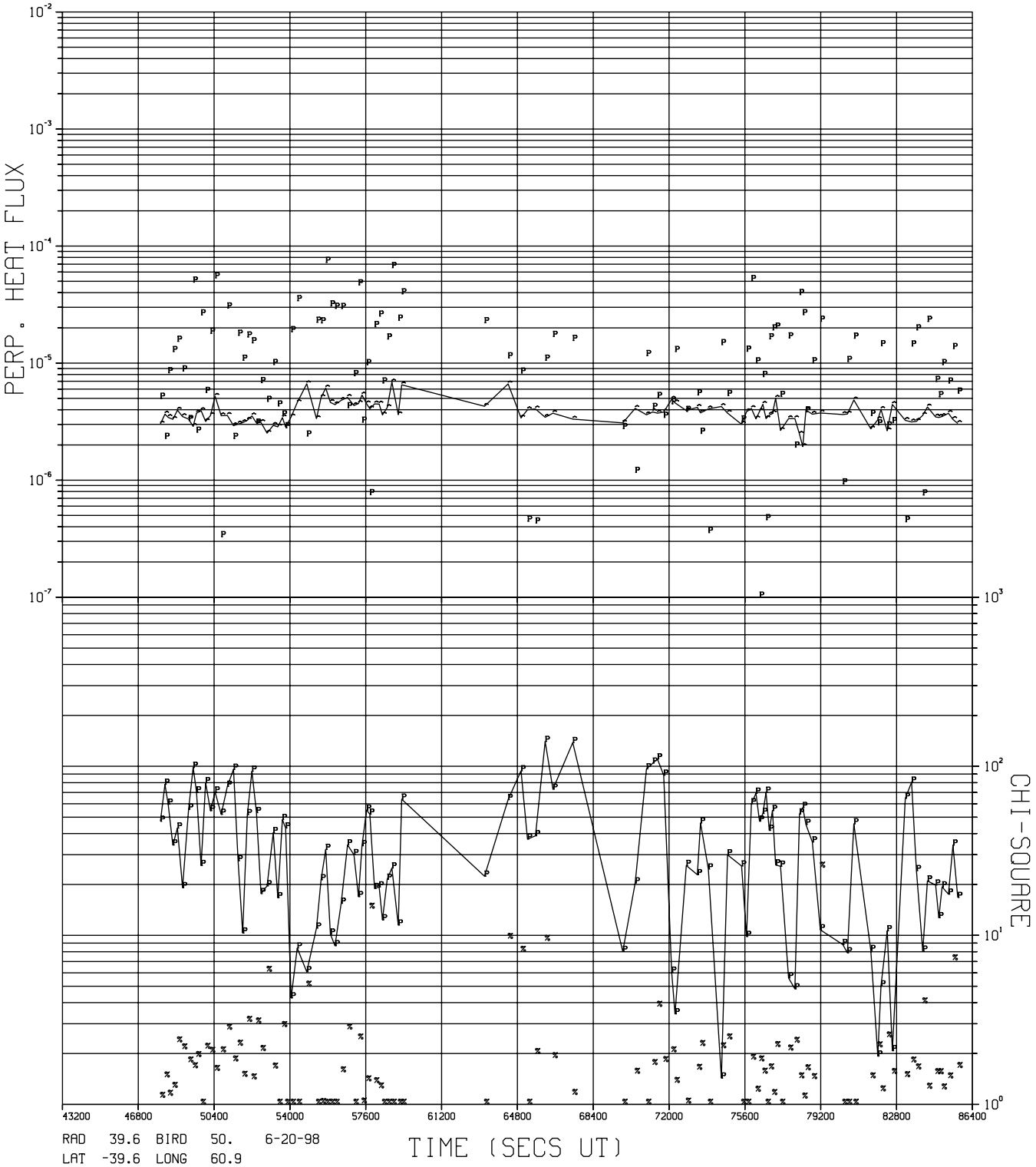

DENSITY
10^2
10^1
10^0
10^{-1}
DENSITY RATIO
10^0
10^{-1}
10^{-2}
10^{-3}
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 39.6 BIRD 50. 6-20-98
LAT -39.6 LONG 60.9

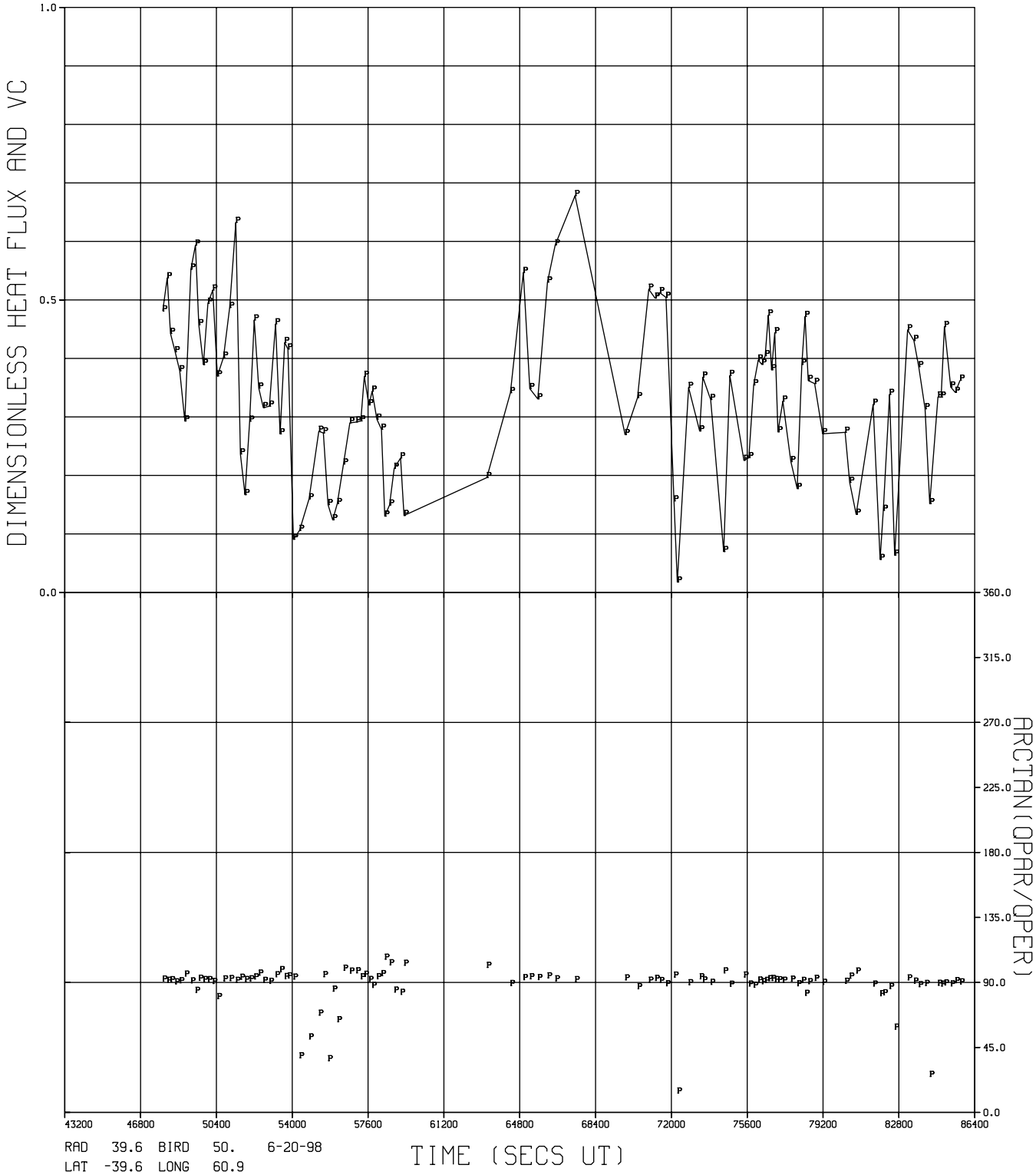

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 39.6 BIRD 50. 6-20-98
LAT -39.6 LONG 60.9
TIME (SECS UT)

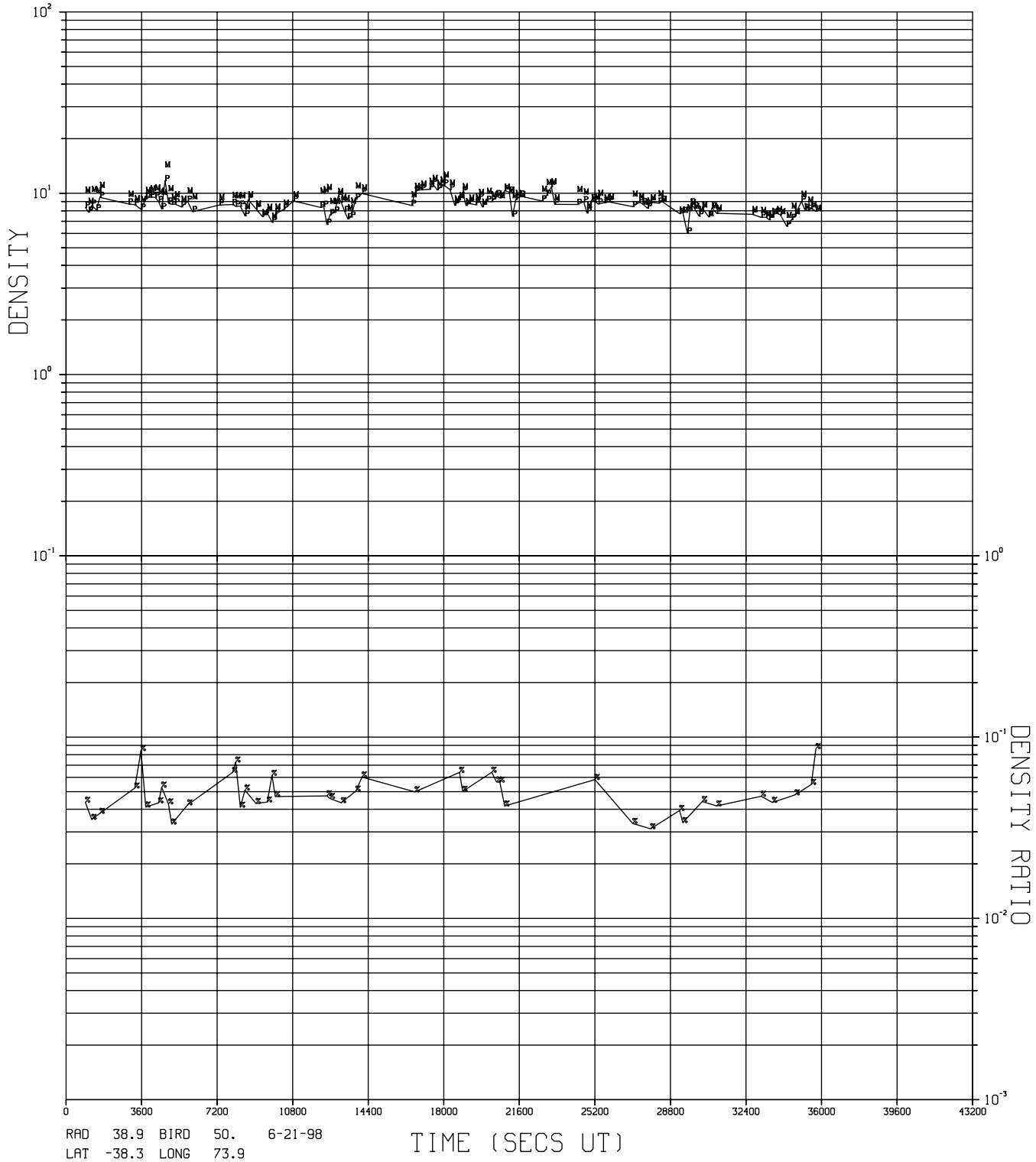

BULK FLOW DIRECTION
20
15
10
5
0
-5
-10
-15
-20
DIRECTION DIFFERENCE
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 39.6 BIRD 50. 6-20-98
LAT -39.6 LONG 60.9
TIME (SECS UT)

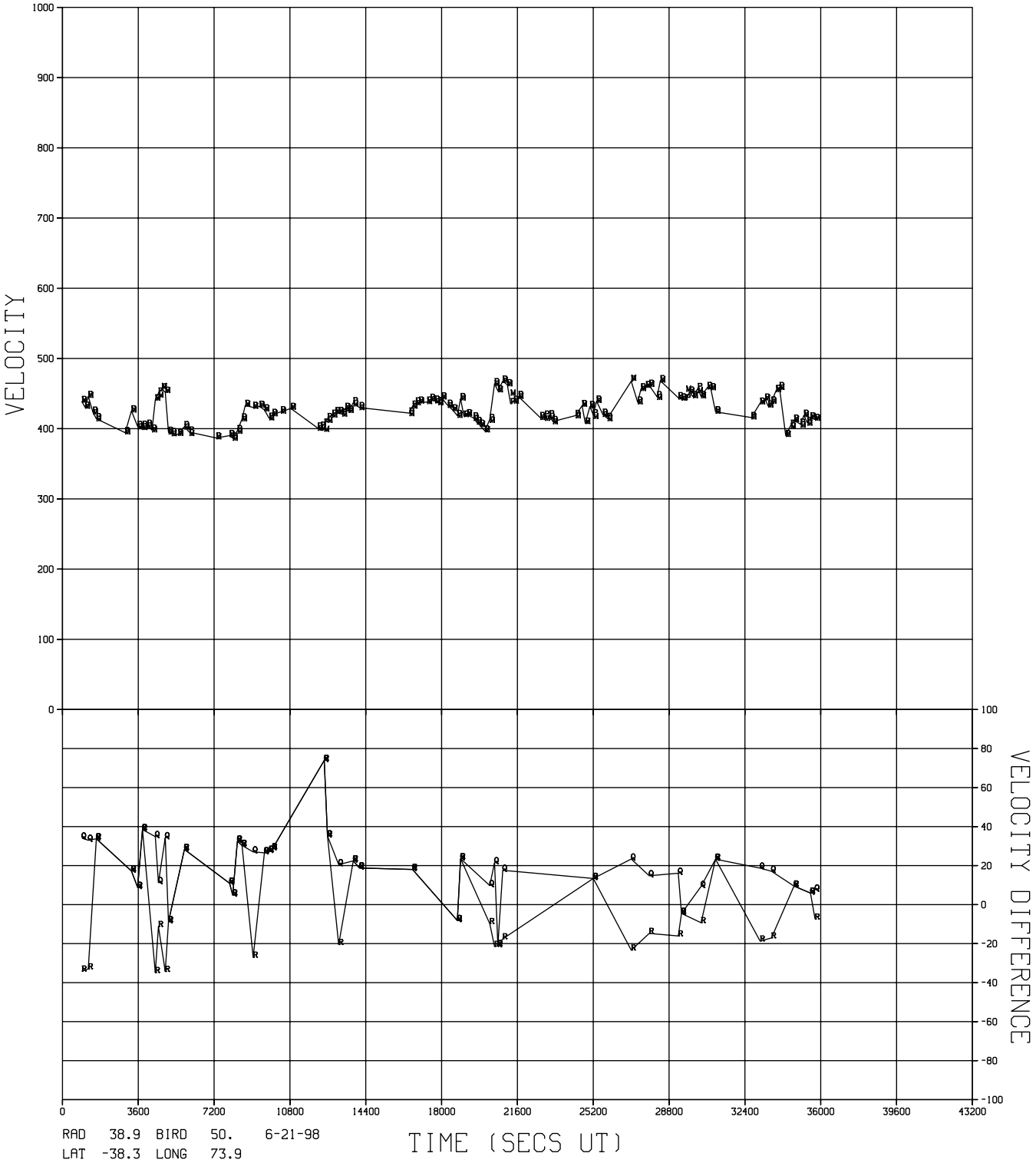

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 39.6 BIRD 50. 6-20-98
LAT -39.6 LONG 60.9

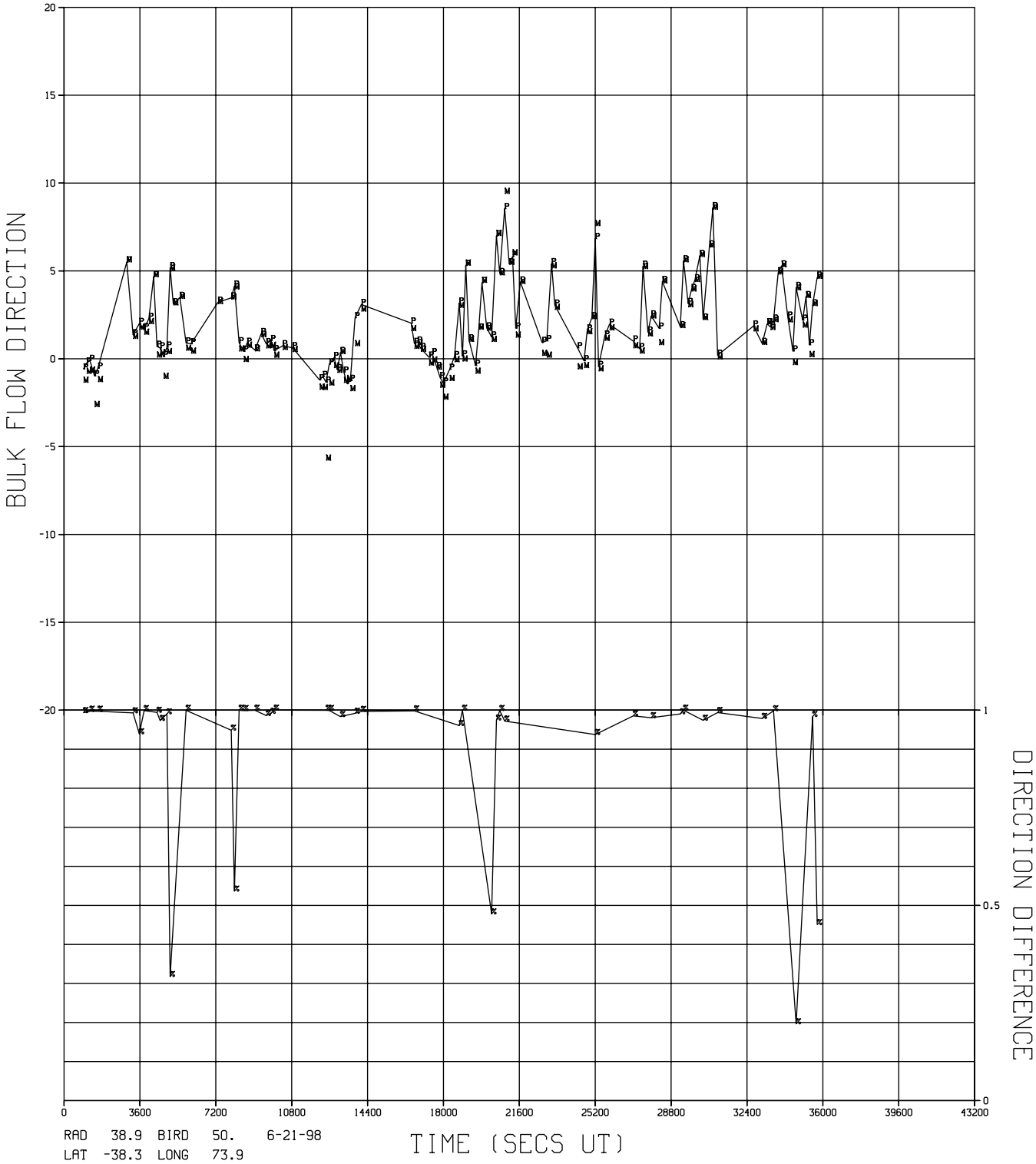

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
HEAT FLUX DIRECTION
360
315
270
225
180
135
90
45
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 39.6 BIRD 50. 6-20-98
LAT -39.6 LONG 60.9

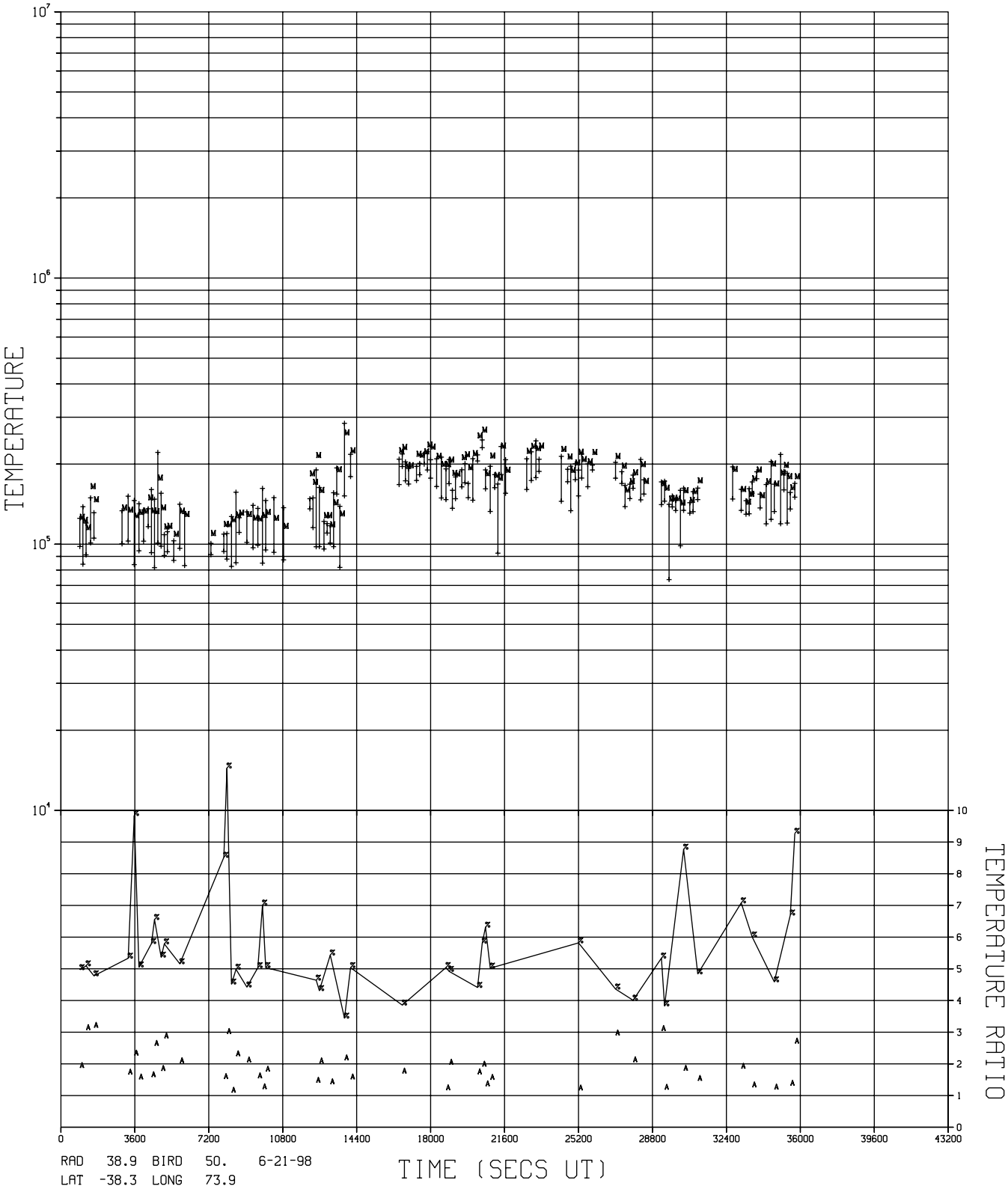

PERP. HEAT FLUX
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
CHI-SQUARE
10^{3}
10^{2}
10^{1}
10^{0}
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 39.6 BIRD 50. 6-20-98
LAT -39.6 LONG 60.9
TIME (SECS UT)

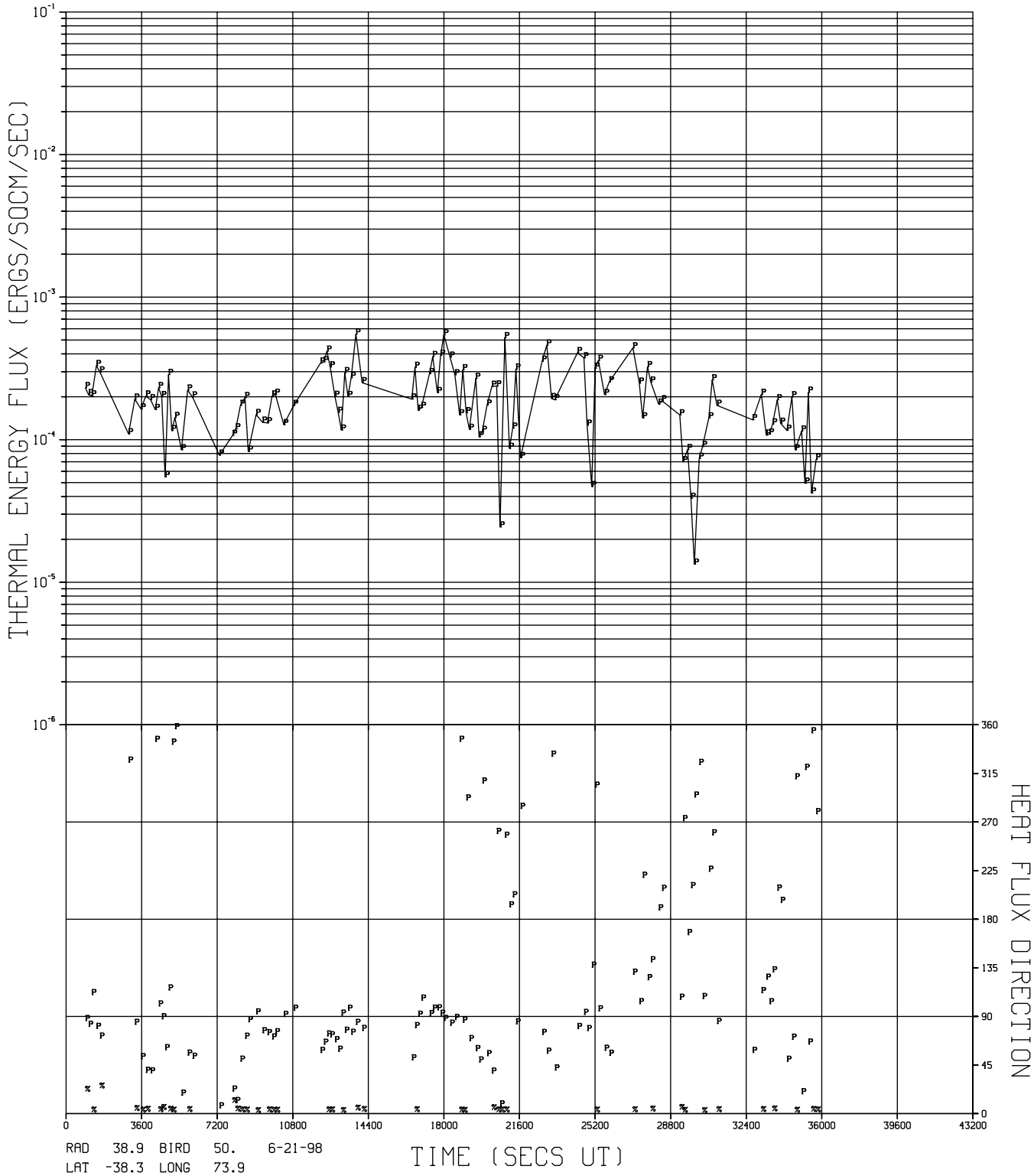

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 39.6 BIRD 50. 6-20-98
LAT -39.6 LONG 60.9
TIME (SECS UT)

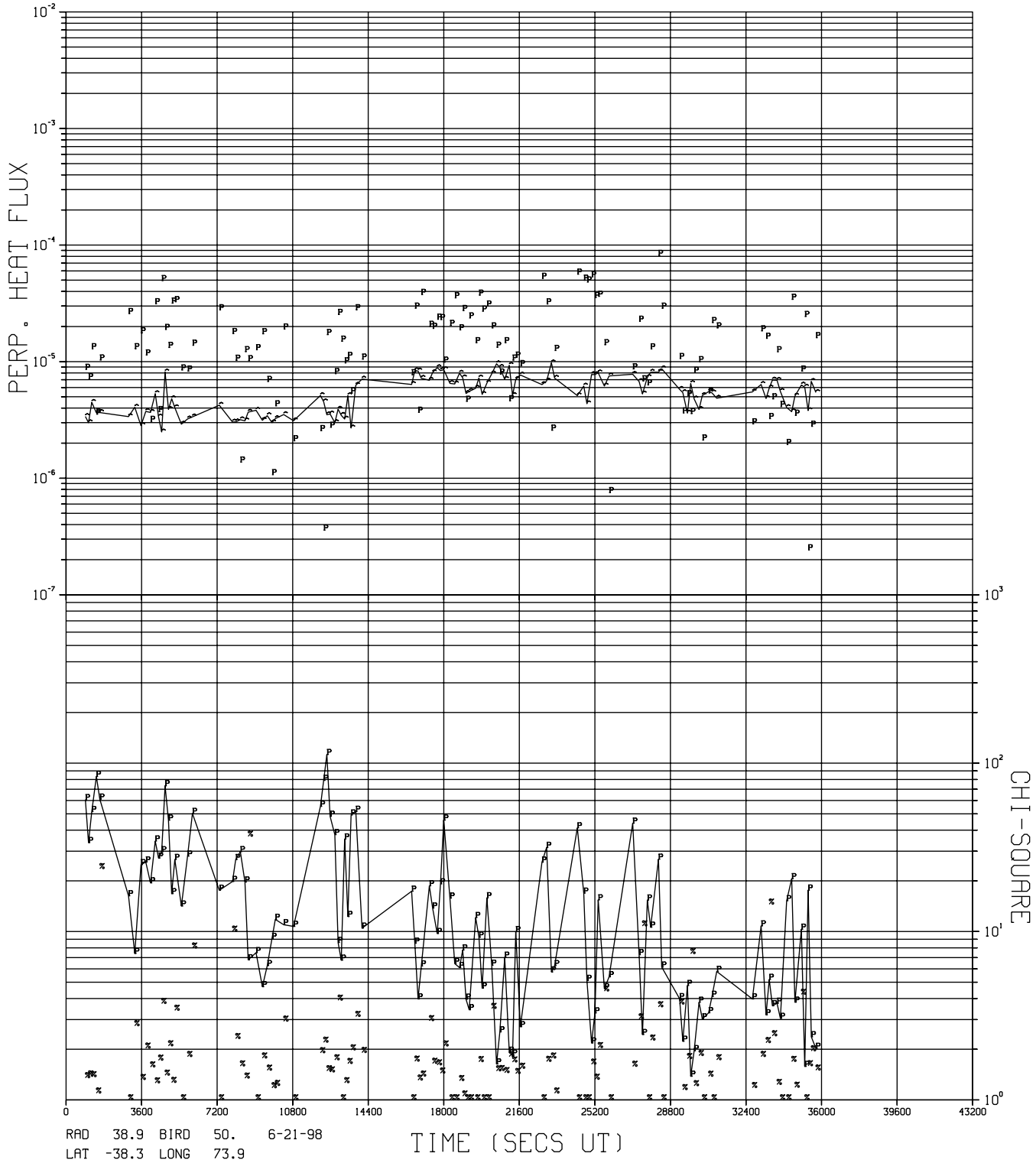

DENSITY
10^2
10^1
10^0
10^{-1}
DENSITY RATIO
10^0
10^{-1}
10^{-2}
10^{-3}
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 38.9 BIRD 50. 6-21-98
LAT -38.3 LONG 73.9
TIME (SECS UT)

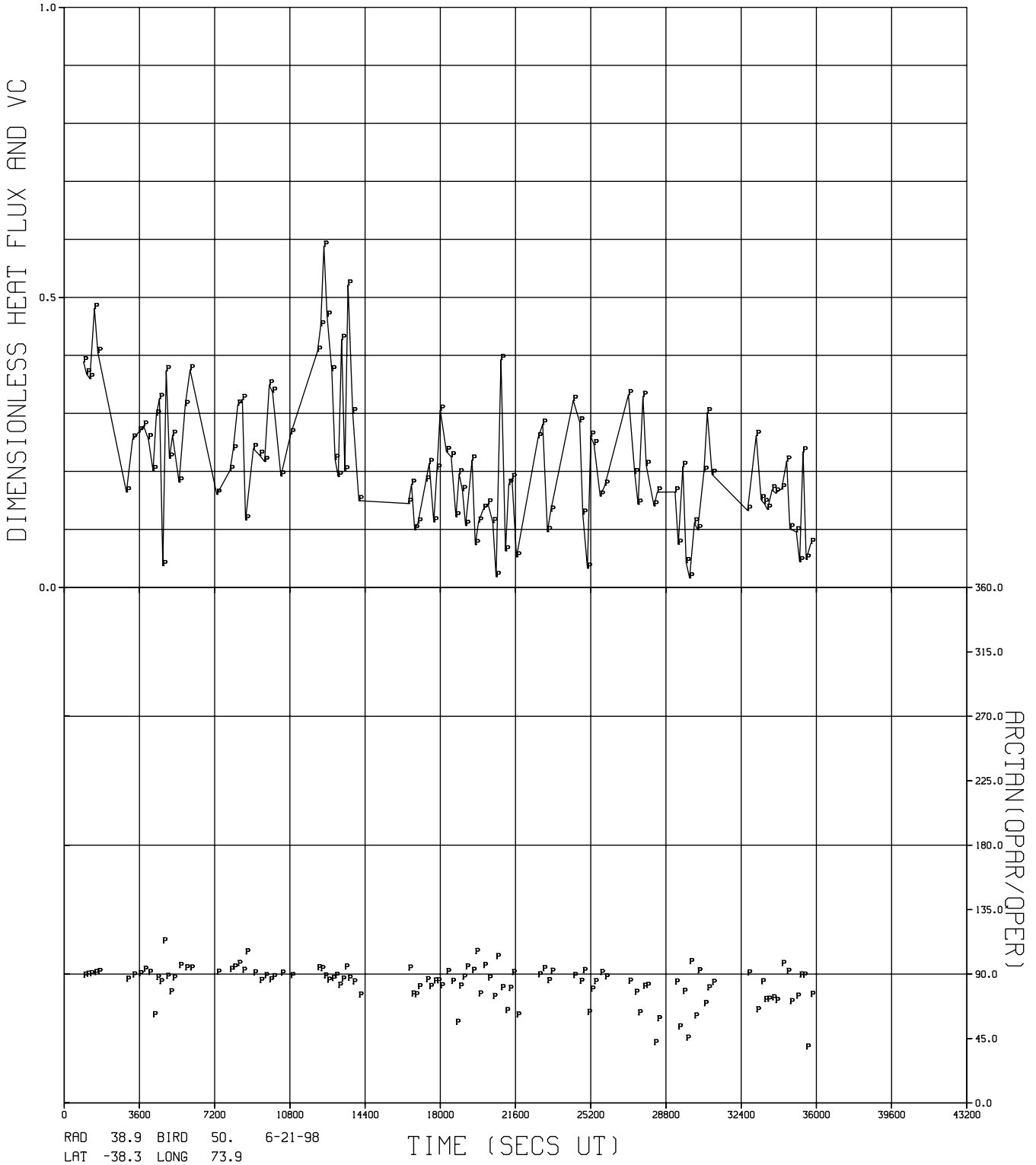

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
1000
900
800
700
600
500
400
300
200
100
0
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 38.9 BIRD 50. 6-21-98
LAT -38.3 LONG 73.9


BULK FLOW DIRECTION
20
15
10
5
0
-5
-10
-15
-20
DIRECTION DIFFERENCE
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 38.9 BIRD 50. 6-21-98
LAT -38.3 LONG 73.9


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. 6-21-98
LAT -38.3 LONG 73.9


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 38.9 BIRD 50. 6-21-98
LAT -38.3 LONG 73.9


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}
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 38.9 BIRD 50. 6-21-98
LAT -38.3 LONG 73.9


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
RAD 38.9 BIRD 50. 6-21-98
LAT -38.3 LONG 73.9
TIME (SECS UT)