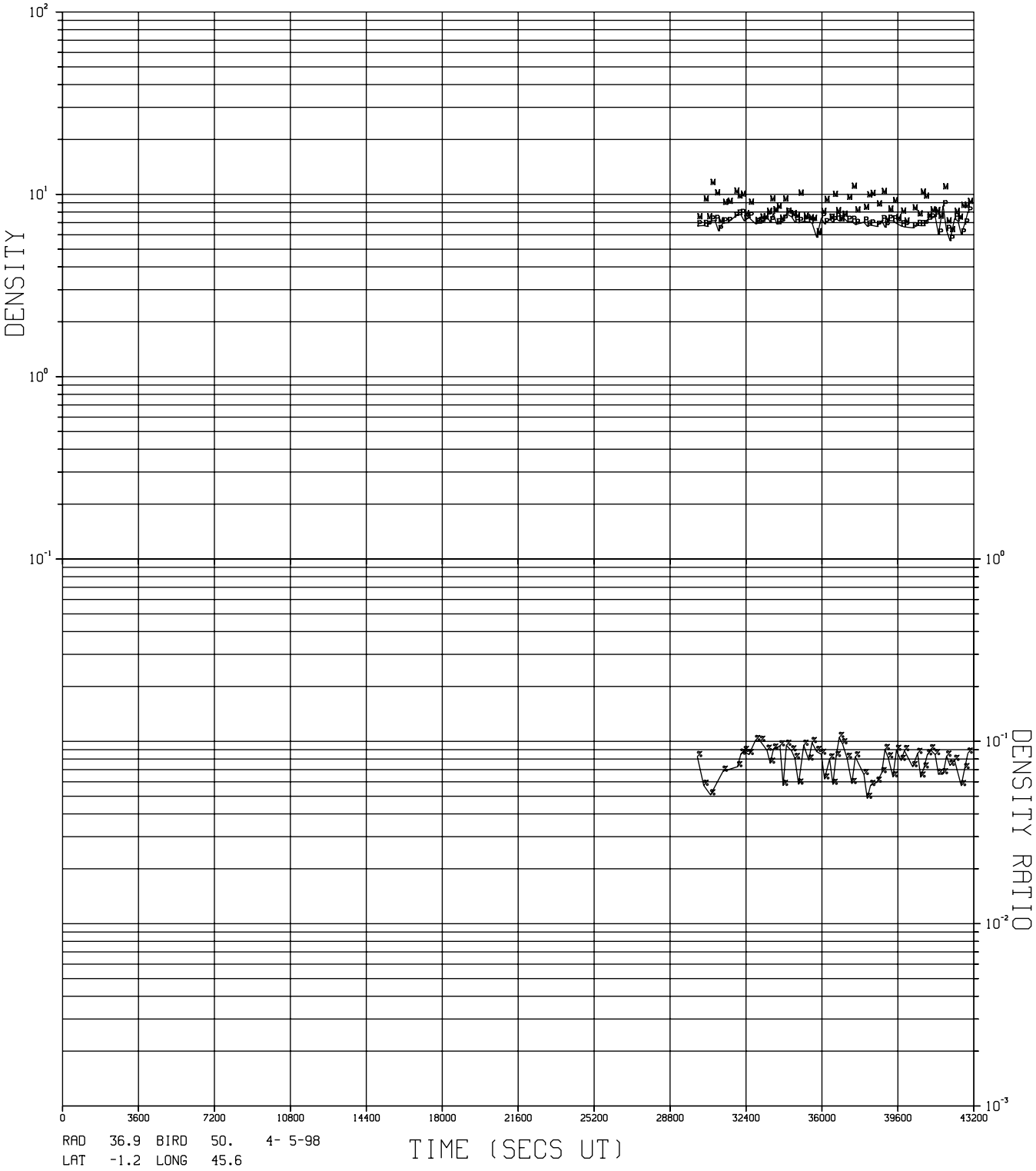
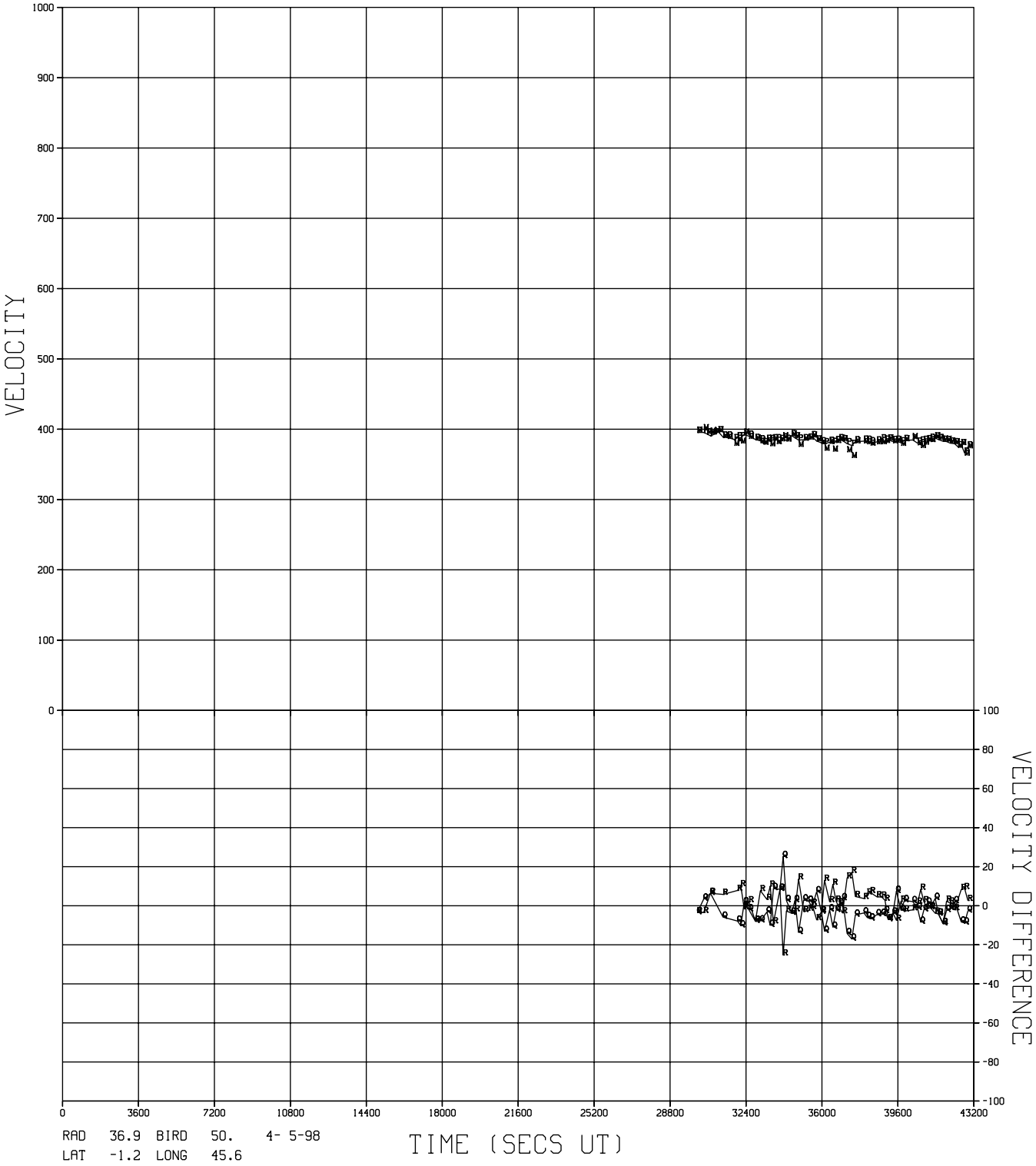
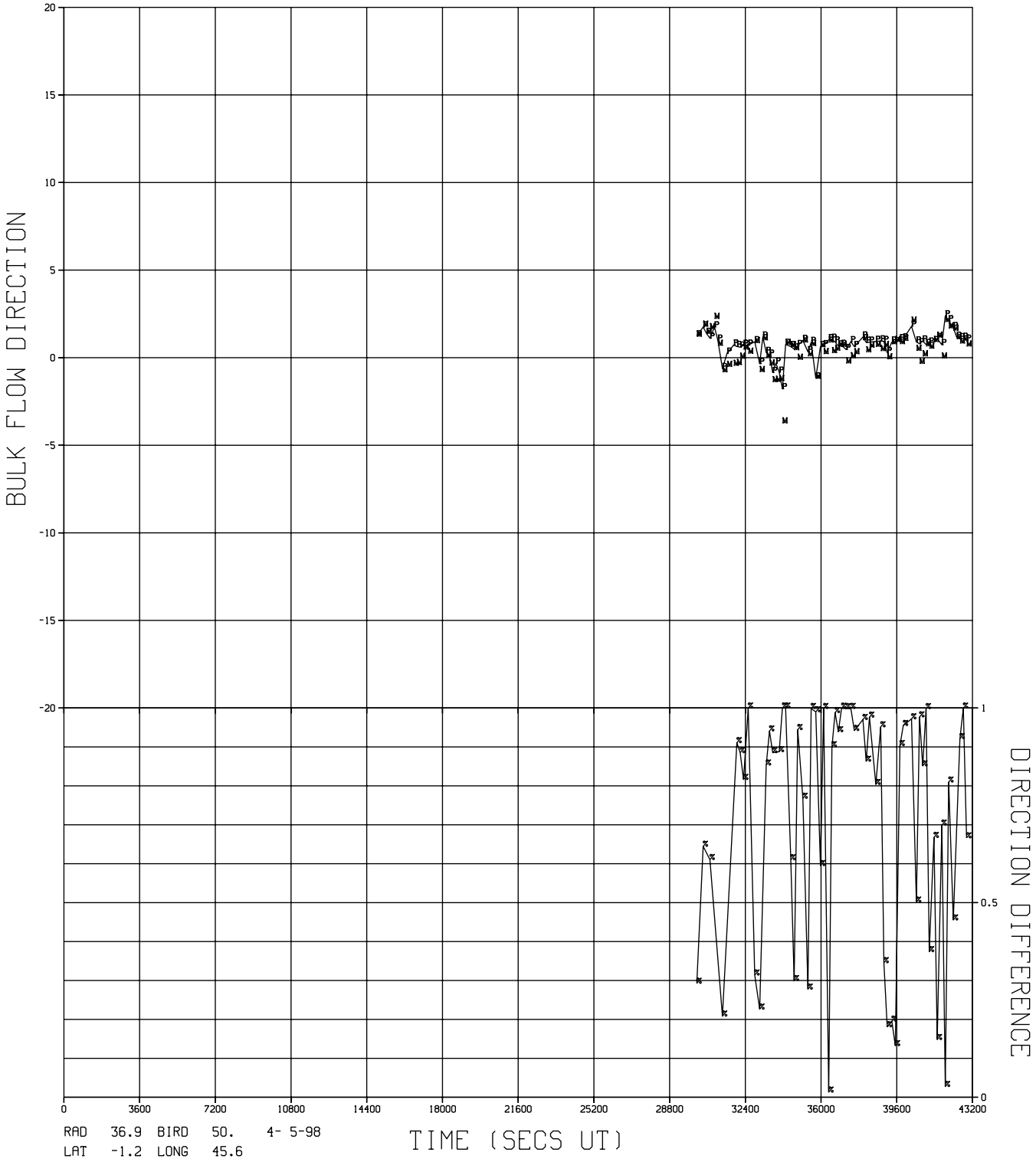
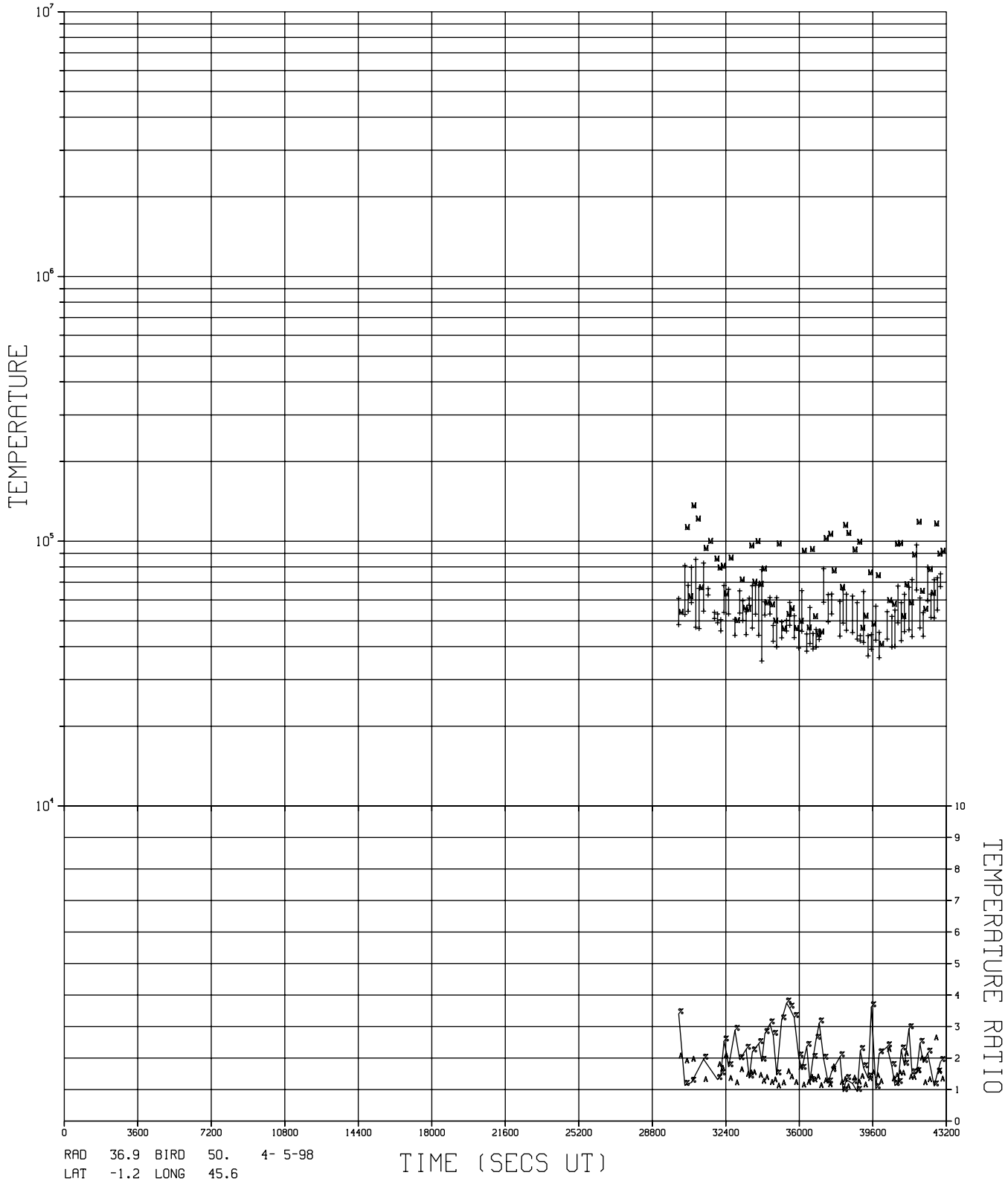
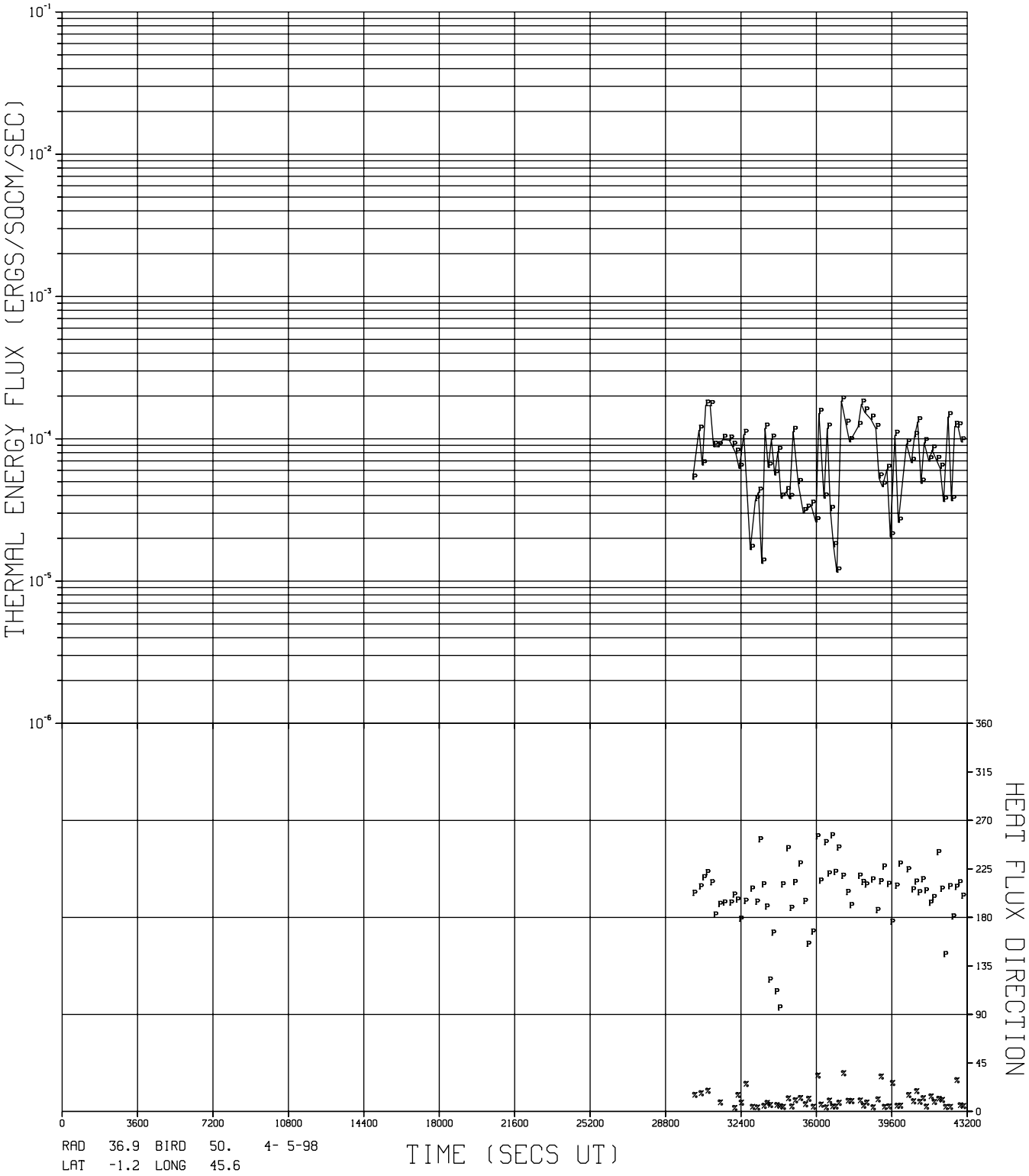
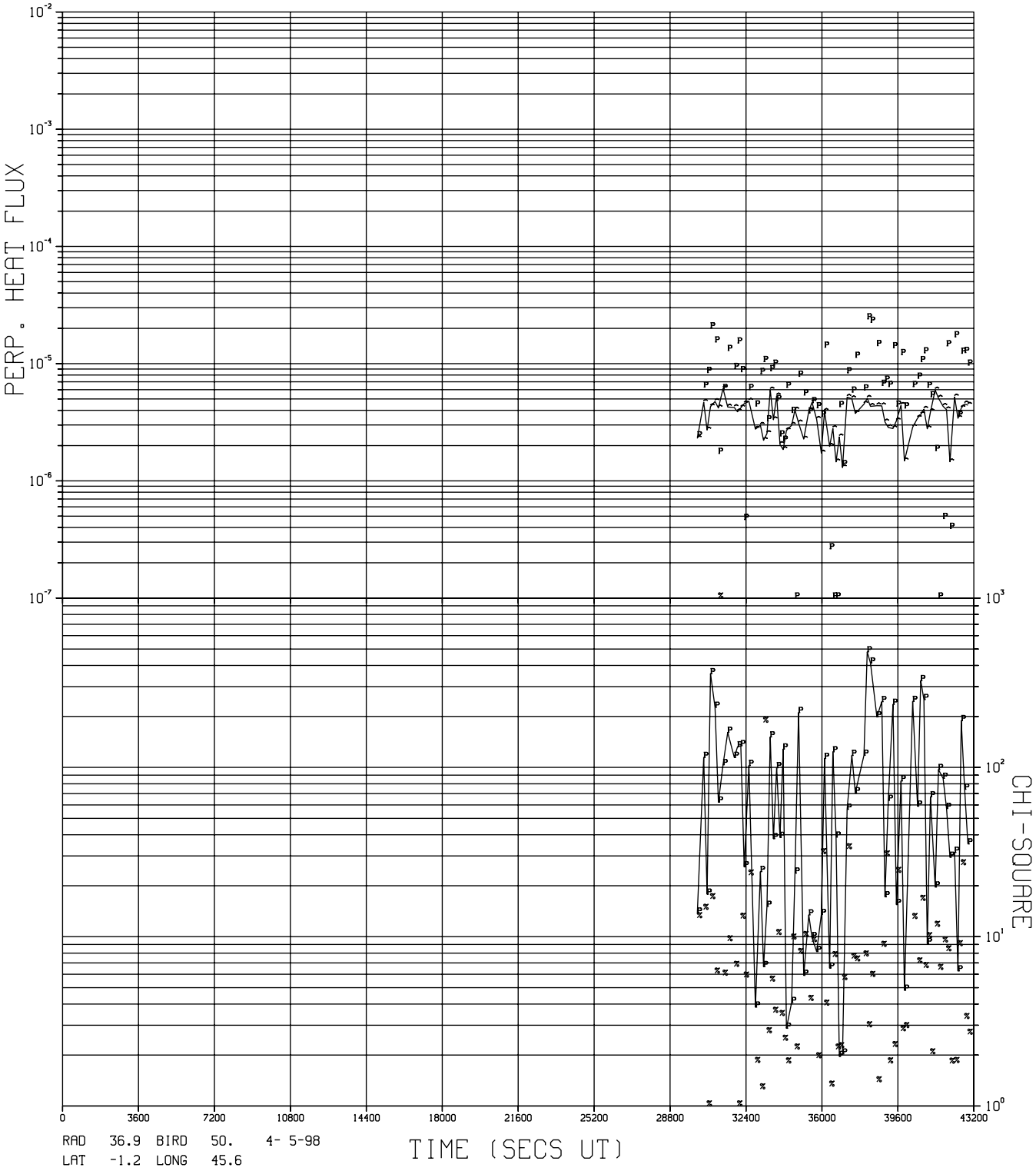

DENSITY
DENSITY RATIO
TIME (SECS UT)
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 36.9 BIRD 50. 4- 5-98
LAT -1.2 LONG 45.6

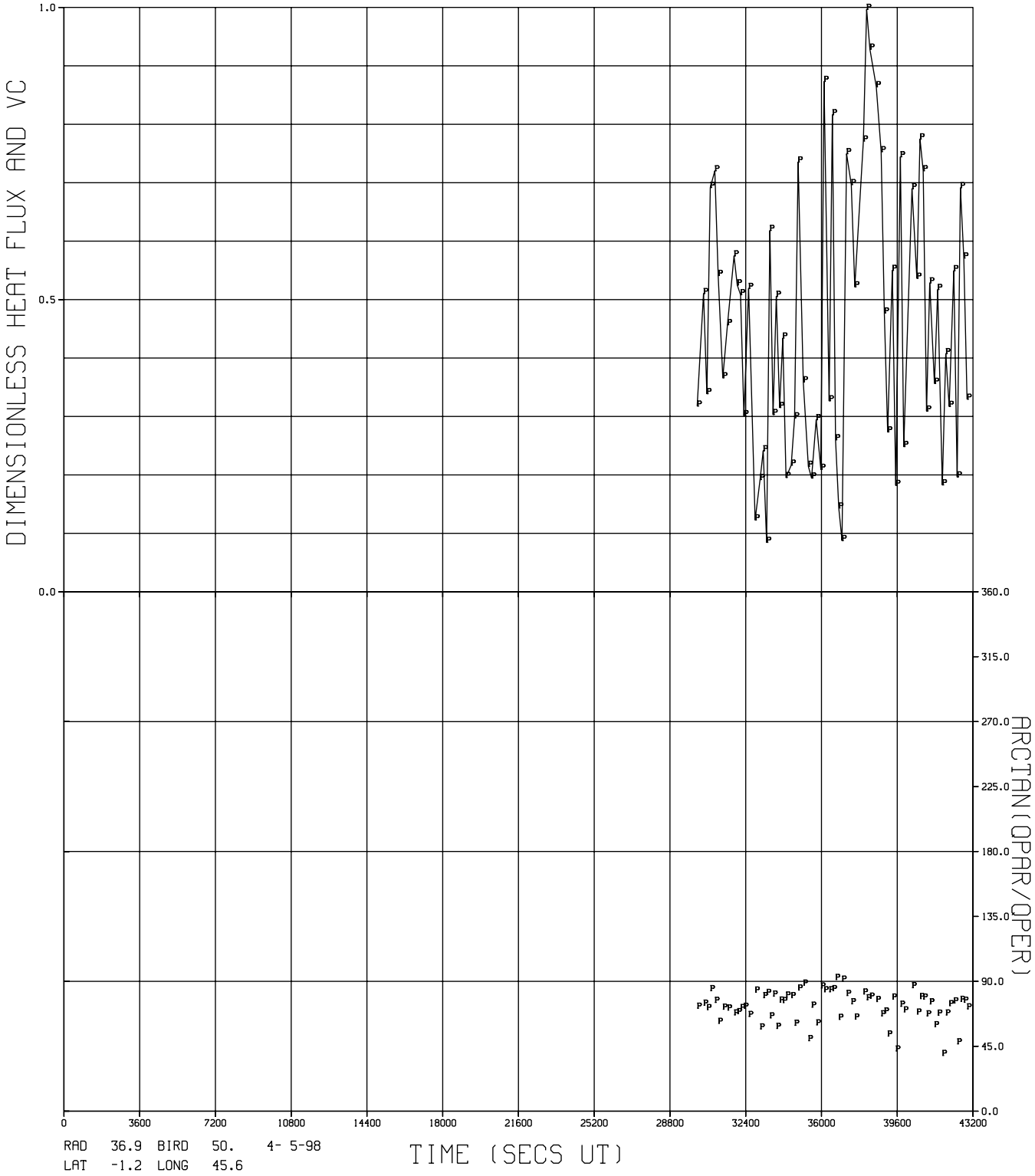

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 36.9 BIRD 50. 4- 5-98
LAT -1.2 LONG 45.6

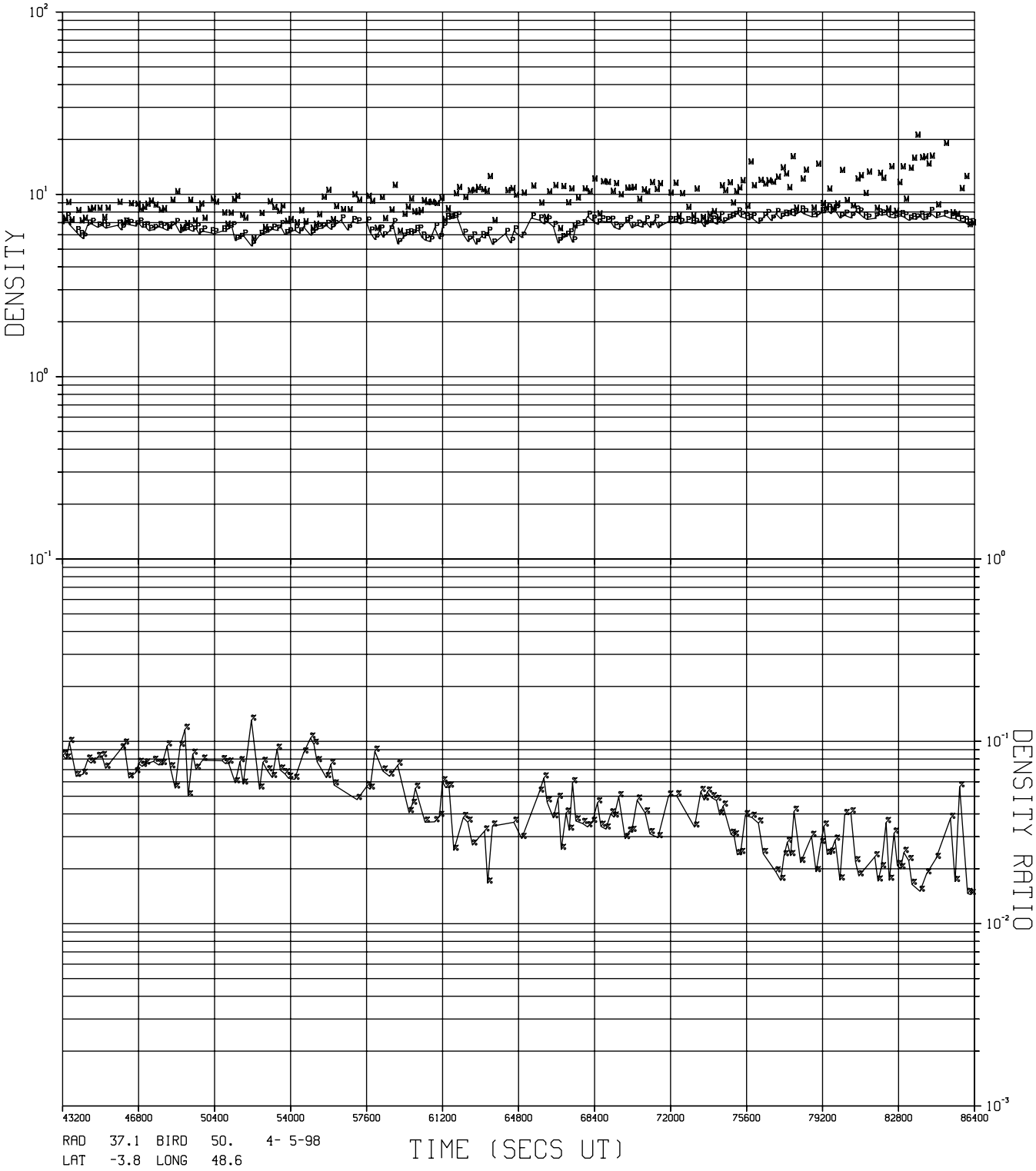

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 36.9 BIRD 50. 4- 5-98
LAT -1.2 LONG 45.6

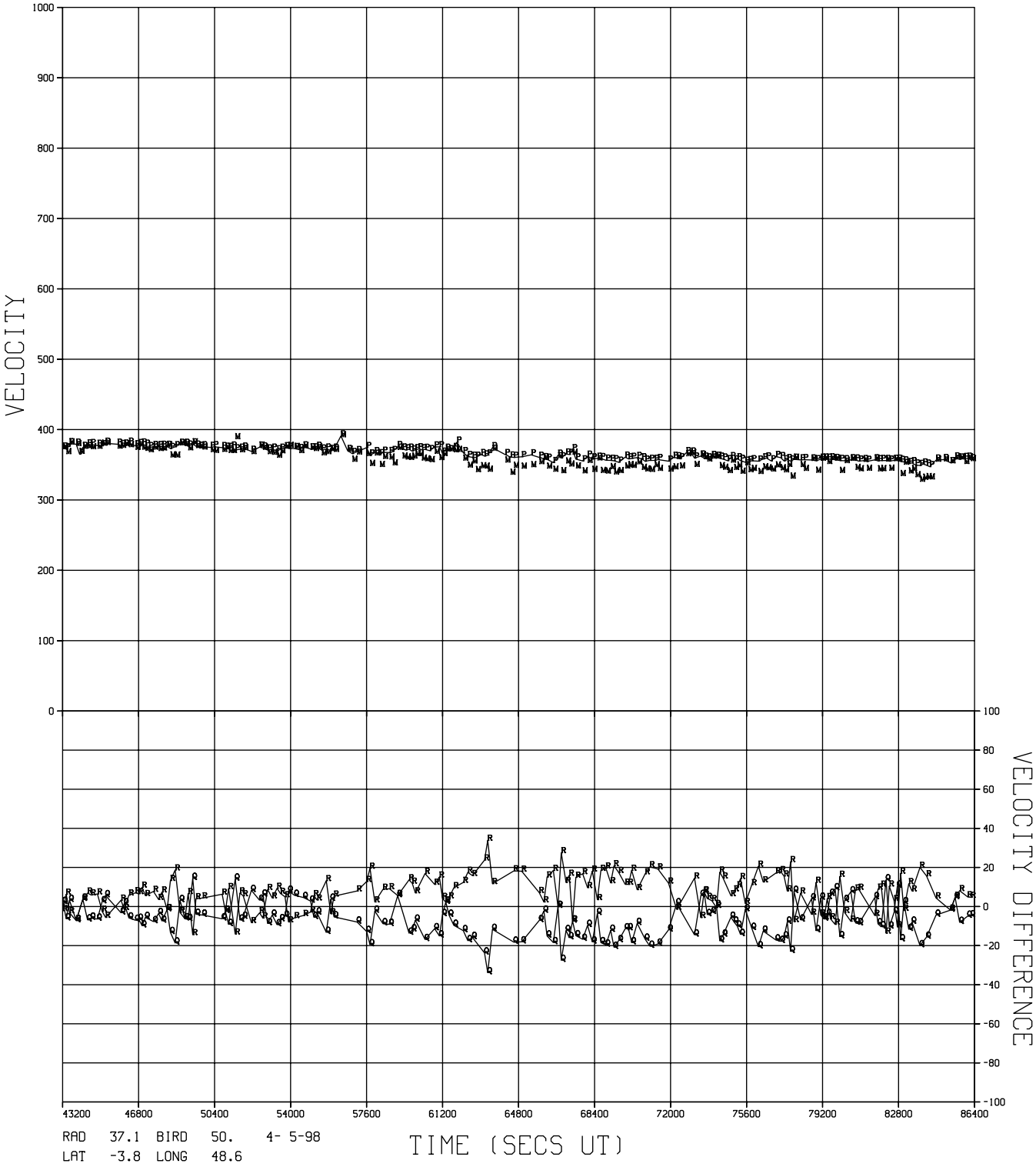

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 36.9 BIRD 50. 4- 5-98
LAT -1.2 LONG 45.6

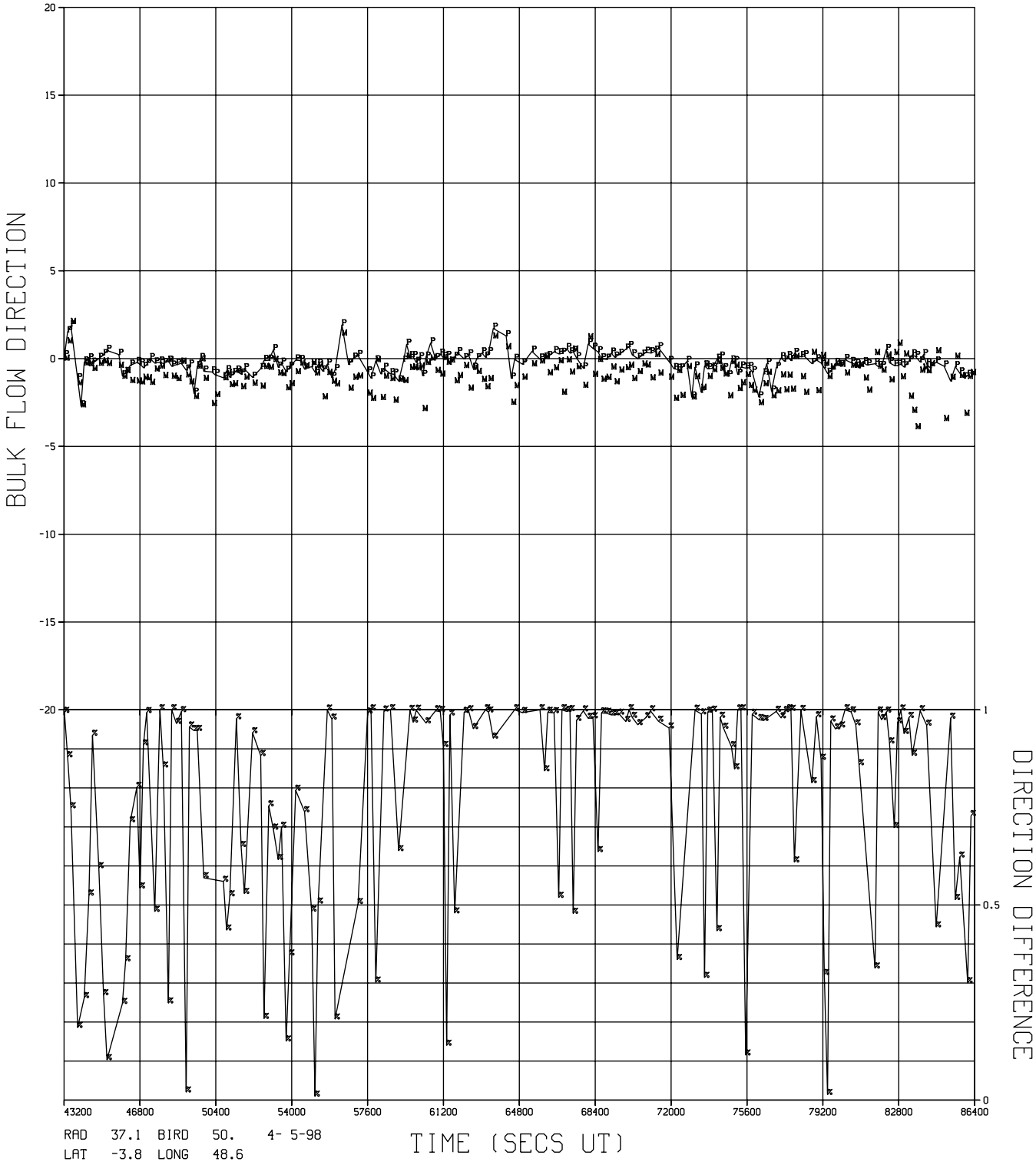

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 36.9 BIRD 50. 4- 5-98
LAT -1.2 LONG 45.6

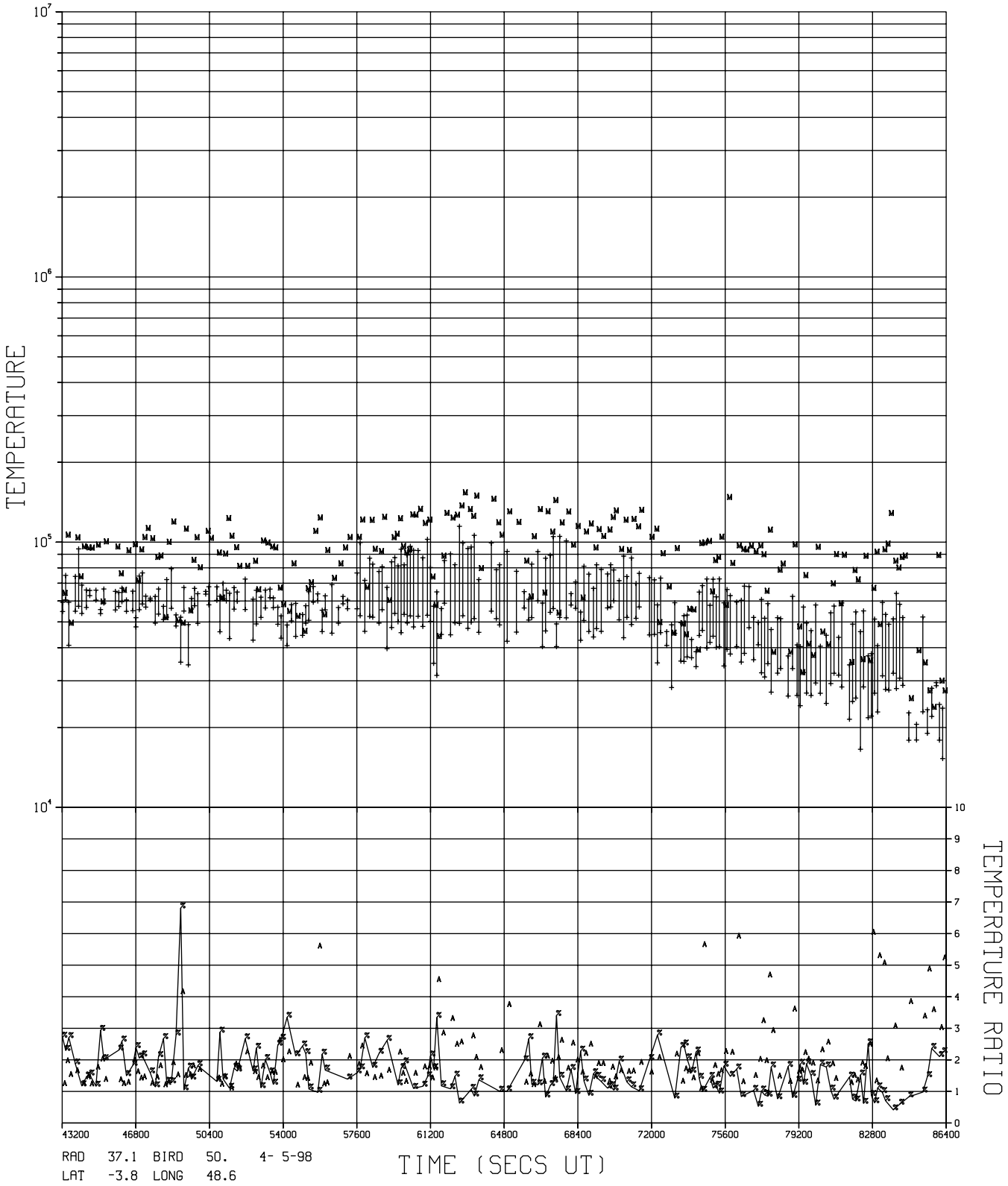

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 36.9 BIRD 50. 4- 5-98
LAT -1.2 LONG 45.6

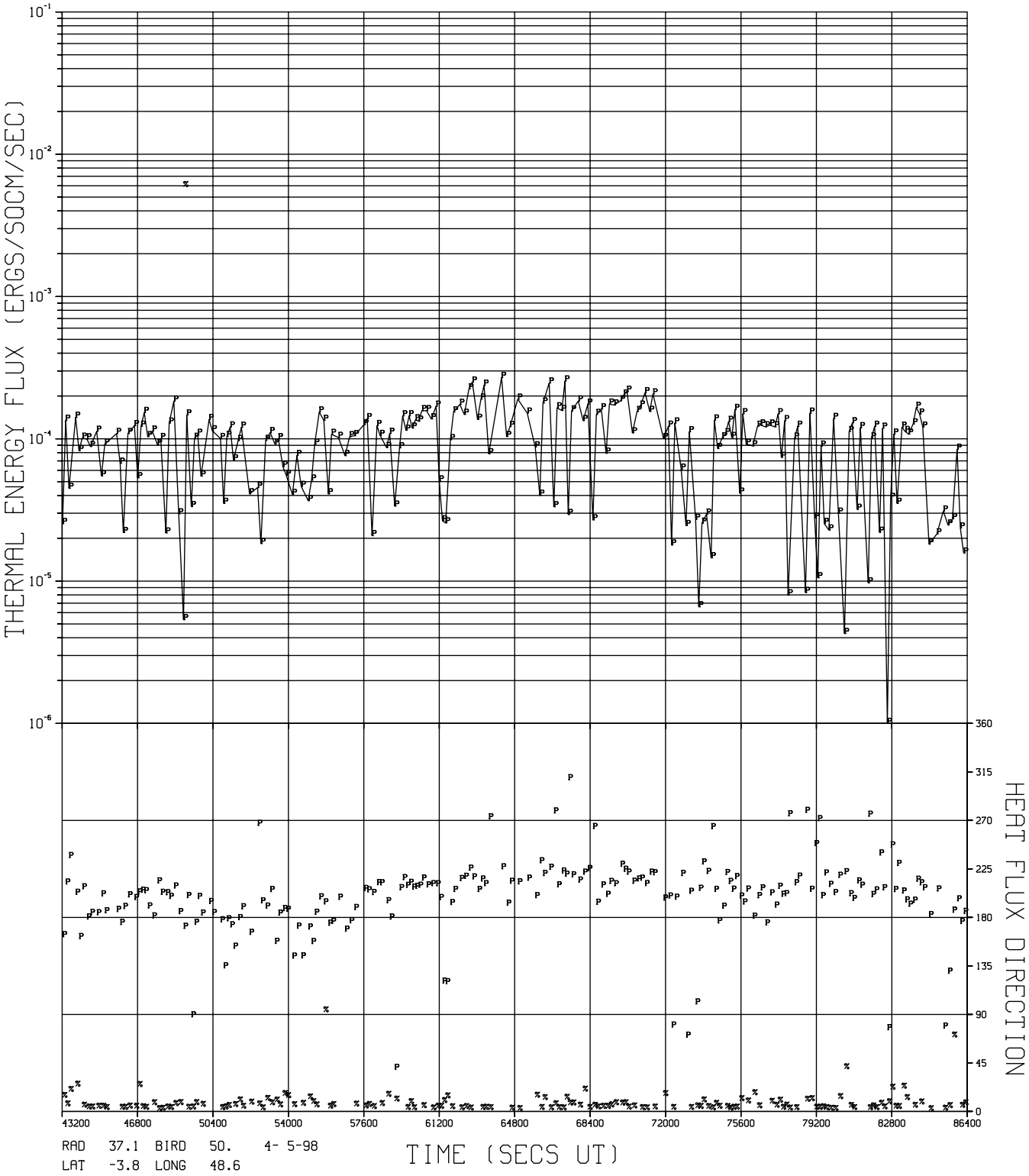

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 36.9 BIRD 50. 4- 5-98
LAT -1.2 LONG 45.6

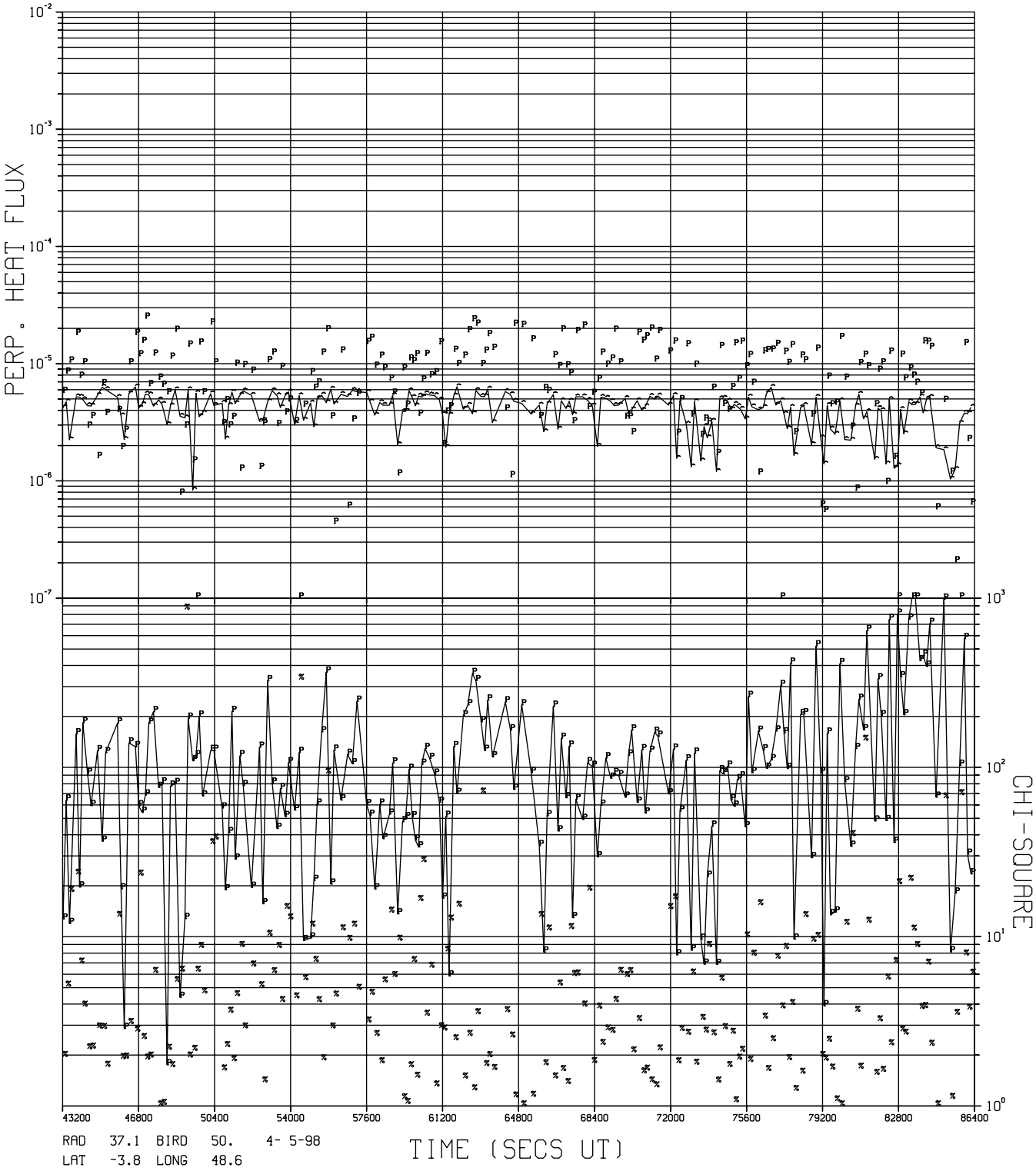

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.1 BIRD 50. 4- 5-98
LAT -3.8 LONG 48.6

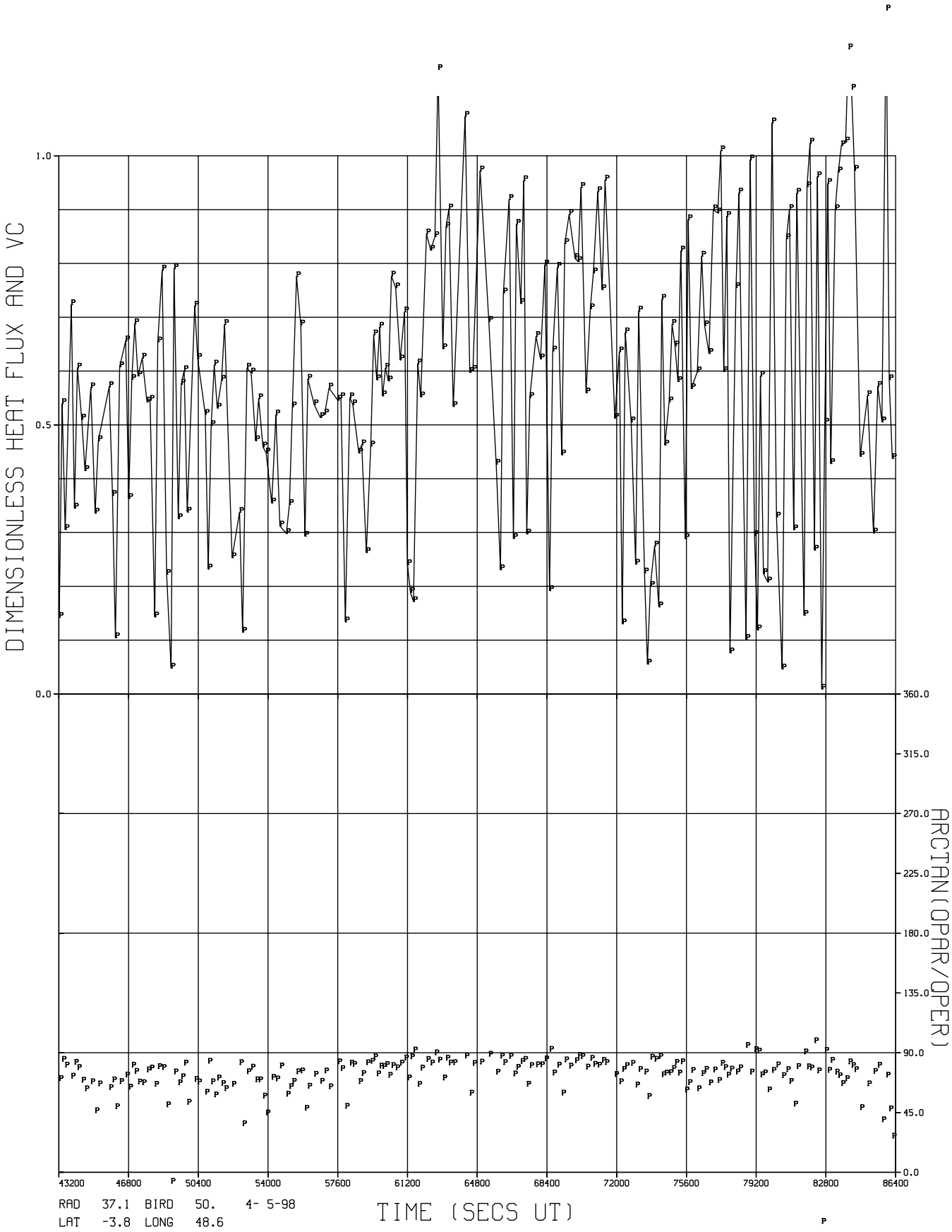

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 37.1 BIRD 50. 4- 5-98
LAT -3.8 LONG 48.6

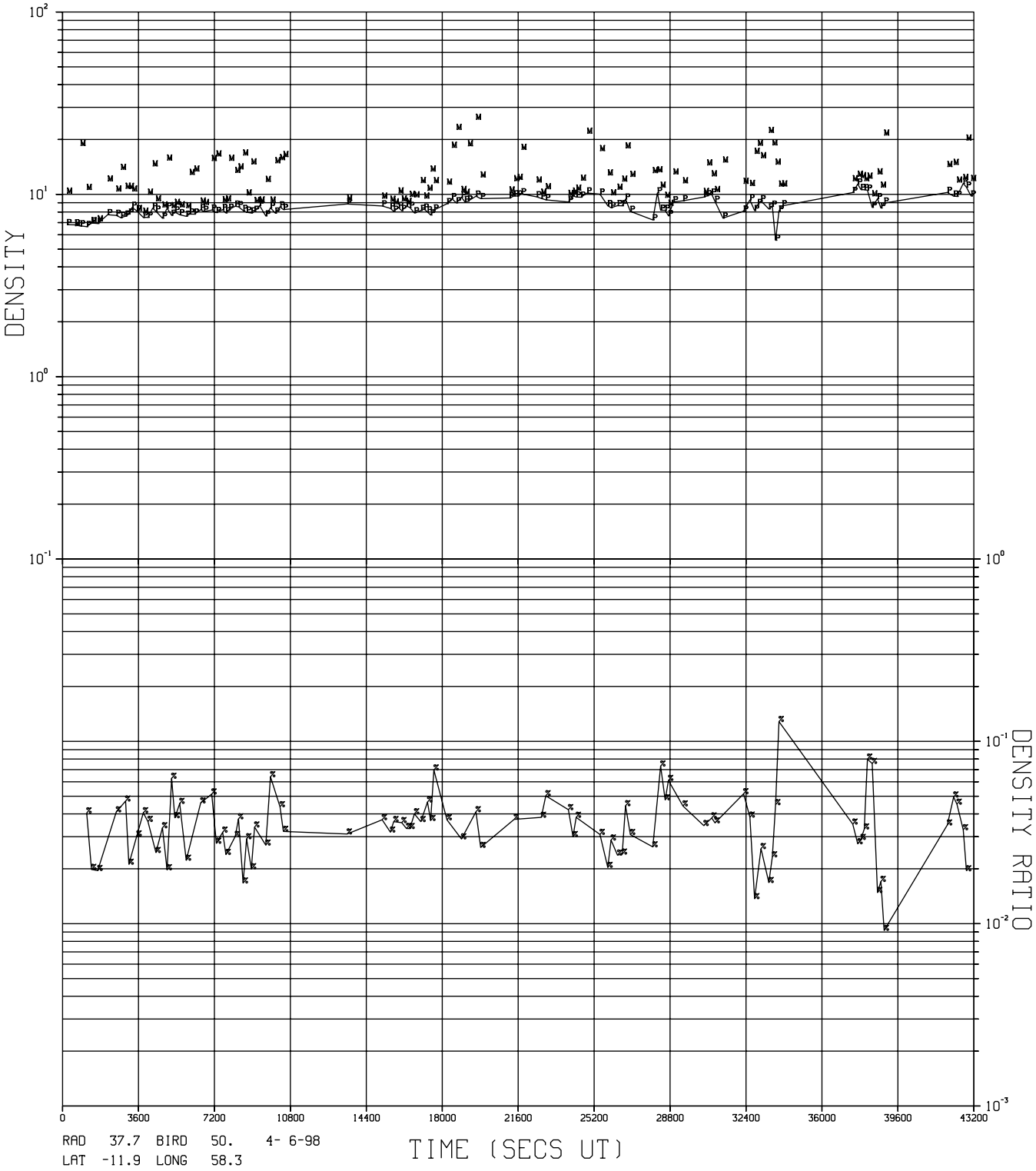

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.1 BIRD 50. 4- 5-98
LAT -3.8 LONG 48.6

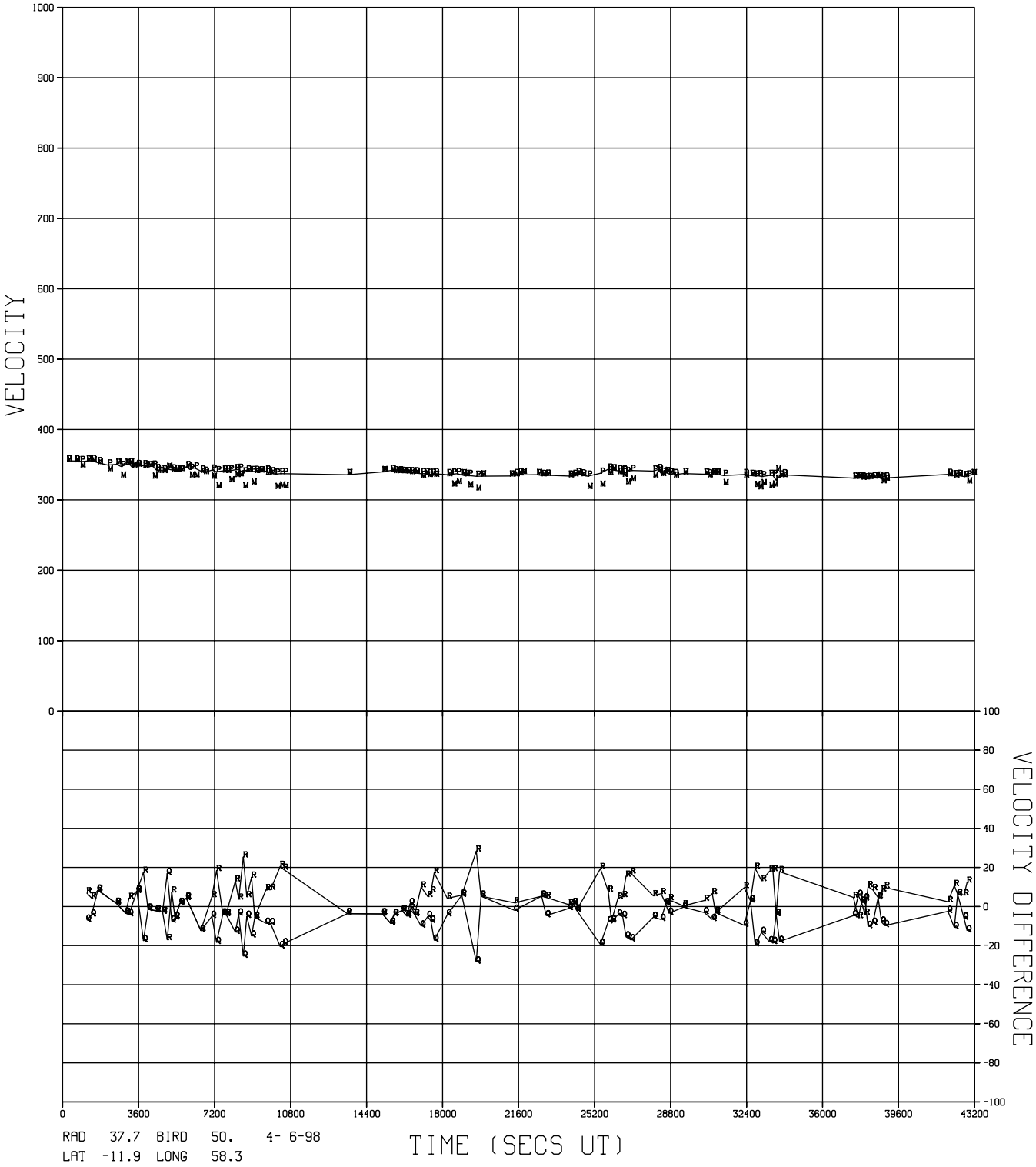

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 37.1 BIRD 50. 4- 5-98
LAT -3.8 LONG 48.6

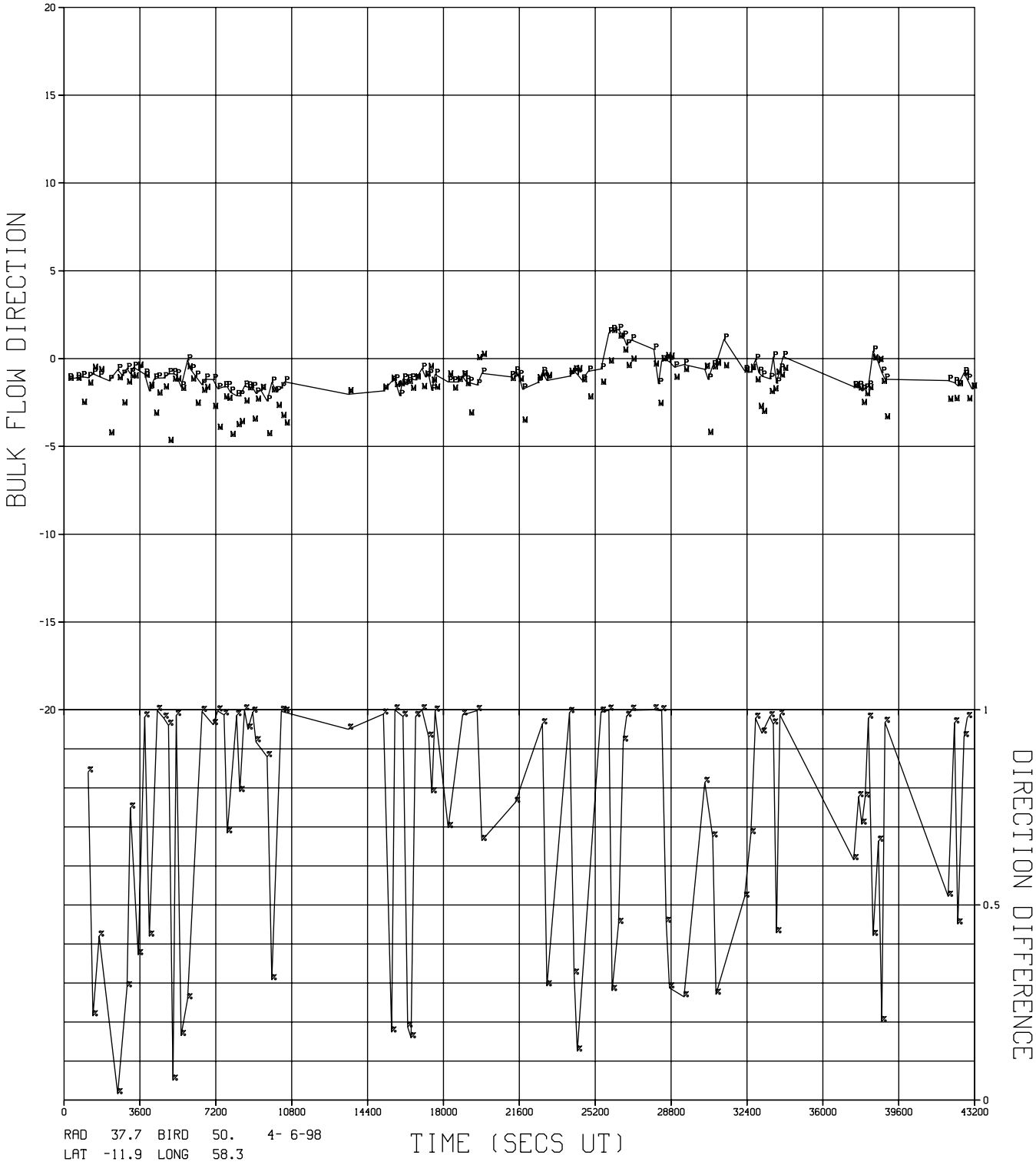

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.1 BIRD 50. 4- 5-98
LAT -3.8 LONG 48.6

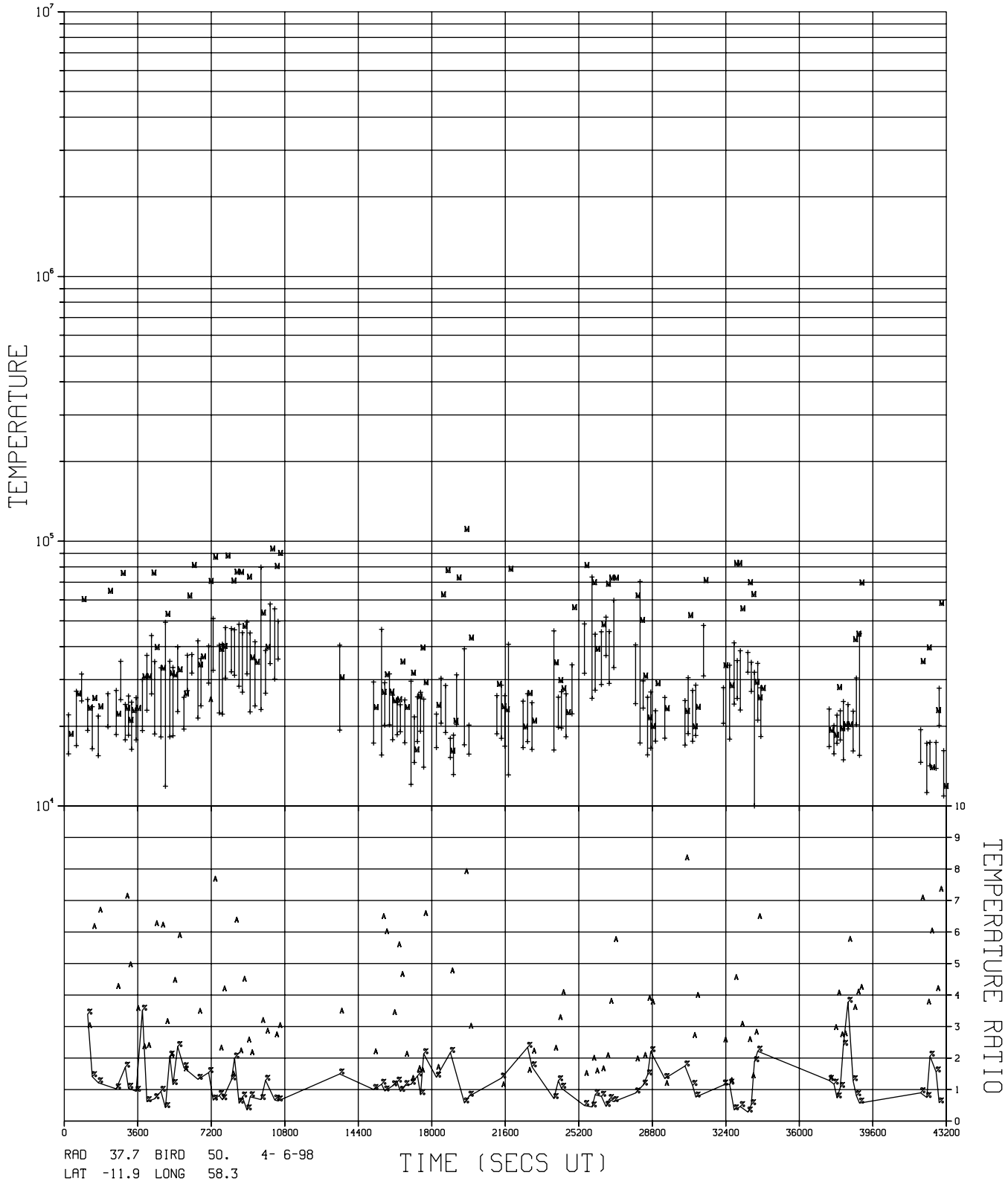

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.1 BIRD 50. 4- 5-98
LAT -3.8 LONG 48.6

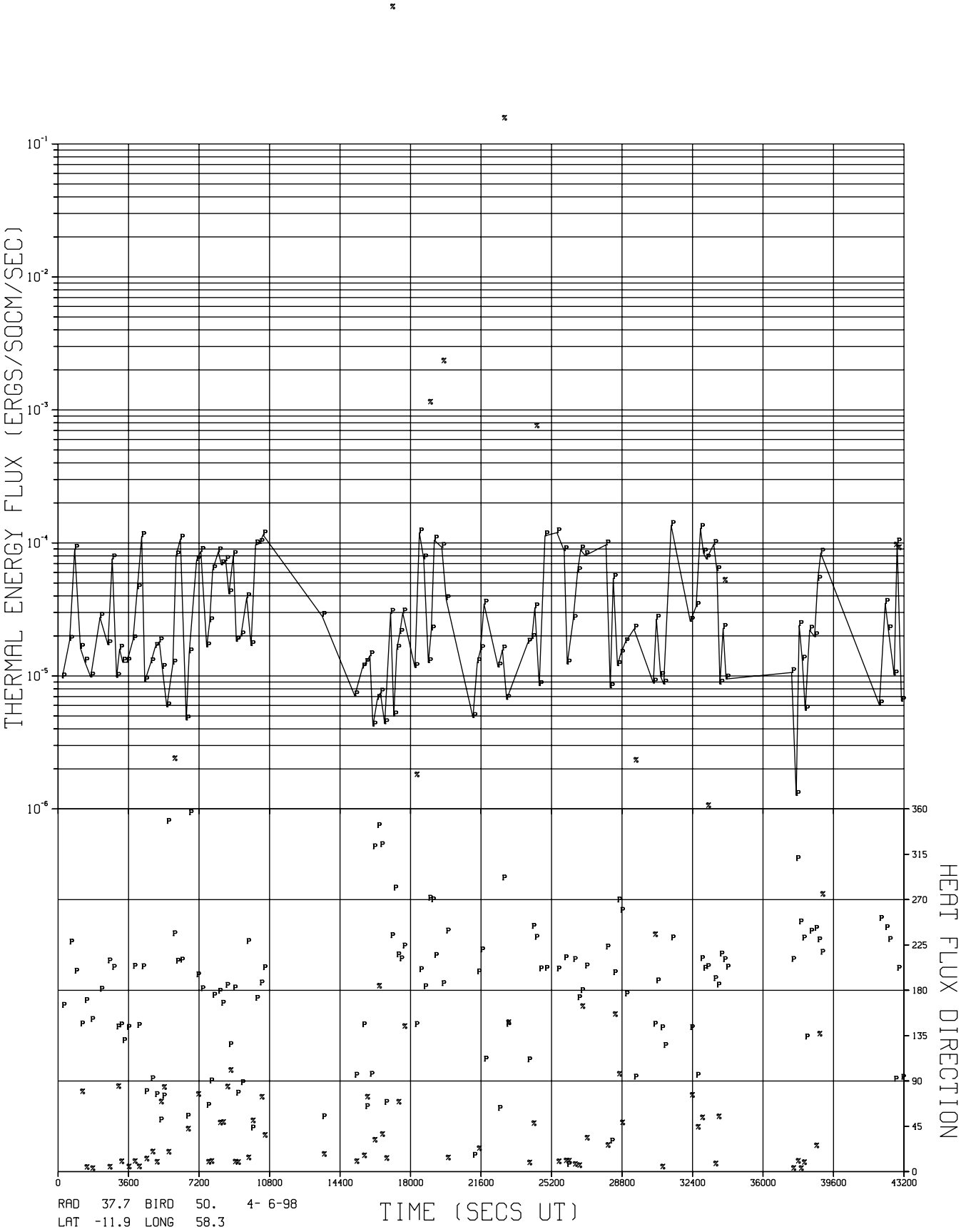

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 37.1 BIRD 50. 4- 5-98
LAT -3.8 LONG 48.6

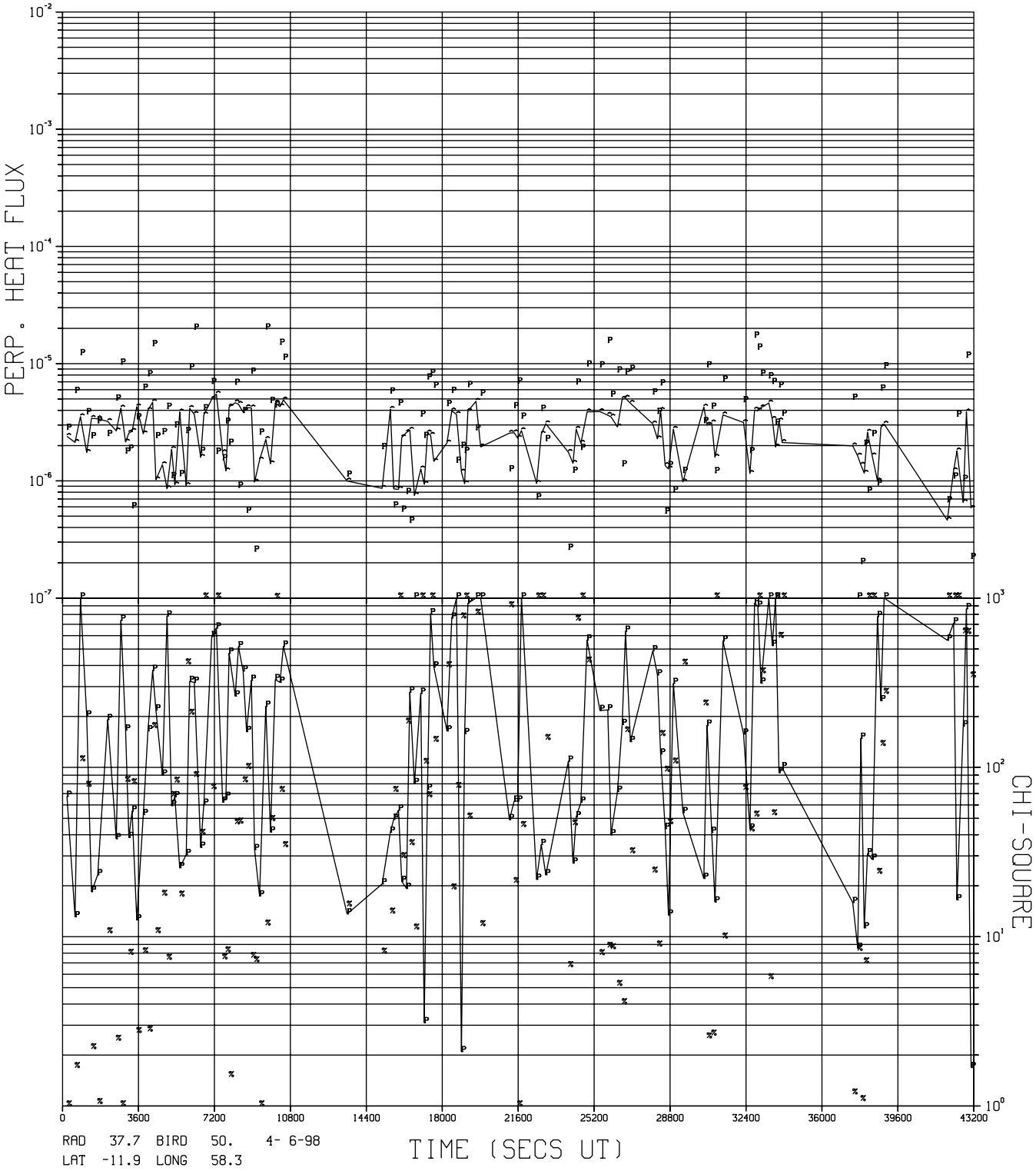

DENSITY
DENSITY RATIO
TIME (SECS UT)
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.7 BIRD 50. 4- 6-98
LAT -11.9 LONG 58.3

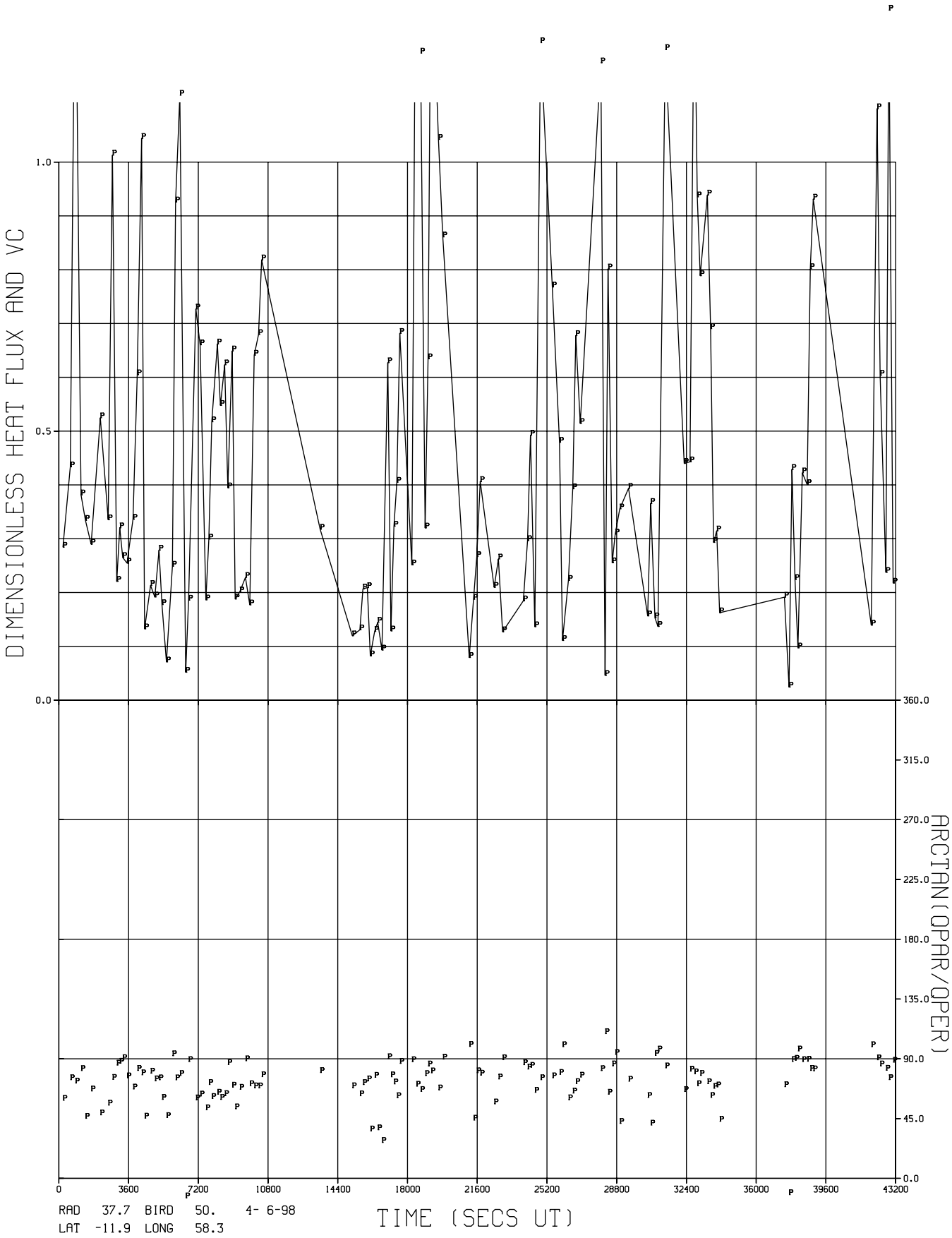

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 37.7 BIRD 50. 4- 6-98
LAT -11.9 LONG 58.3

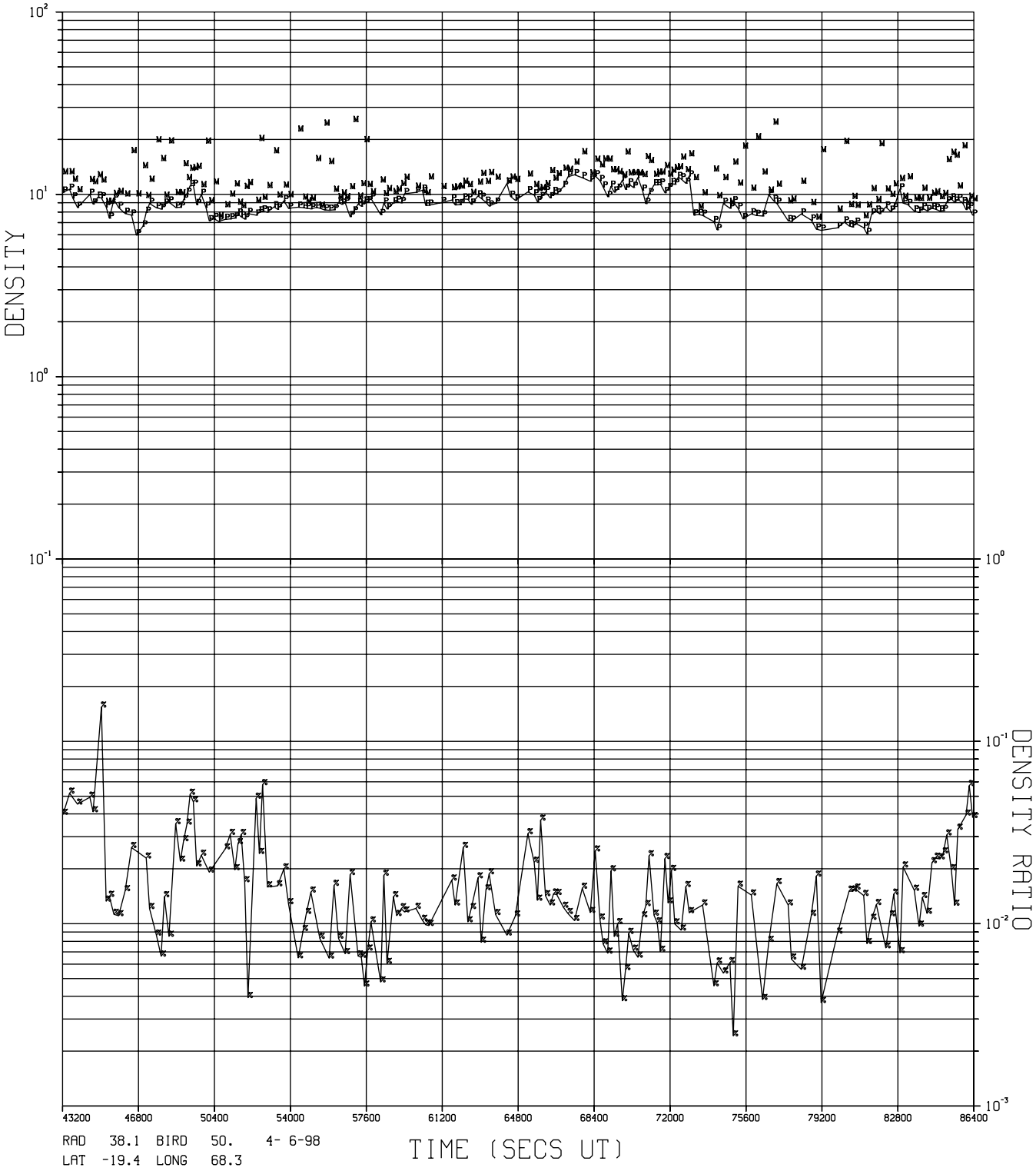

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.7 BIRD 50. 4- 6-98
LAT -11.9 LONG 58.3

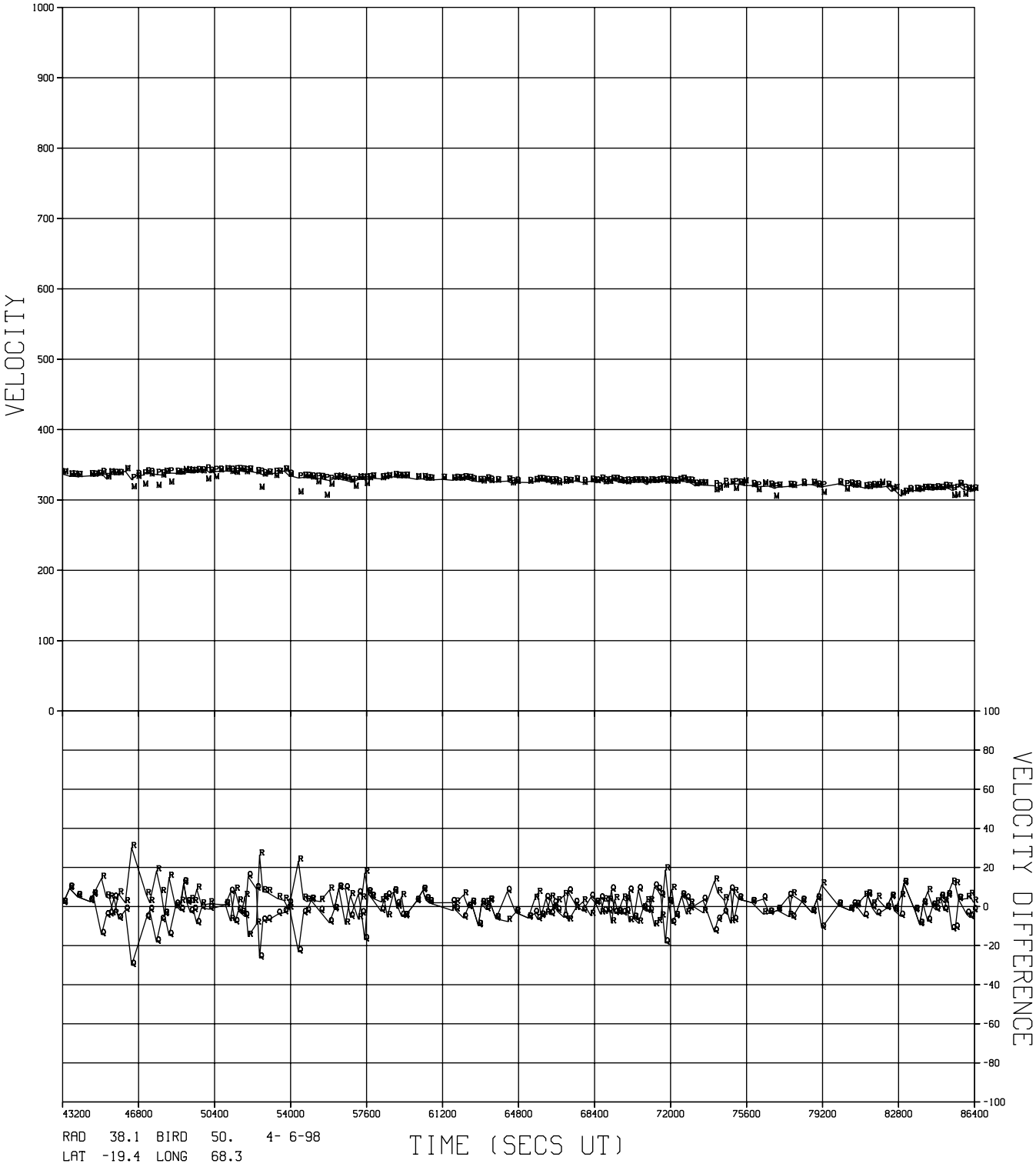

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 37.7 BIRD 50. 4- 6-98
LAT -11.9 LONG 58.3

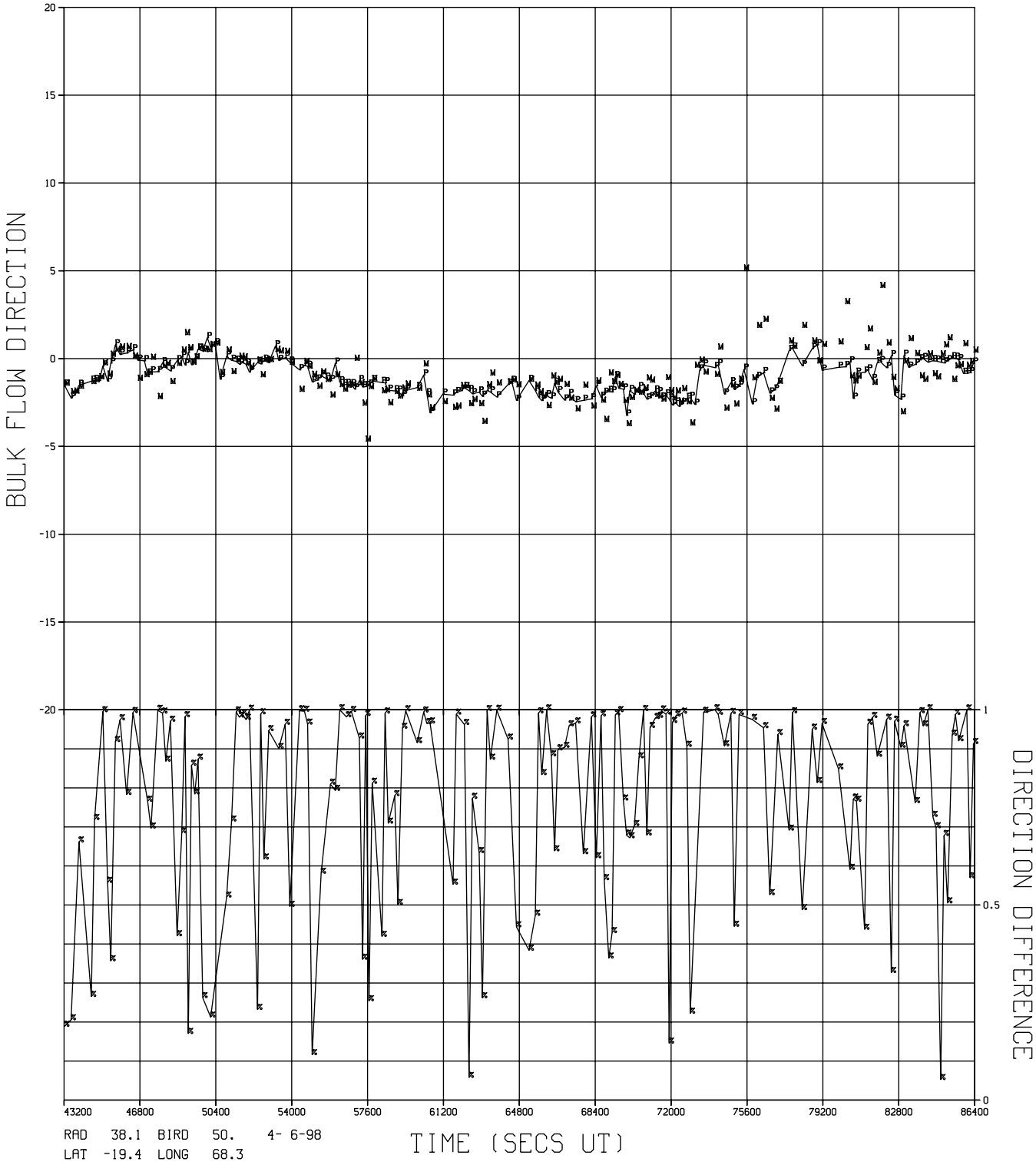

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.7 BIRD 50. 4- 6-98
LAT -11.9 LONG 58.3

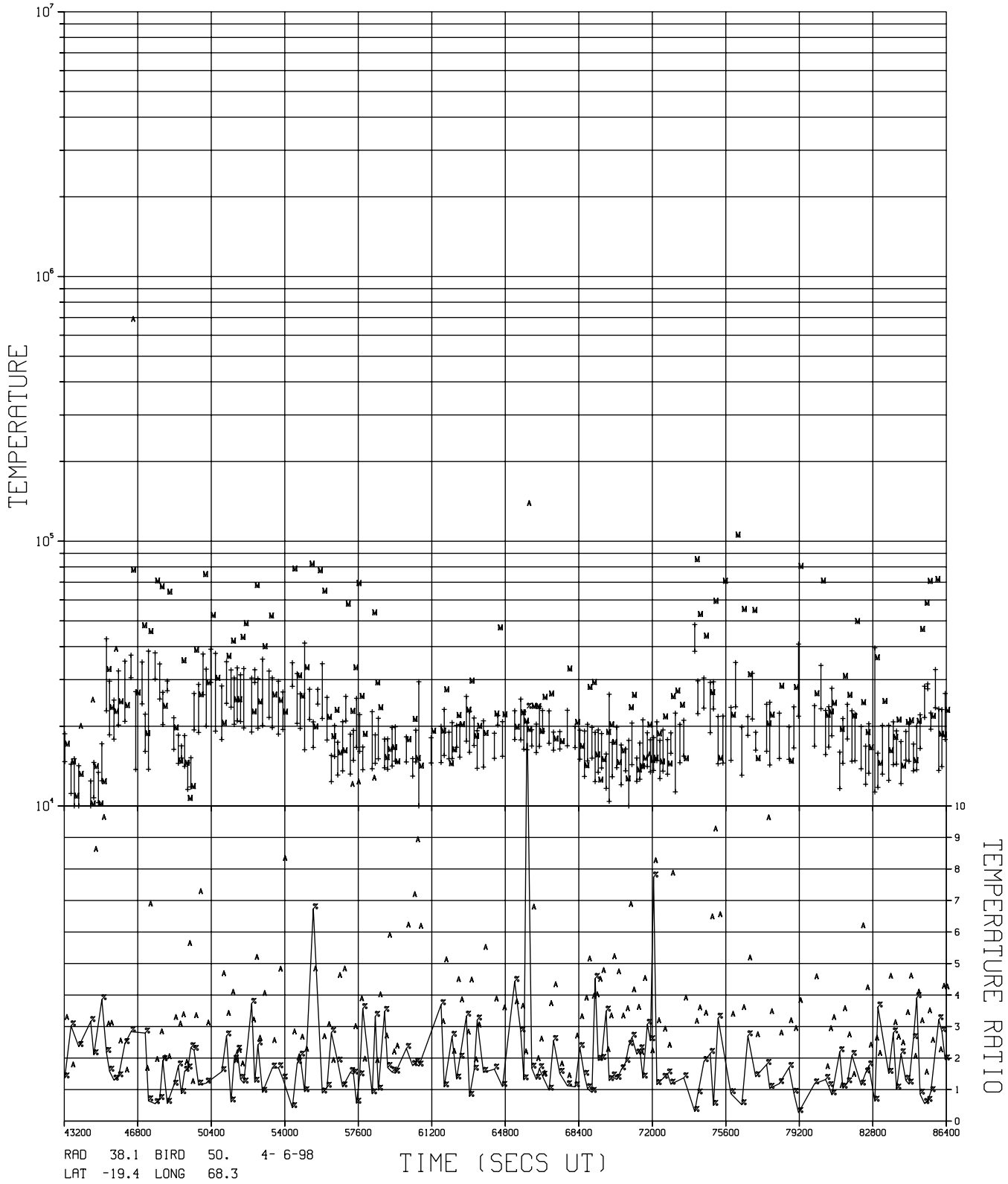

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 37.7 BIRD 50. 4- 6-98
LAT -11.9 LONG 58.3

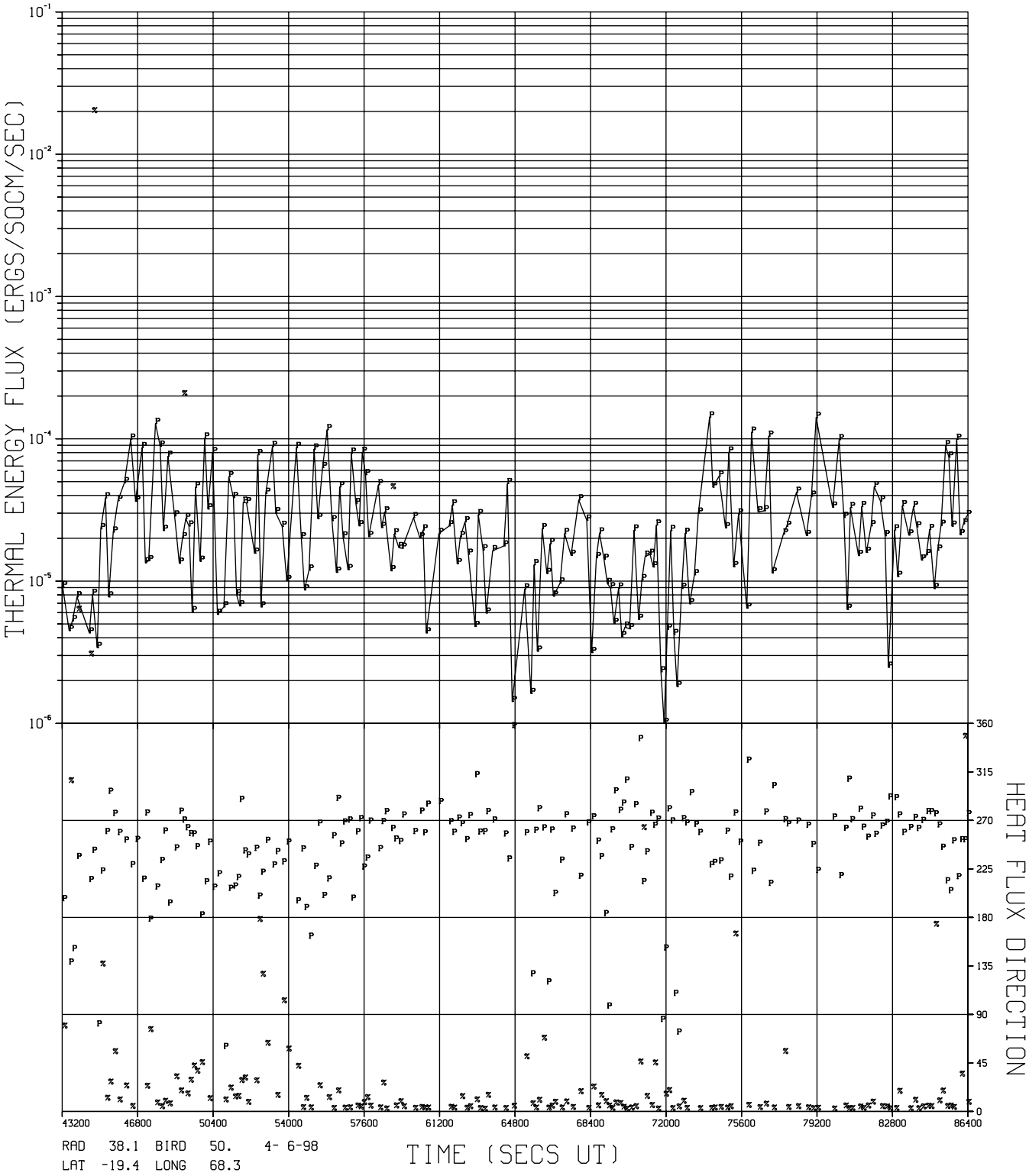

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 37.7 BIRD 50. 4- 6-98
LAT -11.9 LONG 58.3

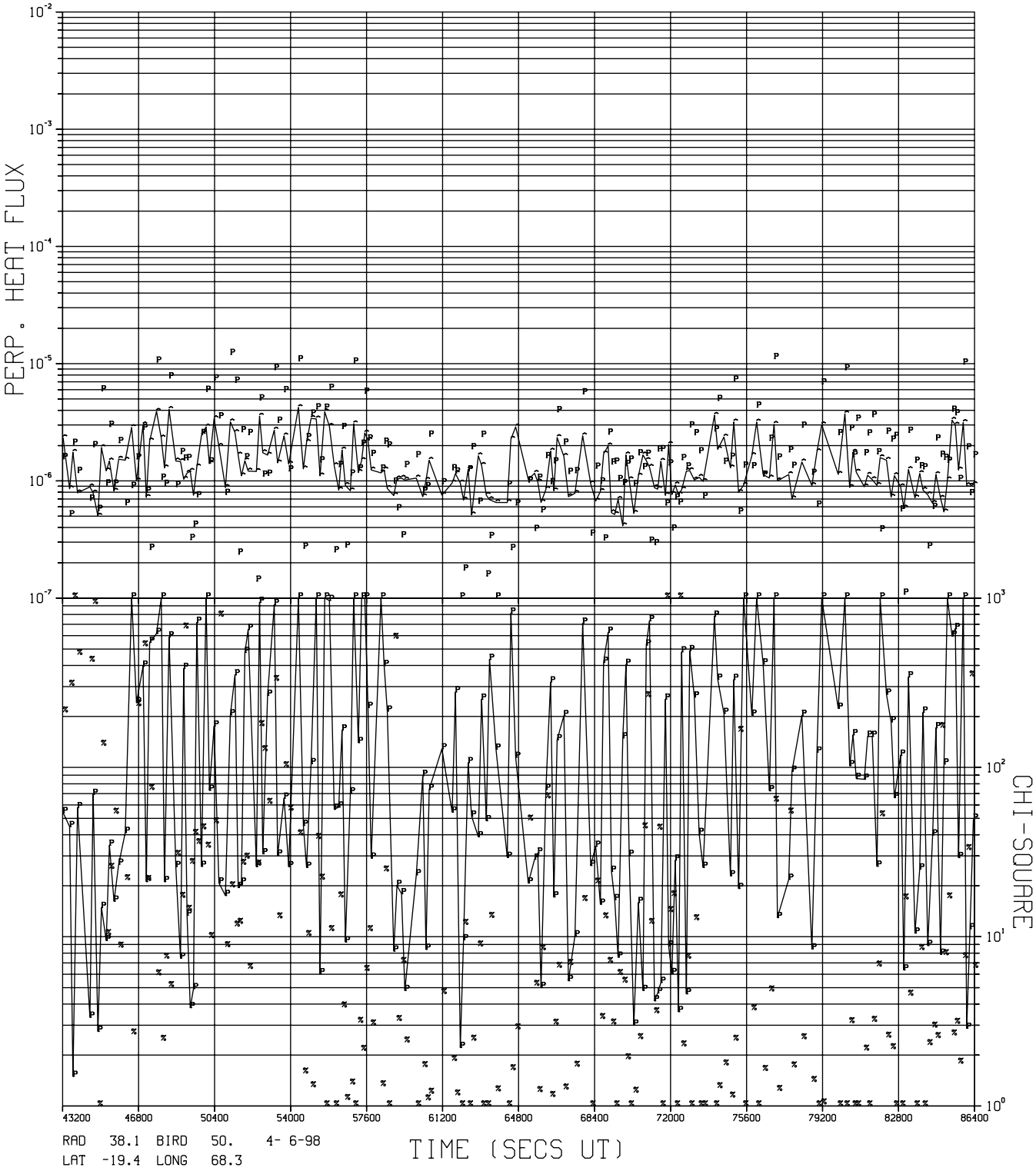

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 38.1 BIRD 50. 4- 6-98
LAT -19.4 LONG 68.3

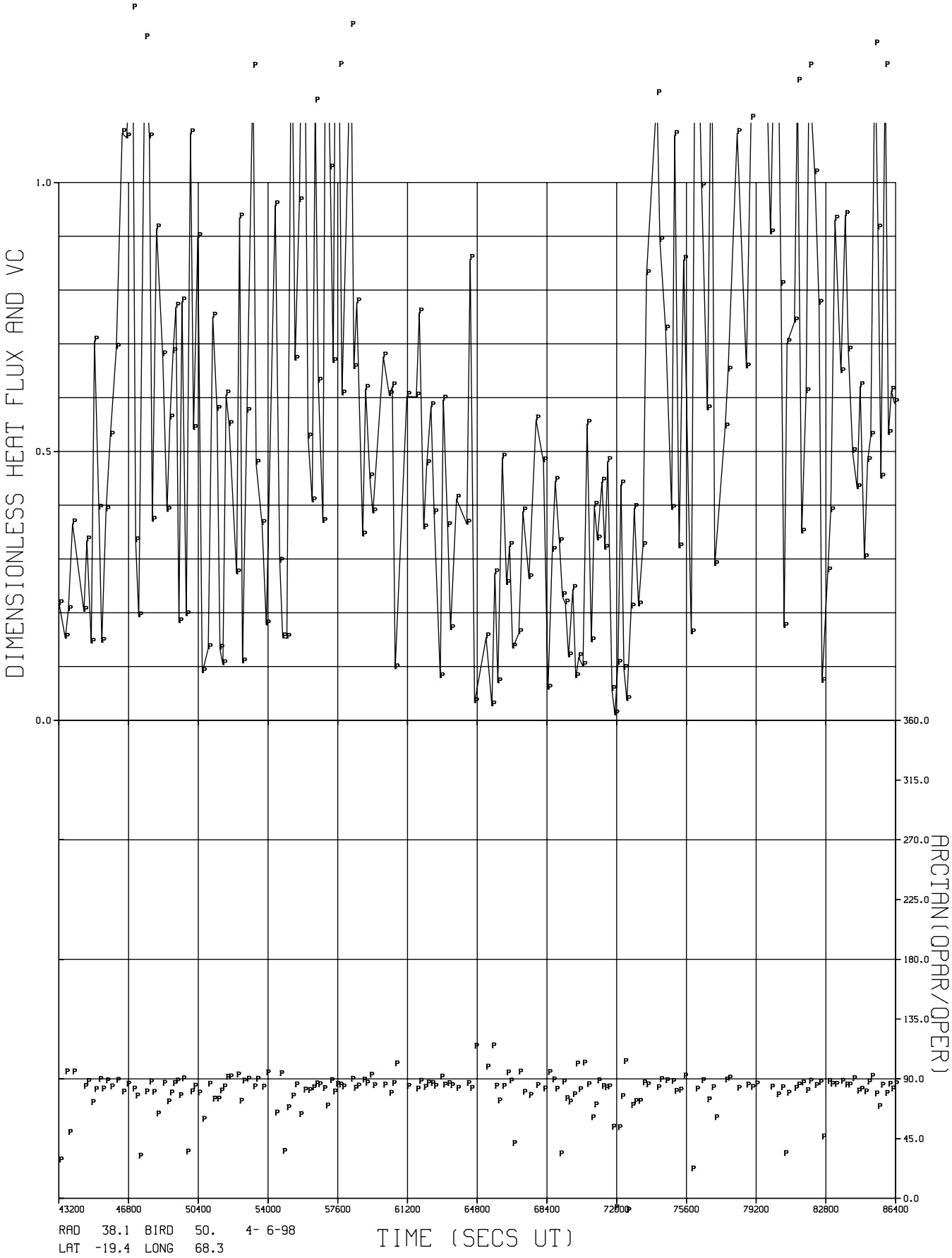

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 38.1 BIRD 50. 4- 6-98
LAT -19.4 LONG 68.3

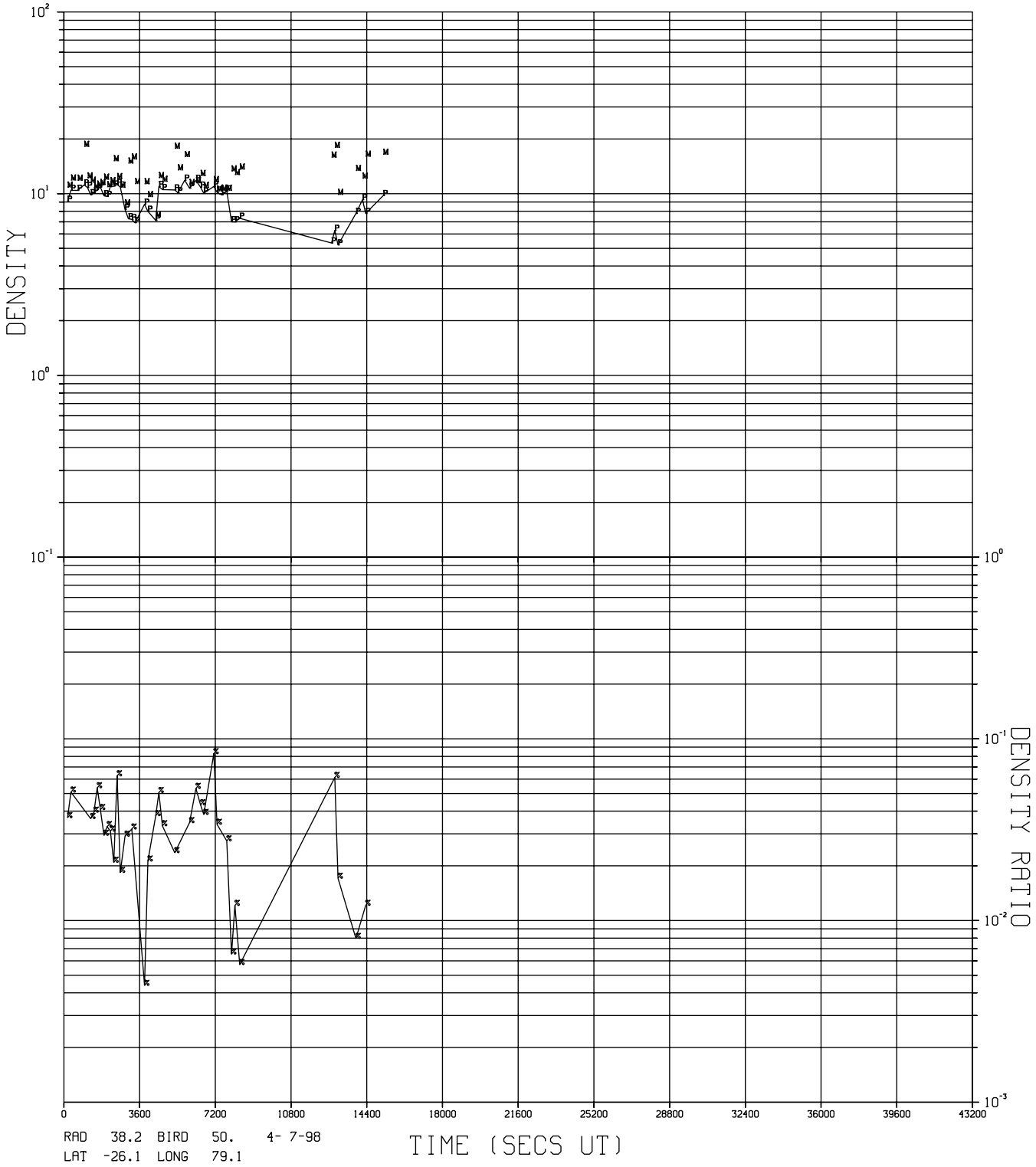

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 38.1 BIRD 50. 4- 6-98
LAT -19.4 LONG 68.3

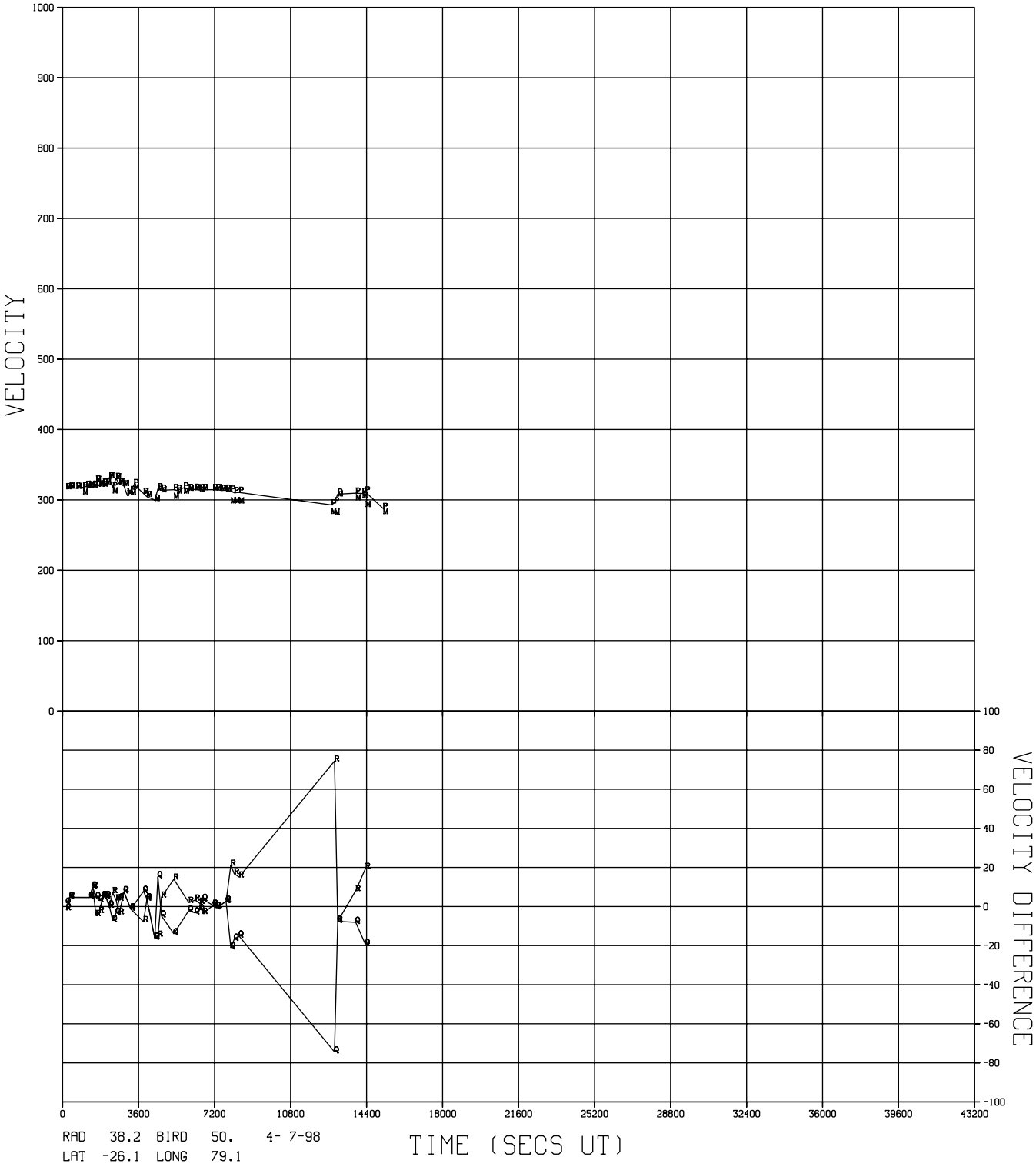

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 38.1 BIRD 50. 4- 6-98
LAT -19.4 LONG 68.3

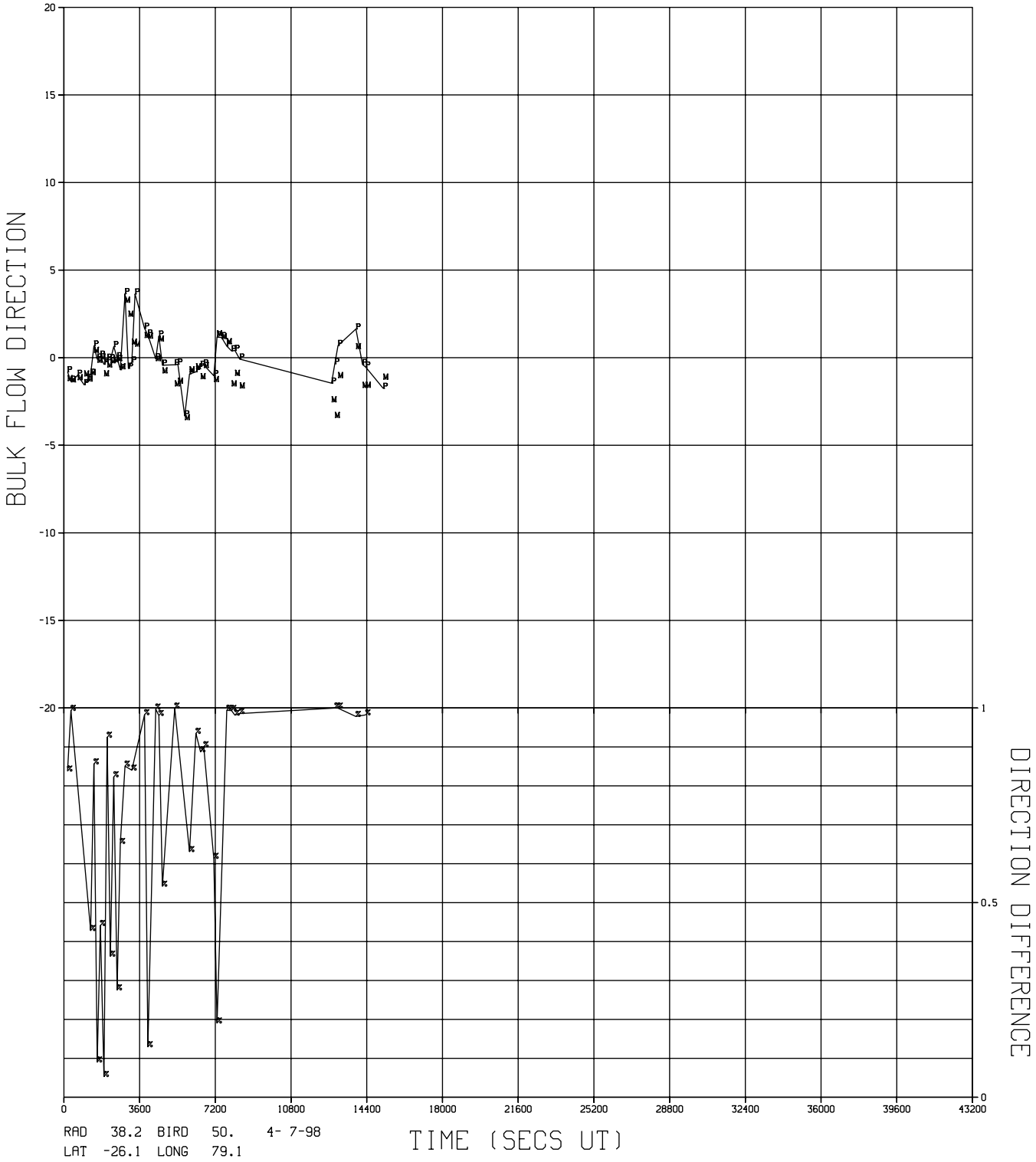

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 38.1 BIRD 50. 4- 6-98
LAT -19.4 LONG 68.3

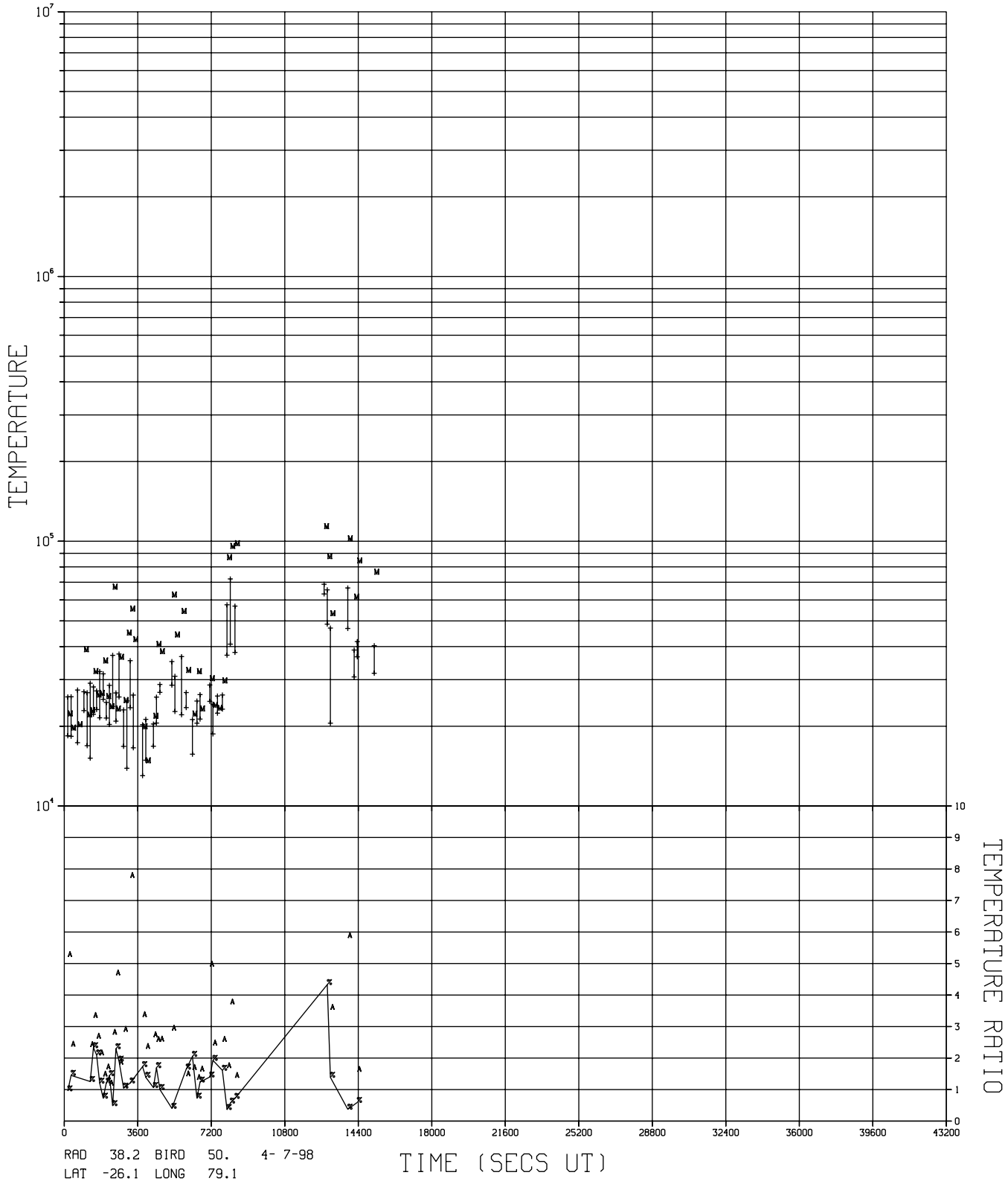

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 38.1 BIRD 50. 4- 6-98
LAT -19.4 LONG 68.3

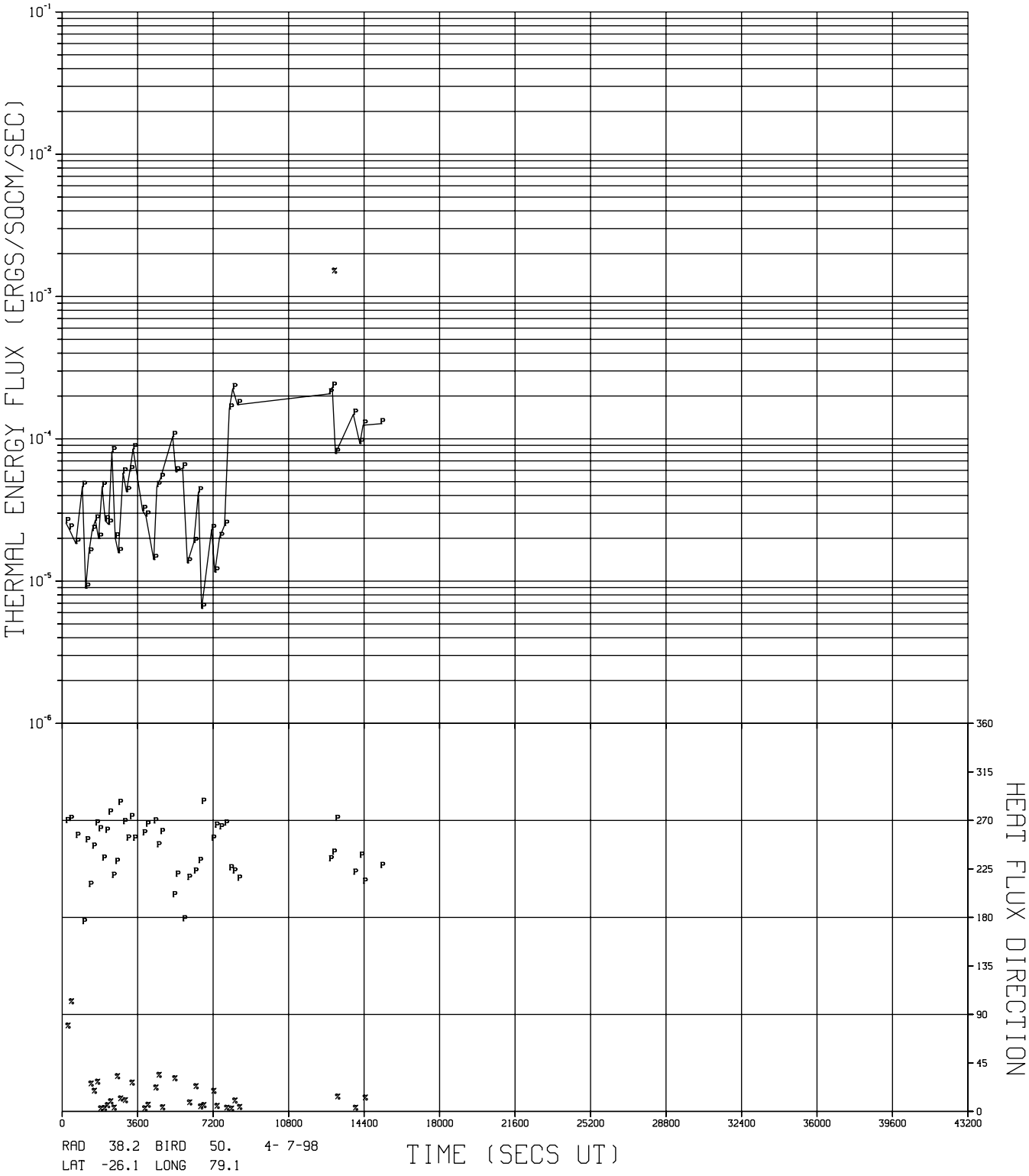

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 38.1 BIRD 50. 4- 6-98
LAT -19.4 LONG 68.3

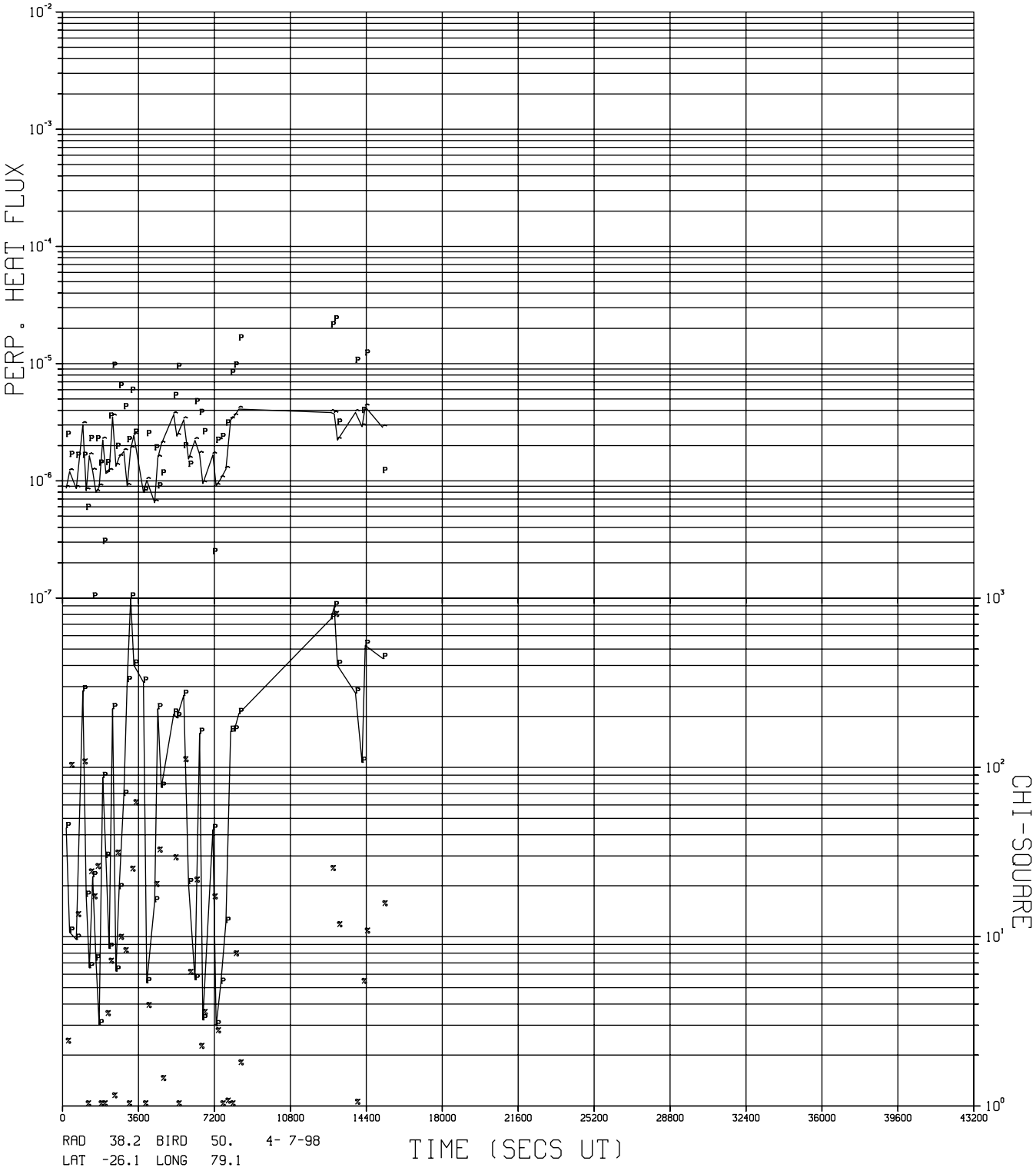

DENSITY
DENSITY RATIO
TIME (SECS UT)
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 38.2 BIRD 50. 4- 7-98
LAT -26.1 LONG 79.1

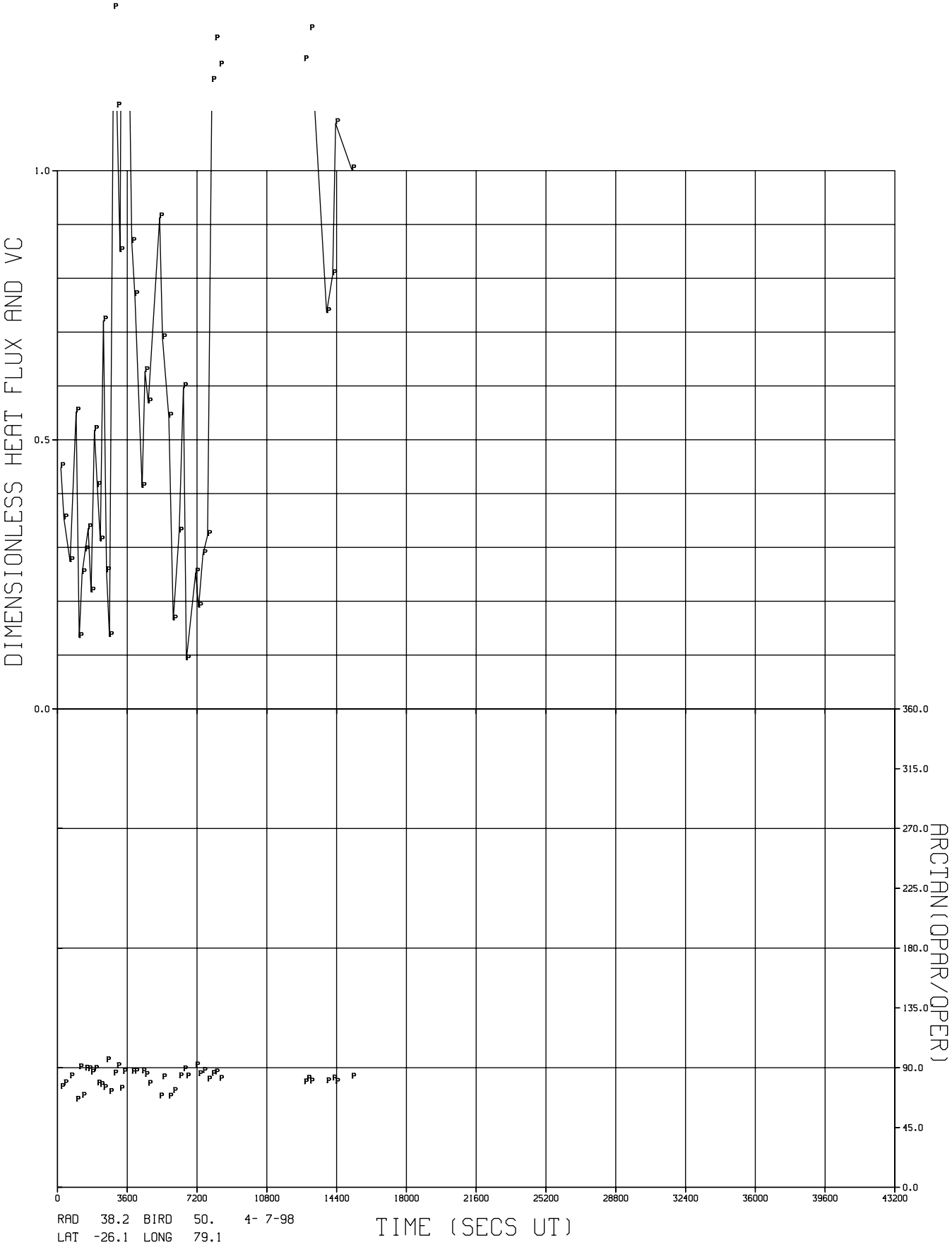

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 38.2 BIRD 50. 4- 7-98
LAT -26.1 LONG 79.1

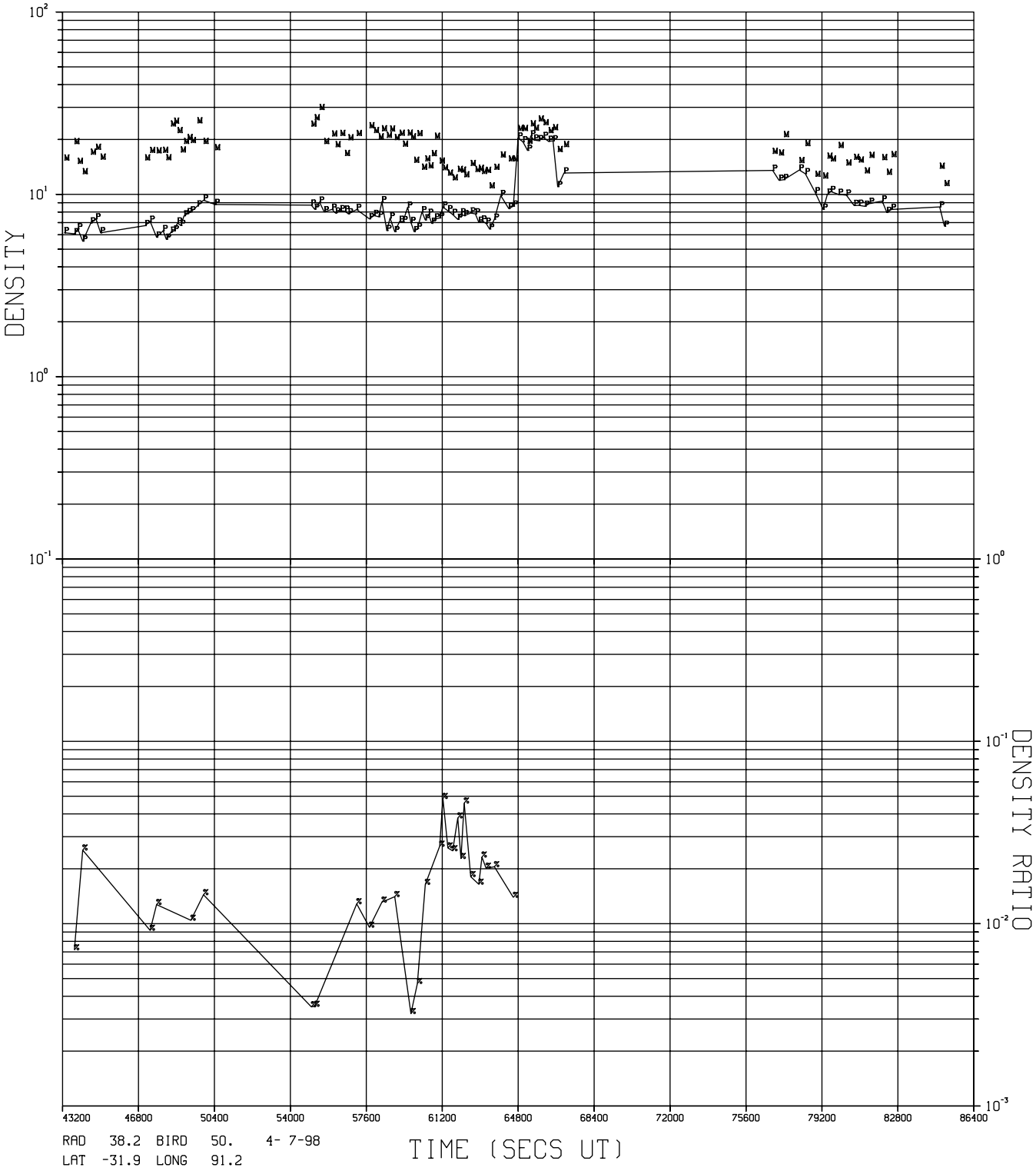

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 38.2 BIRD 50. 4- 7-98
LAT -26.1 LONG 79.1

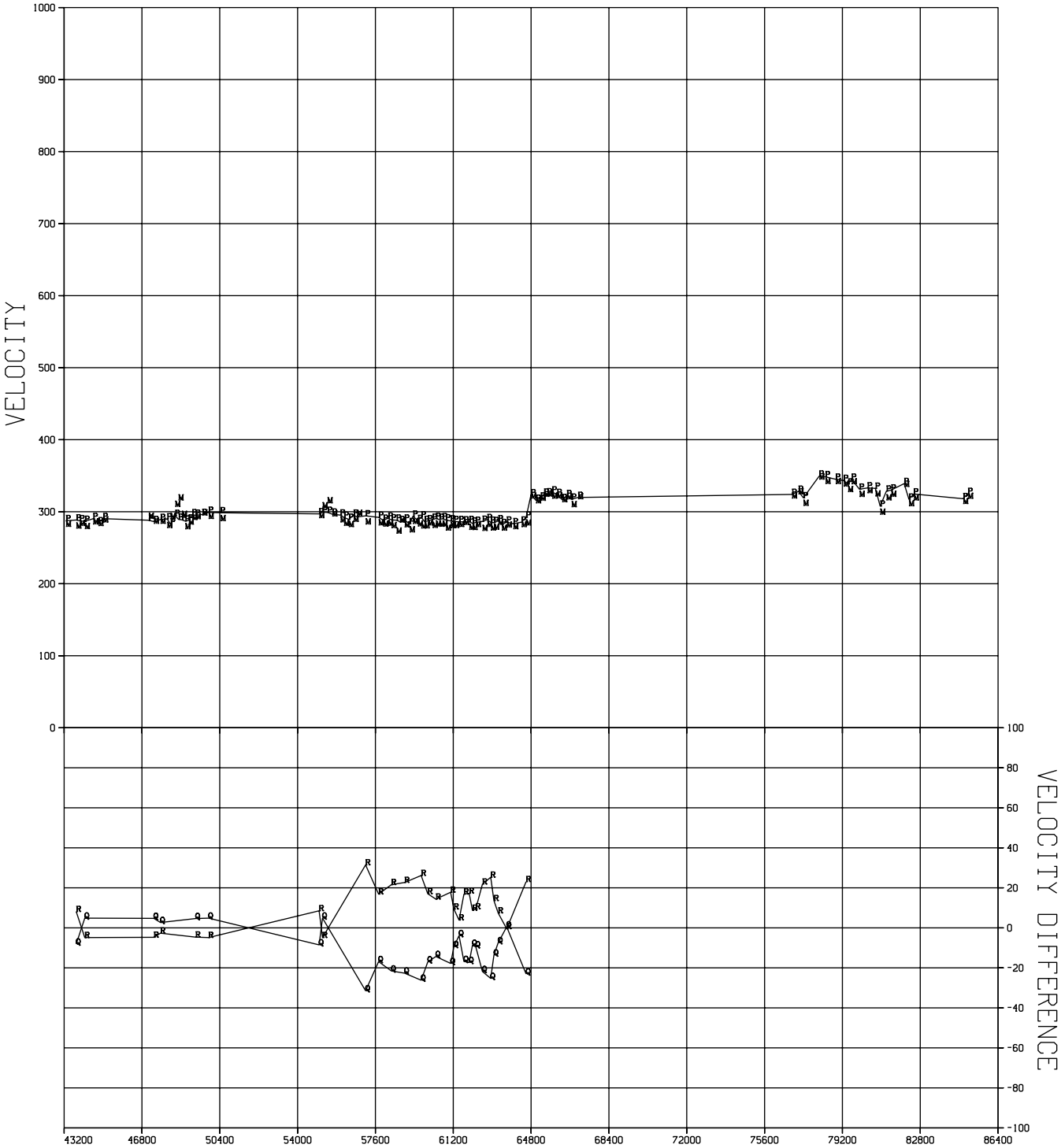

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 38.2 BIRD 50. 4- 7-98
LAT -26.1 LONG 79.1


THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 38.2 BIRD 50. 4- 7-98
LAT -26.1 LONG 79.1

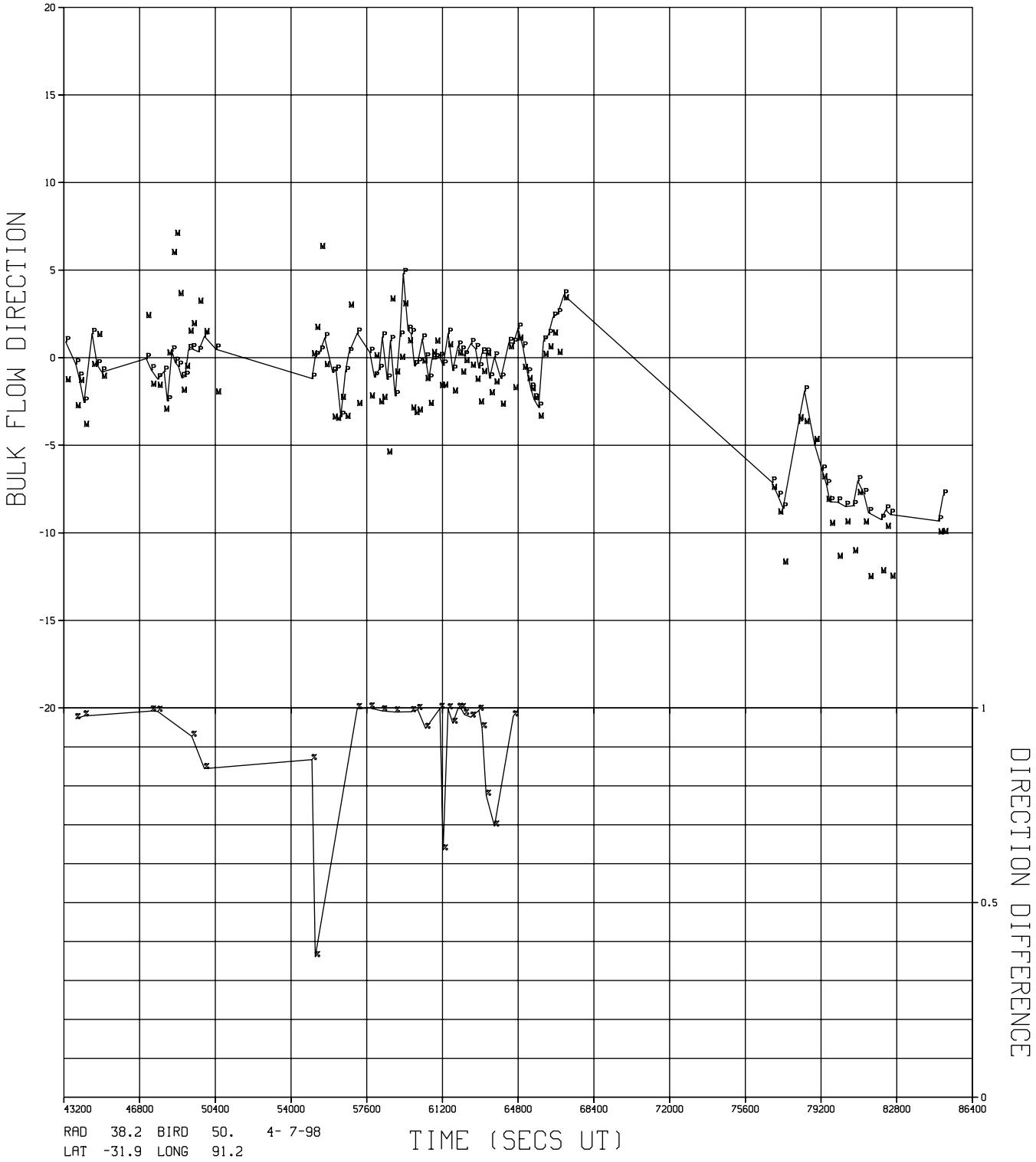

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 38.2 BIRD 50. 4- 7-98
LAT -26.1 LONG 79.1

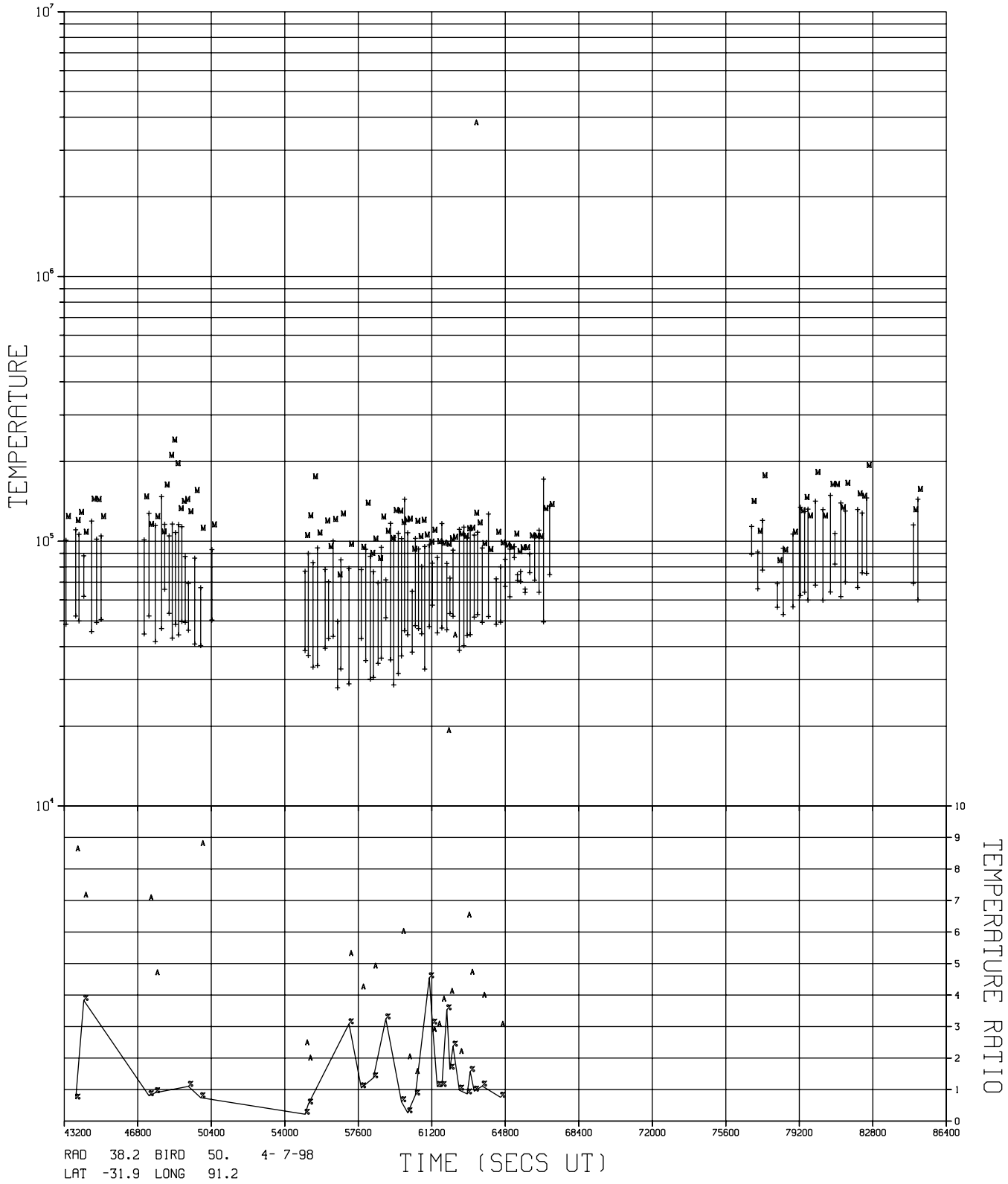

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 38.2 BIRD 50. 4- 7-98
LAT -26.1 LONG 79.1

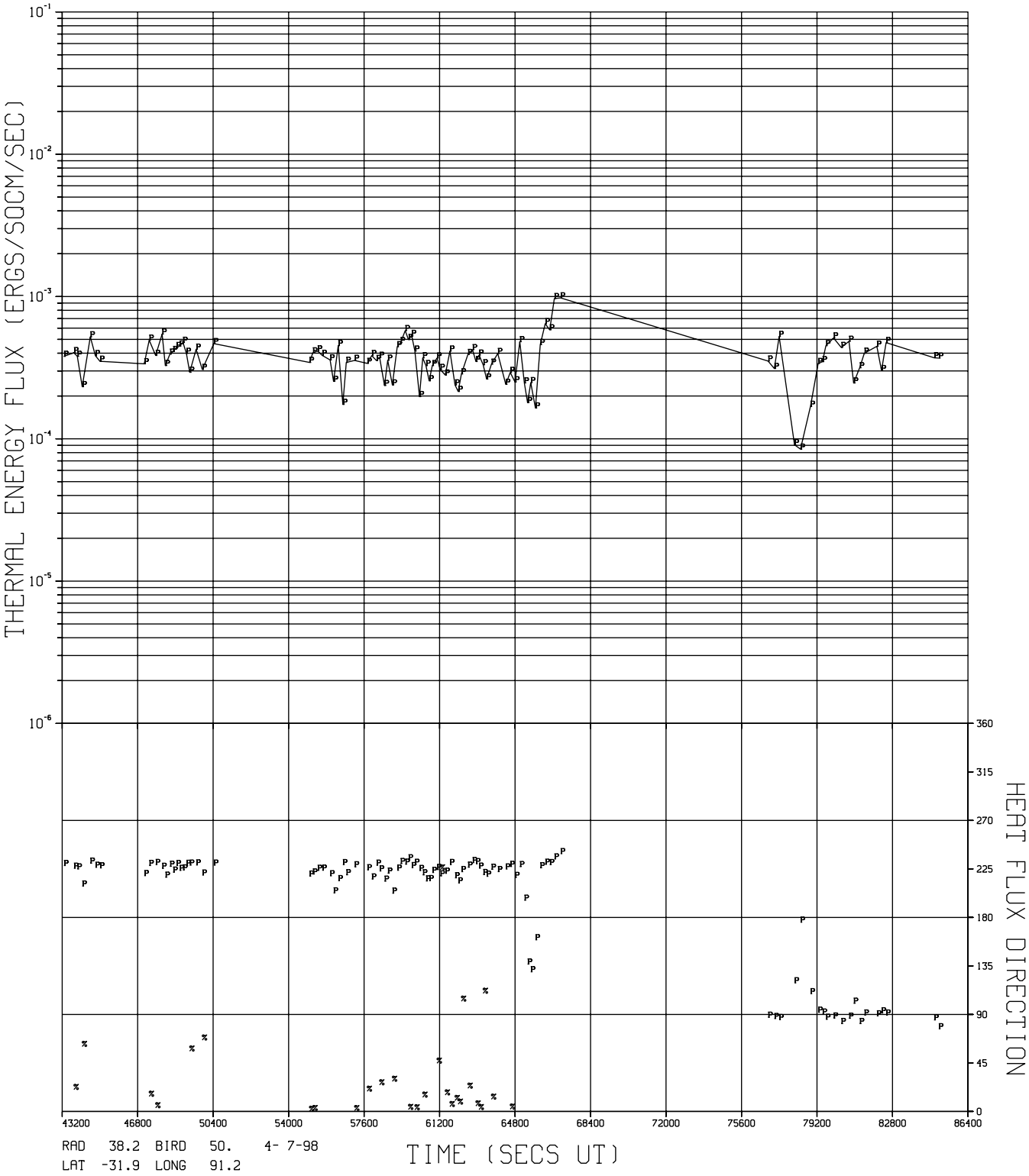

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 38.2 BIRD 50. 4- 7-98
LAT -31.9 LONG 91.2

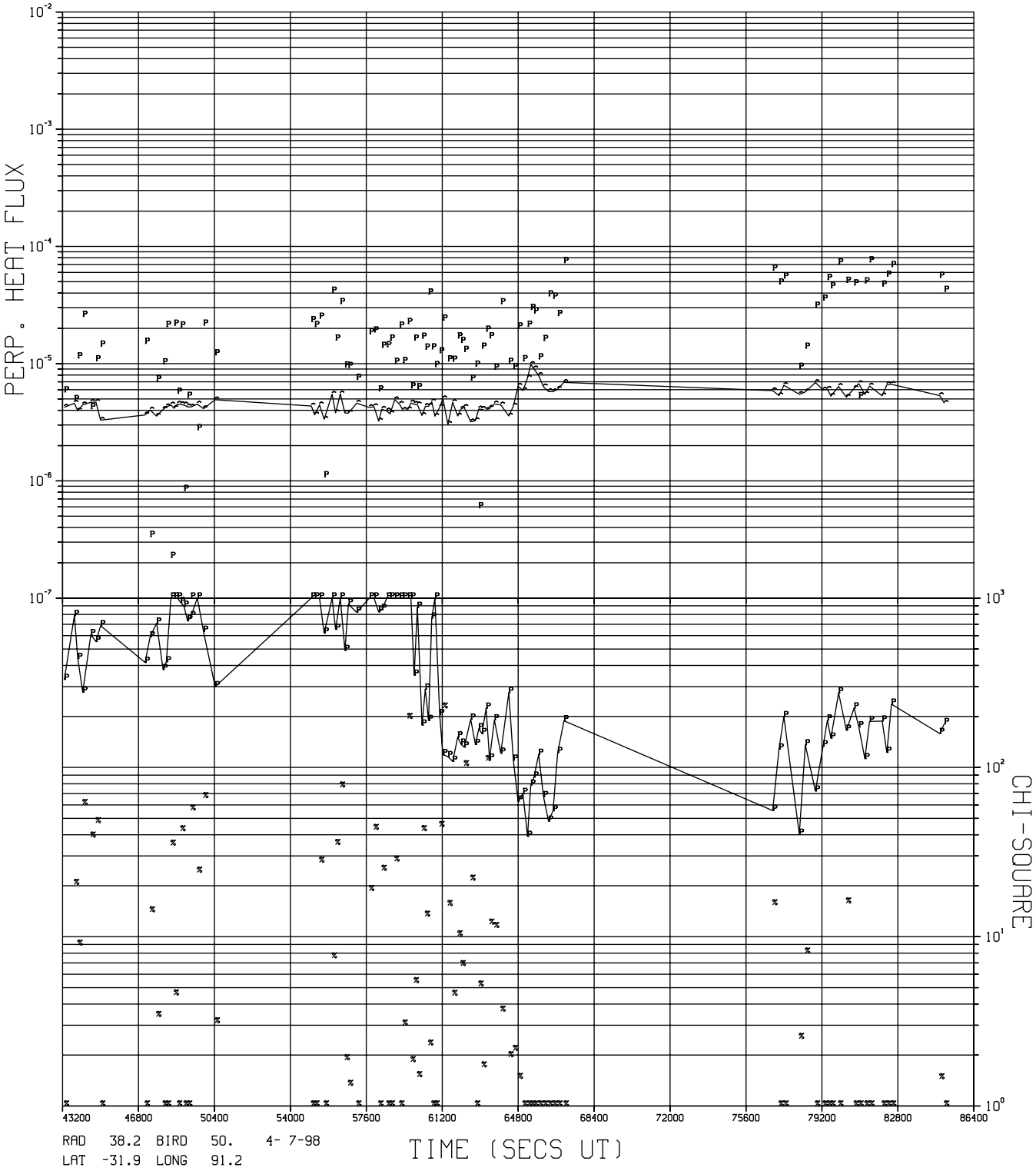


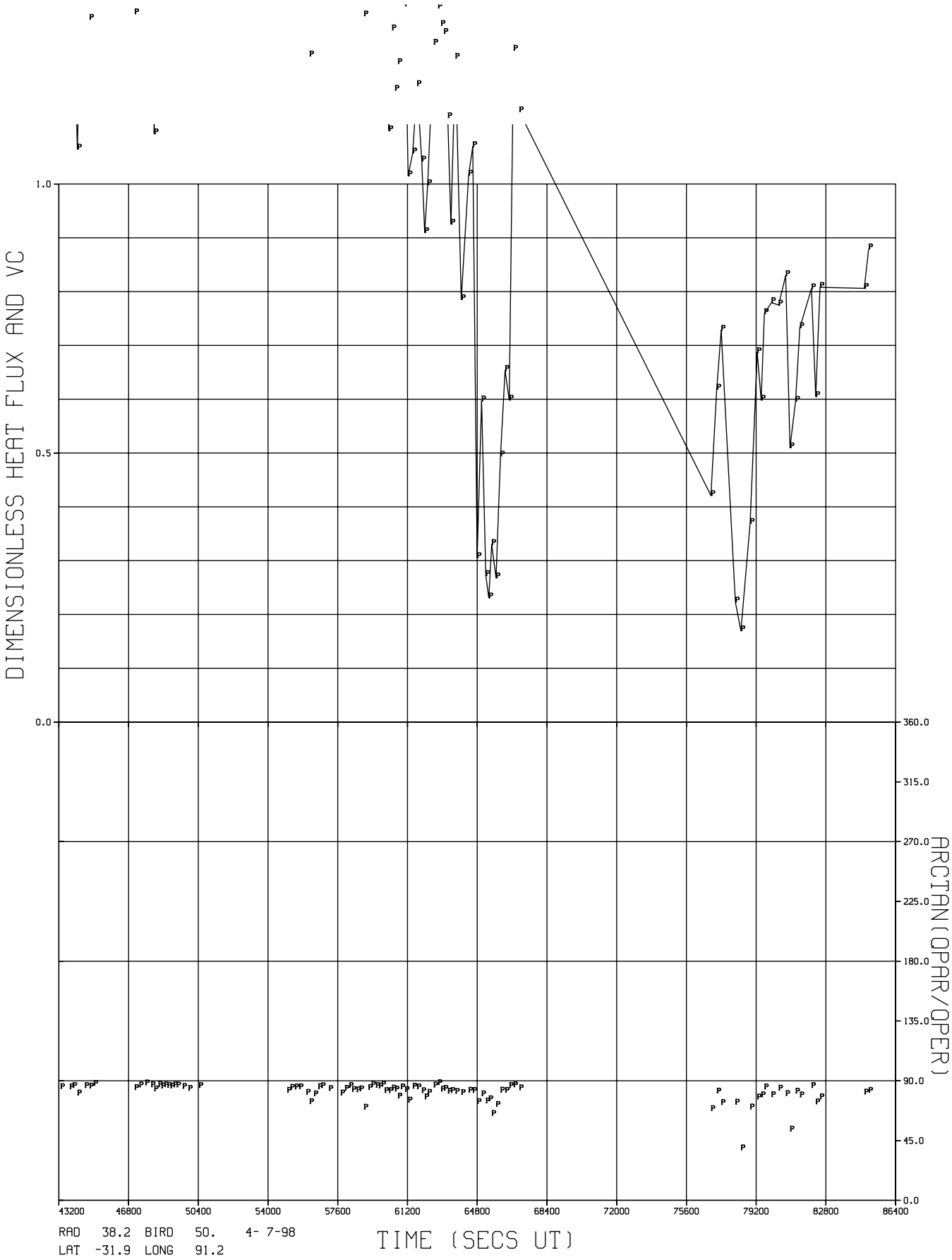
RAD 38.2 BIRD 50. 4- 7-98
LAT -31.9 LONG 91.2

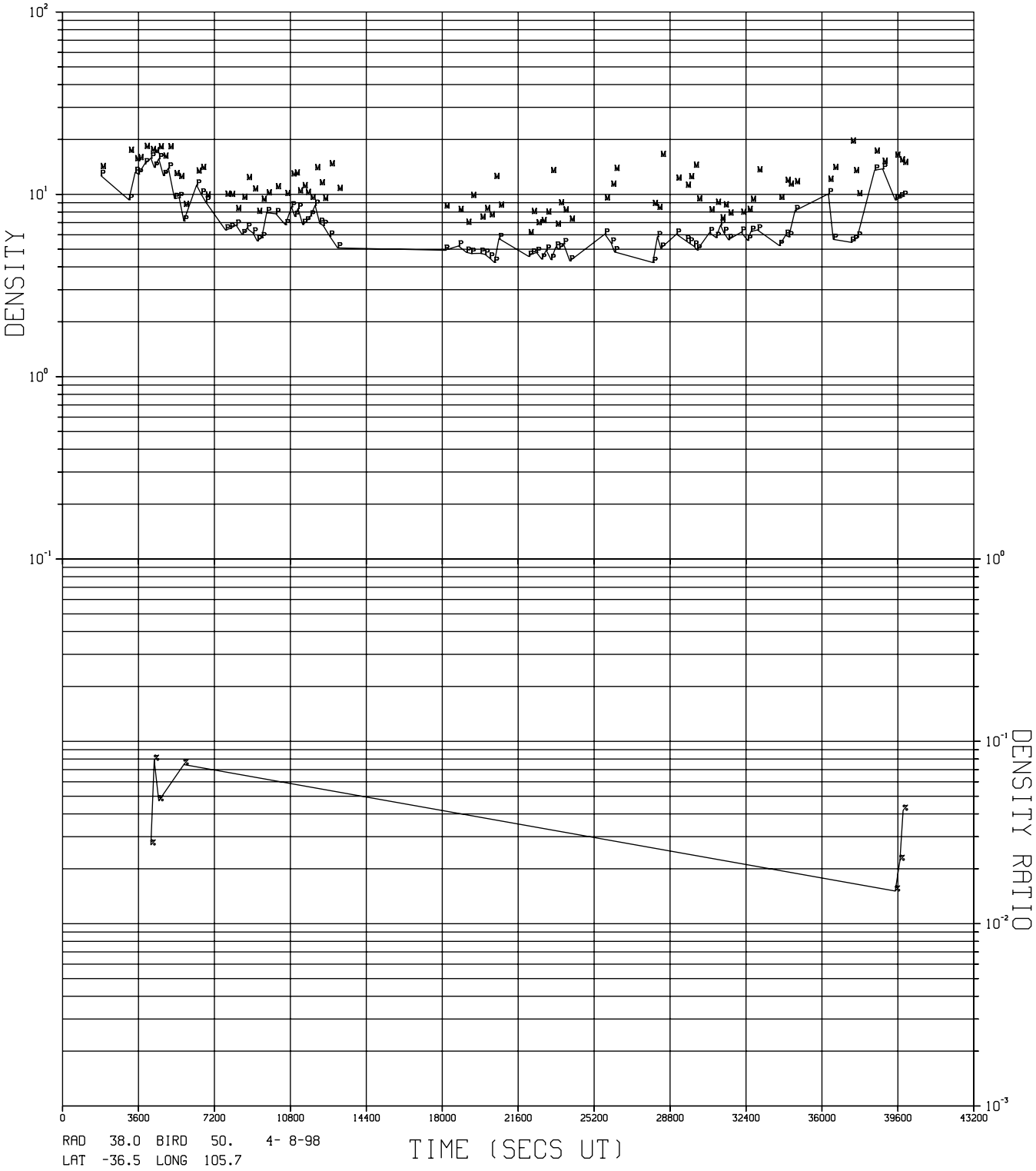

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 38.2 BIRD 50. 4- 7-98
LAT -31.9 LONG 91.2

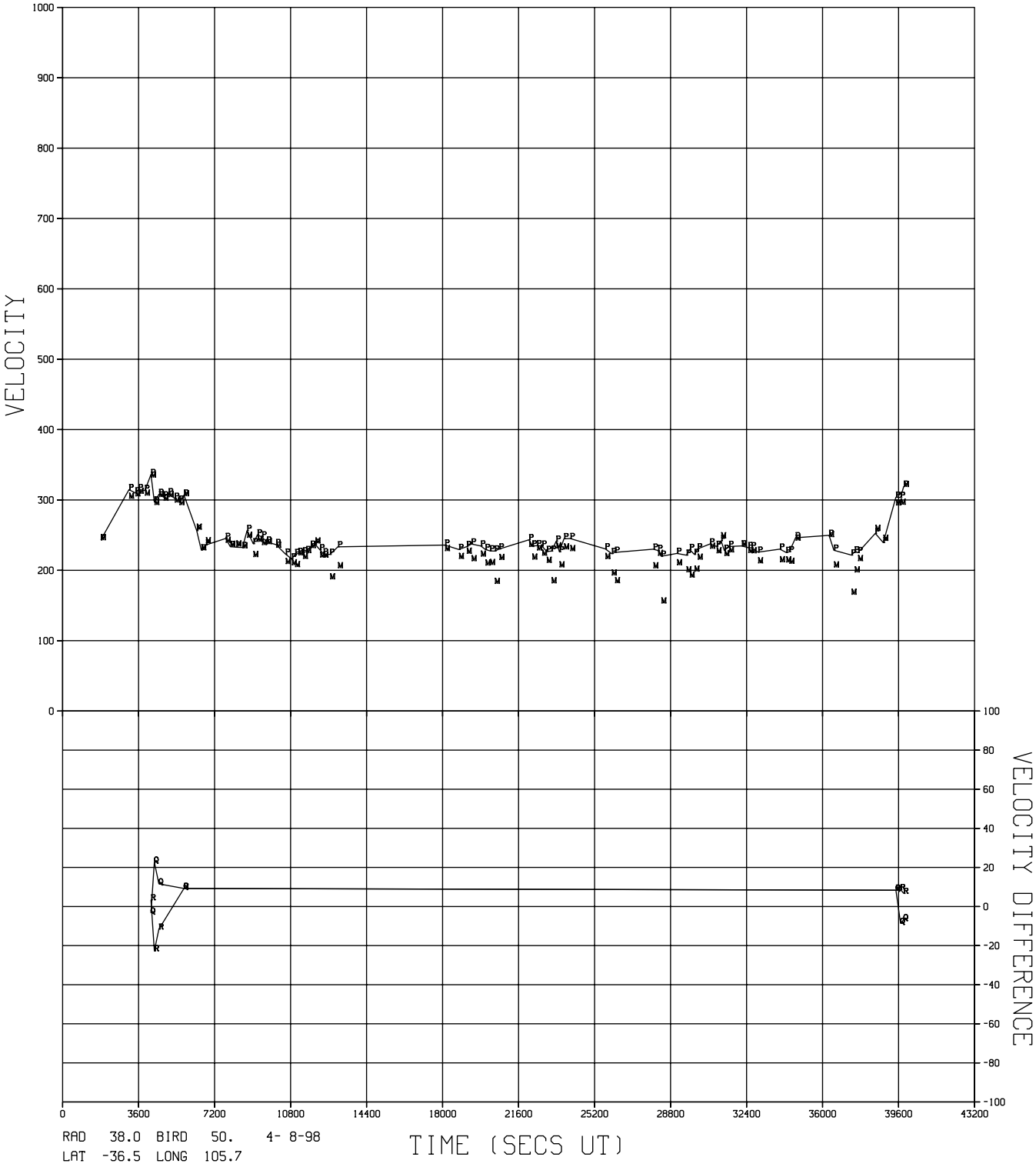

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 38.2 BIRD 50. 4- 7-98
LAT -31.9 LONG 91.2

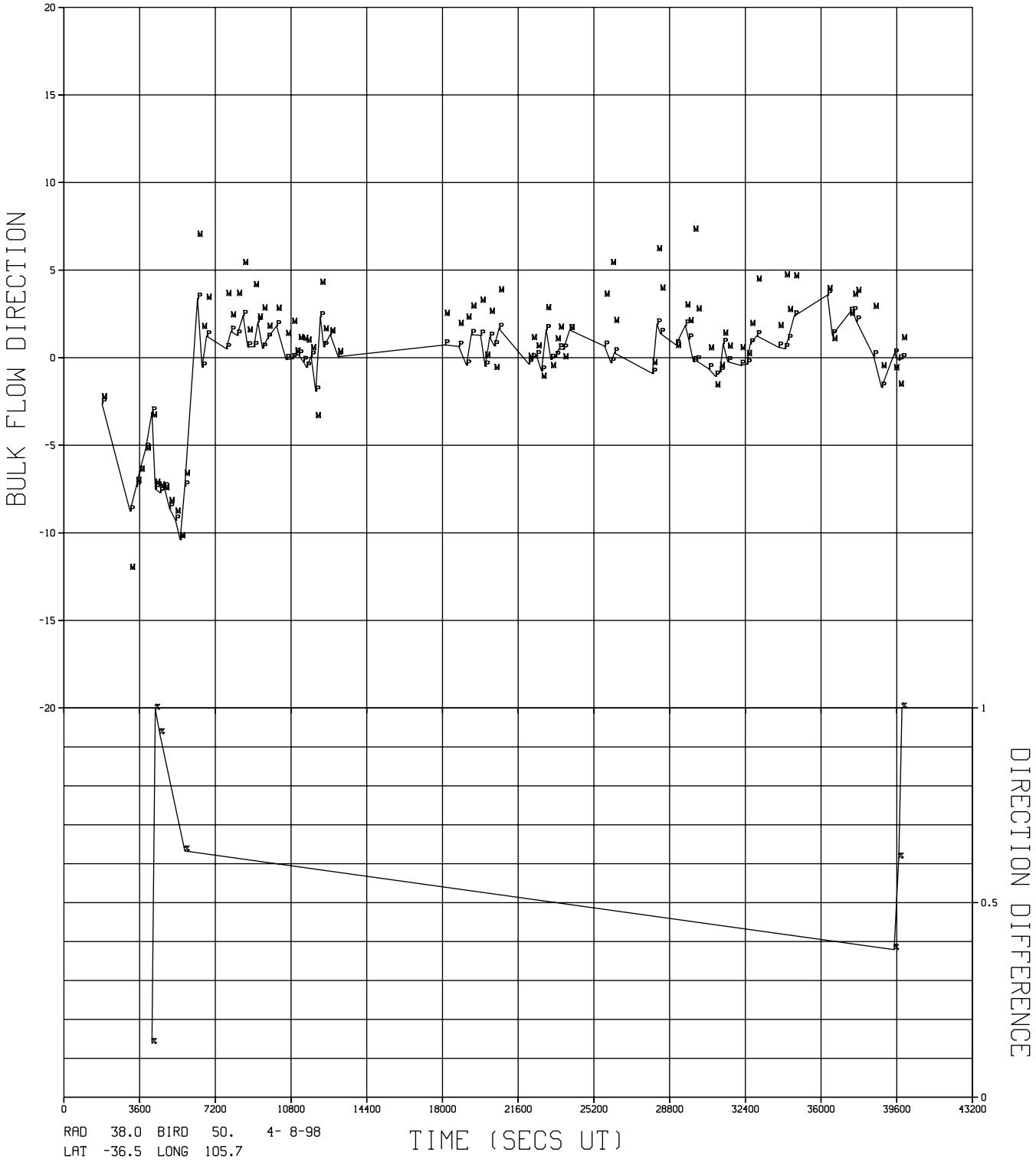

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 38.2 BIRD 50. 4- 7-98
LAT -31.9 LONG 91.2

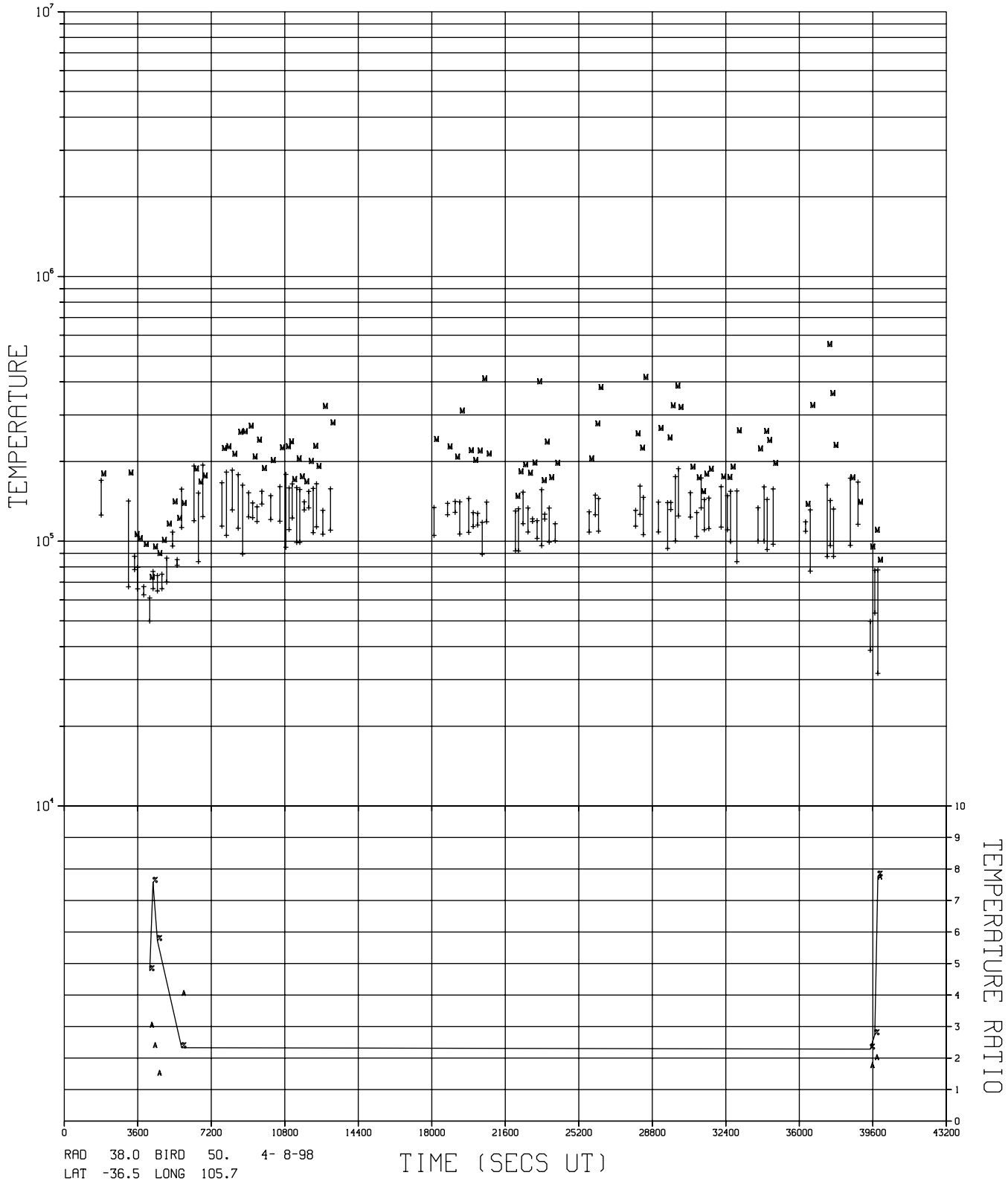

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 38.2 BIRD 50. 4- 7-98
LAT -31.9 LONG 91.2

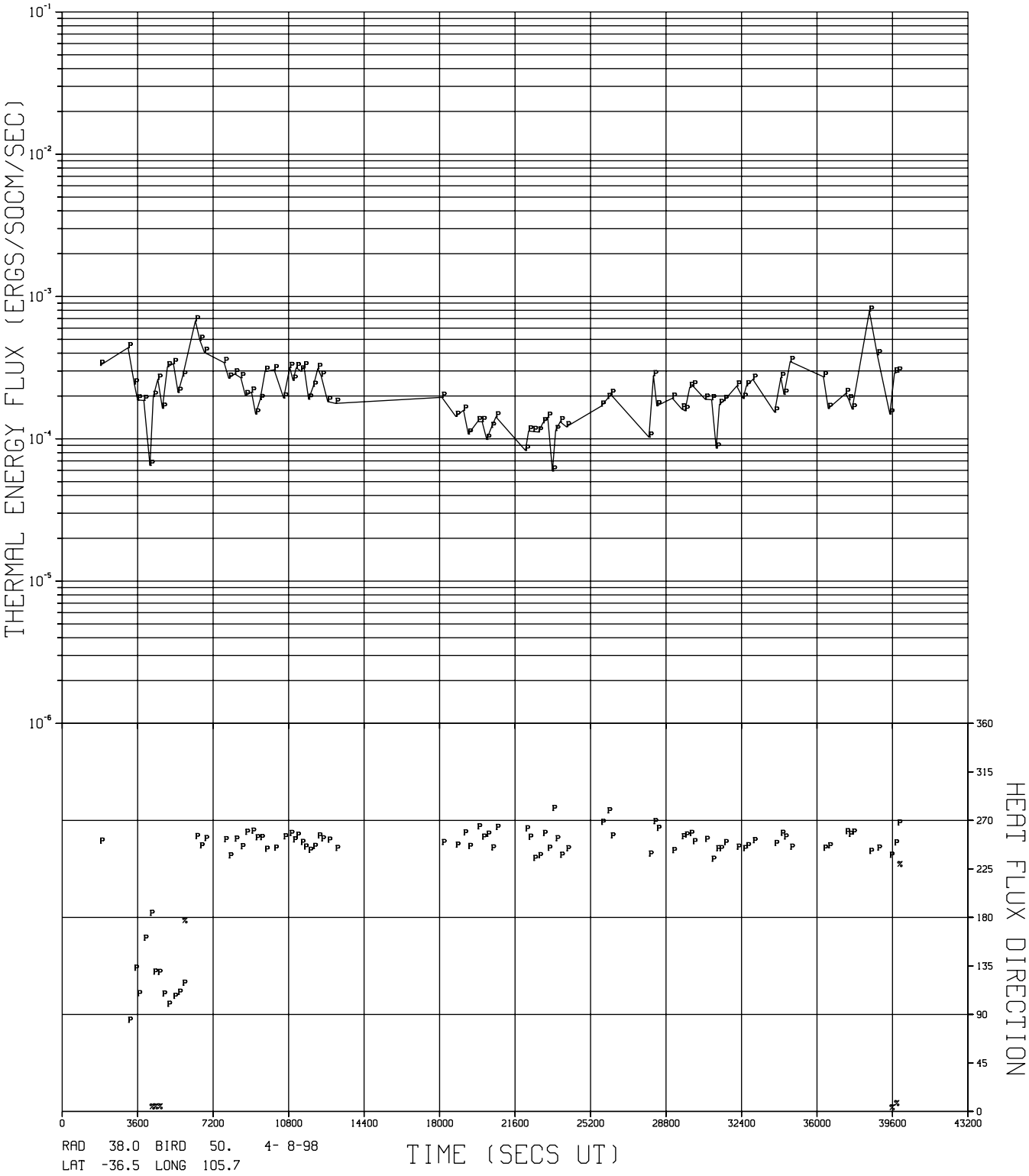

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 38.2 BIRD 50. 4- 7-98
LAT -31.9 LONG 91.2

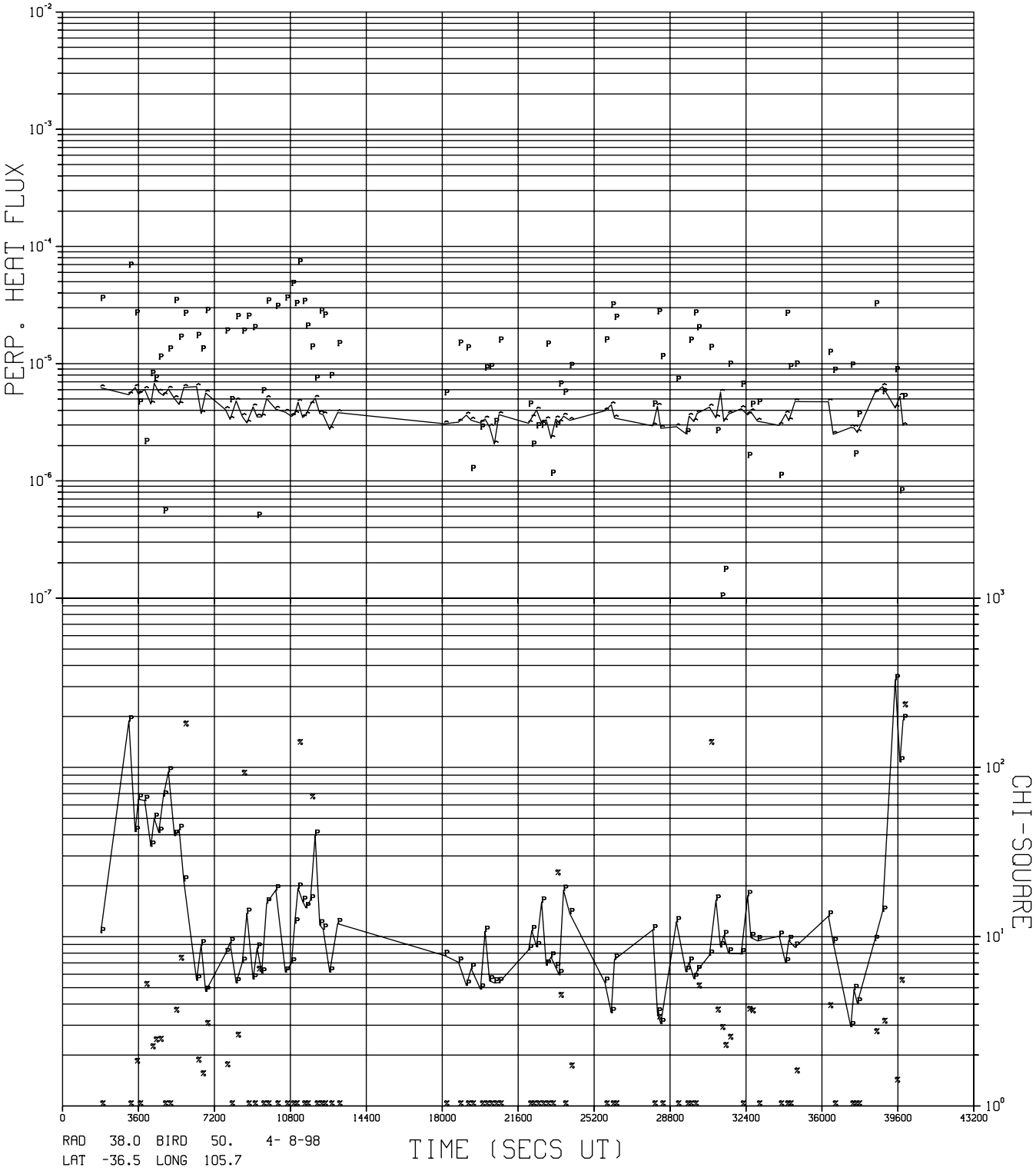

DENSITY
DENSITY RATIO
TIME (SECS UT)
10^2
10^1
10^0
10^{-1}
10^{-2}
10^{-3}
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 38.0 BIRD 50. 4- 8-98
LAT -36.5 LONG 105.7

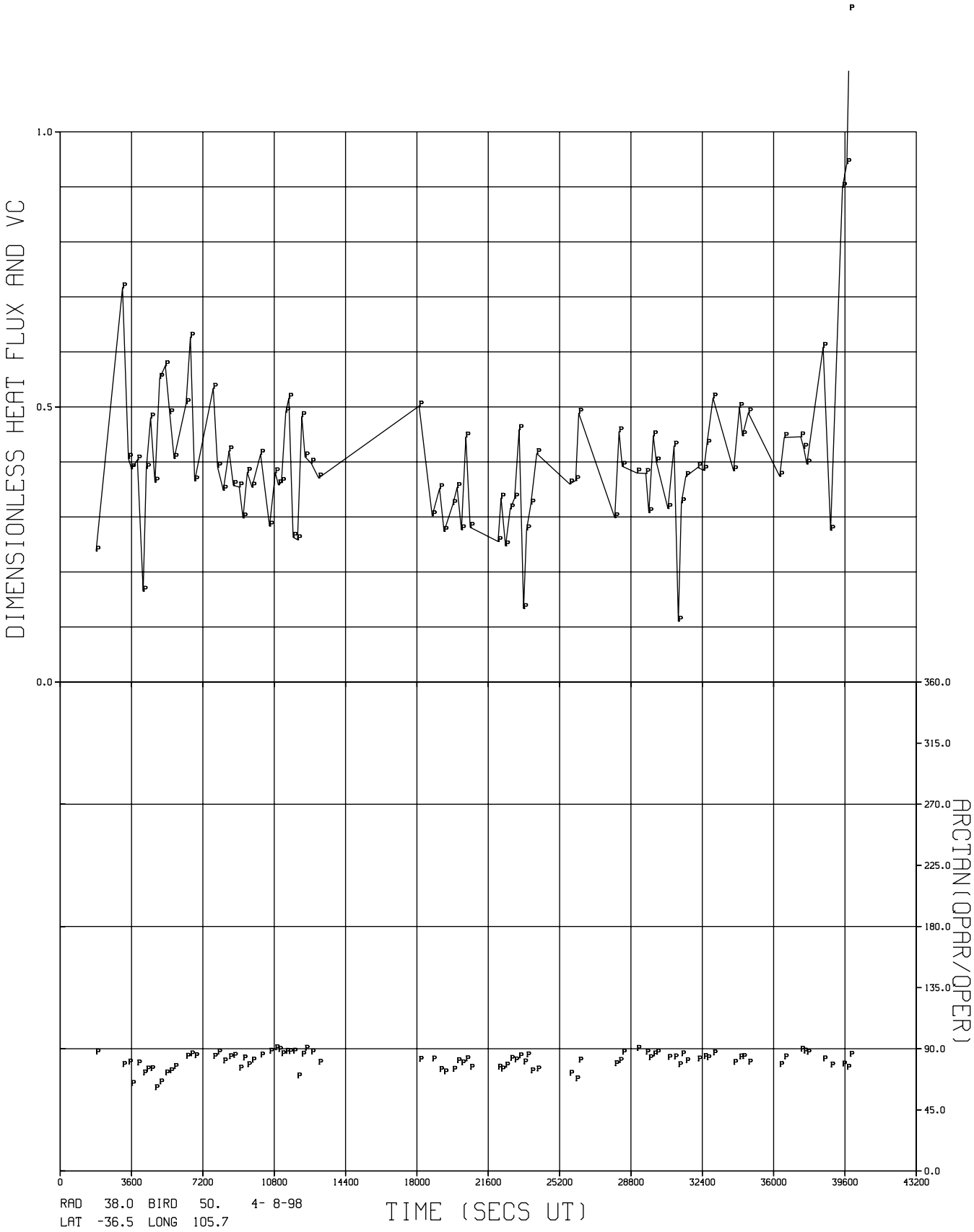

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 38.0 BIRD 50. 4- 8-98
LAT -36.5 LONG 105.7

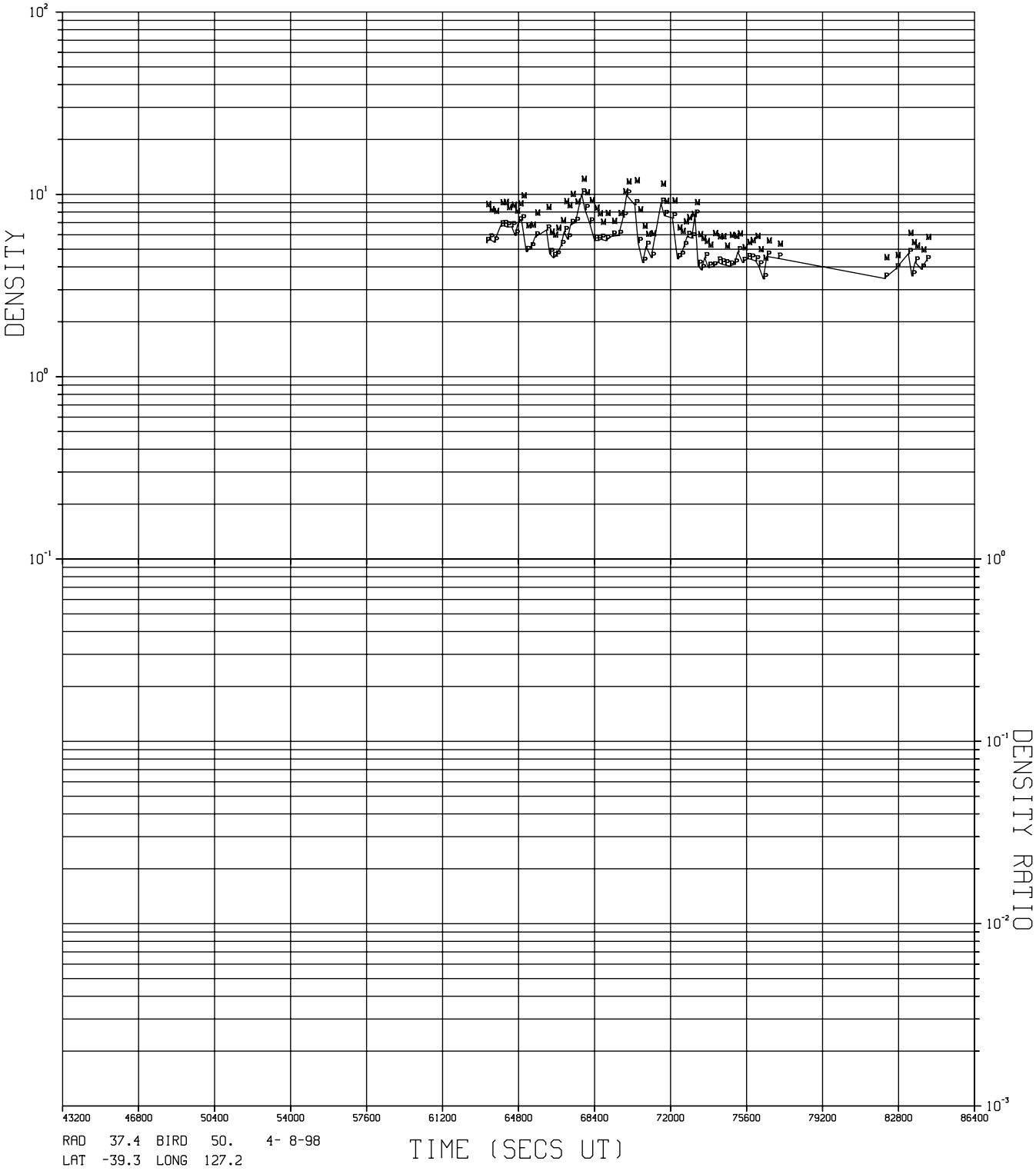

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 38.0 BIRD 50. 4- 8-98
LAT -36.5 LONG 105.7

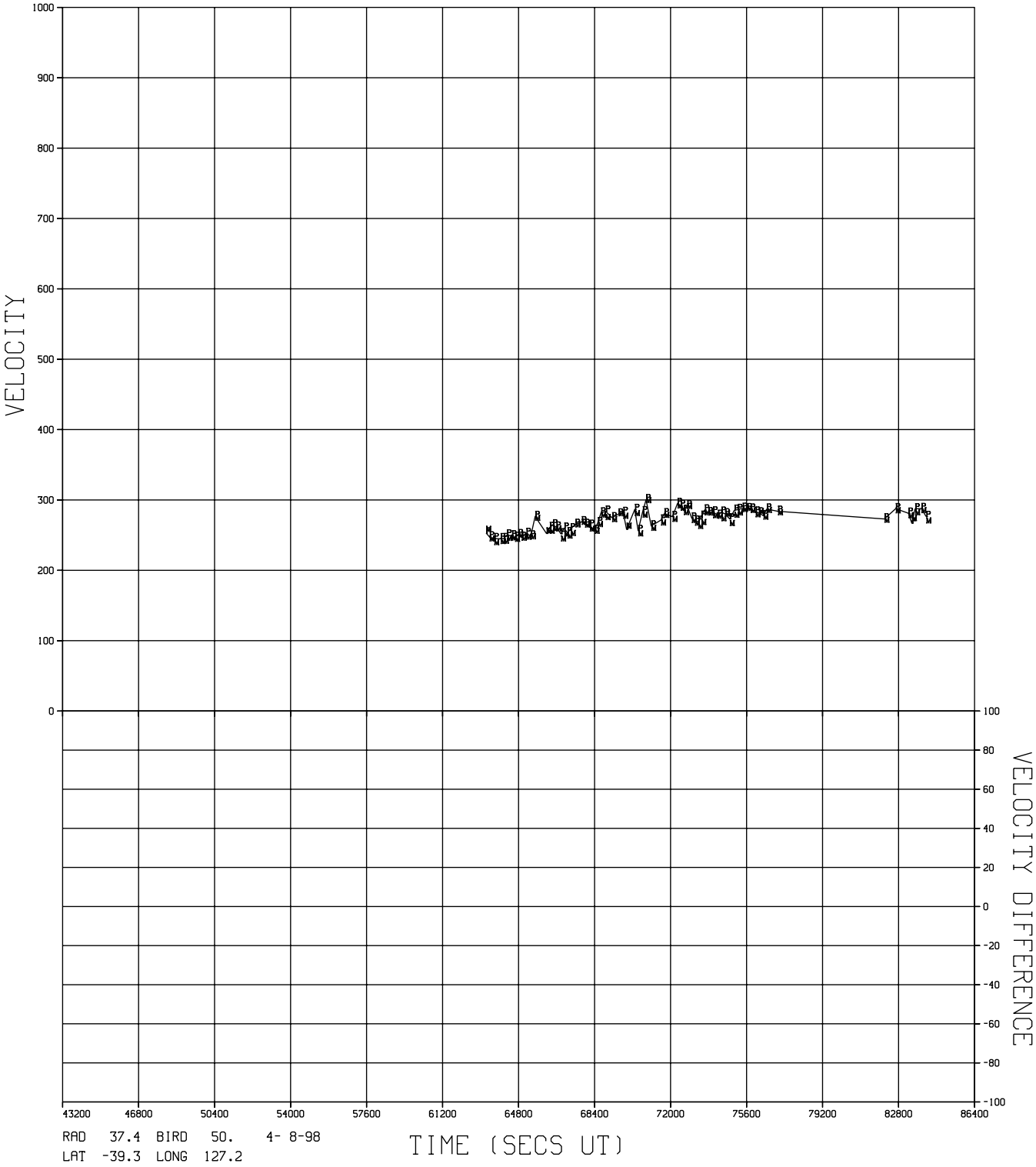

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 38.0 BIRD 50. 4- 8-98
LAT -36.5 LONG 105.7

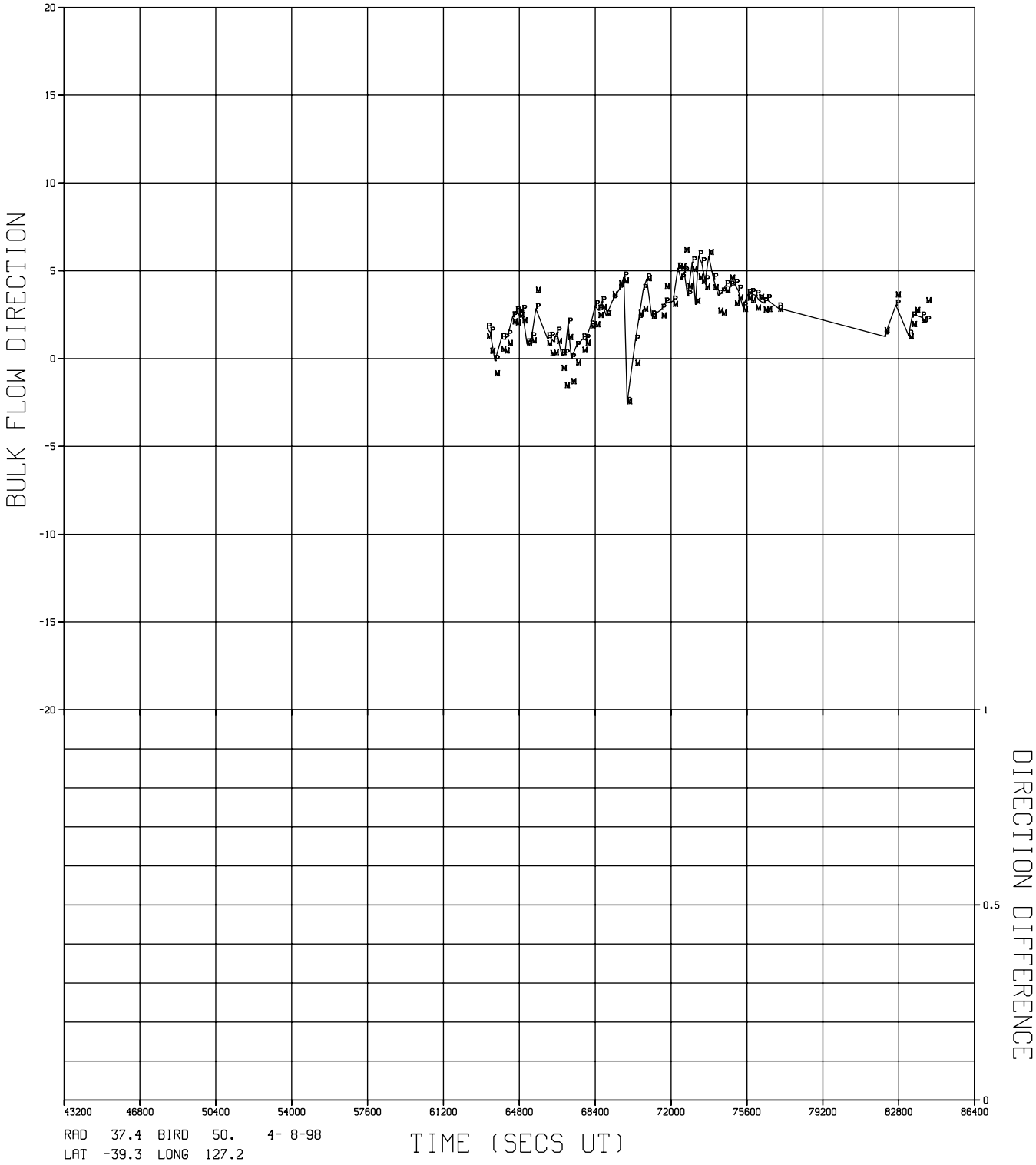

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 38.0 BIRD 50. 4- 8-98
LAT -36.5 LONG 105.7

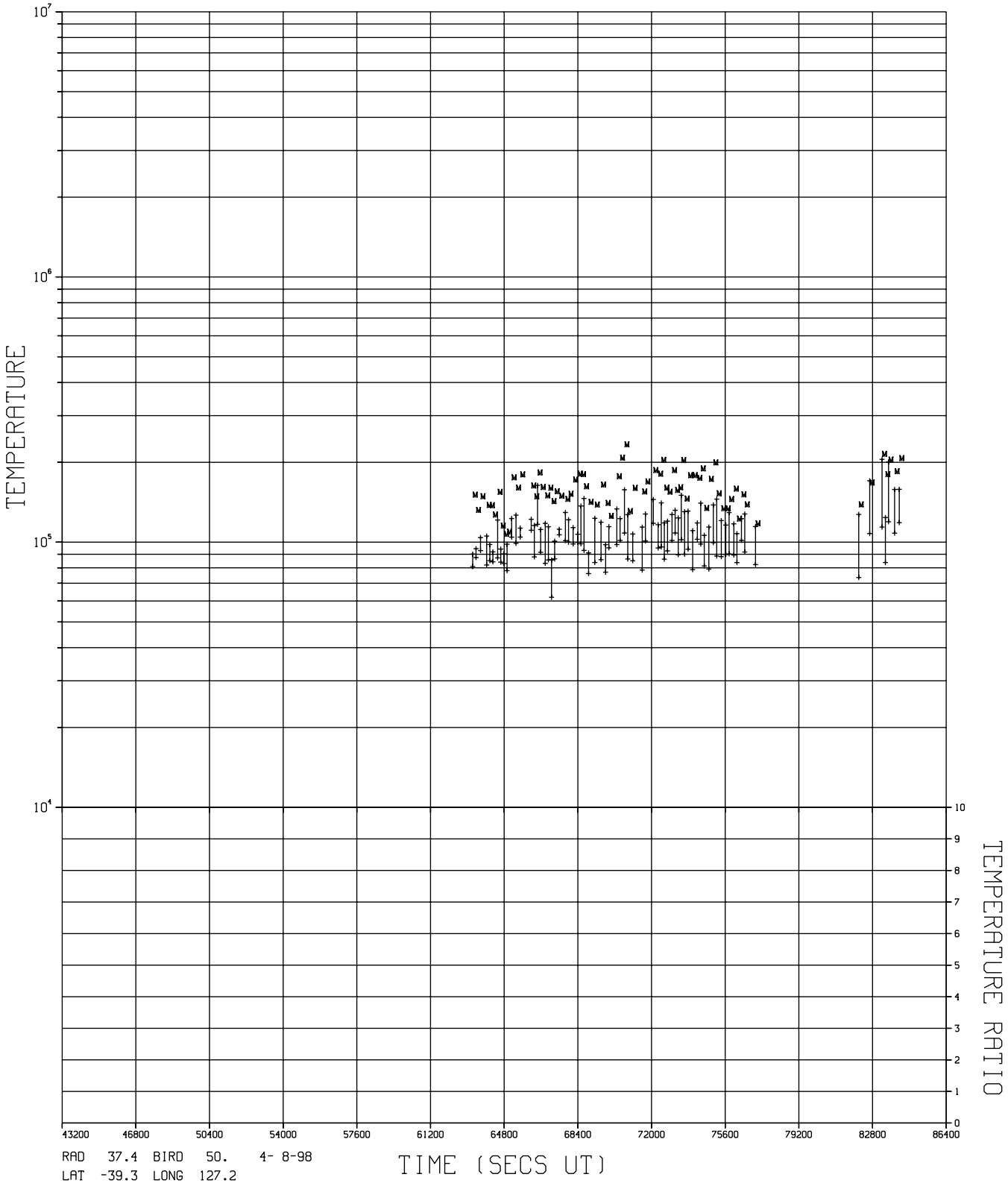

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 38.0 BIRD 50. 4- 8-98
LAT -36.5 LONG 105.7

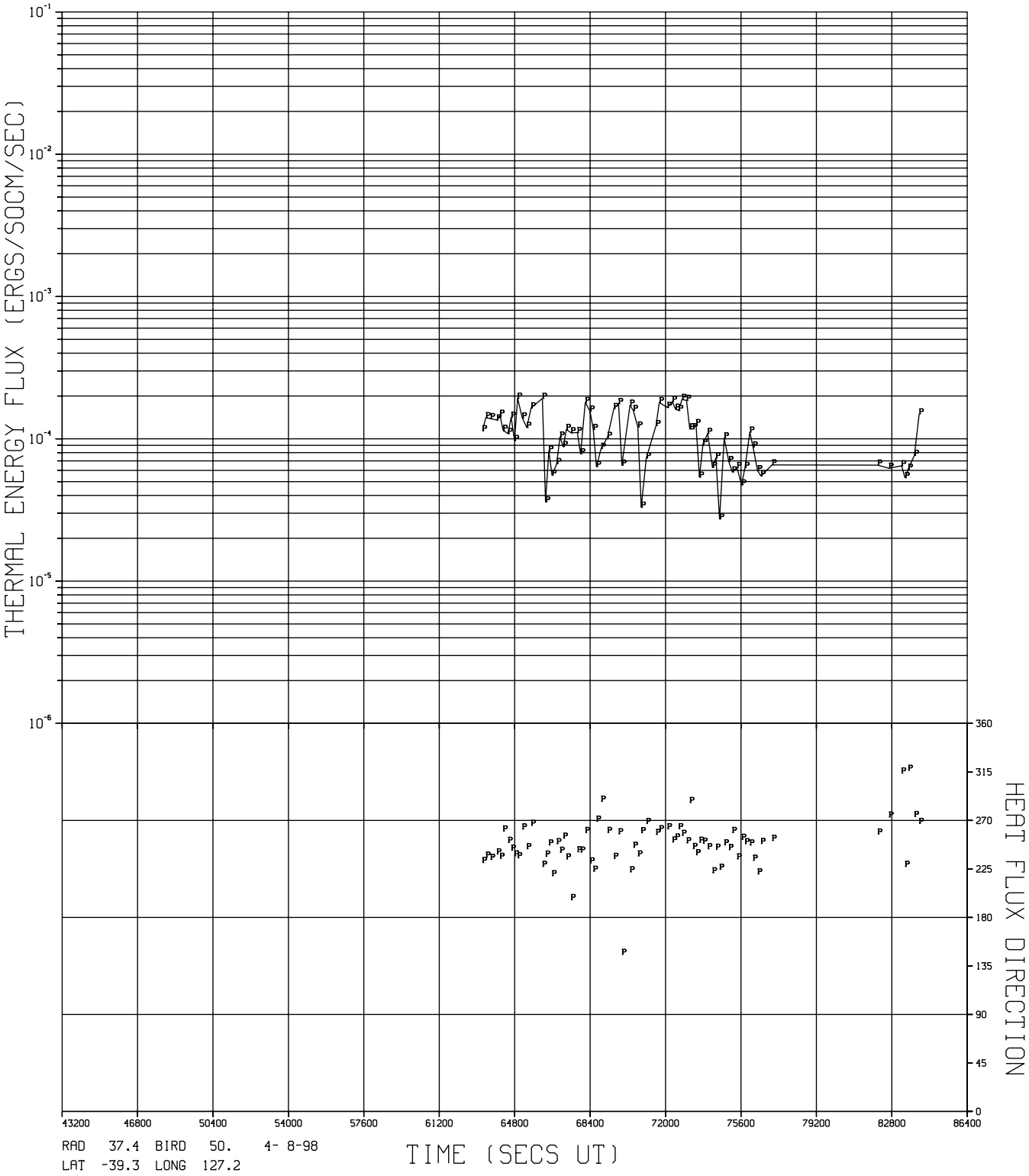

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 38.0 BIRD 50. 4- 8-98
LAT -36.5 LONG 105.7

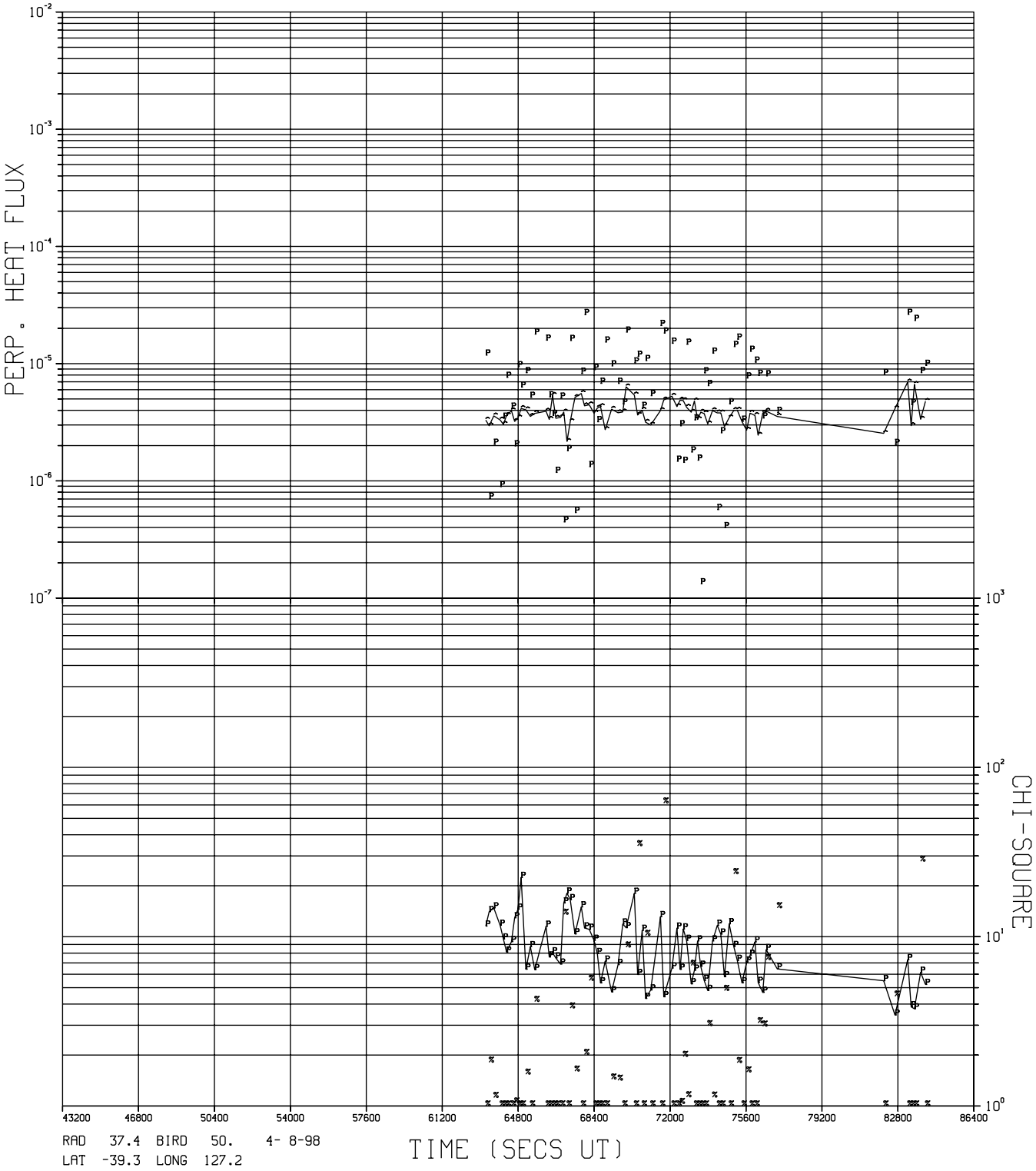

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.4 BIRD 50. 4- 8-98
LAT -39.3 LONG 127.2

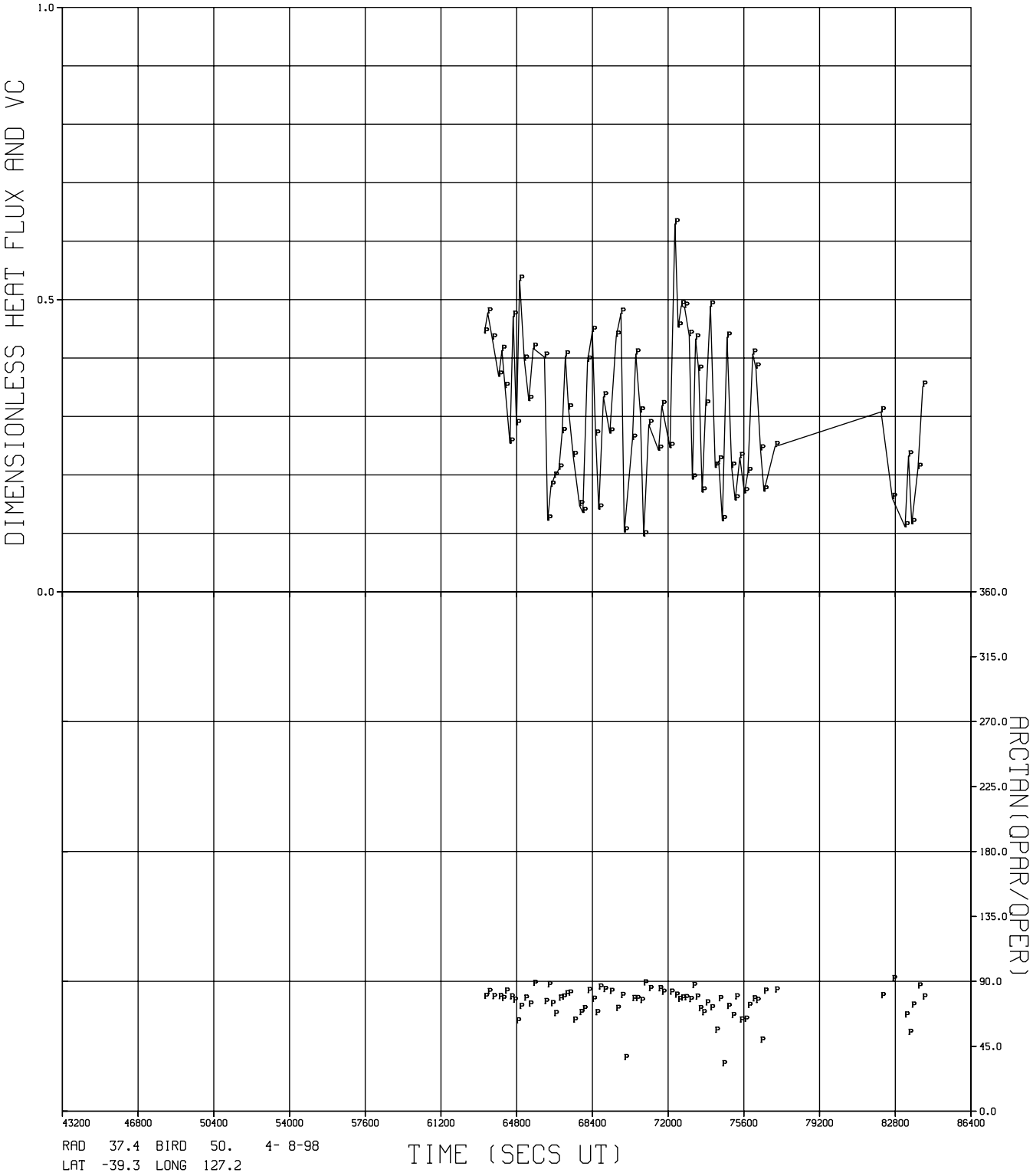

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 37.4 BIRD 50. 4- 8-98
LAT -39.3 LONG 127.2

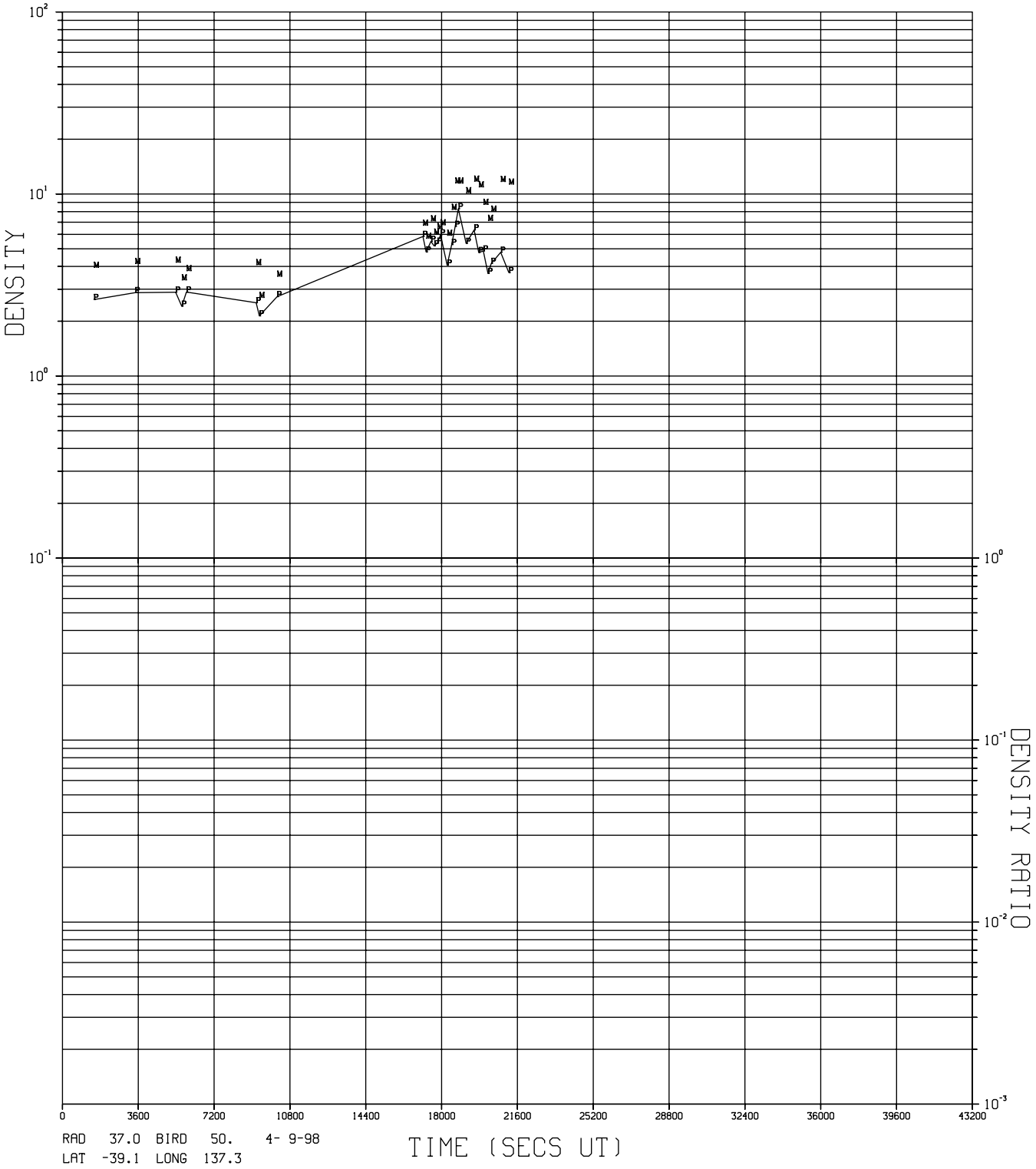

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.4 BIRD 50. 4- 8-98
LAT -39.3 LONG 127.2

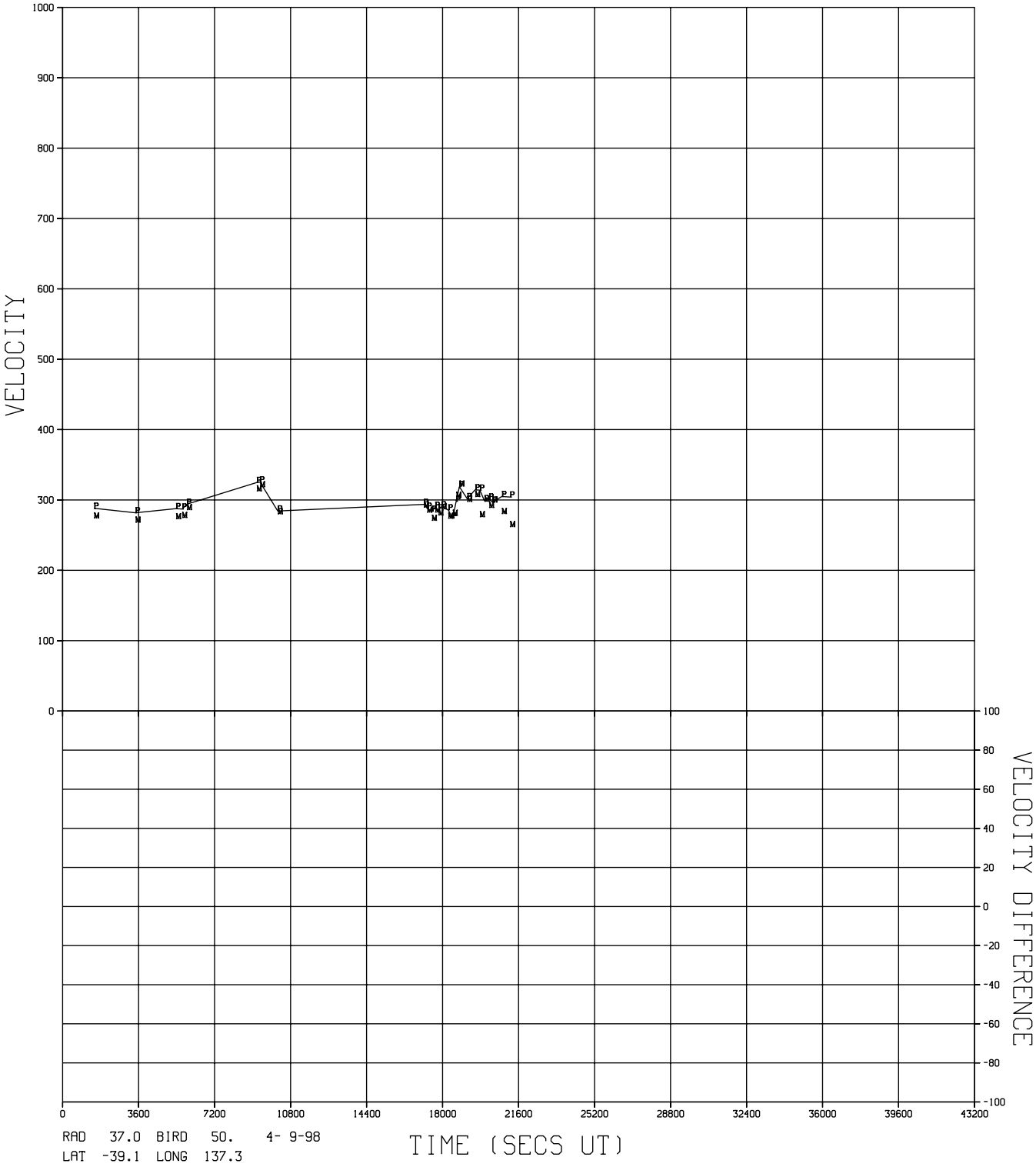

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
10^7
10^6
10^5
10^4
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
0
1
2
3
4
5
6
7
8
9
10
RAD 37.4 BIRD 50. 4- 8-98
LAT -39.3 LONG 127.2

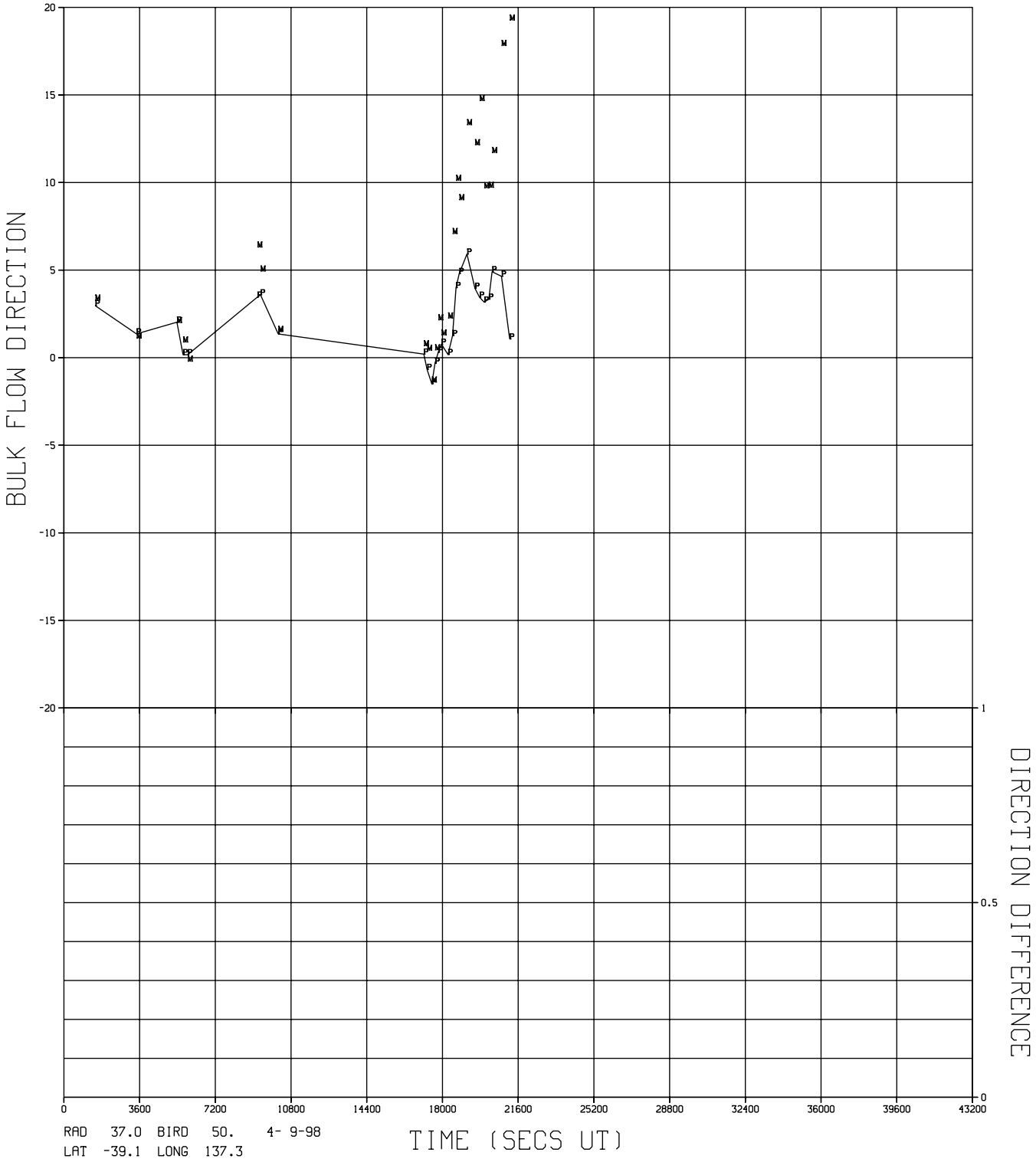

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.4 BIRD 50. 4- 8-98
LAT -39.3 LONG 127.2

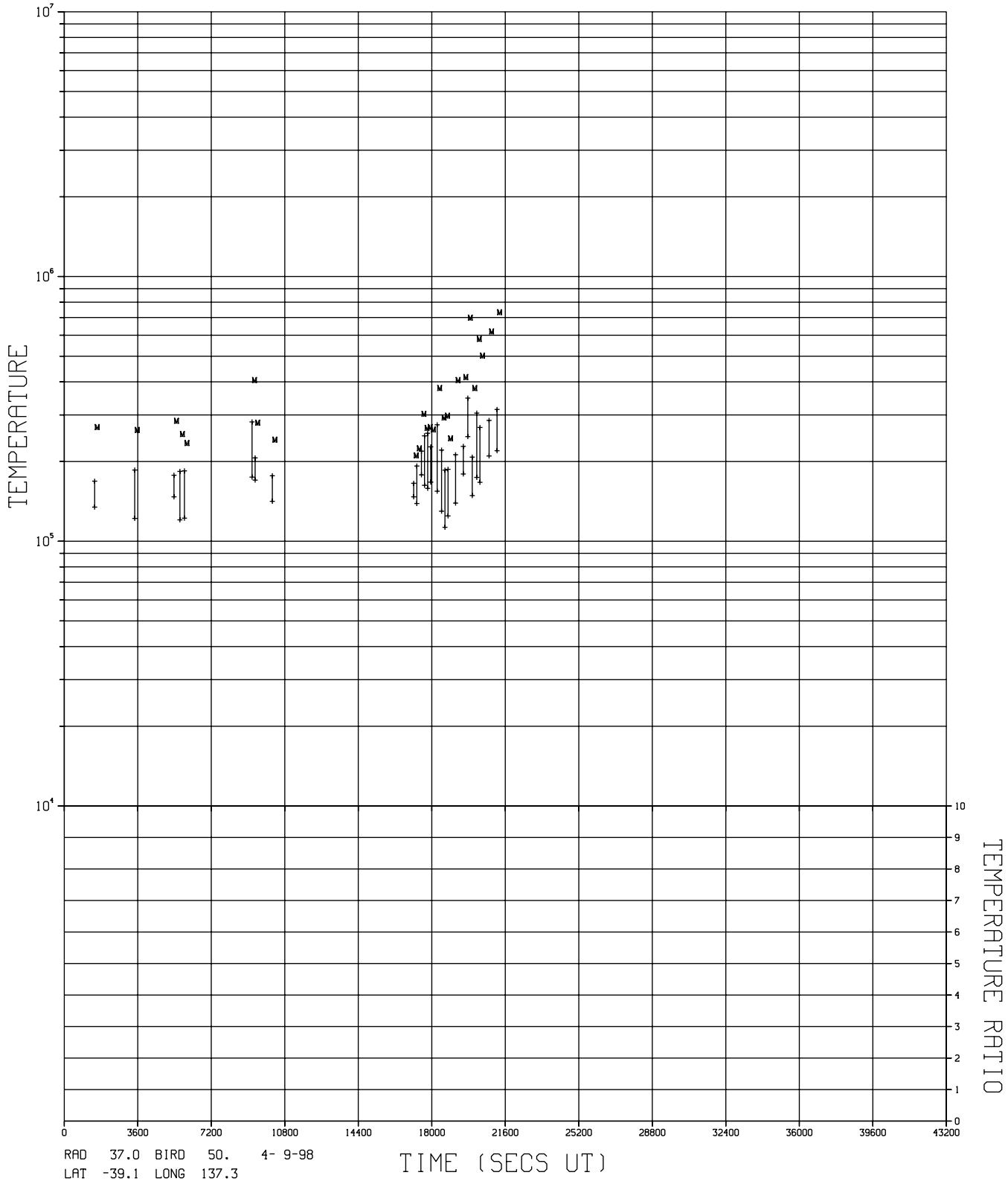

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.4 BIRD 50. 4- 8-98
LAT -39.3 LONG 127.2

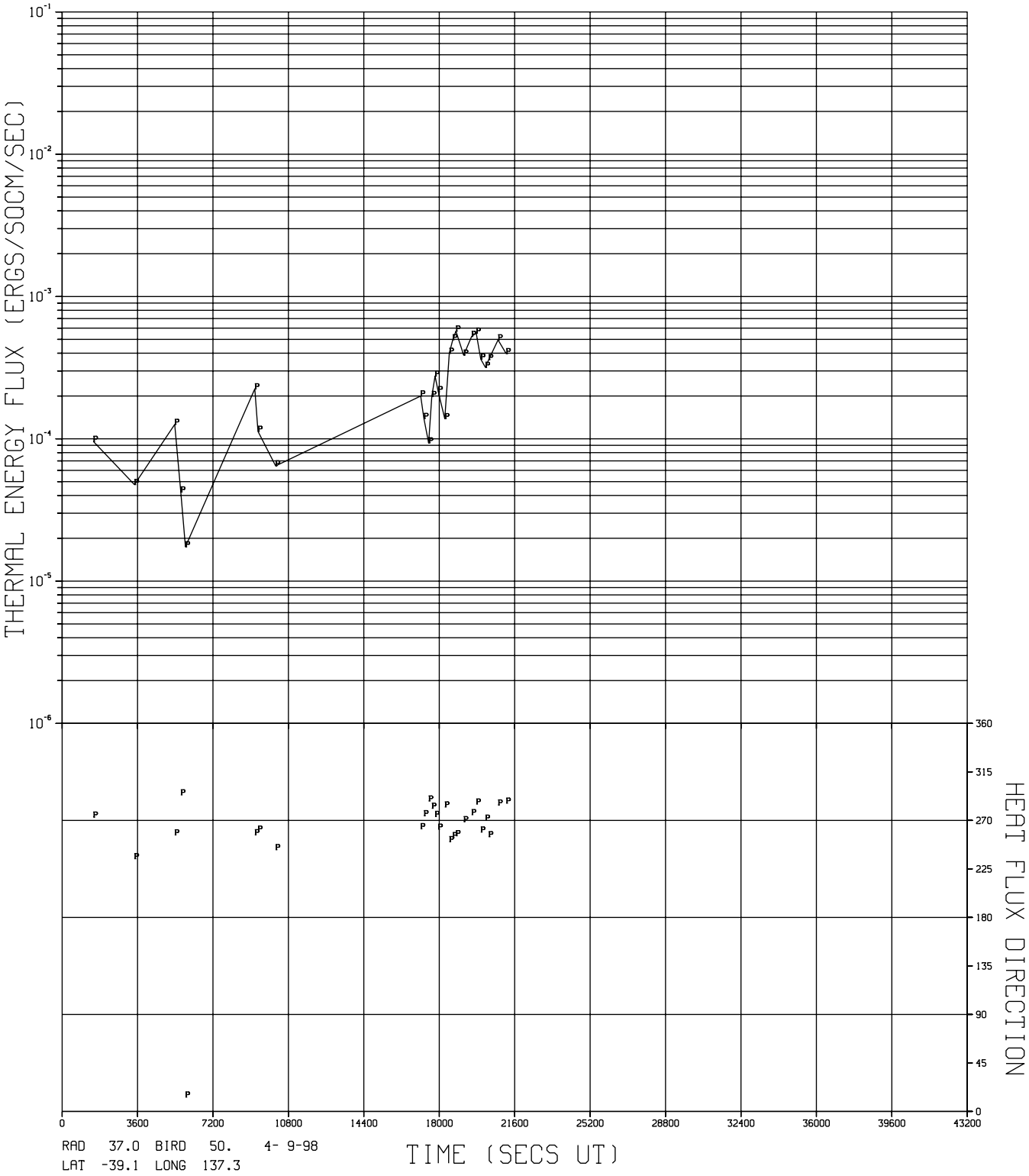

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 37.4 BIRD 50. 4- 8-98
LAT -39.3 LONG 127.2

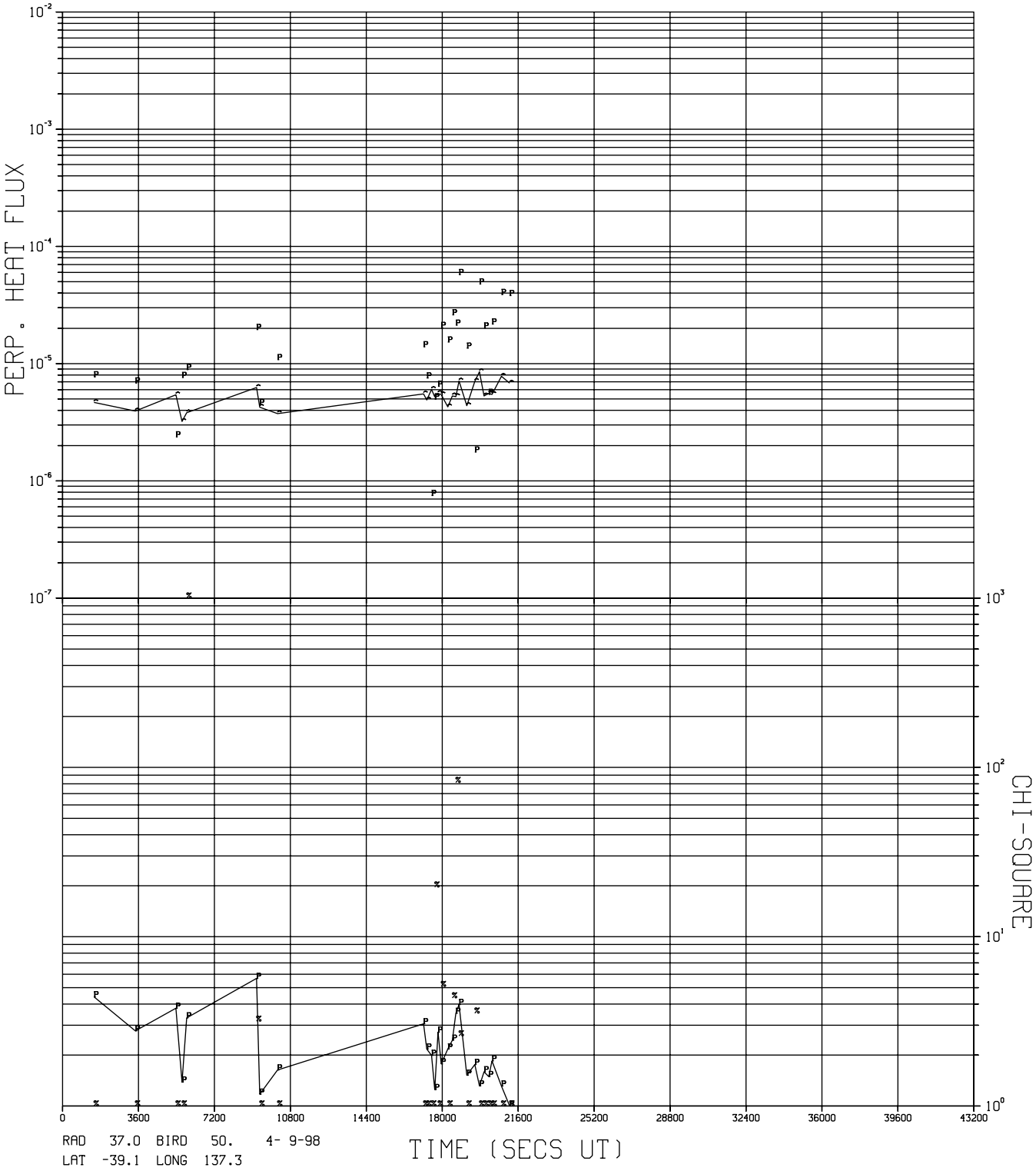

DENSITY
DENSITY RATIO
TIME (SECS UT)
10^2
10^1
10^0
10^{-1}
10^{-2}
10^{-3}
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.0 BIRD 50. 4- 9-98
LAT -39.1 LONG 137.3

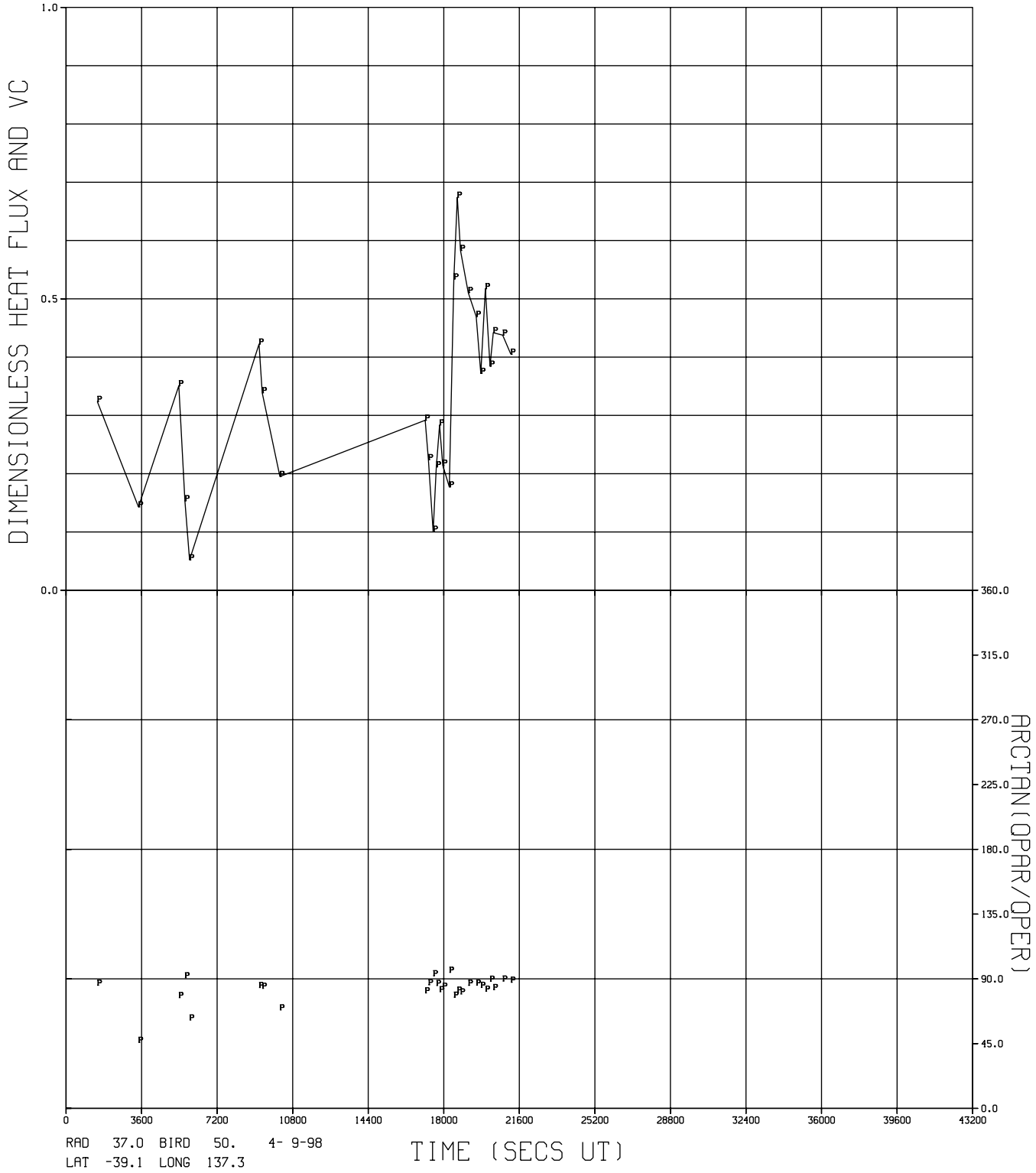

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
1000
900
800
700
600
500
400
300
200
100
0
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.0 BIRD 50. 4- 9-98
LAT -39.1 LONG 137.3


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 37.0 BIRD 50. 4- 9-98
LAT -39.1 LONG 137.3


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 37.0 BIRD 50. 4- 9-98
LAT -39.1 LONG 137.3


THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.0 BIRD 50. 4- 9-98
LAT -39.1 LONG 137.3


PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 37.0 BIRD 50. 4- 9-98
LAT -39.1 LONG 137.3


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 37.0 BIRD 50. 4- 9-98
LAT -39.1 LONG 137.3