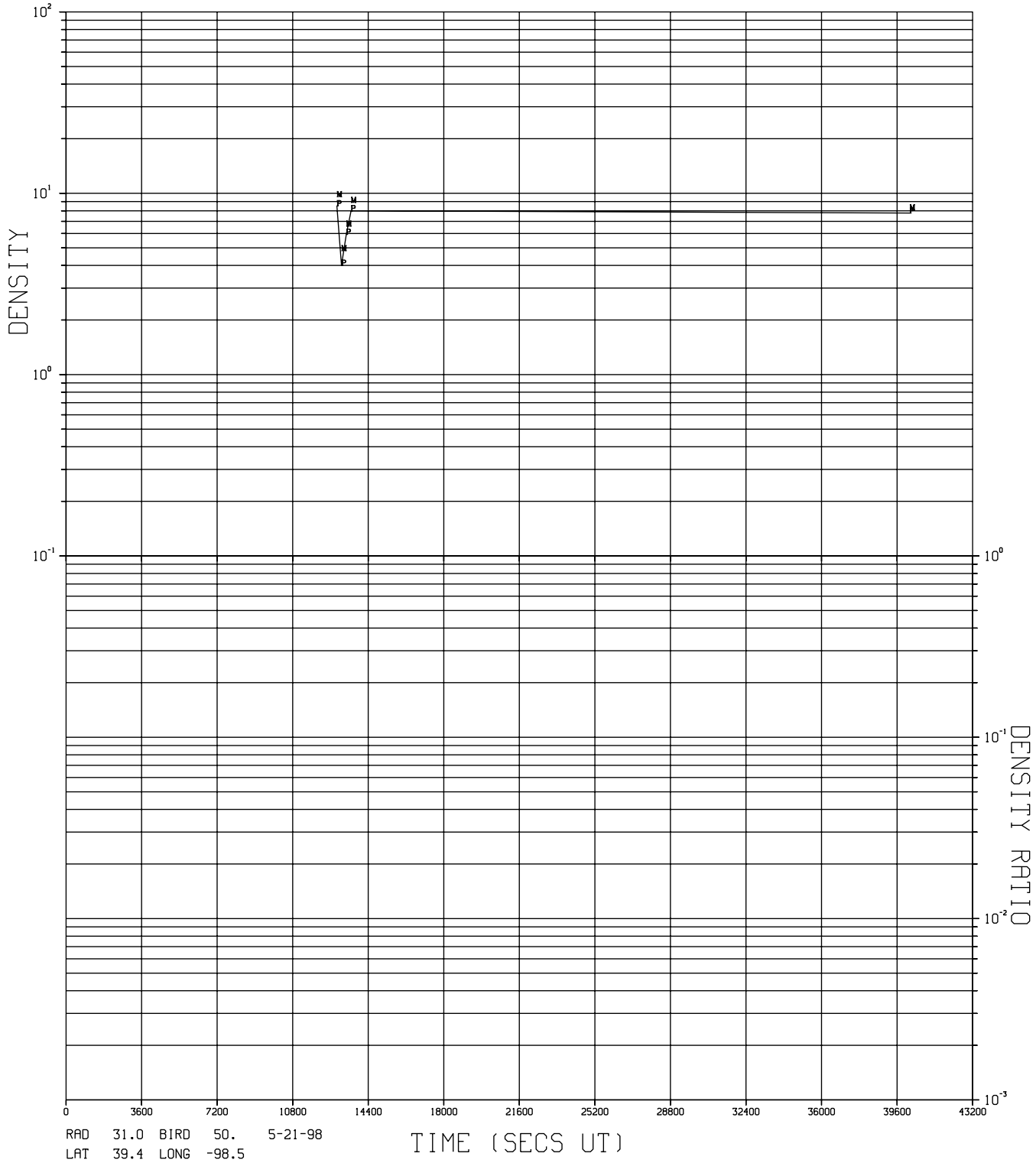
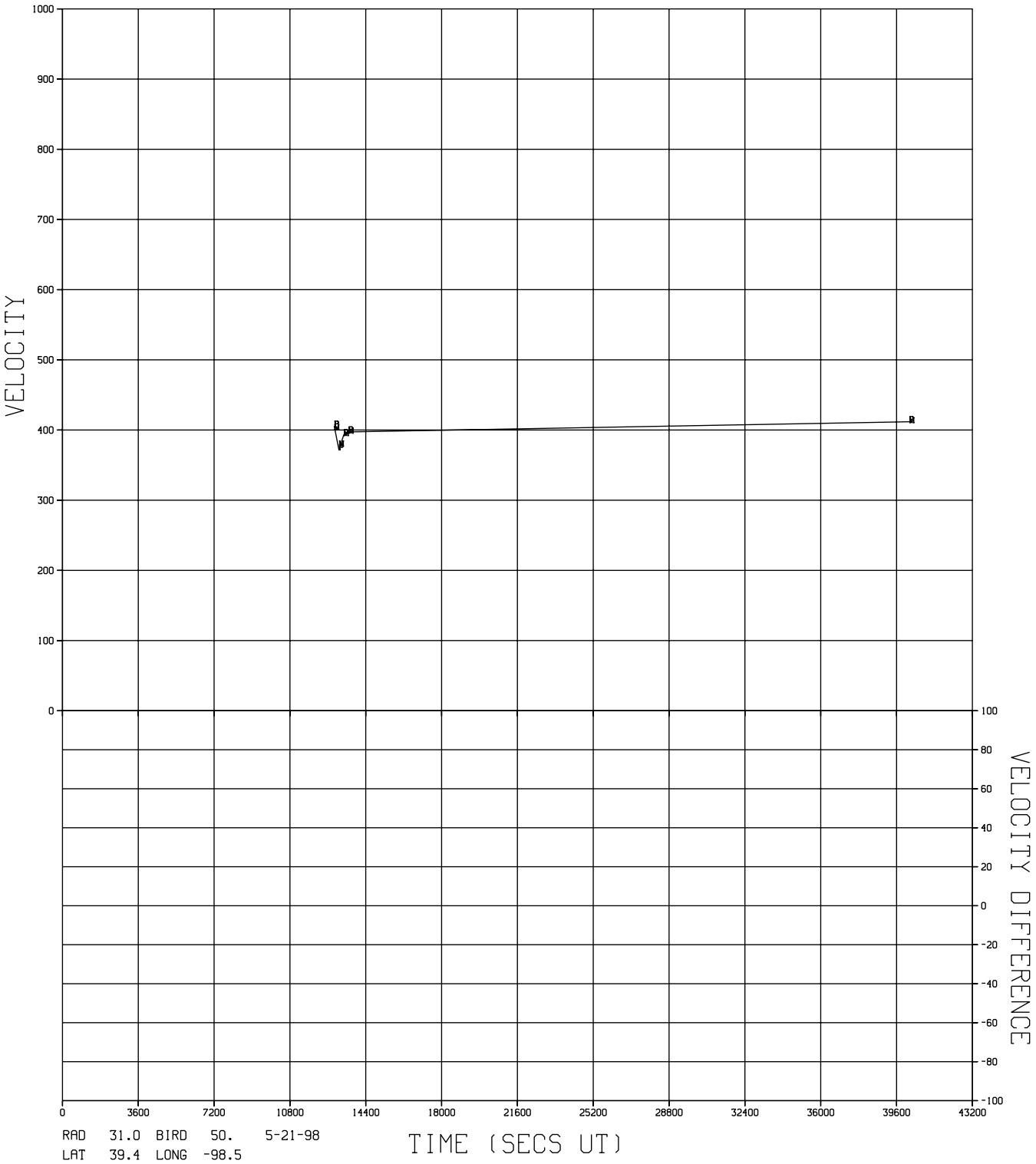
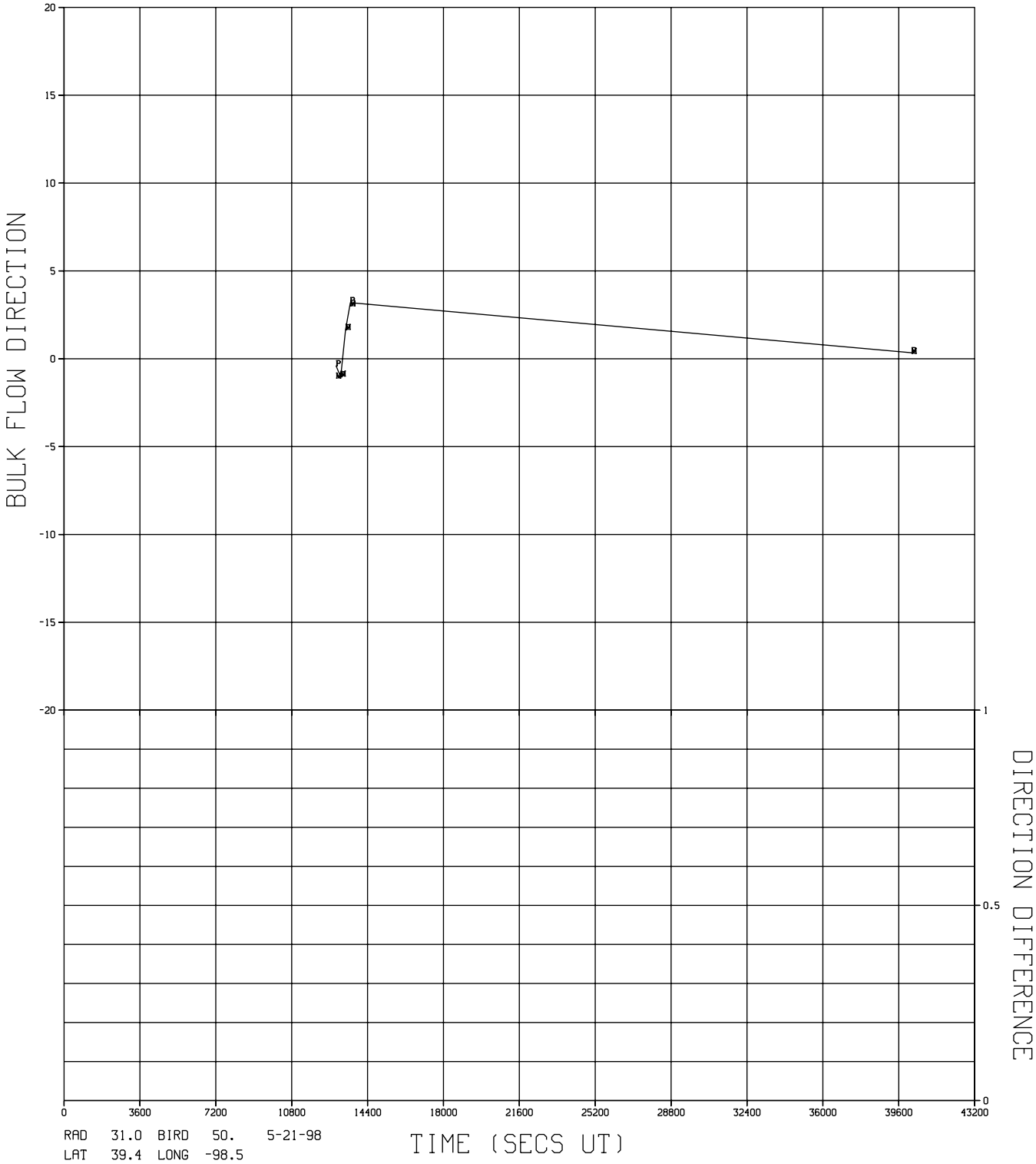
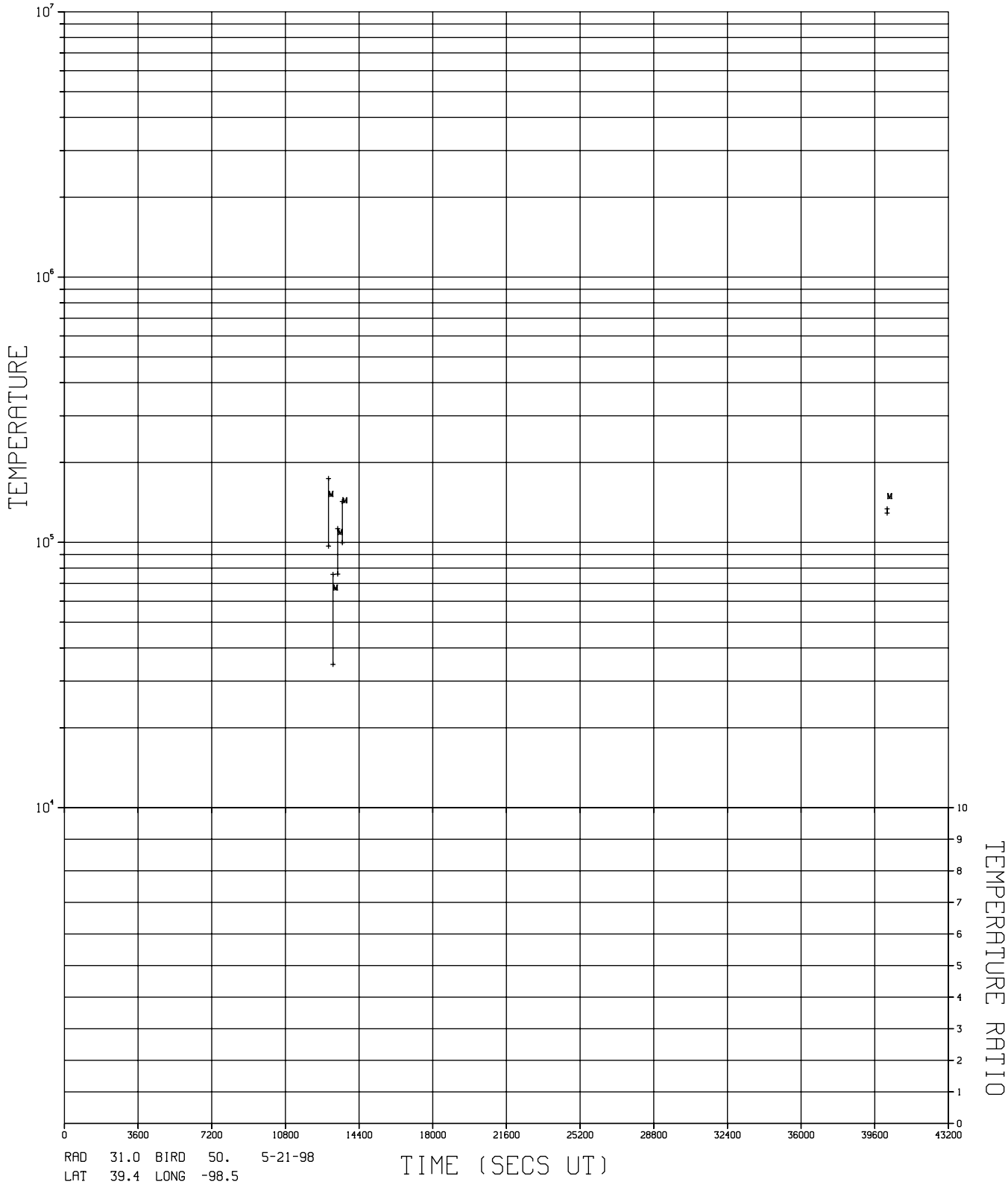
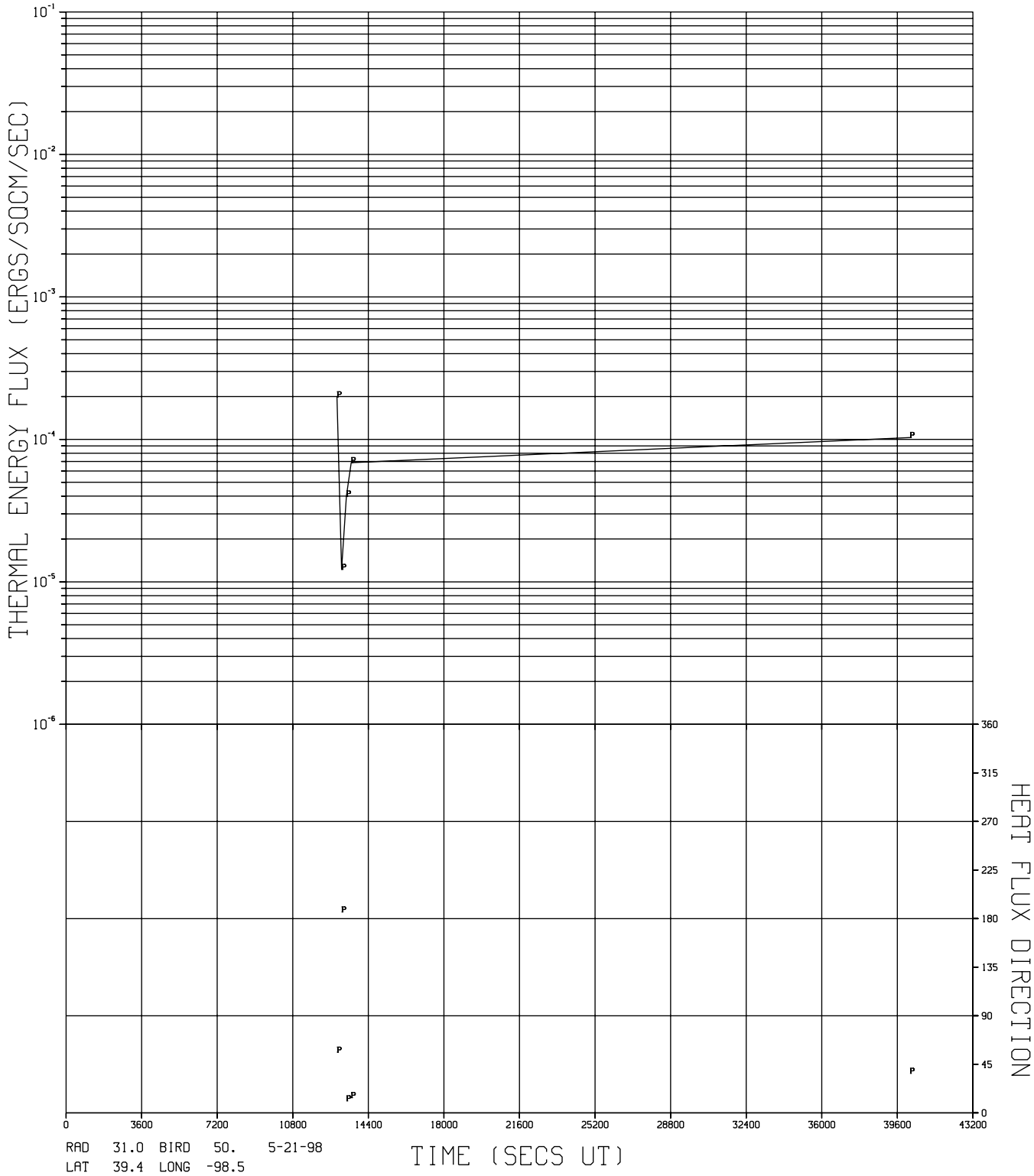
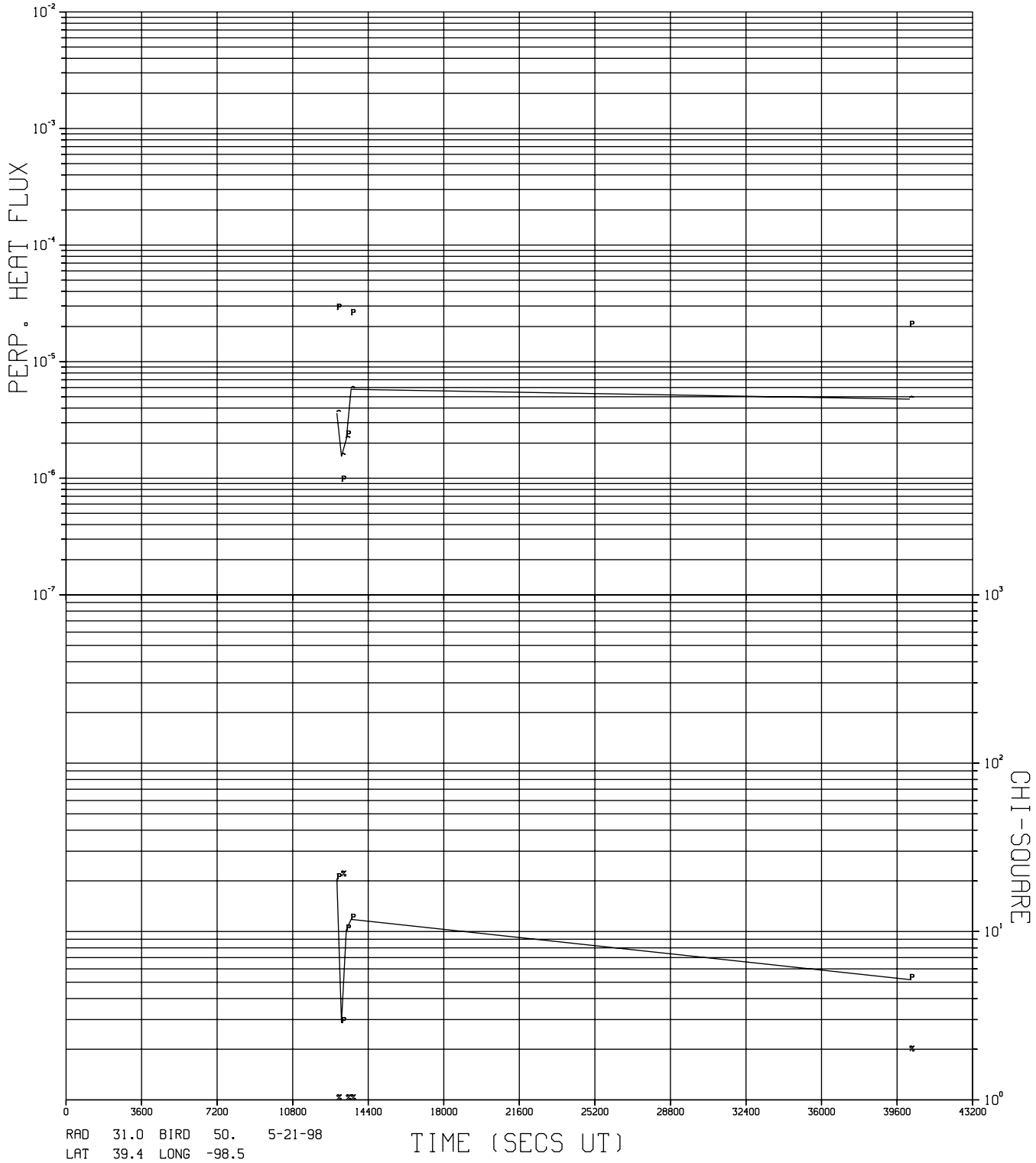

DENSITY
10^{2}
10^{1}
10^{0}
10^{-1}
DENSITY RATIO
10^{0}
10^{-1}
10^{-2}
10^{-3}
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 31.0 BIRD 50. 5-21-98
LAT 39.4 LONG -98.5

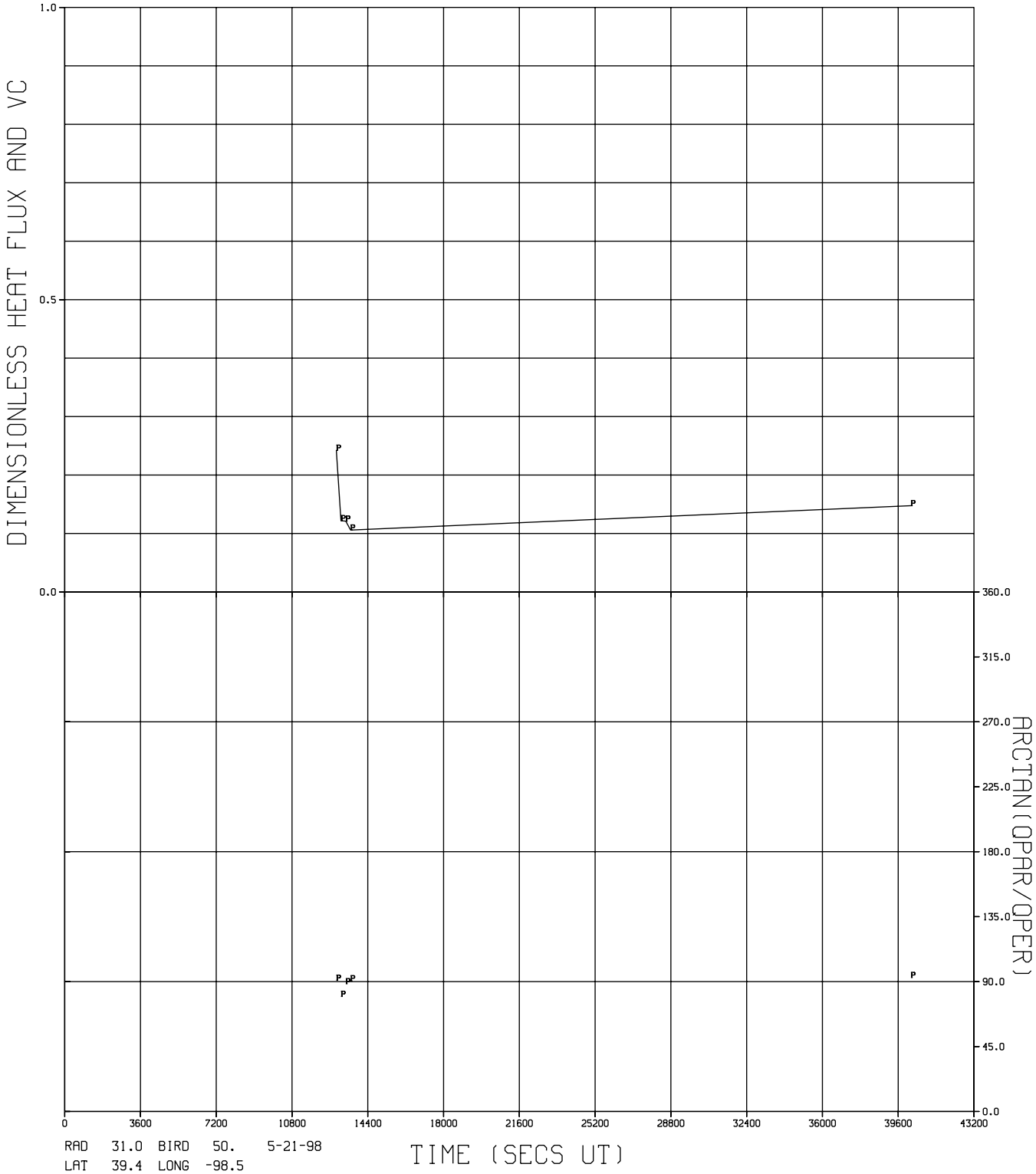

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 31.0 BIRD 50. 5-21-98
LAT 39.4 LONG -98.5

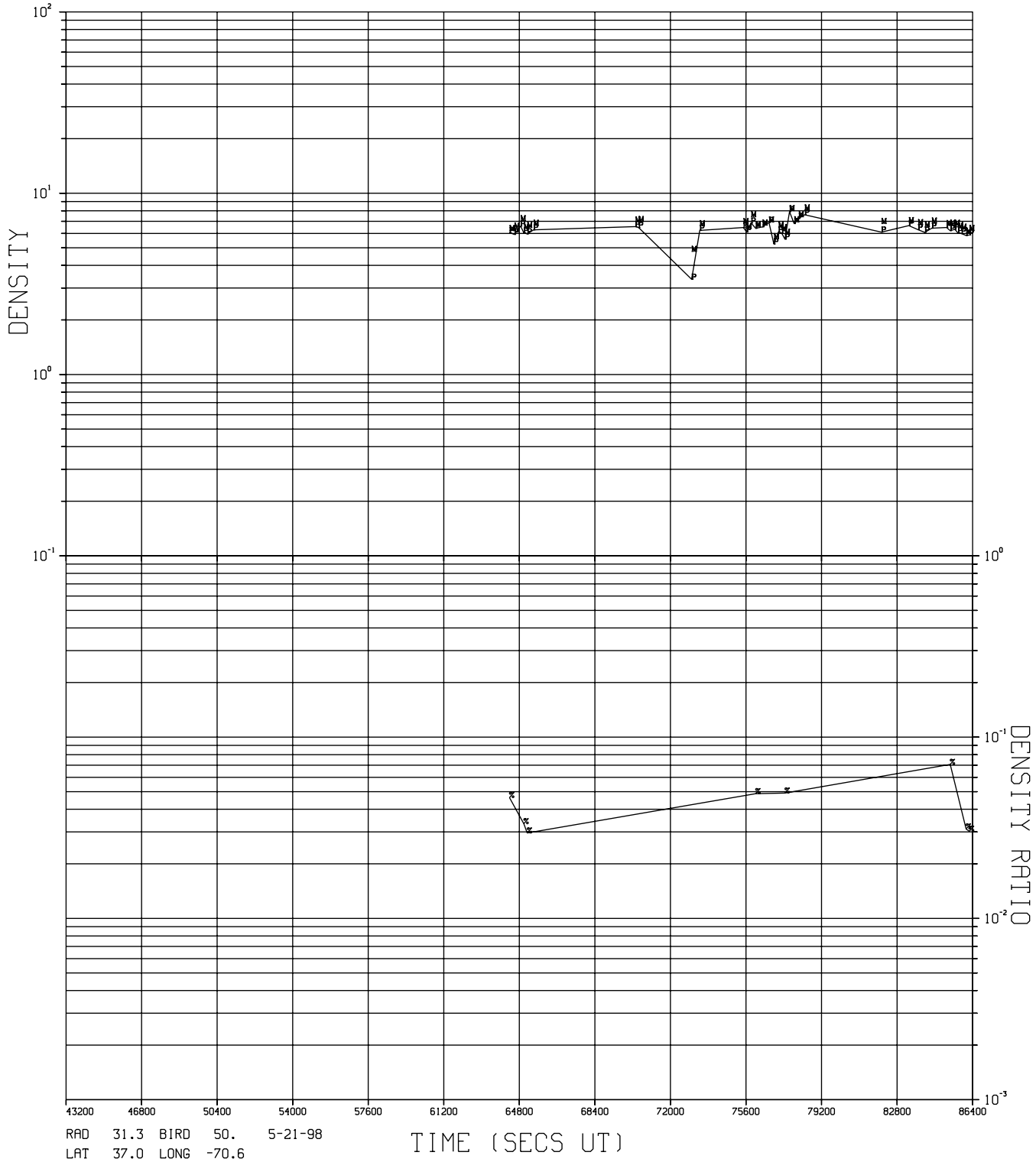

BULK FLOW DIRECTION
20
15
10
5
0
-5
-10
-15
-20
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
DIRECTION DIFFERENCE
1
0.5
0
RAD 31.0 BIRD 50. 5-21-98
LAT 39.4 LONG -98.5

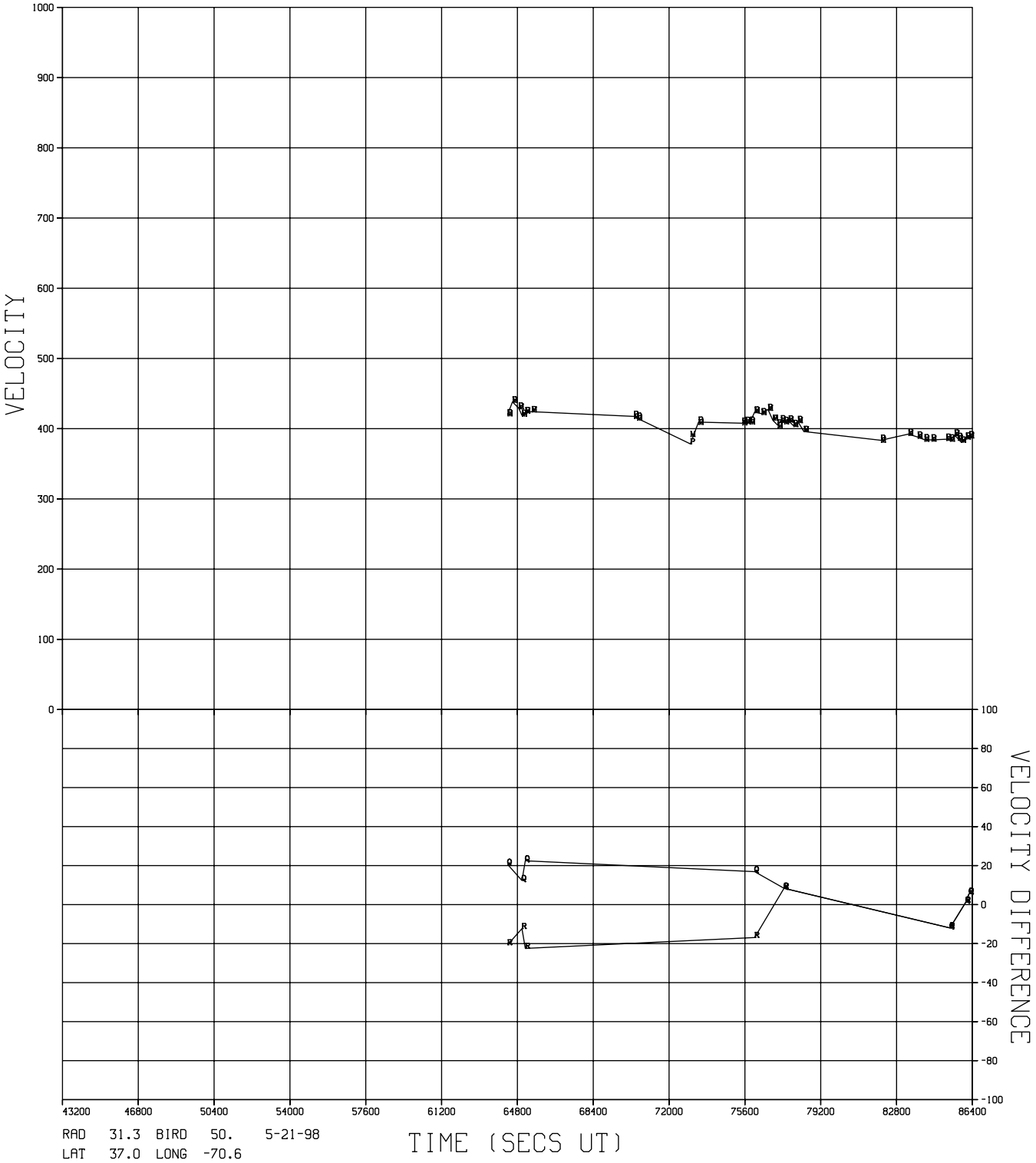

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
10
9
8
7
6
5
4
3
2
1
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 31.0 BIRD 50. 5-21-98
LAT 39.4 LONG -98.5

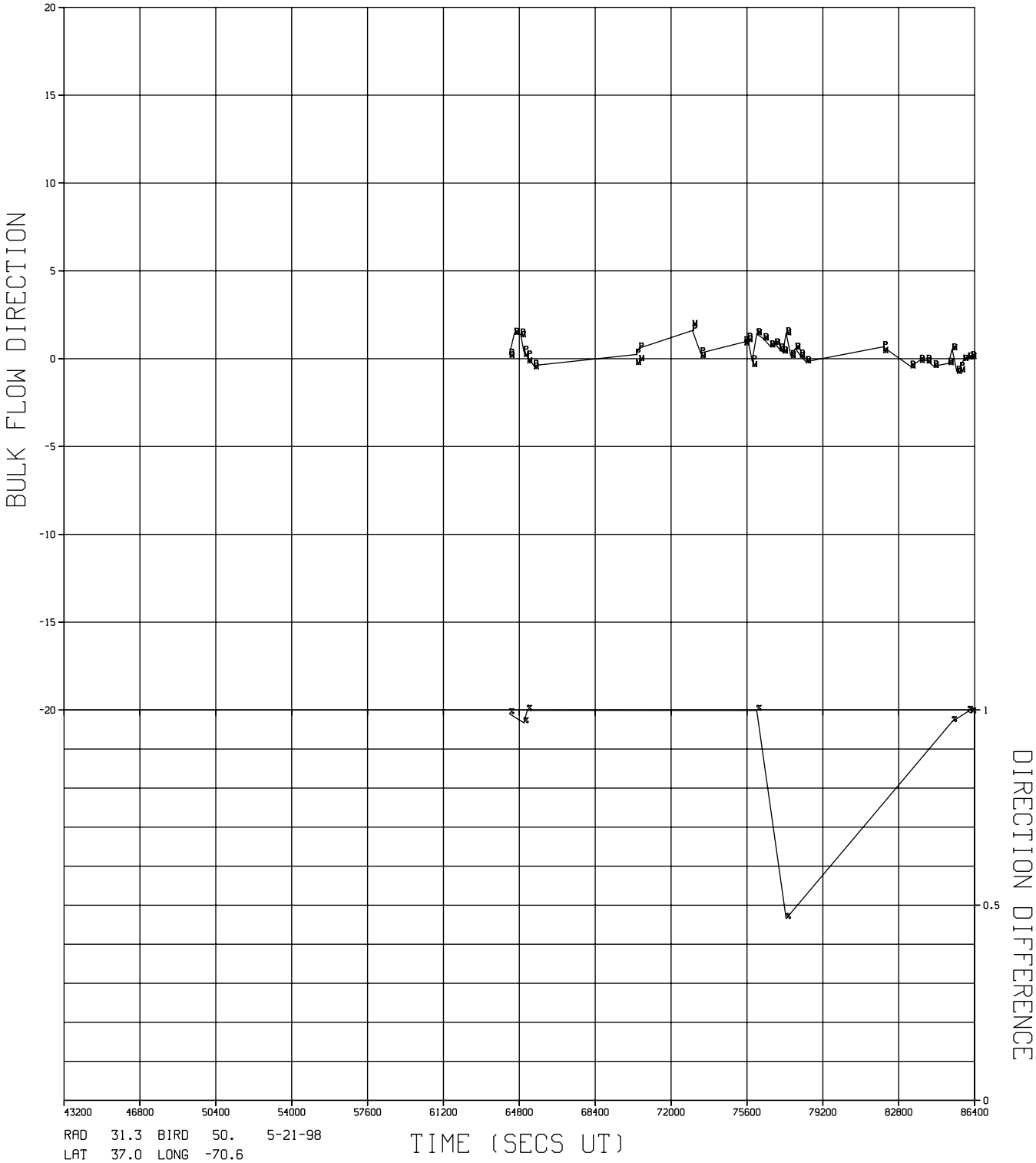

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
HEAT FLUX DIRECTION
360
315
270
225
180
135
90
45
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 31.0 BIRD 50. 5-21-98
LAT 39.4 LONG -98.5

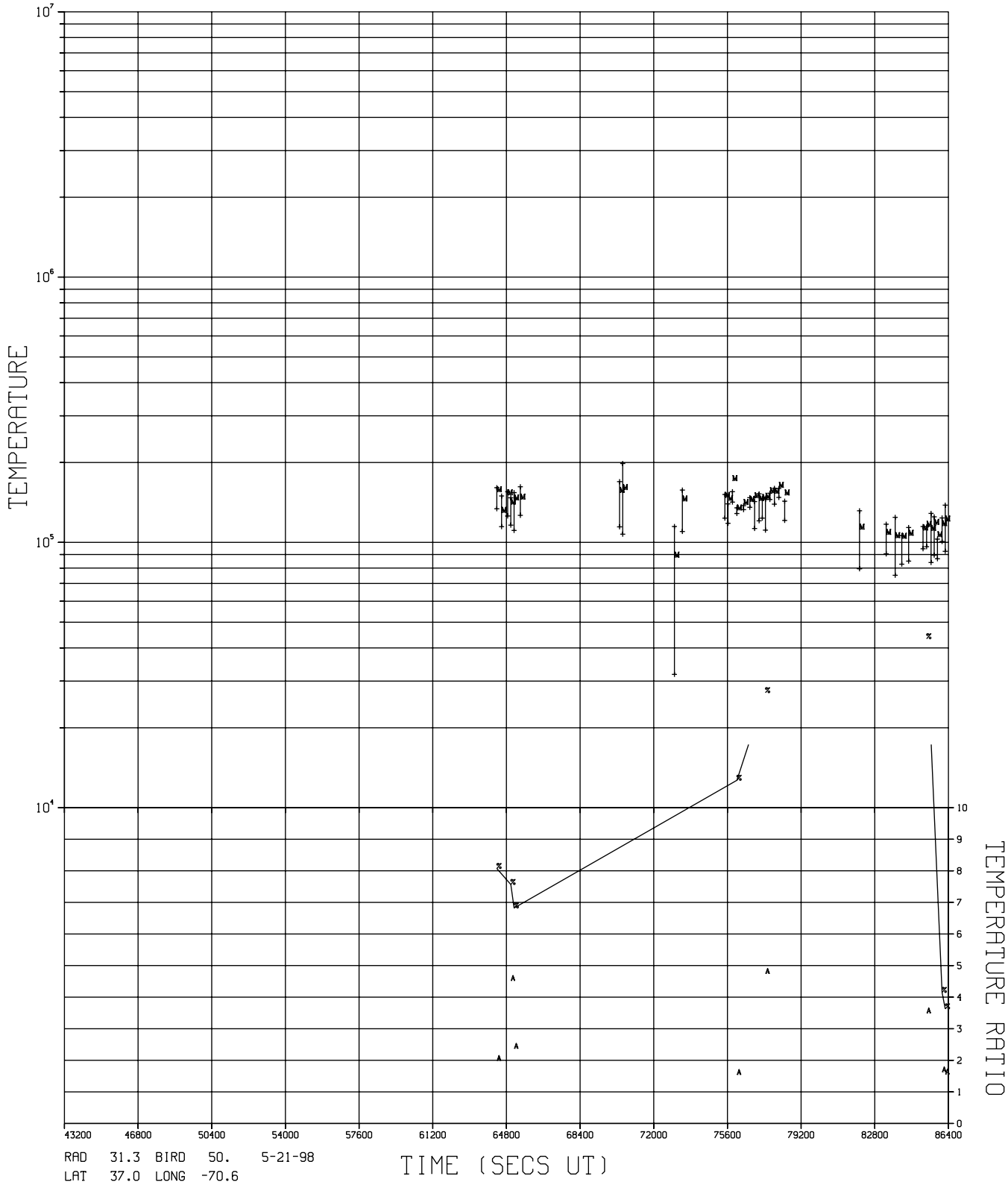

PERP. HEAT FLUX
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
CHI-SQUARE
10^{3}
10^{2}
10^{1}
10^{0}
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 31.0 BIRD 50. 5-21-98
LAT 39.4 LONG -98.5

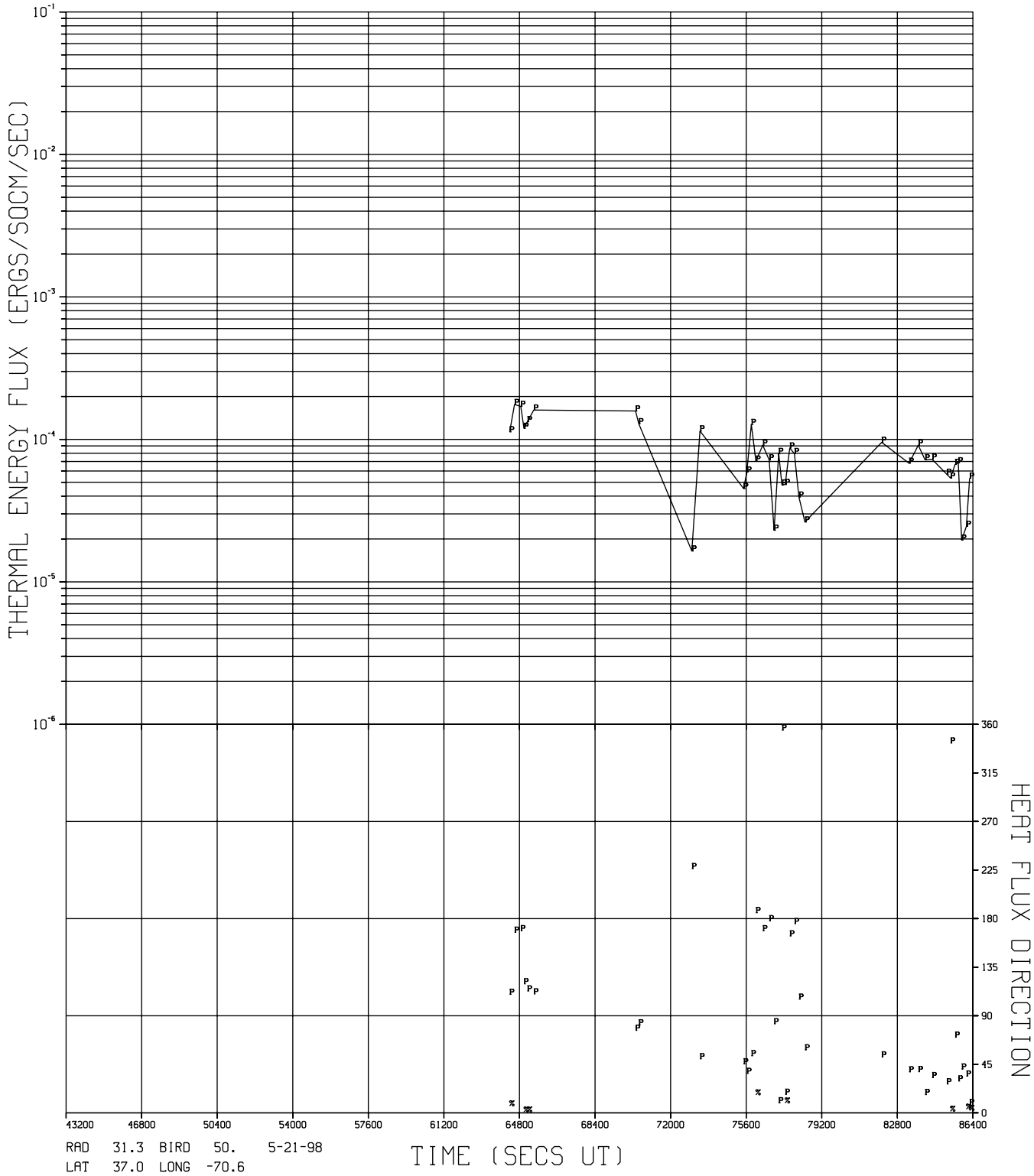

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 31.0 BIRD 50. 5-21-98
LAT 39.4 LONG -98.5

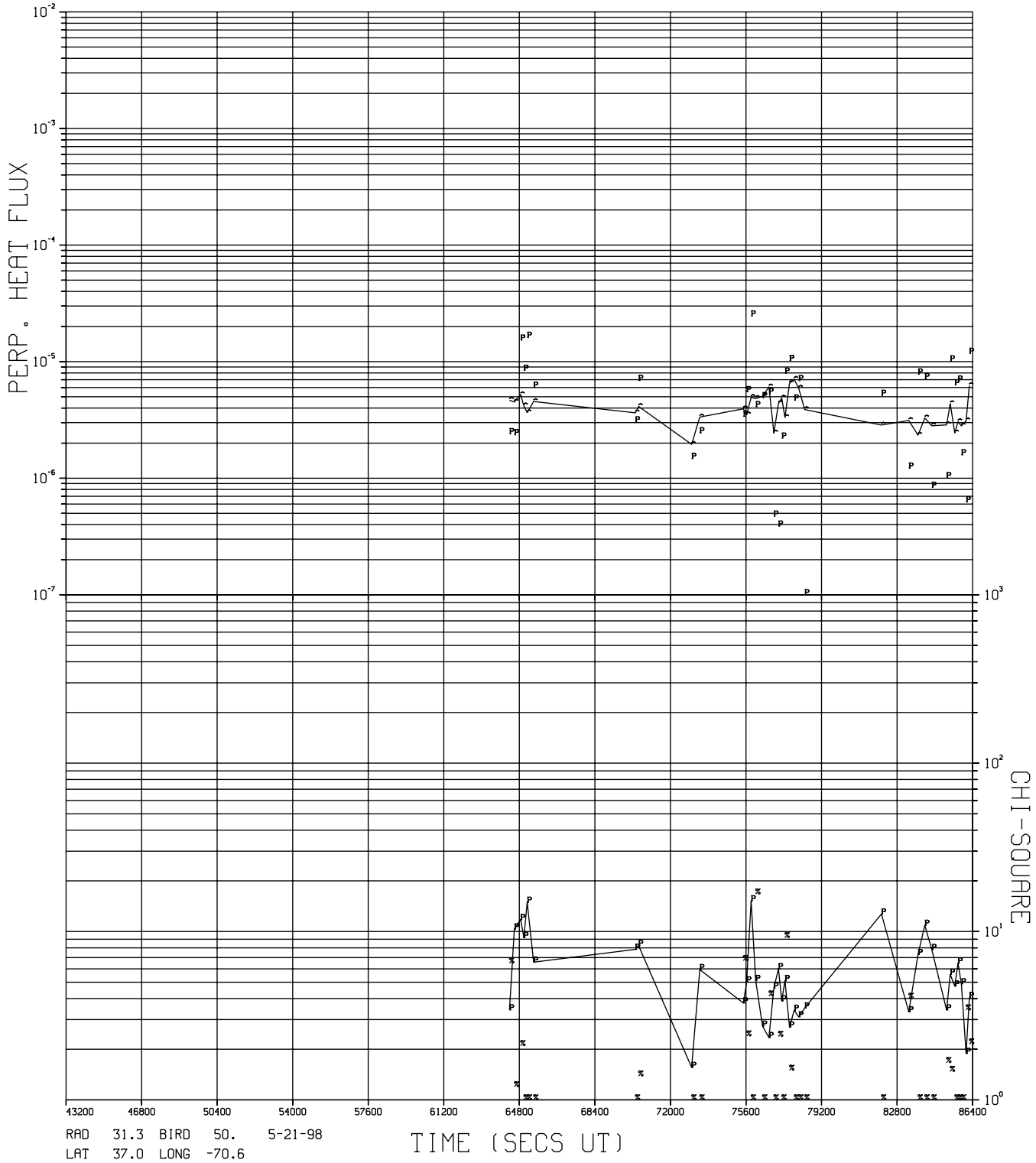

DENSITY
10^{2}
10^{1}
10^{0}
10^{-1}
DENSITY RATIO
10^{0}
10^{-1}
10^{-2}
10^{-3}
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 31.3 BIRD 50. 5-21-98
LAT 37.0 LONG -70.6

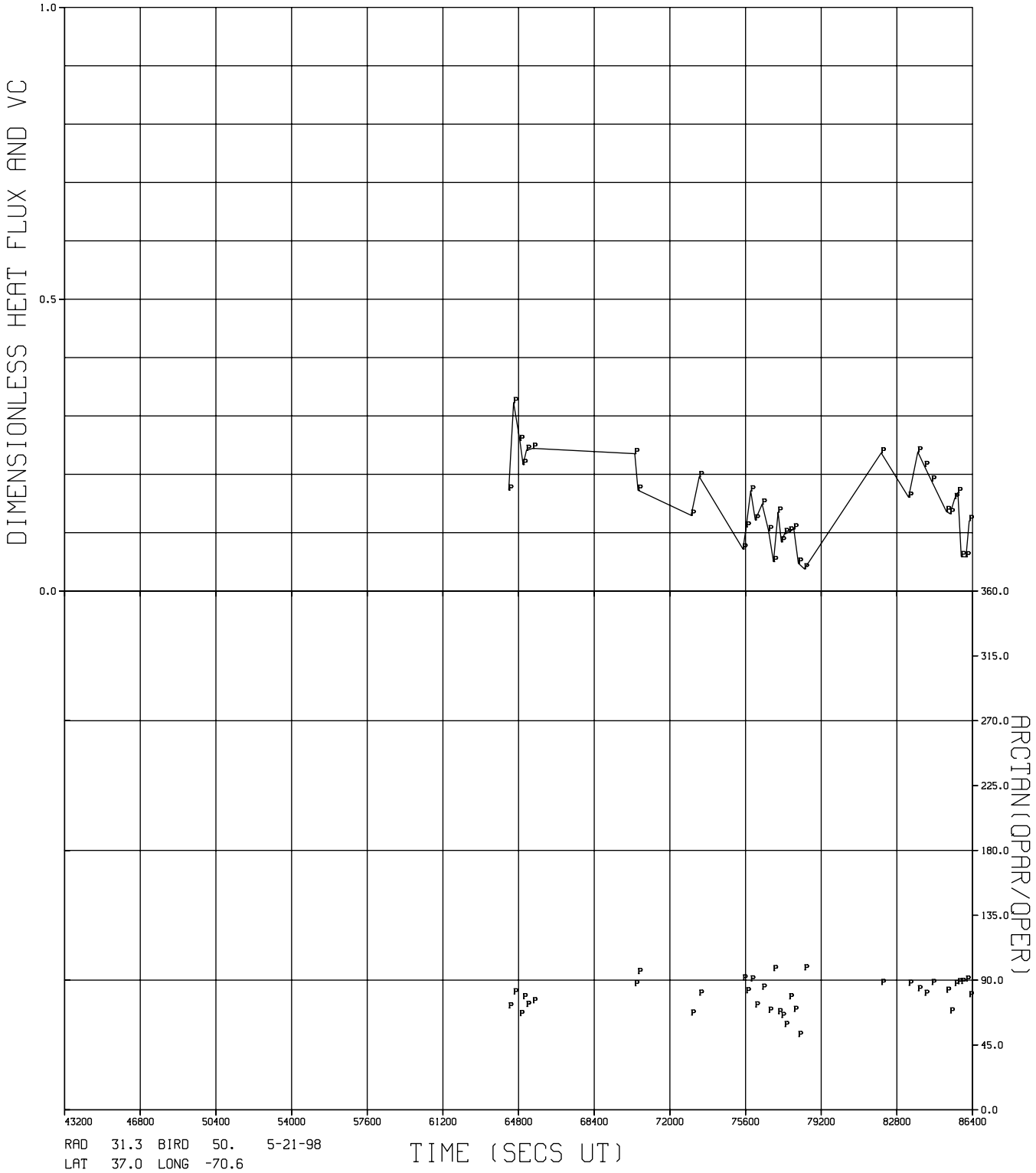

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 31.3 BIRD 50. 5-21-98
LAT 37.0 LONG -70.6

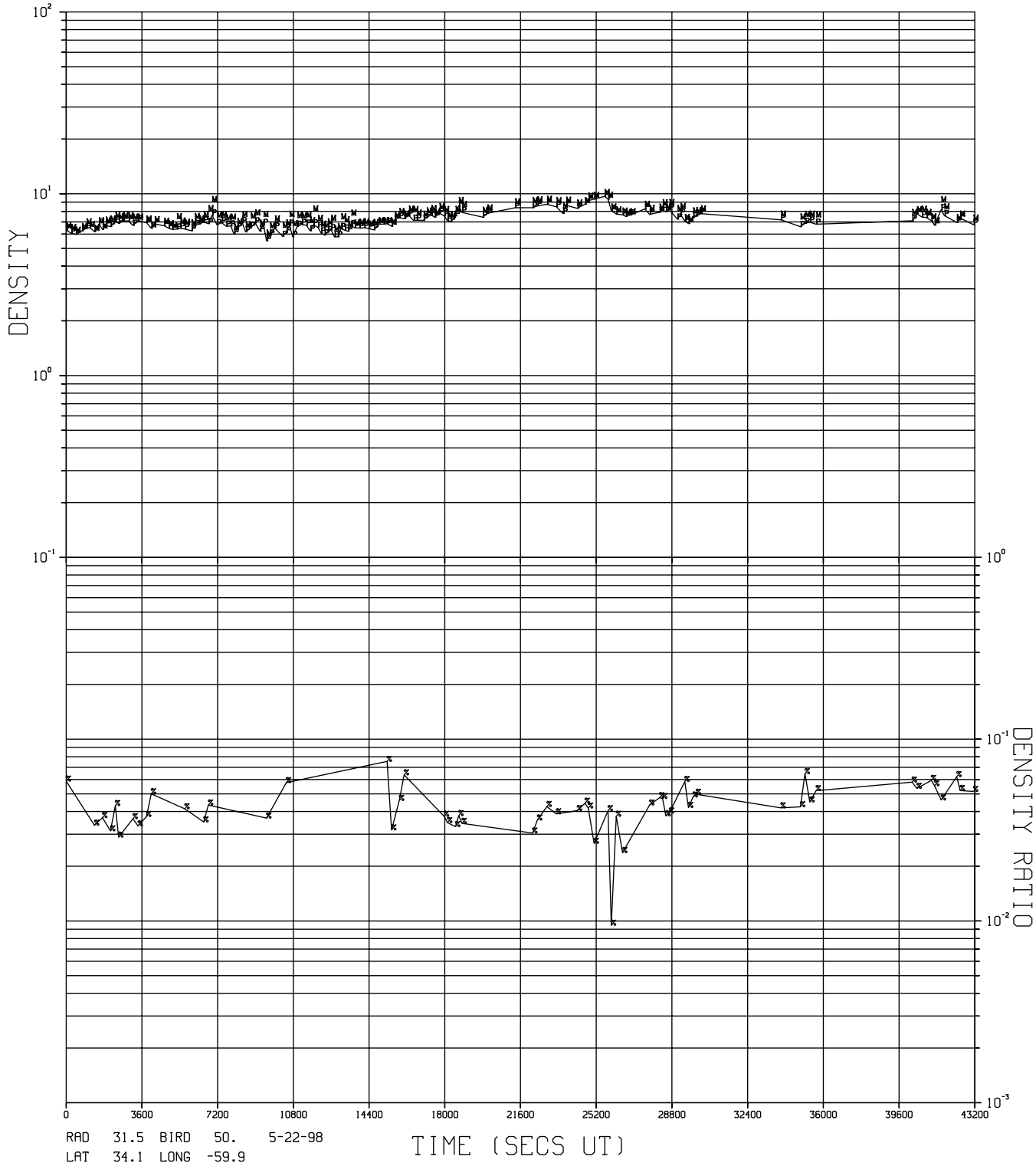

BULK FLOW DIRECTION
20
15
10
5
0
-5
-10
-15
-20
DIRECTION DIFFERENCE
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 31.3 BIRD 50. 5-21-98
LAT 37.0 LONG -70.6

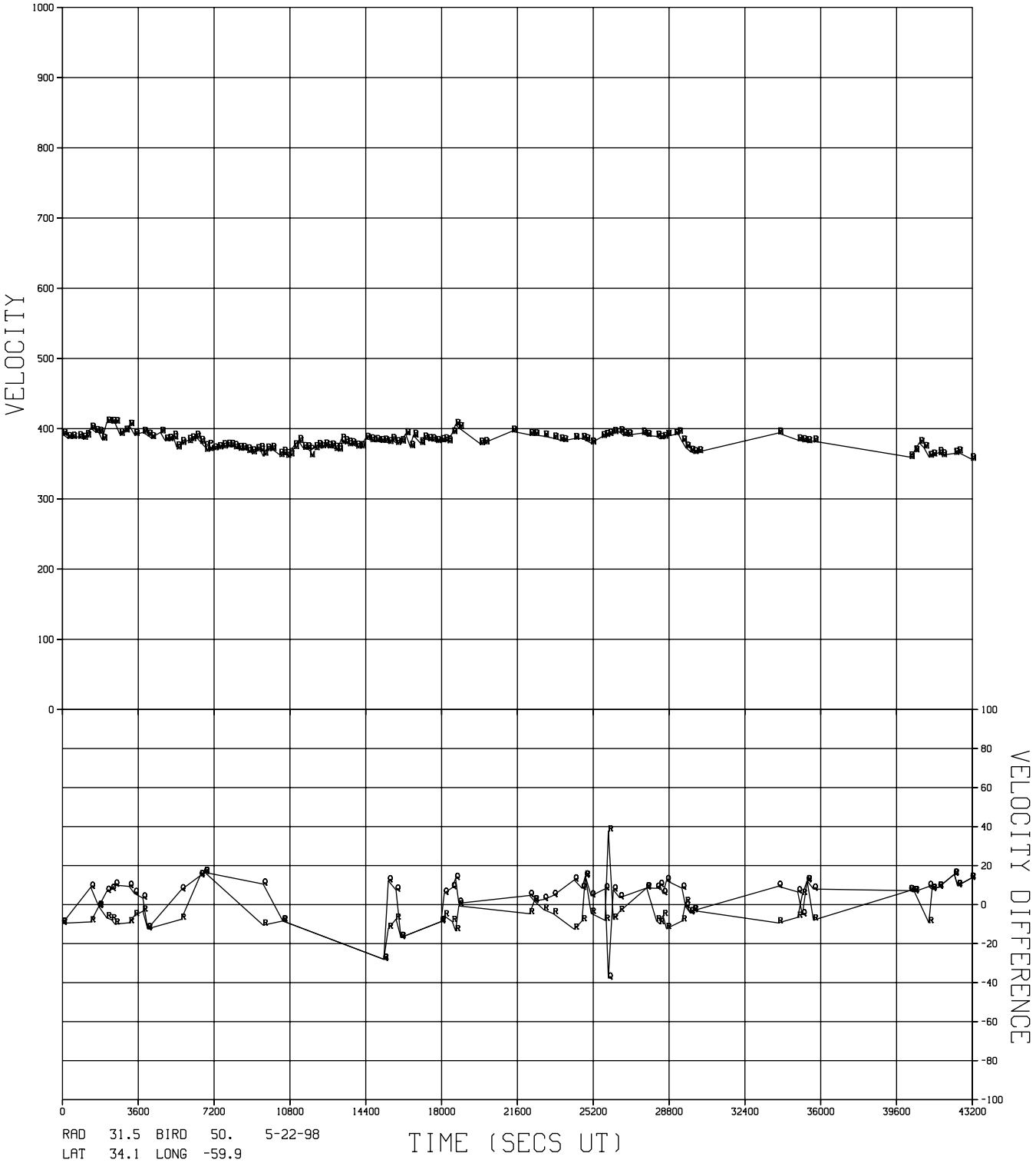

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 31.3 BIRD 50. 5-21-98
LAT 37.0 LONG -70.6

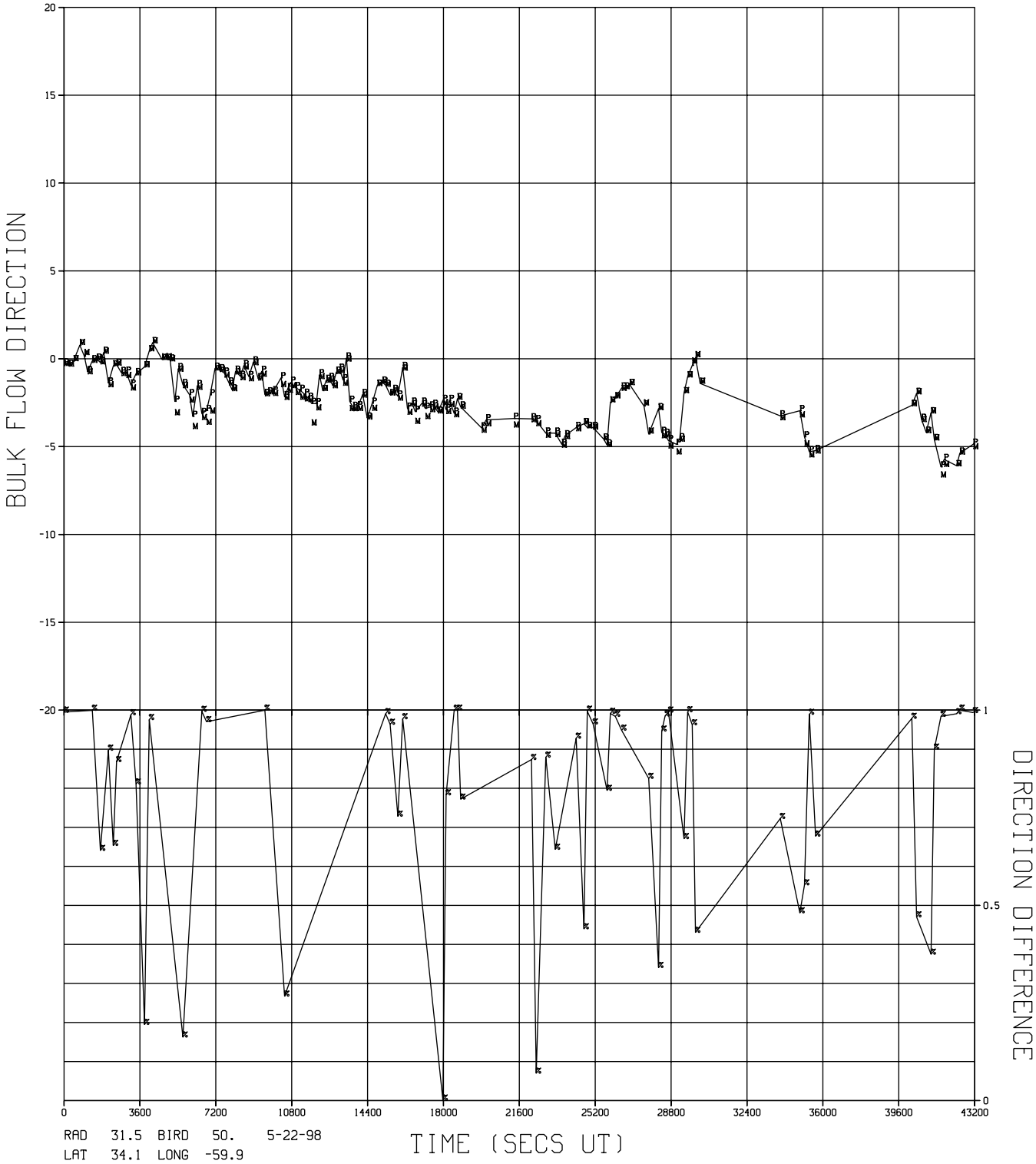

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
HEAT FLUX DIRECTION
360
315
270
225
180
135
90
45
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 31.3 BIRD 50. 5-21-98
LAT 37.0 LONG -70.6

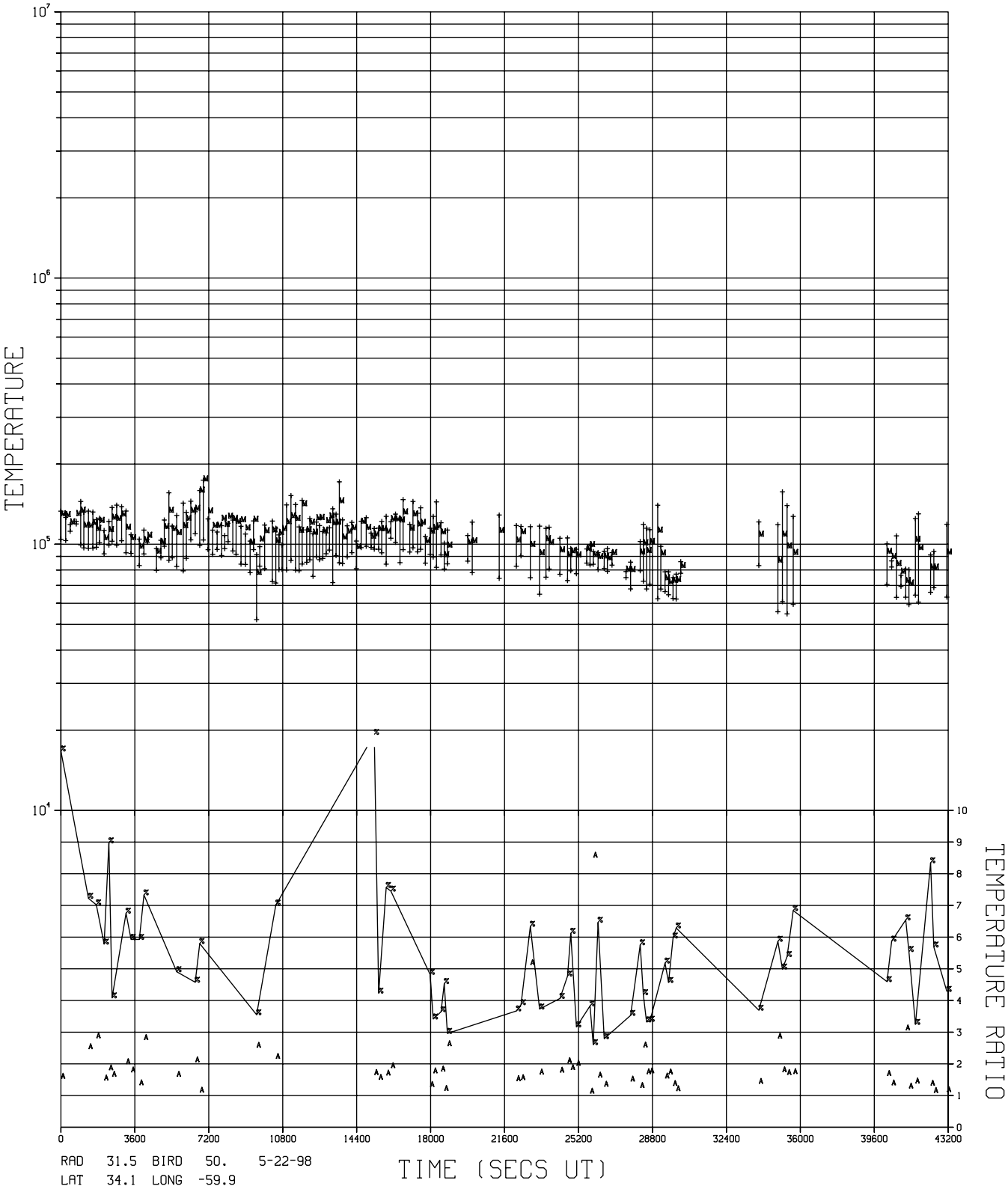

PERP. HEAT FLUX
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
CHI-SQUARE
10^{3}
10^{2}
10^{1}
10^{0}
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 31.3 BIRD 50. 5-21-98
LAT 37.0 LONG -70.6

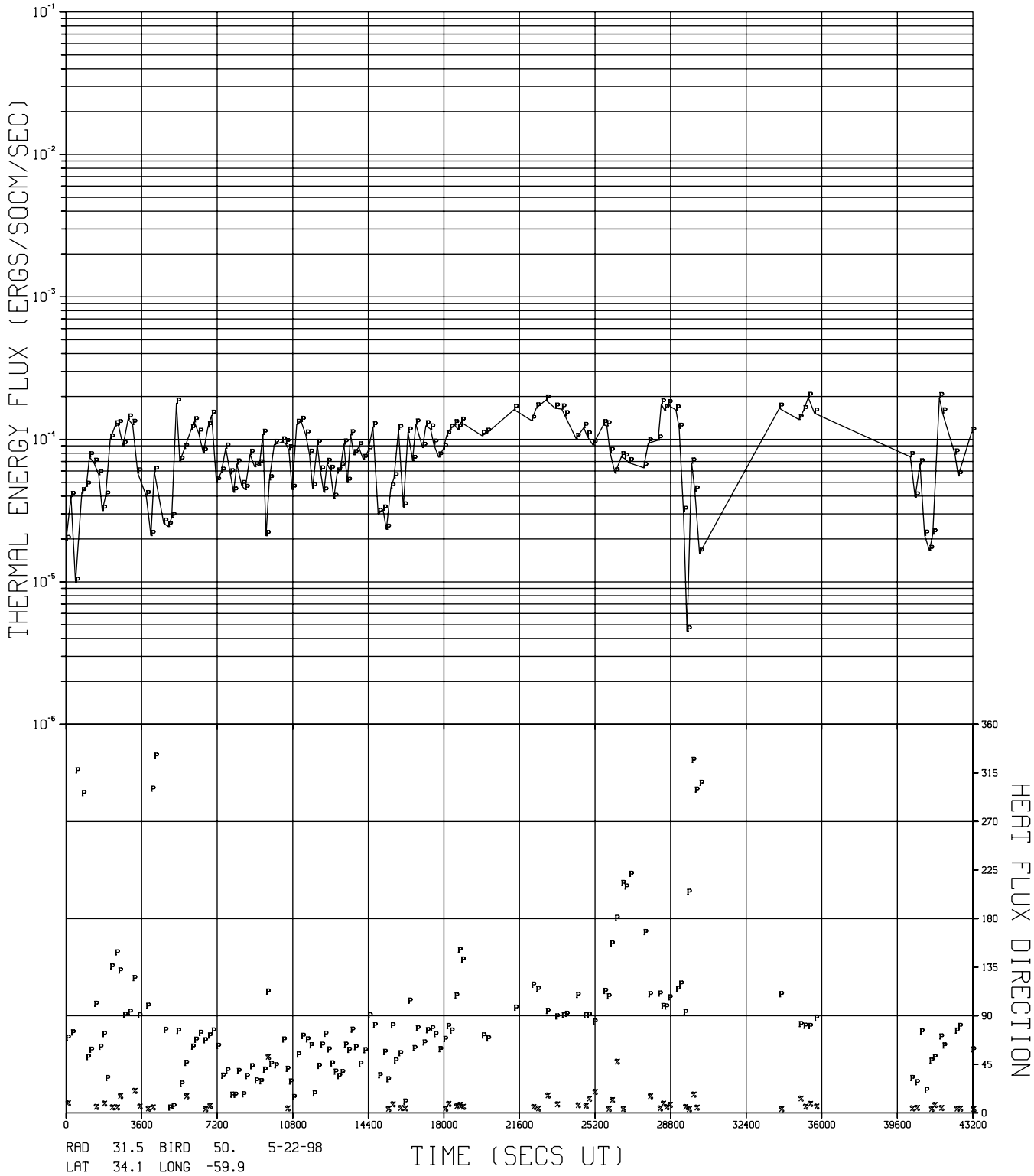

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 31.3 BIRD 50. 5-21-98
LAT 37.0 LONG -70.6

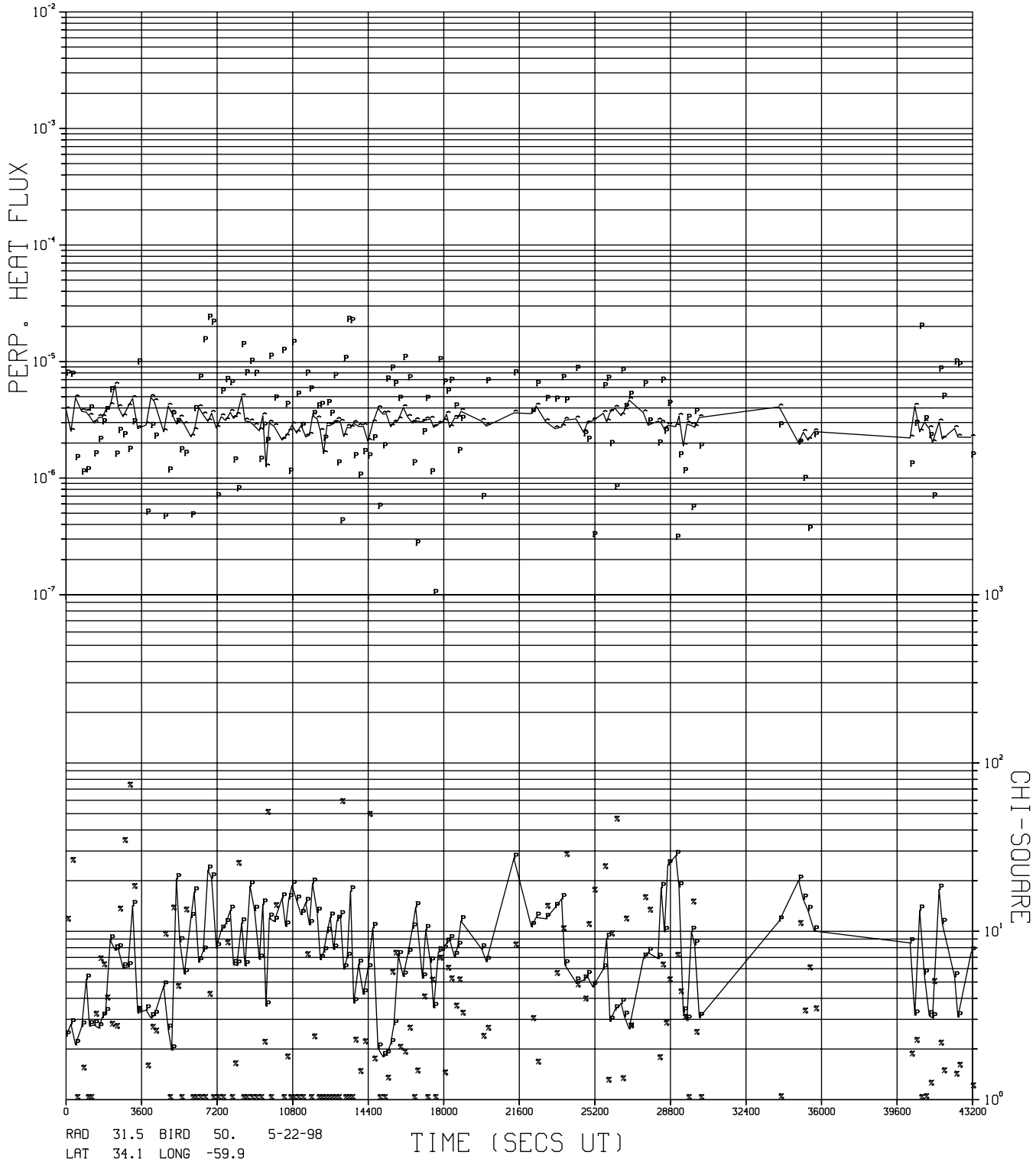

DENSITY
10^2
10^1
10^0
10^{-1}
DENSITY RATIO
10^0
10^{-1}
10^{-2}
10^{-3}
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 31.5 BIRD 50. 5-22-98
LAT 34.1 LONG -59.9

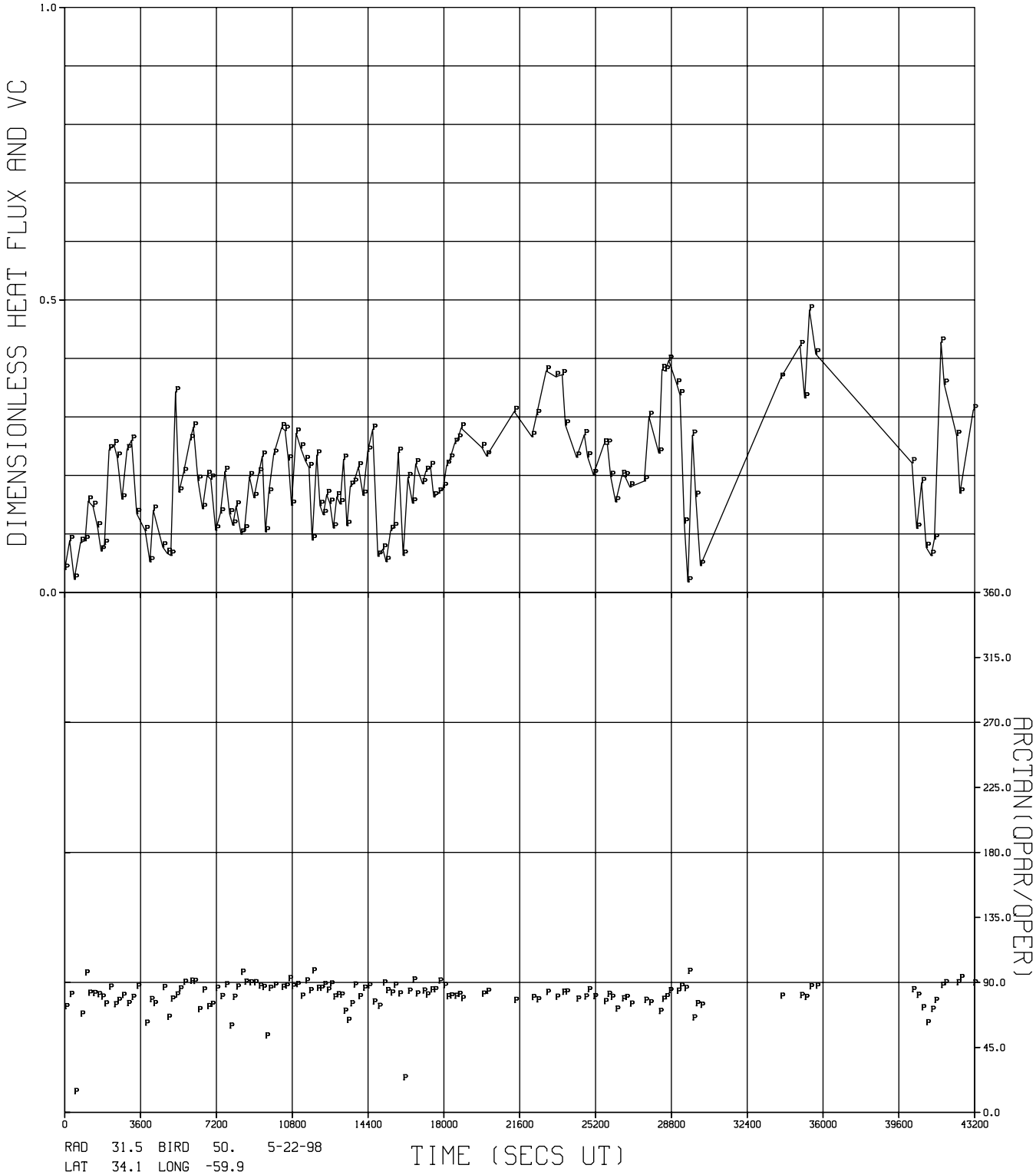

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
1000
900
800
700
600
500
400
300
200
100
0
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 31.5 BIRD 50. 5-22-98
LAT 34.1 LONG -59.9

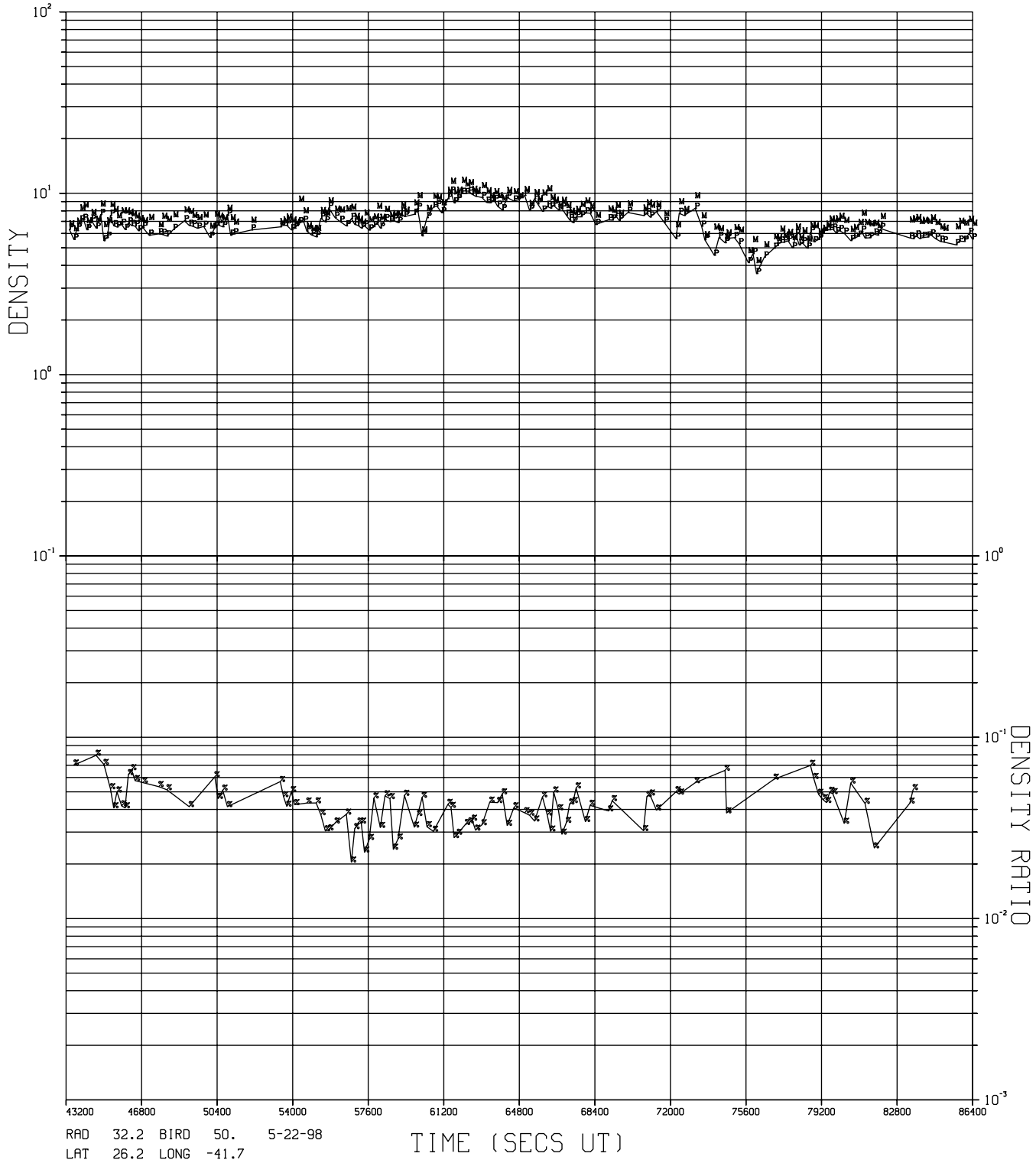

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 31.5 BIRD 50. 5-22-98
LAT 34.1 LONG -59.9

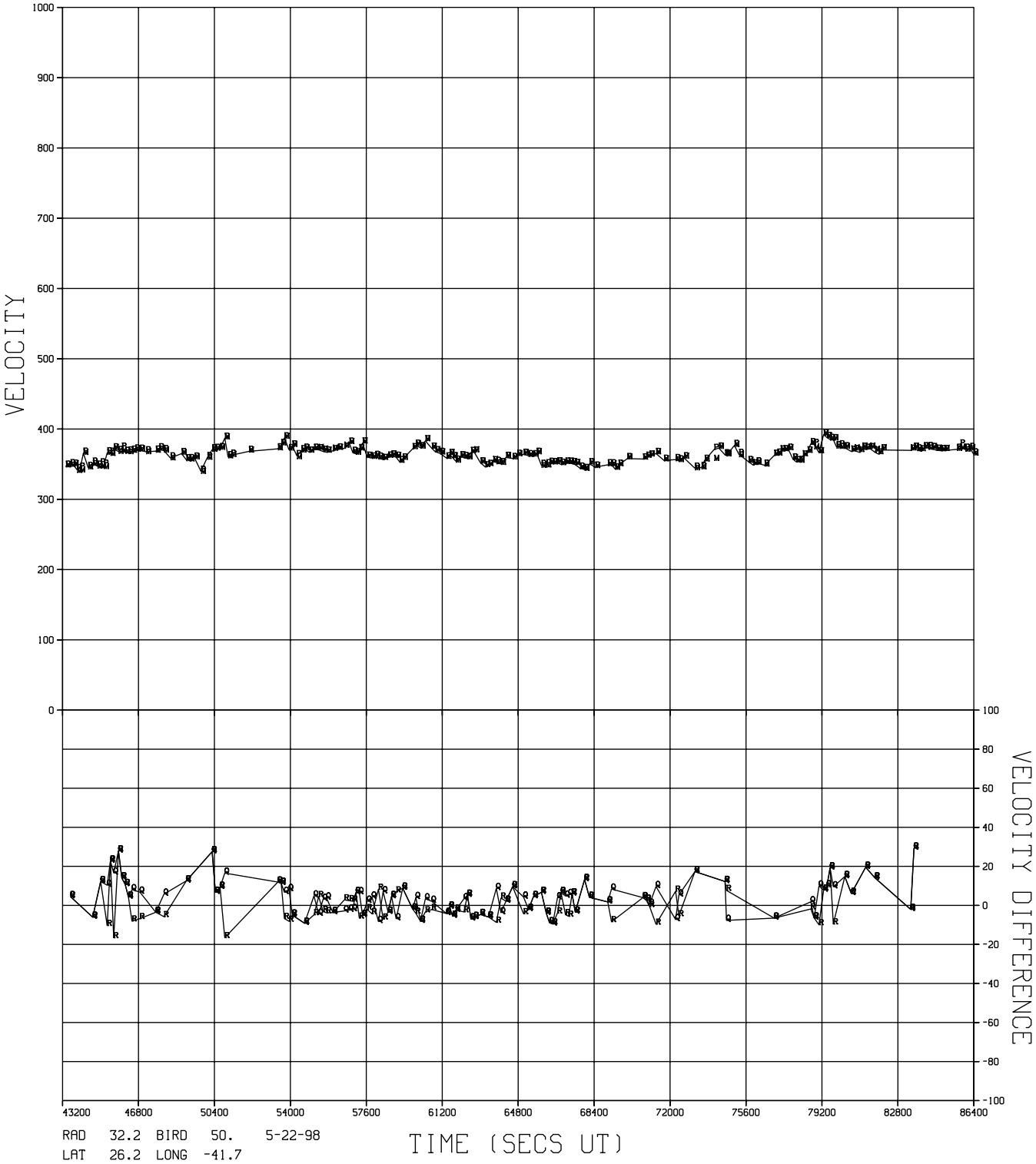

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 31.5 BIRD 50. 5-22-98
LAT 34.1 LONG -59.9

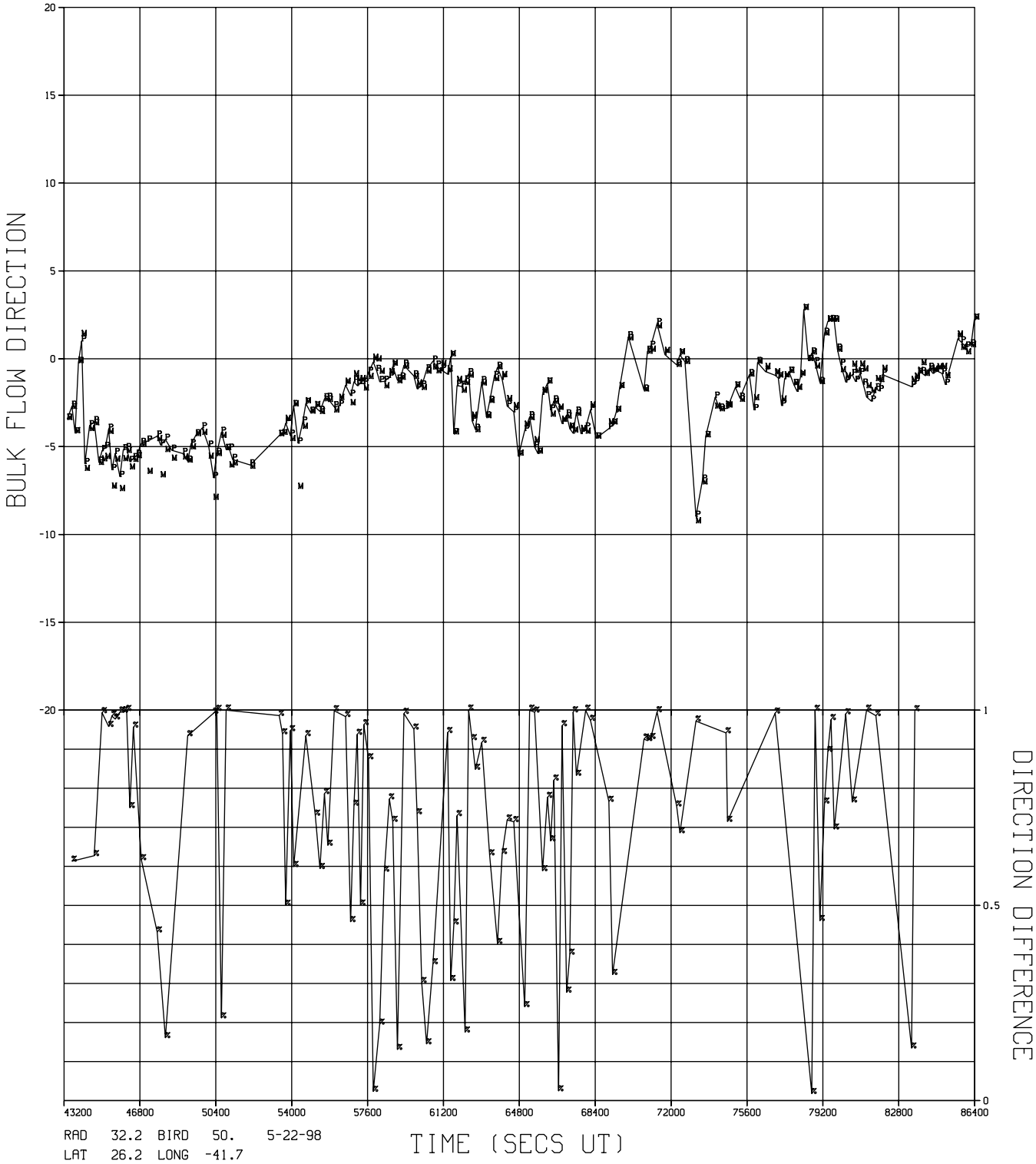

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
HEAT FLUX DIRECTION
360
315
270
225
180
135
90
45
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 31.5 BIRD 50. 5-22-98
LAT 34.1 LONG -59.9

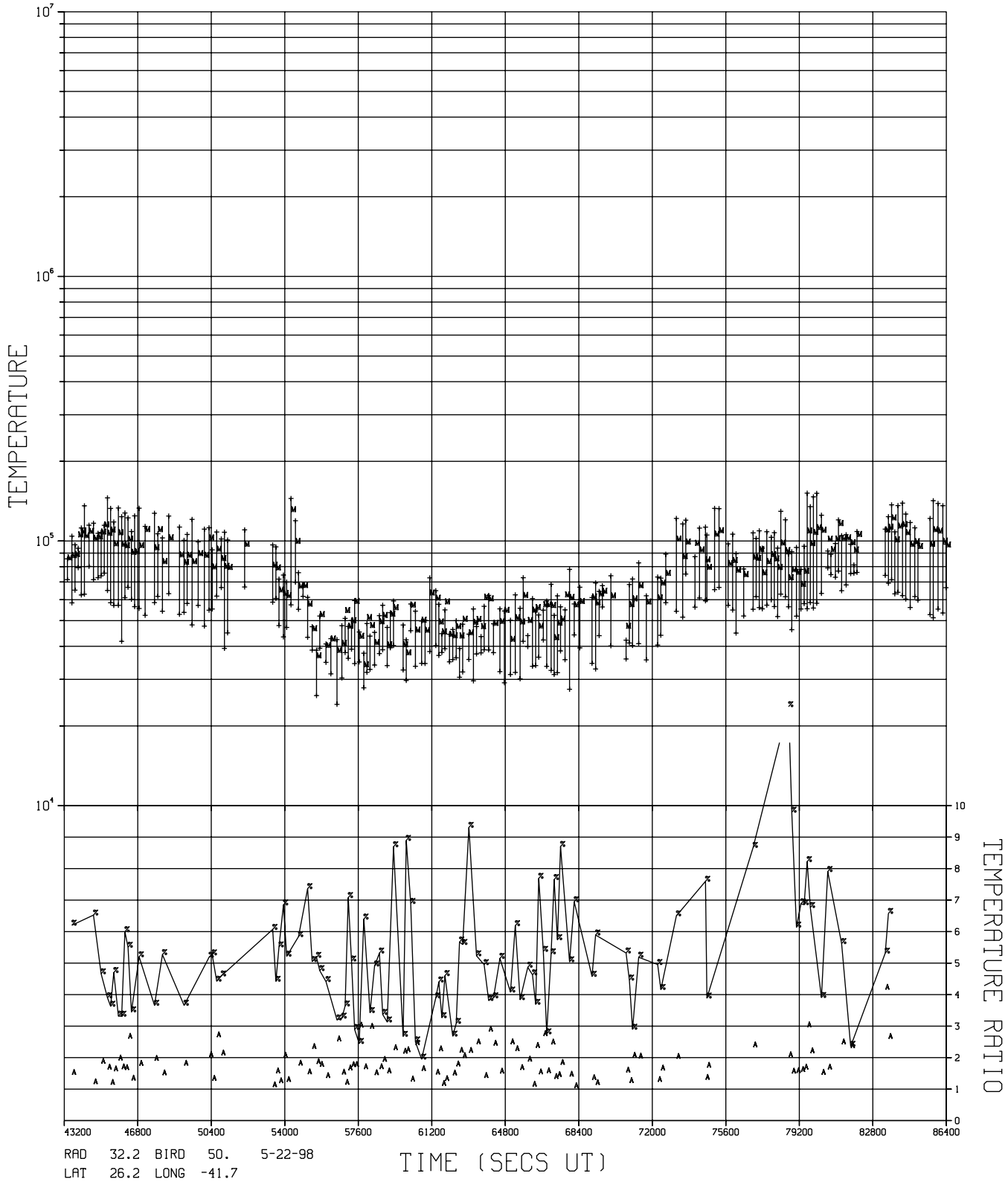

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 31.5 BIRD 50. 5-22-98
LAT 34.1 LONG -59.9

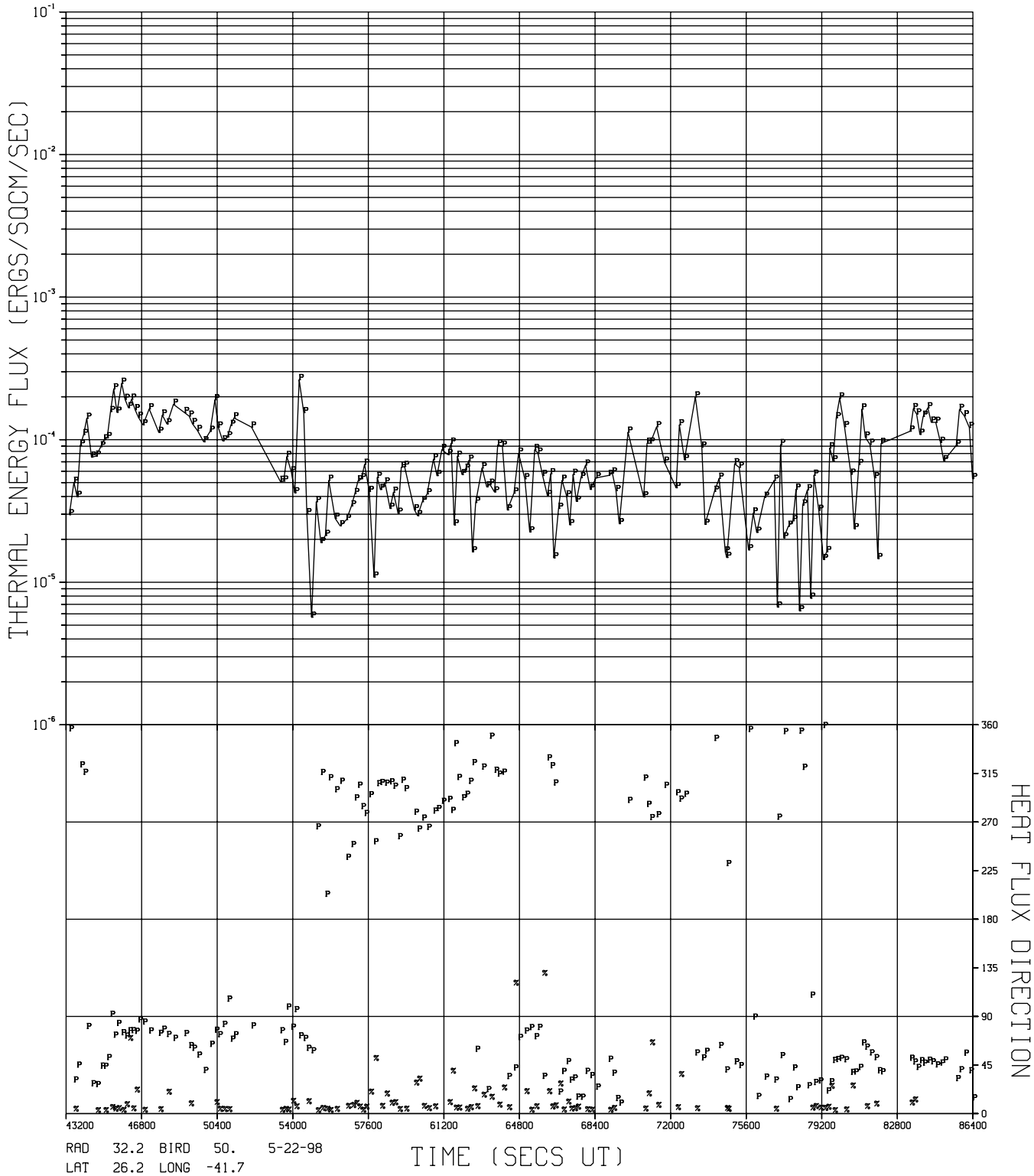

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 31.5 BIRD 50. 5-22-98
LAT 34.1 LONG -59.9

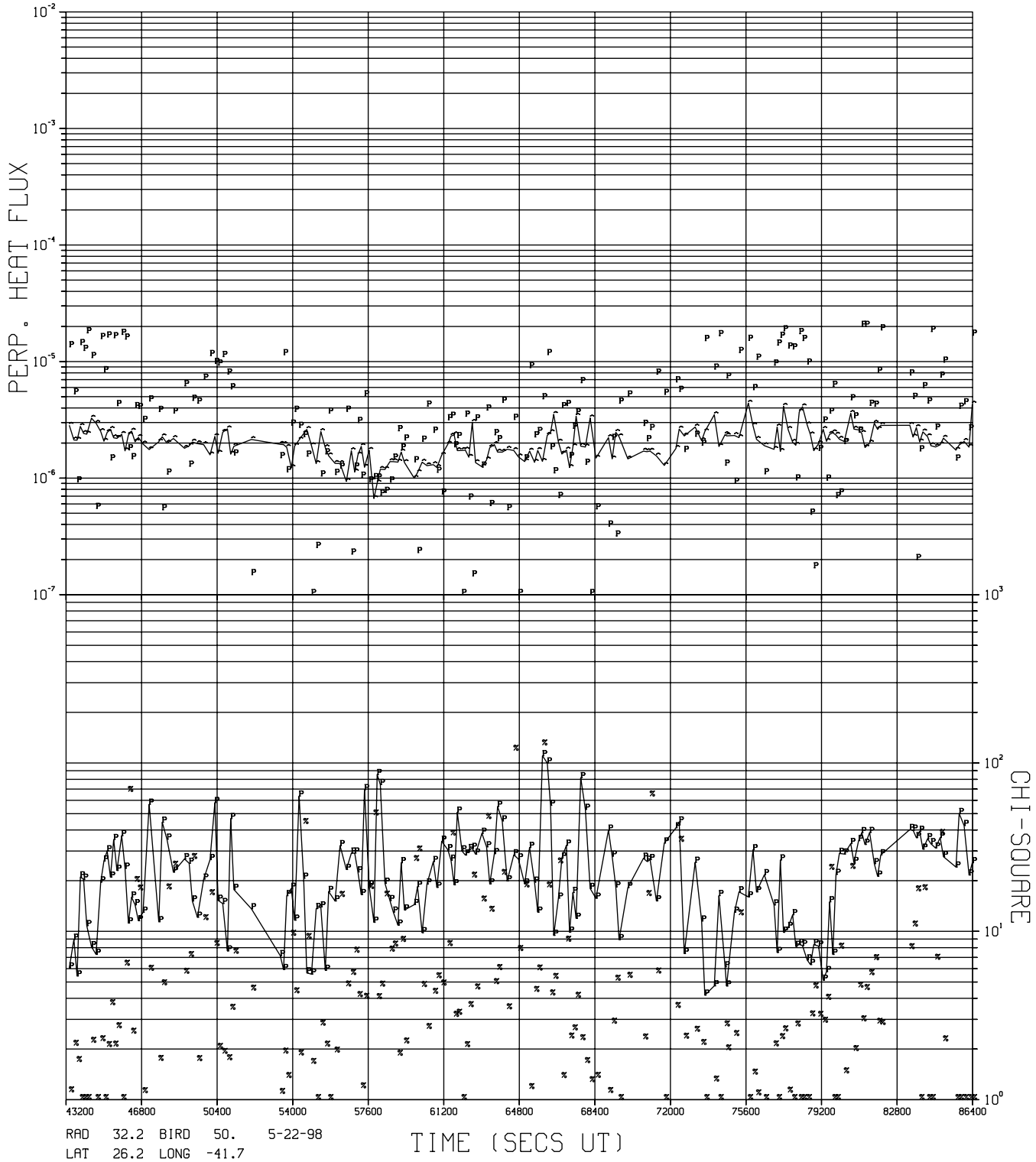

DENSITY
10^2
10^1
10^0
10^{-1}
DENSITY RATIO
10^0
10^{-1}
10^{-2}
10^{-3}
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 32.2 BIRD 50. 5-22-98
LAT 26.2 LONG -41.7

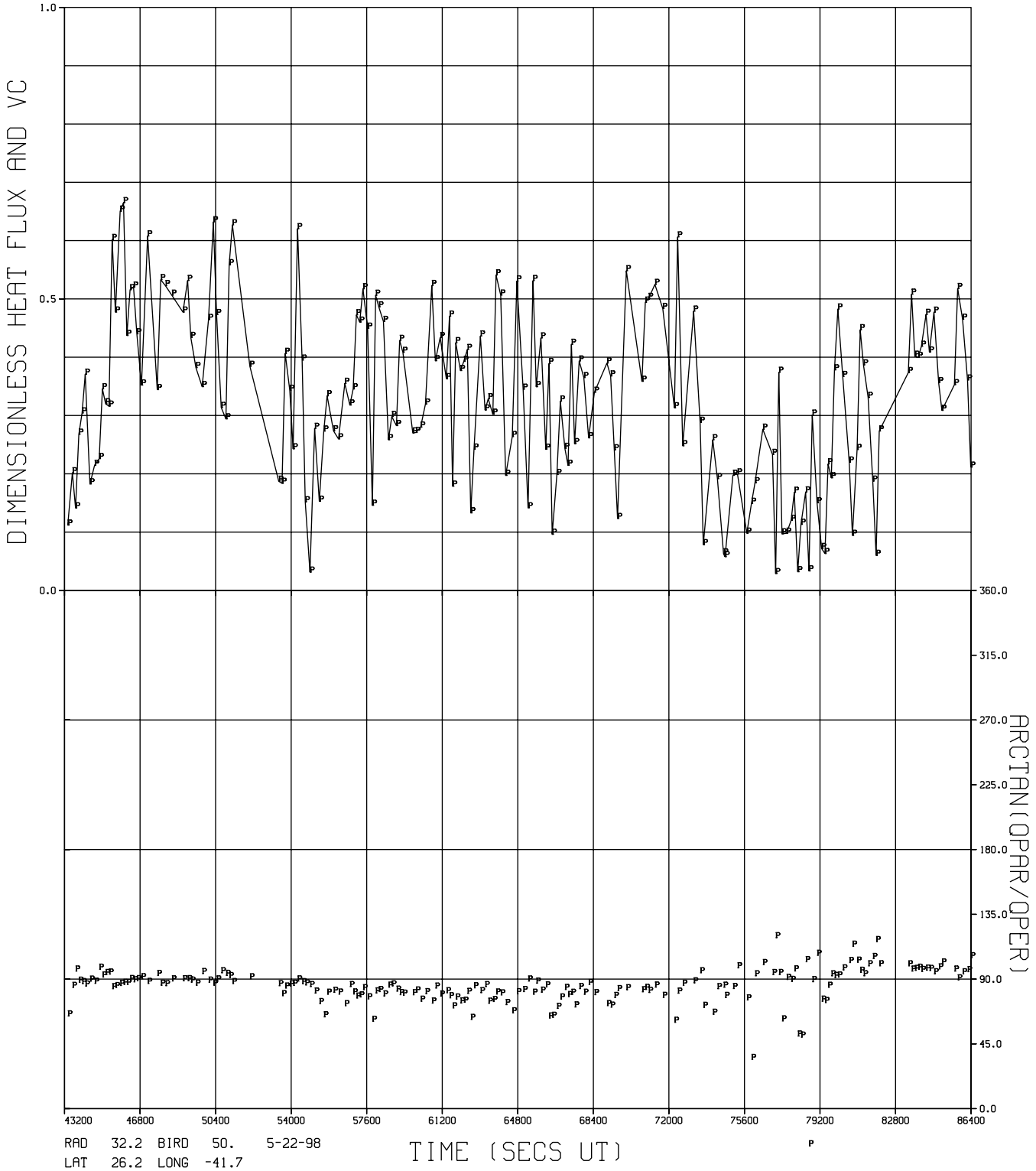

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 32.2 BIRD 50. 5-22-98
LAT 26.2 LONG -41.7

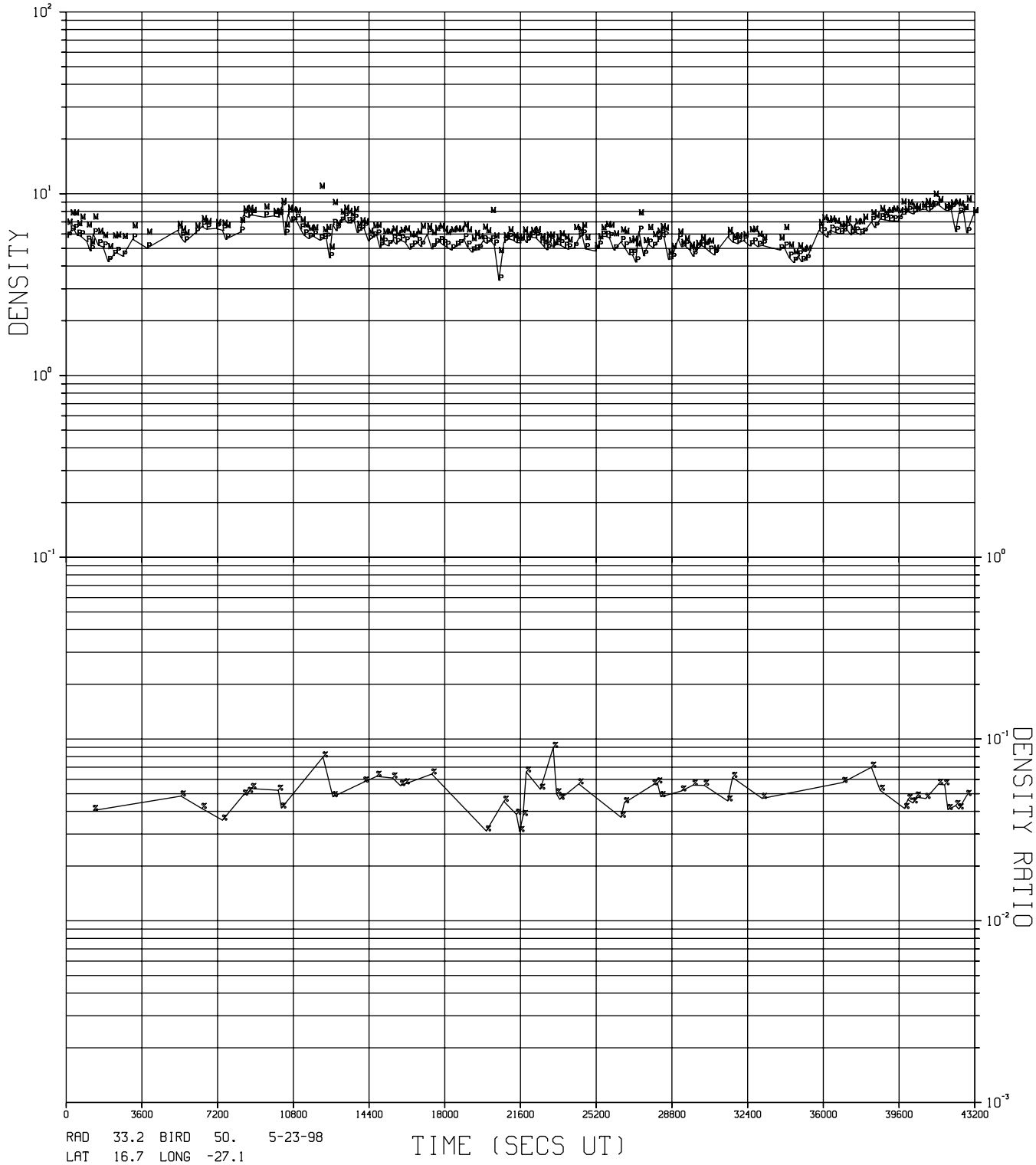

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 32.2 BIRD 50. 5-22-98
LAT 26.2 LONG -41.7

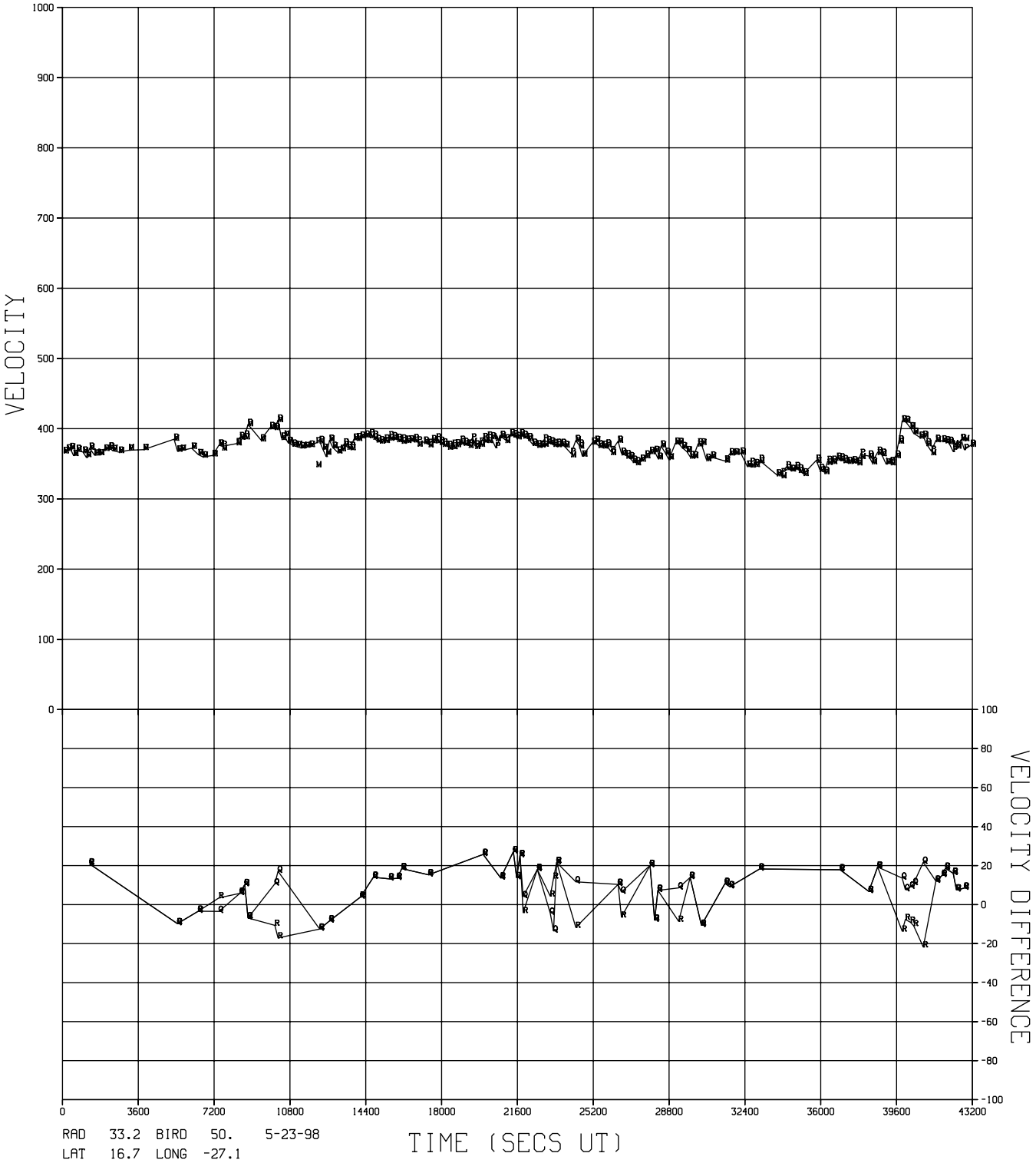

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 32.2 BIRD 50. 5-22-98
LAT 26.2 LONG -41.7

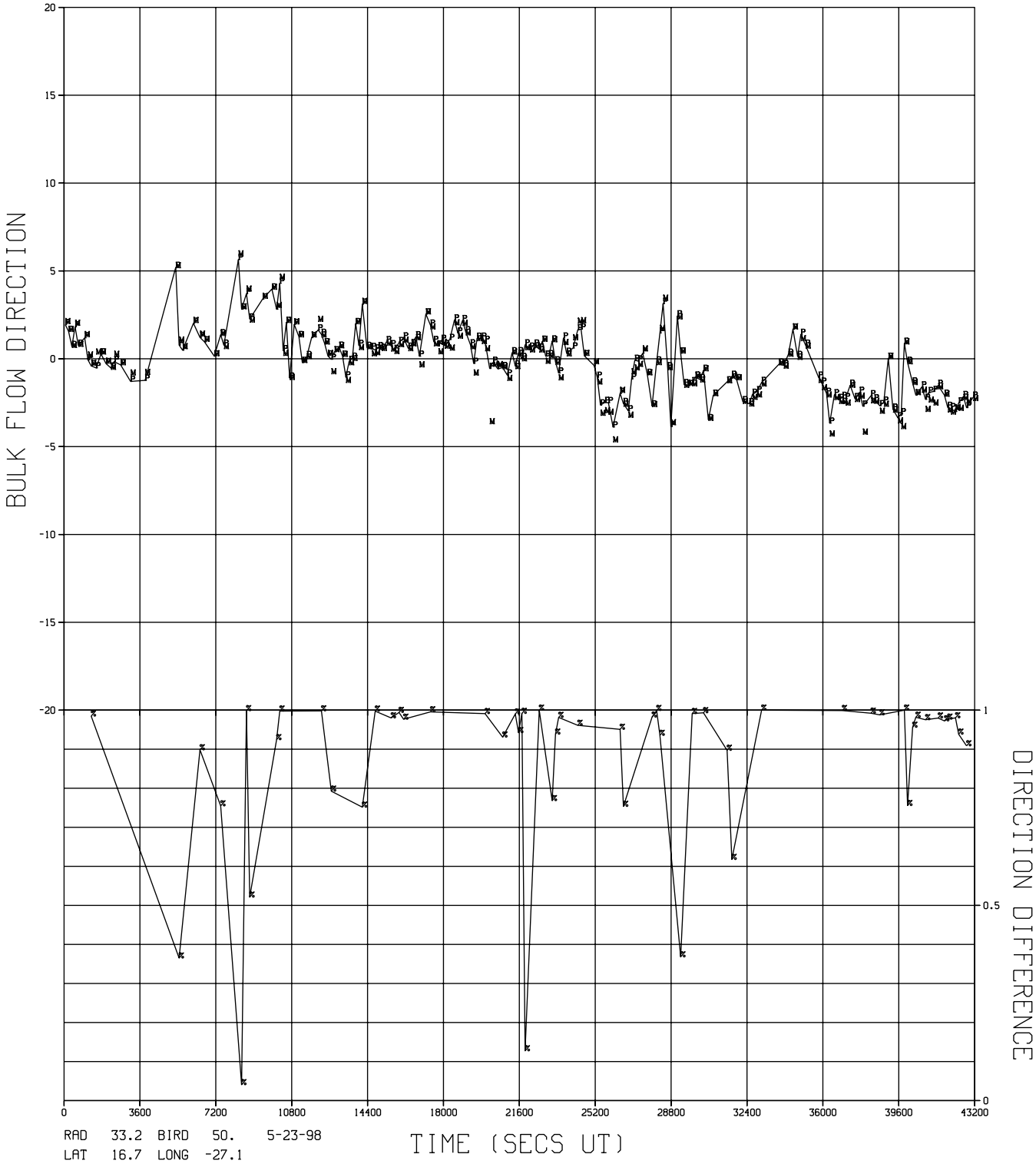

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
HEAT FLUX DIRECTION
360
315
270
225
180
135
90
45
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 32.2 BIRD 50. 5-22-98
LAT 26.2 LONG -41.7

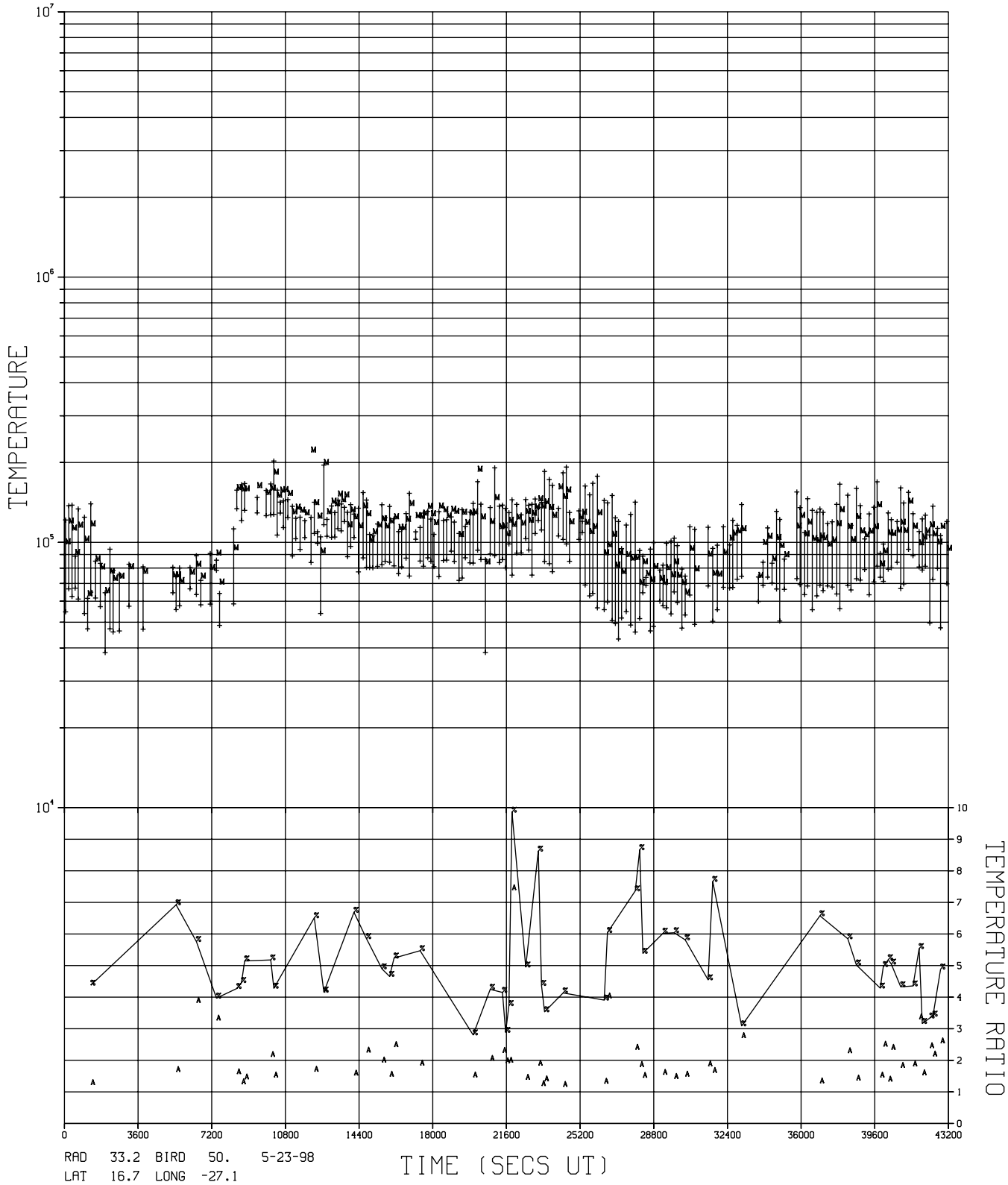

PERP. HEAT FLUX
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
CHI-SQUARE
10^{3}
10^{2}
10^{1}
10^{0}
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 32.2 BIRD 50. 5-22-98
LAT 26.2 LONG -41.7
TIME (SECS UT)

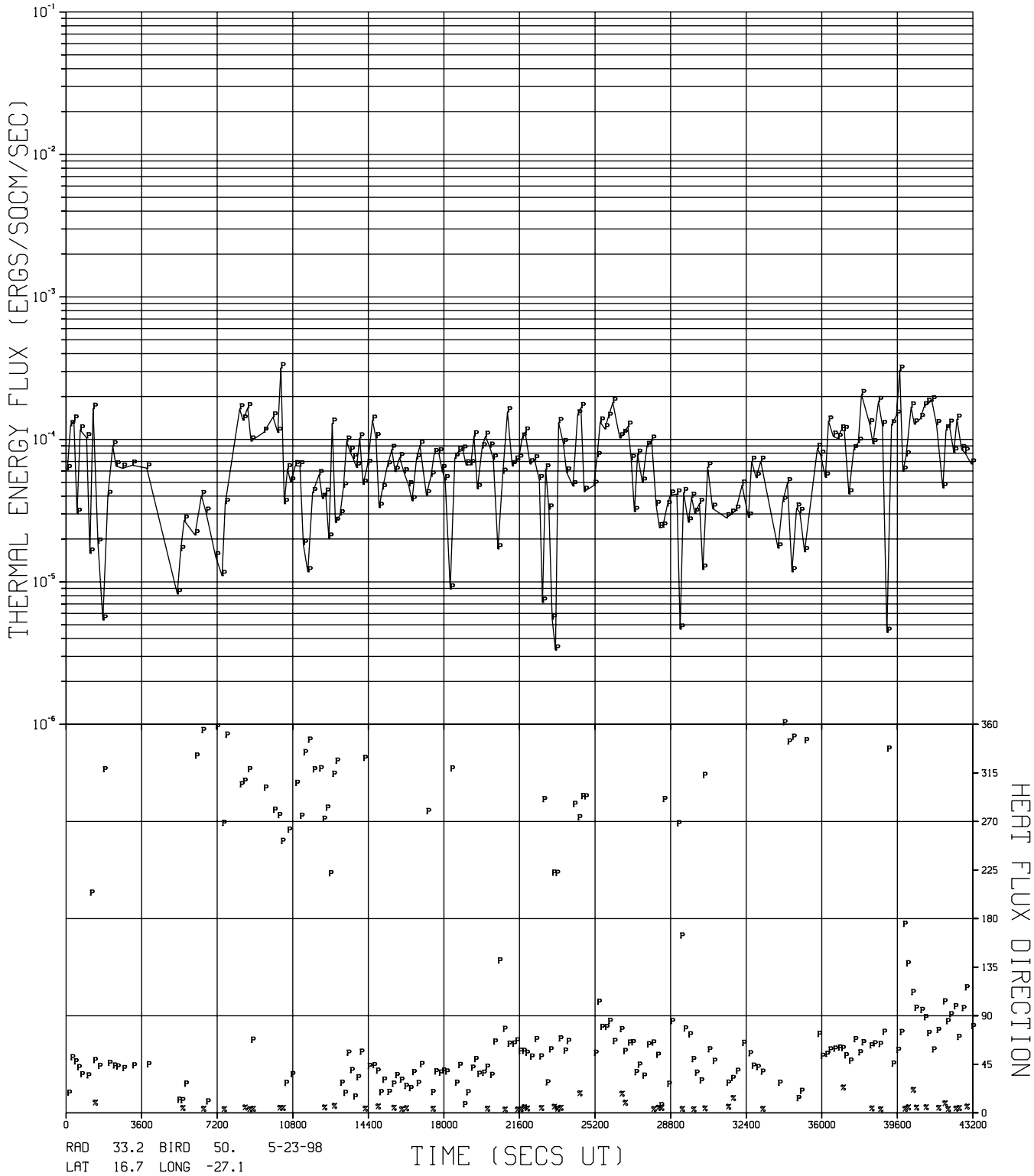

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 32.2 BIRD 50. 5-22-98
LAT 26.2 LONG -41.7
TIME (SECS UT)

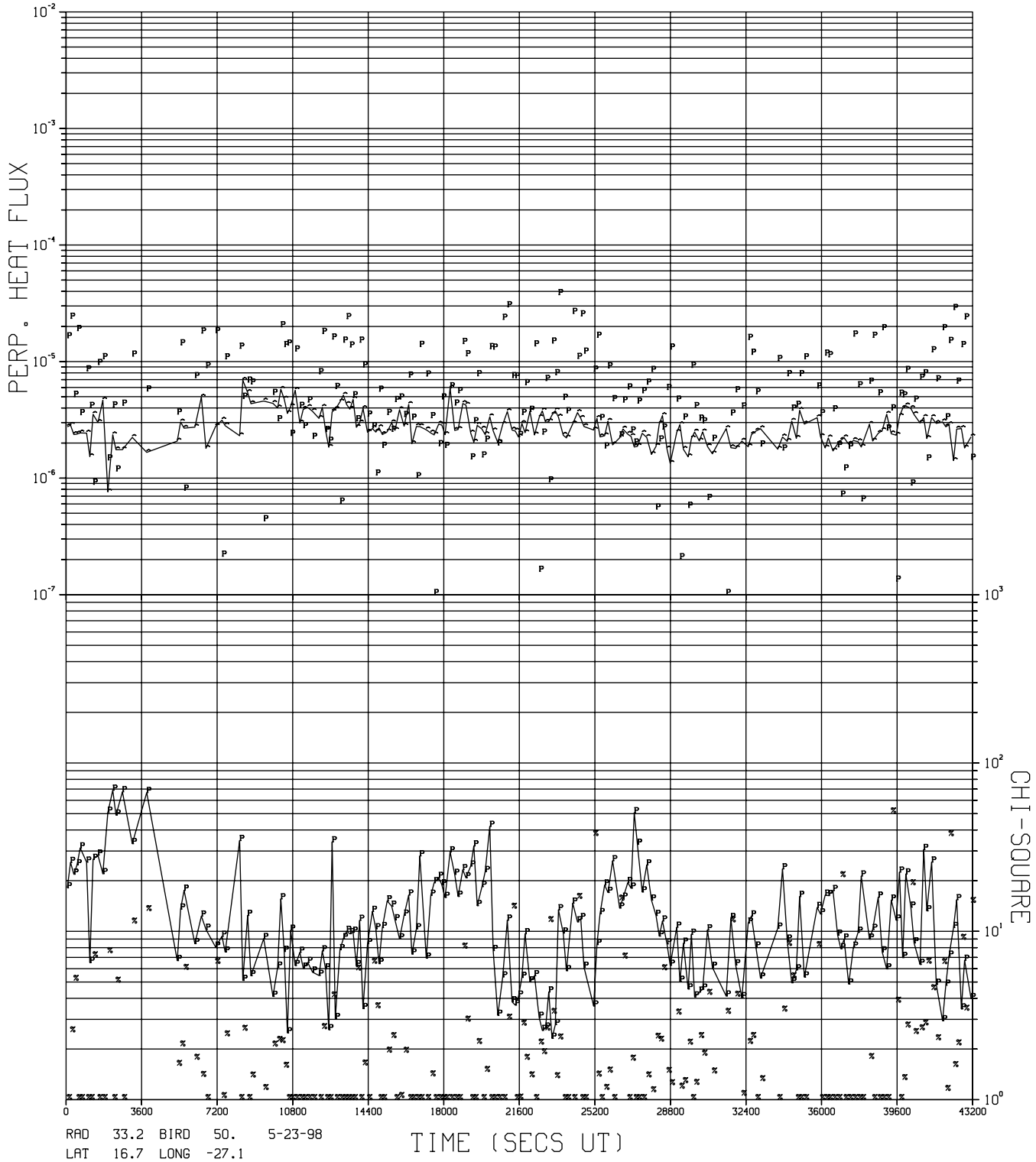

DENSITY
10^2
10^1
10^0
10^{-1}
DENSITY RATIO
10^0
10^{-1}
10^{-2}
10^{-3}
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 33.2 BIRD 50. 5-23-98
LAT 16.7 LONG -27.1

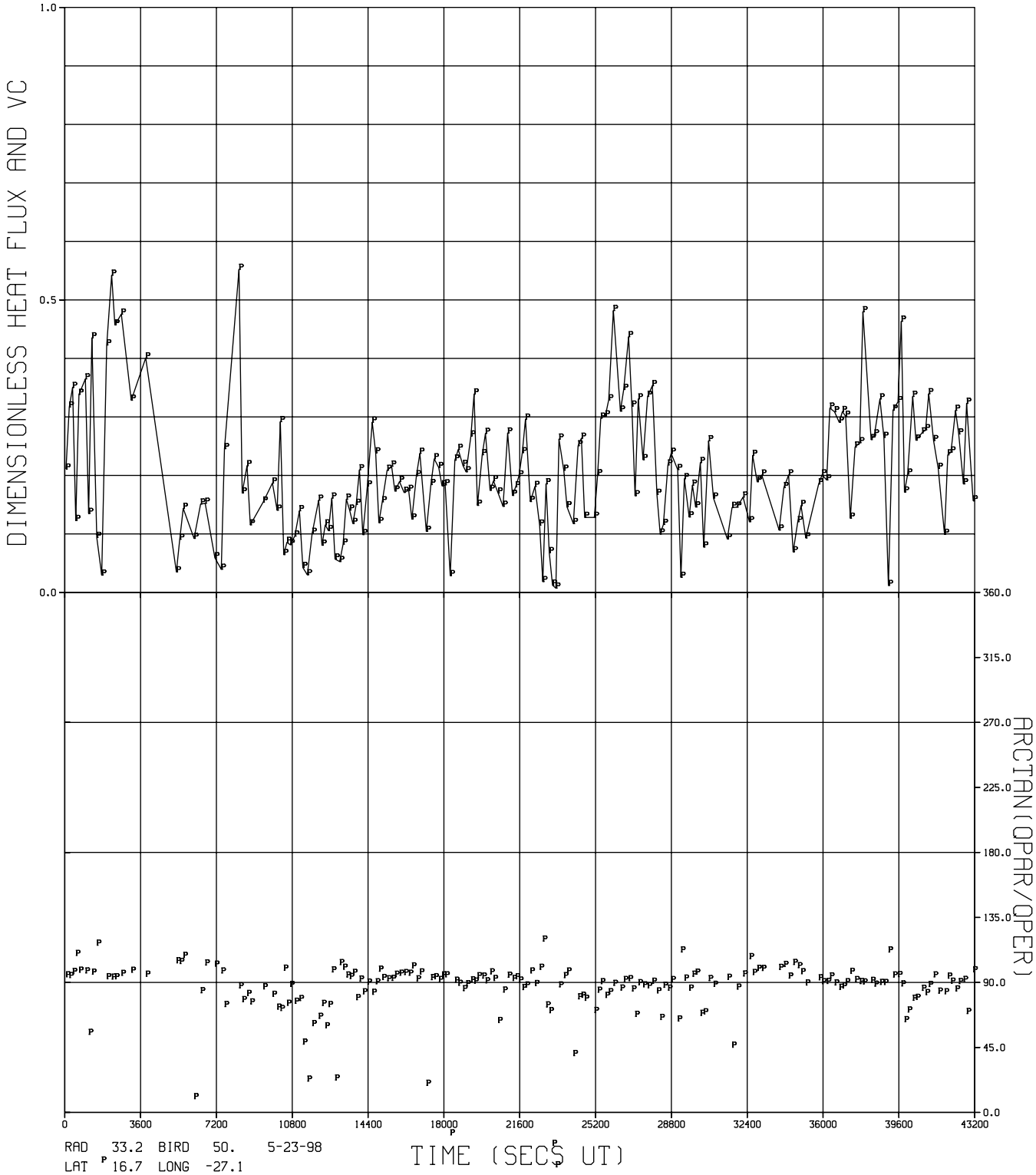

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 33.2 BIRD 50. 5-23-98
LAT 16.7 LONG -27.1

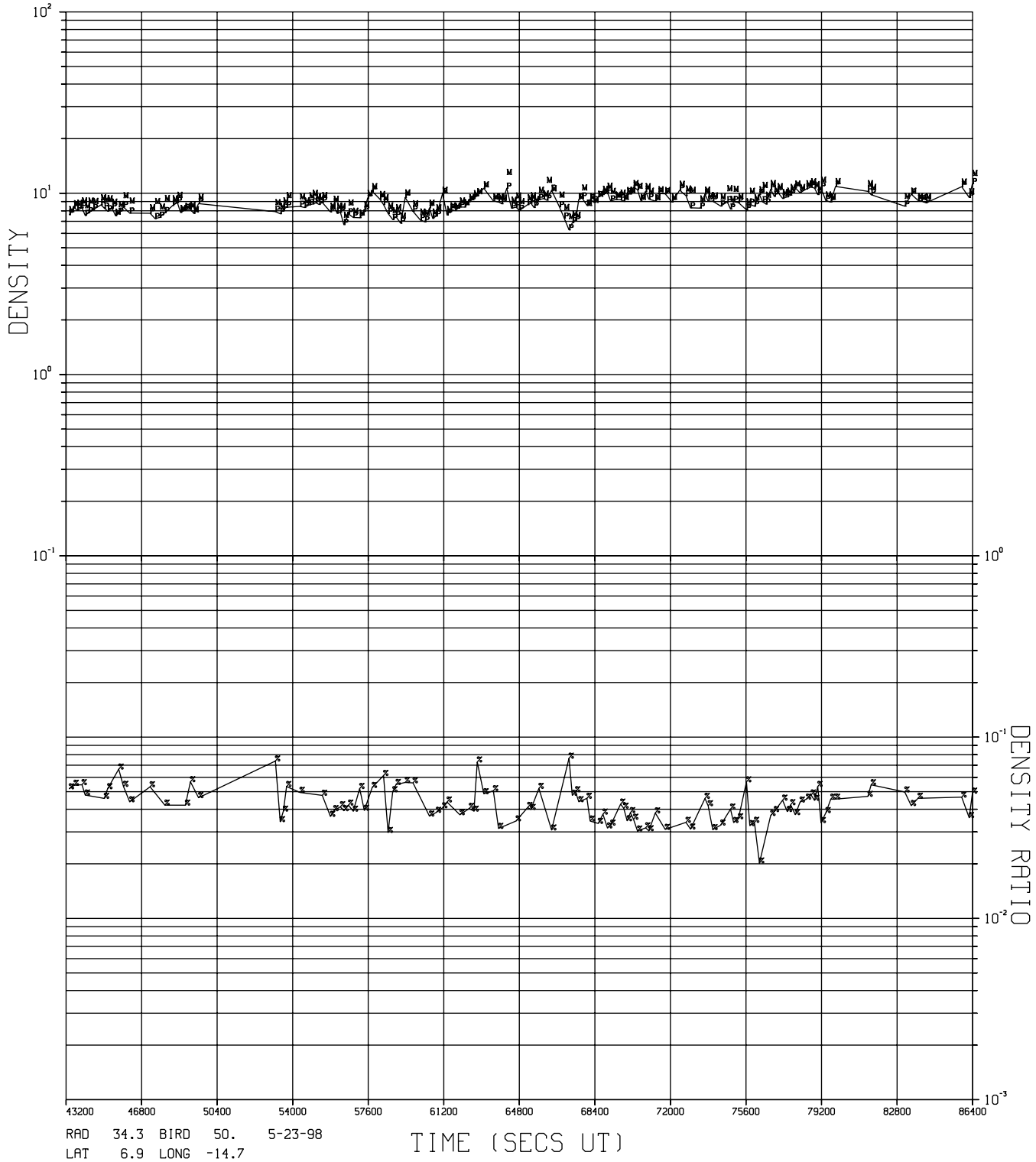

BULK FLOW DIRECTION
20
15
10
5
0
-5
-10
-15
-20
DIRECTION DIFFERENCE
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 33.2 BIRD 50. 5-23-98
LAT 16.7 LONG -27.1

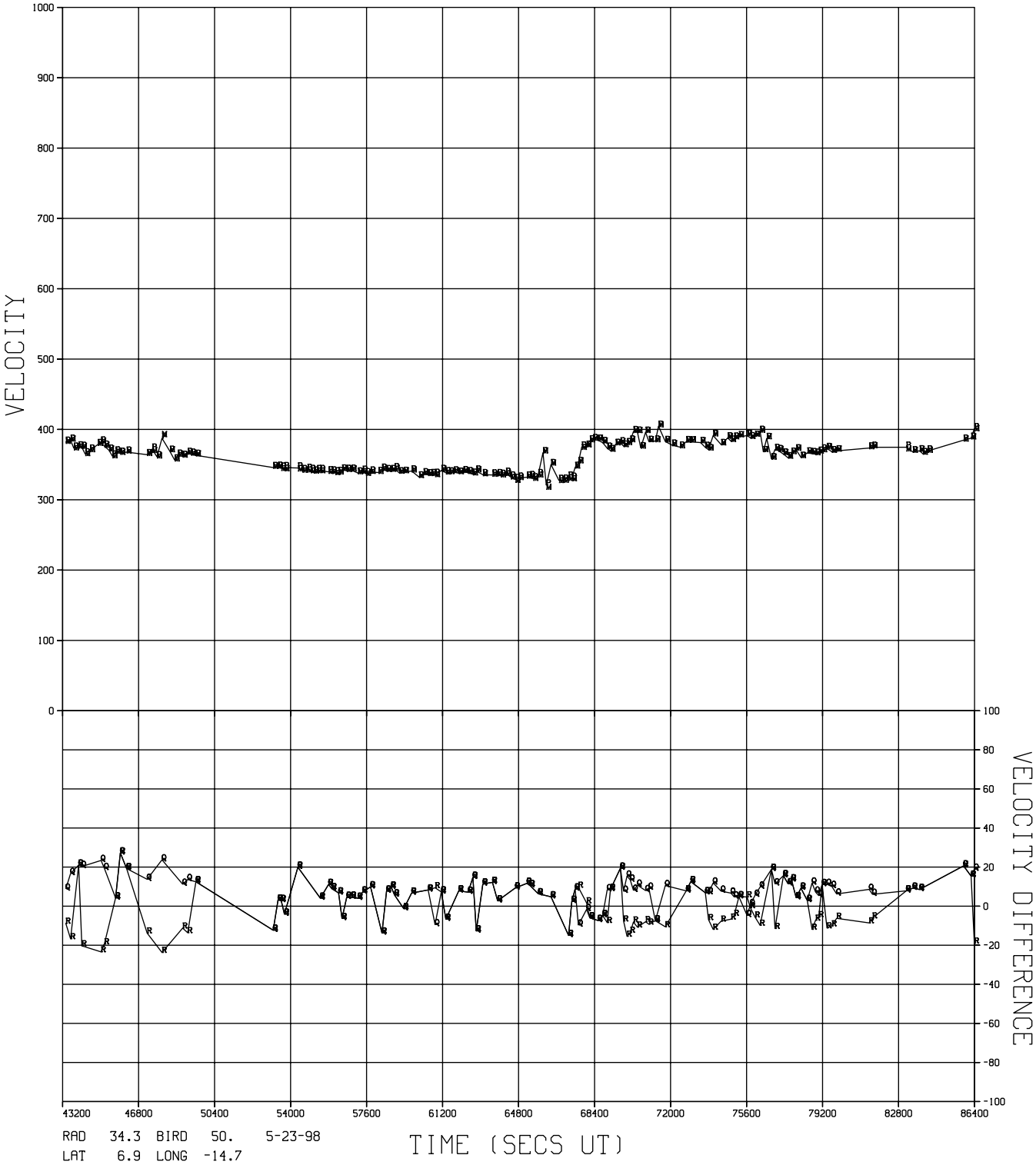

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 33.2 BIRD 50. 5-23-98
LAT 16.7 LONG -27.1

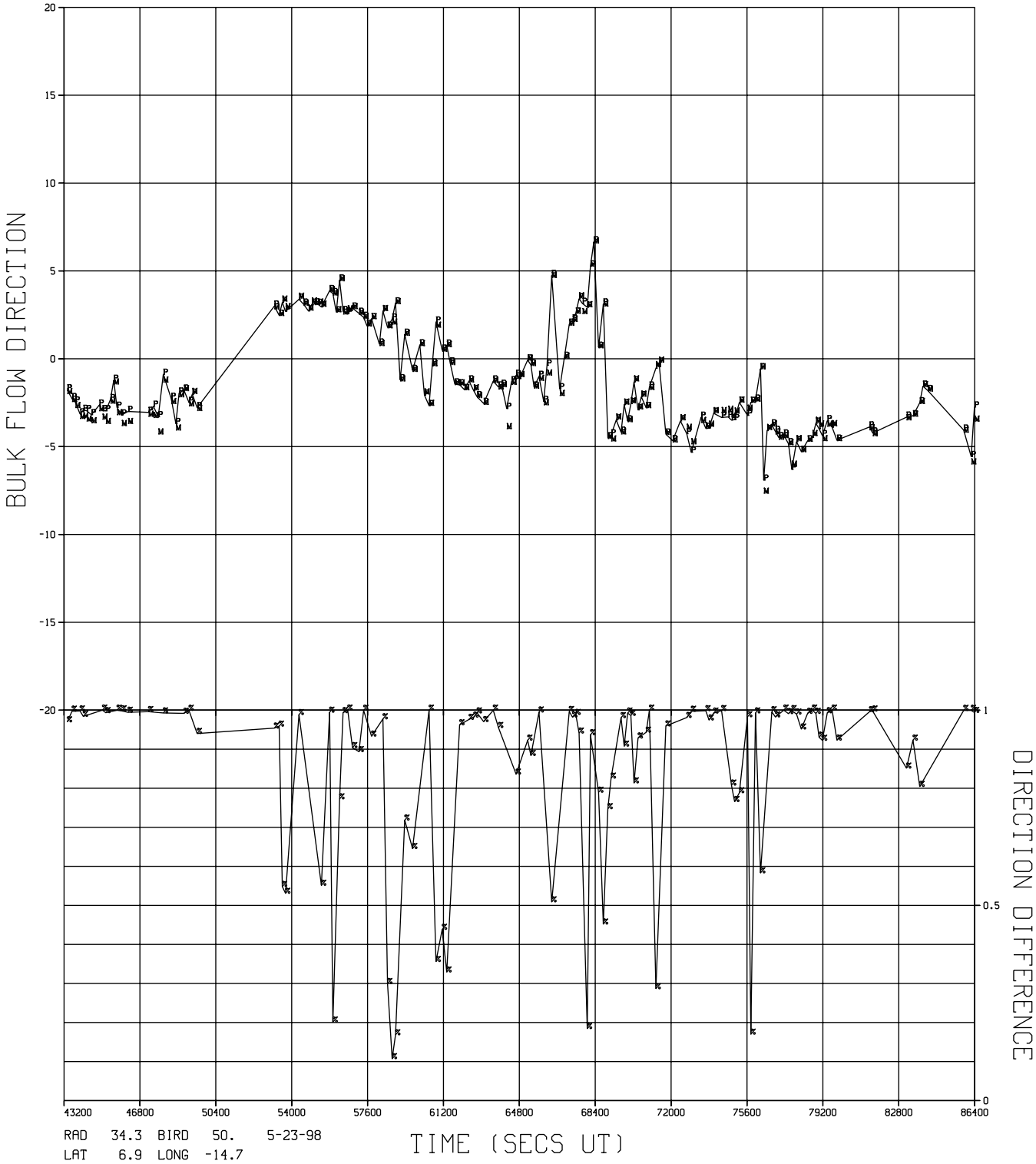

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
HEAT FLUX DIRECTION
360
315
270
225
180
135
90
45
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 33.2 BIRD 50. 5-23-98
LAT 16.7 LONG -27.1

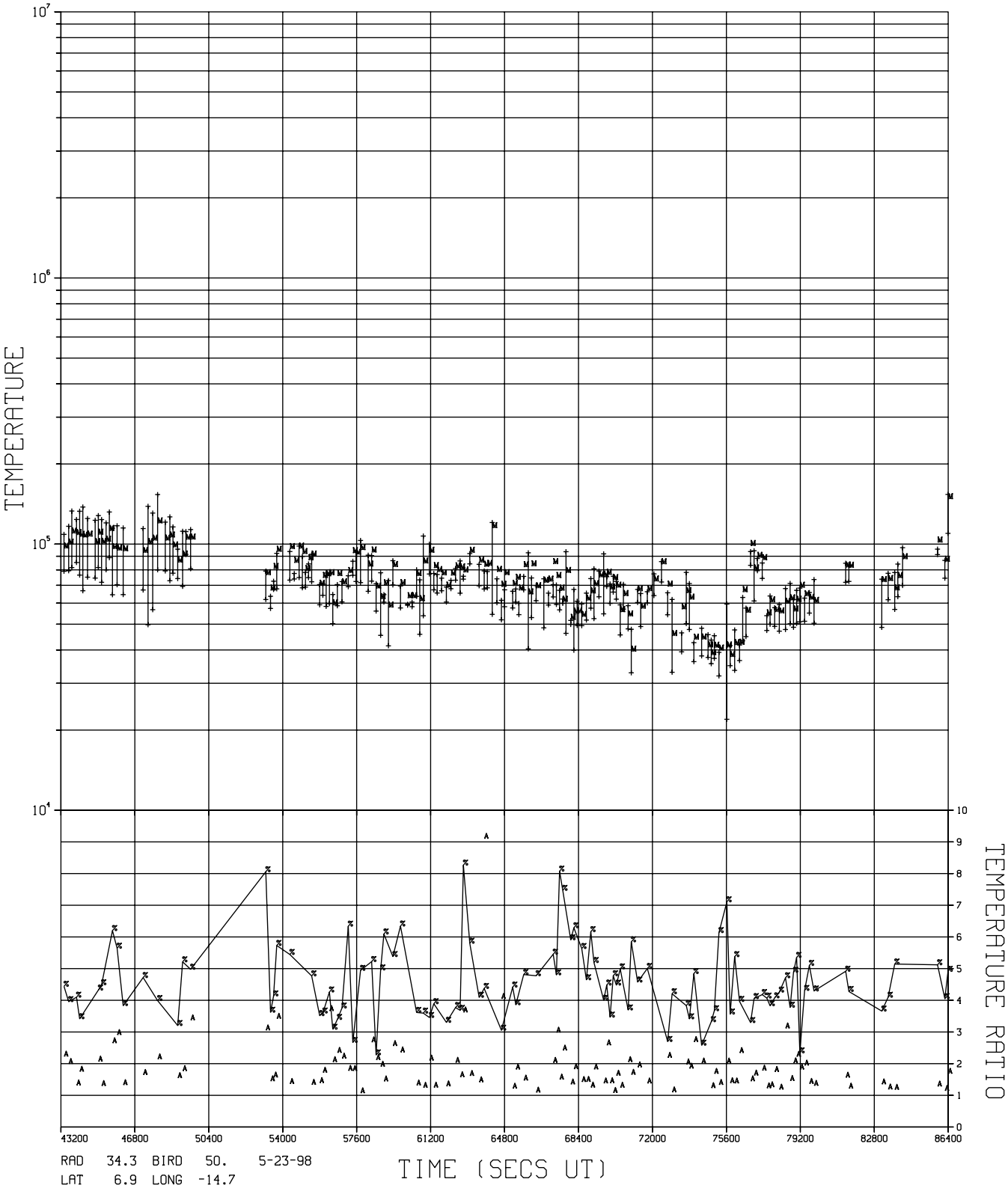

PERP. HEAT FLUX
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
CHI-SQUARE
10^{3}
10^{2}
10^{1}
10^{0}
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 33.2 BIRD 50. 5-23-98
LAT 16.7 LONG -27.1
TIME (SECS UT)

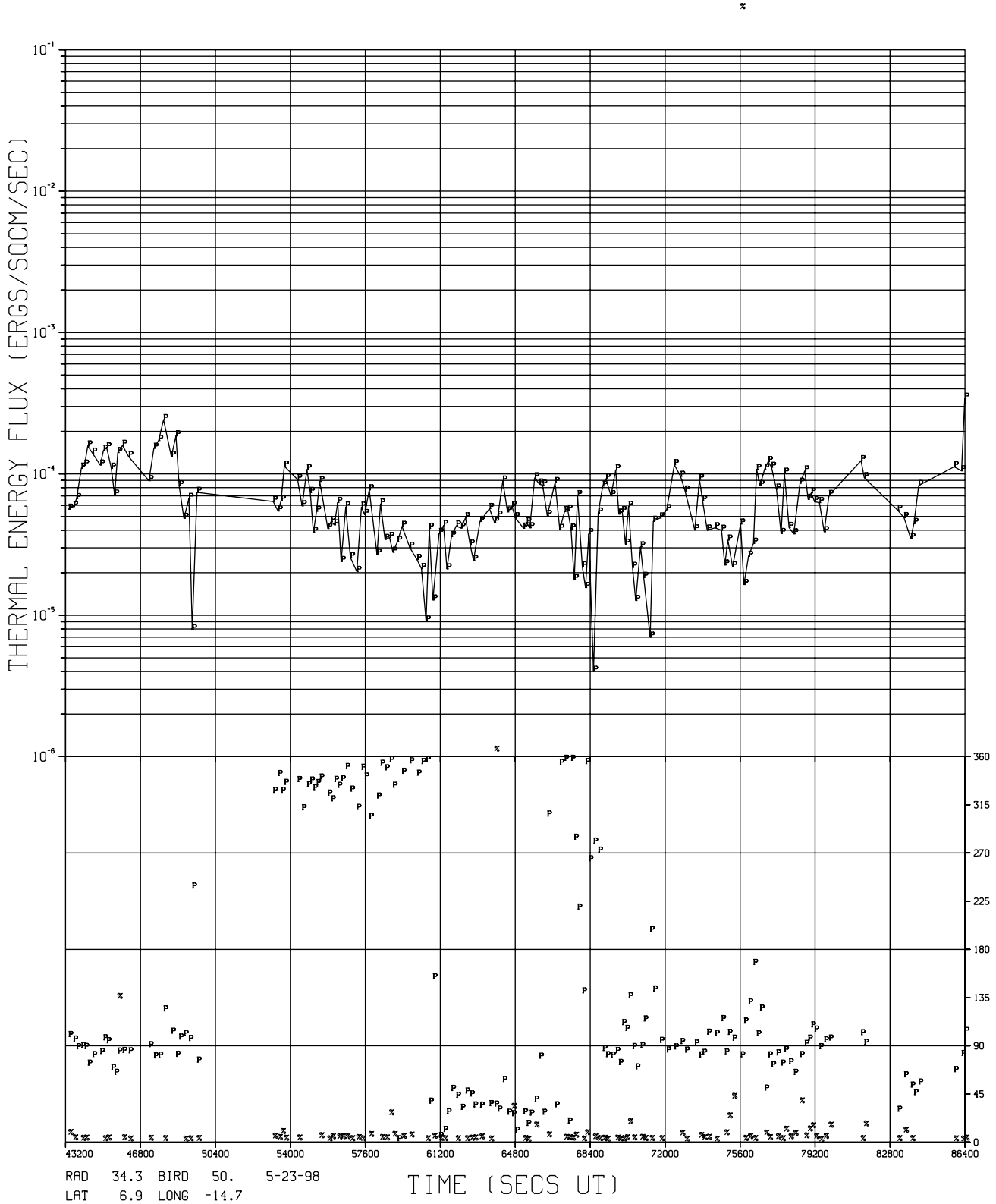

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 33.2 BIRD 50. 5-23-98
LAT 16.7 LONG -27.1

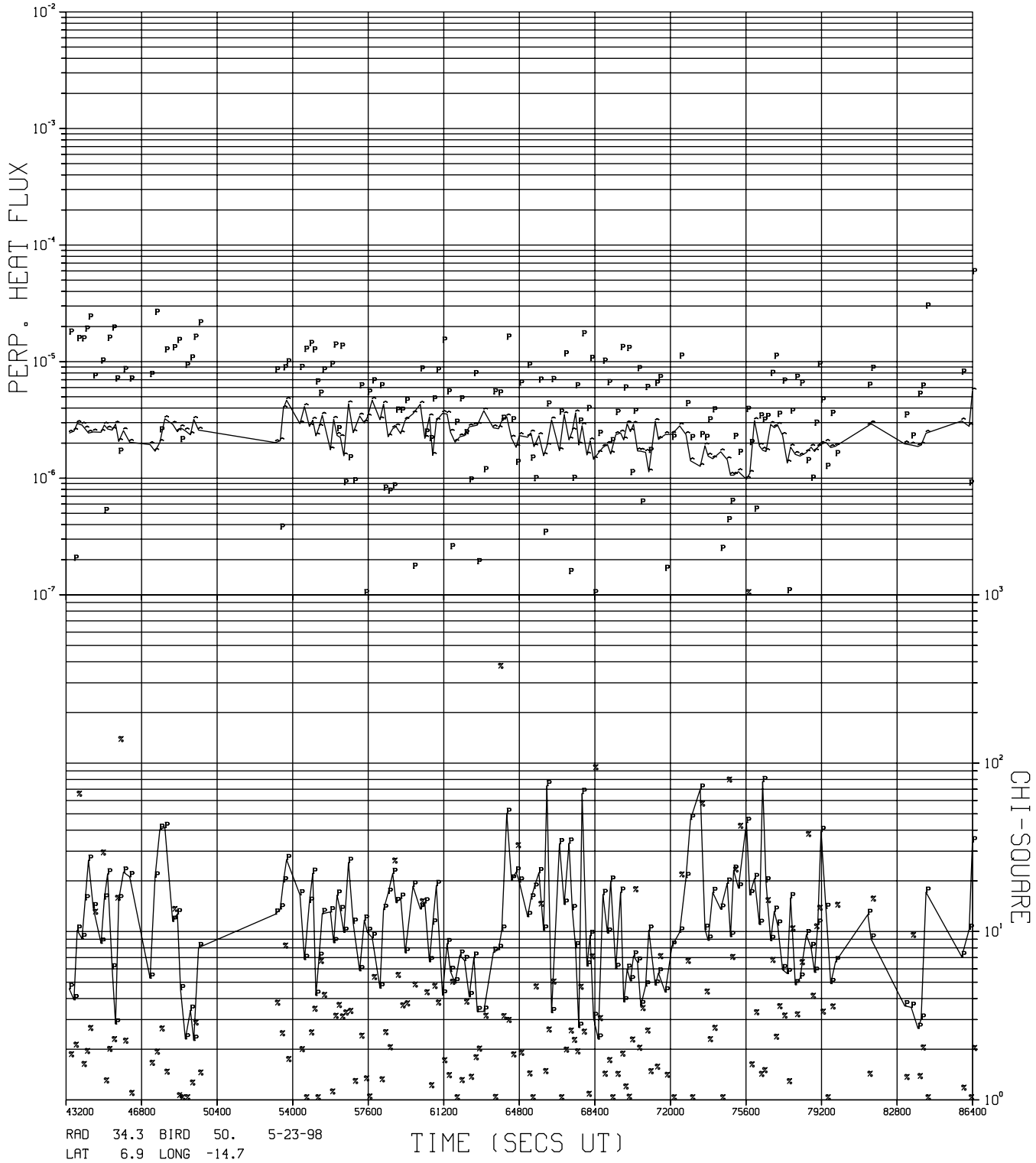

DENSITY
10^2
10^1
10^0
10^{-1}
DENSITY RATIO
10^0
10^{-1}
10^{-2}
10^{-3}
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 34.3 BIRD 50. 5-23-98
LAT 6.9 LONG -14.7

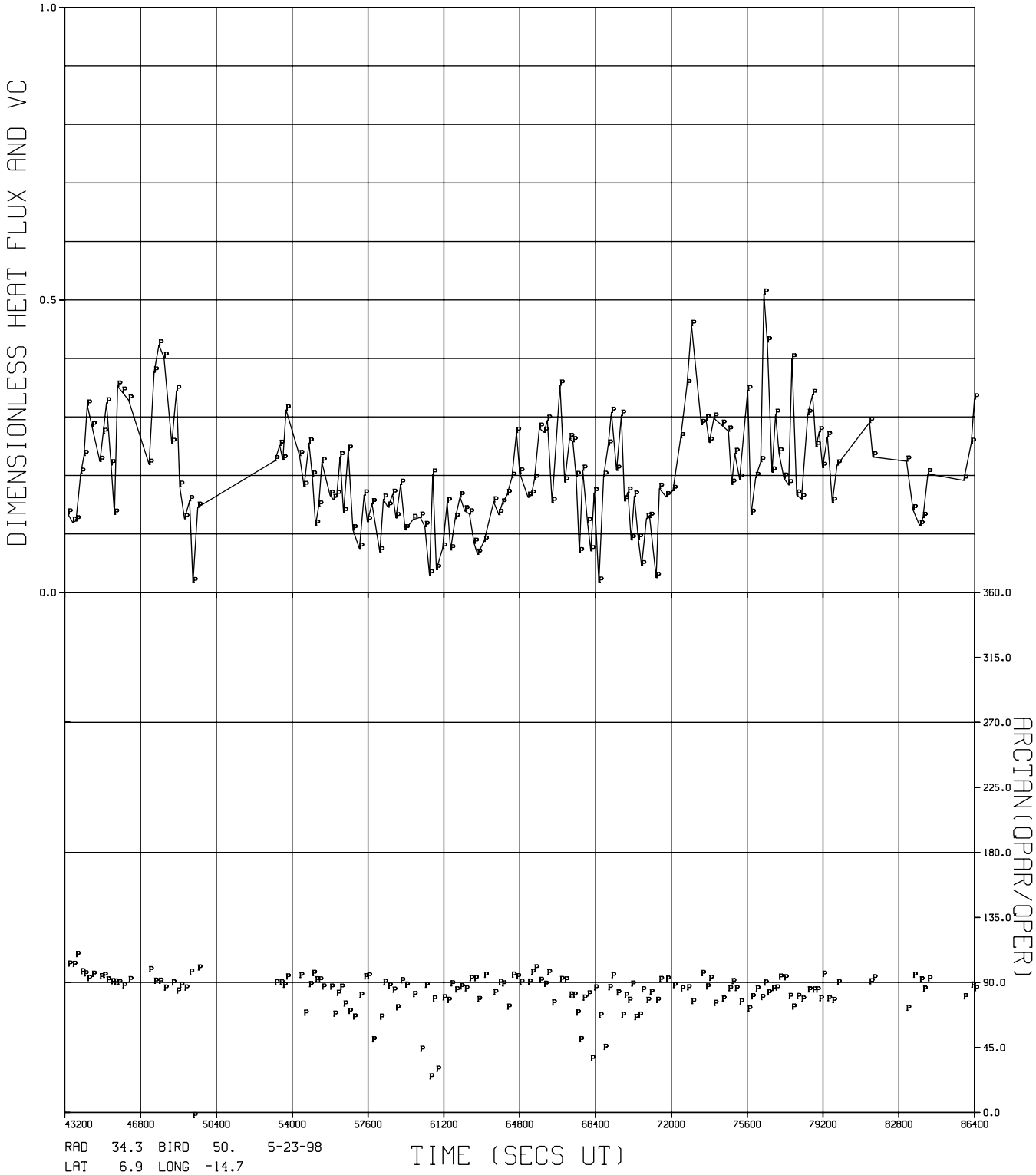

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 34.3 BIRD 50. 5-23-98
LAT 6.9 LONG -14.7

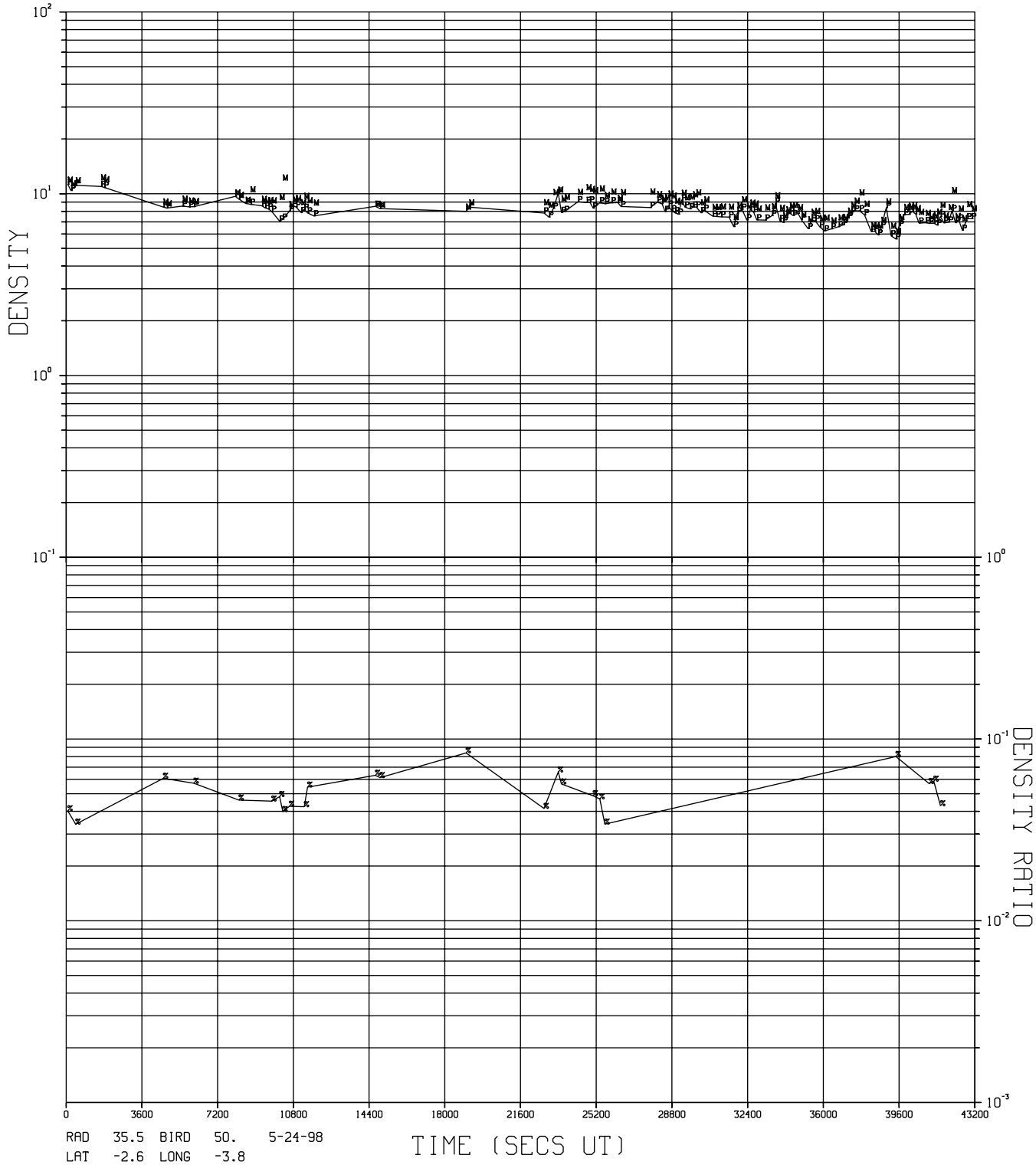

BULK FLOW DIRECTION
20
15
10
5
0
-5
-10
-15
-20
DIRECTION DIFFERENCE
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 34.3 BIRD 50. 5-23-98
LAT 6.9 LONG -14.7

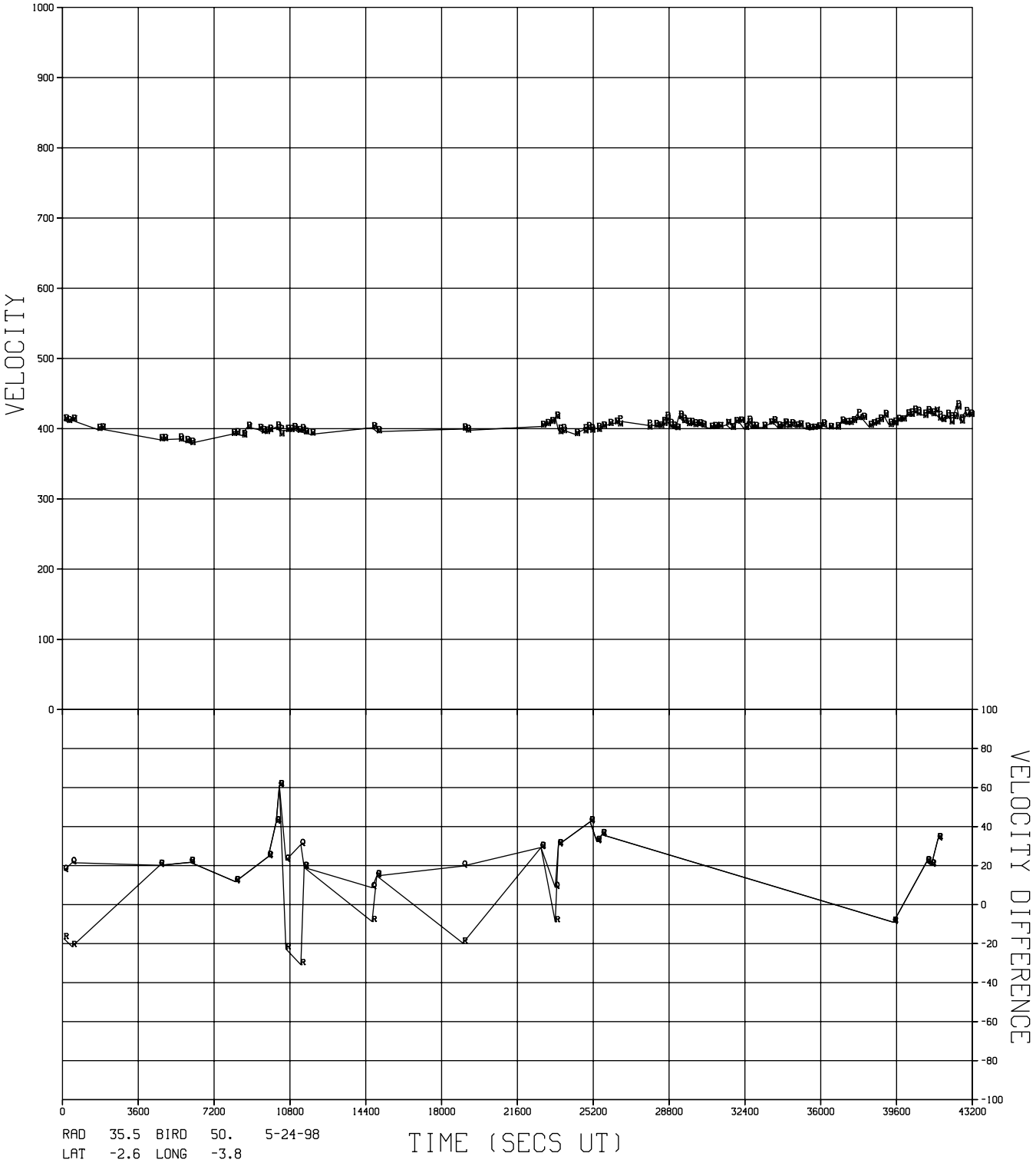

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 34.3 BIRD 50. 5-23-98
LAT 6.9 LONG -14.7

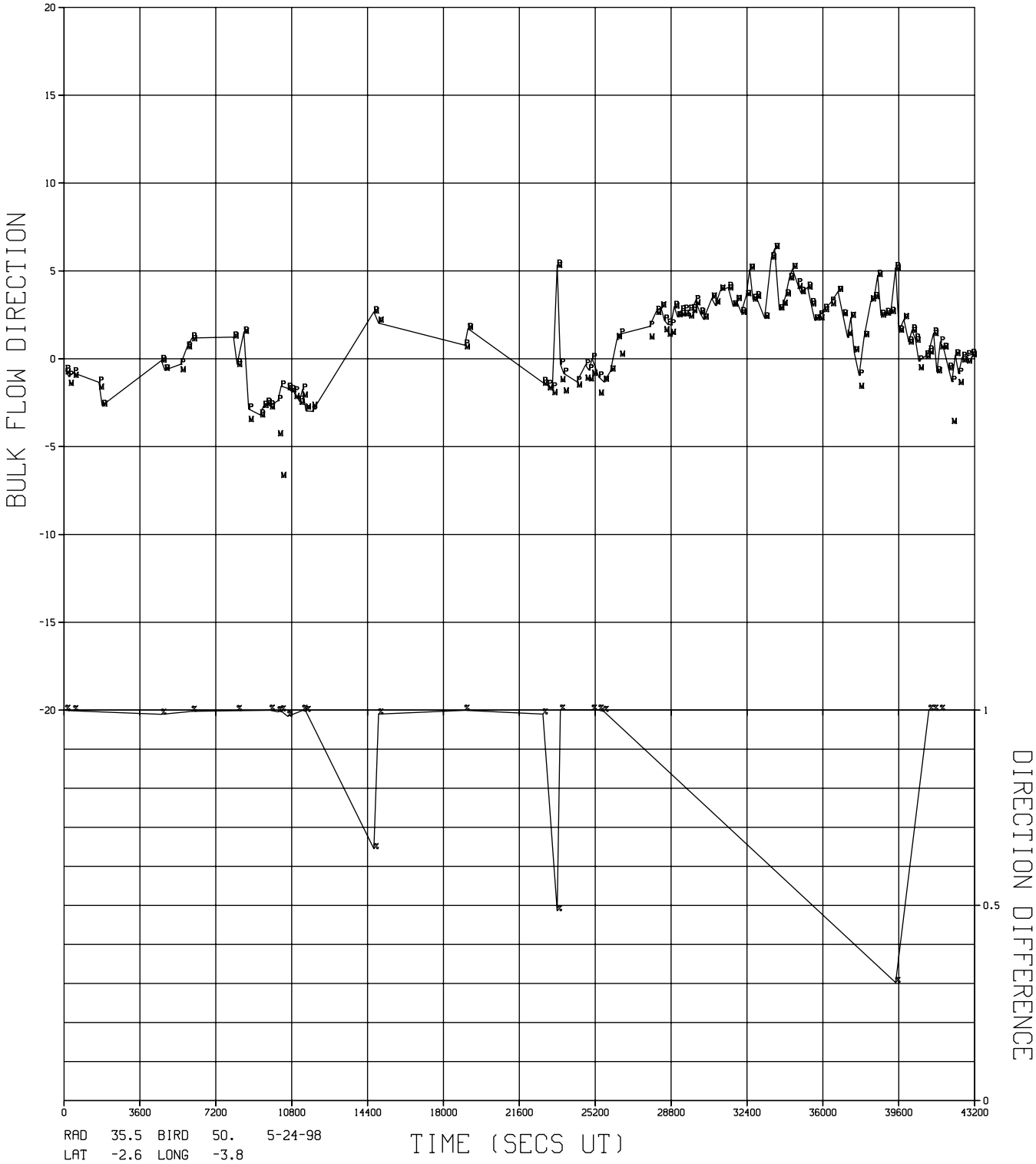

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
HEAT FLUX DIRECTION
360
315
270
225
180
135
90
45
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 34.3 BIRD 50. 5-23-98
LAT 6.9 LONG -14.7

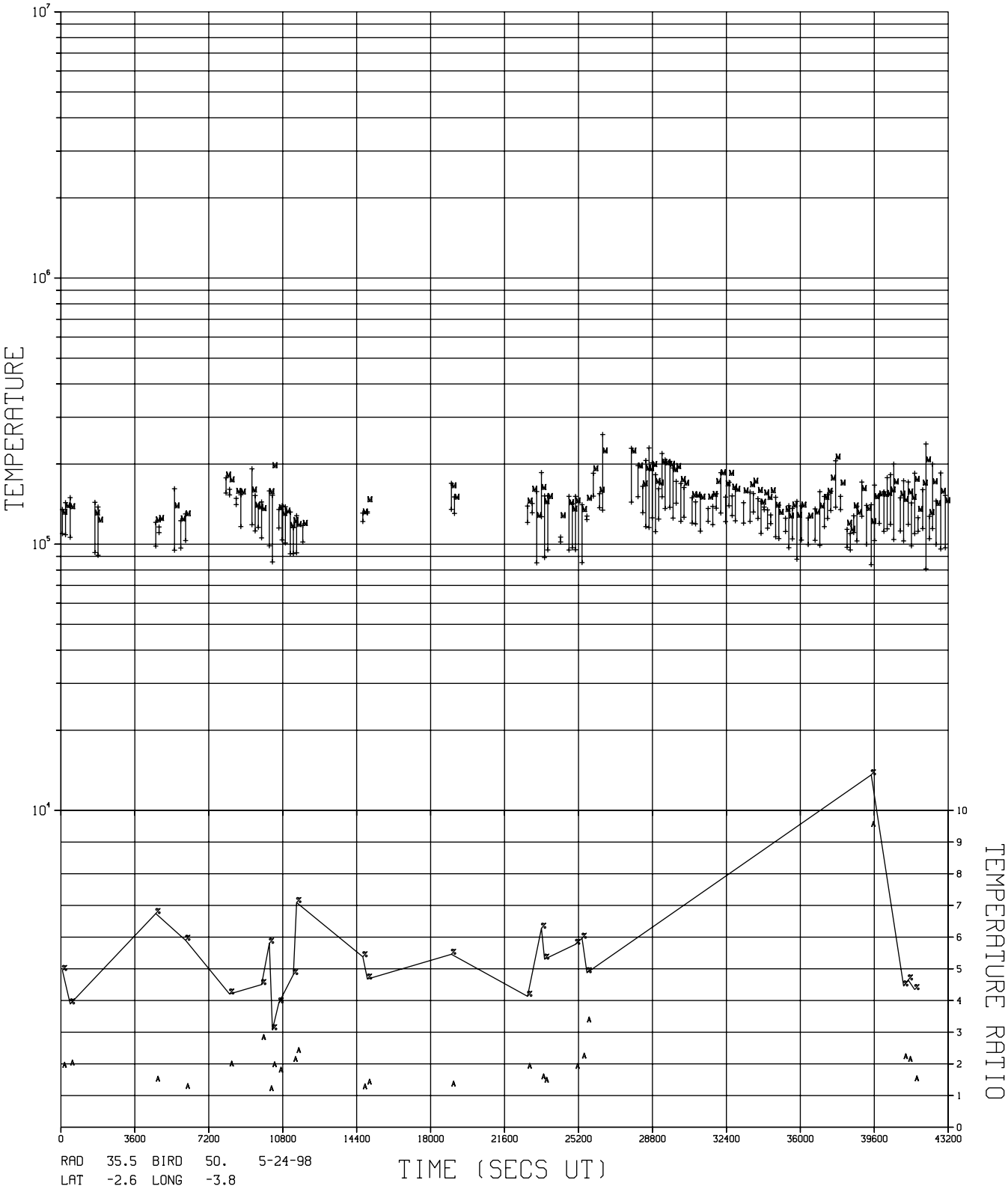

PERP. HEAT FLUX
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
CHI-SQUARE
10^{3}
10^{2}
10^{1}
10^{0}
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 34.3 BIRD 50. 5-23-98
LAT 6.9 LONG -14.7
TIME (SECS UT)

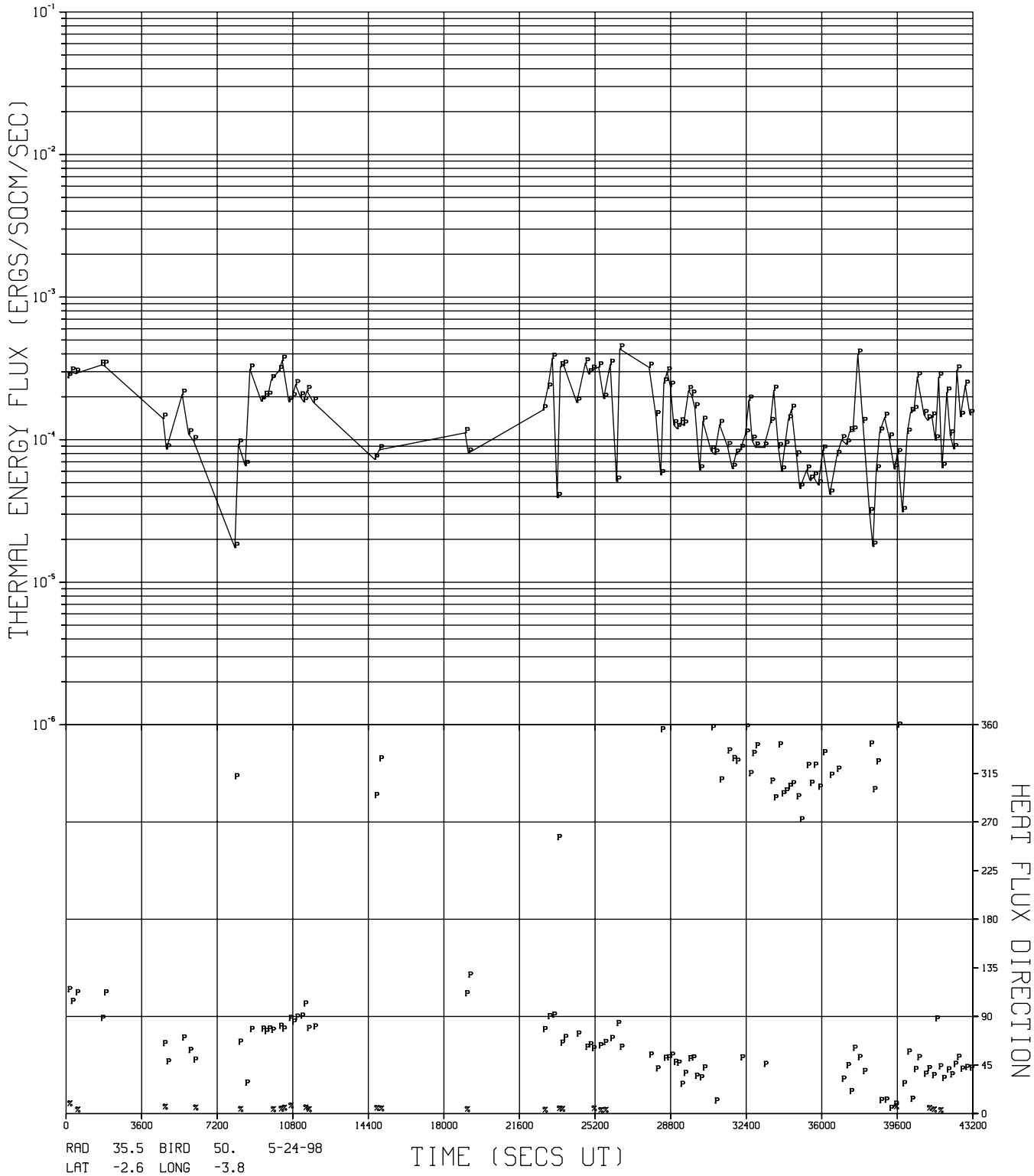

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 34.3 BIRD 50. 5-23-98
LAT 6.9 LONG -14.7
TIME (SECS UT)

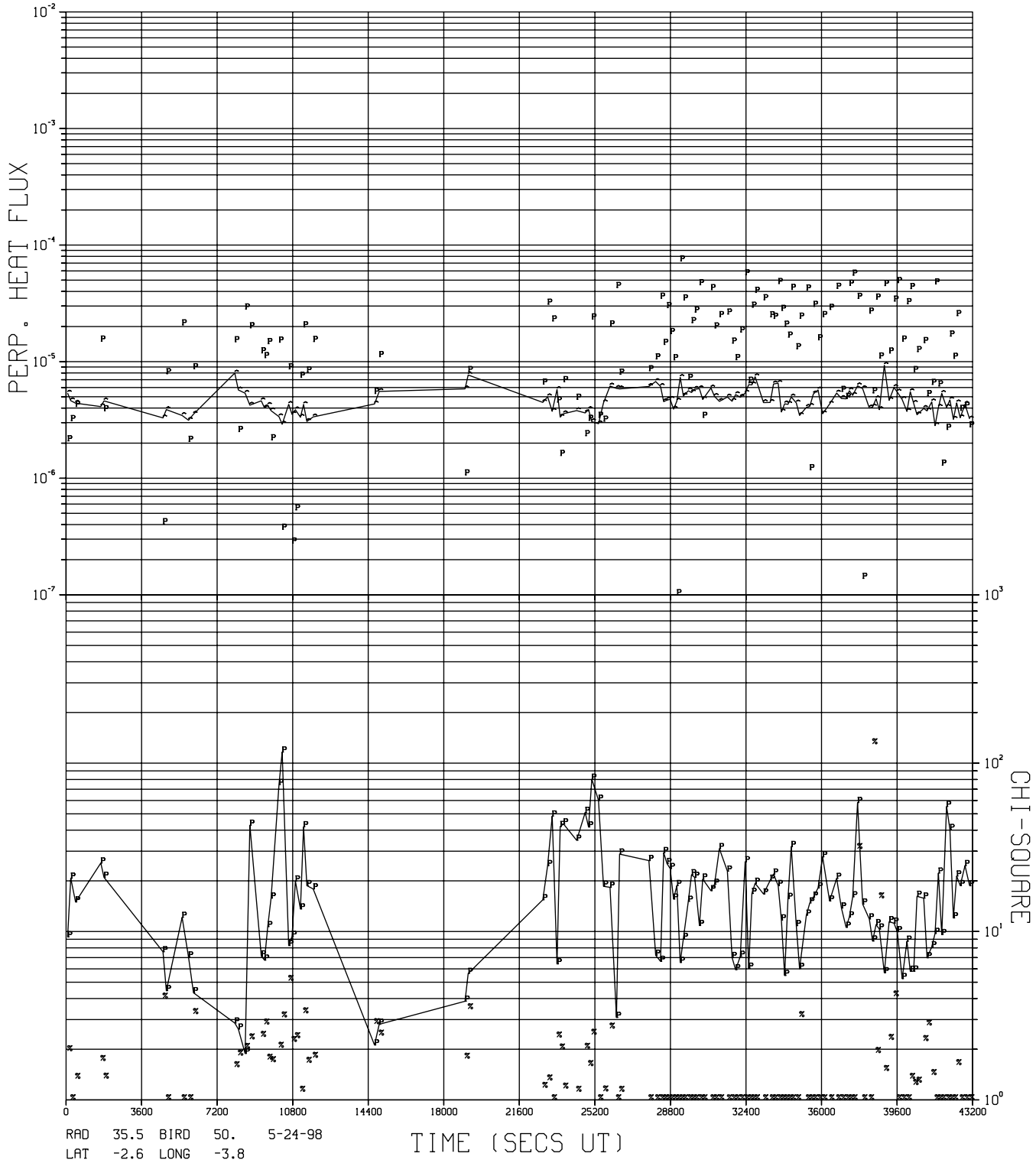

DENSITY
10^2
10^1
10^0
10^{-1}
DENSITY RATIO
10^0
10^{-1}
10^{-2}
10^{-3}
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 35.5 BIRD 50. 5-24-98
LAT -2.6 LONG -3.8
TIME (SECS UT)

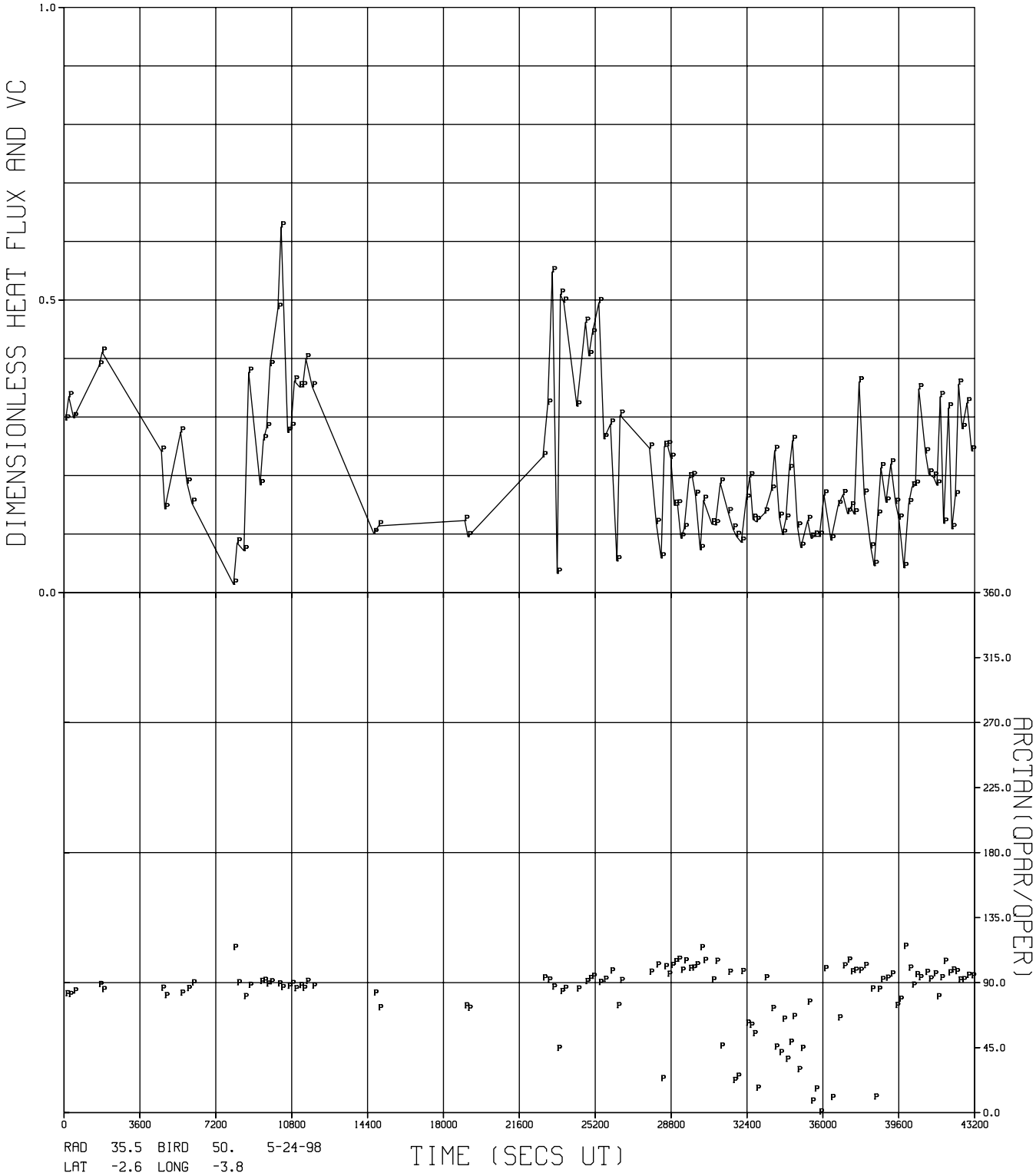

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
1000
900
800
700
600
500
400
300
200
100
0
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 35.5 BIRD 50. 5-24-98
LAT -2.6 LONG -3.8

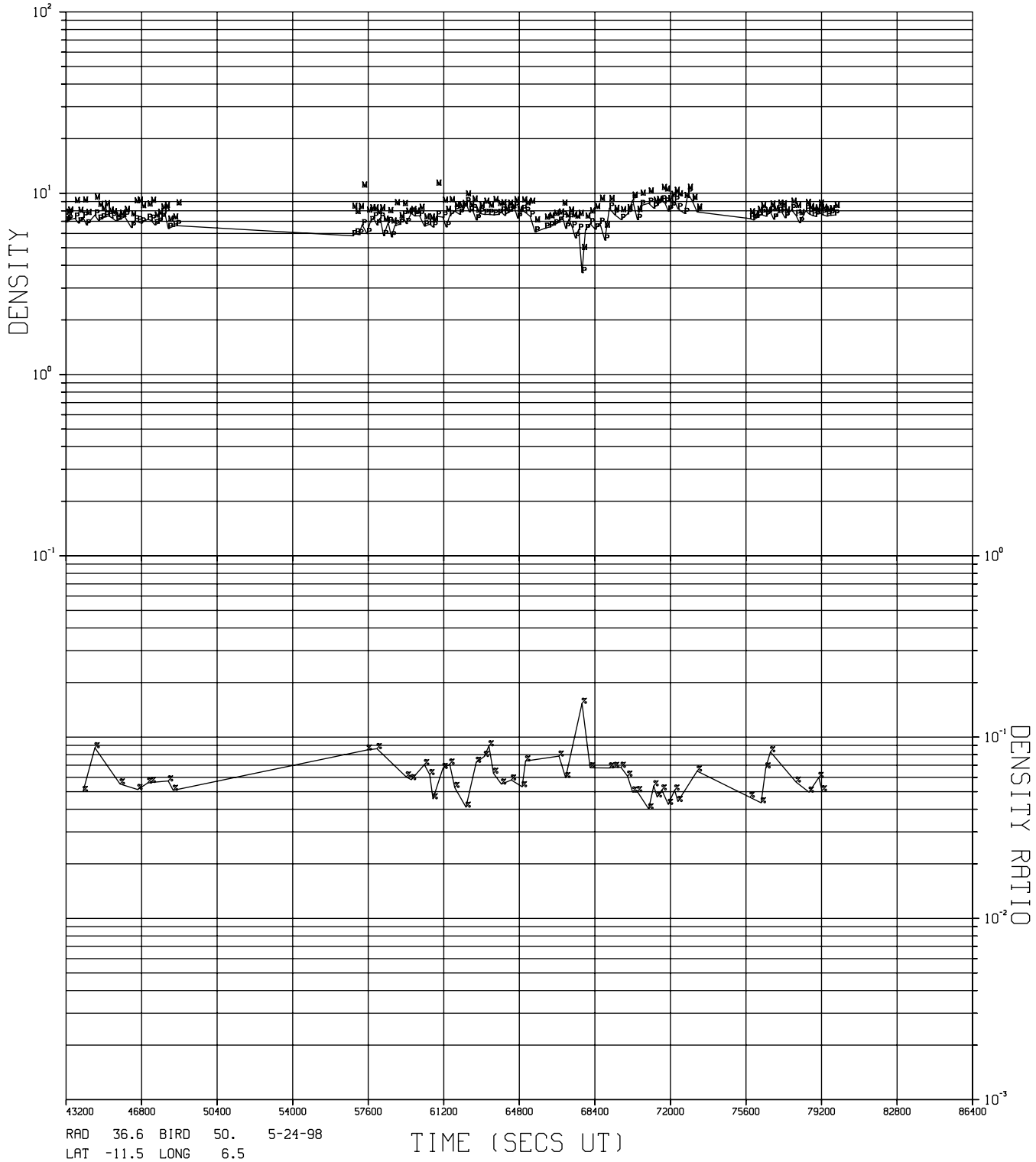

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 35.5 BIRD 50. 5-24-98
LAT -2.6 LONG -3.8

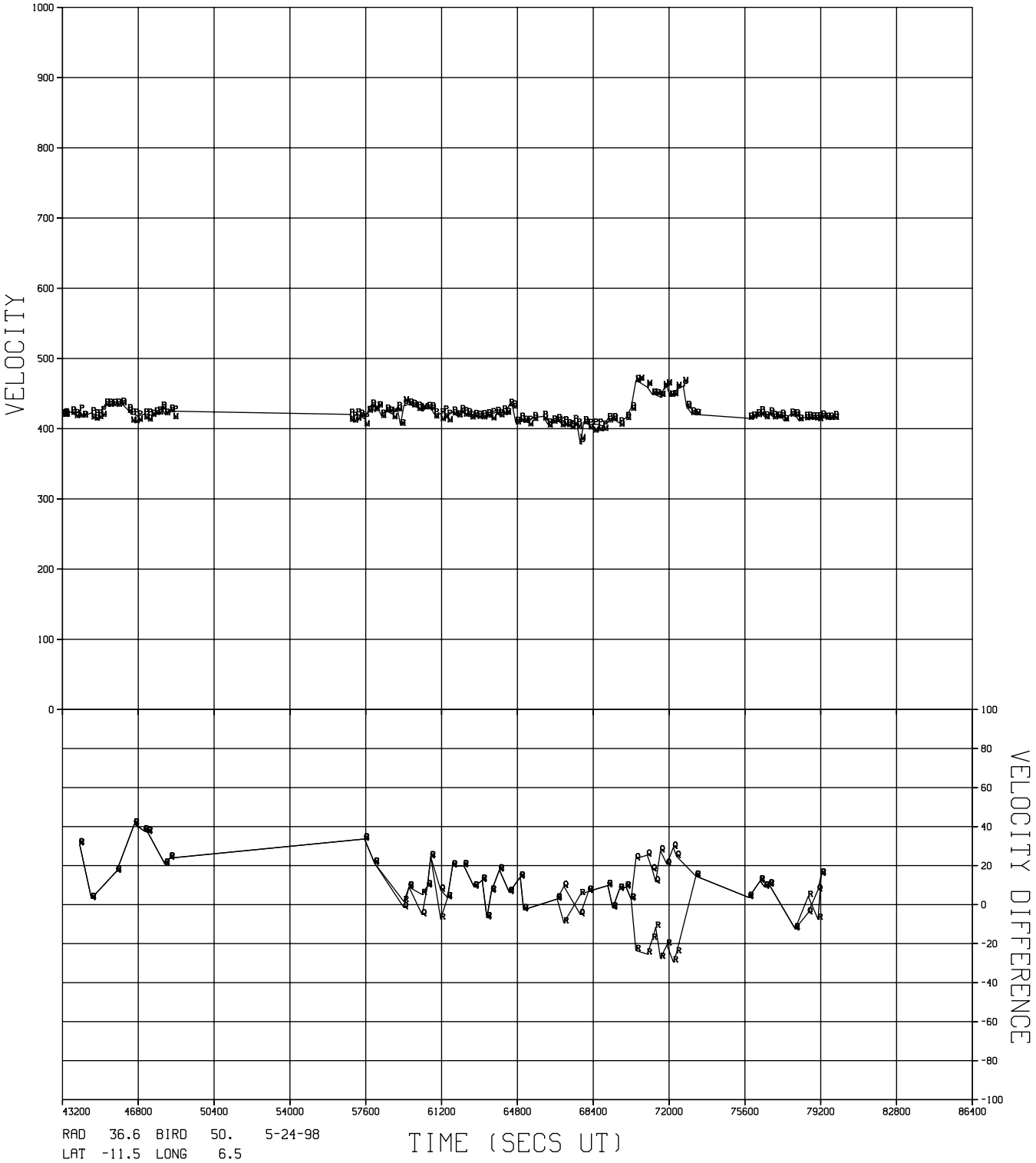

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 35.5 BIRD 50. 5-24-98
LAT -2.6 LONG -3.8

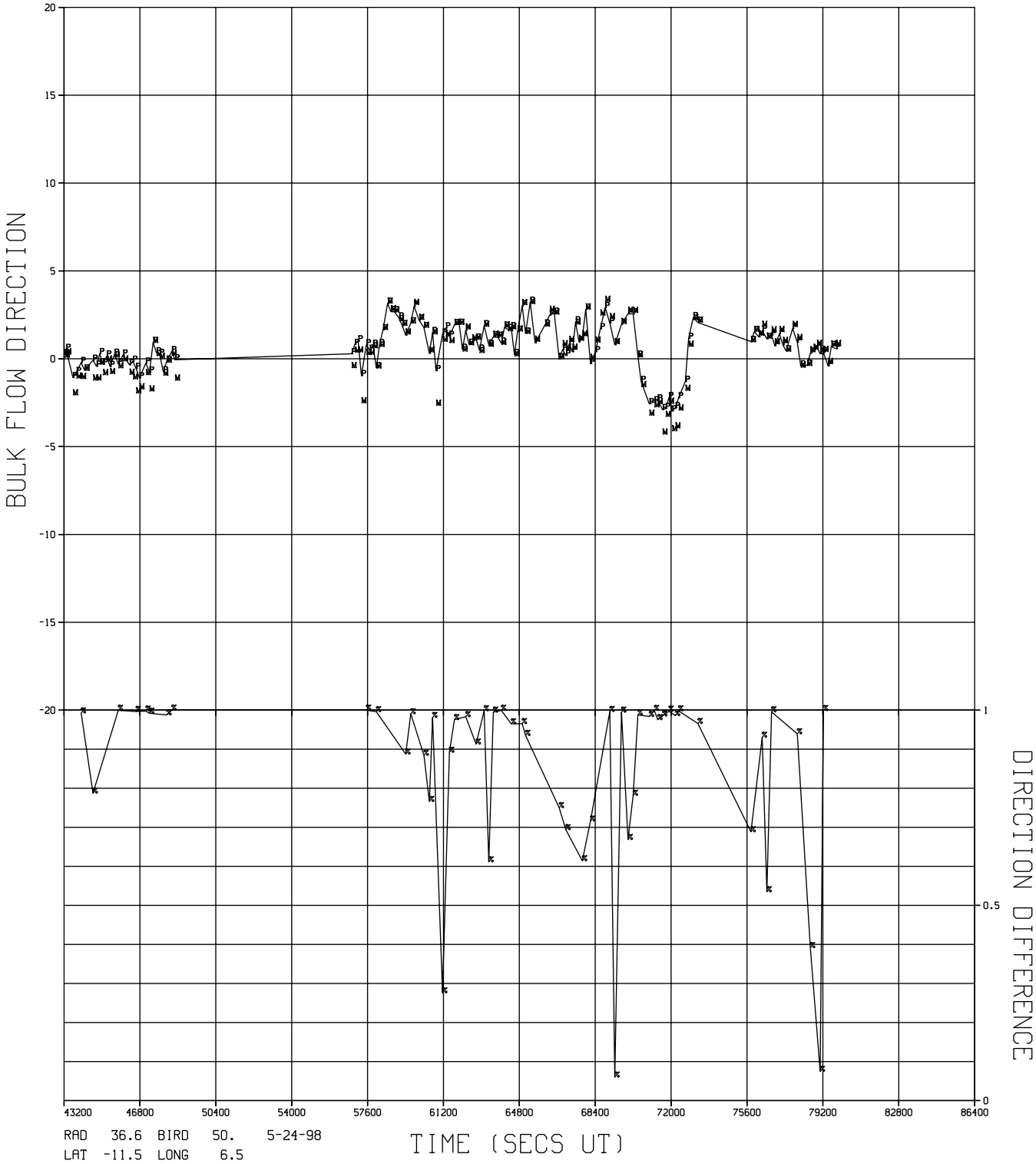

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
HEAT FLUX DIRECTION
360
315
270
225
180
135
90
45
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 35.5 BIRD 50. 5-24-98
LAT -2.6 LONG -3.8

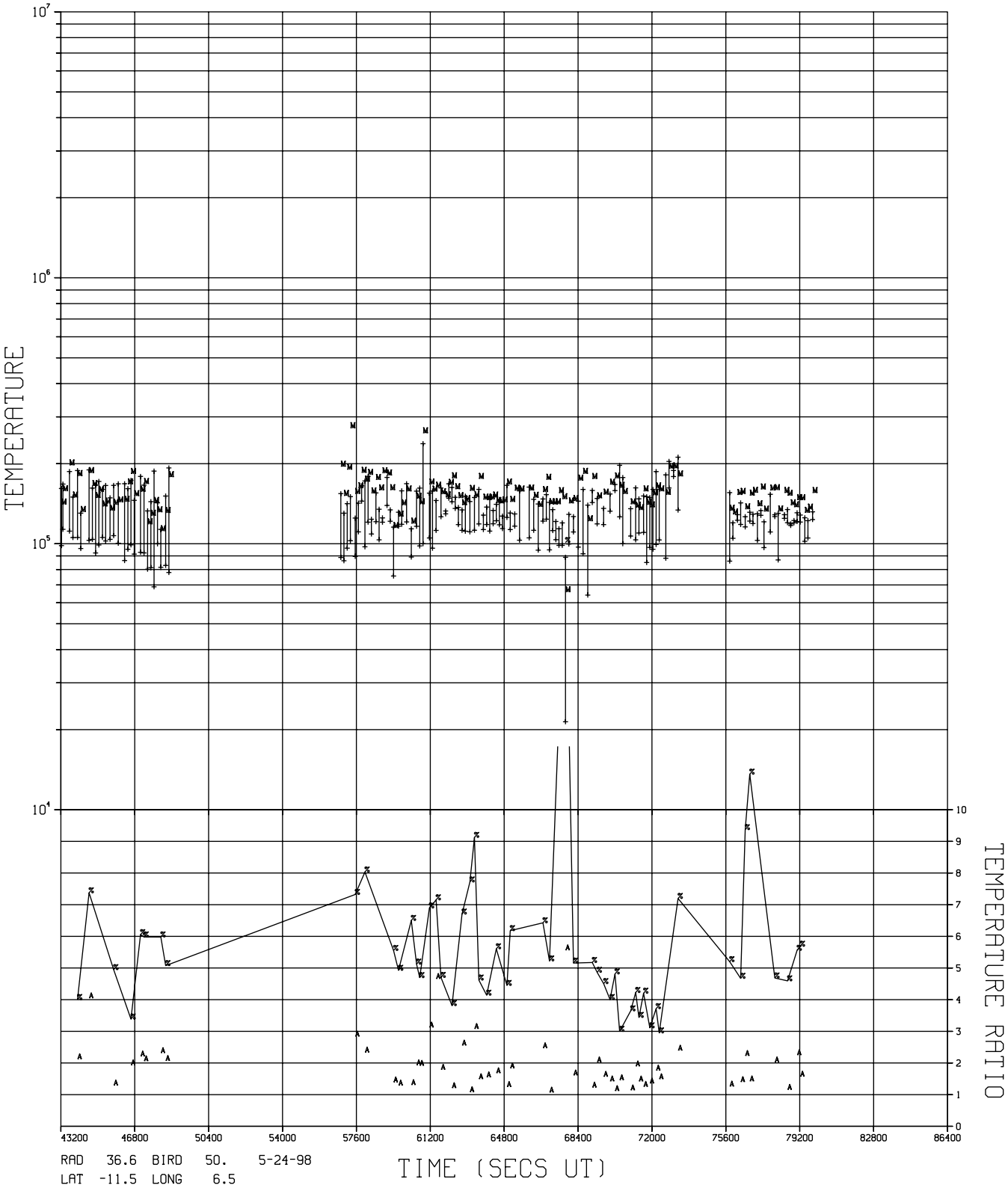

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 35.5 BIRD 50. 5-24-98
LAT -2.6 LONG -3.8

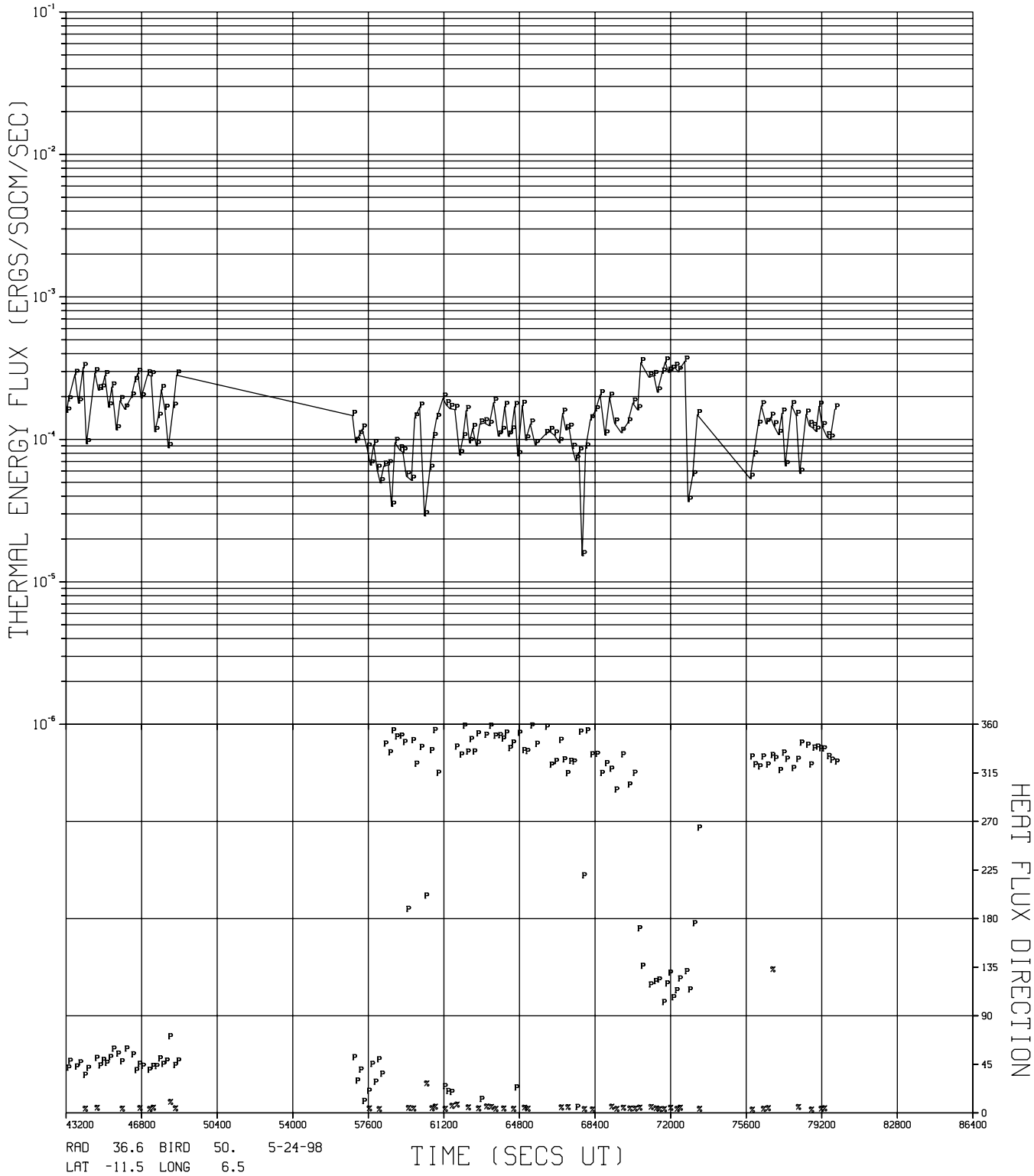

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 35.5 BIRD 50. 5-24-98
LAT -2.6 LONG -3.8
TIME (SECS UT)

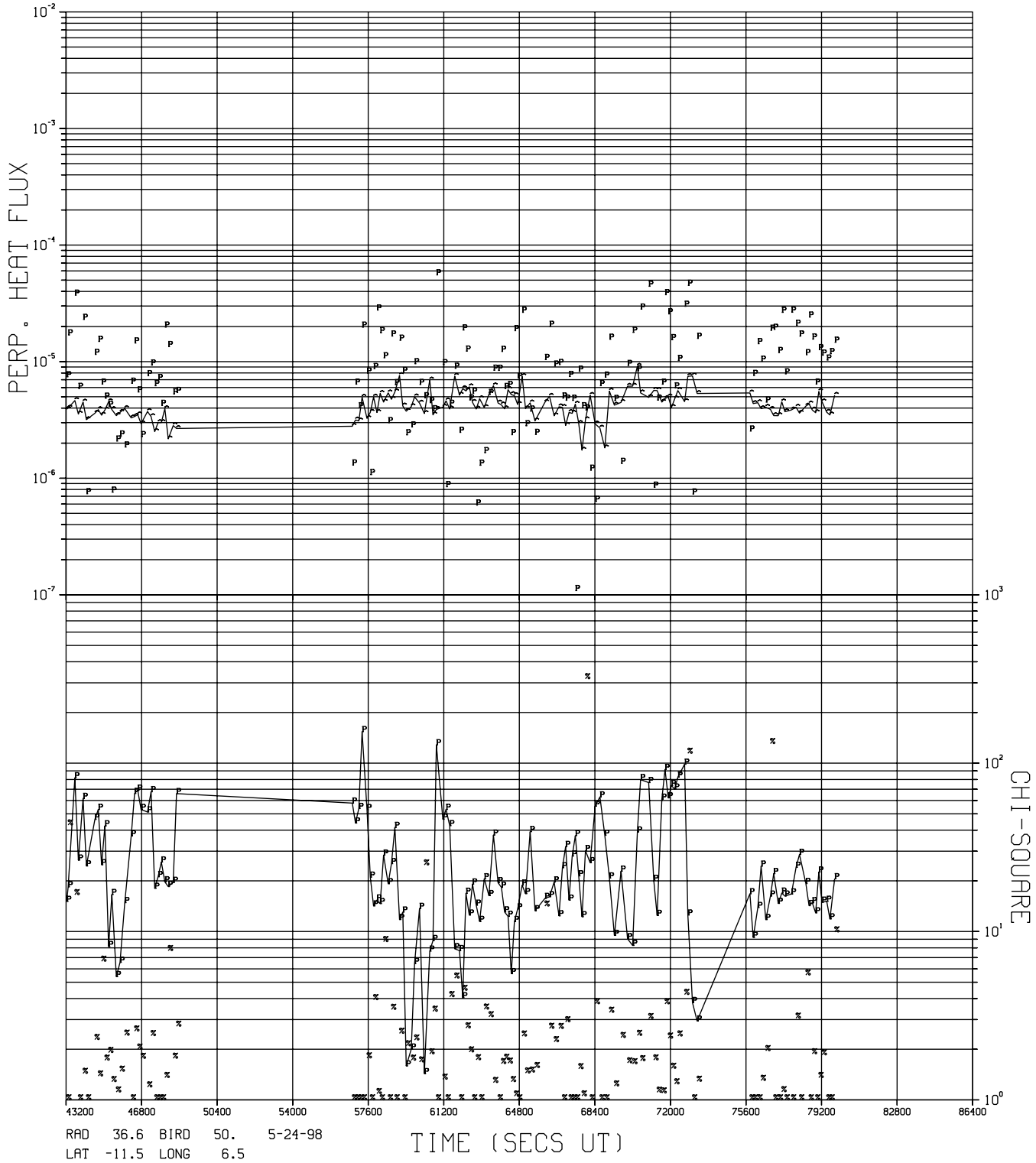

DENSITY
10^2
10^1
10^0
10^{-1}
DENSITY RATIO
10^0
10^{-1}
10^{-2}
10^{-3}
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.6 BIRD 50. 5-24-98
LAT -11.5 LONG 6.5

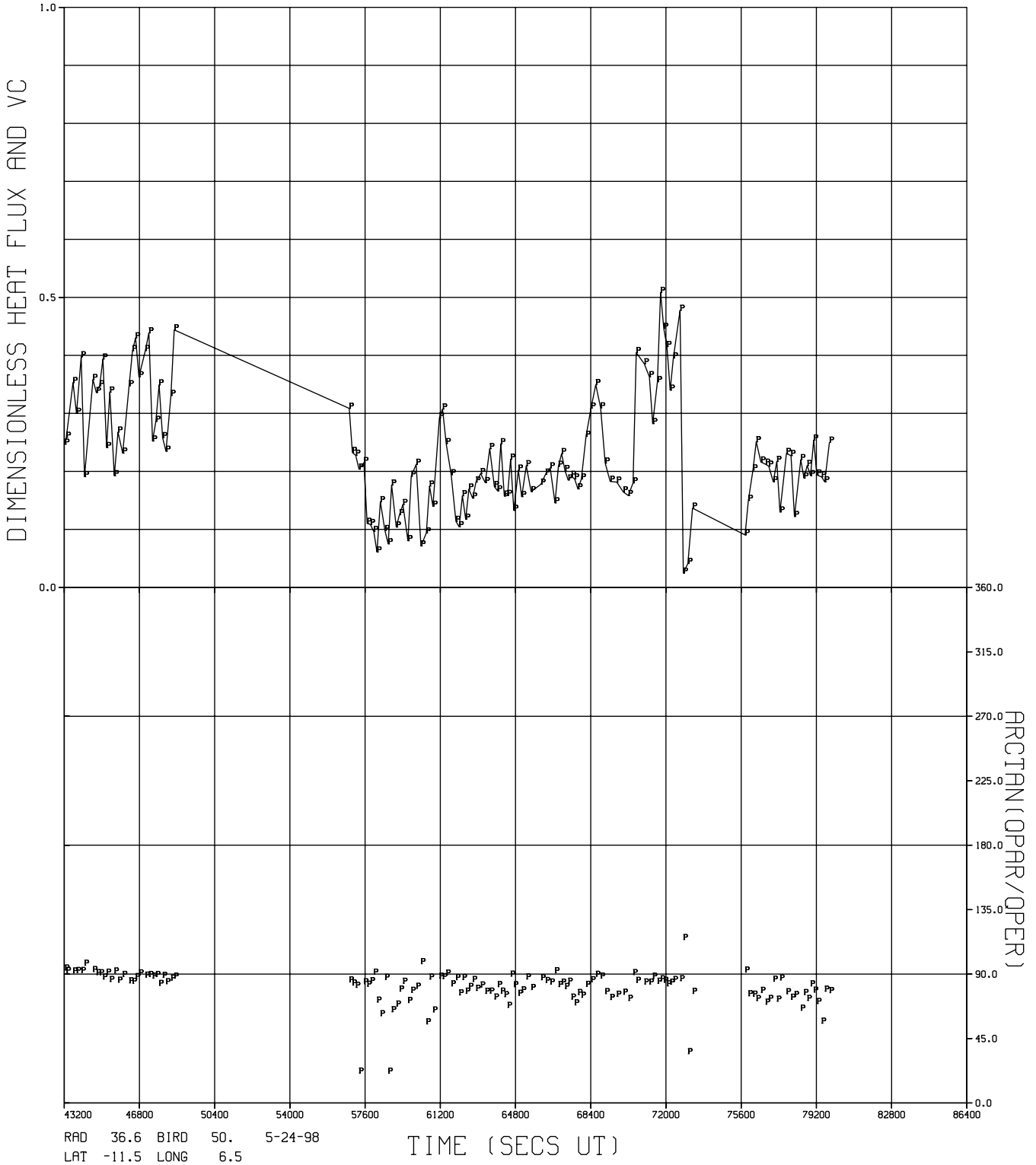

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.6 BIRD 50. 5-24-98
LAT -11.5 LONG 6.5


BULK FLOW DIRECTION
20
15
10
5
0
-5
-10
-15
-20
DIRECTION DIFFERENCE
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.6 BIRD 50. 5-24-98
LAT -11.5 LONG 6.5


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 36.6 BIRD 50. 5-24-98
LAT -11.5 LONG 6.5


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 36.6 BIRD 50. 5-24-98
LAT -11.5 LONG 6.5


PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 36.6 BIRD 50. 5-24-98
LAT -11.5 LONG 6.5


DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
ARCTAN(QPAR/QPER)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.6 BIRD 50. 5-24-98
LAT -11.5 LONG 6.5
TIME (SECS UT)