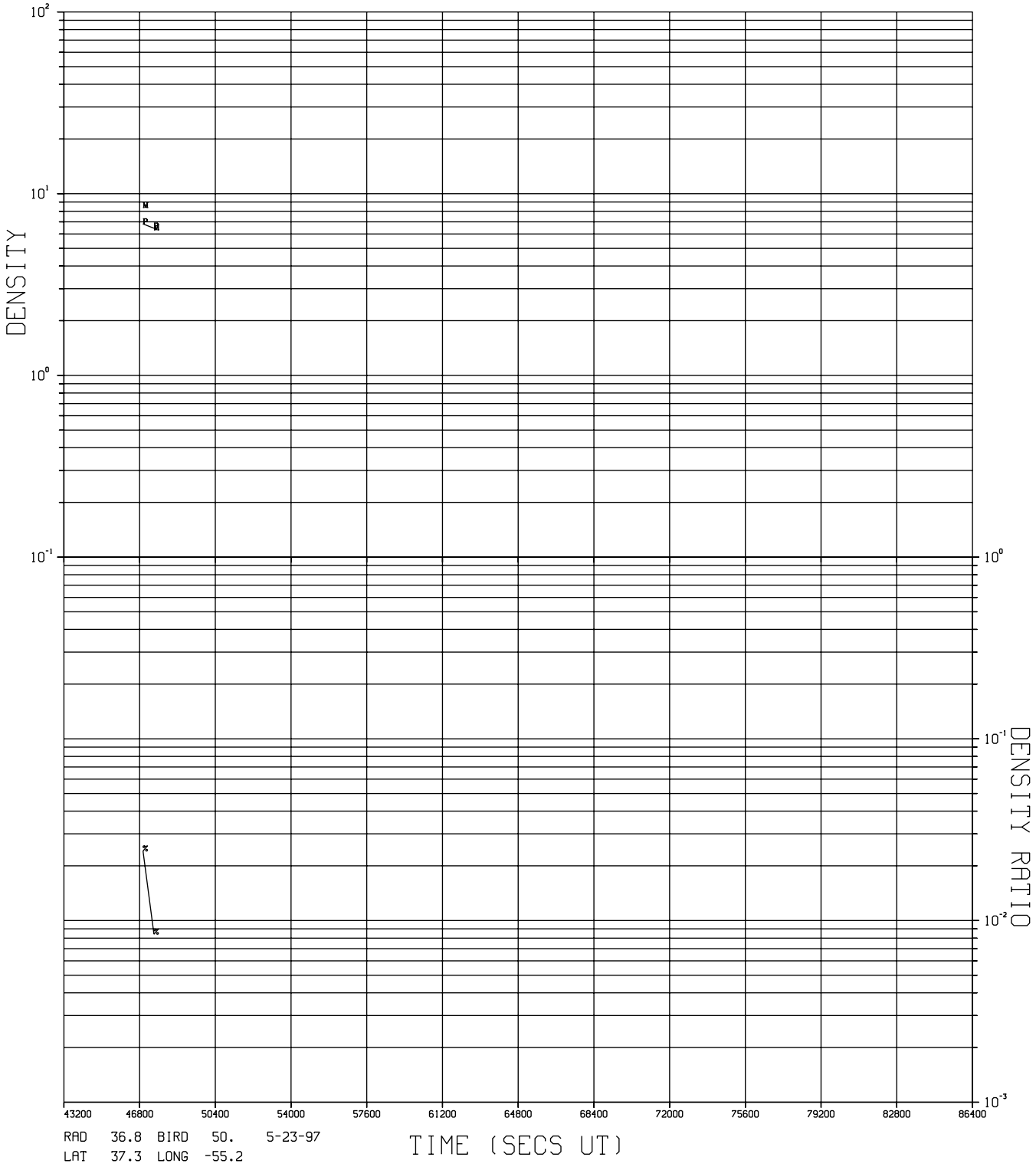
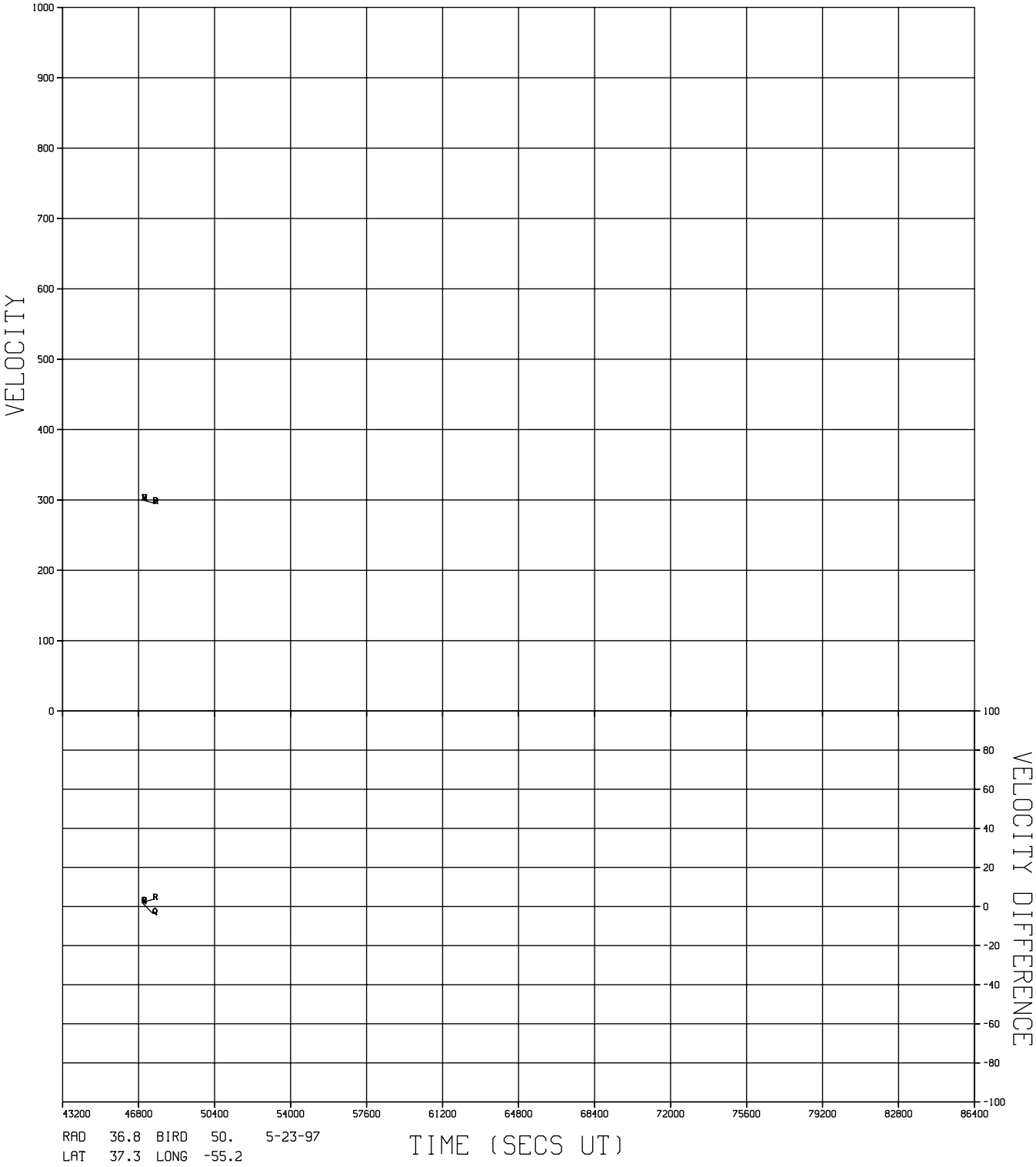
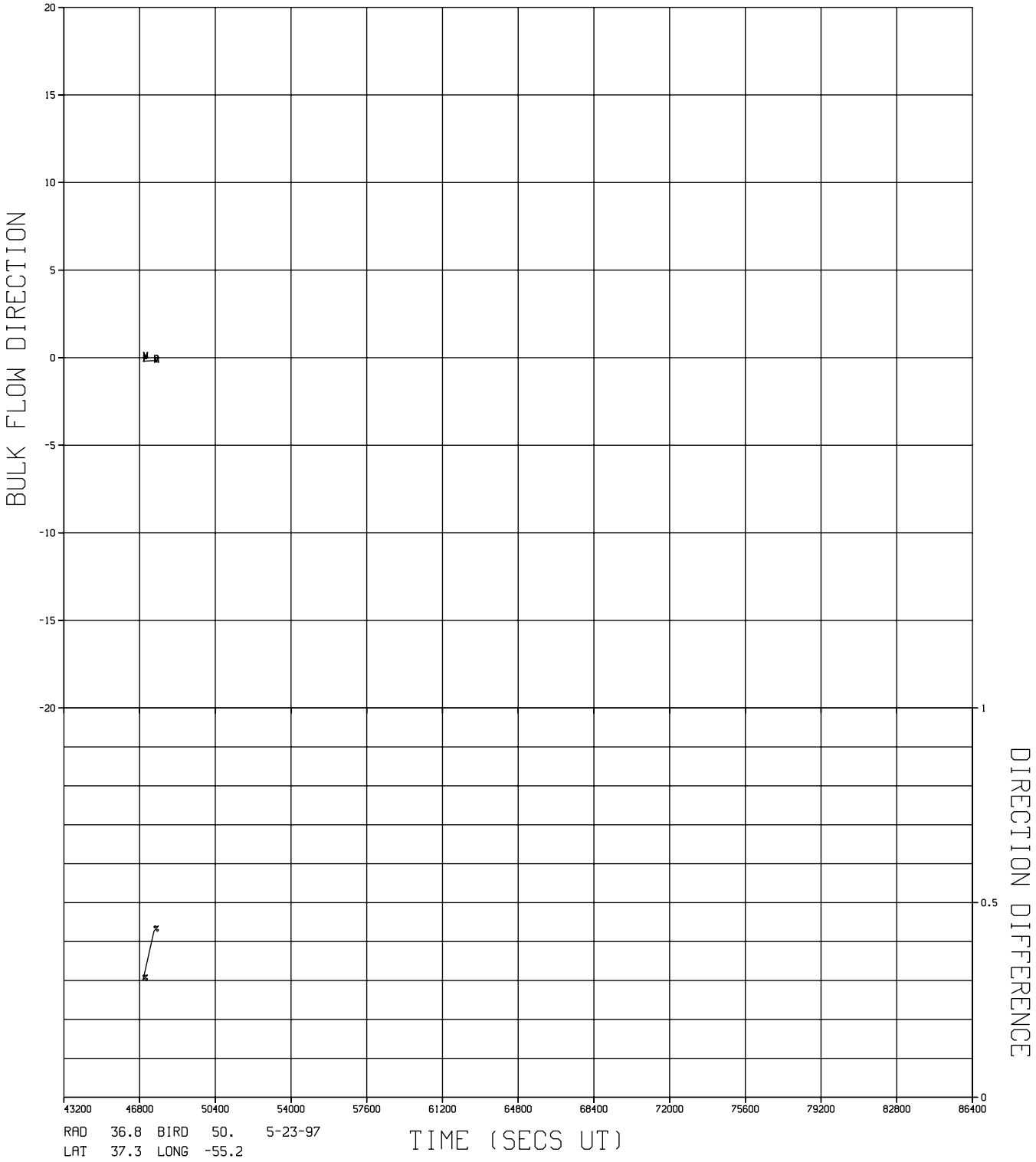
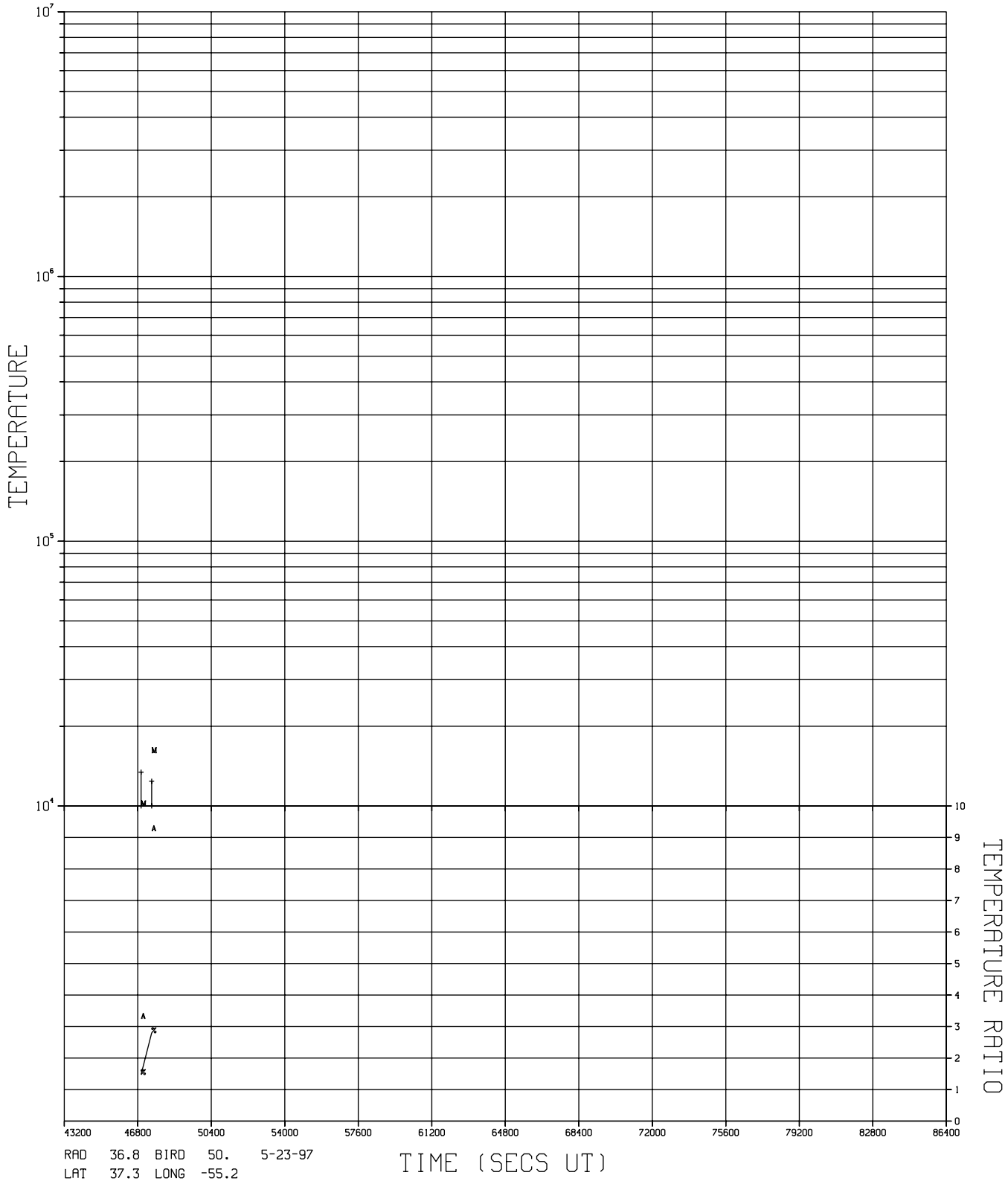
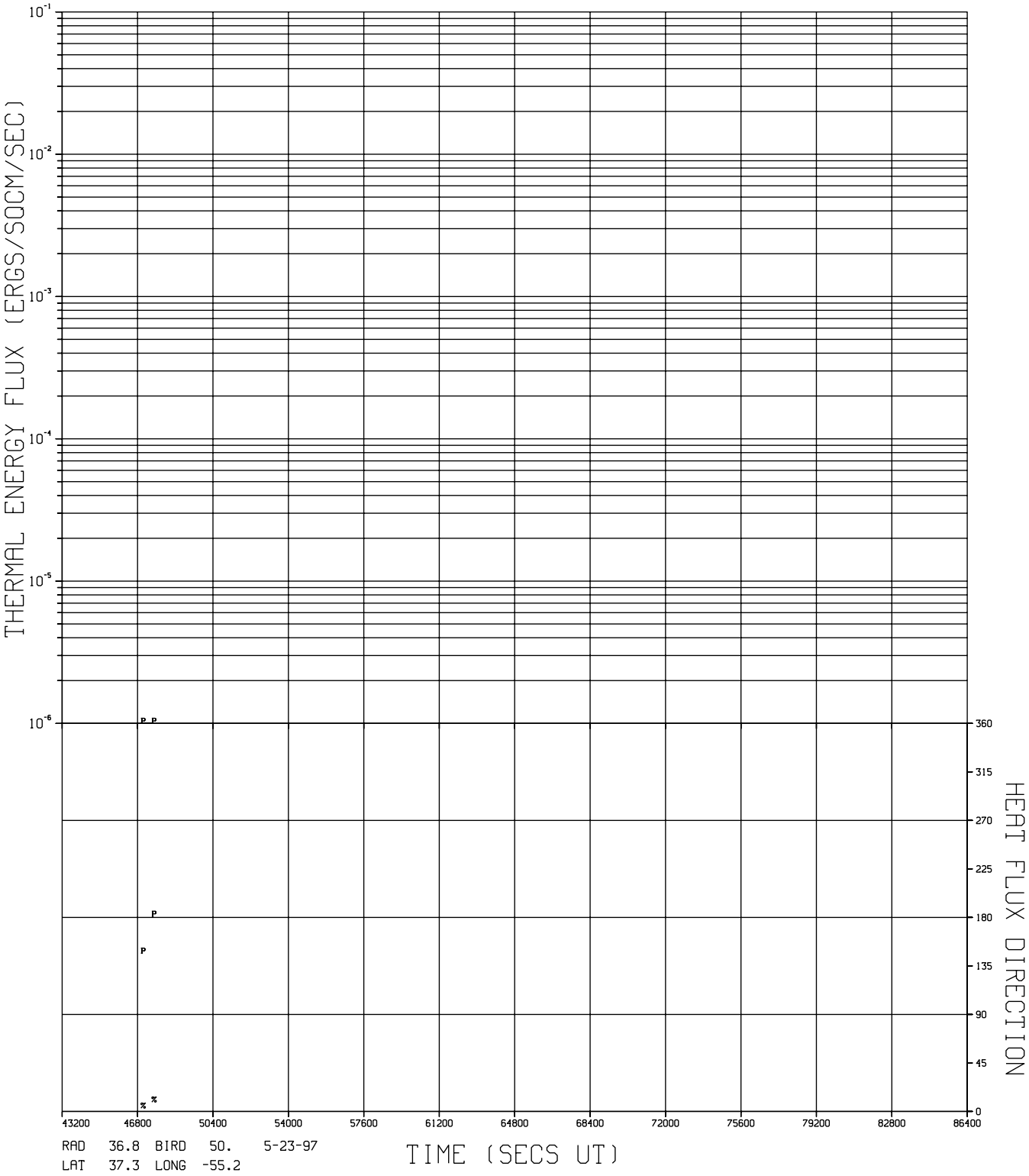
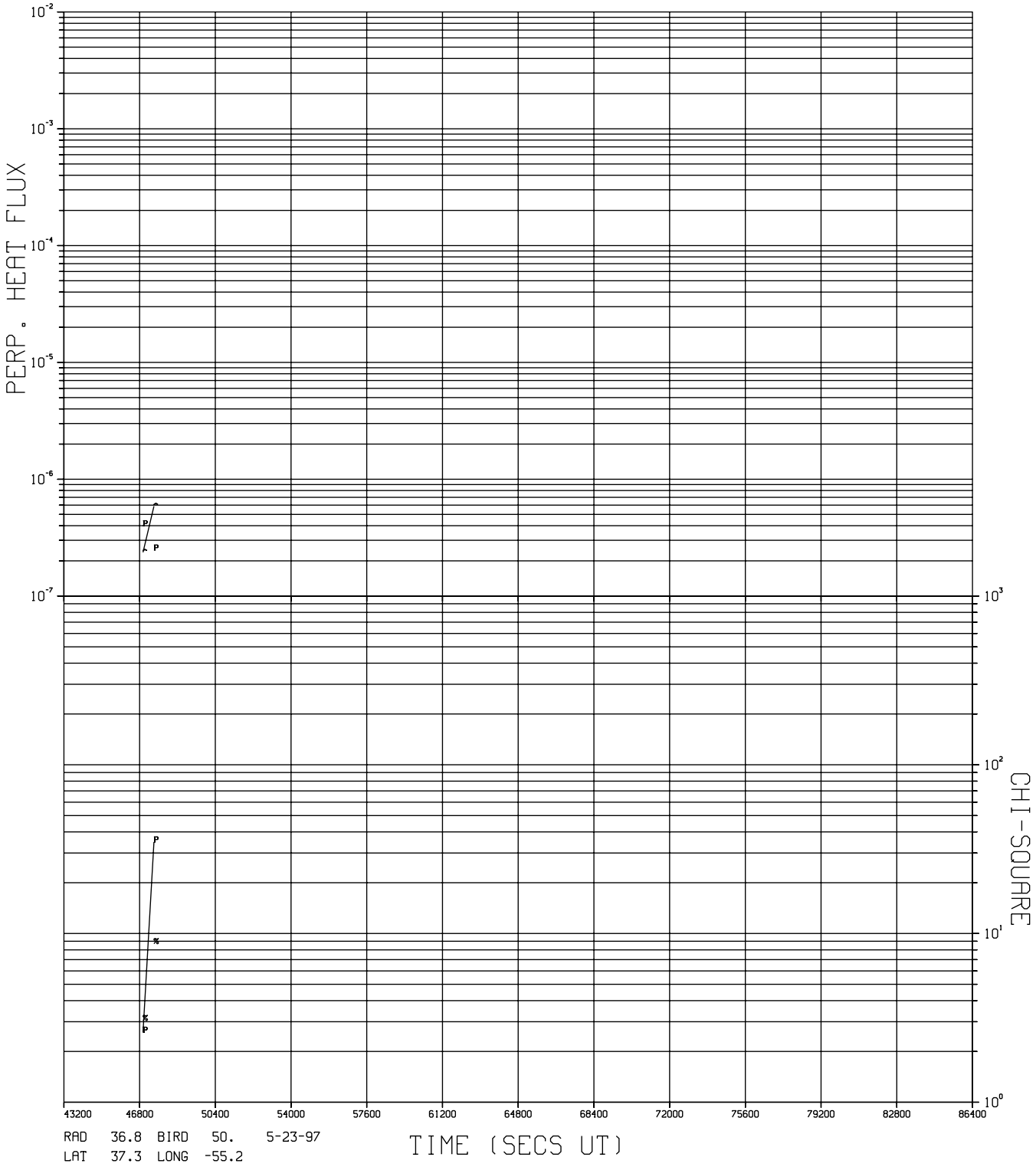

DENSITY
DENSITY RATIO
TIME (SECS UT)
10^{2}
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.8 BIRD 50. 5-23-97
LAT 37.3 LONG -55.2

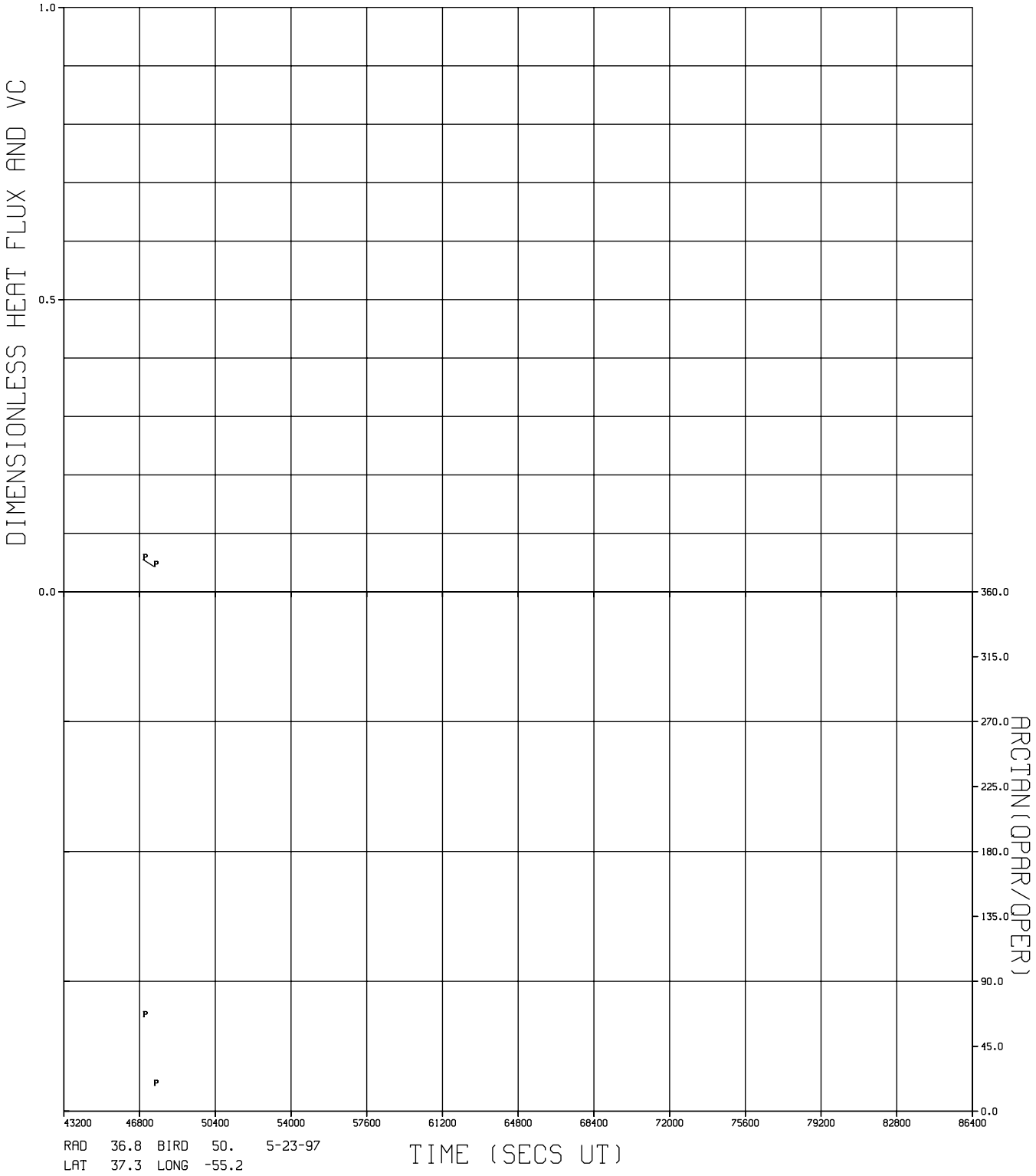

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.8 BIRD 50. 5-23-97
LAT 37.3 LONG -55.2

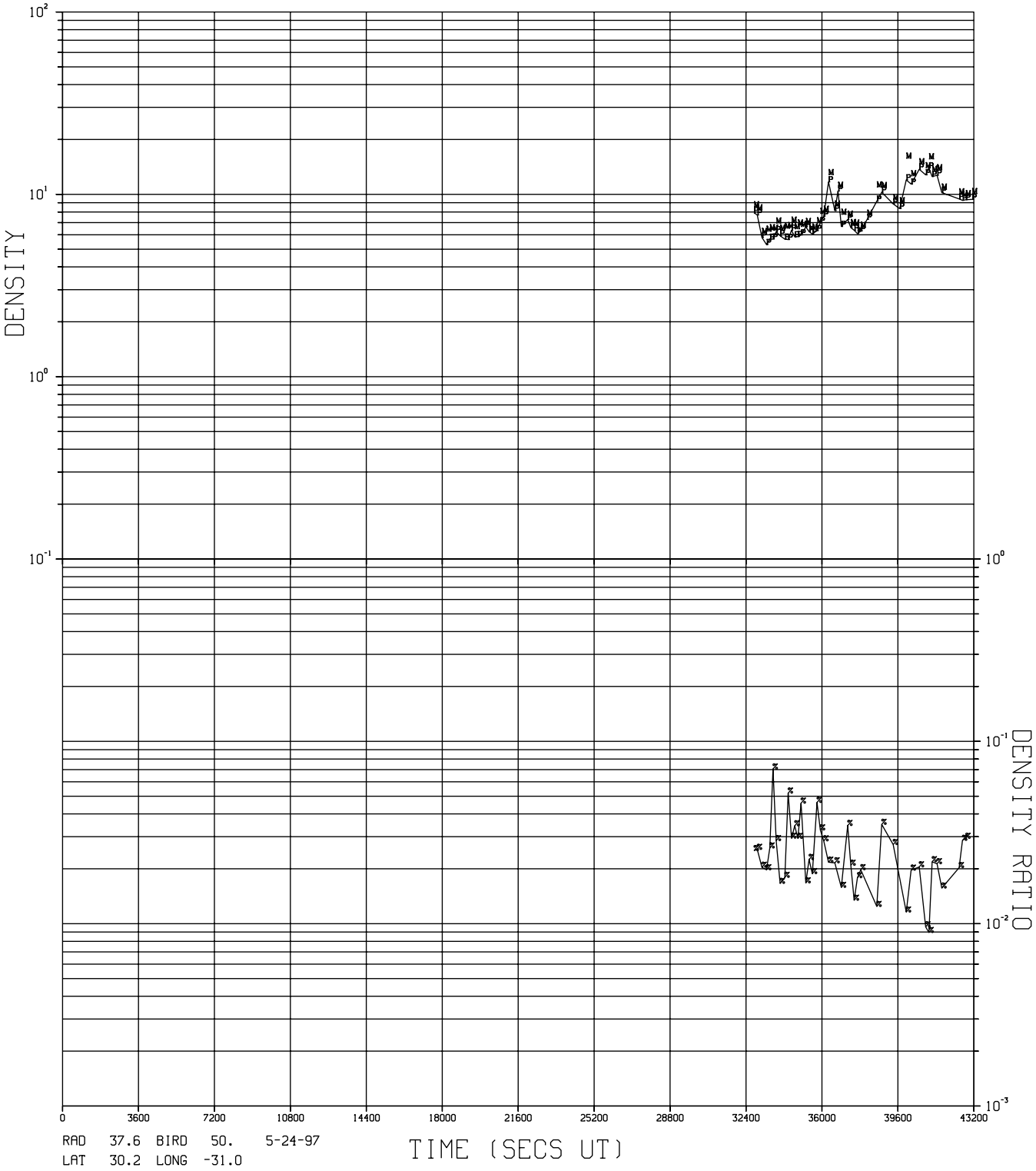

BULK FLOW DIRECTION
20
15
10
5
0
-5
-10
-15
-20
DIRECTION DIFFERENCE
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.8 BIRD 50. 5-23-97
LAT 37.3 LONG -55.2

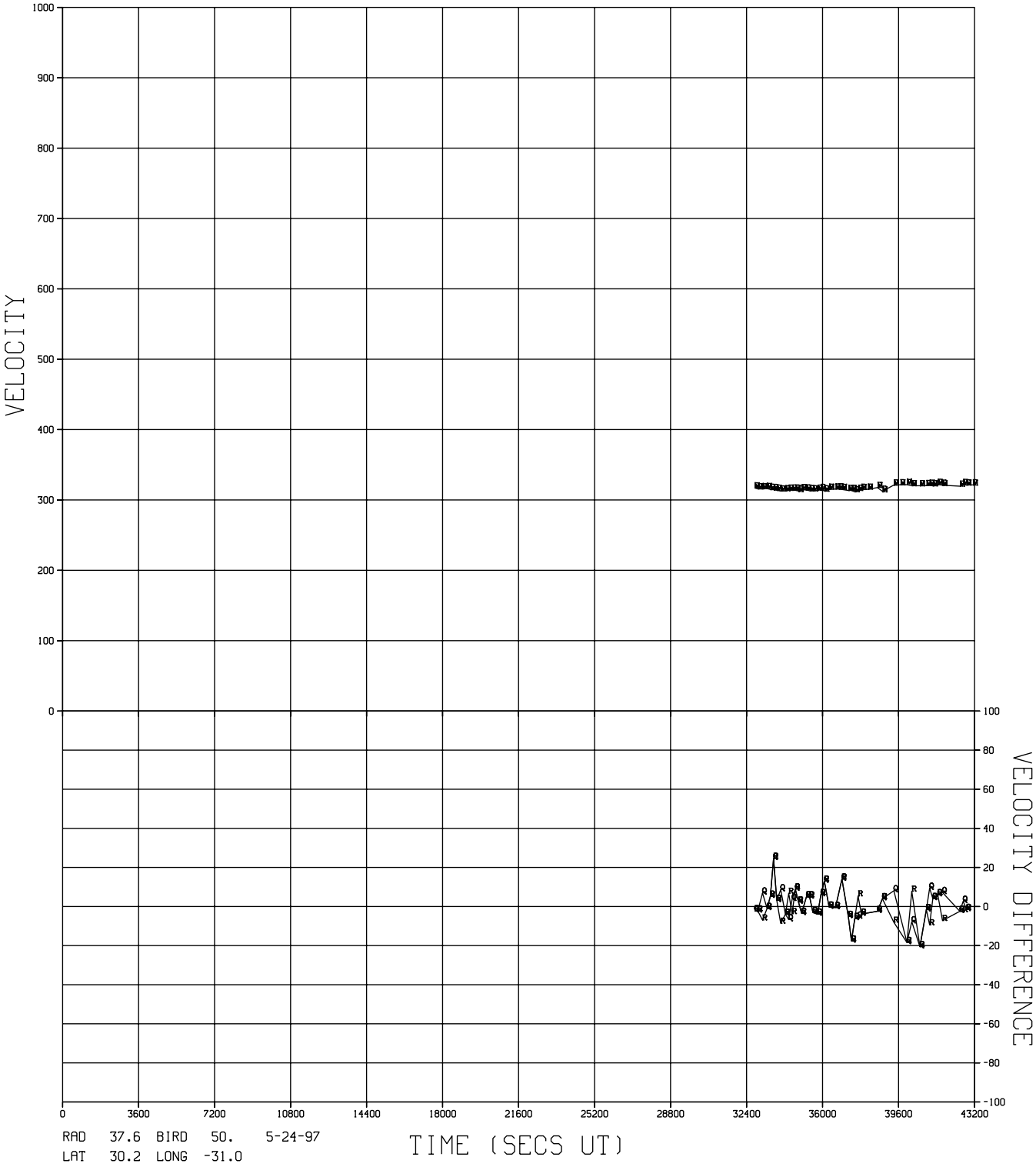

TEMPERATURE
10^7
10^6
10^5
10^4
M
M
A
A
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.8 BIRD 50. 5-23-97
LAT 37.3 LONG -55.2

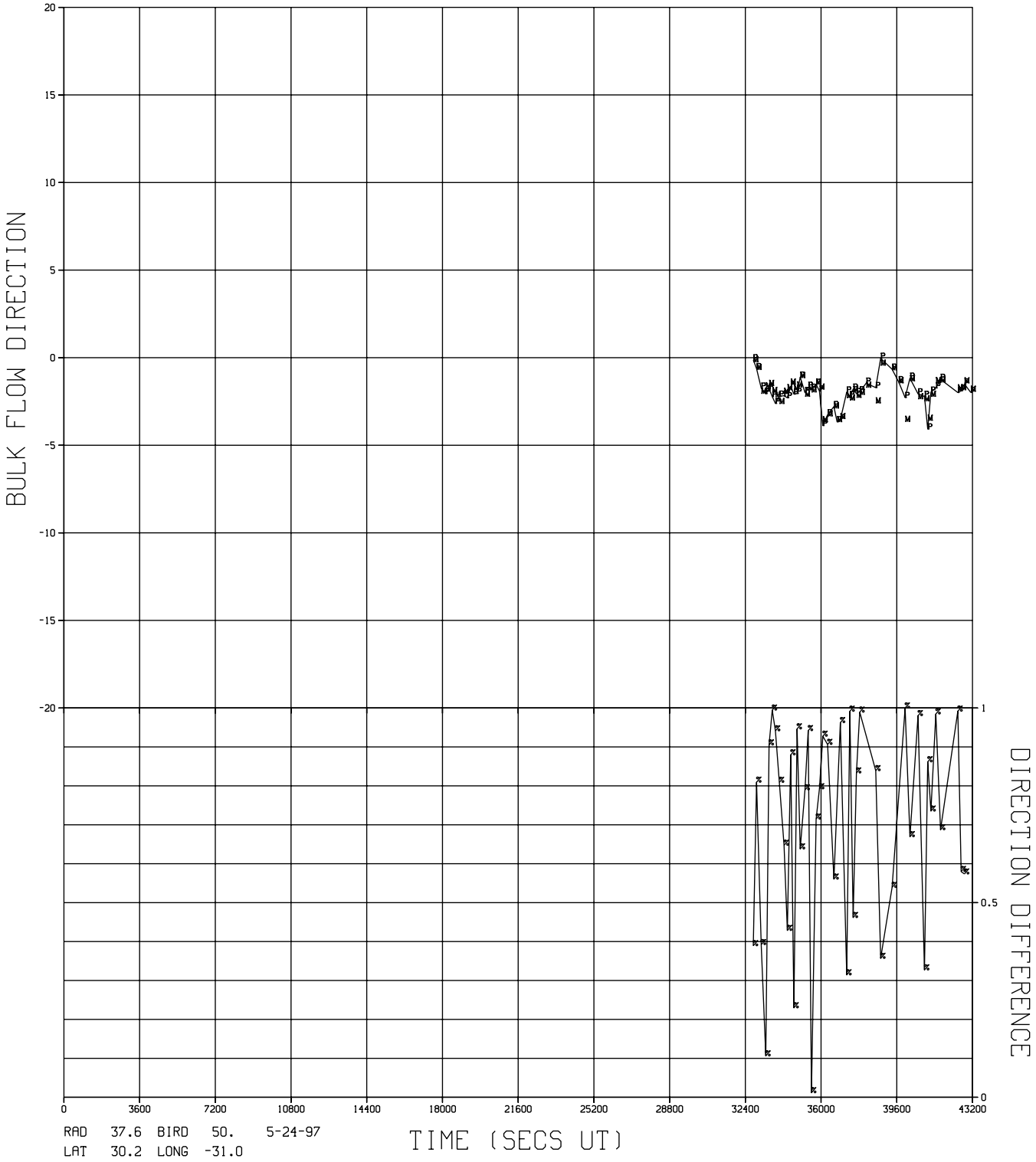

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
HEAT FLUX DIRECTION
360
315
270
225
180
135
90
45
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.8 BIRD 50. 5-23-97
LAT 37.3 LONG -55.2

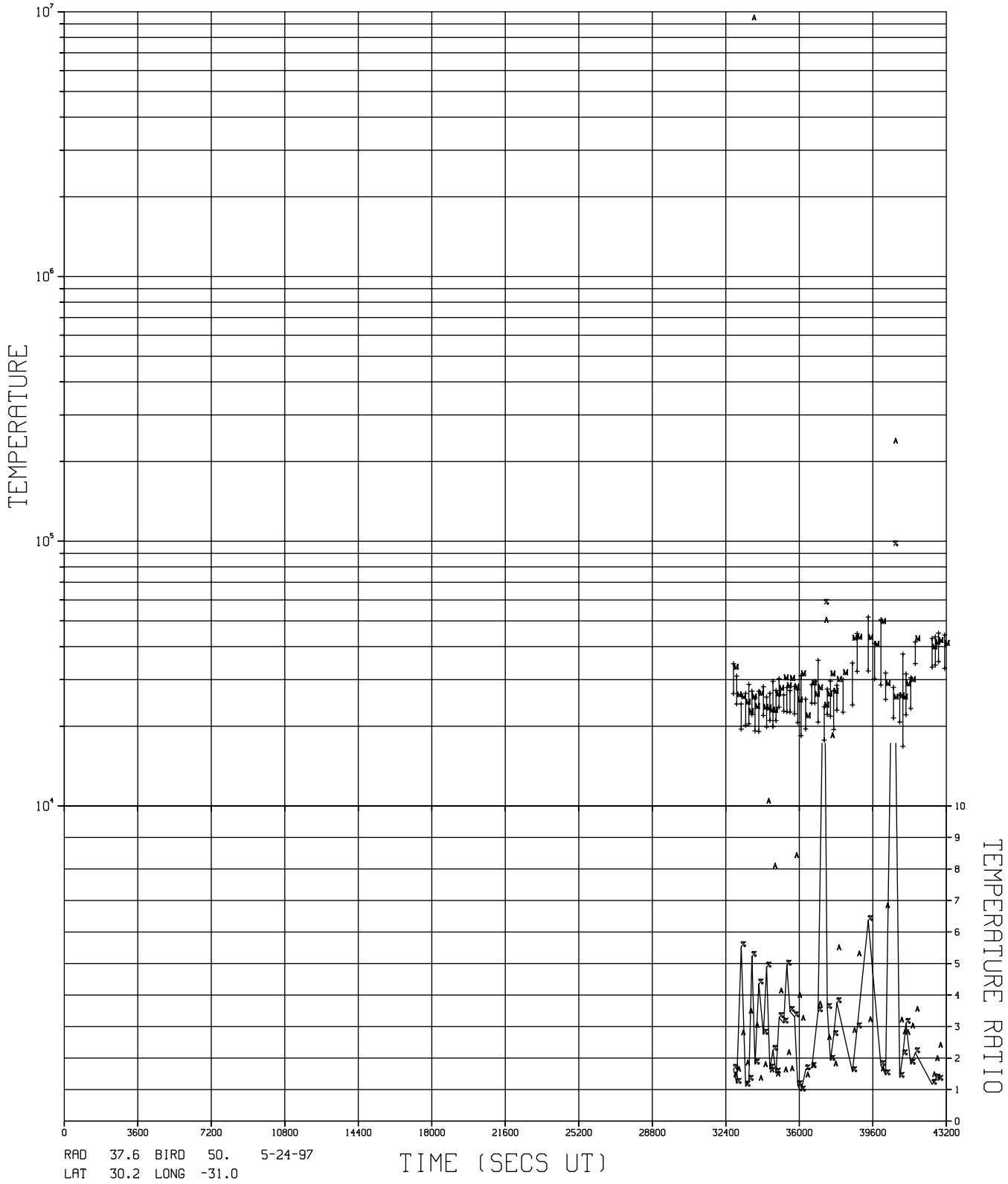

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.8 BIRD 50. 5-23-97
LAT 37.3 LONG -55.2

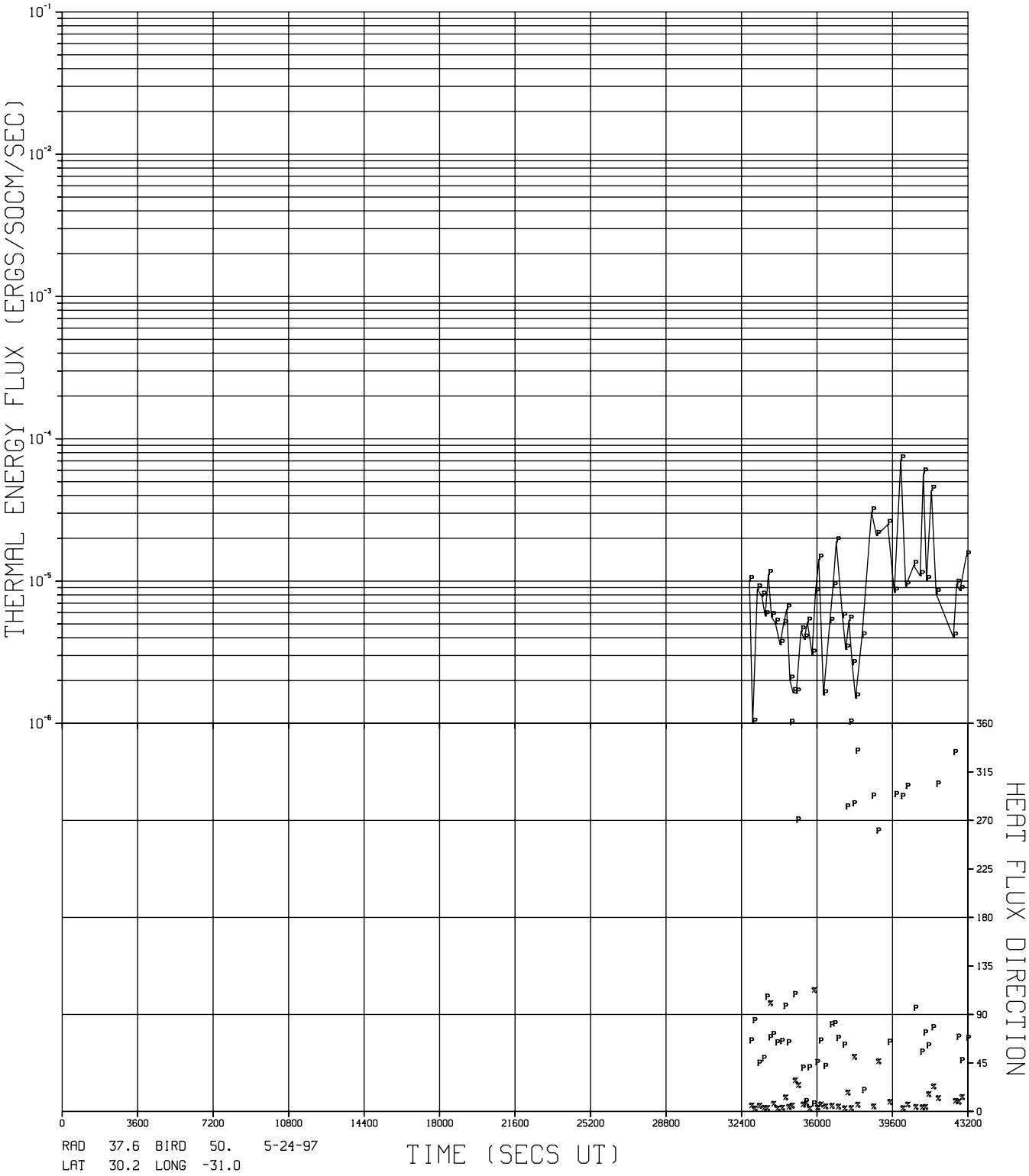

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.8 BIRD 50. 5-23-97
LAT 37.3 LONG -55.2

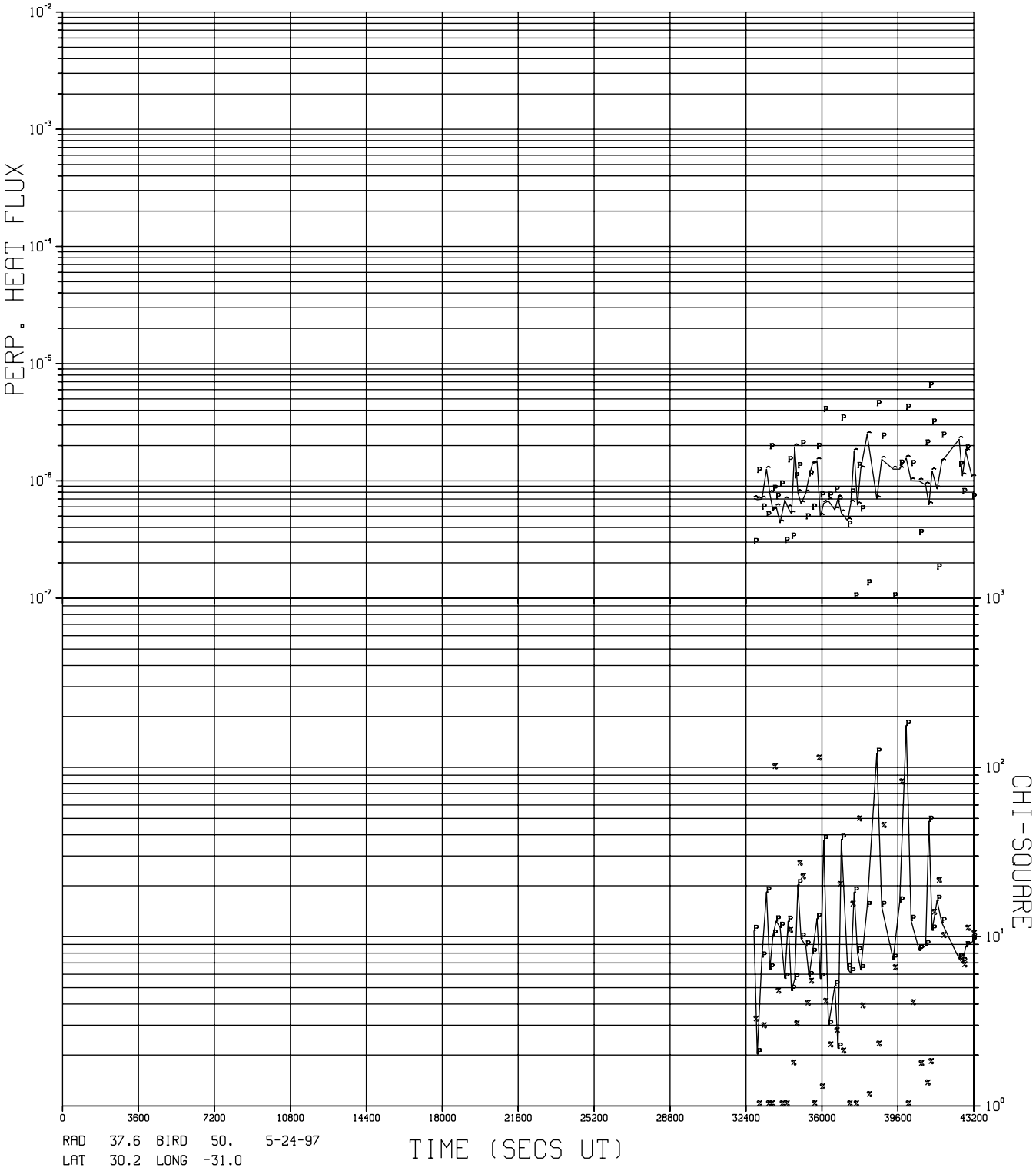

DENSITY
DENSITY RATIO
TIME (SECS UT)
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.6 BIRD 50. 5-24-97
LAT 30.2 LONG -31.0

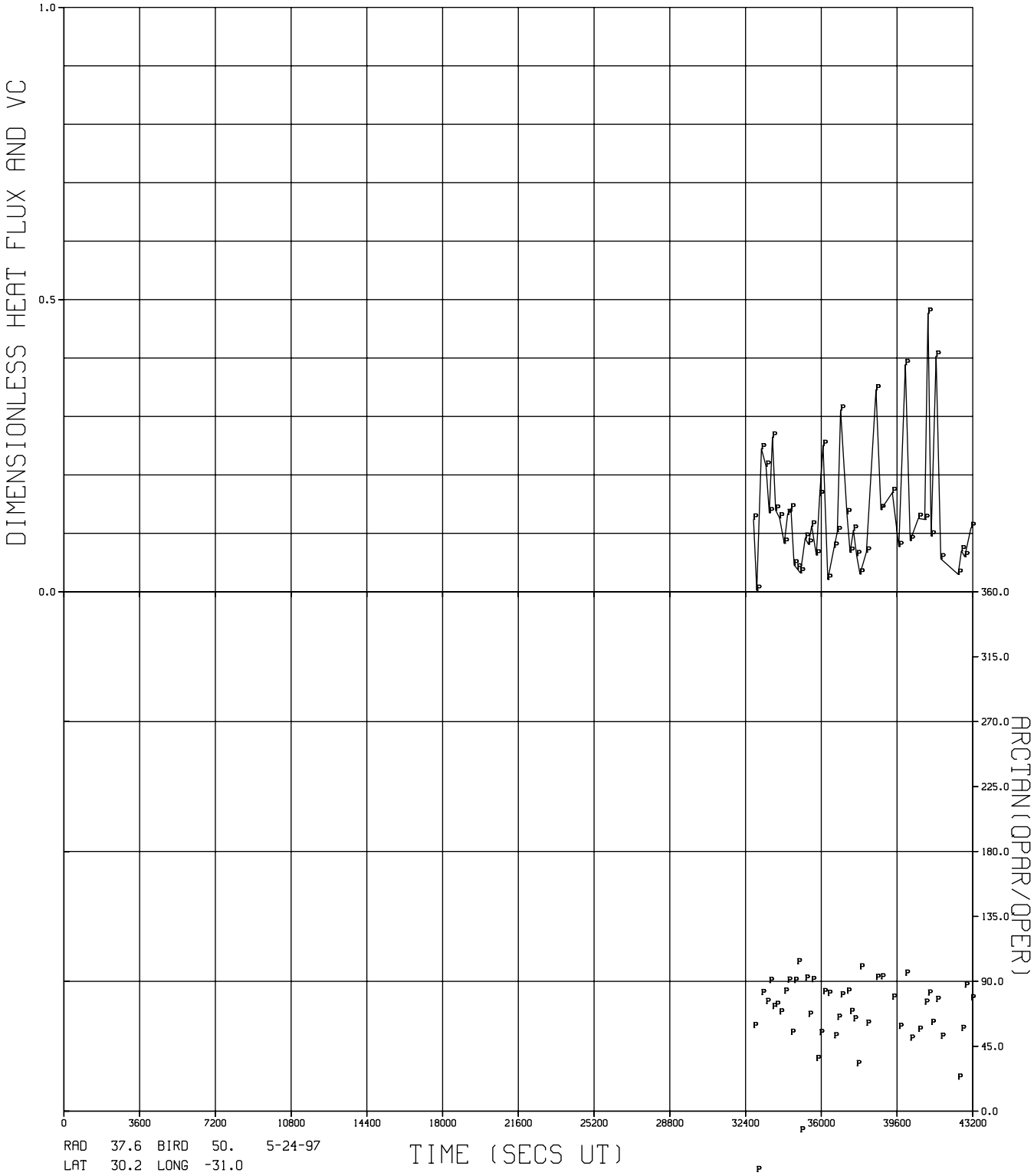

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.6 BIRD 50. 5-24-97
LAT 30.2 LONG -31.0
TIME (SECS UT)

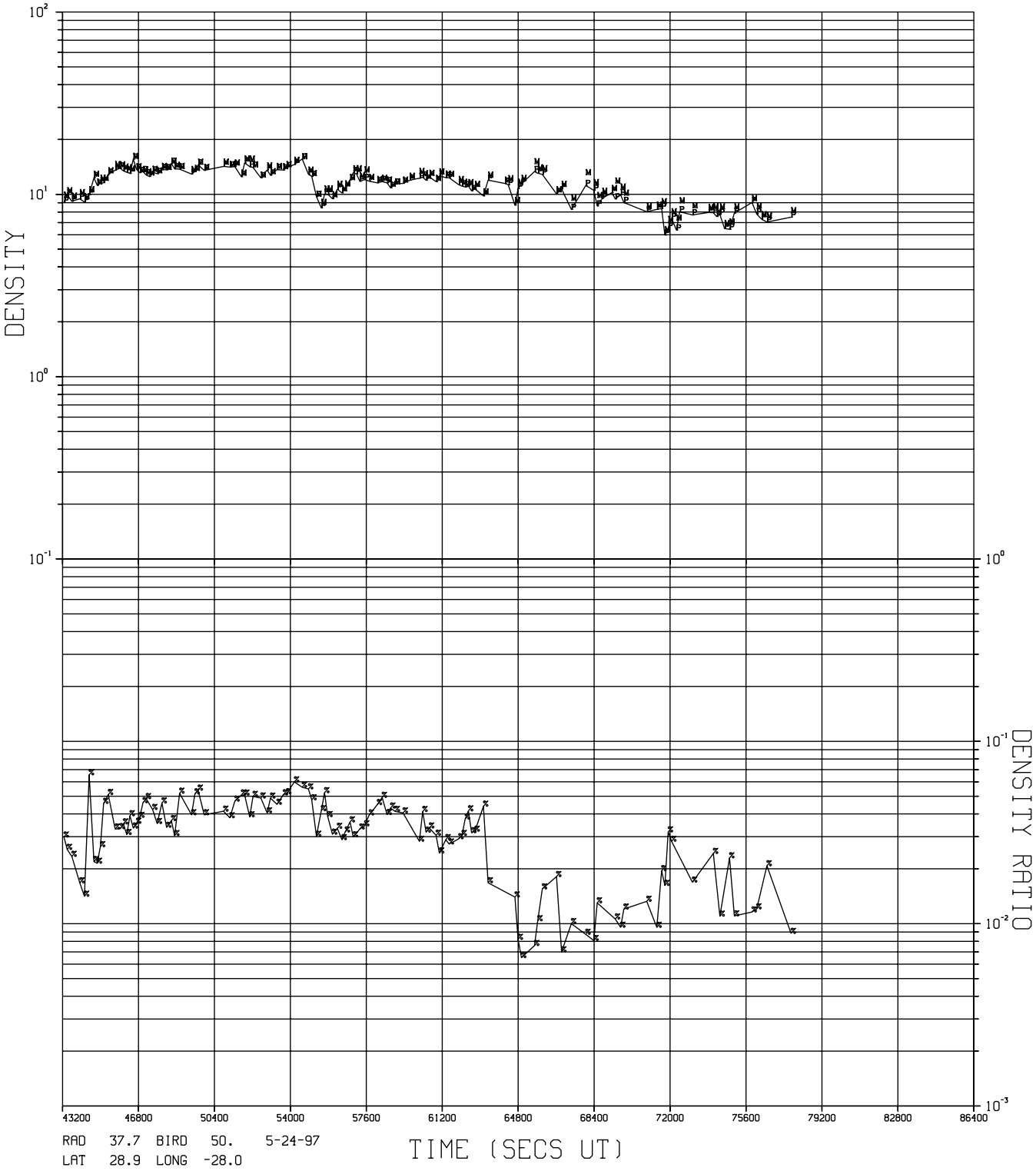

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.6 BIRD 50. 5-24-97
LAT 30.2 LONG -31.0

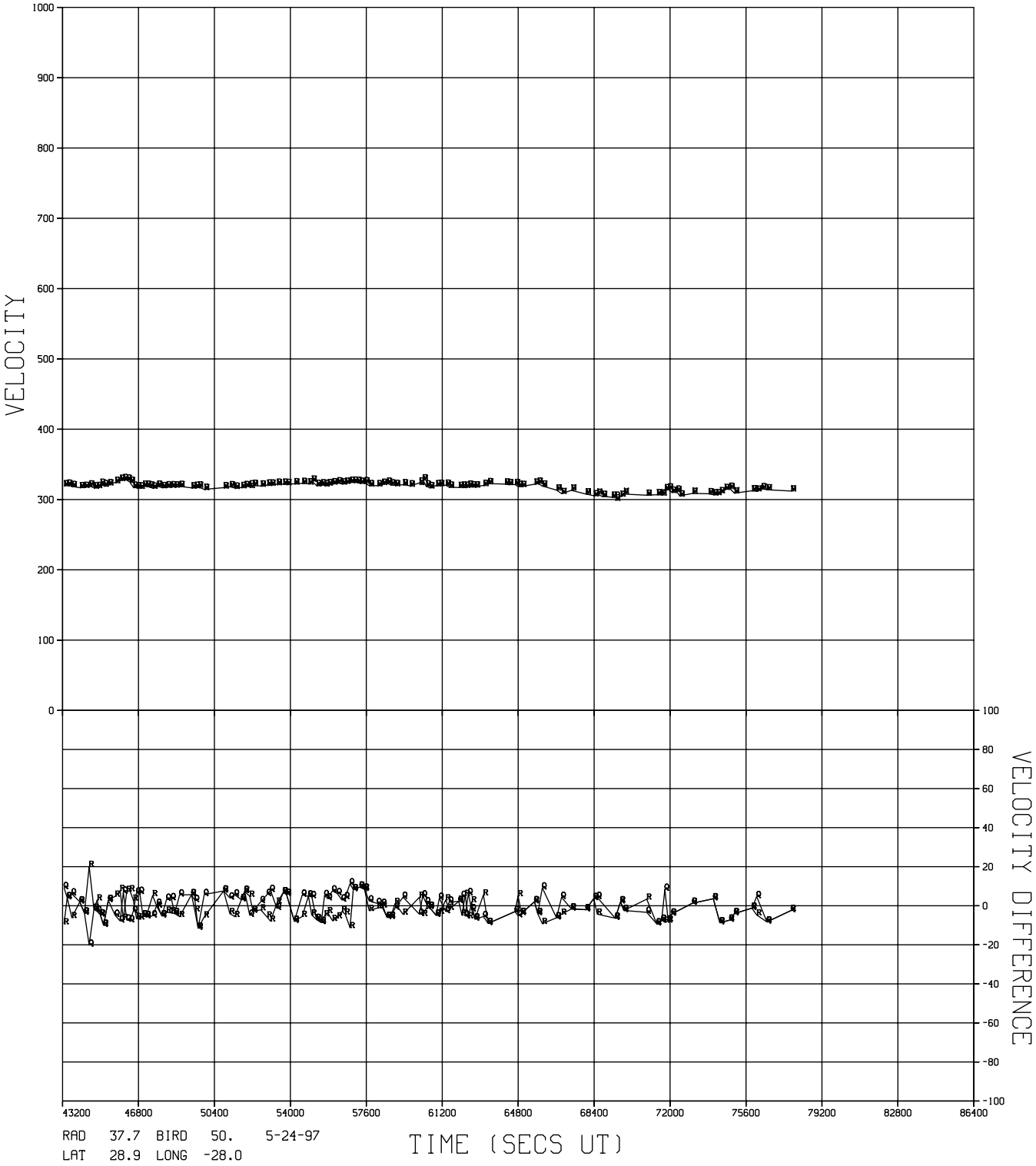

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.6 BIRD 50. 5-24-97
LAT 30.2 LONG -31.0
TIME (SECS UT)

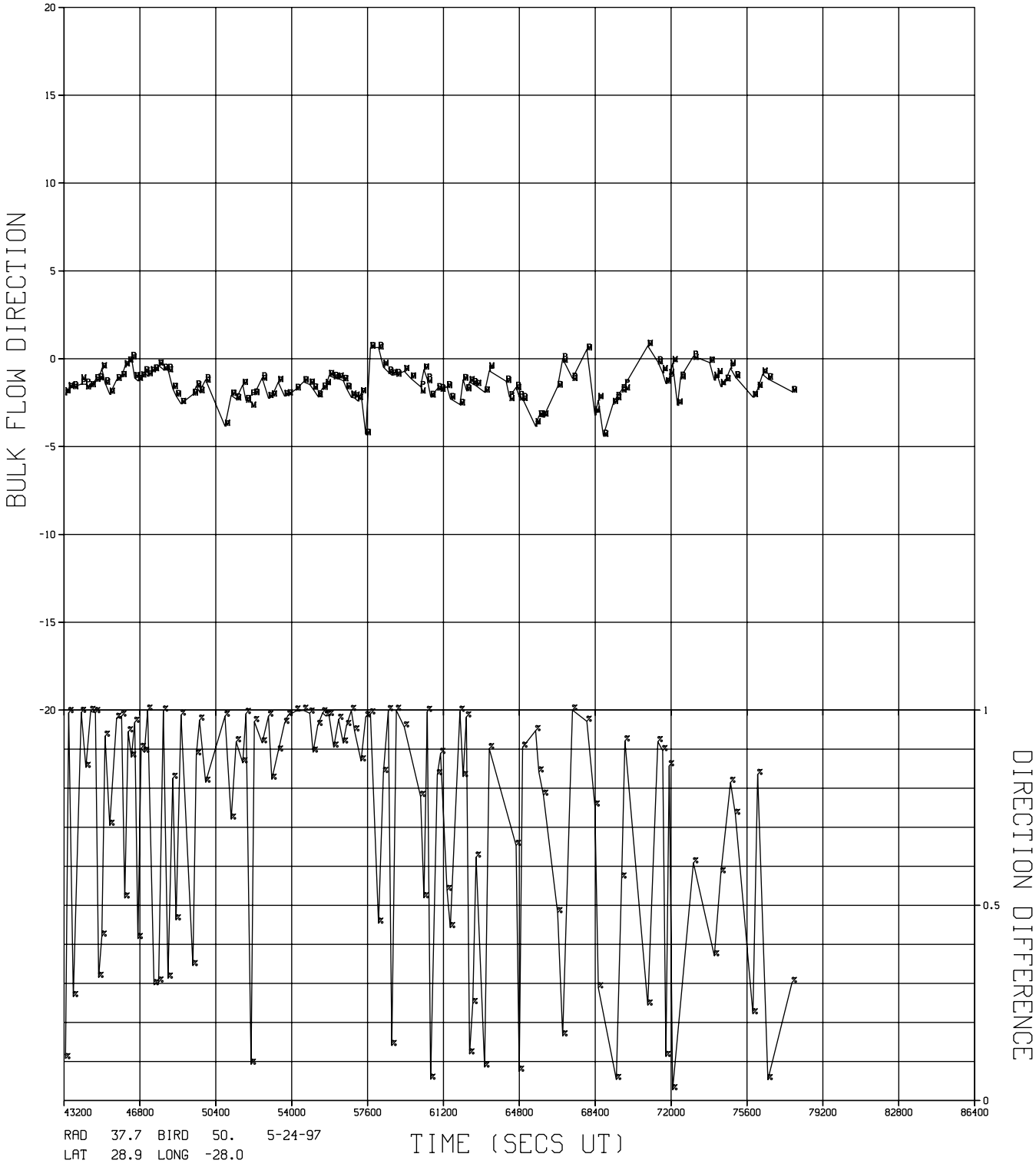

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.6 BIRD 50. 5-24-97
LAT 30.2 LONG -31.0

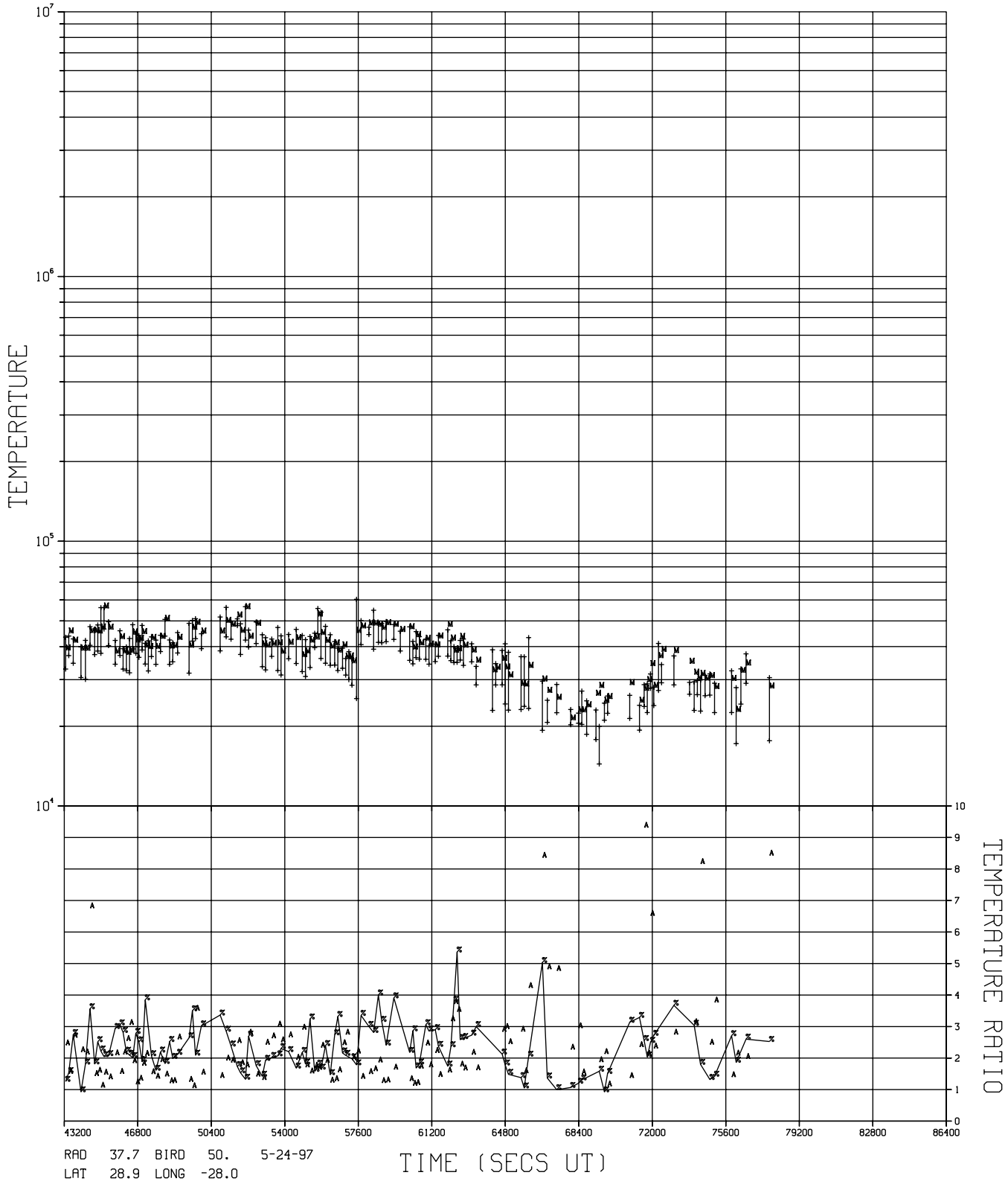

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 37.6 BIRD 50. 5-24-97
LAT 30.2 LONG -31.0

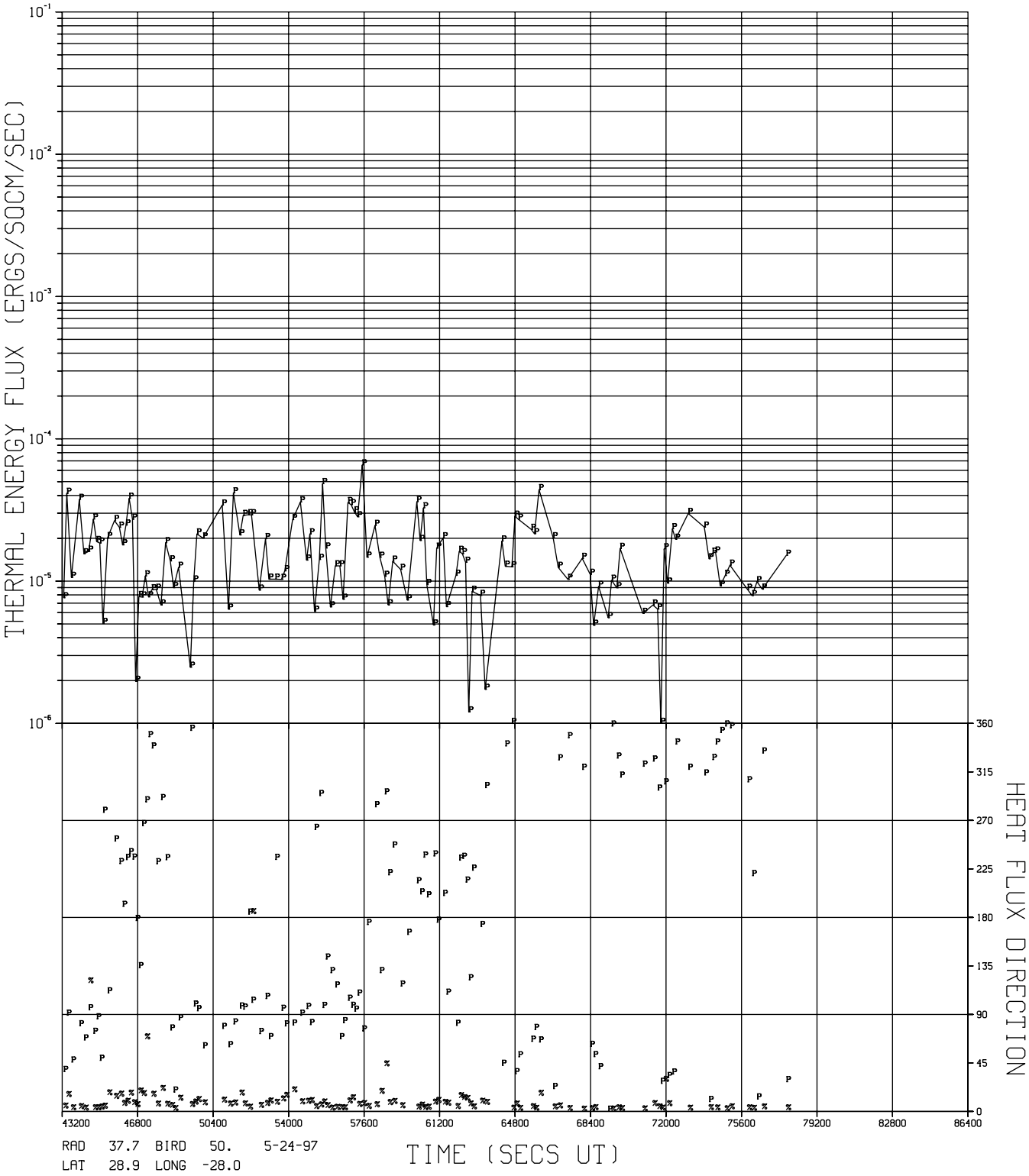

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 37.6 BIRD 50. 5-24-97
LAT 30.2 LONG -31.0

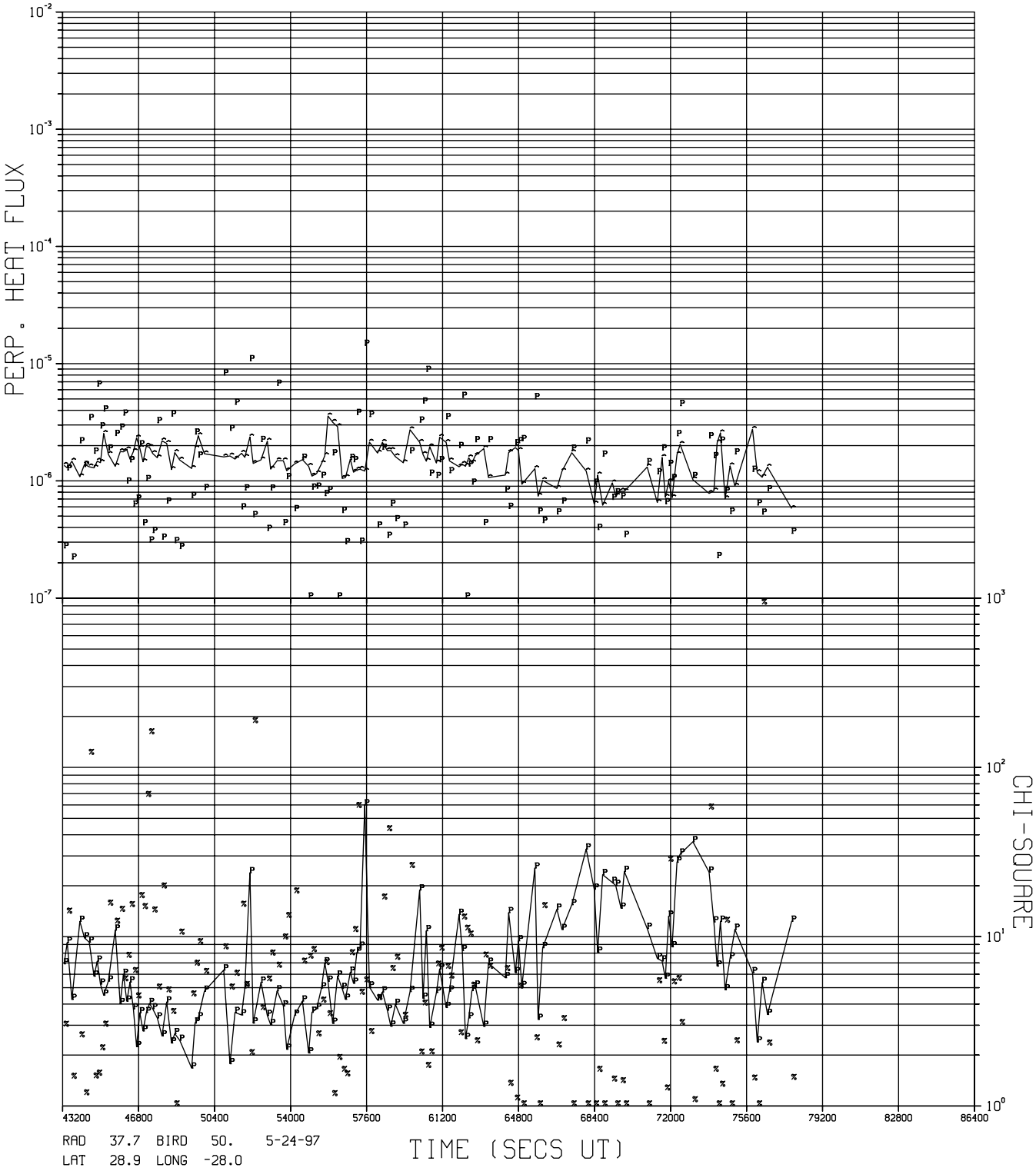

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.7 BIRD 50. 5-24-97
LAT 28.9 LONG -28.0

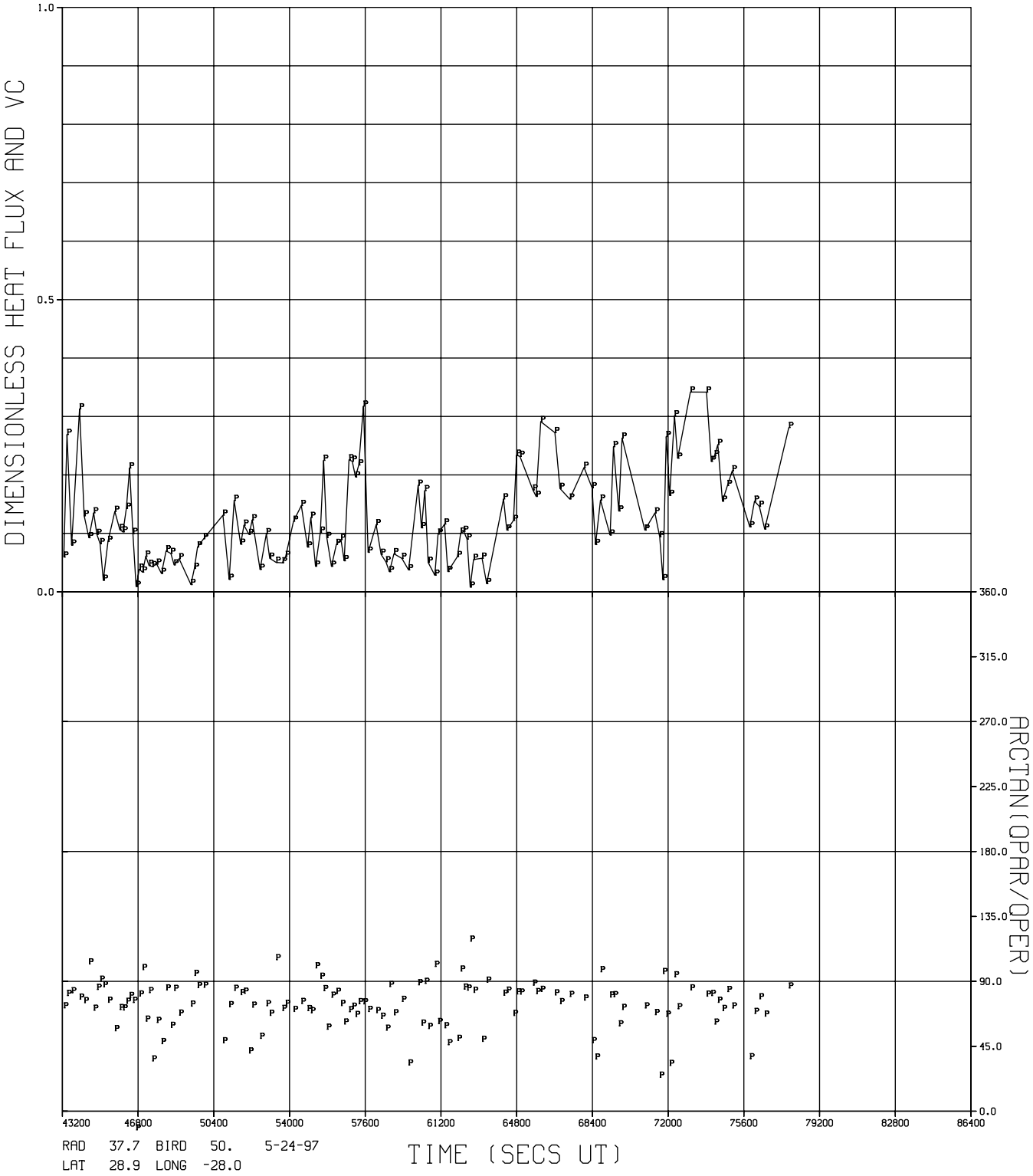

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.7 BIRD 50. 5-24-97
LAT 28.9 LONG -28.0
TIME (SECS UT)

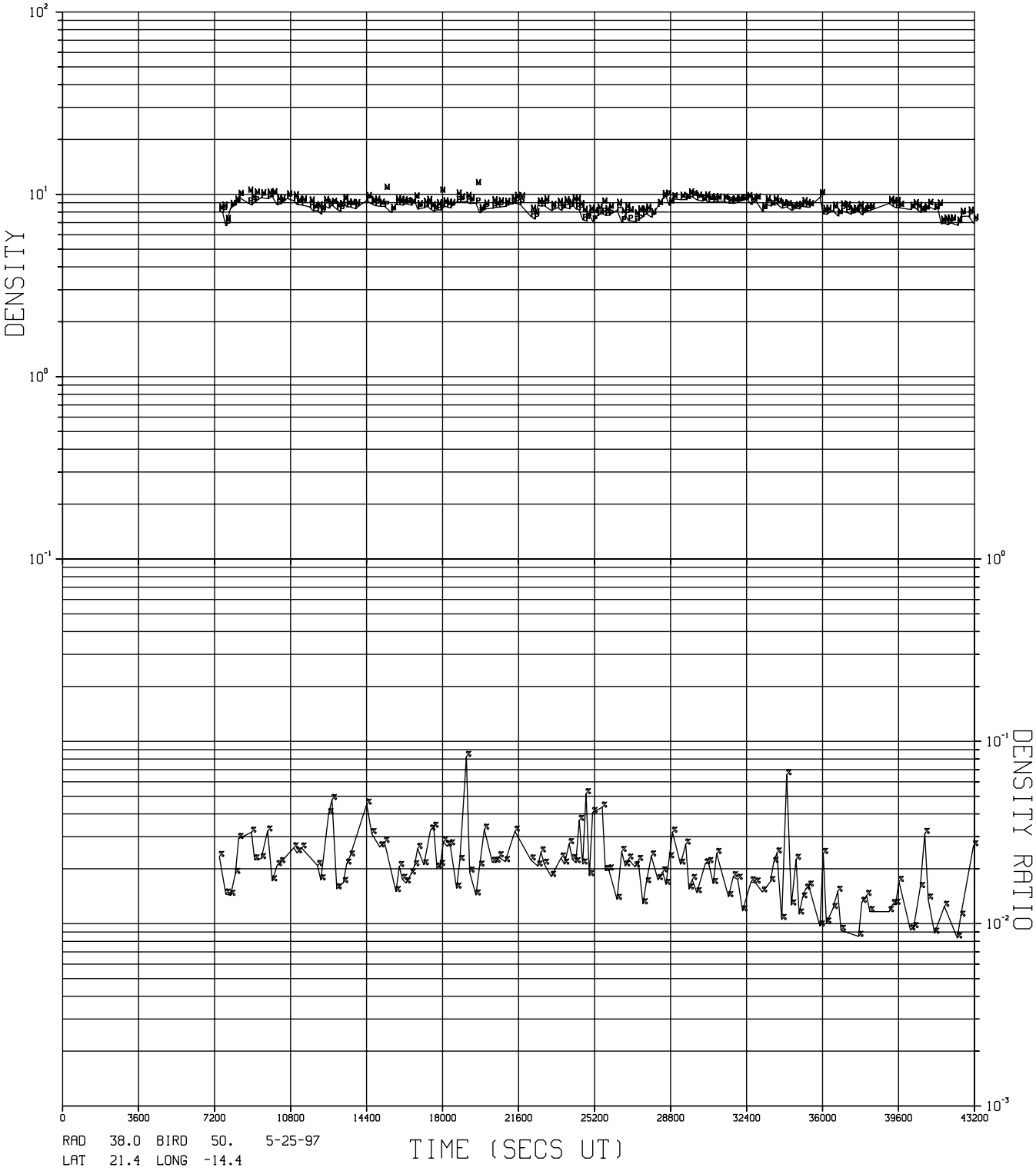

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.7 BIRD 50. 5-24-97
LAT 28.9 LONG -28.0

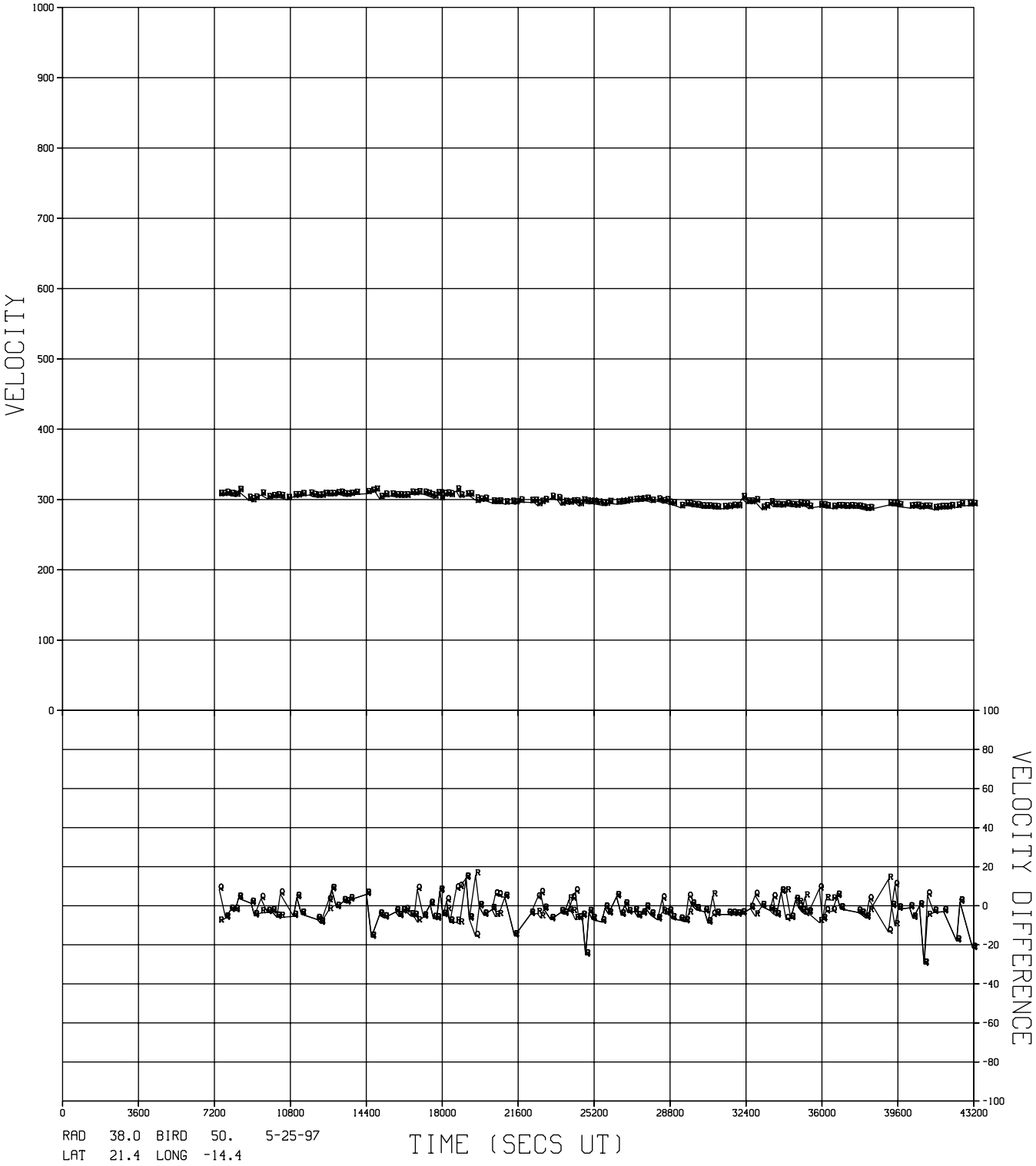

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 37.7 BIRD 50. 5-24-97
LAT 28.9 LONG -28.0

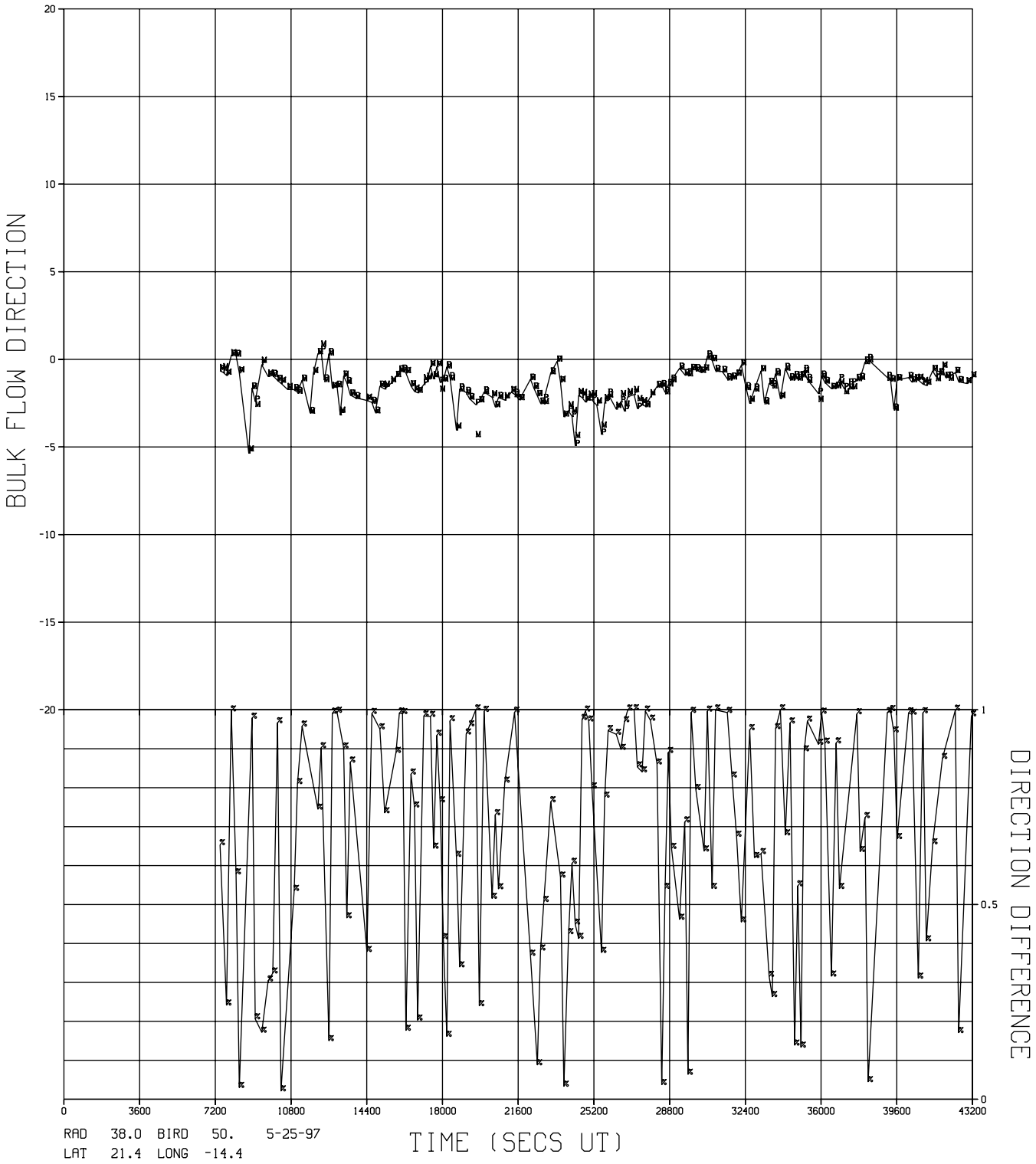

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.7 BIRD 50. 5-24-97
LAT 28.9 LONG -28.0

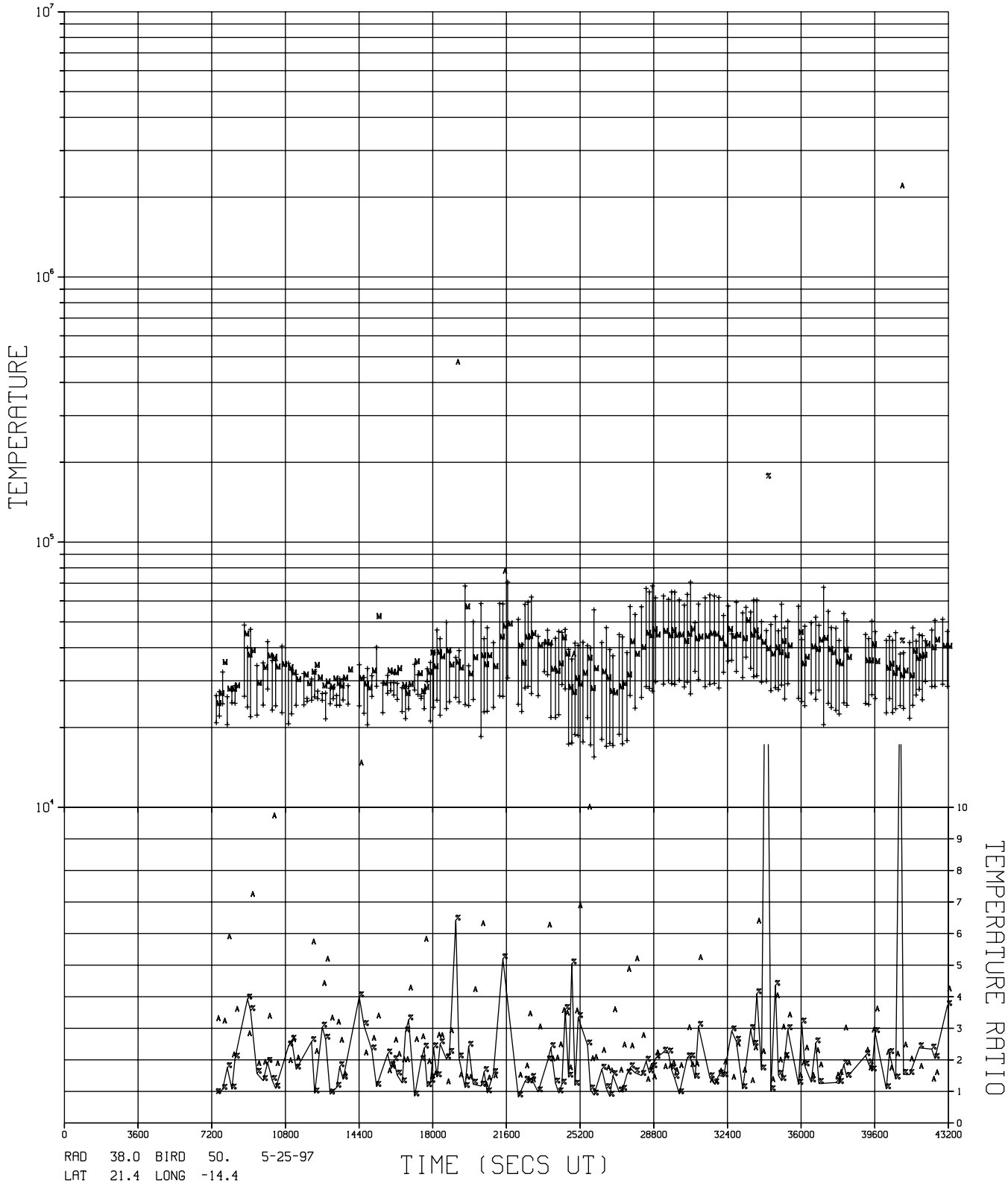

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.7 BIRD 50. 5-24-97
LAT 28.9 LONG -28.0

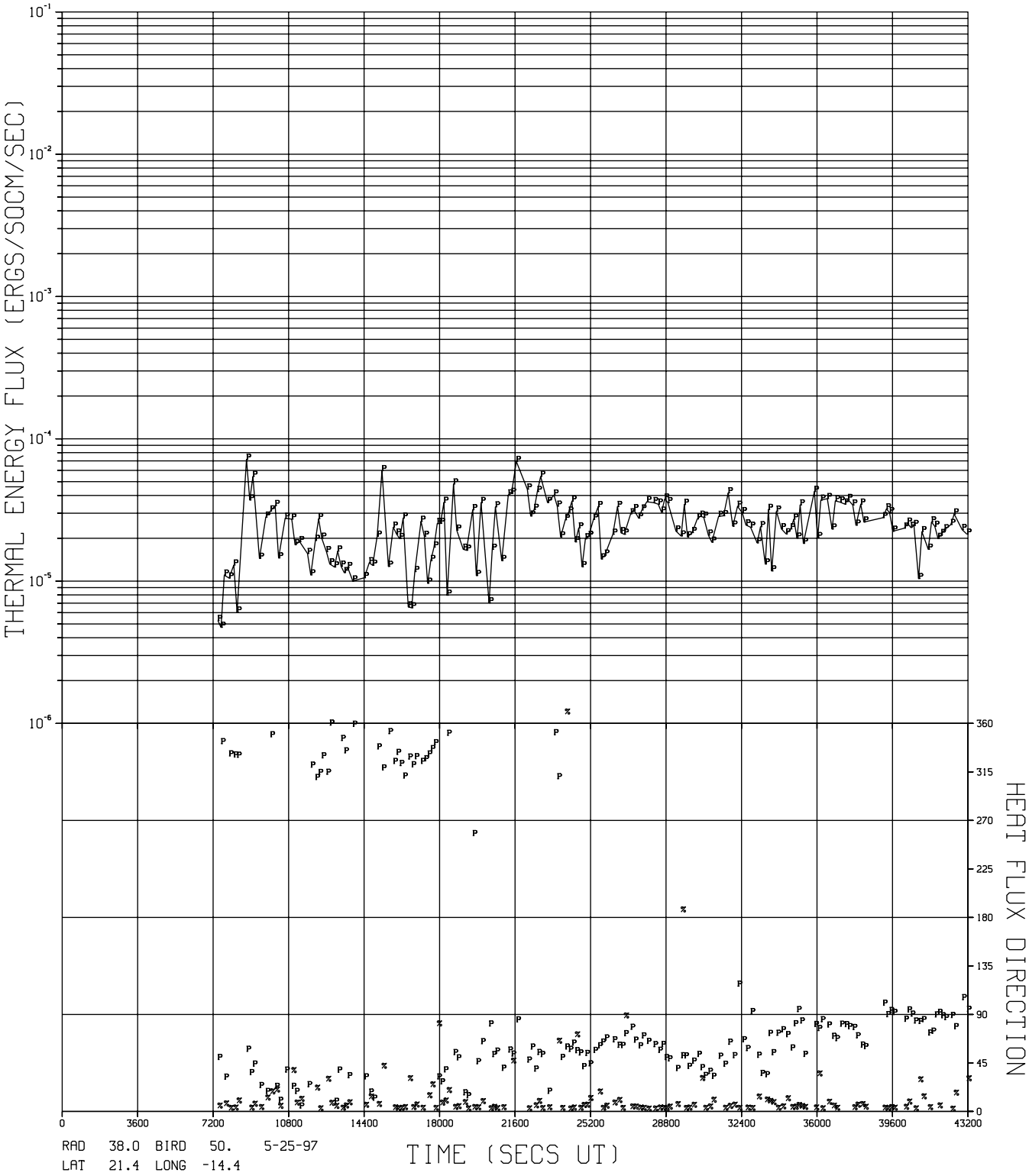

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 37.7 BIRD 50. 5-24-97
LAT 28.9 LONG -28.0

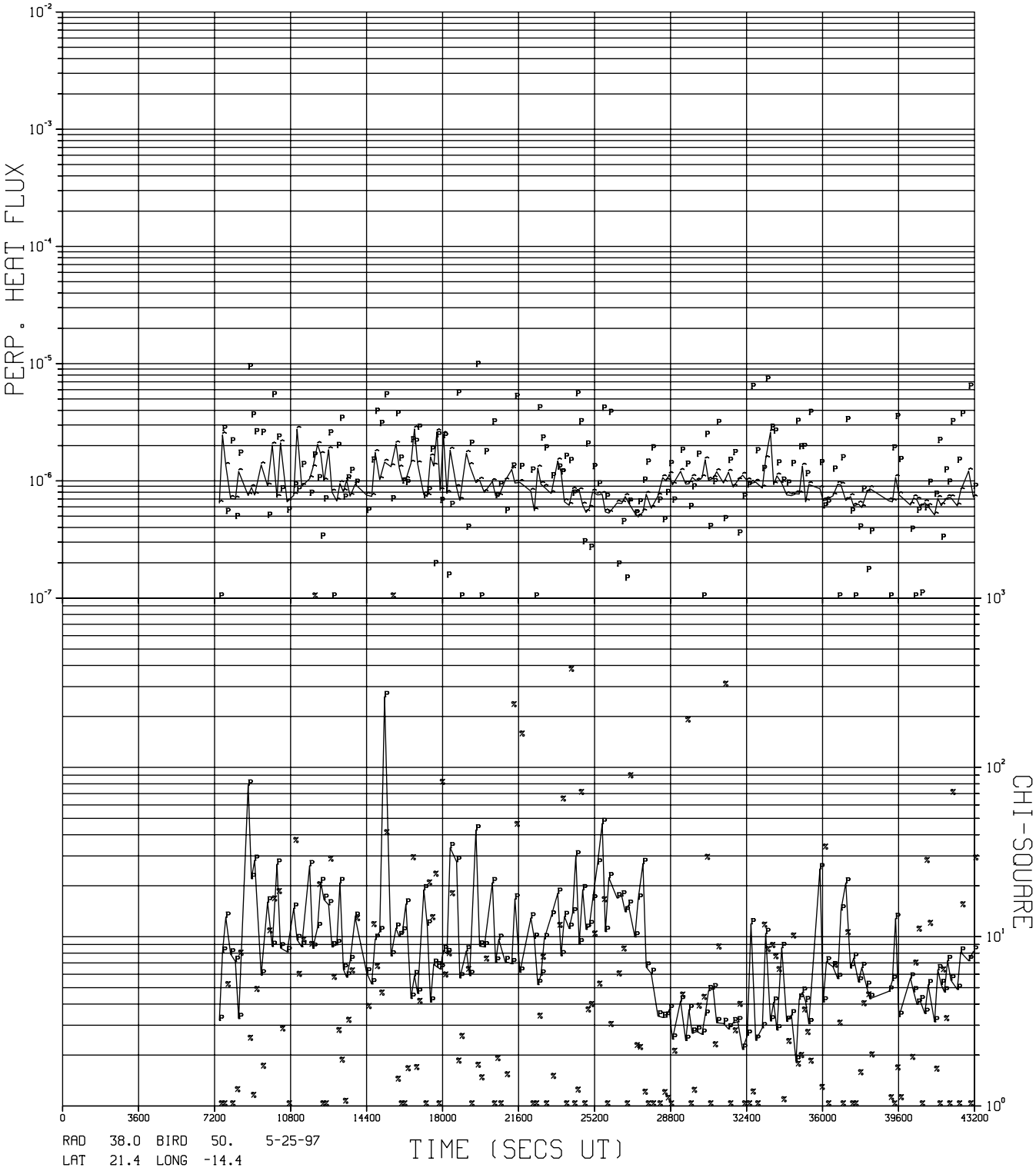

DENSITY
DENSITY RATIO
TIME (SECS UT)
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 38.0 BIRD 50. 5-25-97
LAT 21.4 LONG -14.4

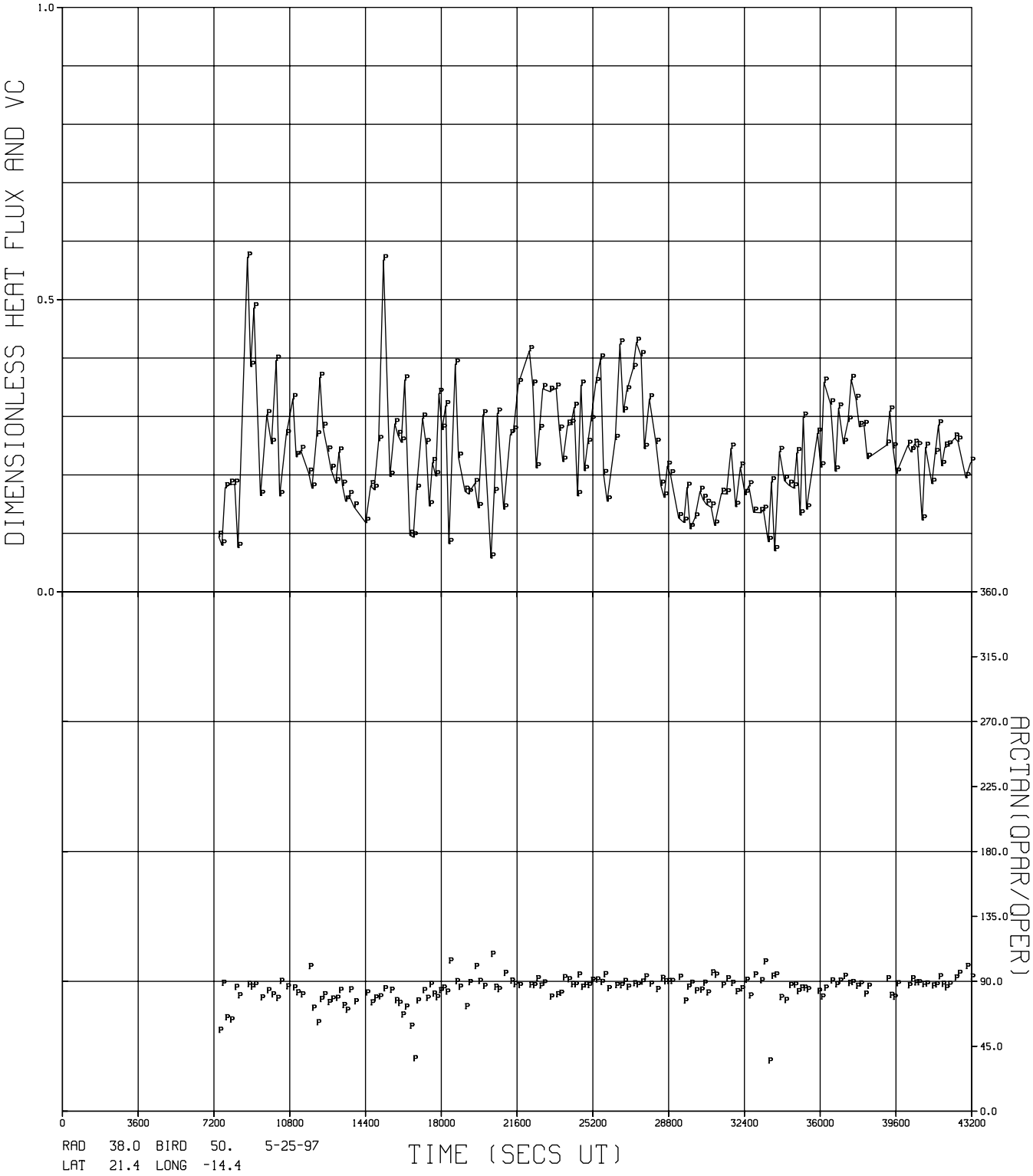

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 38.0 BIRD 50. 5-25-97
LAT 21.4 LONG -14.4
TIME (SECS UT)

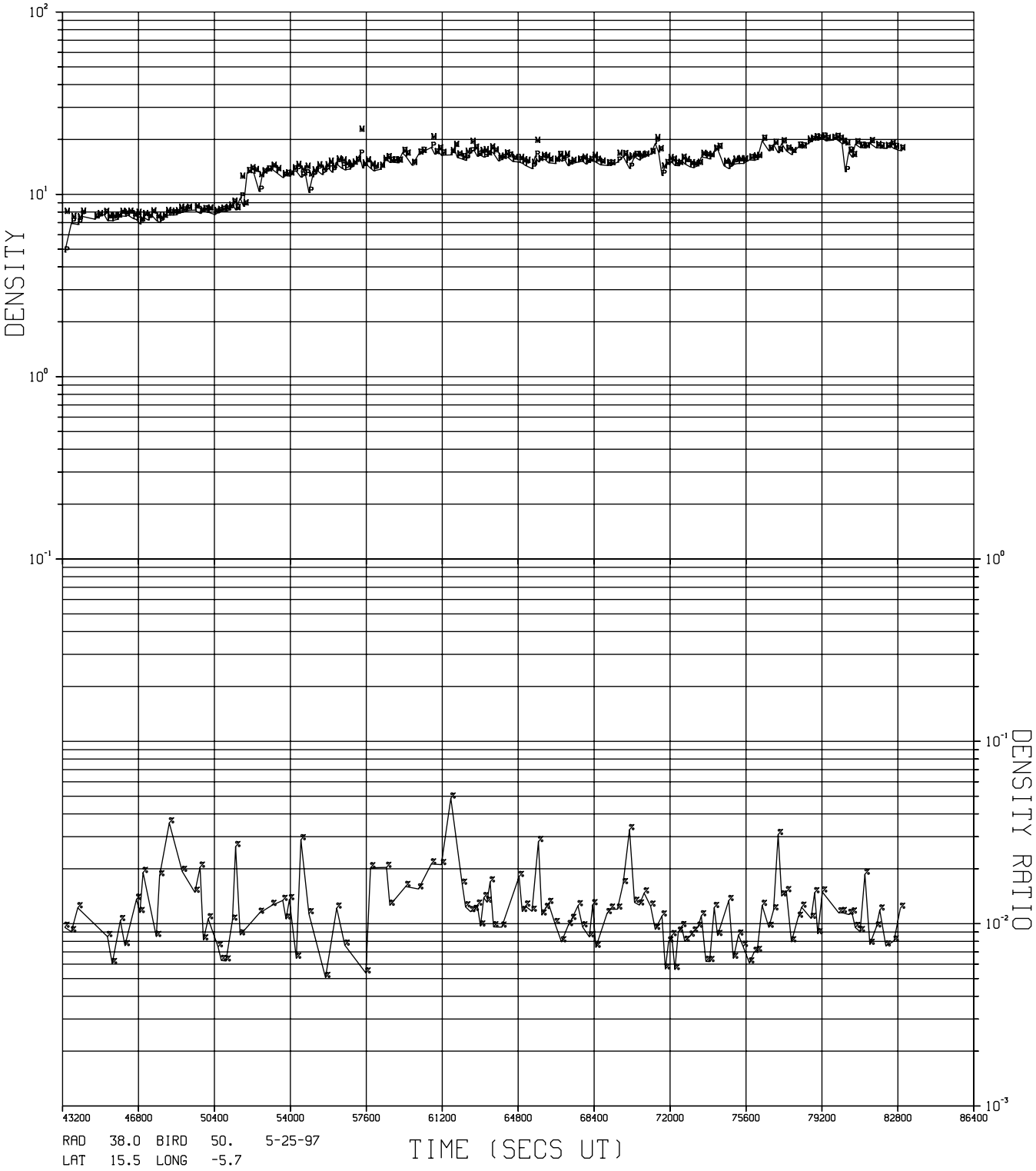

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 38.0 BIRD 50. 5-25-97
LAT 21.4 LONG -14.4

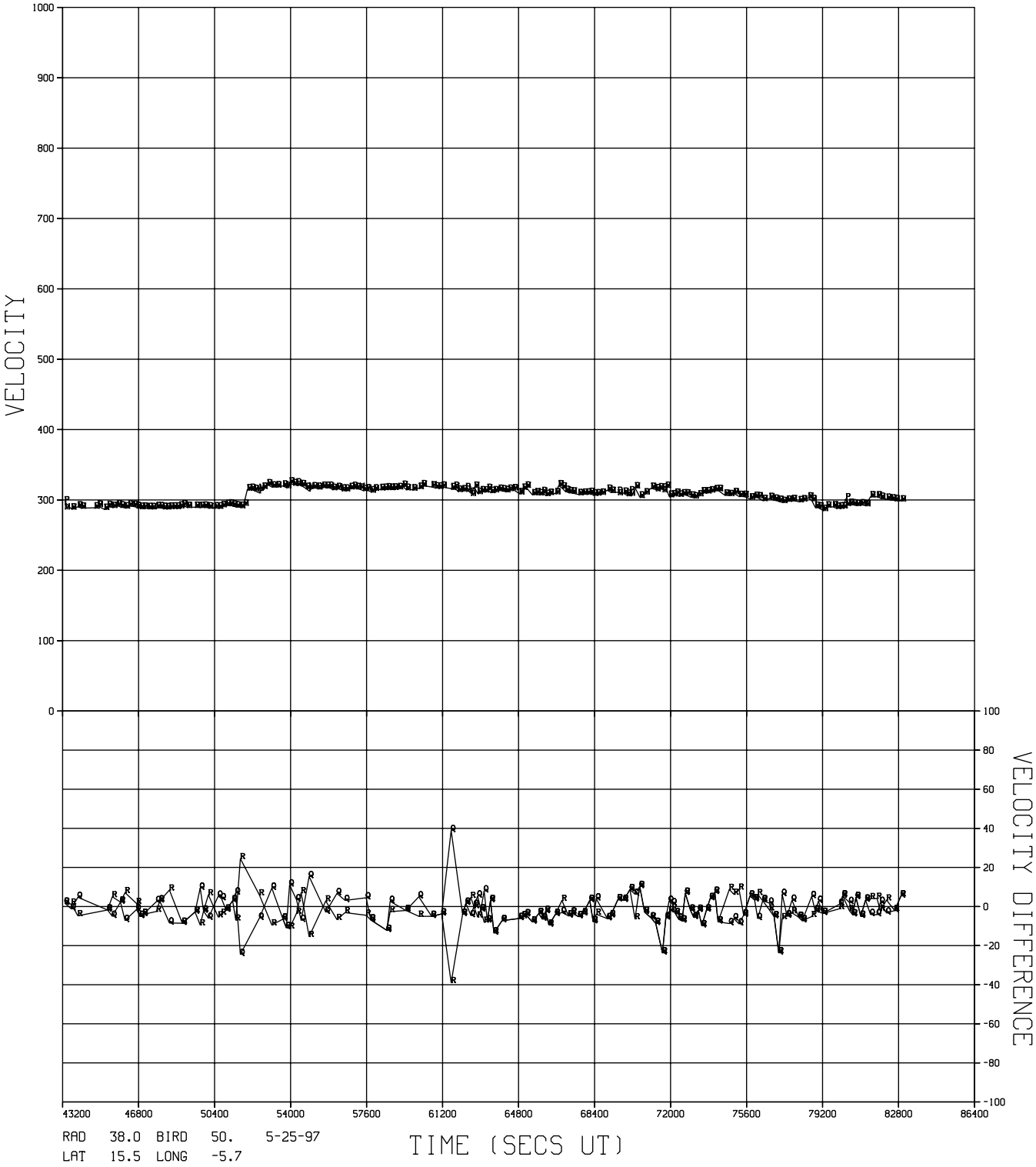

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 38.0 BIRD 50. 5-25-97
LAT 21.4 LONG -14.4

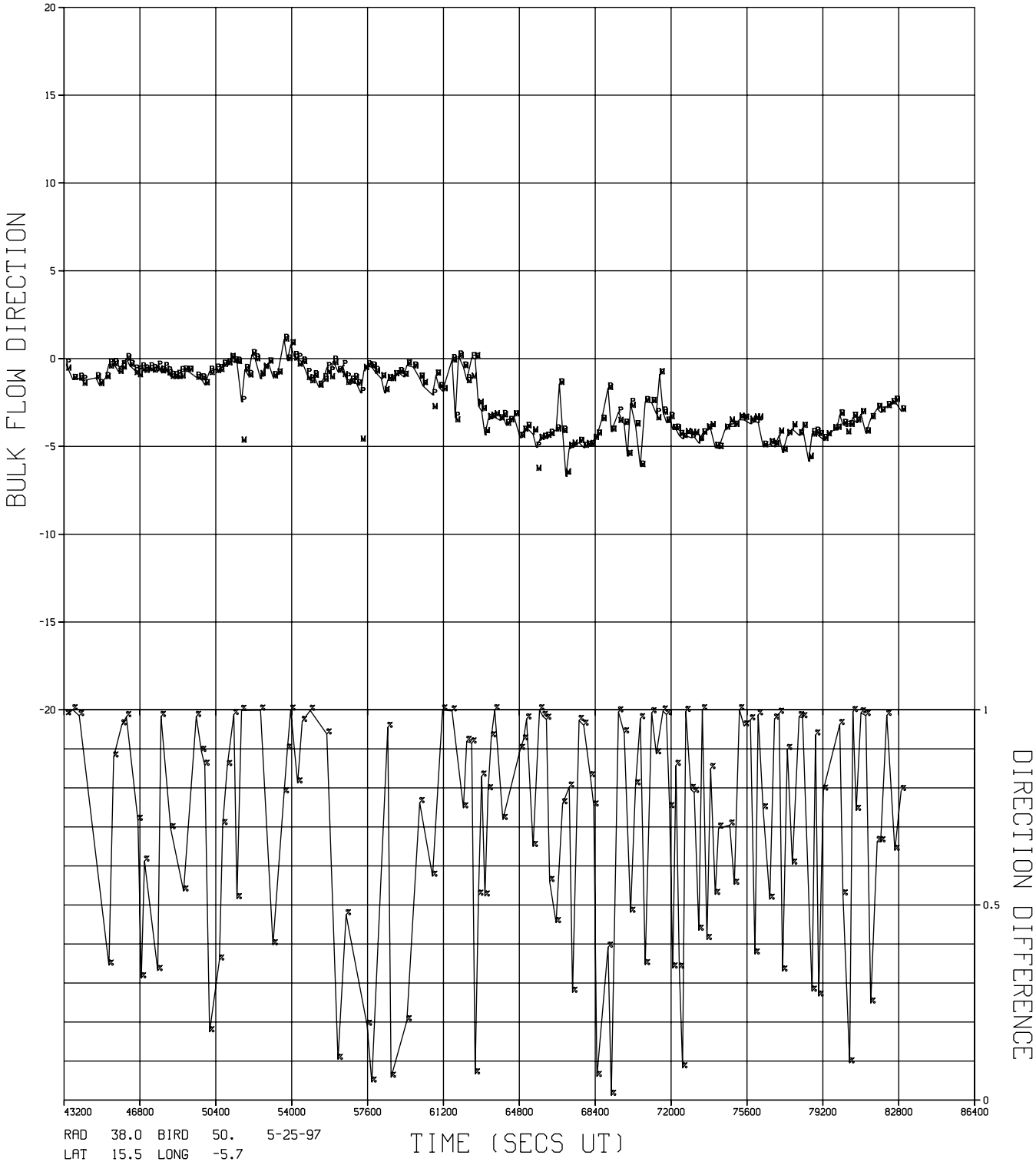

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 38.0 BIRD 50. 5-25-97
LAT 21.4 LONG -14.4

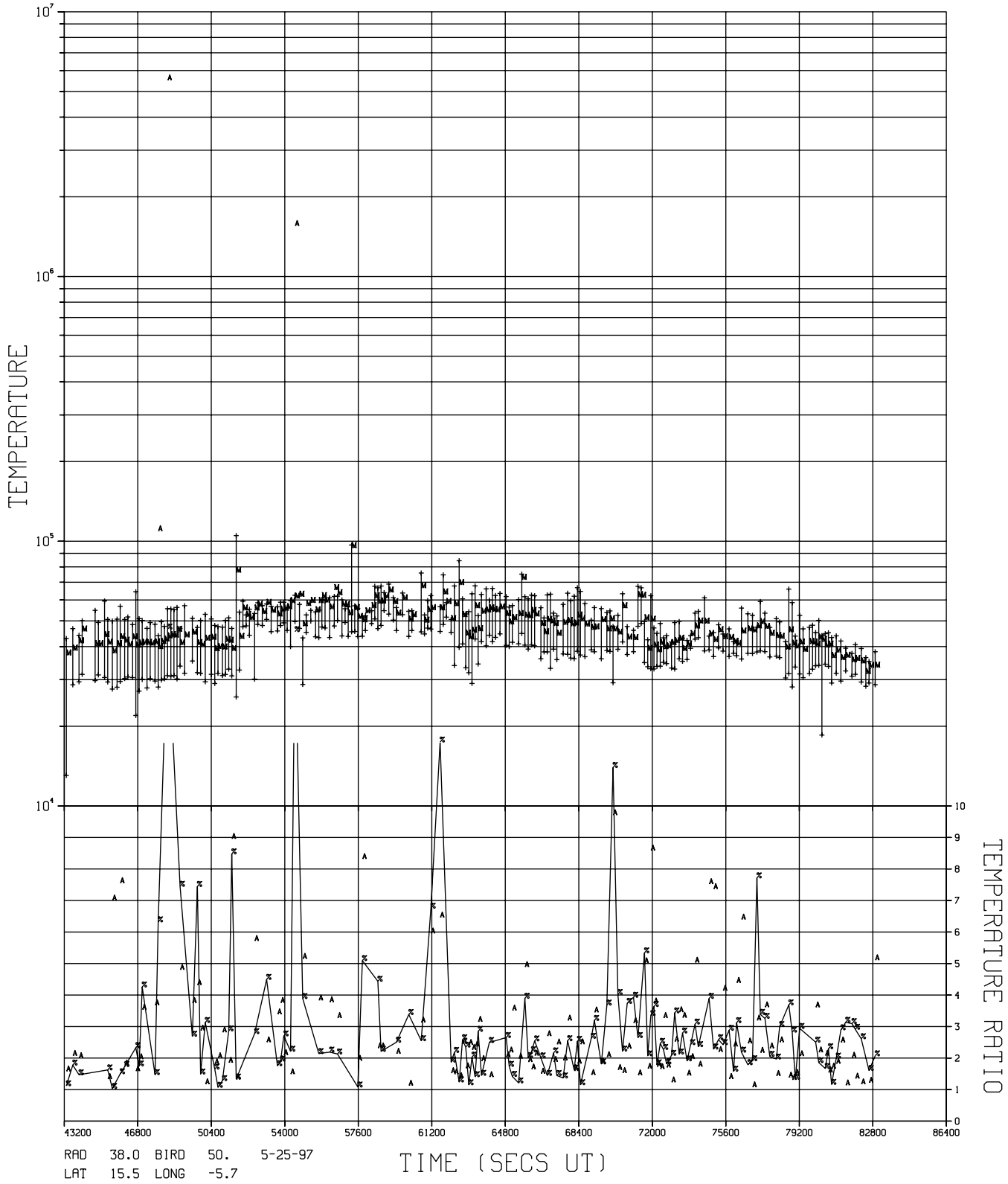

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 38.0 BIRD 50. 5-25-97
LAT 21.4 LONG -14.4

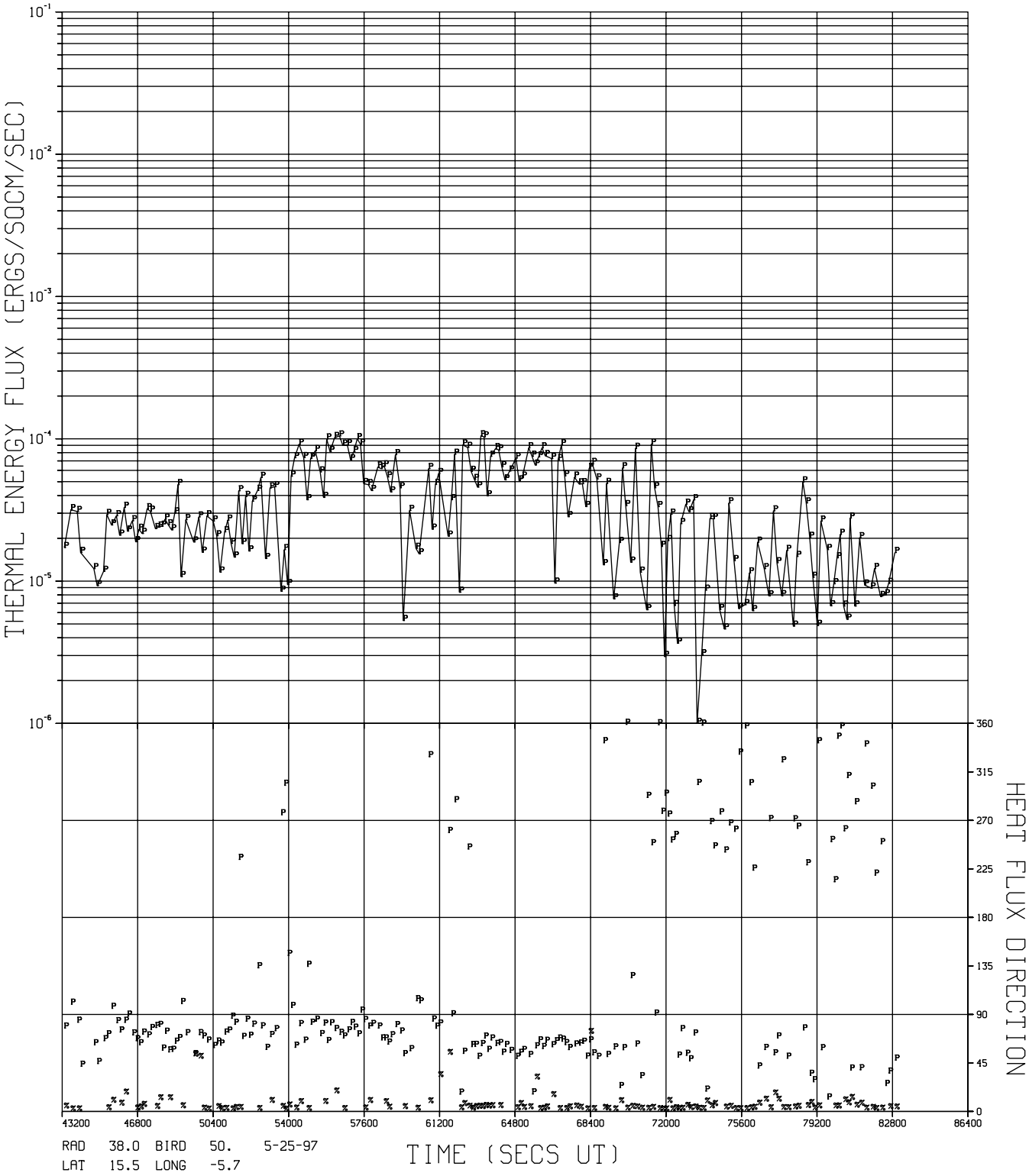

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 38.0 BIRD 50. 5-25-97
LAT 21.4 LONG -14.4

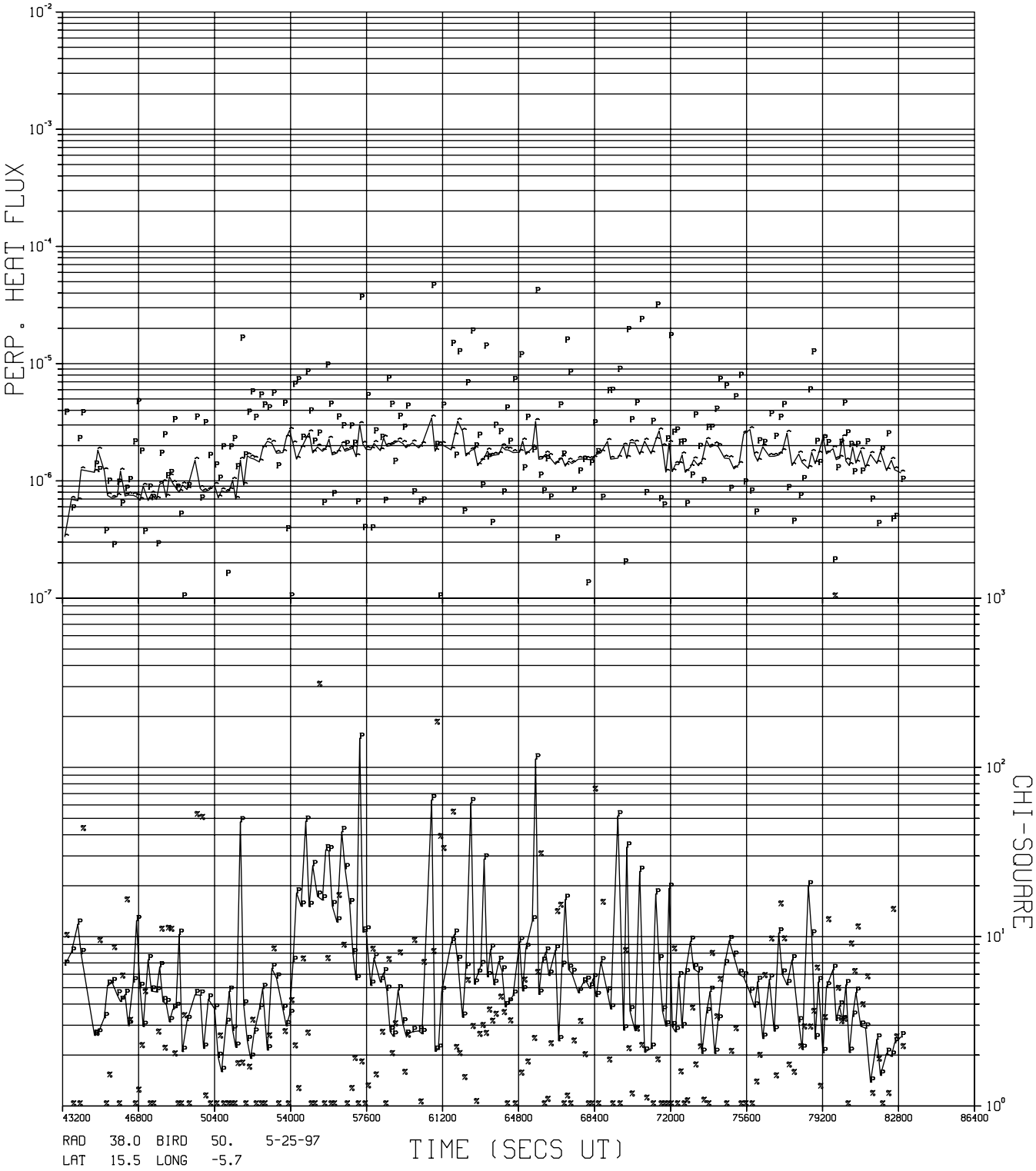

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 38.0 BIRD 50. 5-25-97
LAT 15.5 LONG -5.7

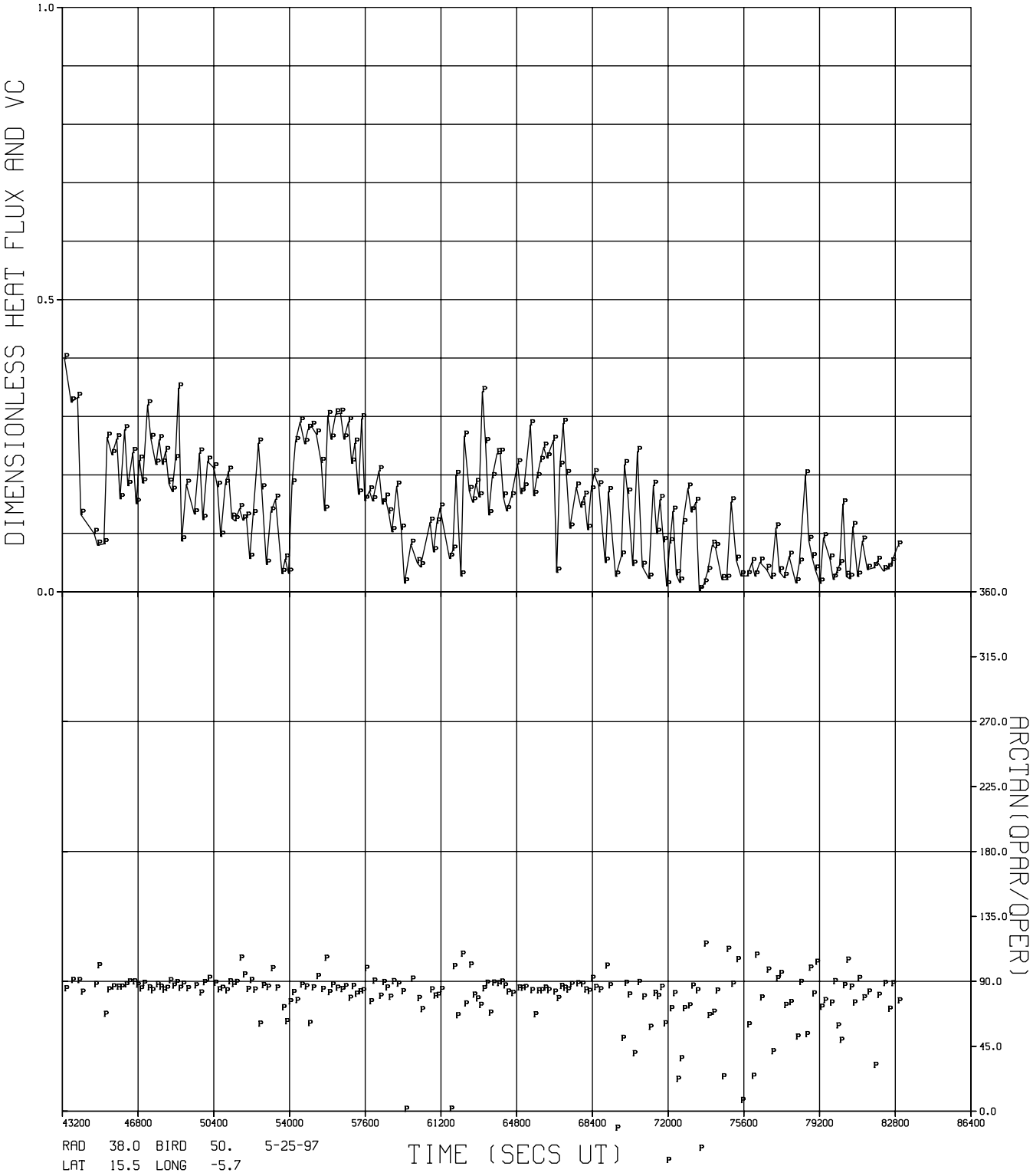

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 38.0 BIRD 50. 5-25-97
LAT 15.5 LONG -5.7
TIME (SECS UT)

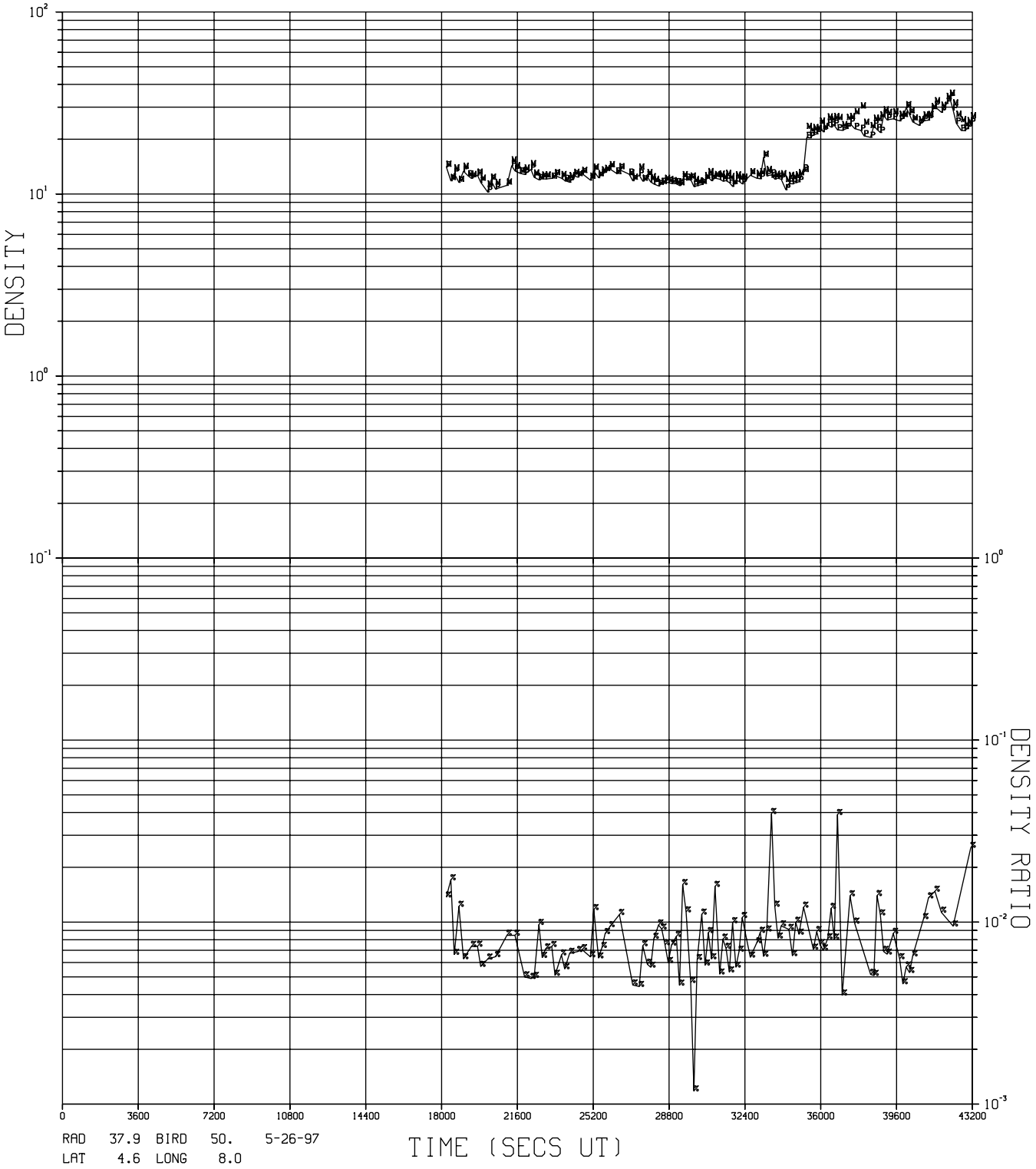

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 38.0 BIRD 50. 5-25-97
LAT 15.5 LONG -5.7

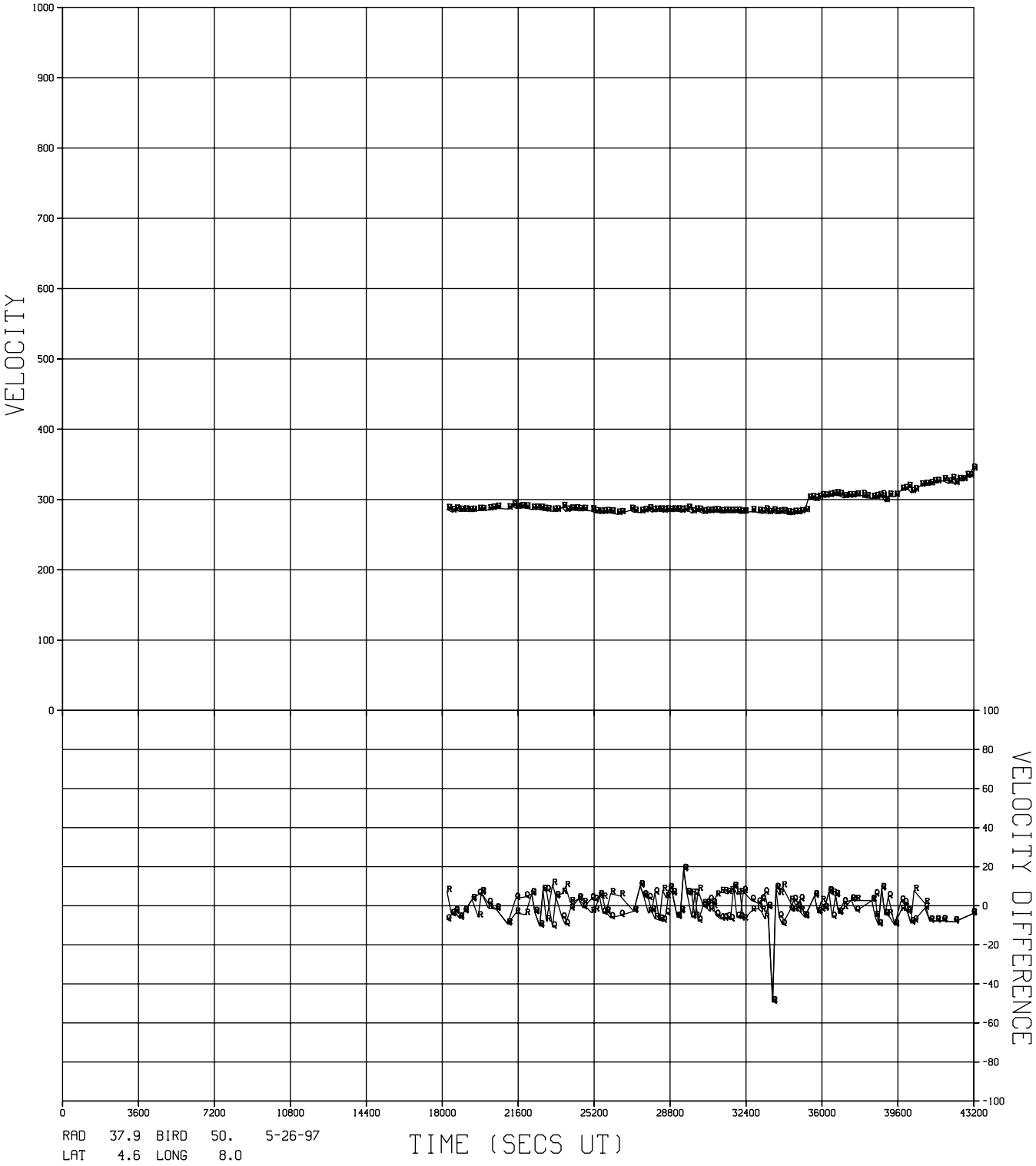

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 38.0 BIRD 50. 5-25-97
LAT 15.5 LONG -5.7

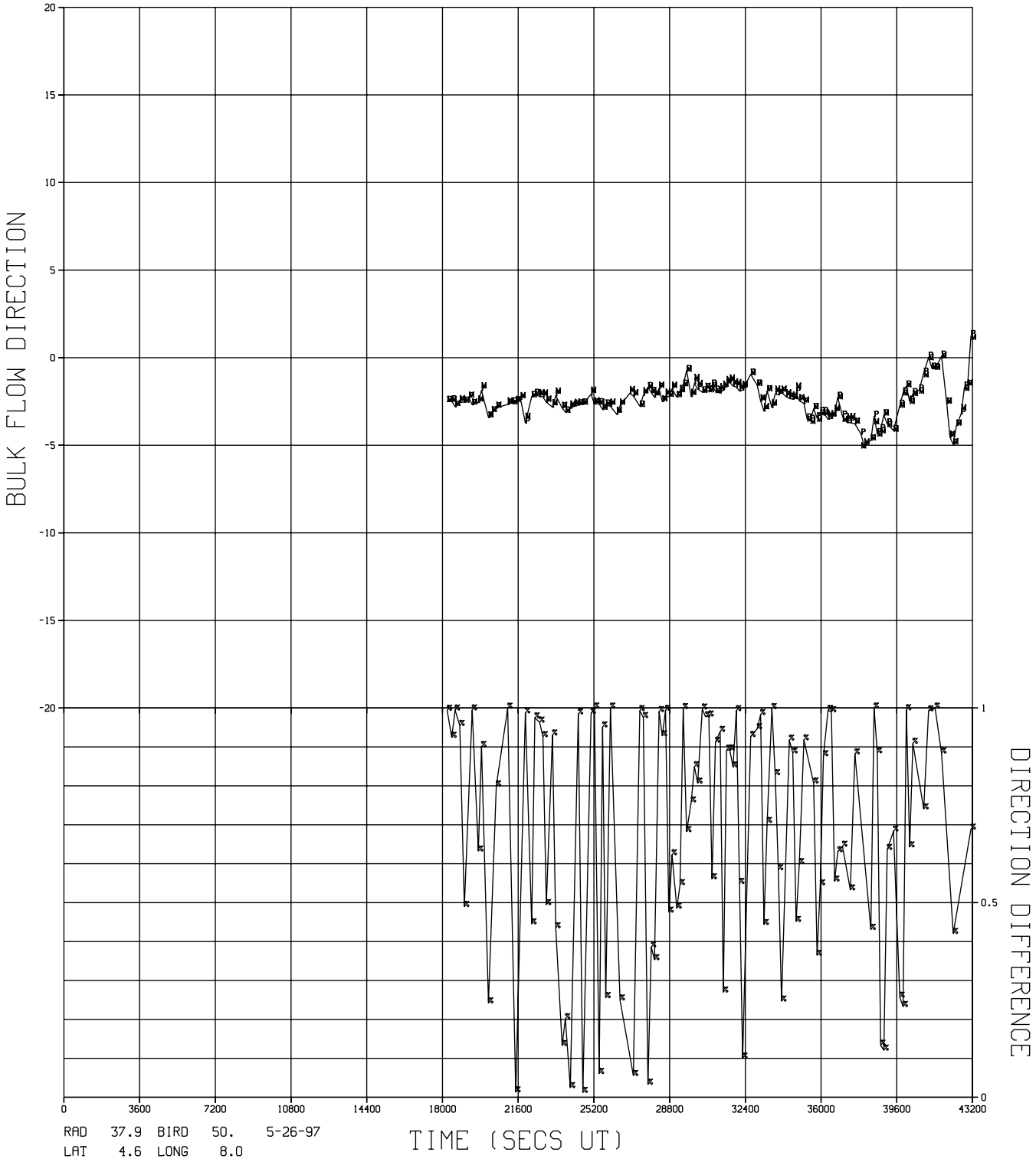

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 38.0 BIRD 50. 5-25-97
LAT 15.5 LONG -5.7

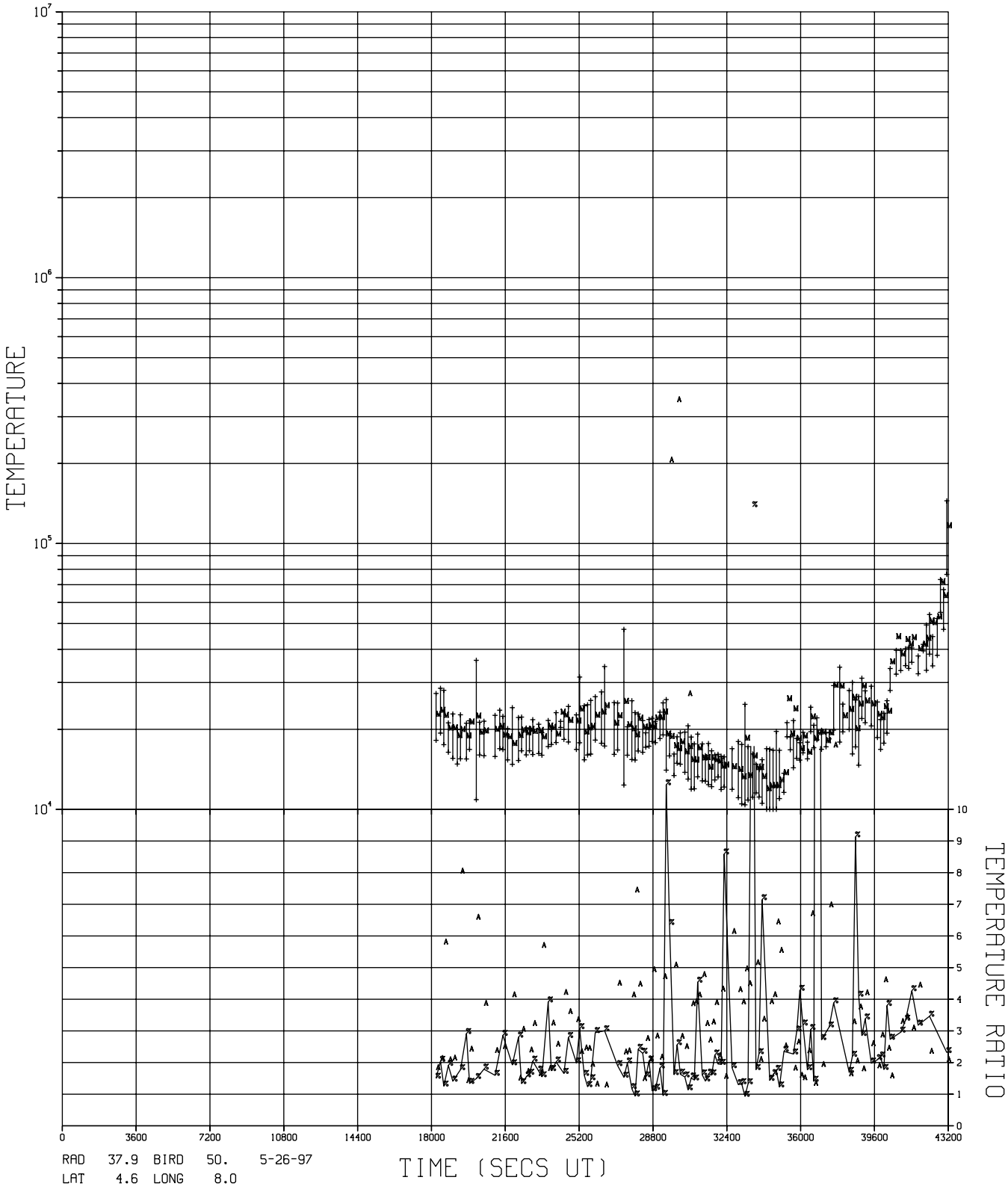

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 38.0 BIRD 50. 5-25-97
LAT 15.5 LONG -5.7

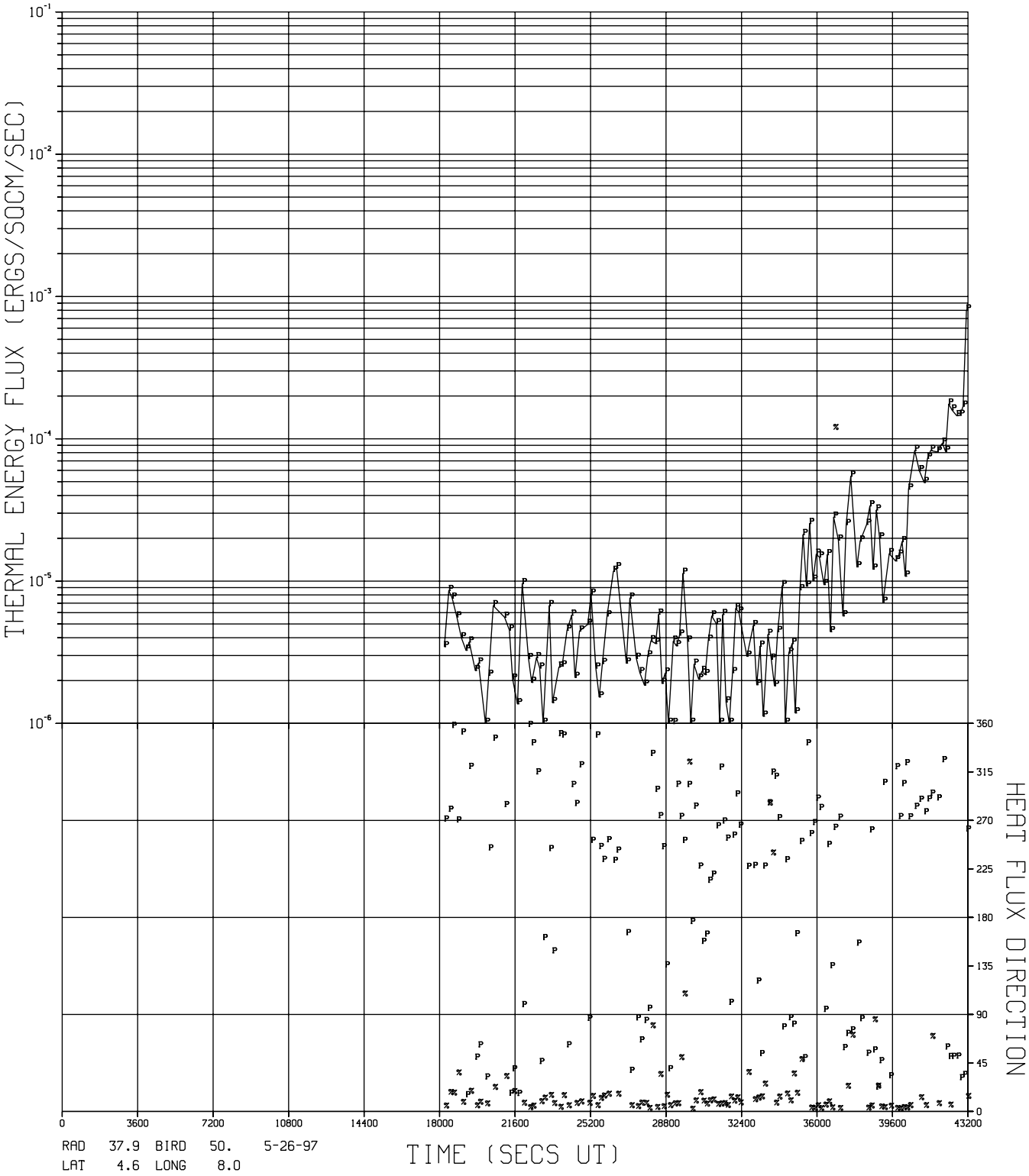

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 38.0 BIRD 50. 5-25-97
LAT 15.5 LONG -5.7

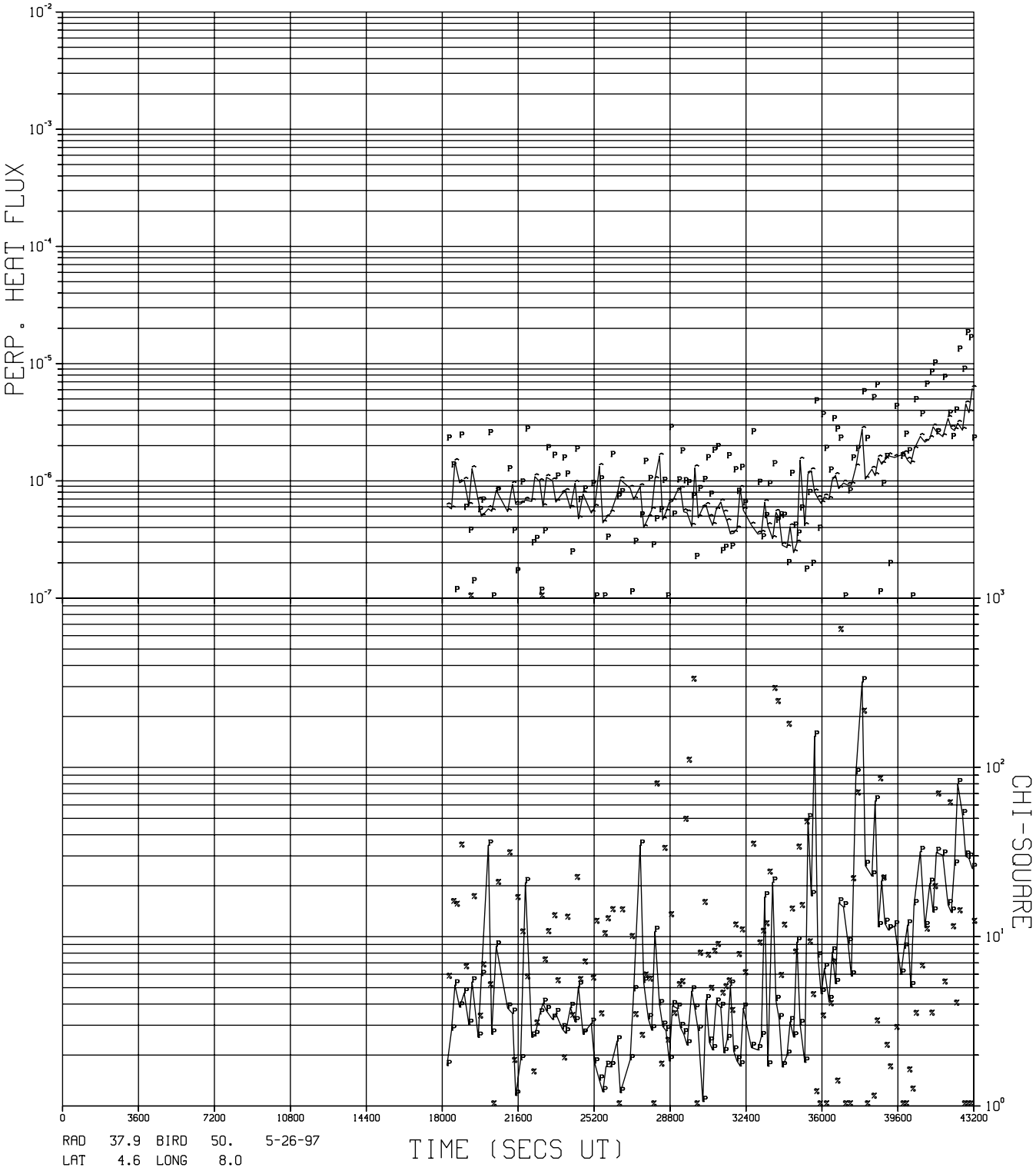

DENSITY
DENSITY RATIO
TIME (SECS UT)
RAD 37.9 BIRD 50. 5-26-97
LAT 4.6 LONG 8.0

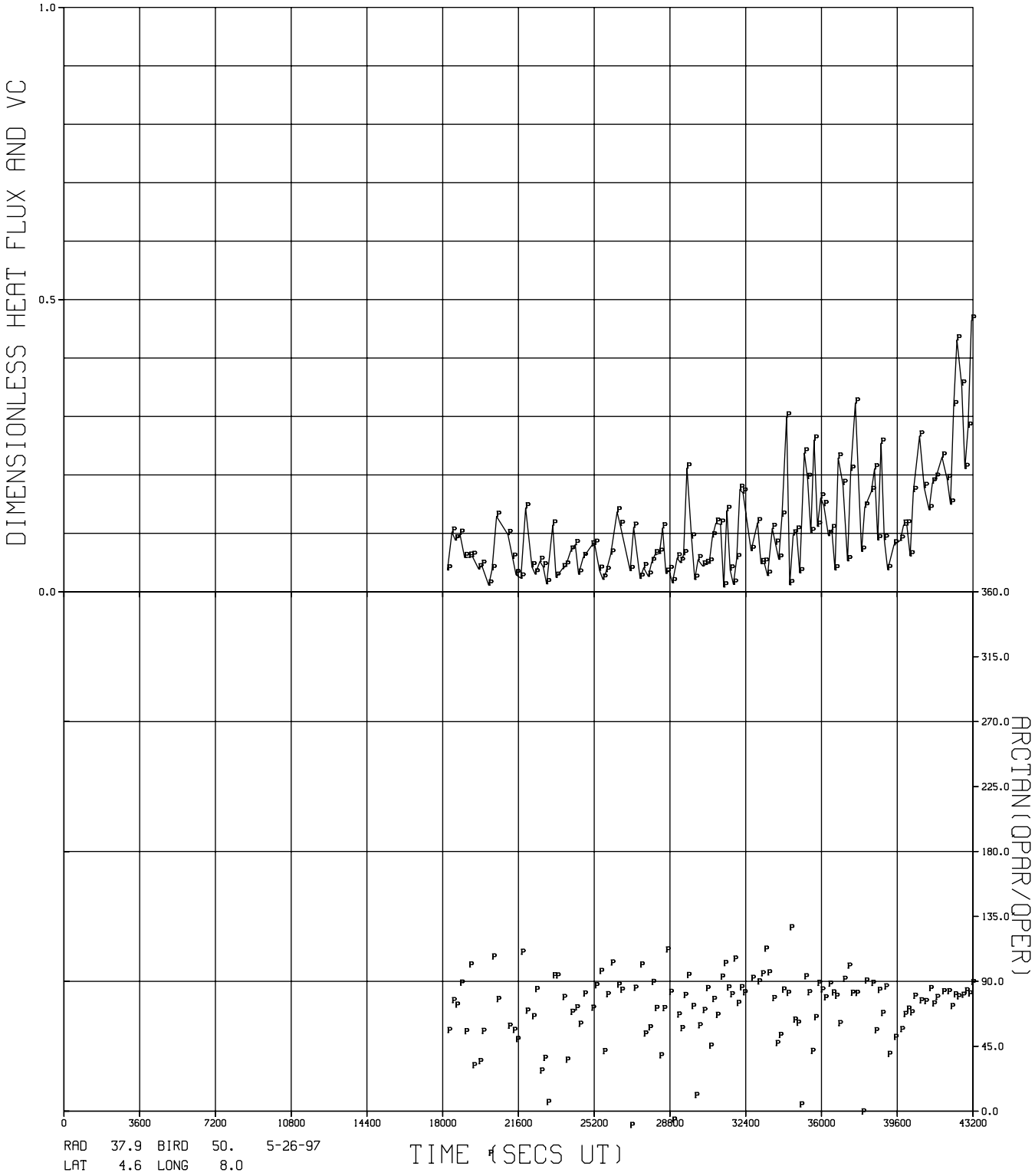

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.9 BIRD 50. 5-26-97
LAT 4.6 LONG 8.0
TIME (SECS UT)

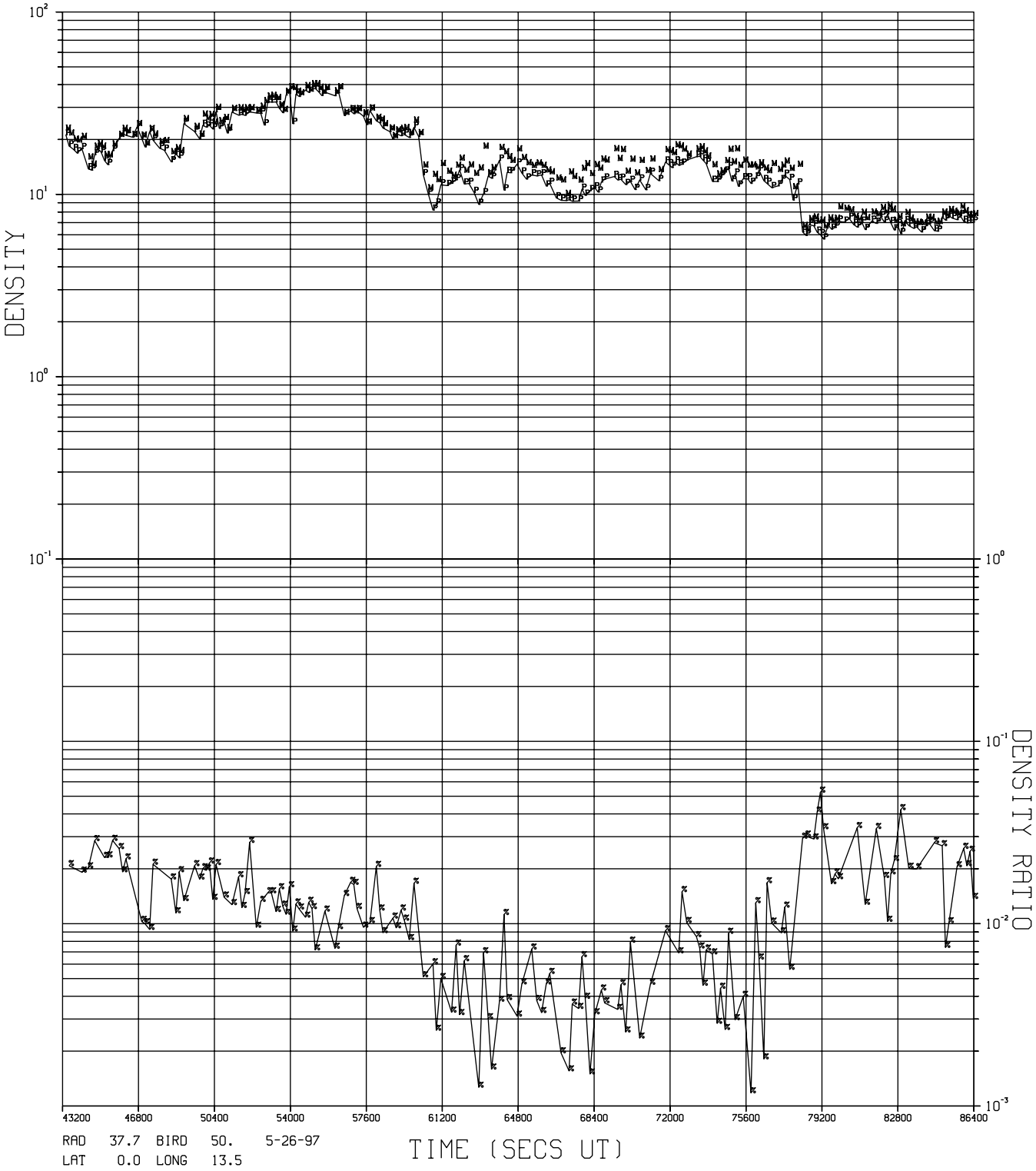

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.9 BIRD 50. 5-26-97
LAT 4.6 LONG 8.0

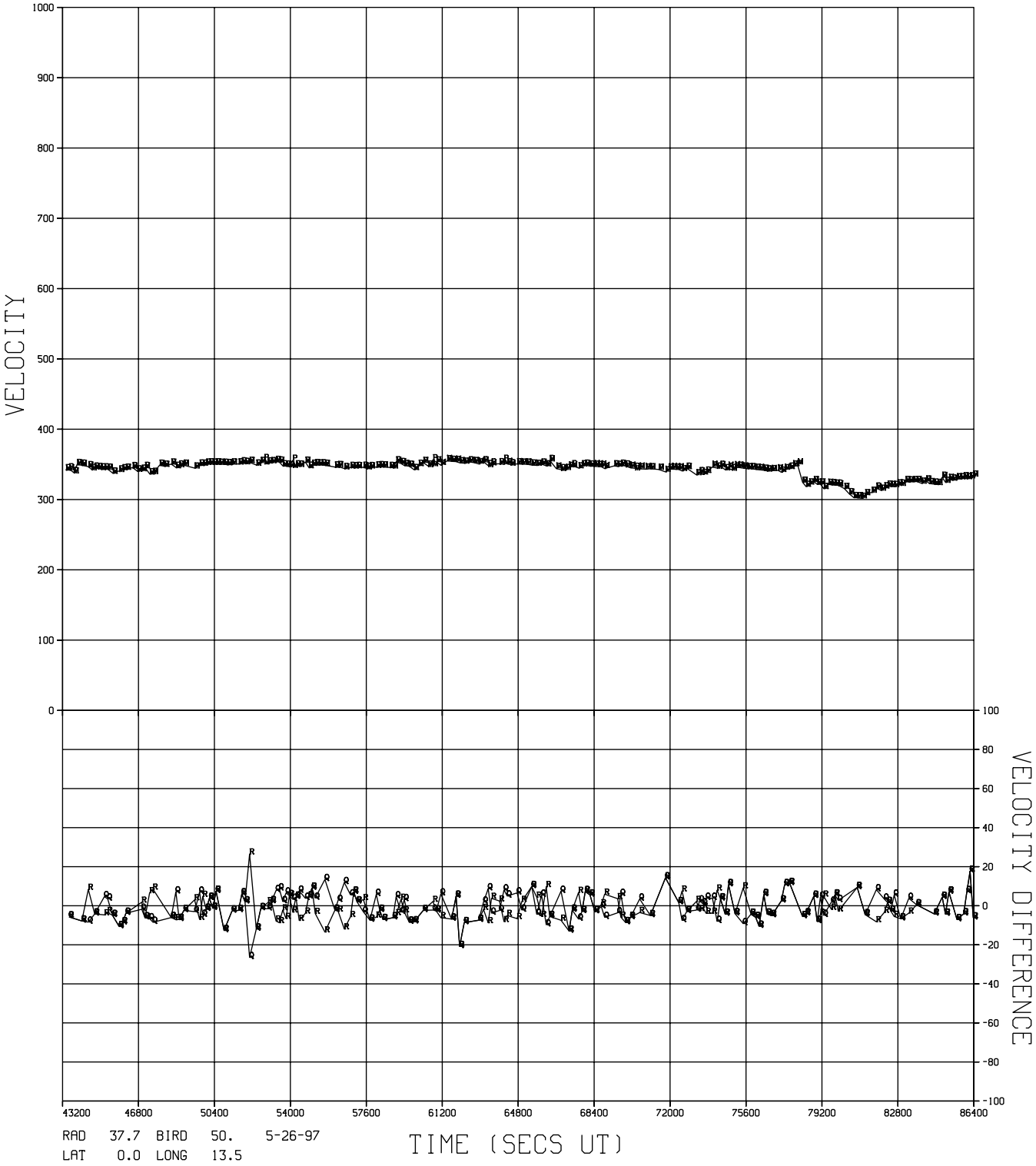

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 37.9 BIRD 50. 5-26-97
LAT 4.6 LONG 8.0

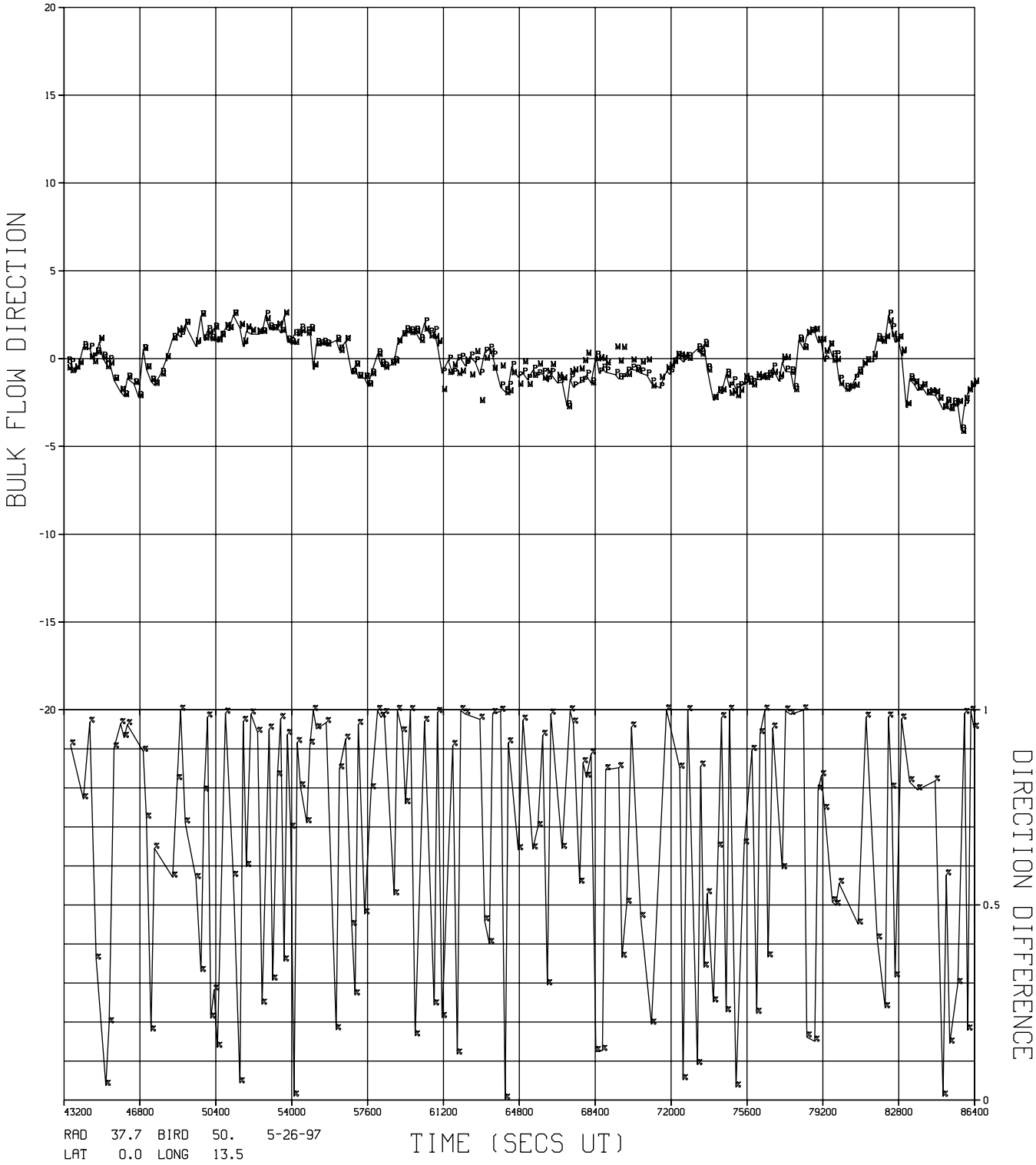

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.9 BIRD 50. 5-26-97
LAT 4.6 LONG 8.0

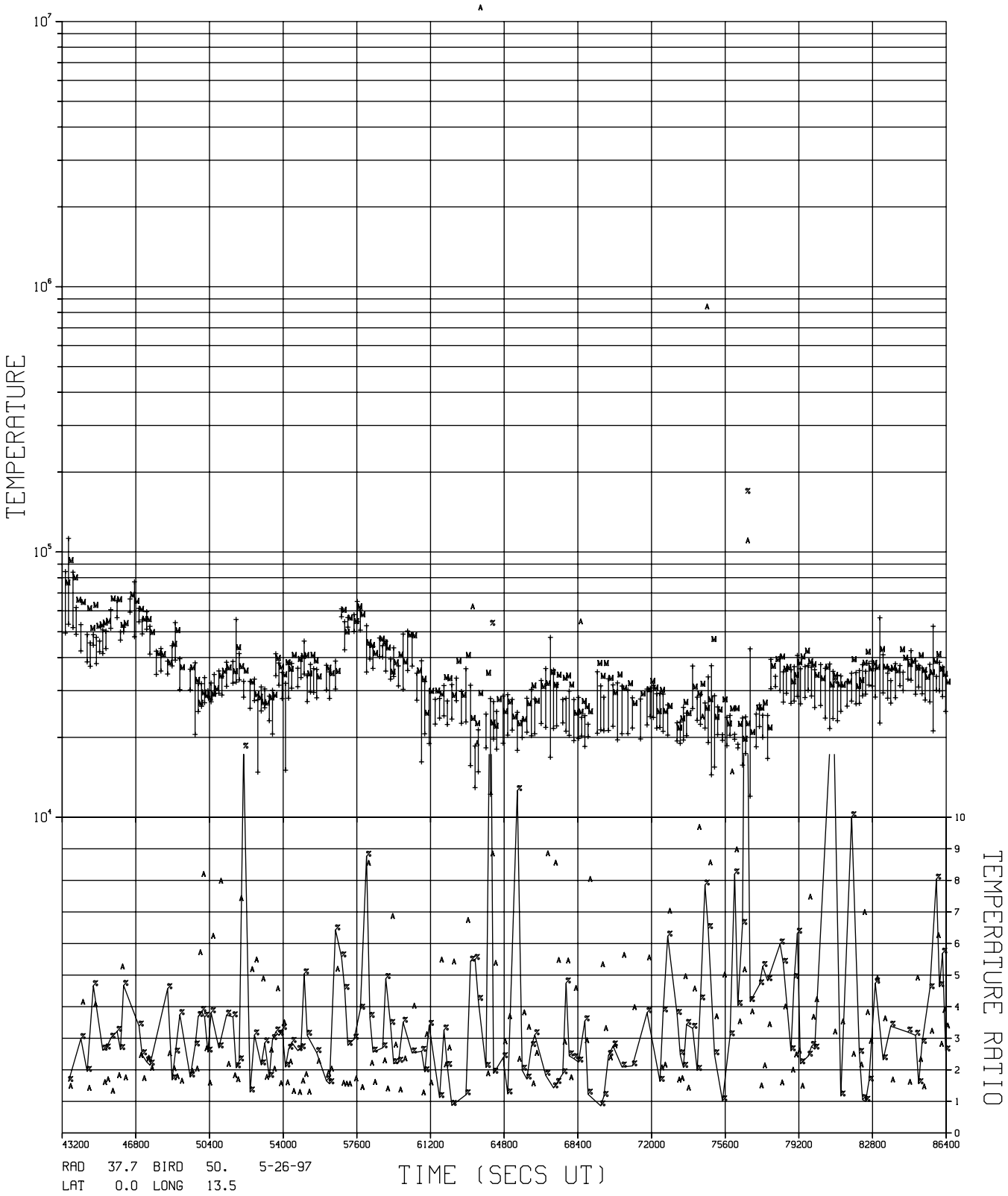

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 37.9 BIRD 50. 5-26-97
LAT 4.6 LONG 8.0

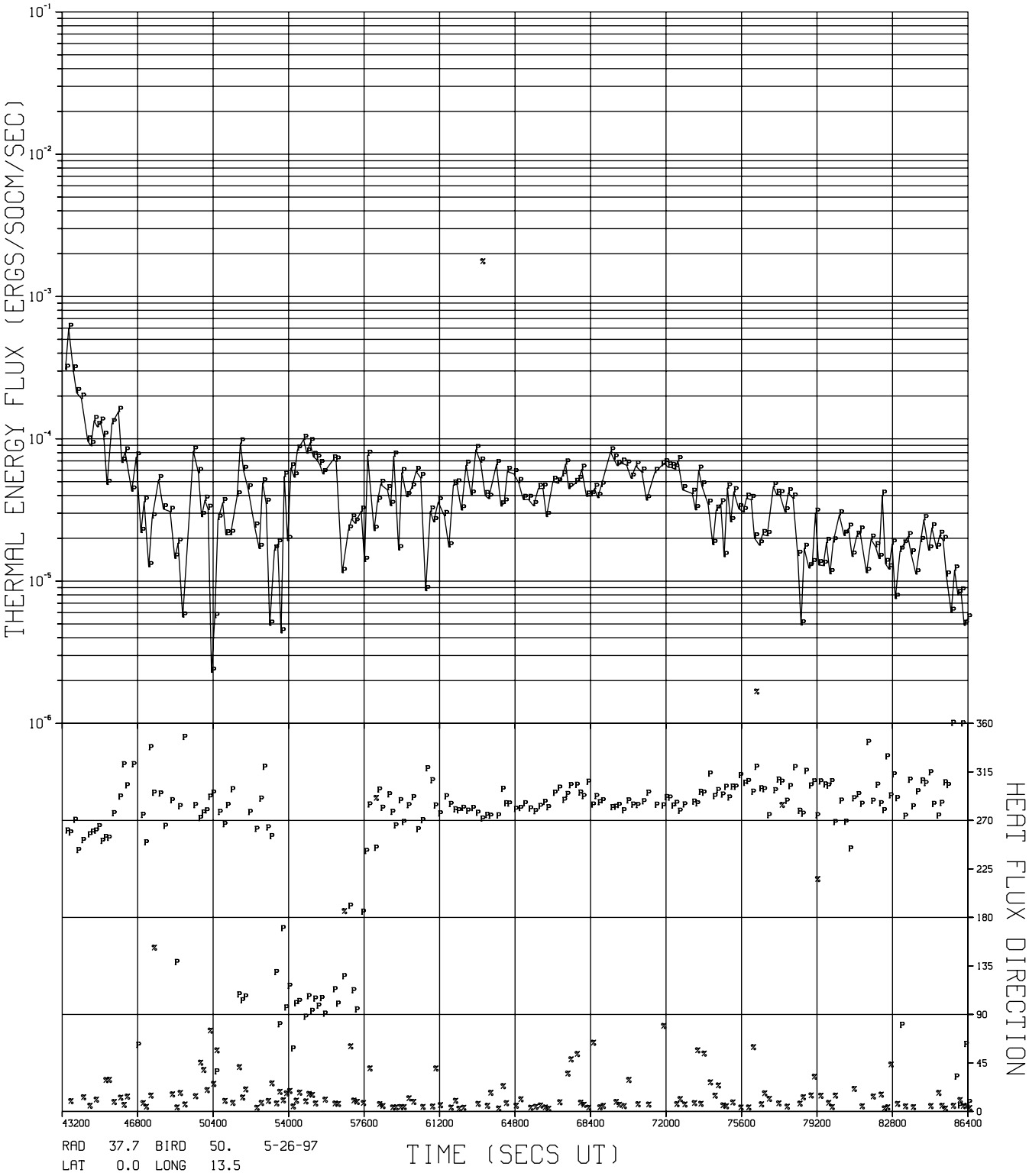

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 37.9 BIRD 50. 5-26-97
LAT 4.6 LONG 8.0

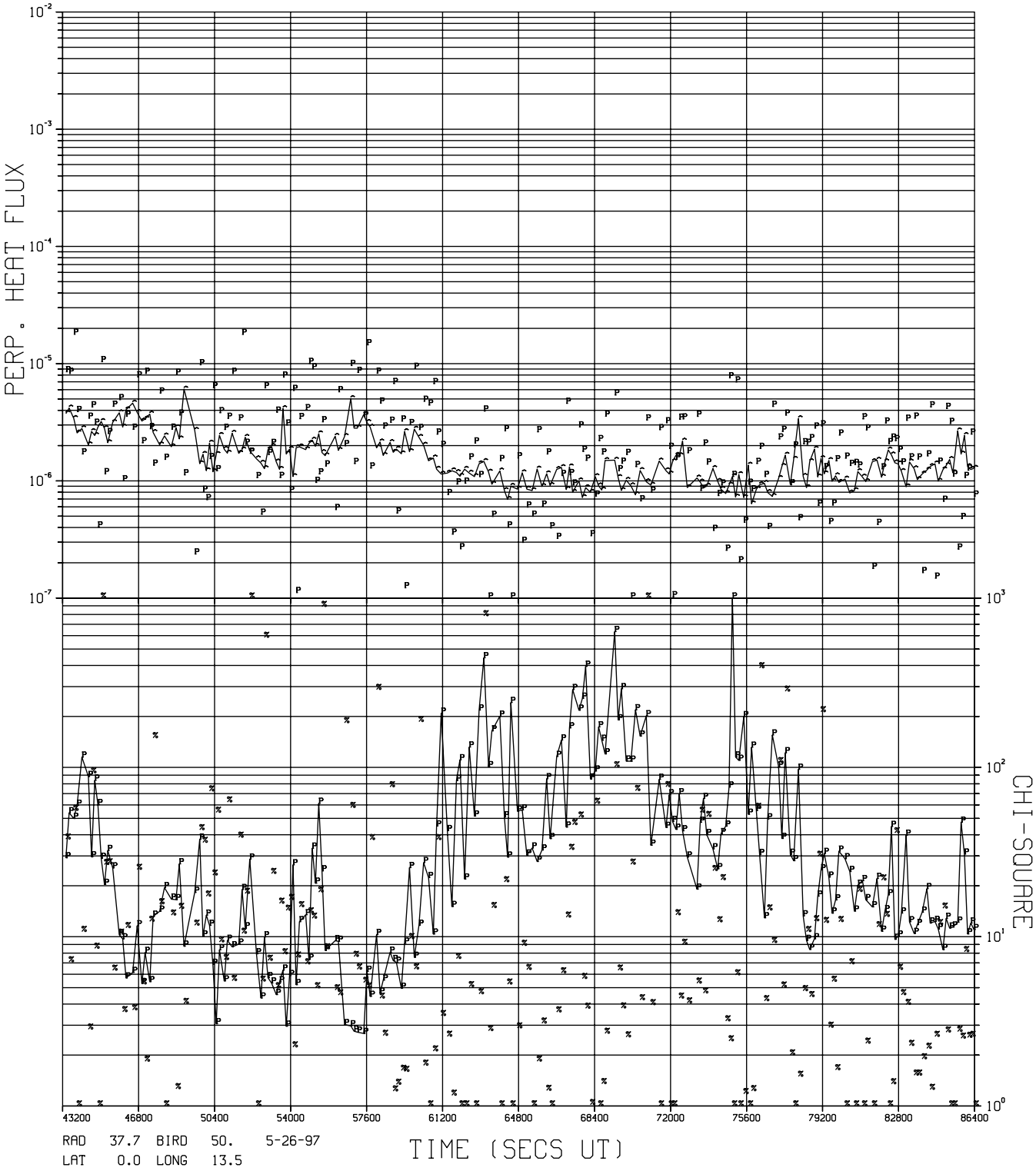

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.7 BIRD 50. 5-26-97
LAT 0.0 LONG 13.5

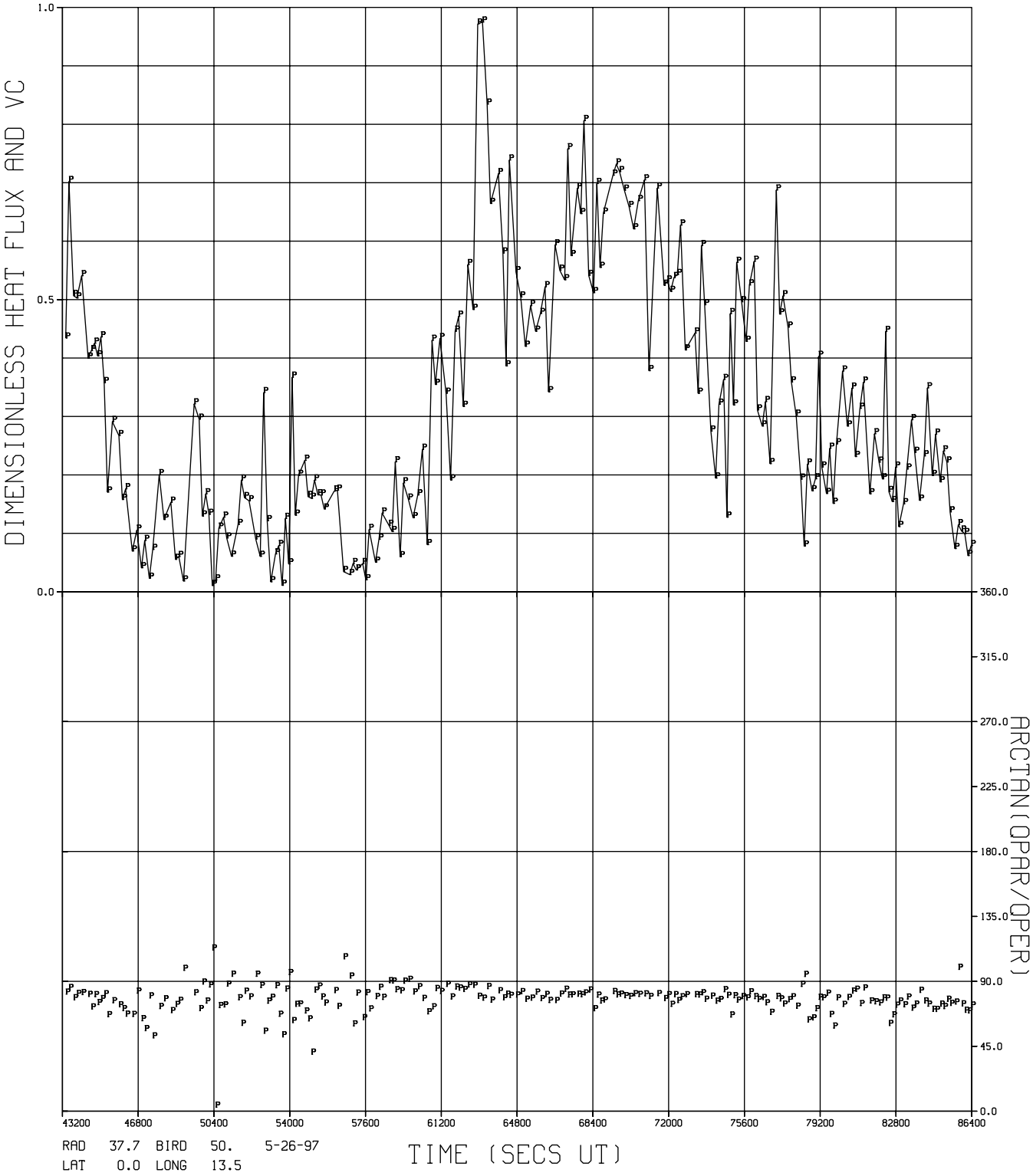

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.7 BIRD 50. 5-26-97
LAT 0.0 LONG 13.5
TIME (SECS UT)


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 37.7 BIRD 50. 5-26-97
LAT 0.0 LONG 13.5

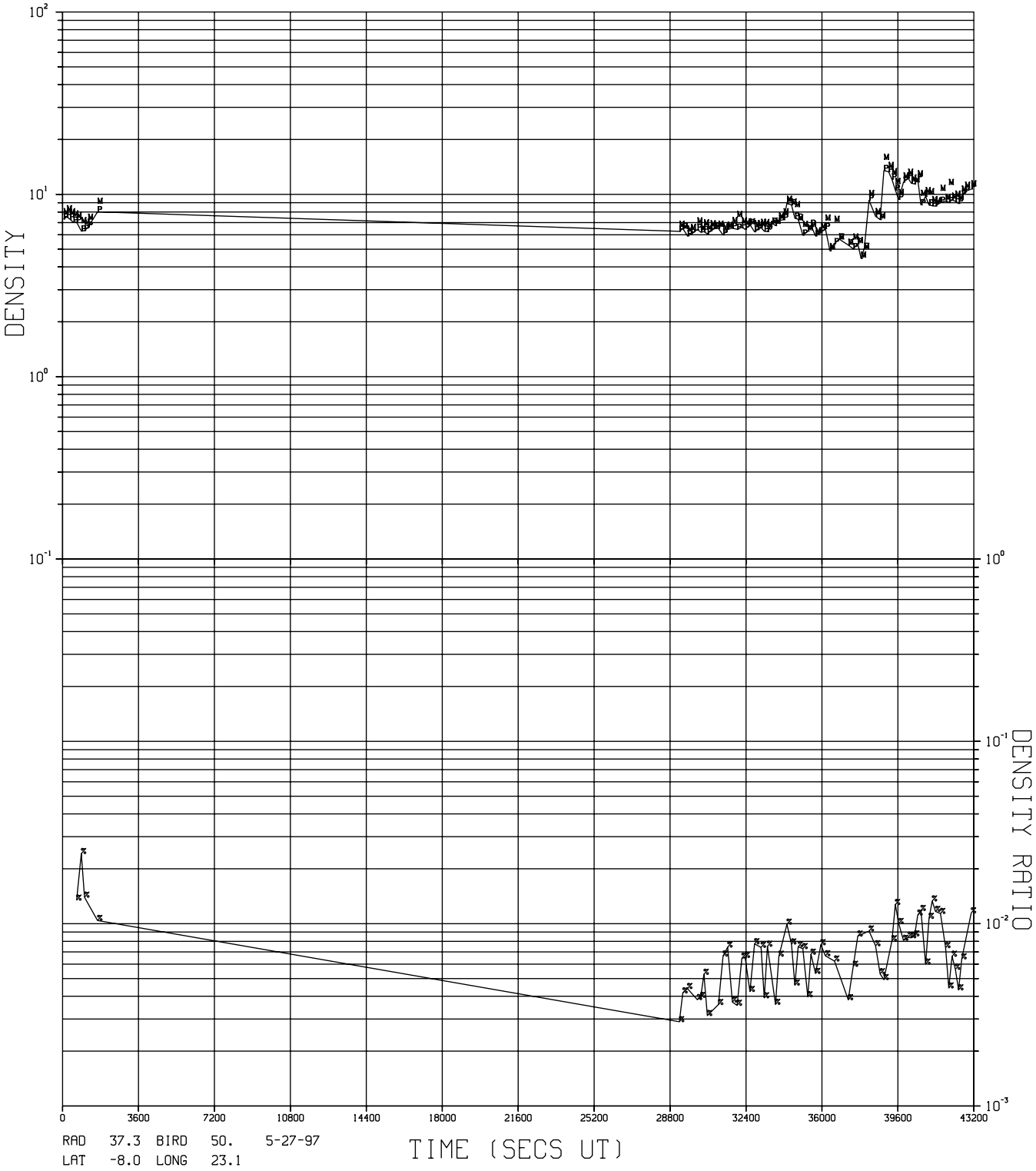

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 37.7 BIRD 50. 5-26-97
LAT 0.0 LONG 13.5

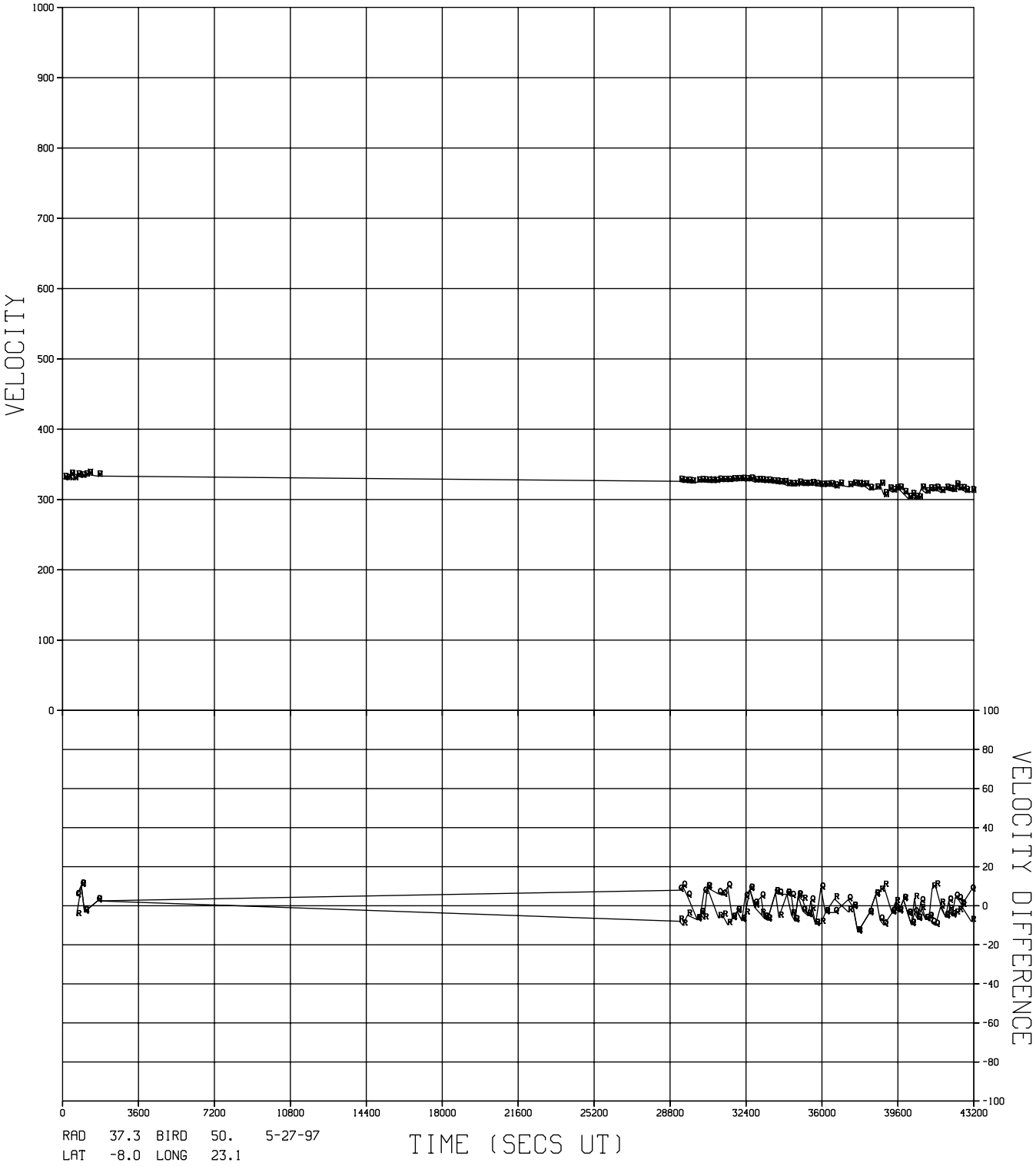

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.7 BIRD 50. 5-26-97
LAT 0.0 LONG 13.5

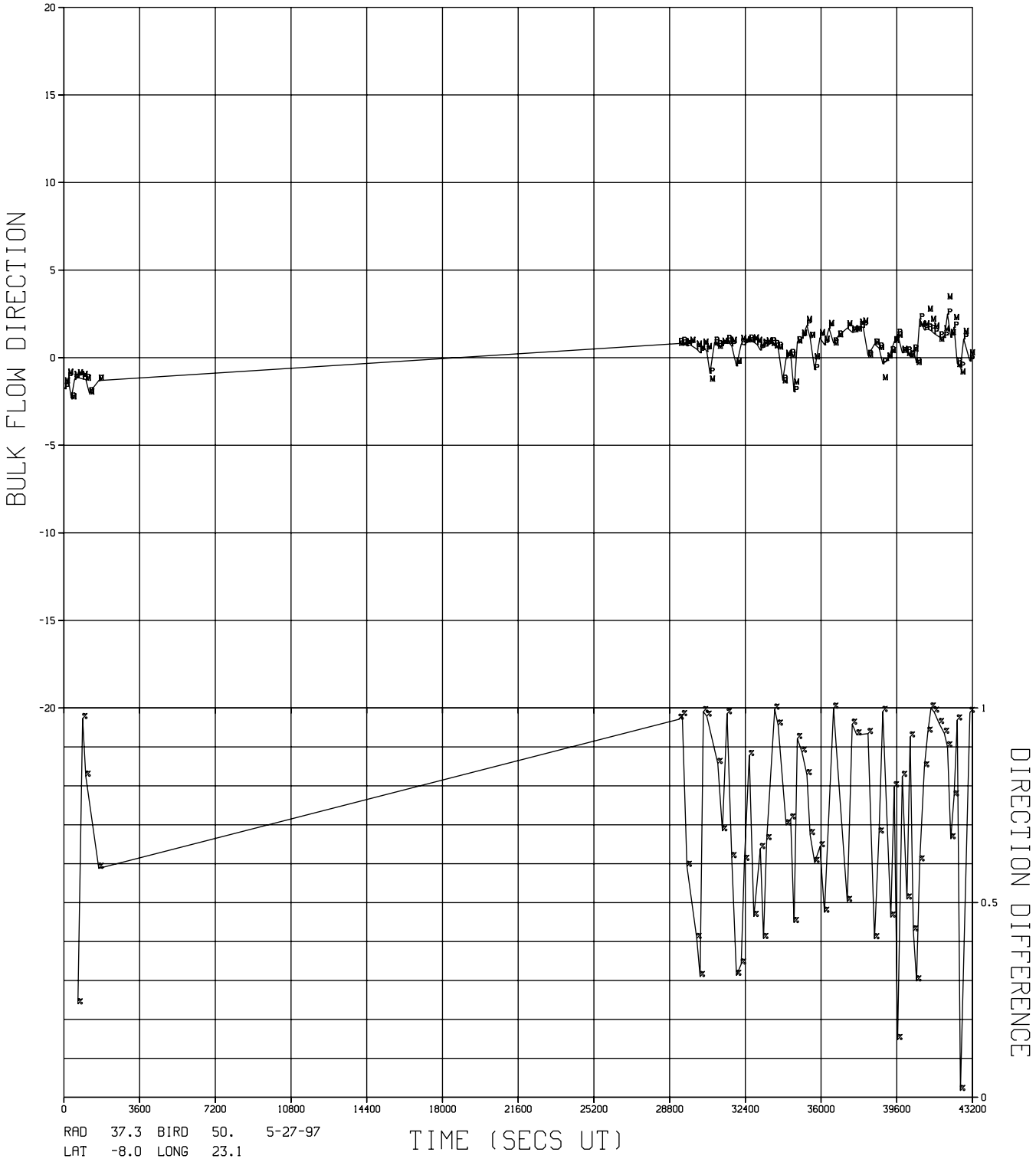

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.7 BIRD 50. 5-26-97
LAT 0.0 LONG 13.5

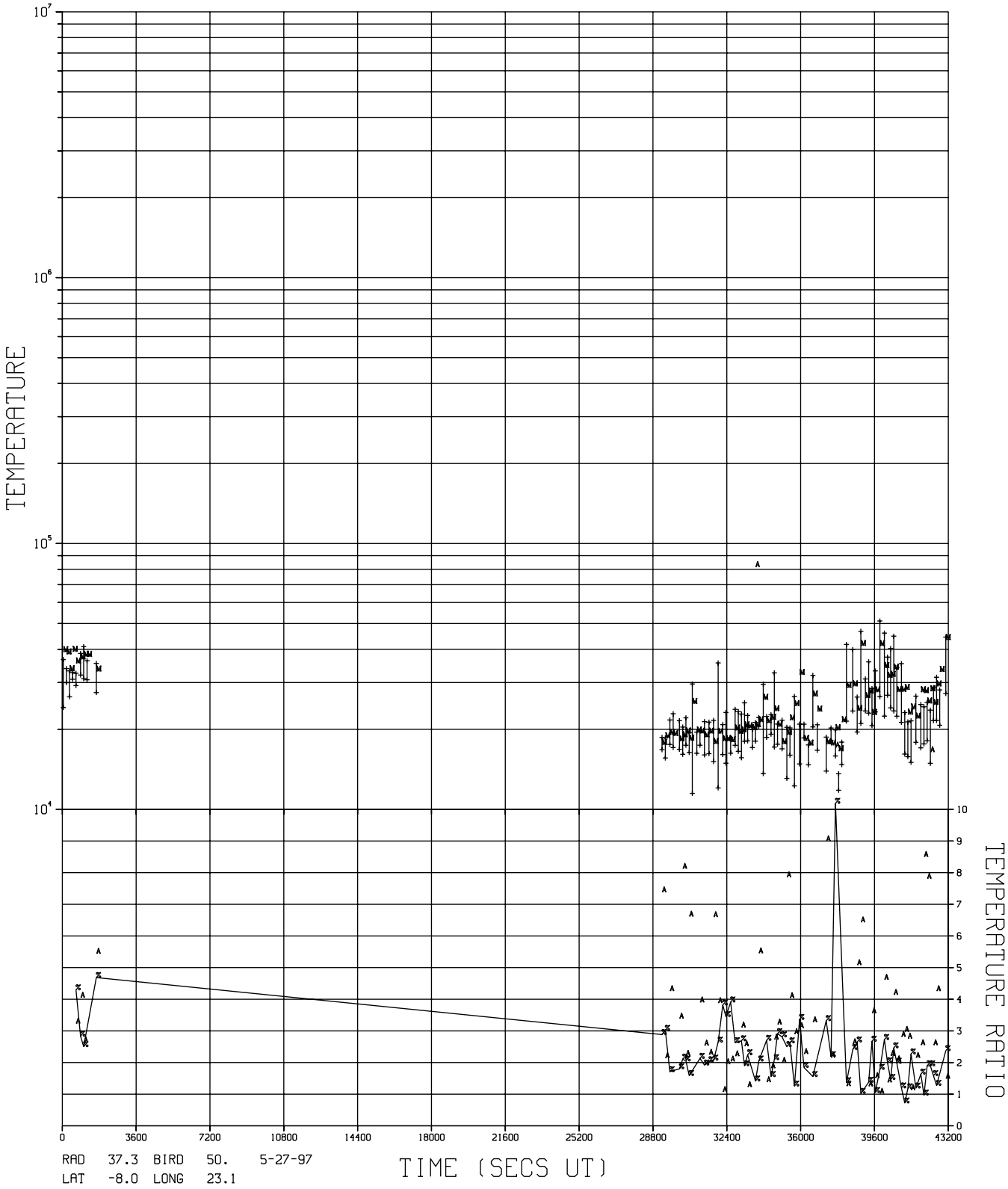


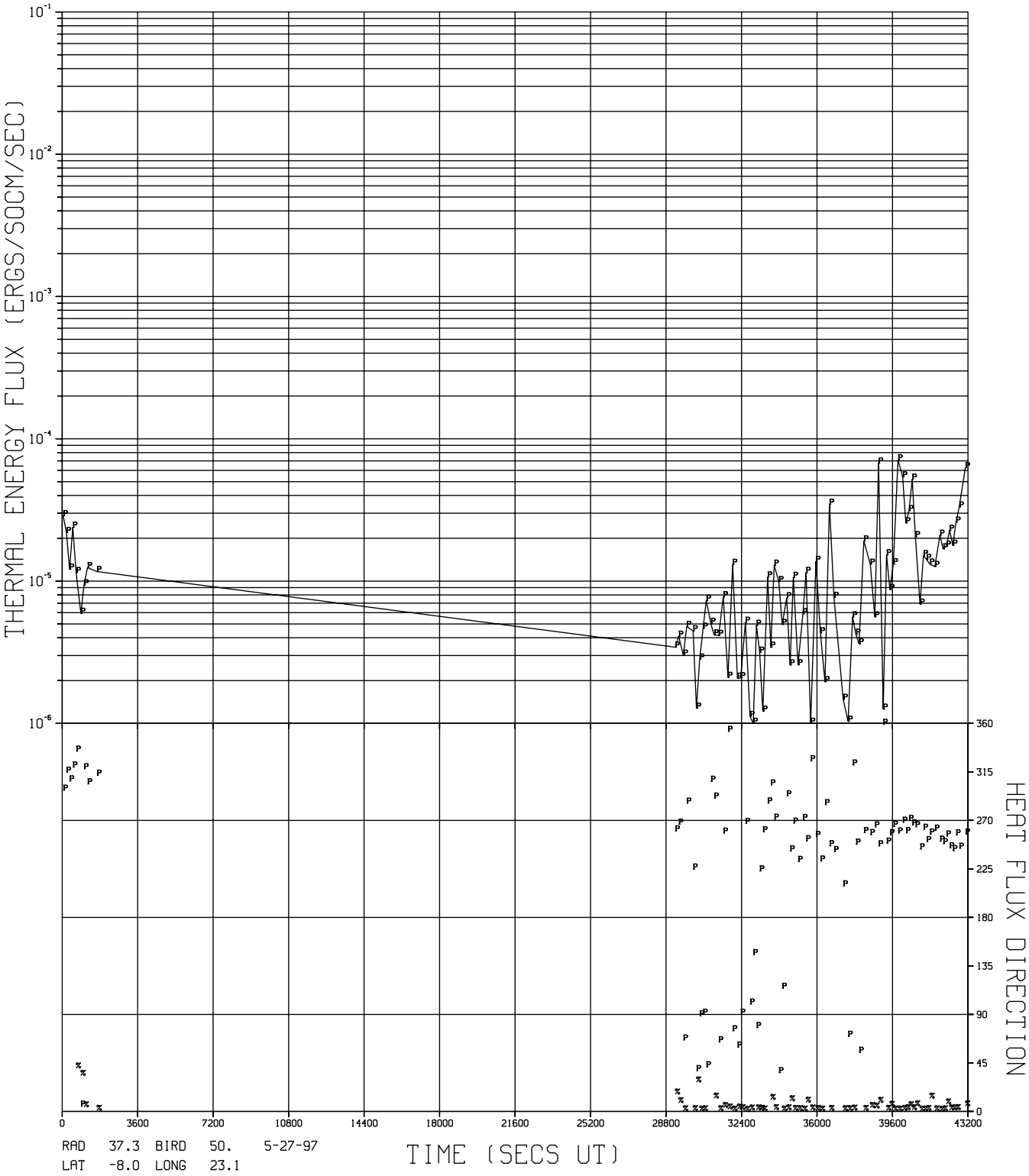
RAD 37.7 BIRD 50. 5-26-97
LAT 0.0 LONG 13.5

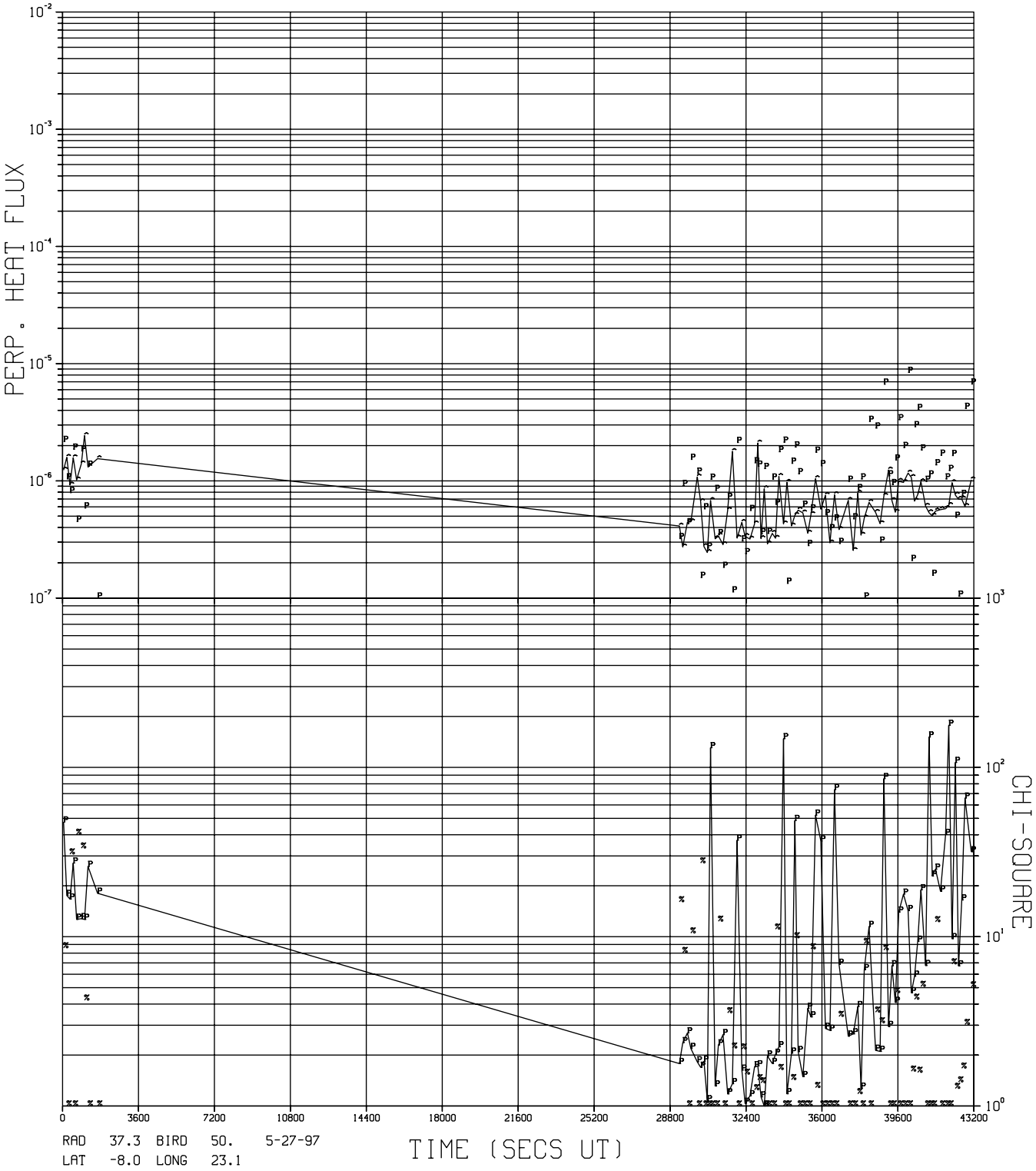

DENSITY
DENSITY RATIO
TIME (SECS UT)
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.3 BIRD 50. 5-27-97
LAT -8.0 LONG 23.1

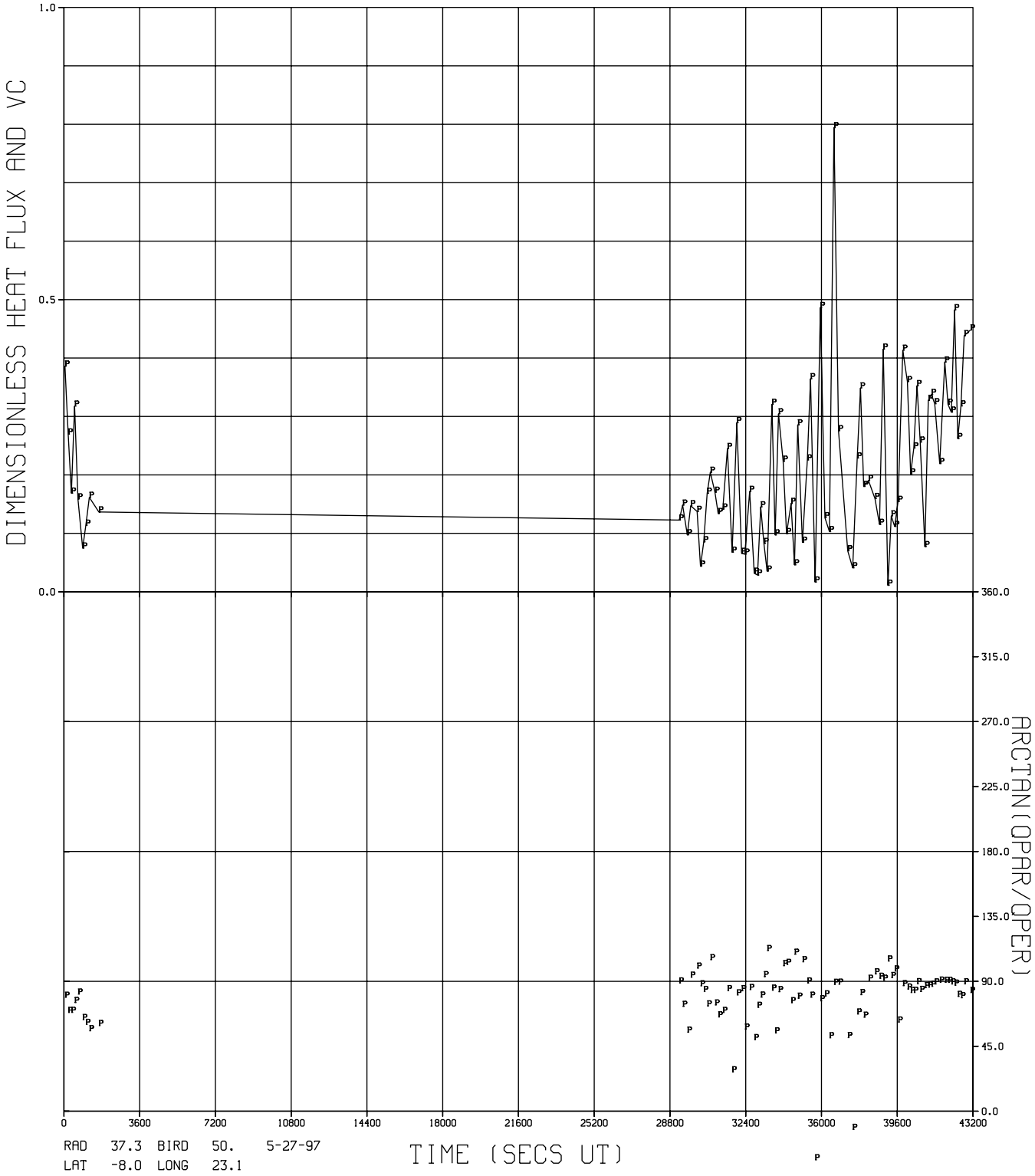

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 37.3 BIRD 50. 5-27-97
LAT -8.0 LONG 23.1

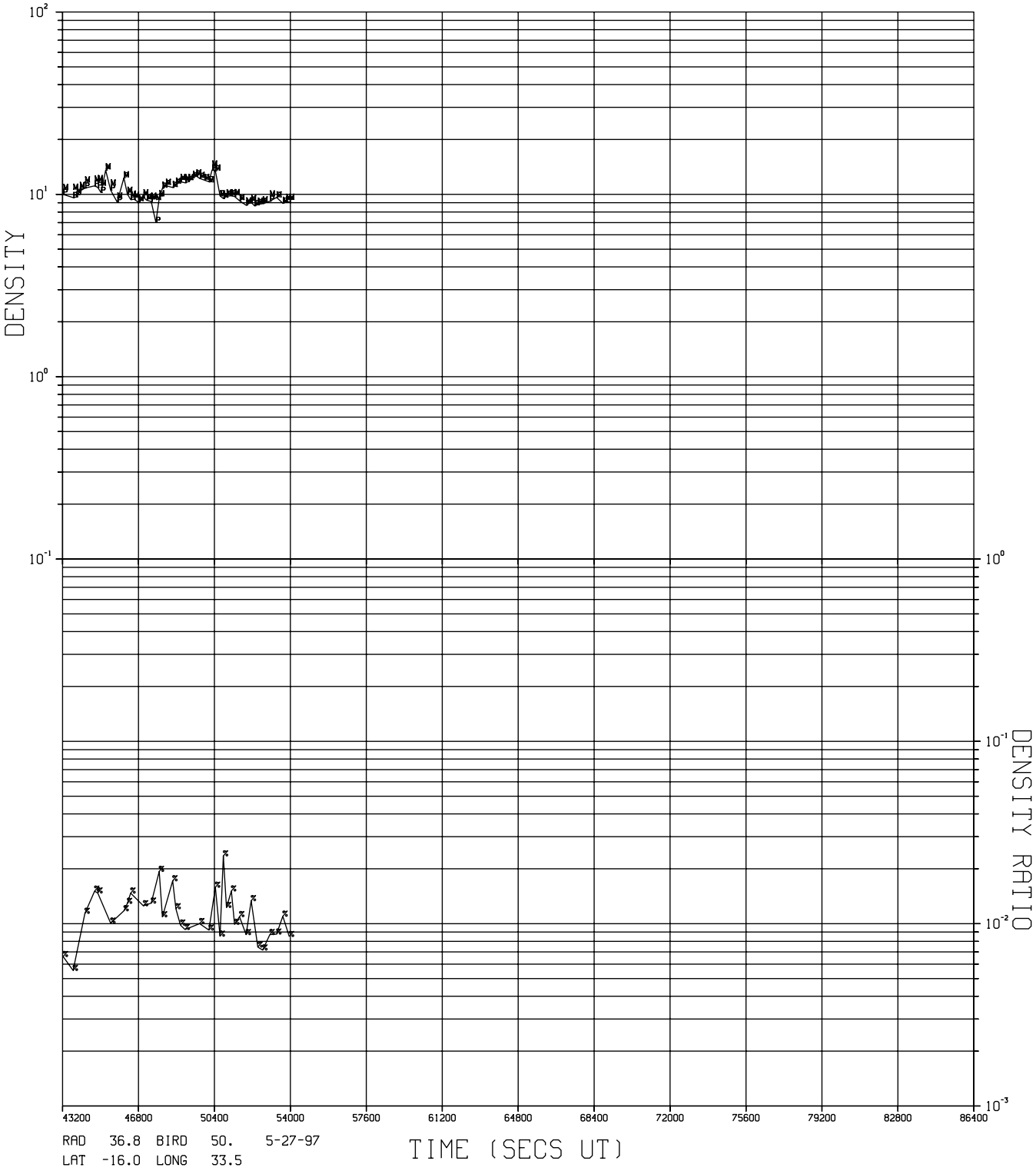

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.3 BIRD 50. 5-27-97
LAT -8.0 LONG 23.1

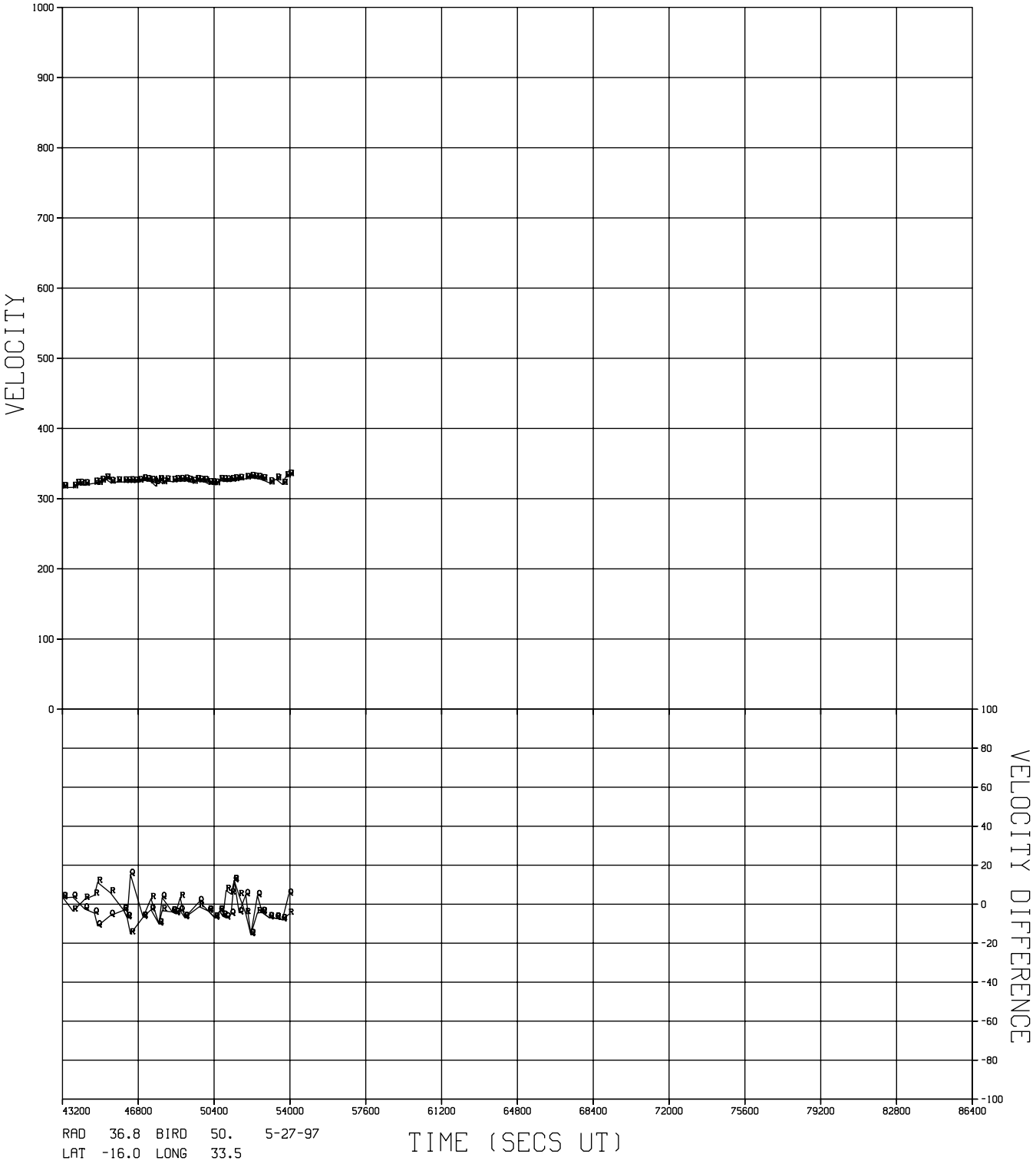

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 37.3 BIRD 50. 5-27-97
LAT -8.0 LONG 23.1

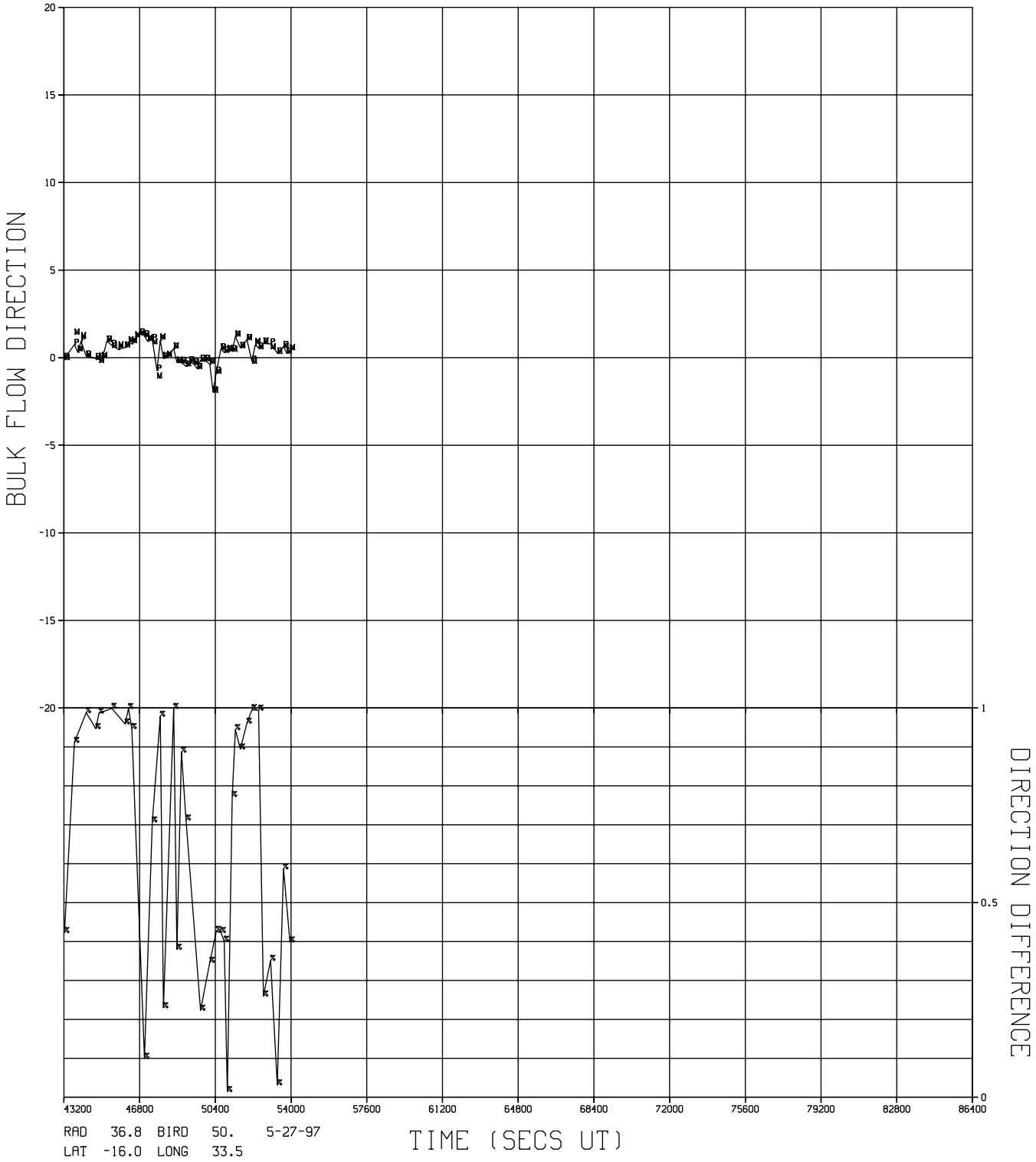

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.3 BIRD 50. 5-27-97
LAT -8.0 LONG 23.1

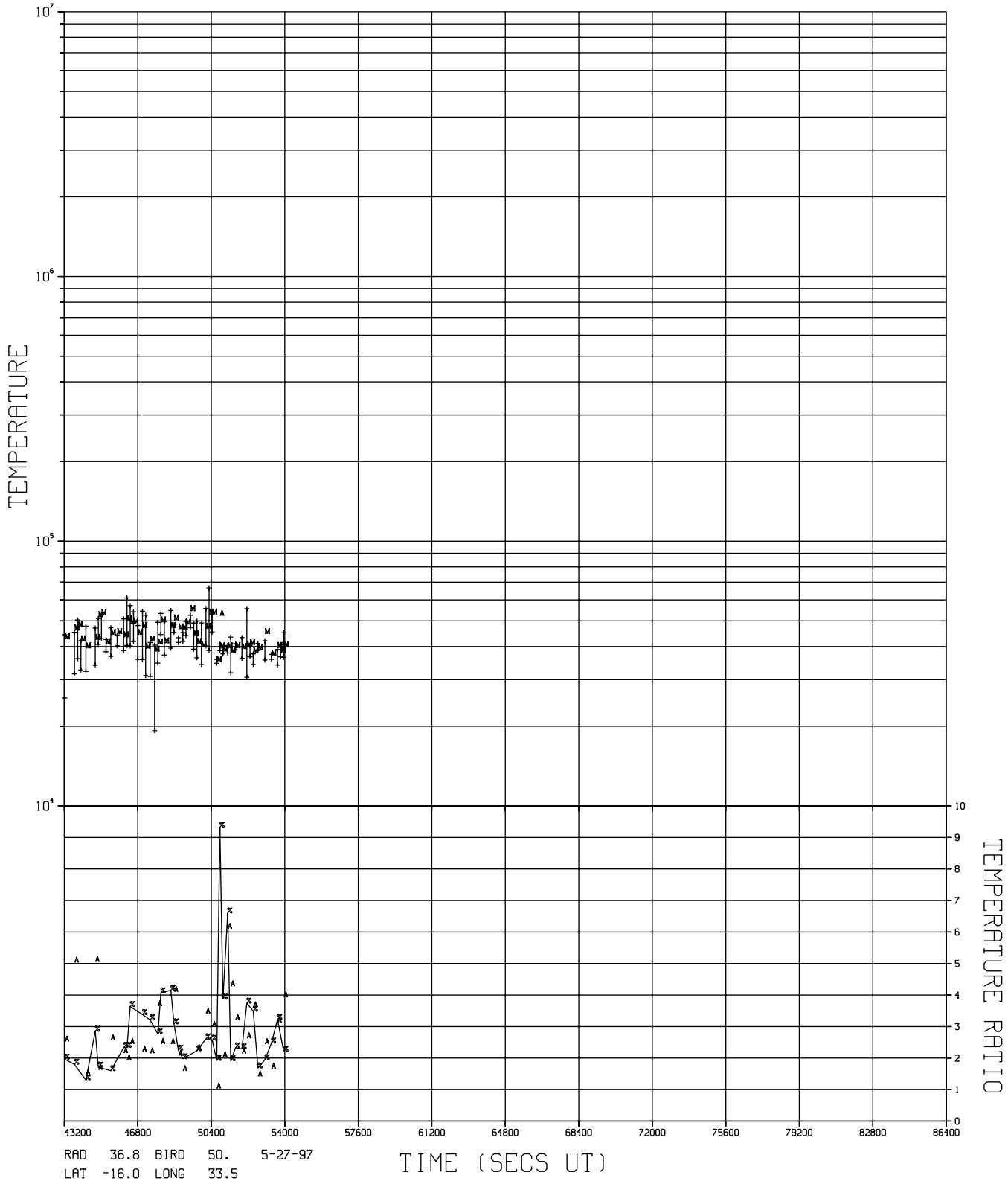

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 37.3 BIRD 50. 5-27-97
LAT -8.0 LONG 23.1

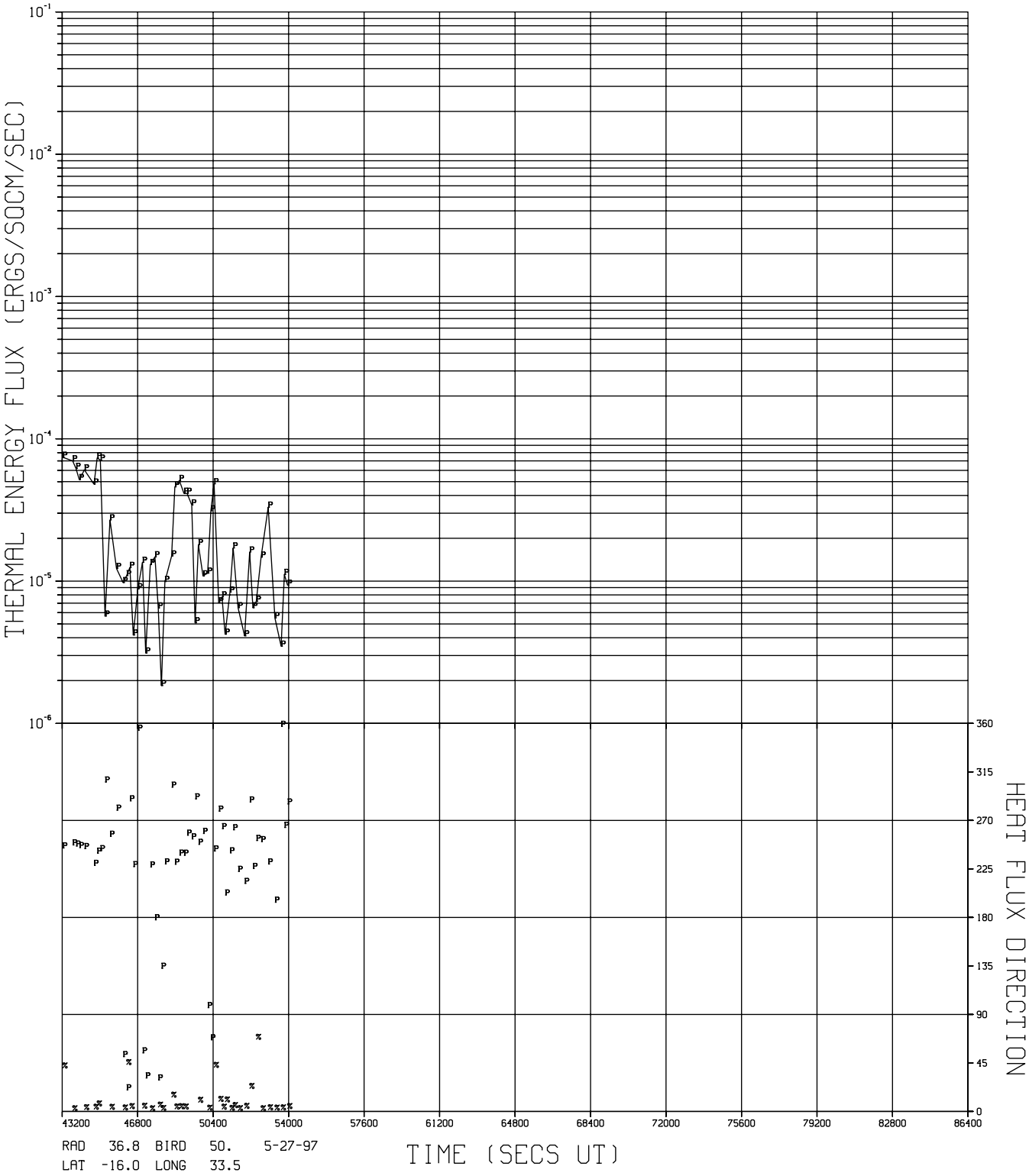

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 37.3 BIRD 50. 5-27-97
LAT -8.0 LONG 23.1

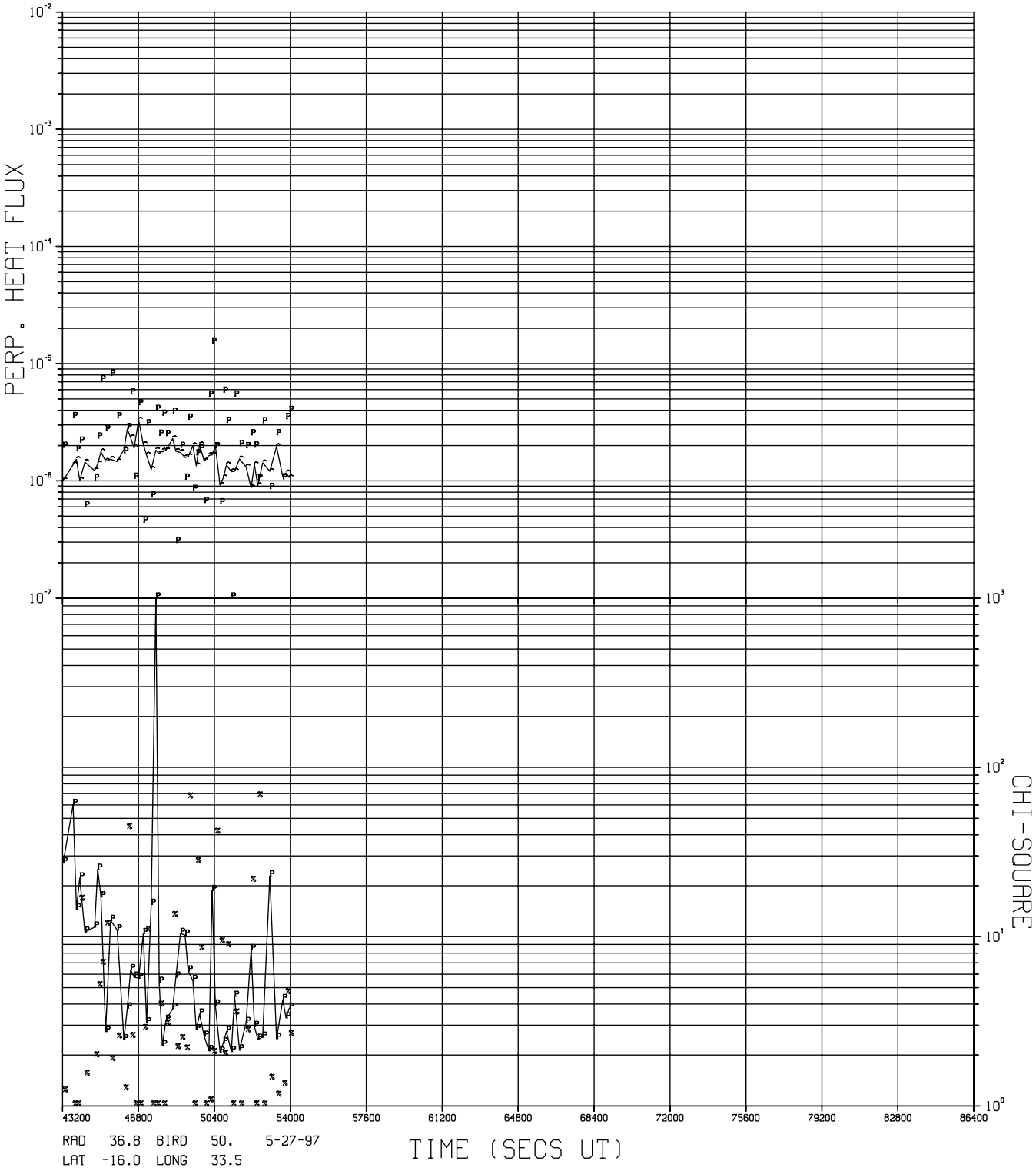

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.8 BIRD 50. 5-27-97
LAT -16.0 LONG 33.5

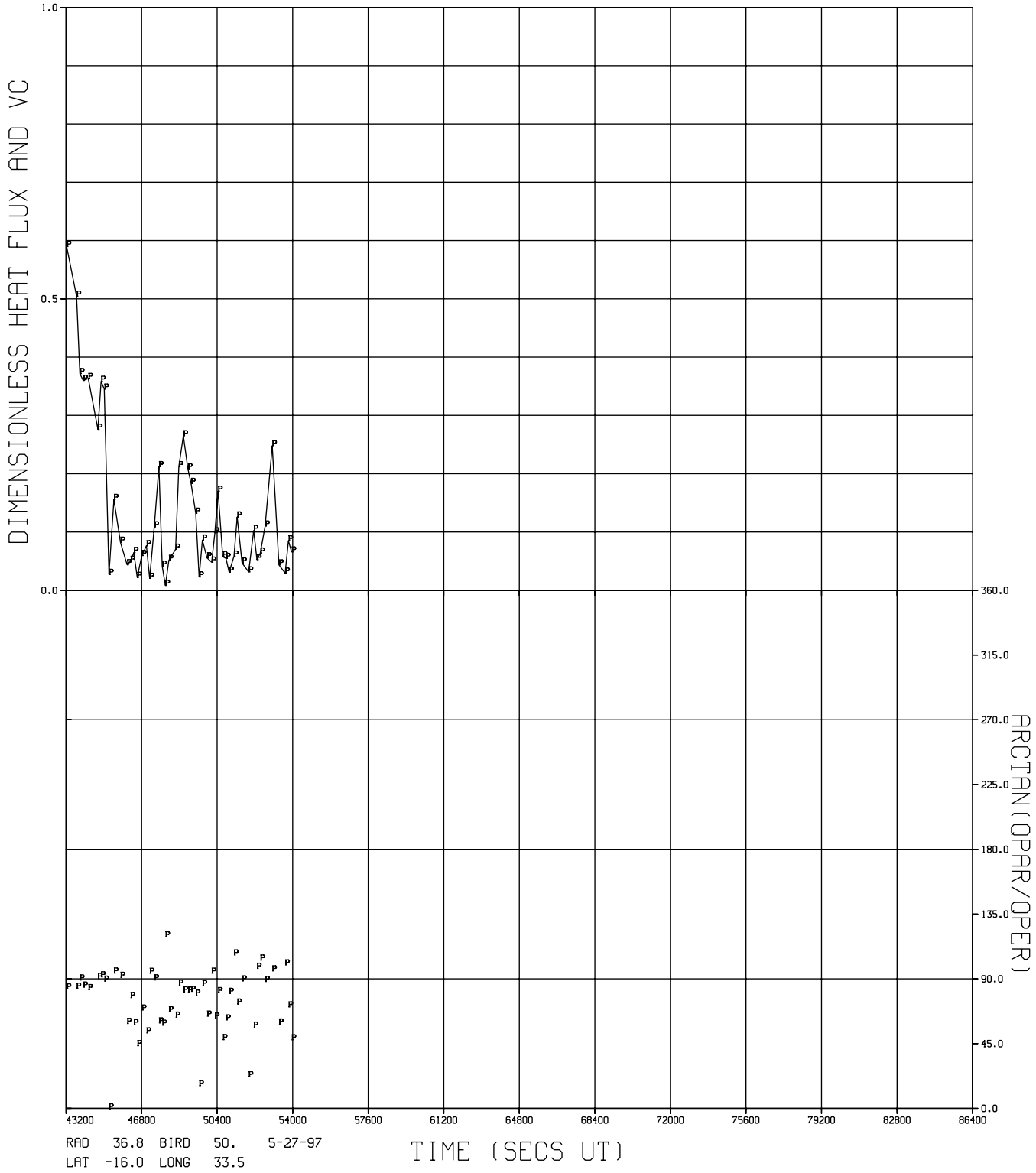

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.8 BIRD 50. 5-27-97
LAT -16.0 LONG 33.5


BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.8 BIRD 50. 5-27-97
LAT -16.0 LONG 33.5


TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 36.8 BIRD 50. 5-27-97
LAT -16.0 LONG 33.5


THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 36.8 BIRD 50. 5-27-97
LAT -16.0 LONG 33.5


PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 36.8 BIRD 50. 5-27-97
LAT -16.0 LONG 33.5


DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.8 BIRD 50. 5-27-97
LAT -16.0 LONG 33.5