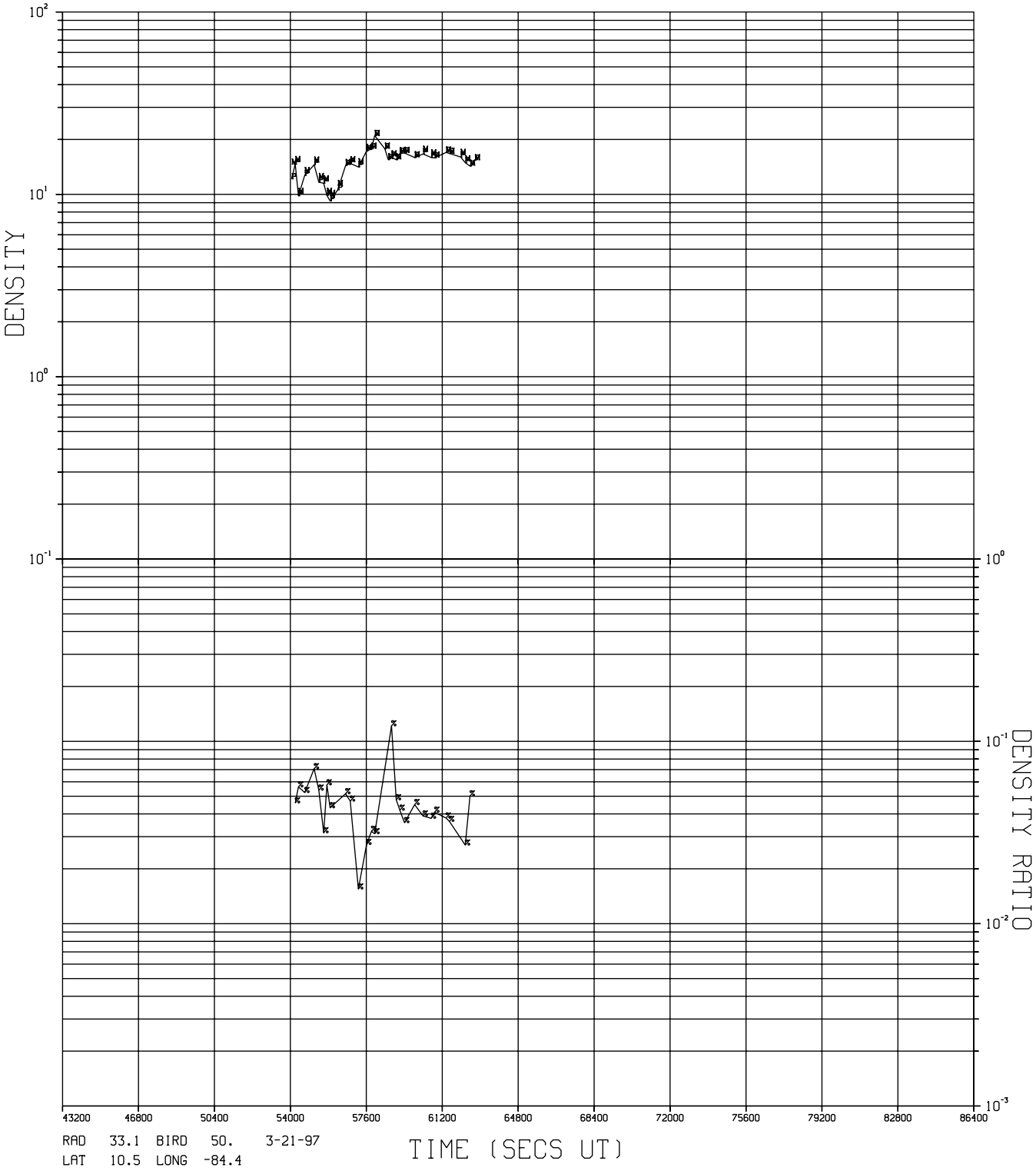
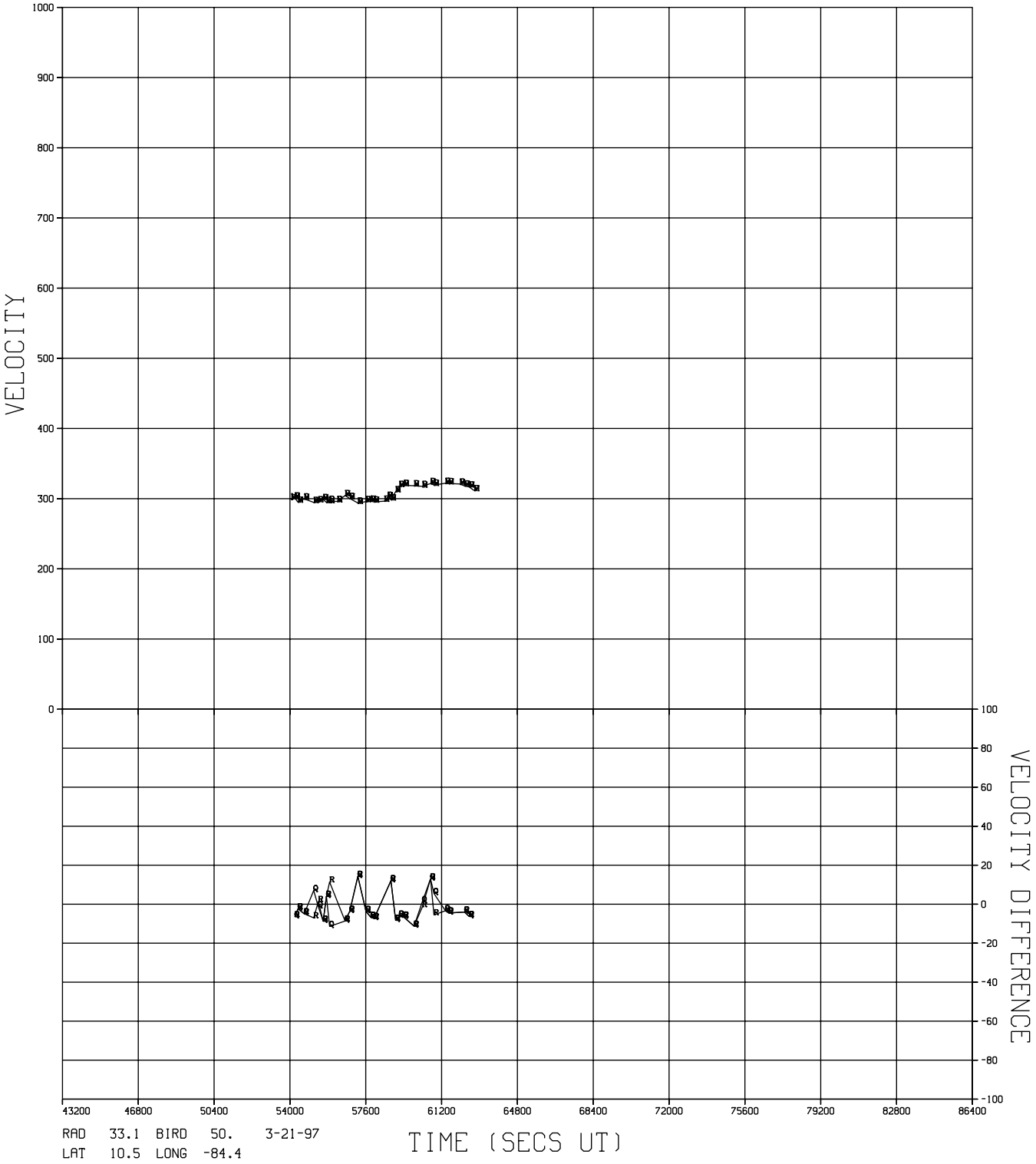
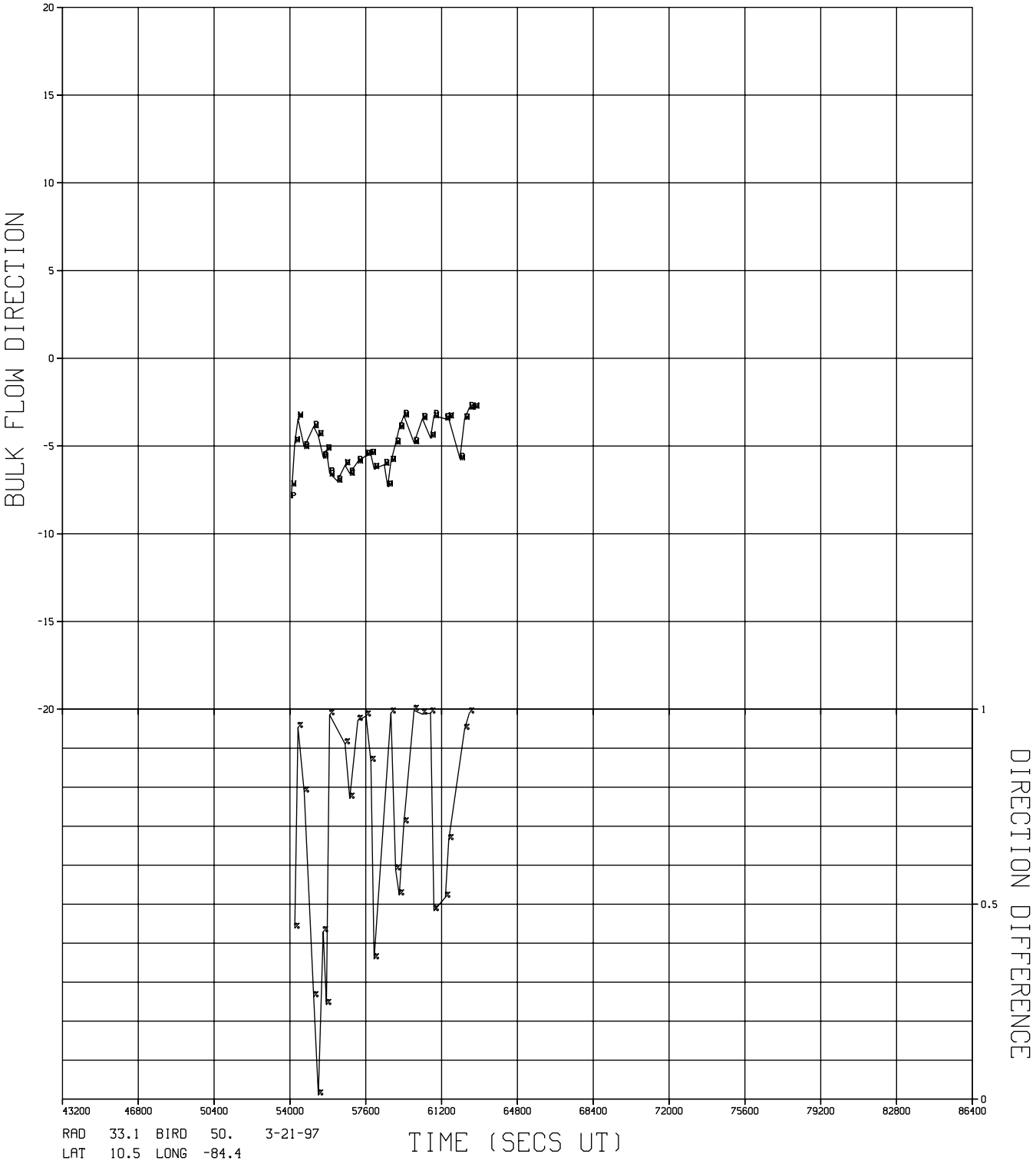
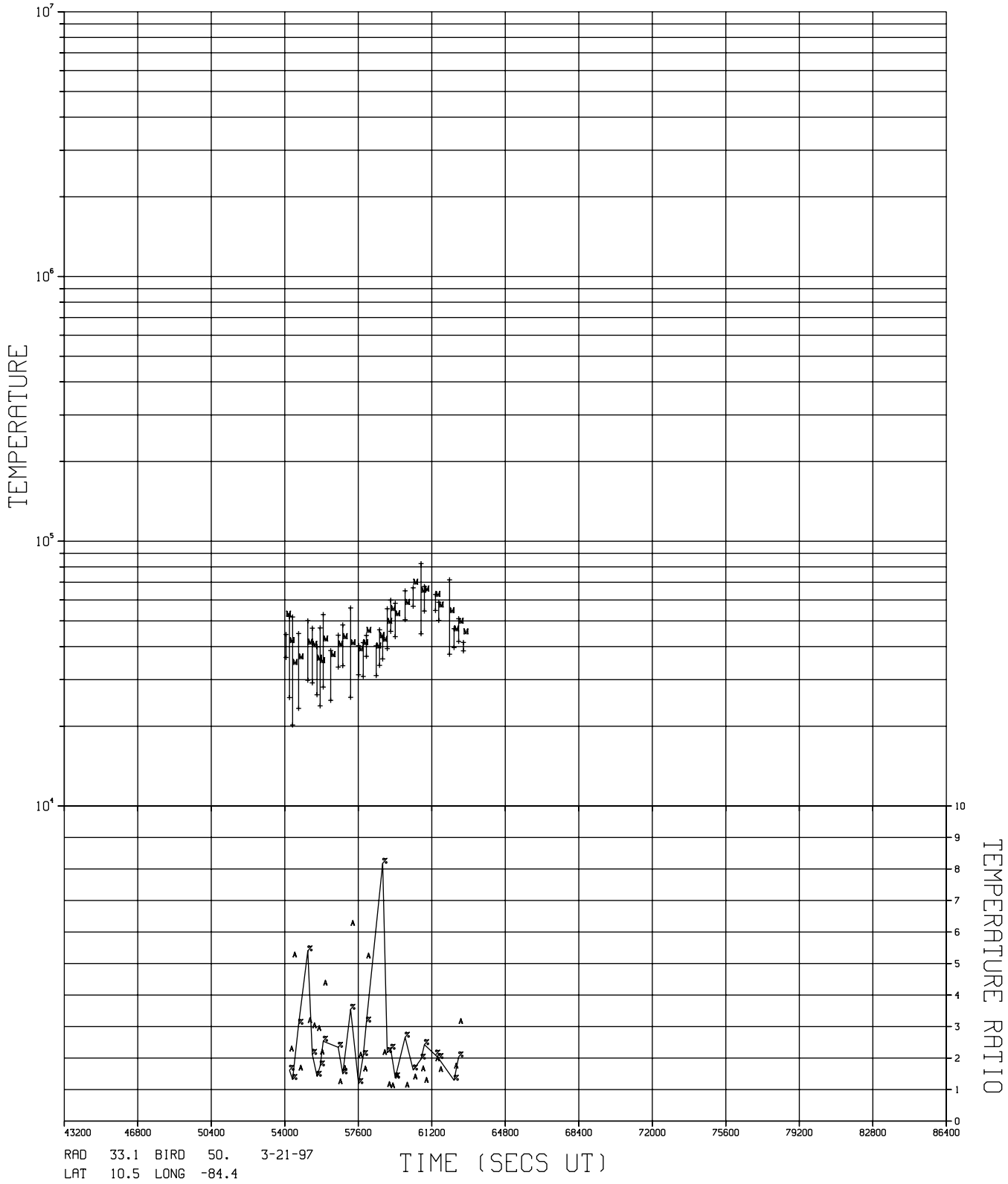
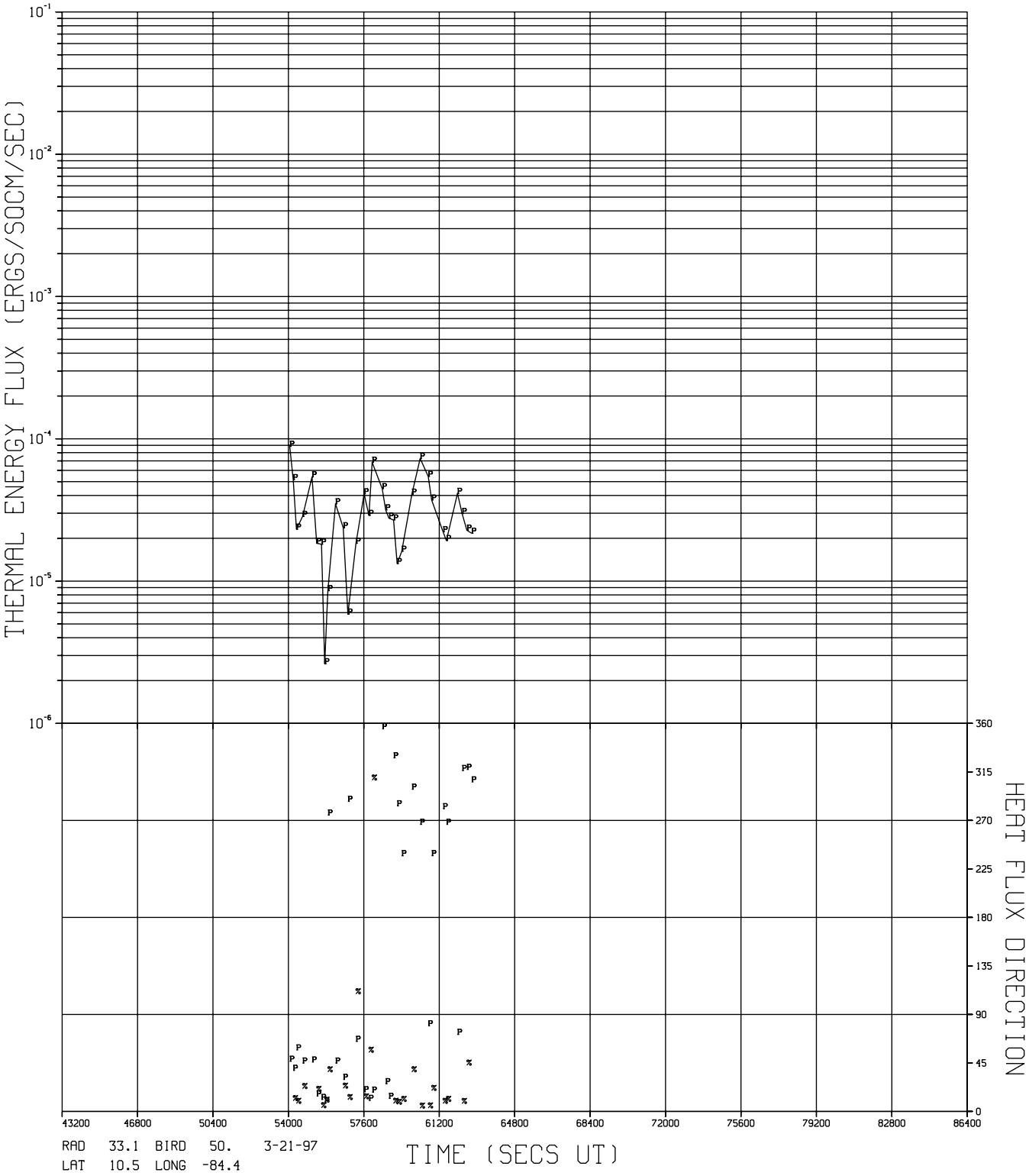
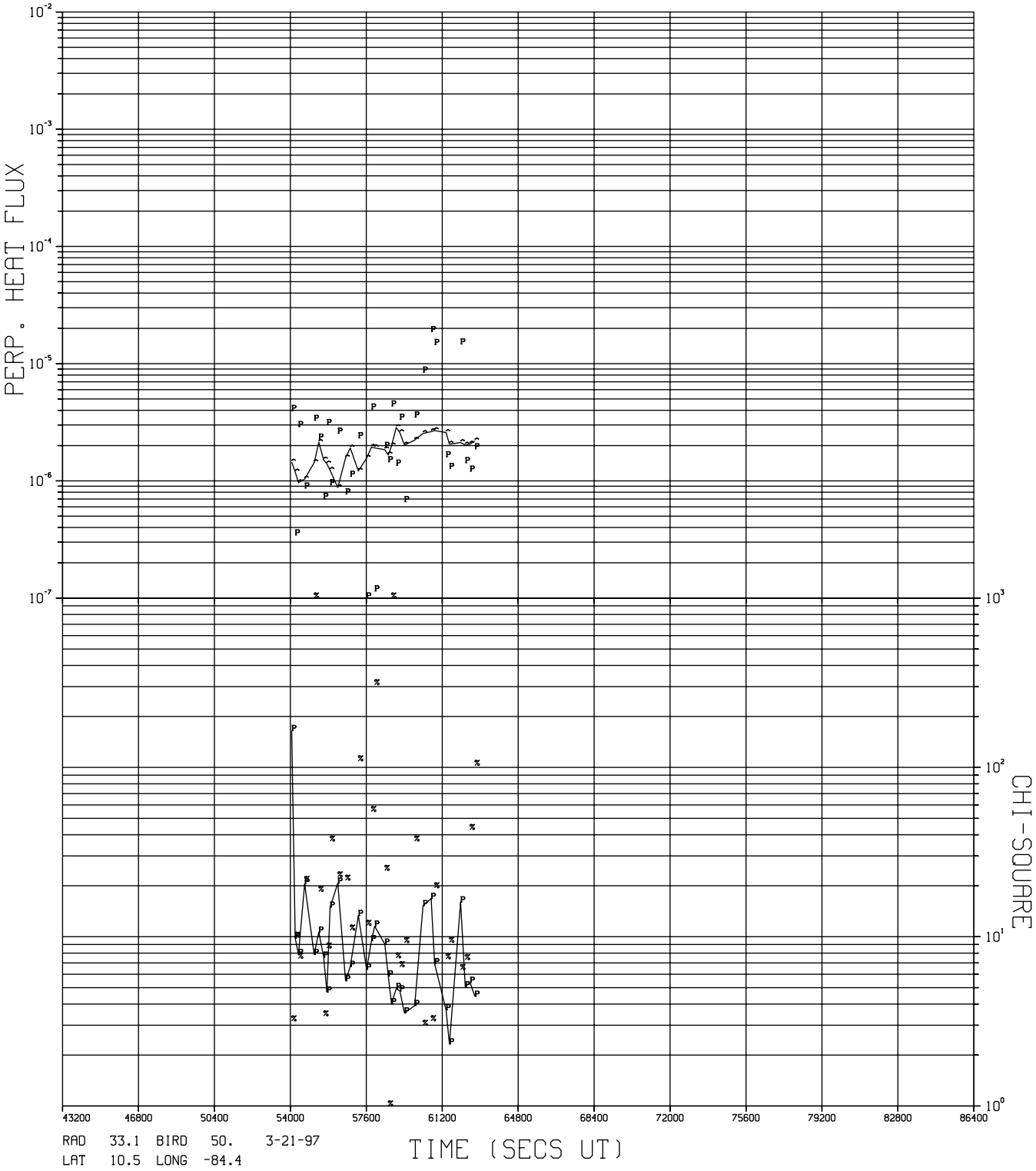

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 33.1 BIRD 50. 3-21-97
LAT 10.5 LONG -84.4

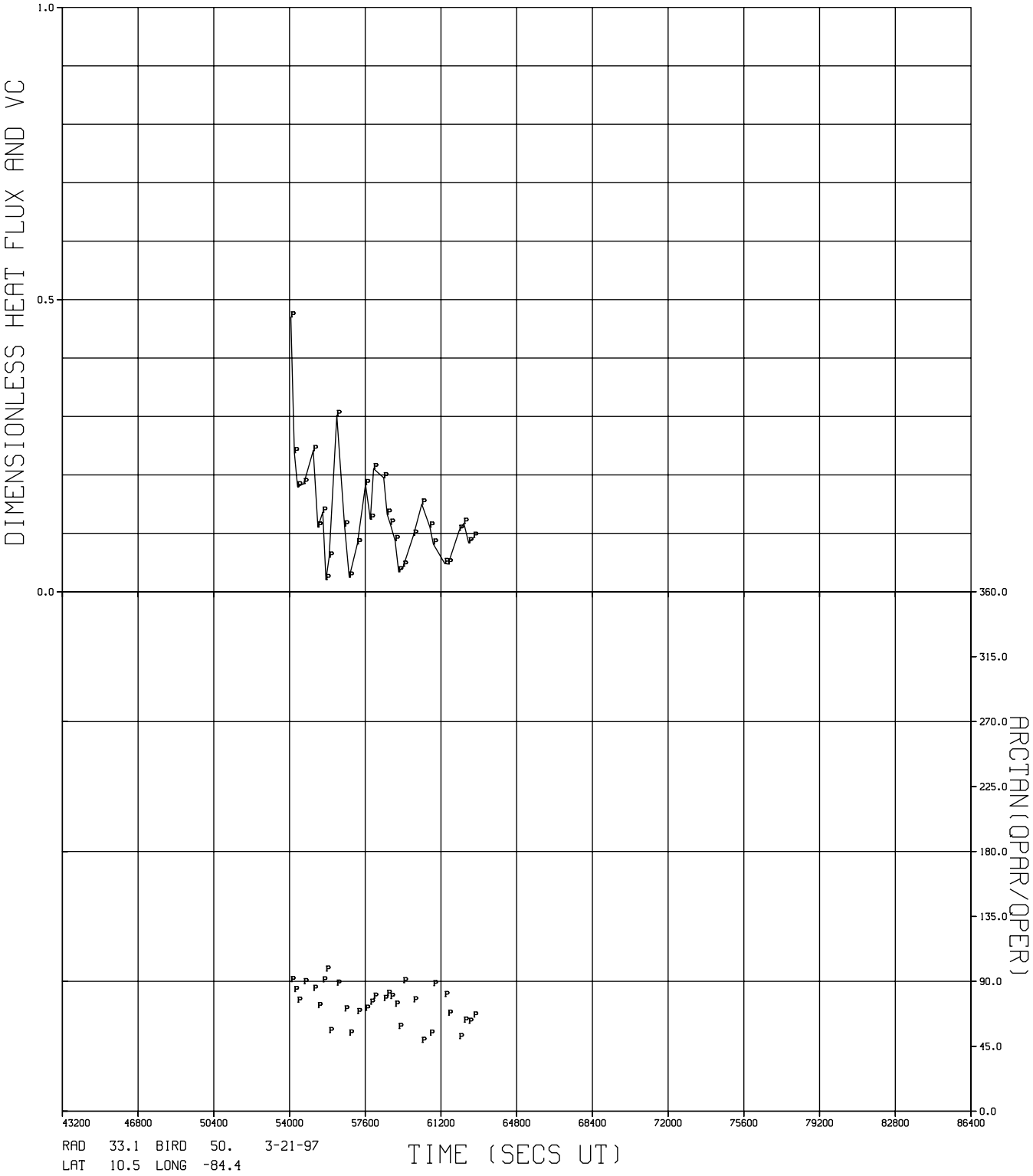

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 33.1 BIRD 50. 3-21-97
LAT 10.5 LONG -84.4

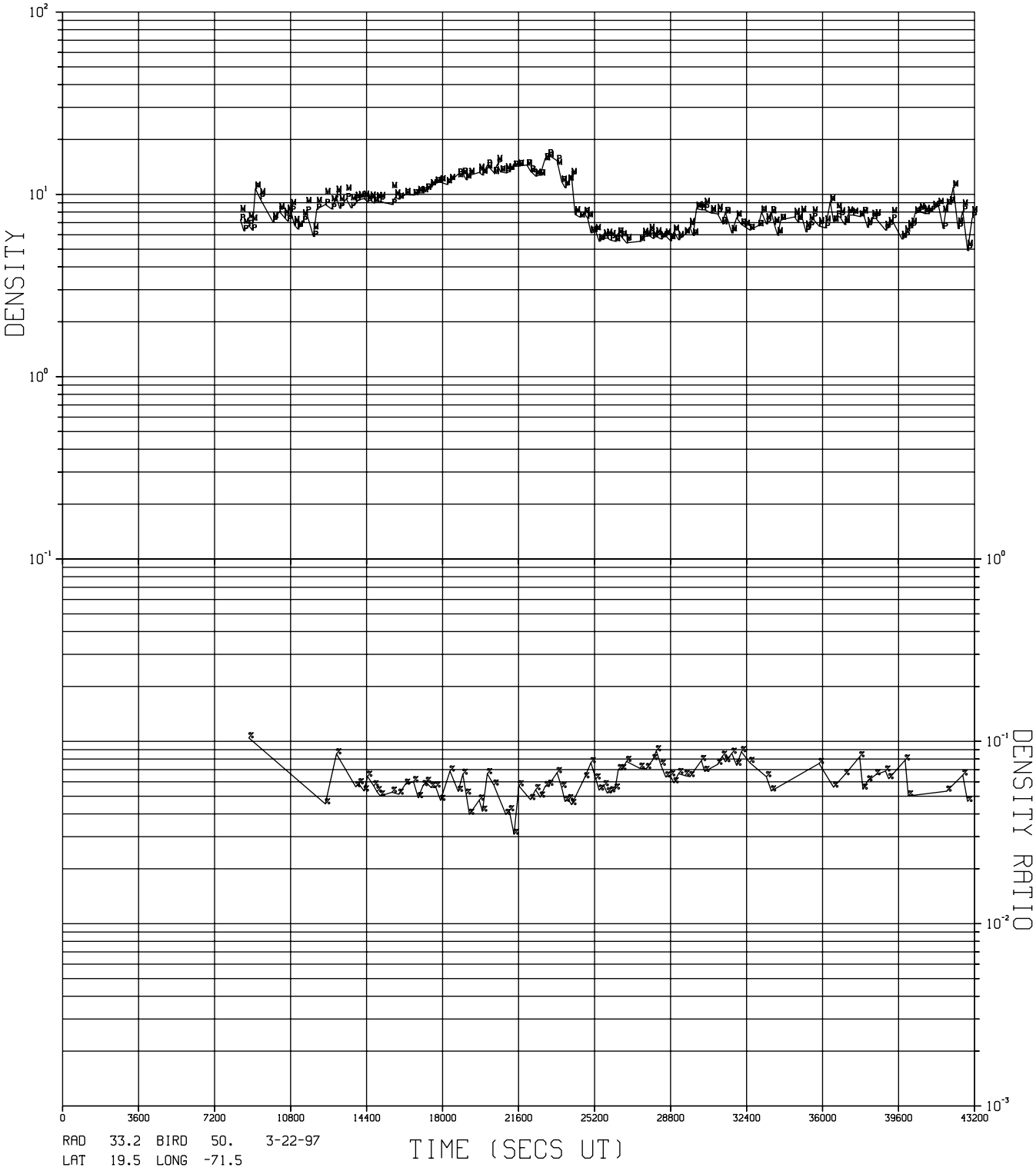

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 33.1 BIRD 50. 3-21-97
LAT 10.5 LONG -84.4

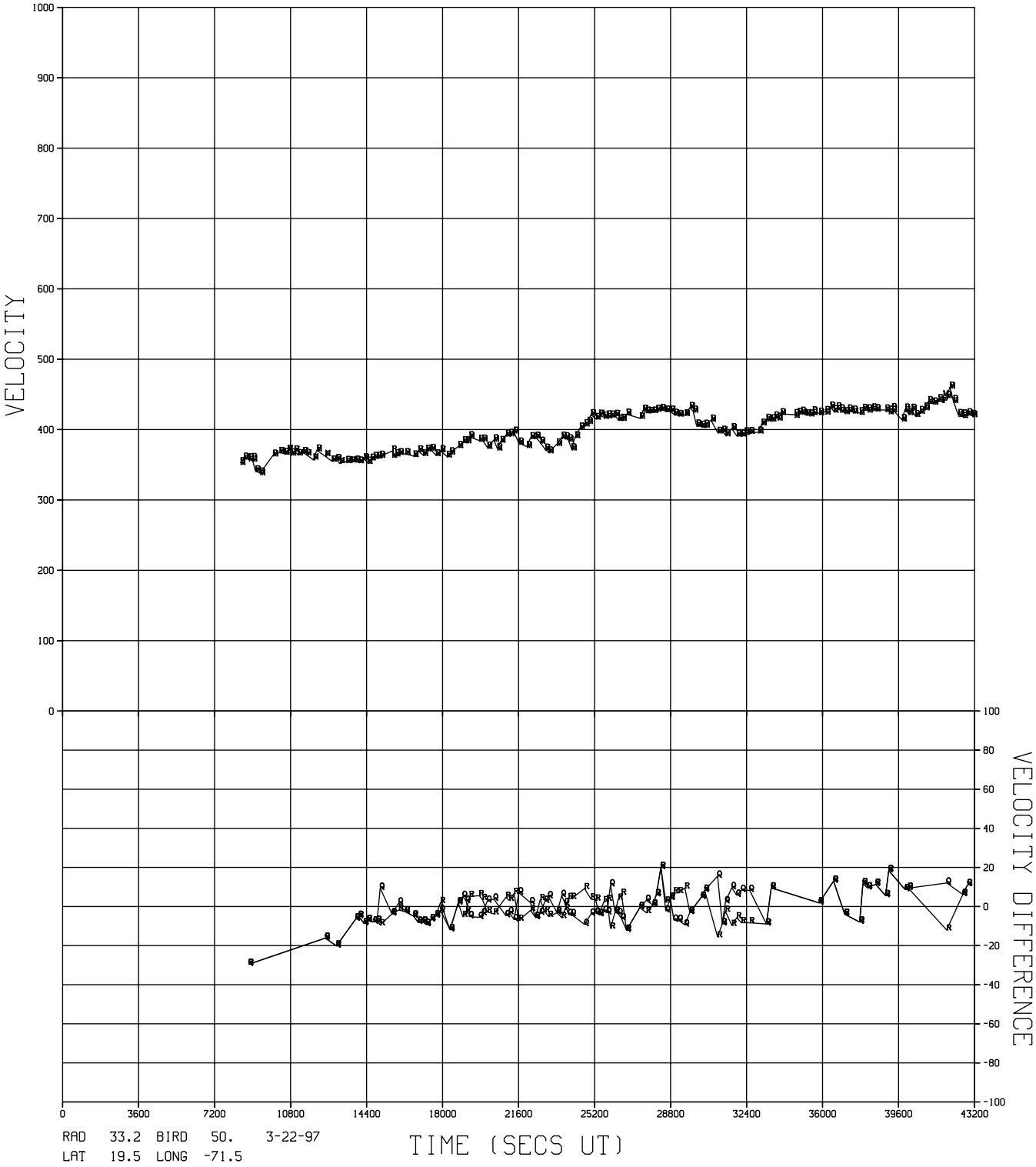

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 33.1 BIRD 50. 3-21-97
LAT 10.5 LONG -84.4

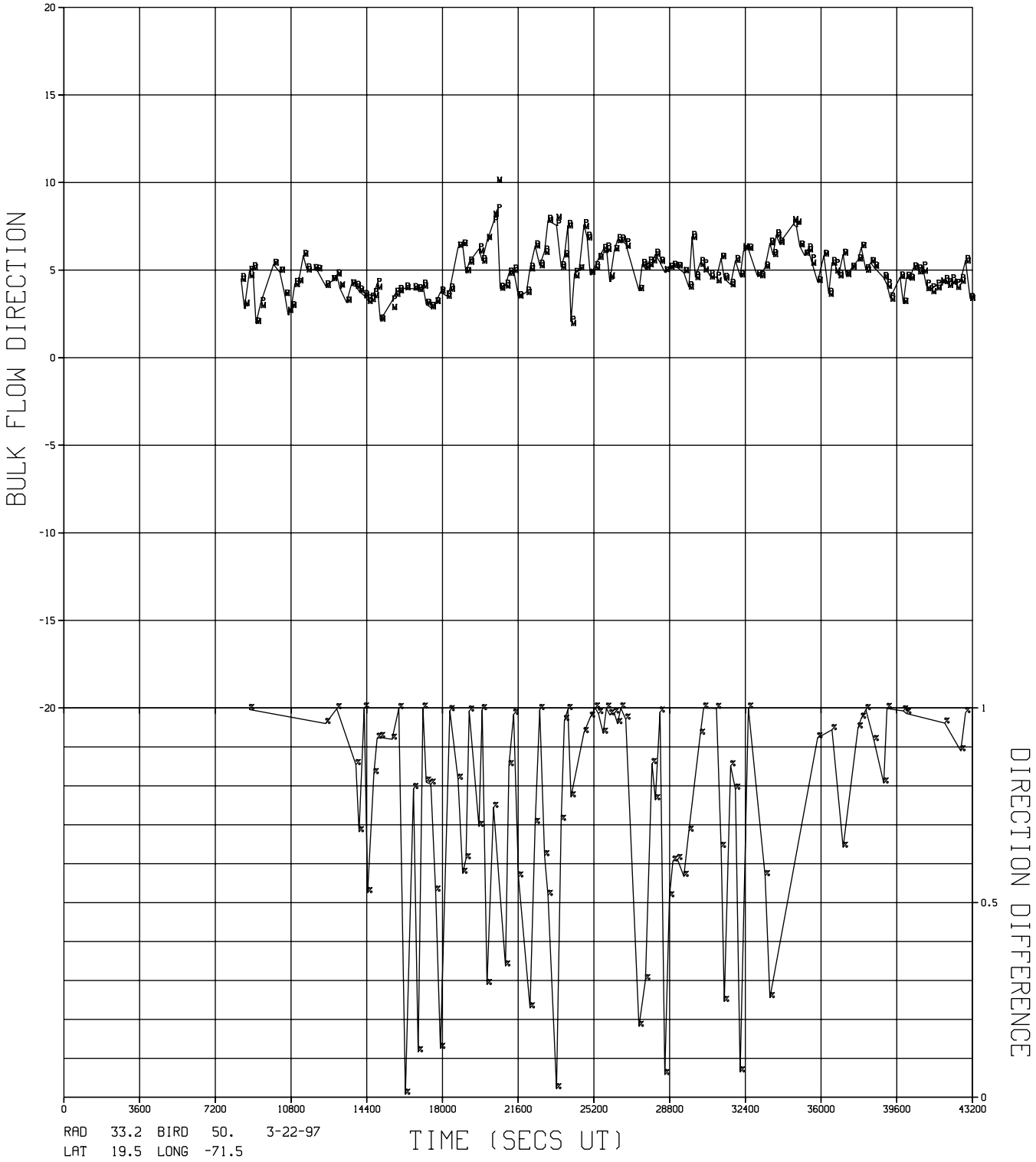

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 33.1 BIRD 50. 3-21-97
LAT 10.5 LONG -84.4

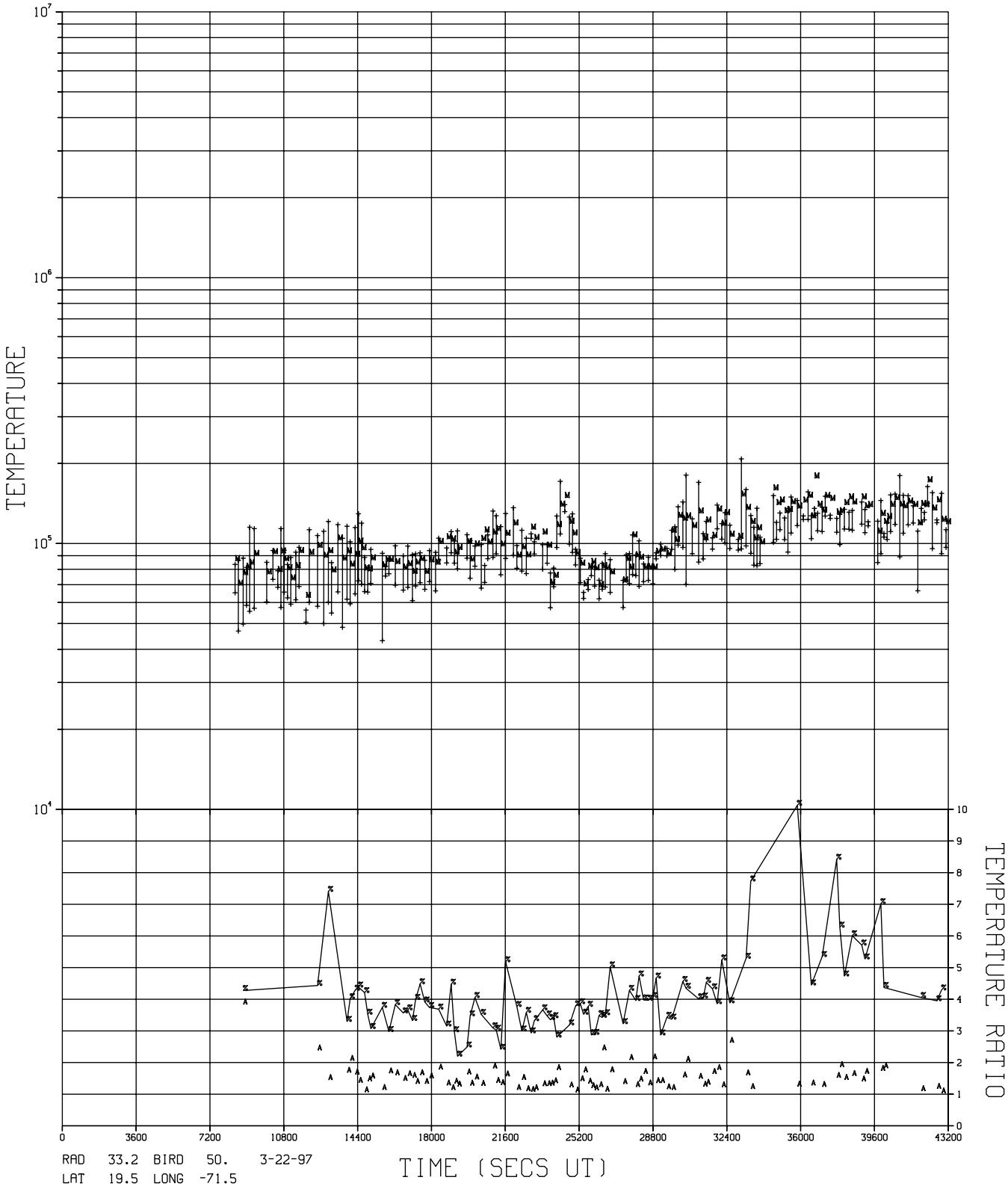

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 33.1 BIRD 50. 3-21-97
LAT 10.5 LONG -84.4

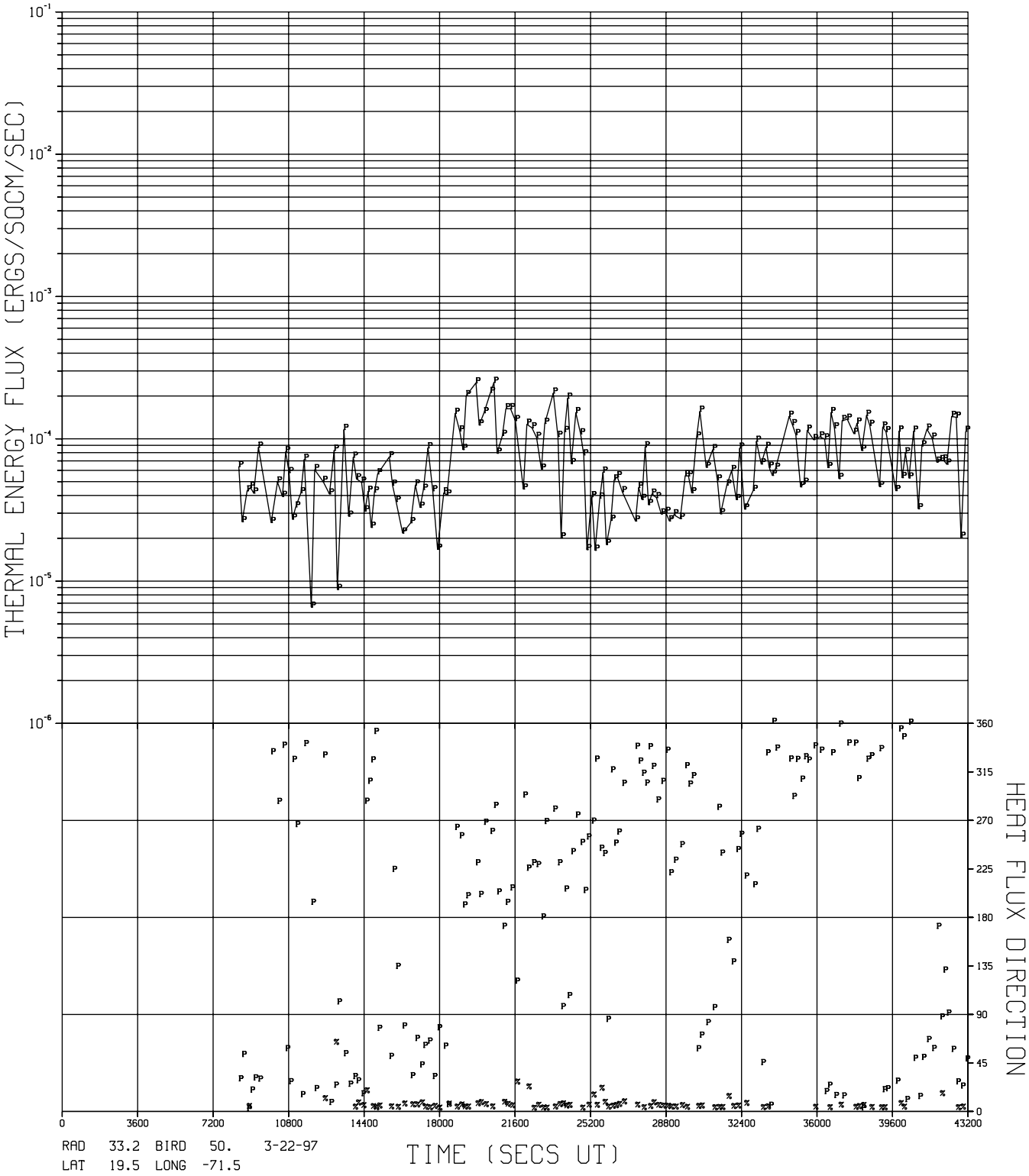

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 33.1 BIRD 50. 3-21-97
LAT 10.5 LONG -84.4

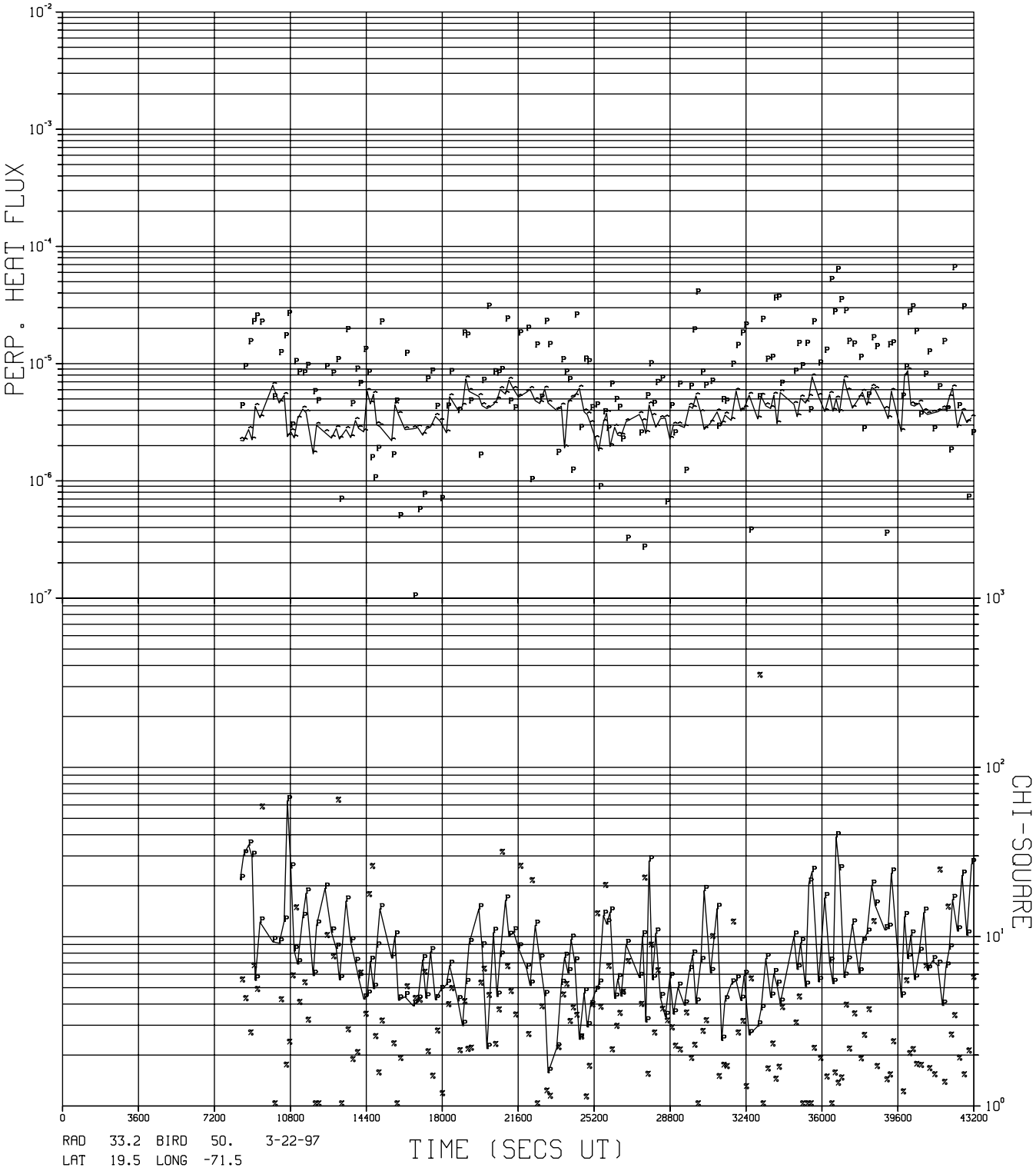

DENSITY
DENSITY RATIO
TIME (SECS UT)
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 33.2 BIRD 50. 3-22-97
LAT 19.5 LONG -71.5

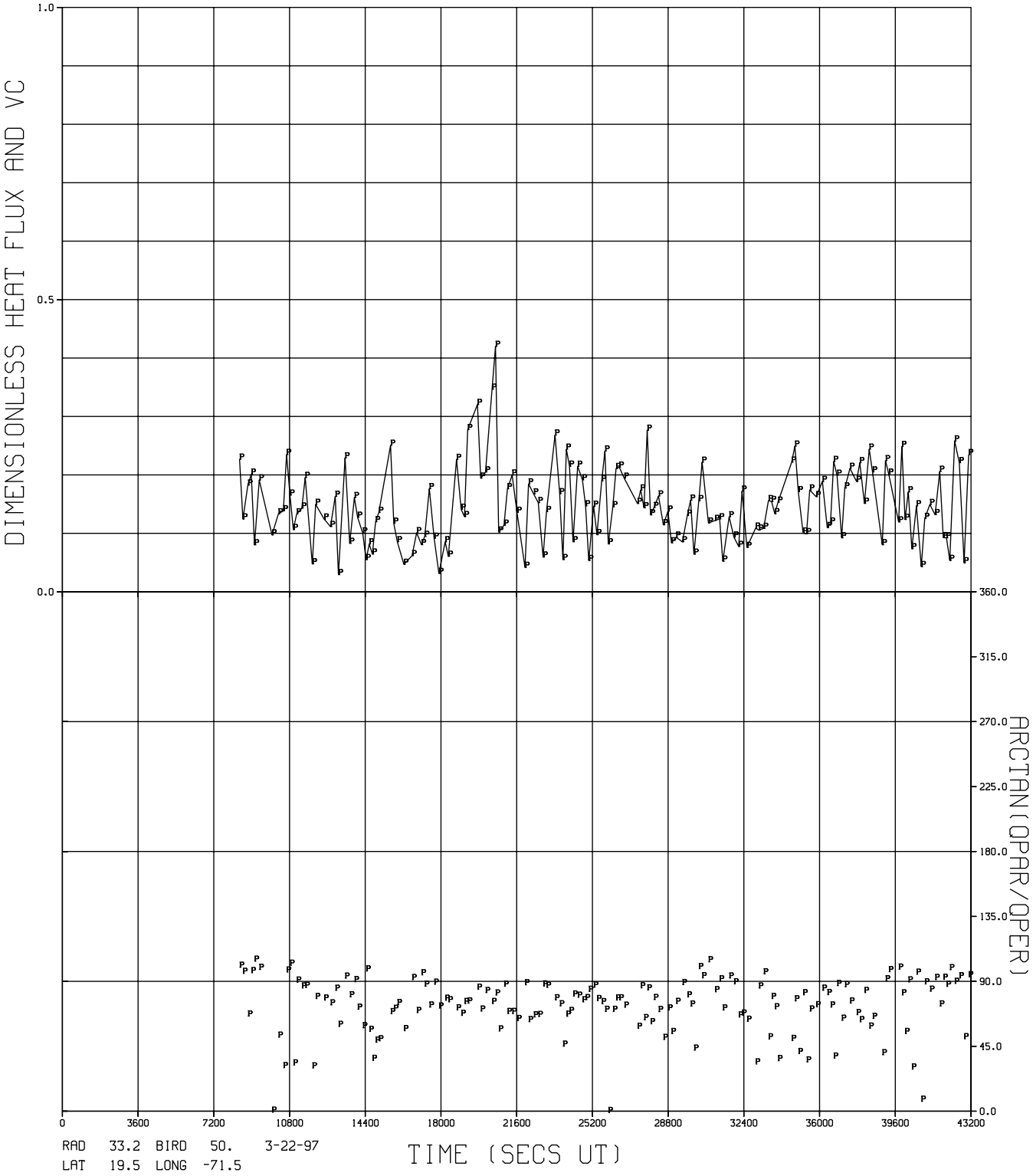

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 33.2 BIRD 50. 3-22-97
LAT 19.5 LONG -71.5

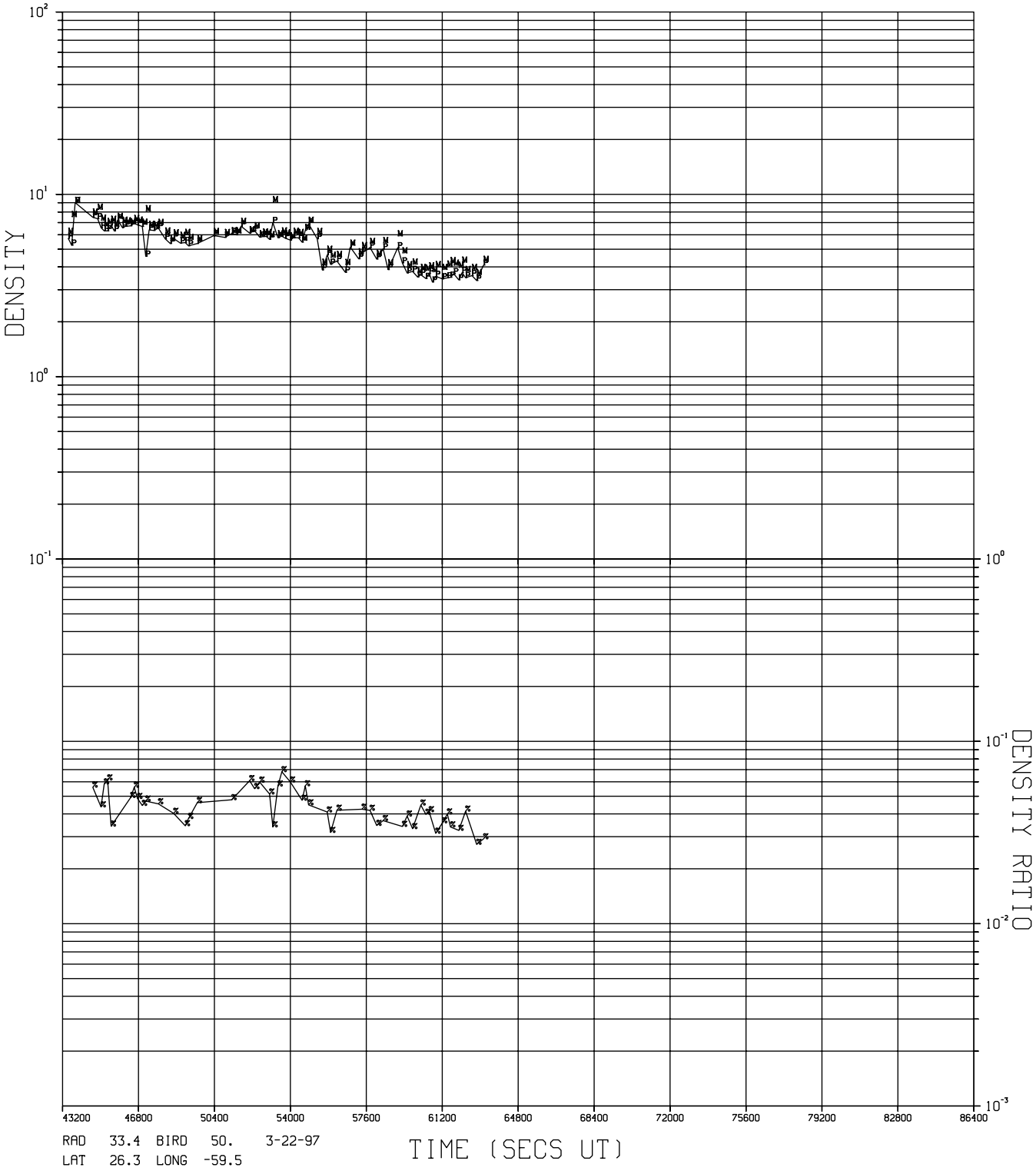

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 33.2 BIRD 50. 3-22-97
LAT 19.5 LONG -71.5

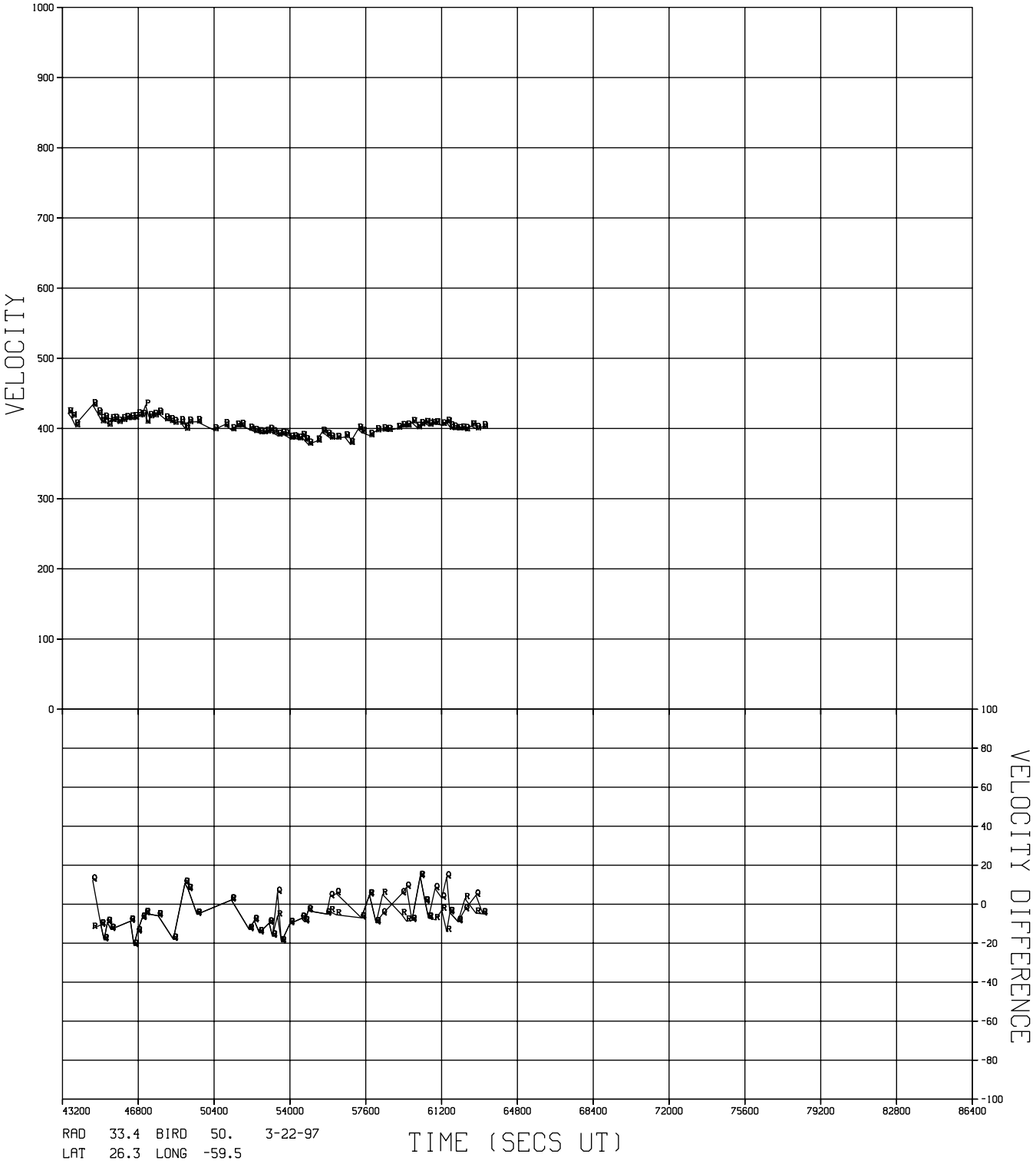

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 33.2 BIRD 50. 3-22-97
LAT 19.5 LONG -71.5

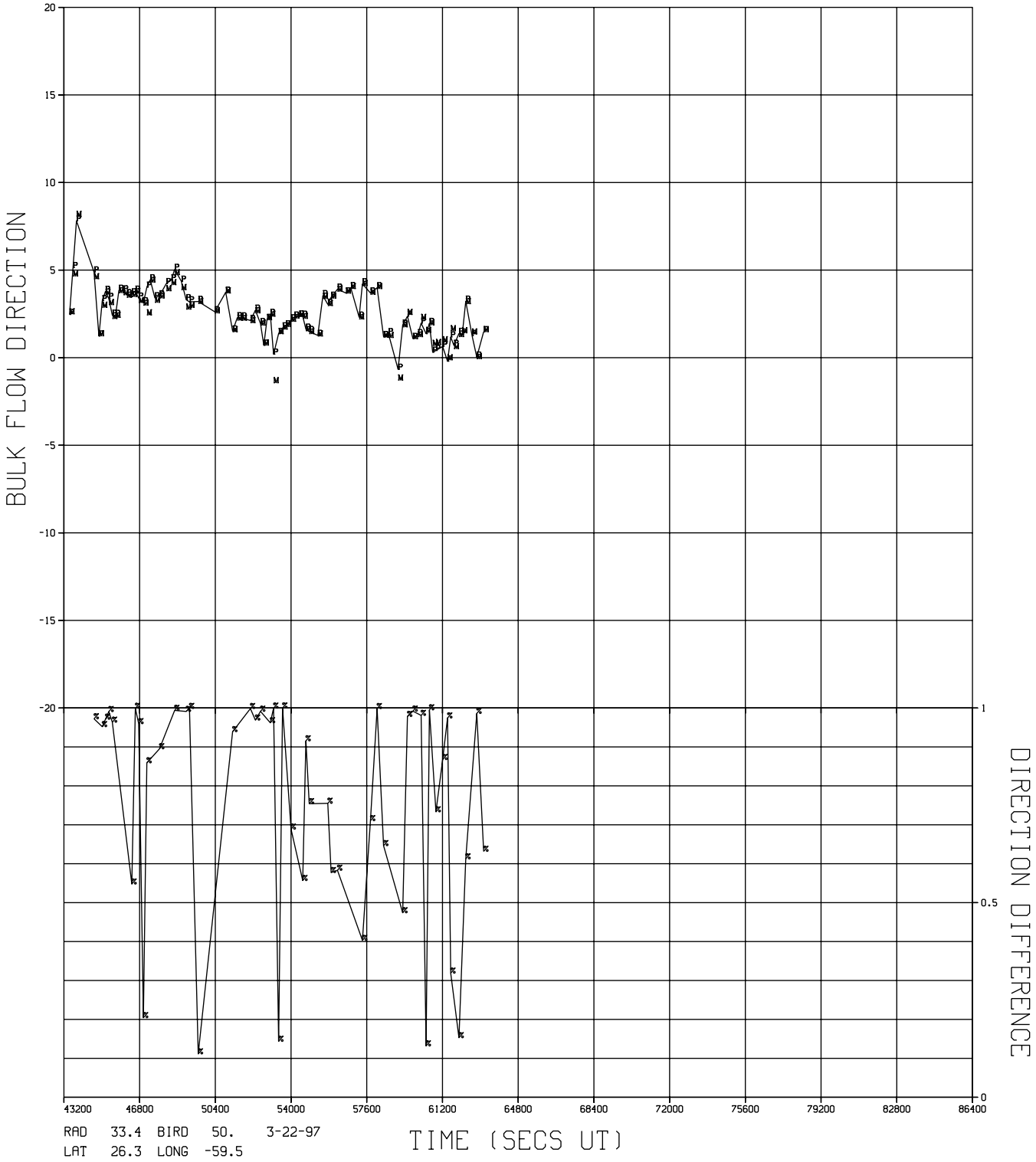

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 33.2 BIRD 50. 3-22-97
LAT 19.5 LONG -71.5

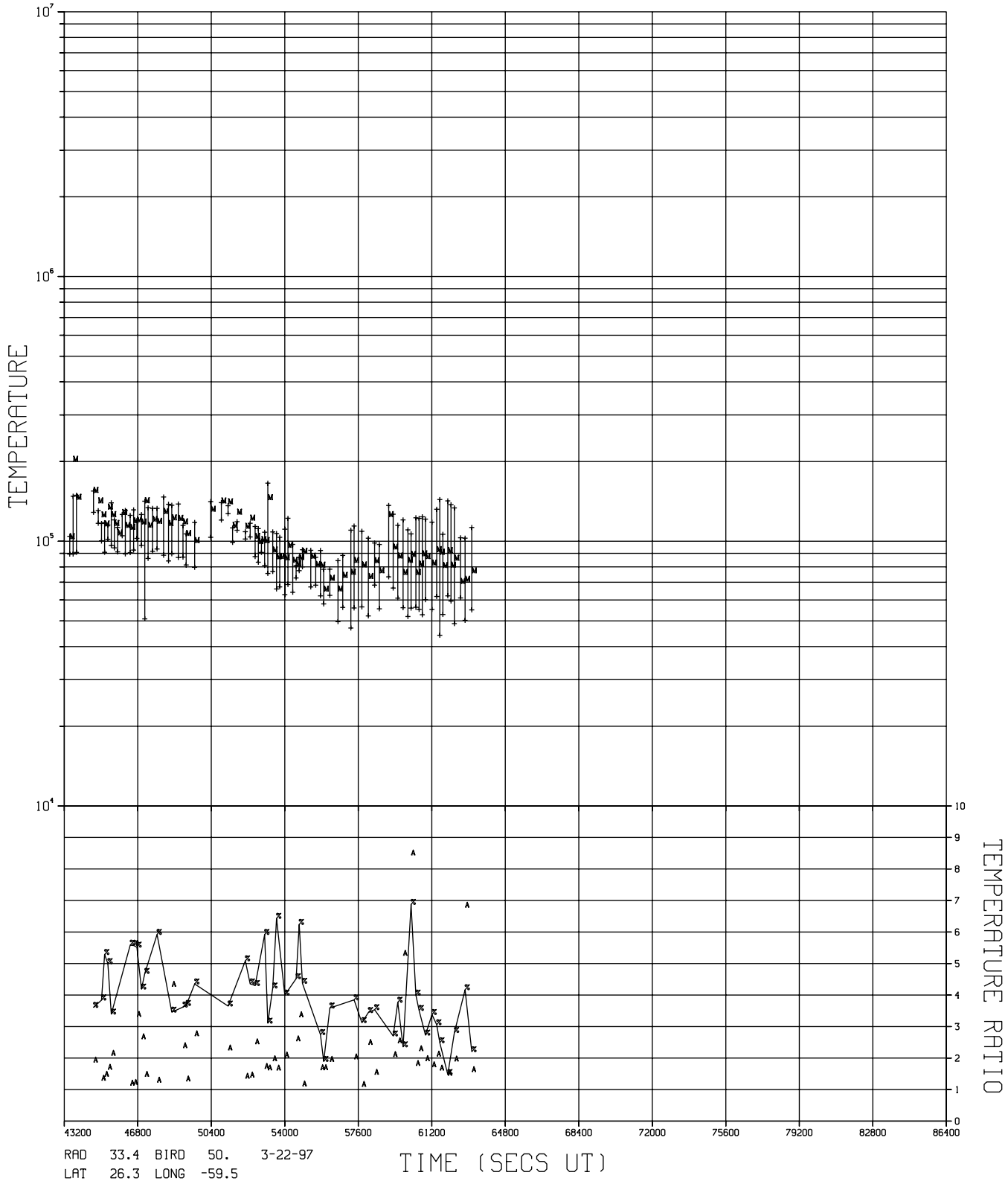

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 33.2 BIRD 50. 3-22-97
LAT 19.5 LONG -71.5

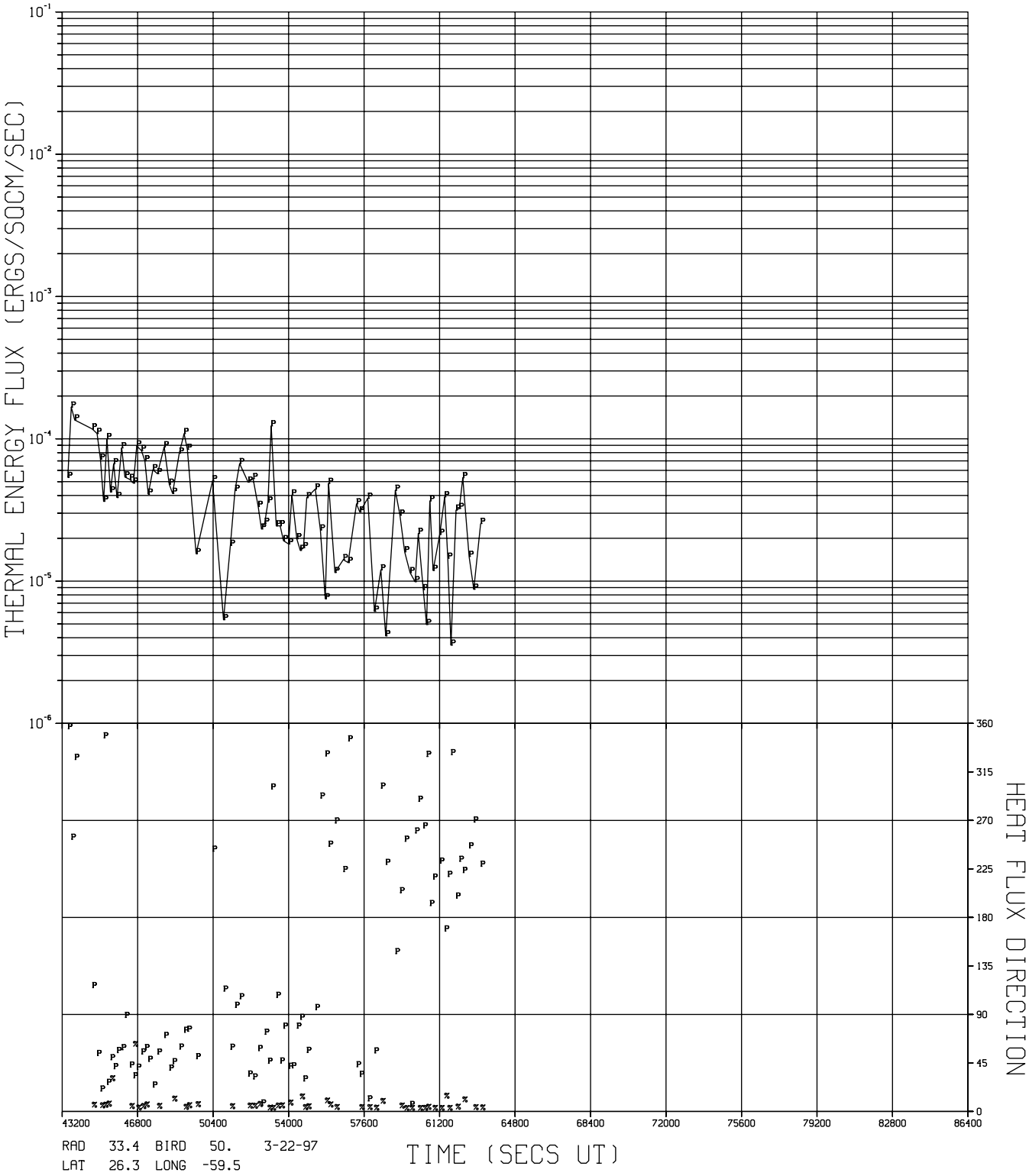

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 33.2 BIRD 50. 3-22-97
LAT 19.5 LONG -71.5

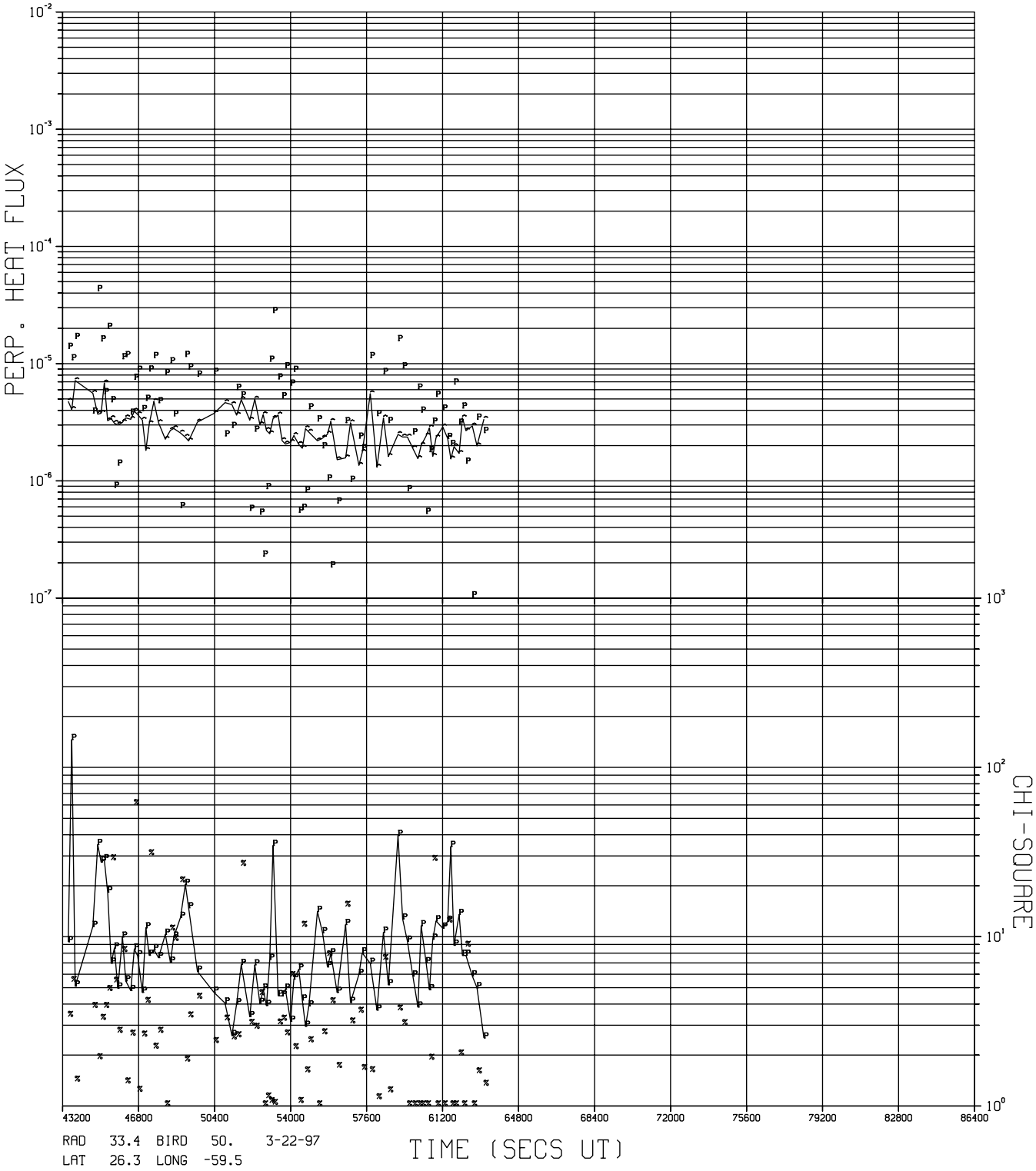

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 33.4 BIRD 50. 3-22-97
LAT 26.3 LONG -59.5

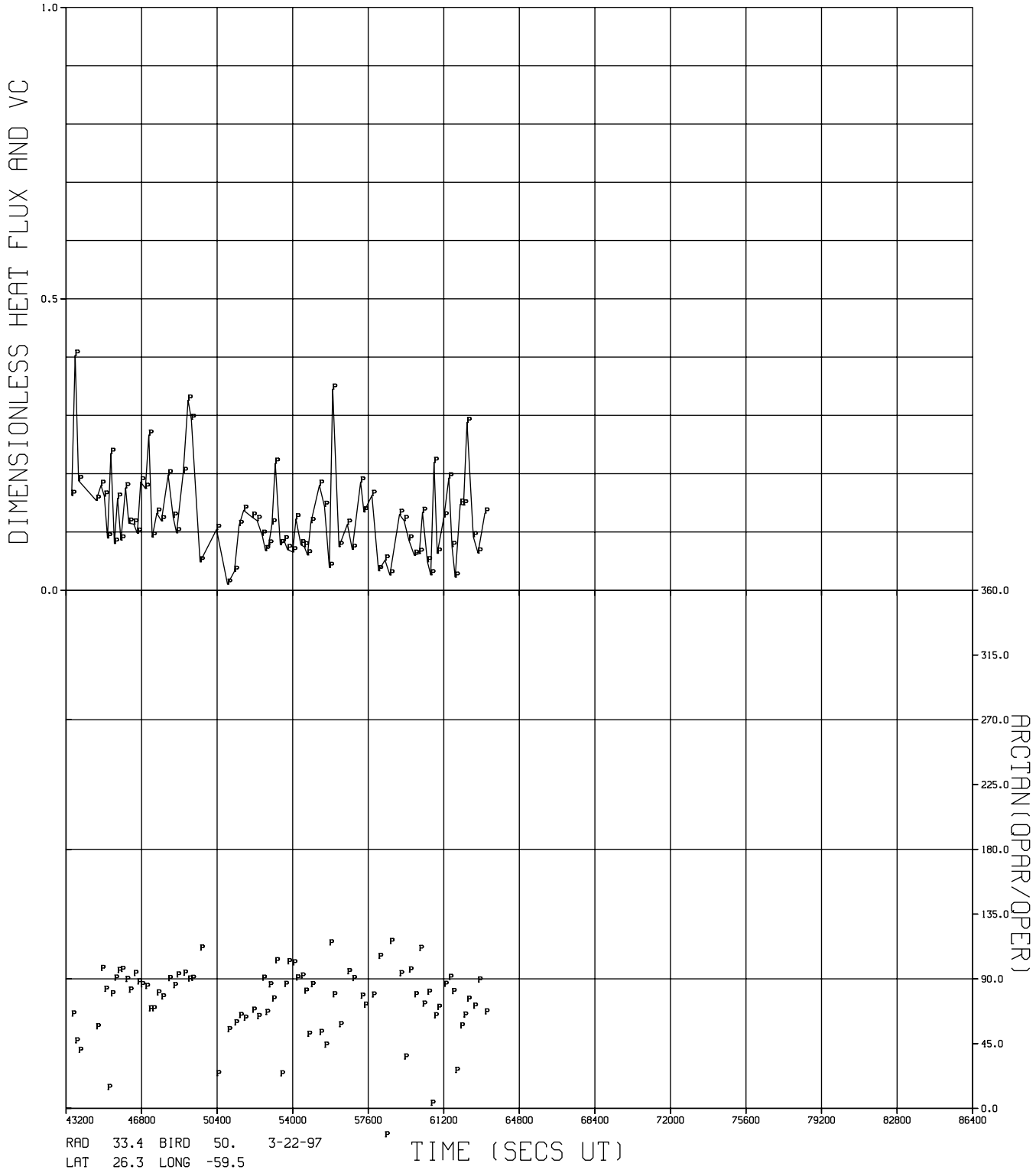

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
1000
900
800
700
600
500
400
300
200
100
0
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 33.4 BIRD 50. 3-22-97
LAT 26.3 LONG -59.5

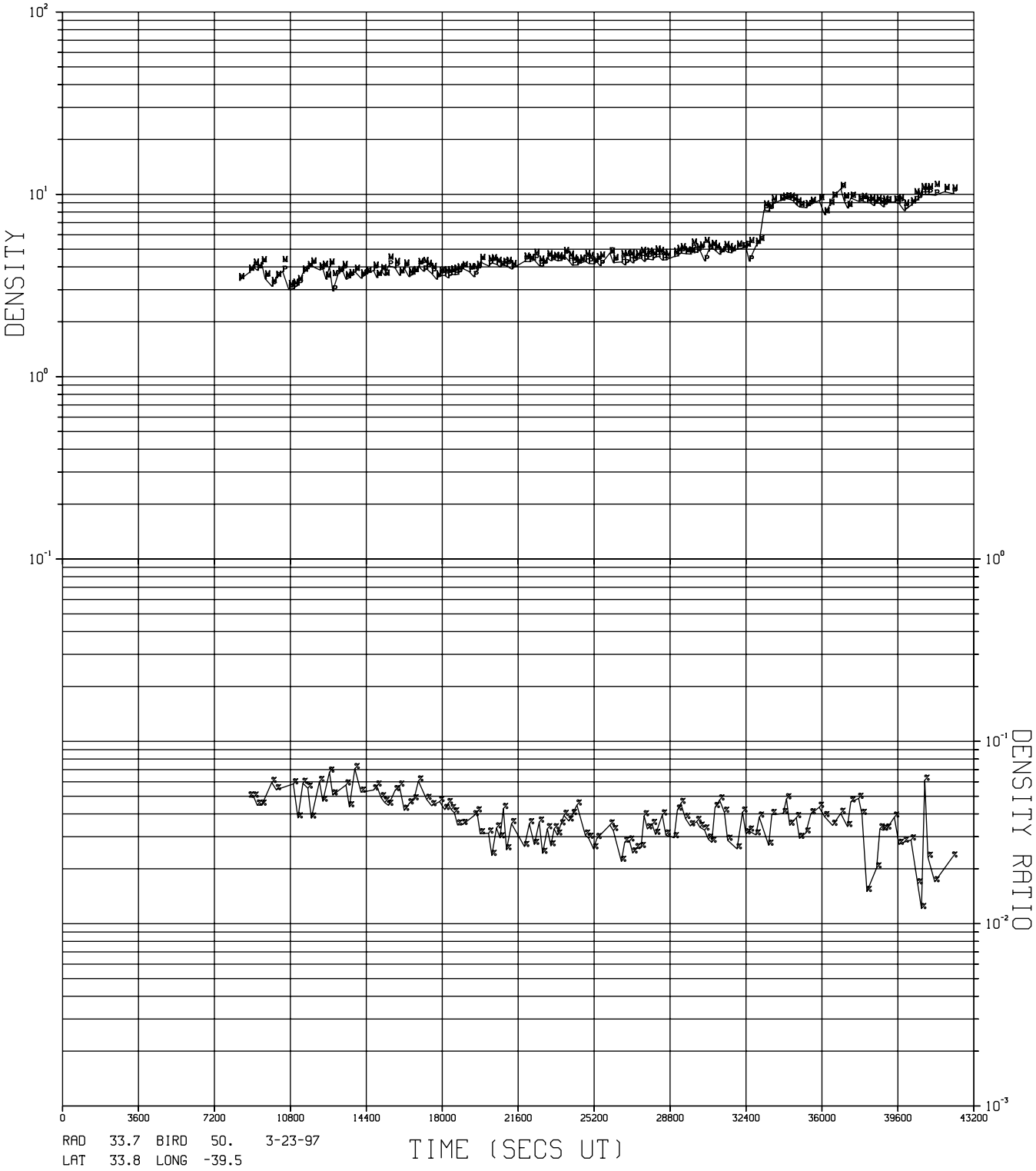

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 33.4 BIRD 50. 3-22-97
LAT 26.3 LONG -59.5

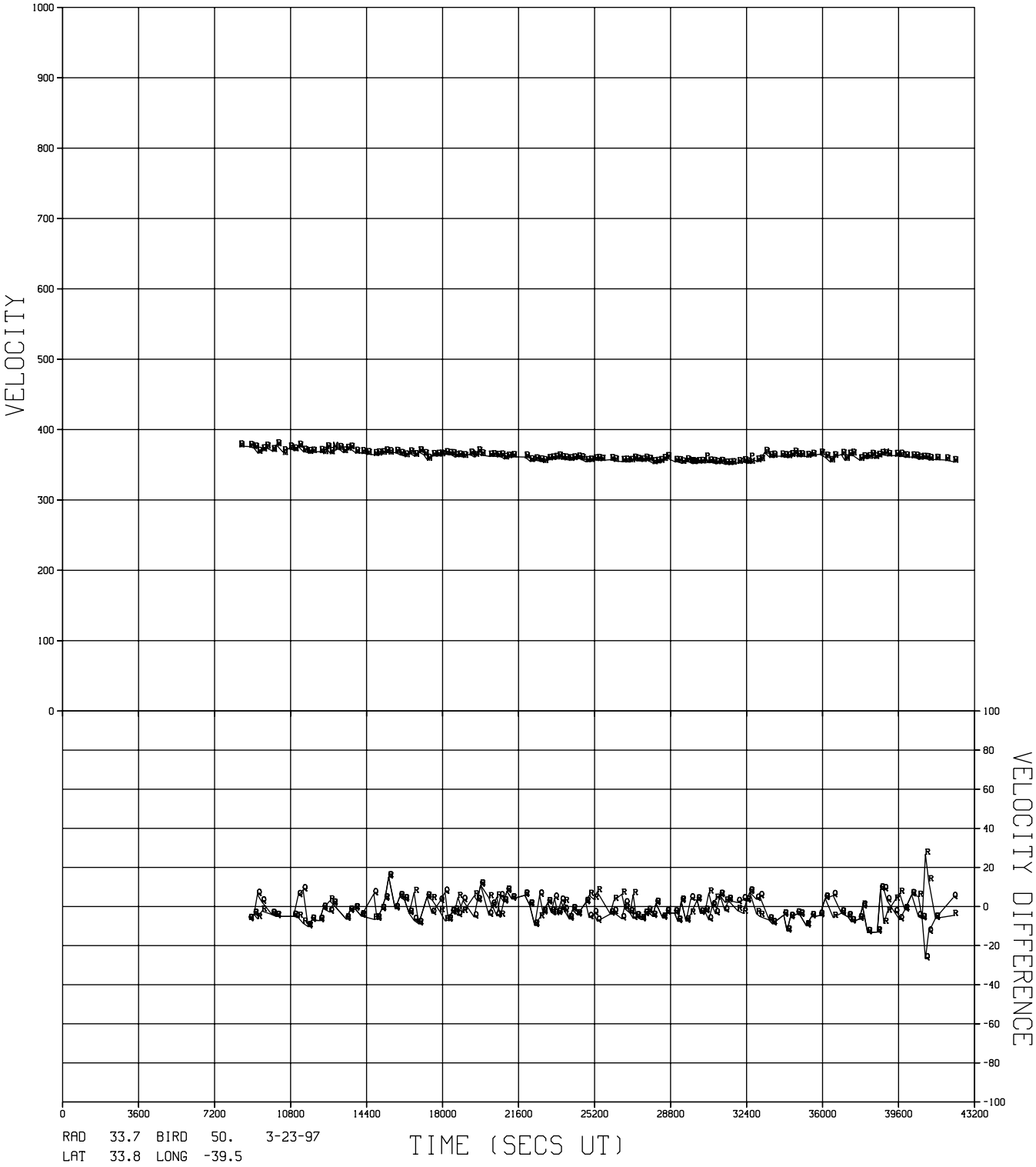

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 33.4 BIRD 50. 3-22-97
LAT 26.3 LONG -59.5

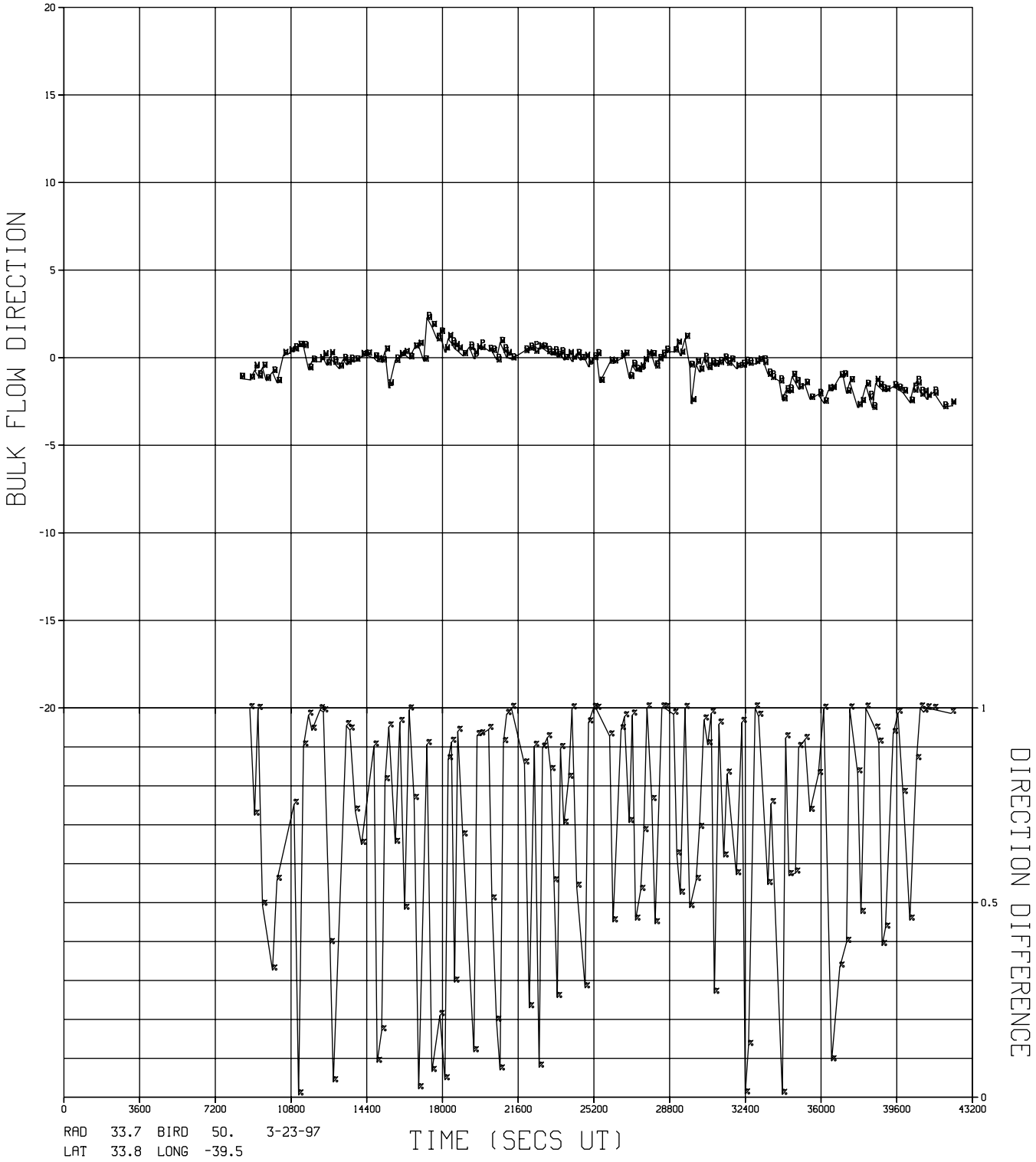

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 33.4 BIRD 50. 3-22-97
LAT 26.3 LONG -59.5

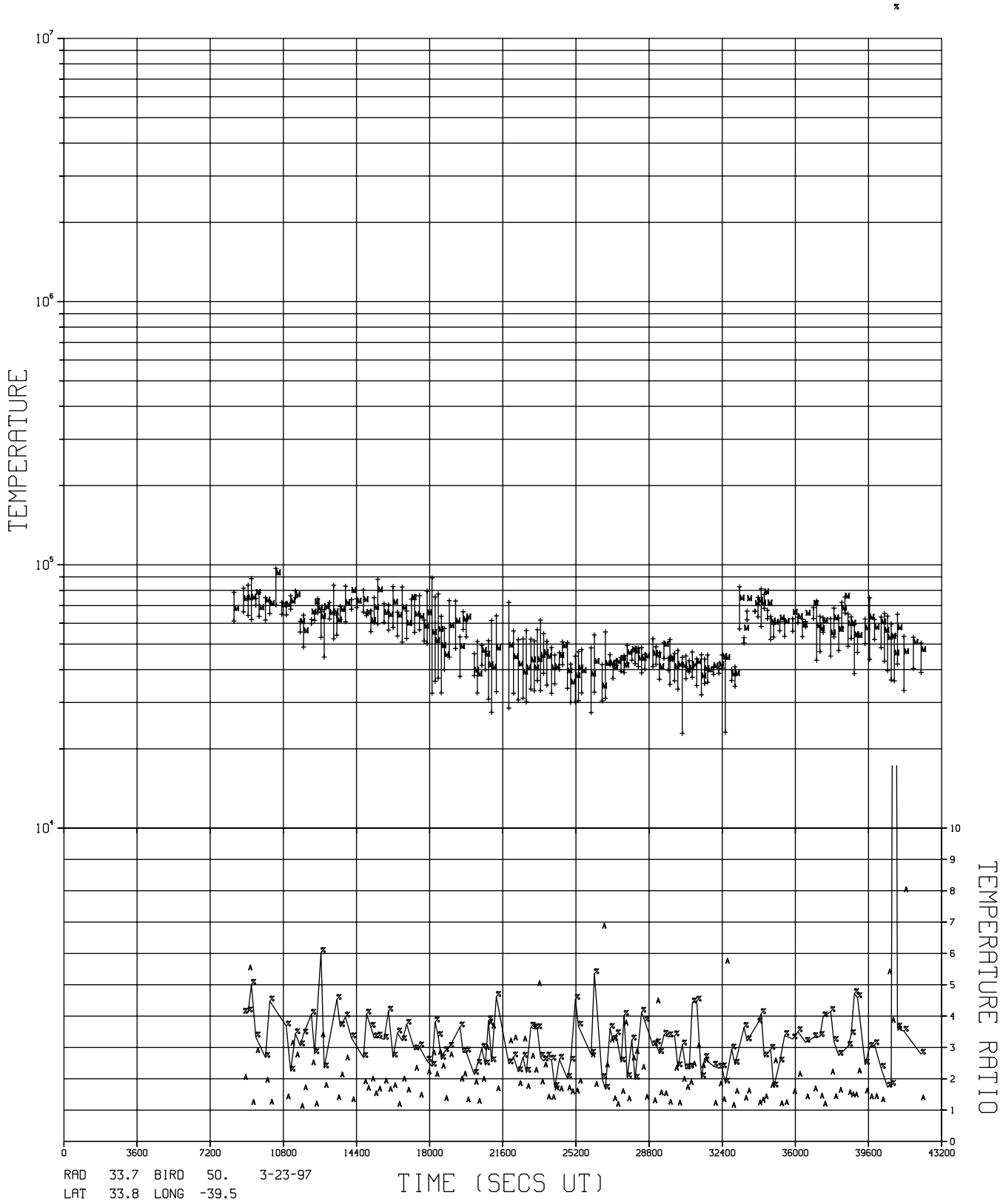

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 33.4 BIRD 50. 3-22-97
LAT 26.3 LONG -59.5

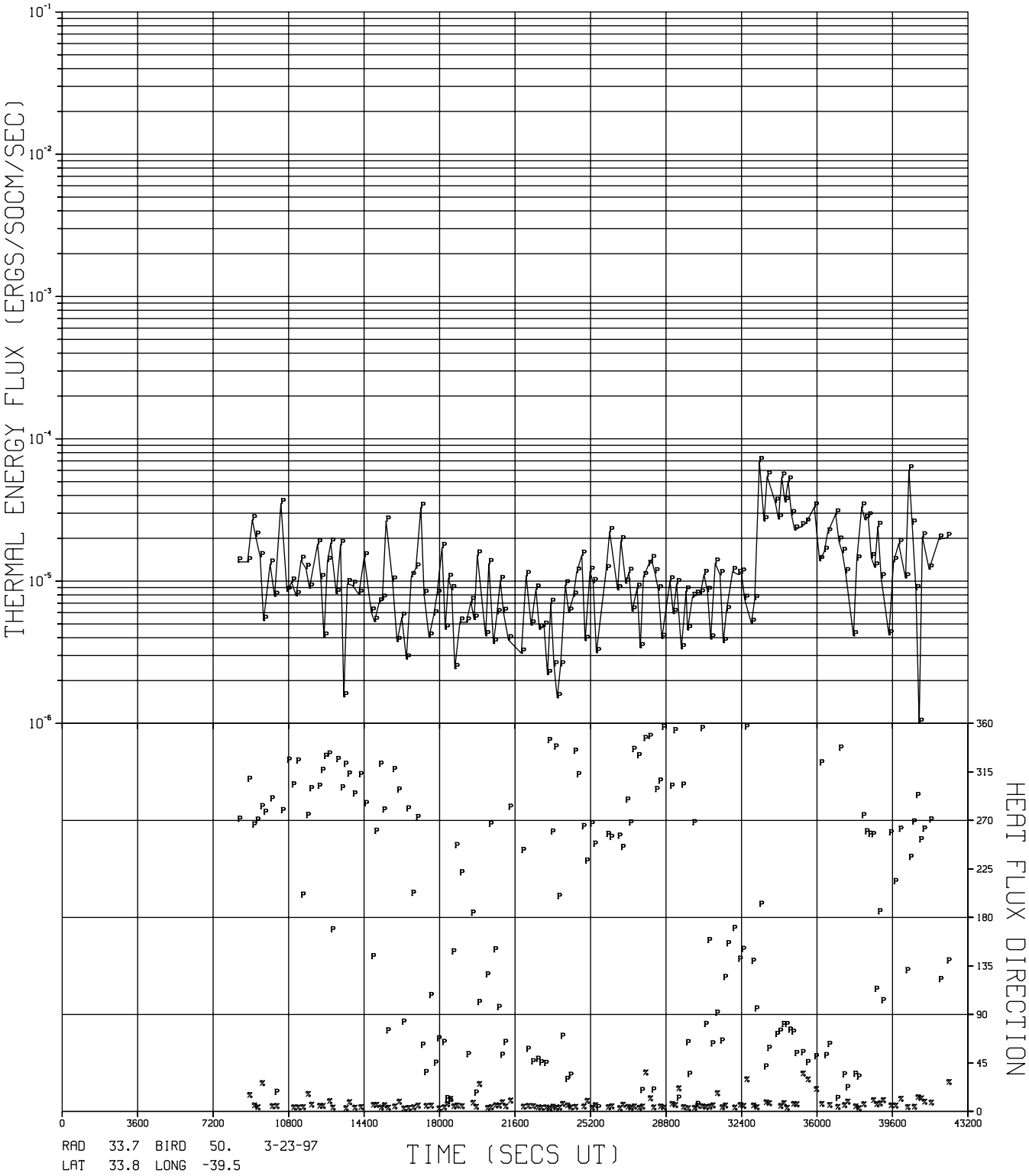

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 33.4 BIRD 50. 3-22-97
LAT 26.3 LONG -59.5

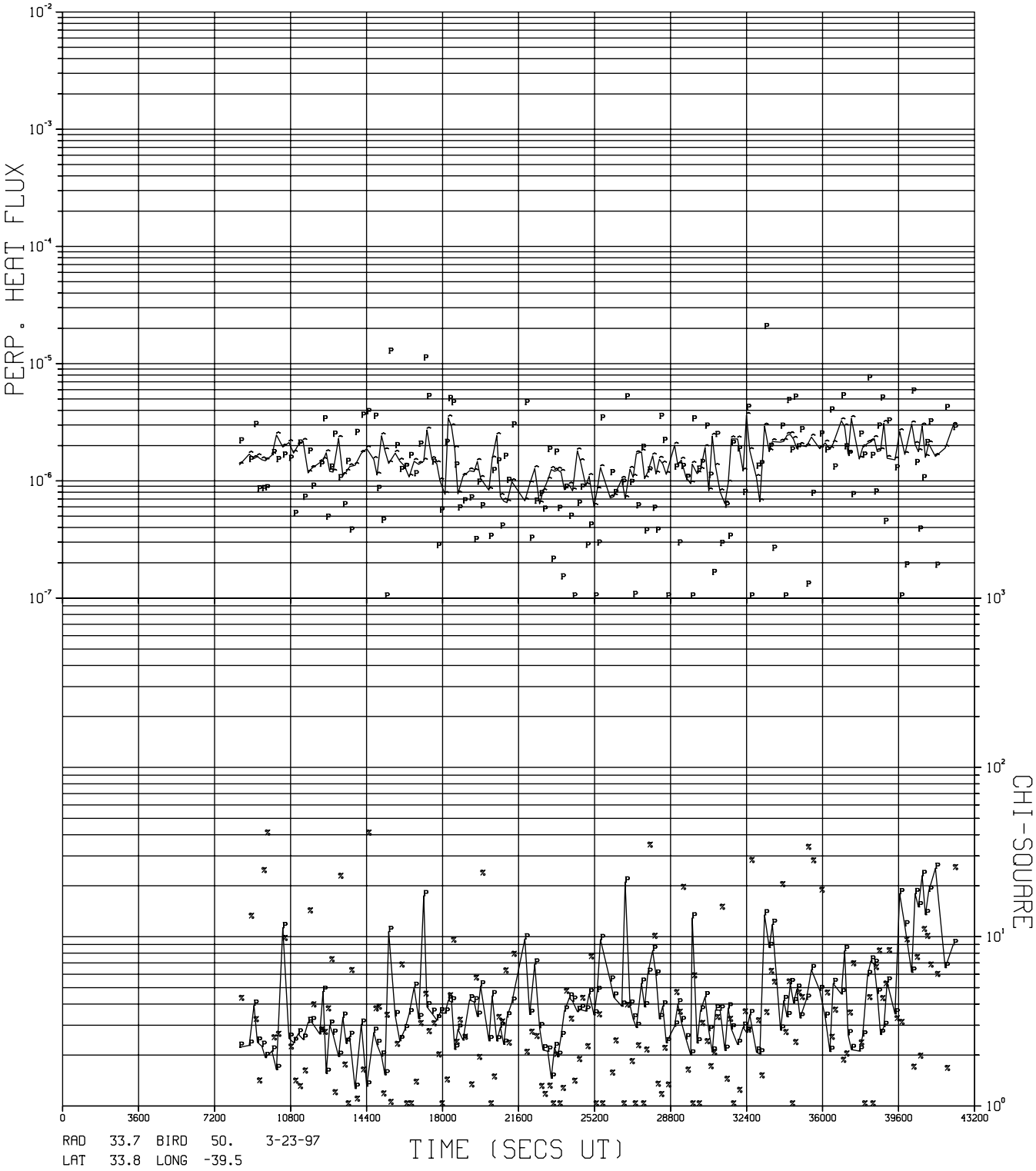

DENSITY
DENSITY RATIO
TIME (SECS UT)
10^2
10^1
10^0
10^{-1}
10^{-2}
10^{-3}
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 33.7 BIRD 50. 3-23-97
LAT 33.8 LONG -39.5

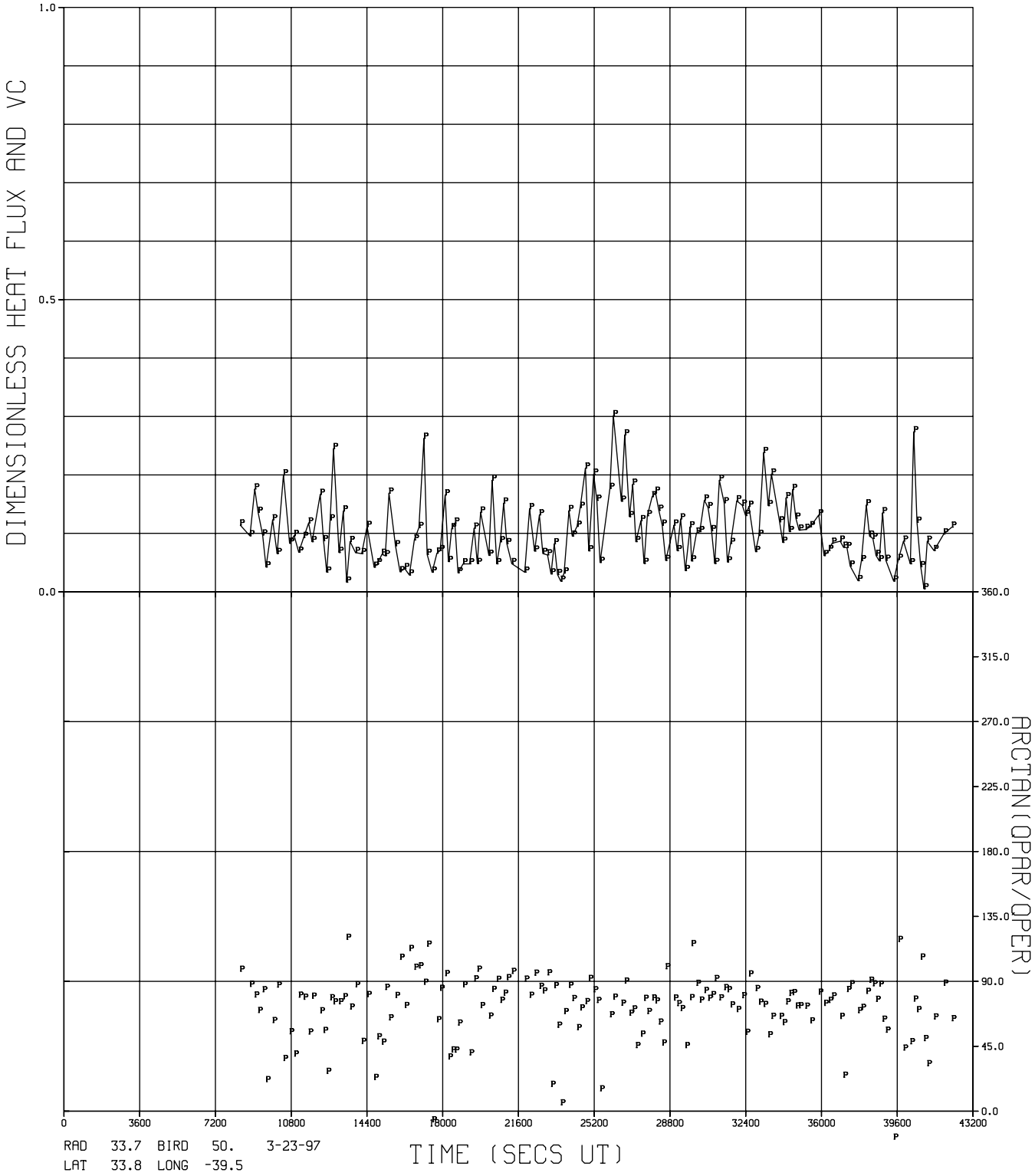

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 33.7 BIRD 50. 3-23-97
LAT 33.8 LONG -39.5

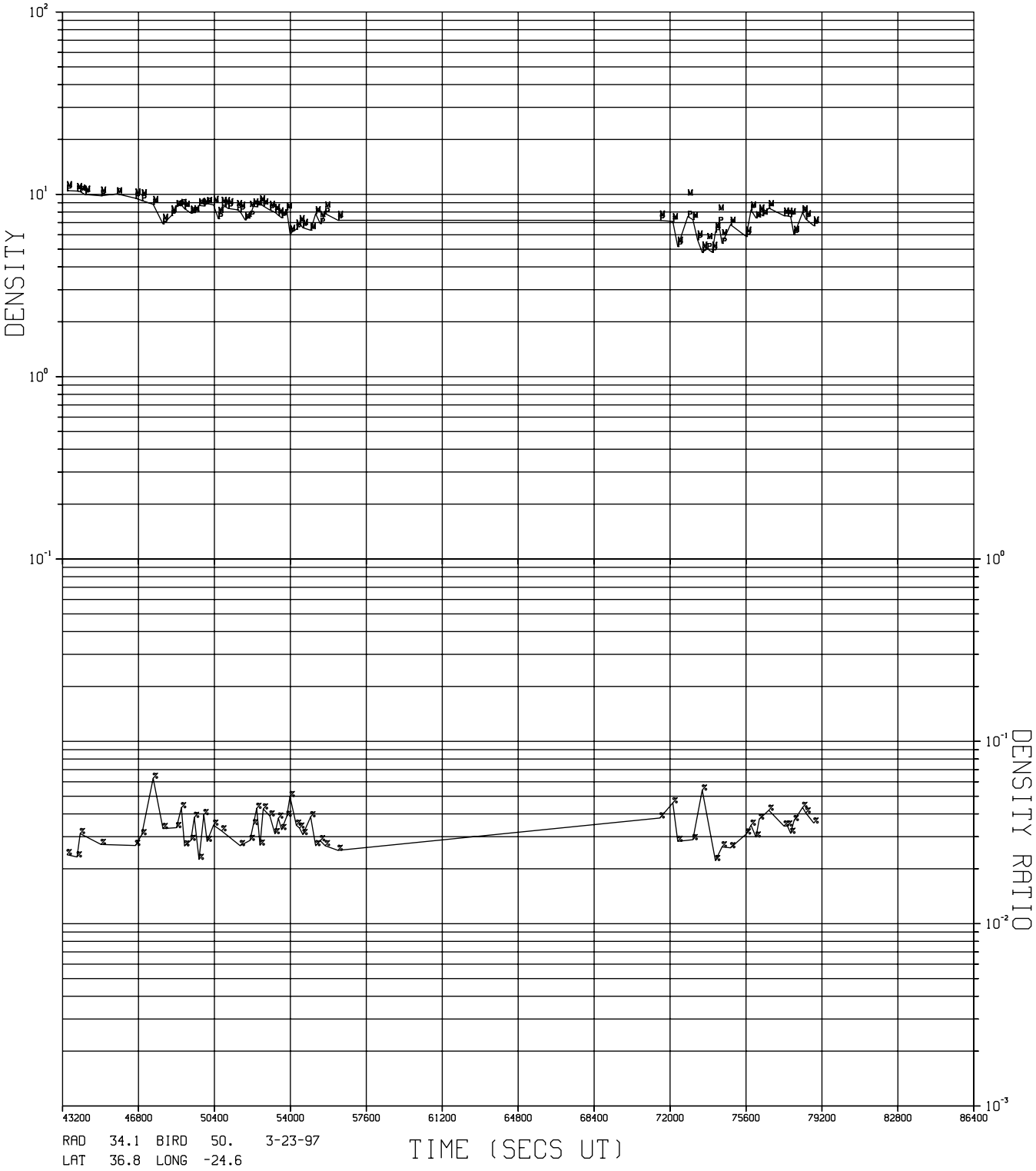

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 33.7 BIRD 50. 3-23-97
LAT 33.8 LONG -39.5

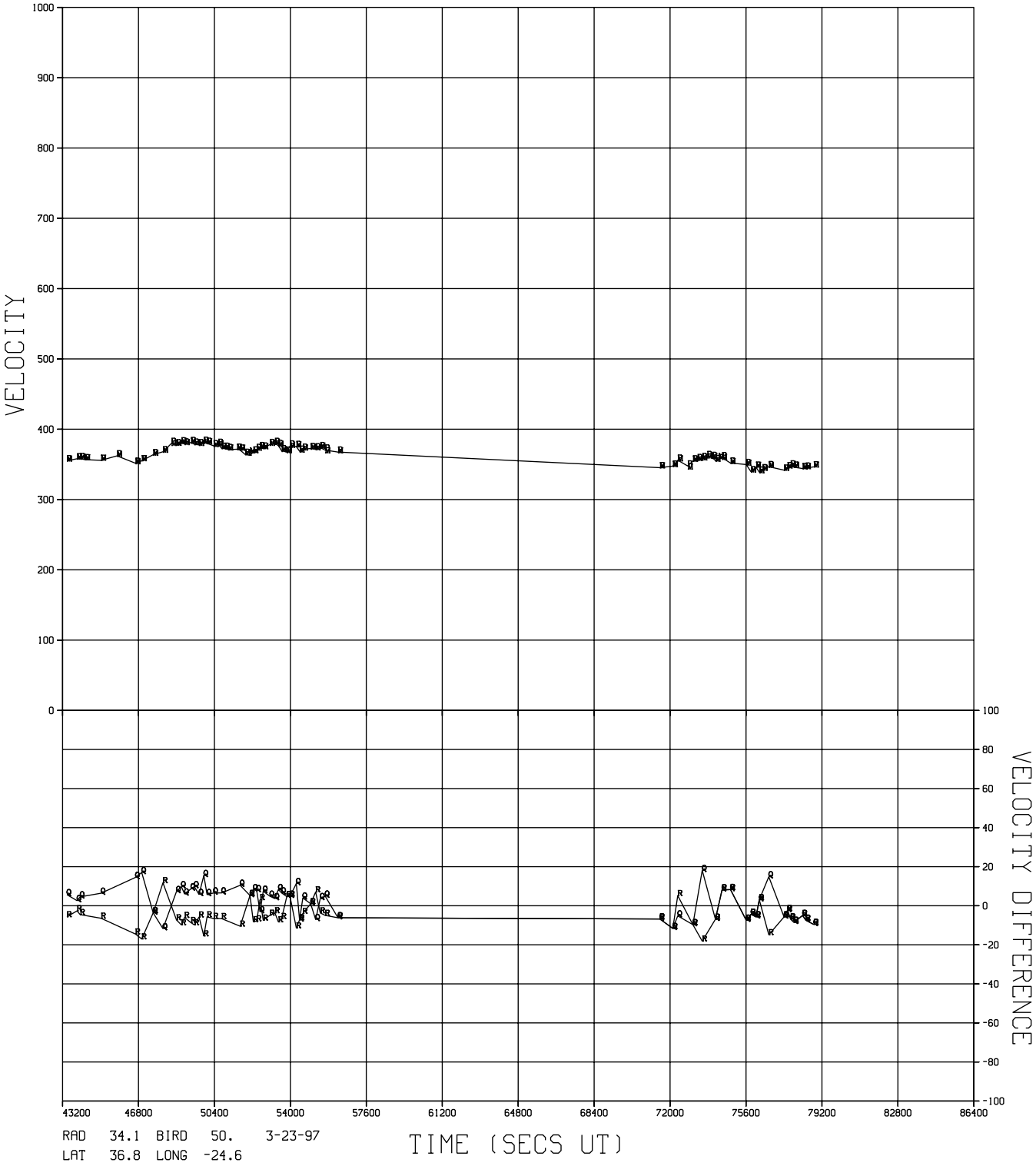

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 33.7 BIRD 50. 3-23-97
LAT 33.8 LONG -39.5

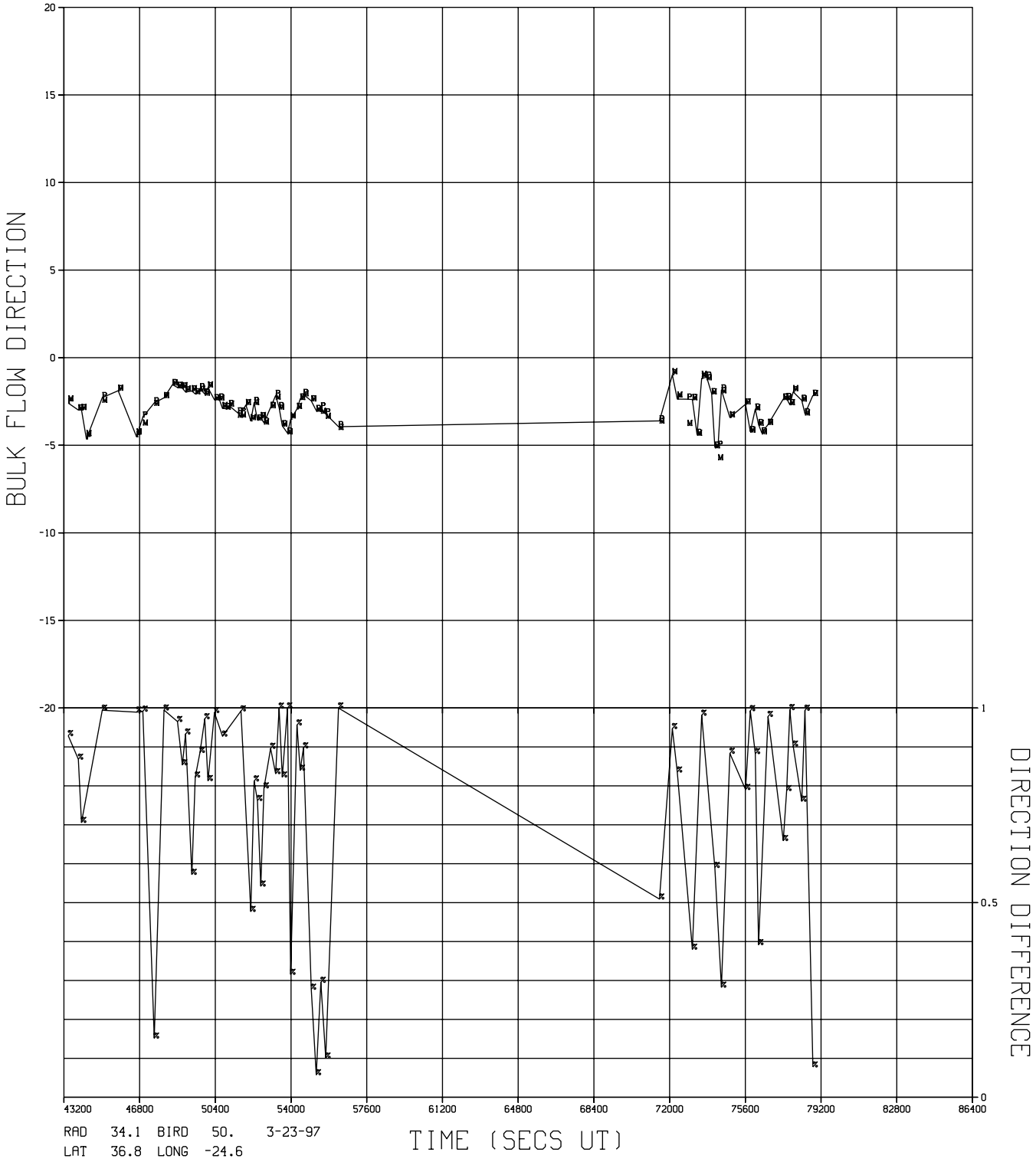

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 33.7 BIRD 50. 3-23-97
LAT 33.8 LONG -39.5

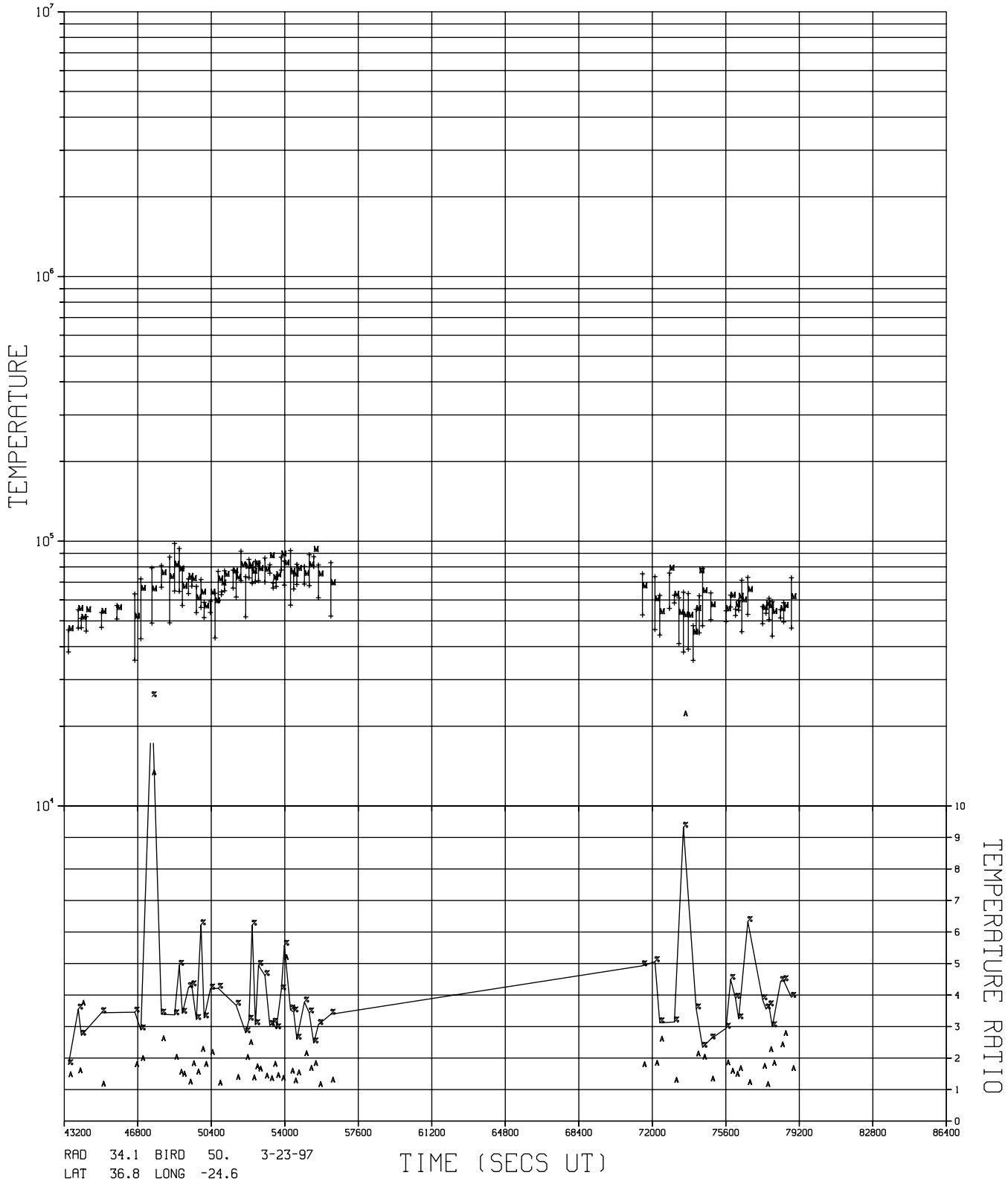

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 33.7 BIRD 50. 3-23-97
LAT 33.8 LONG -39.5

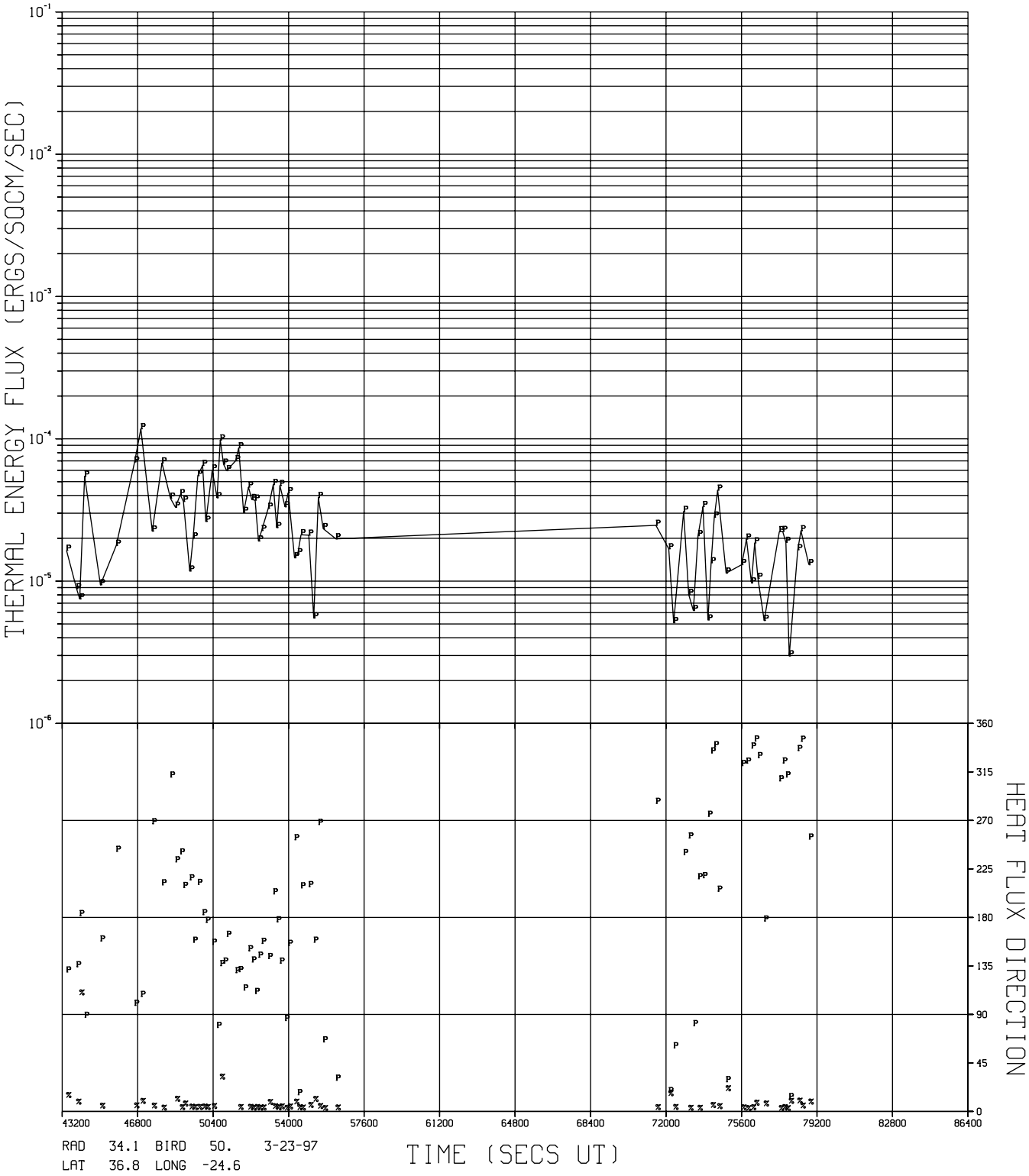

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 33.7 BIRD 50. 3-23-97
LAT 33.8 LONG -39.5

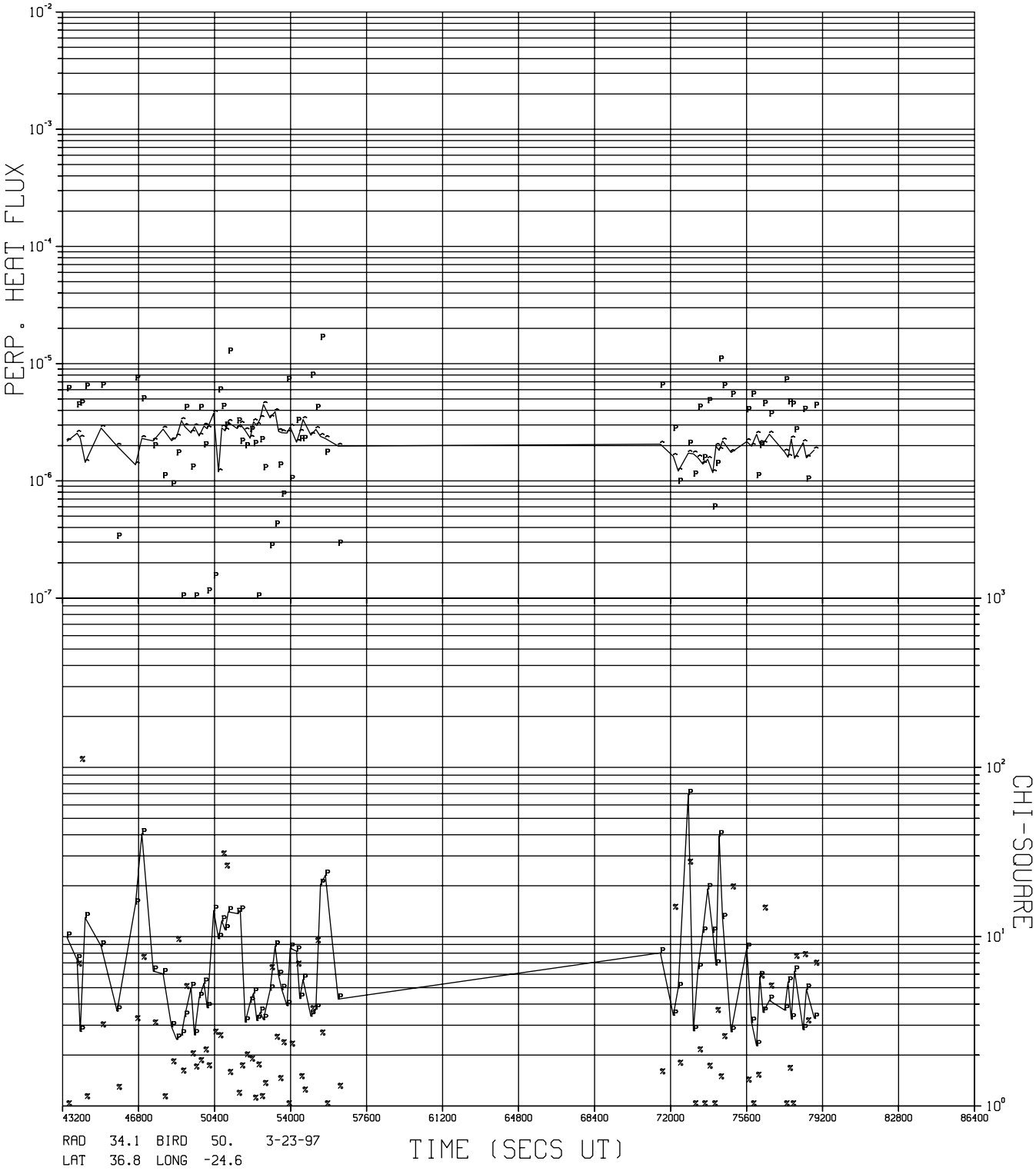

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 34.1 BIRD 50. 3-23-97
LAT 36.8 LONG -24.6

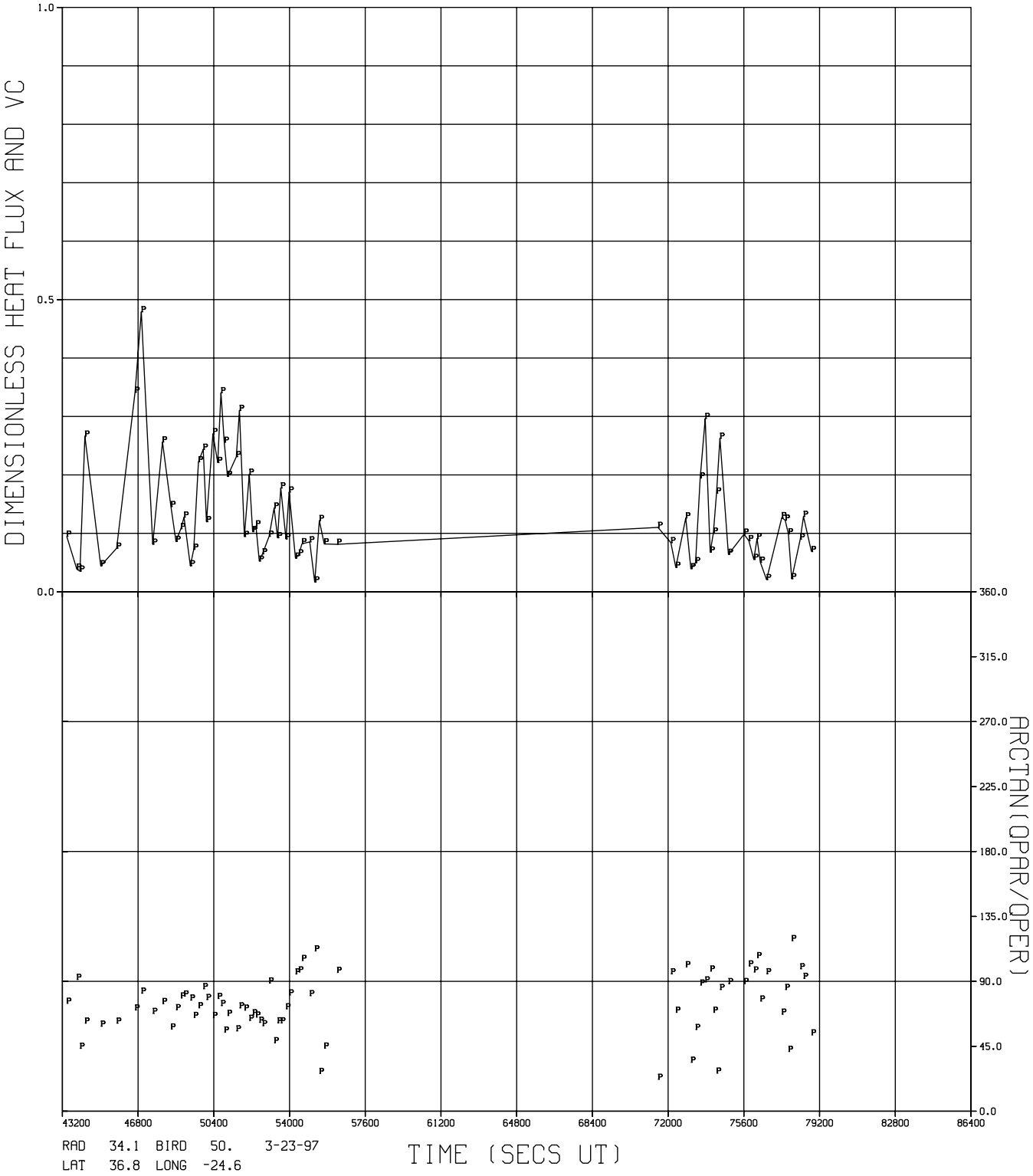

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 34.1 BIRD 50. 3-23-97
LAT 36.8 LONG -24.6

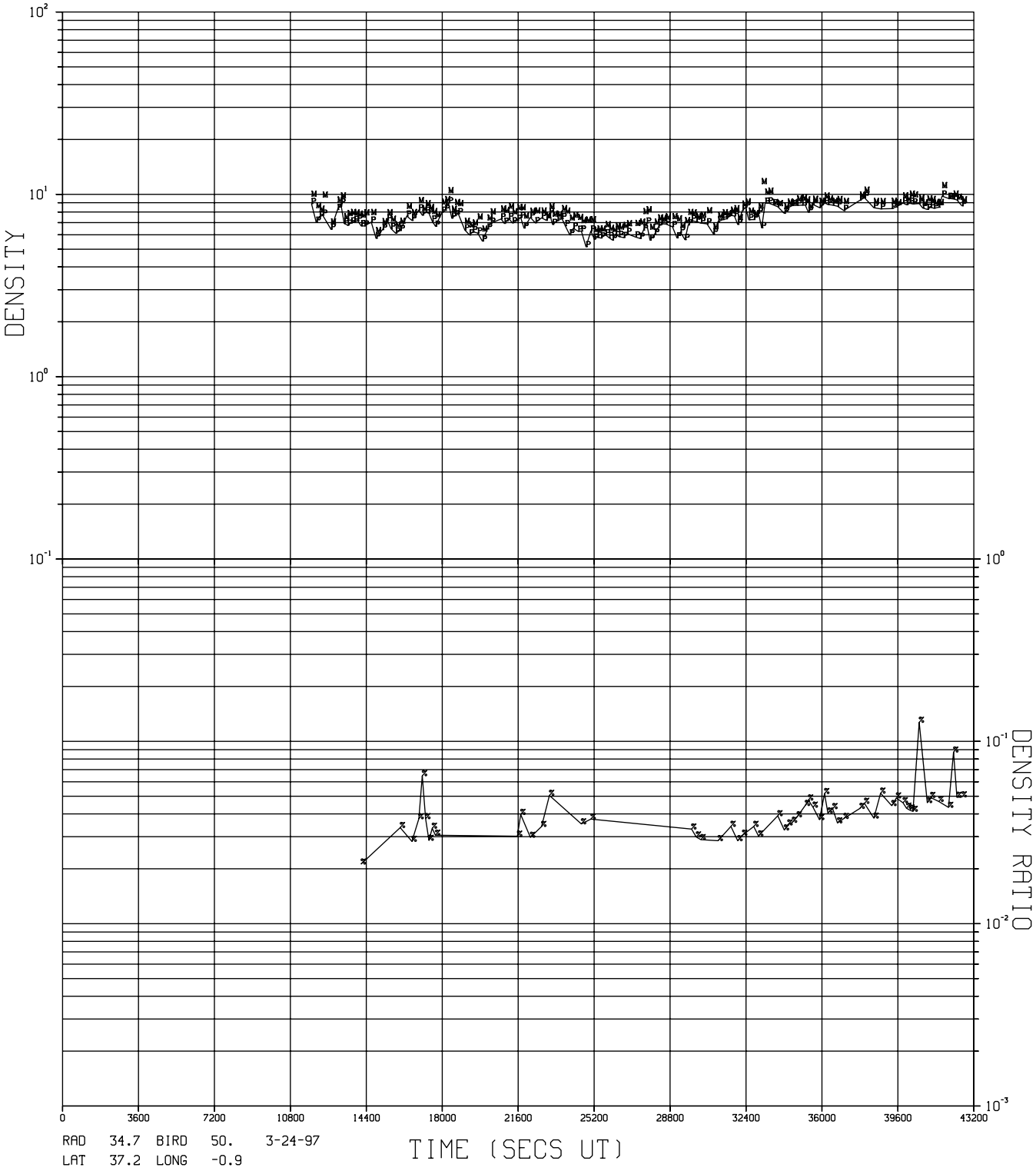

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 34.1 BIRD 50. 3-23-97
LAT 36.8 LONG -24.6

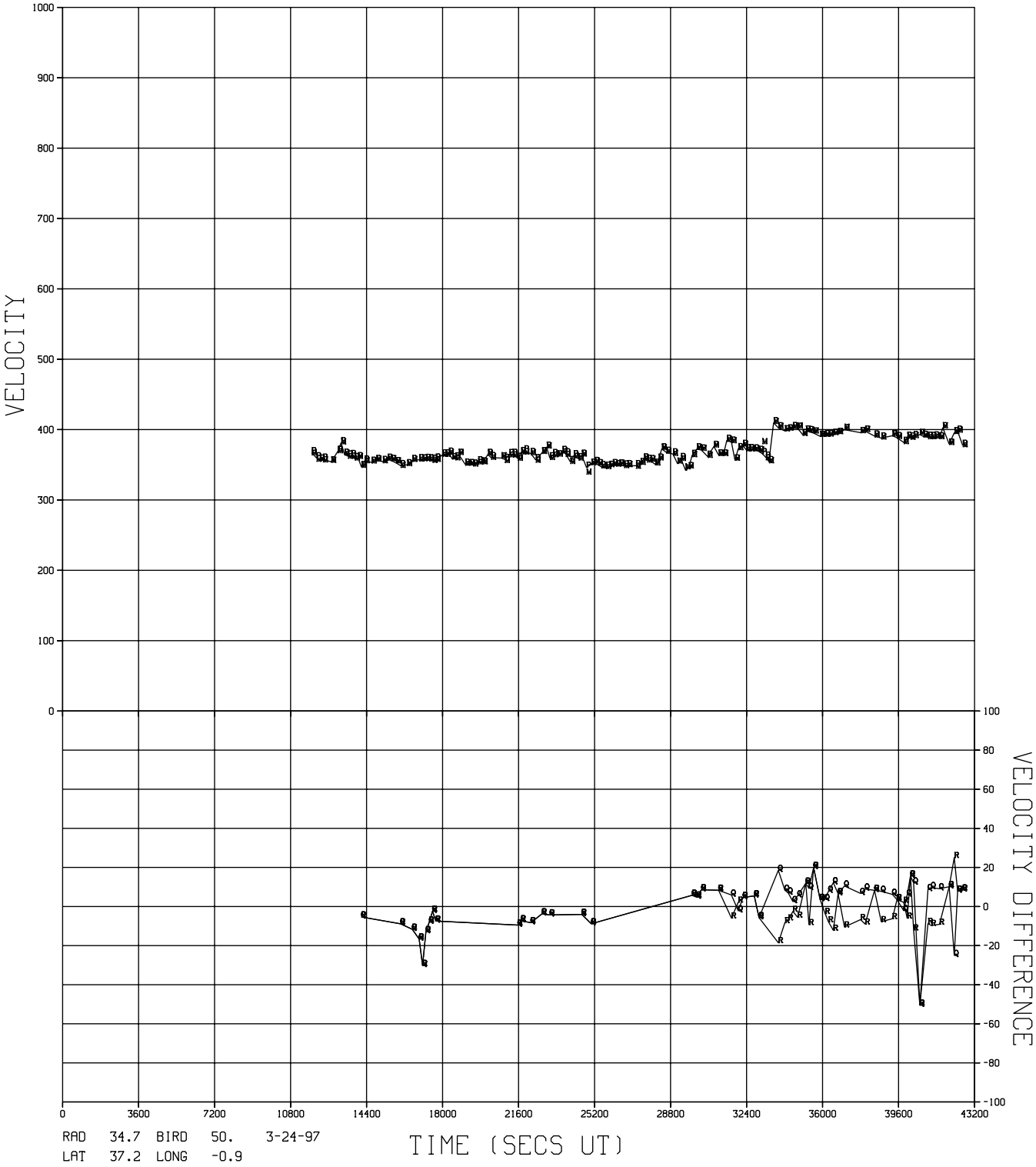

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 34.1 BIRD 50. 3-23-97
LAT 36.8 LONG -24.6

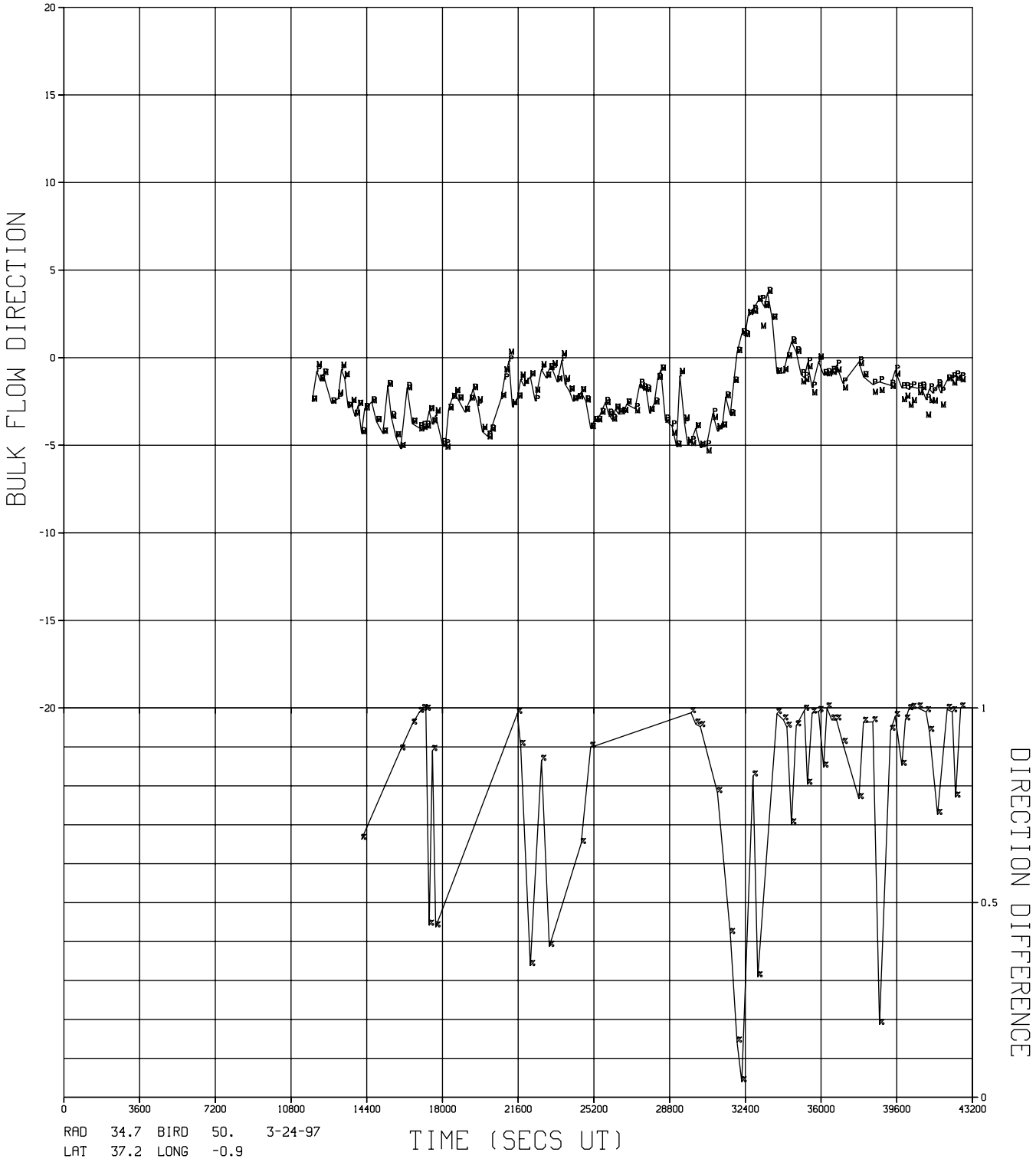

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 34.1 BIRD 50. 3-23-97
LAT 36.8 LONG -24.6

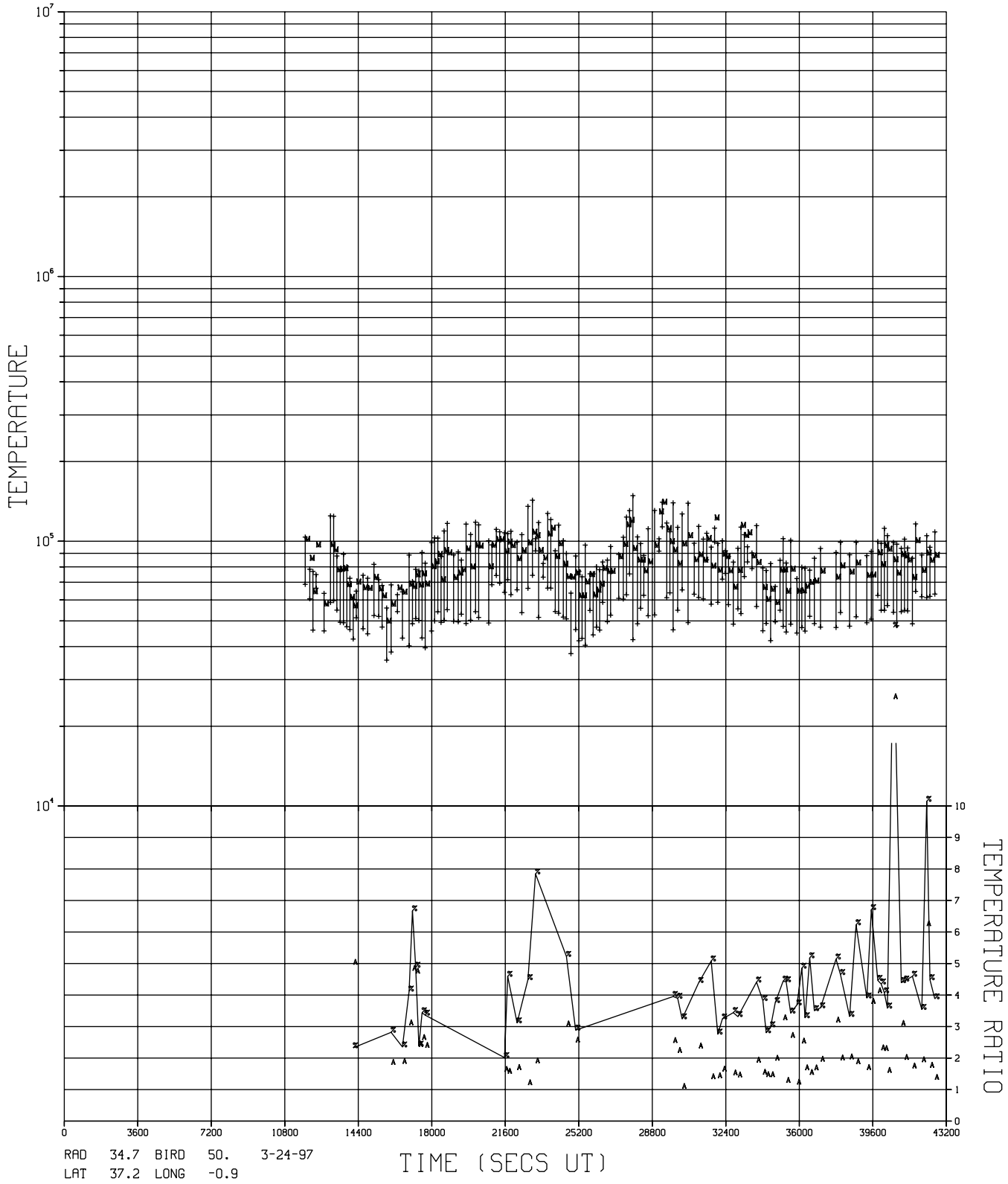

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 34.1 BIRD 50. 3-23-97
LAT 36.8 LONG -24.6

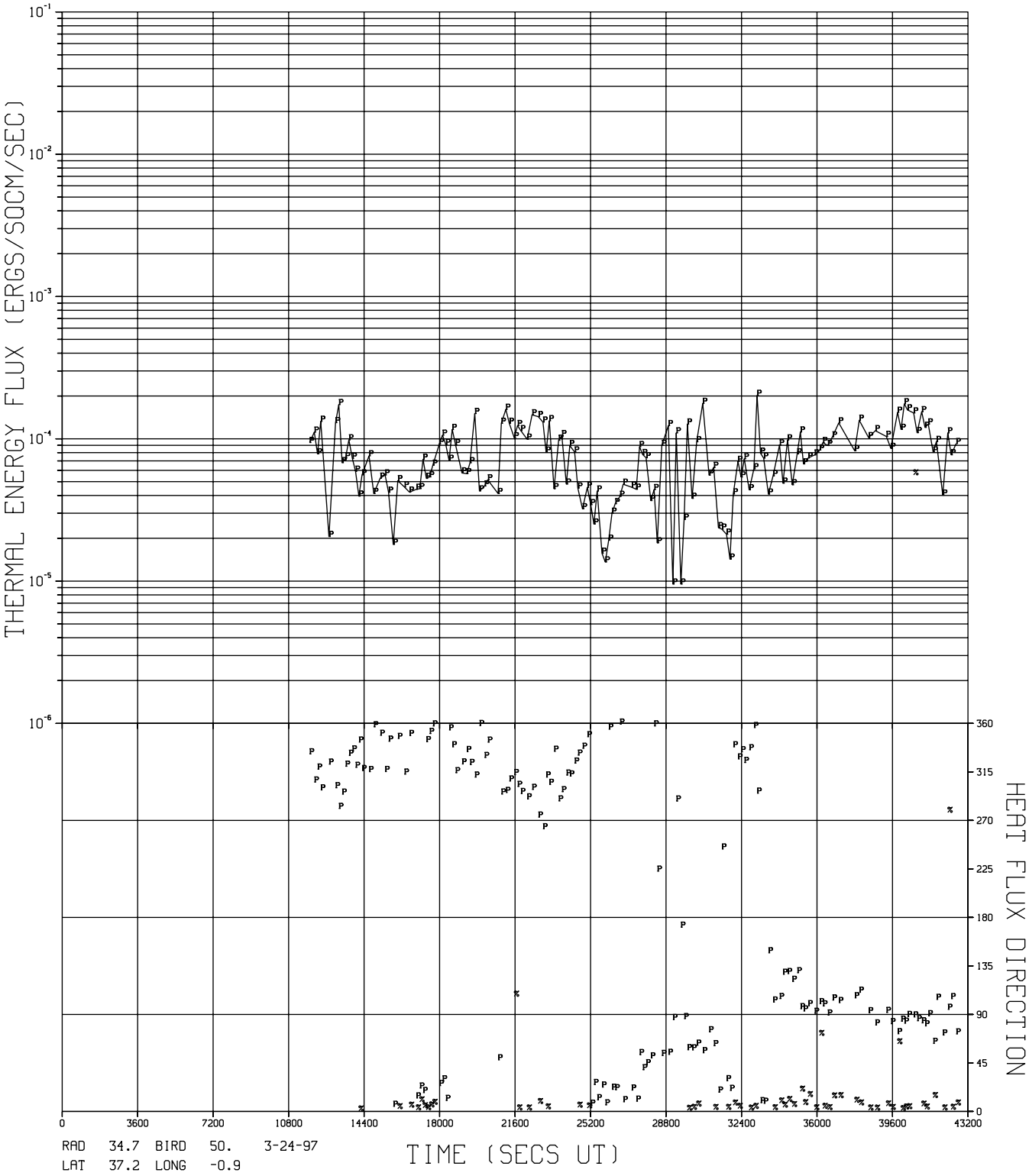

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 34.1 BIRD 50. 3-23-97
LAT 36.8 LONG -24.6

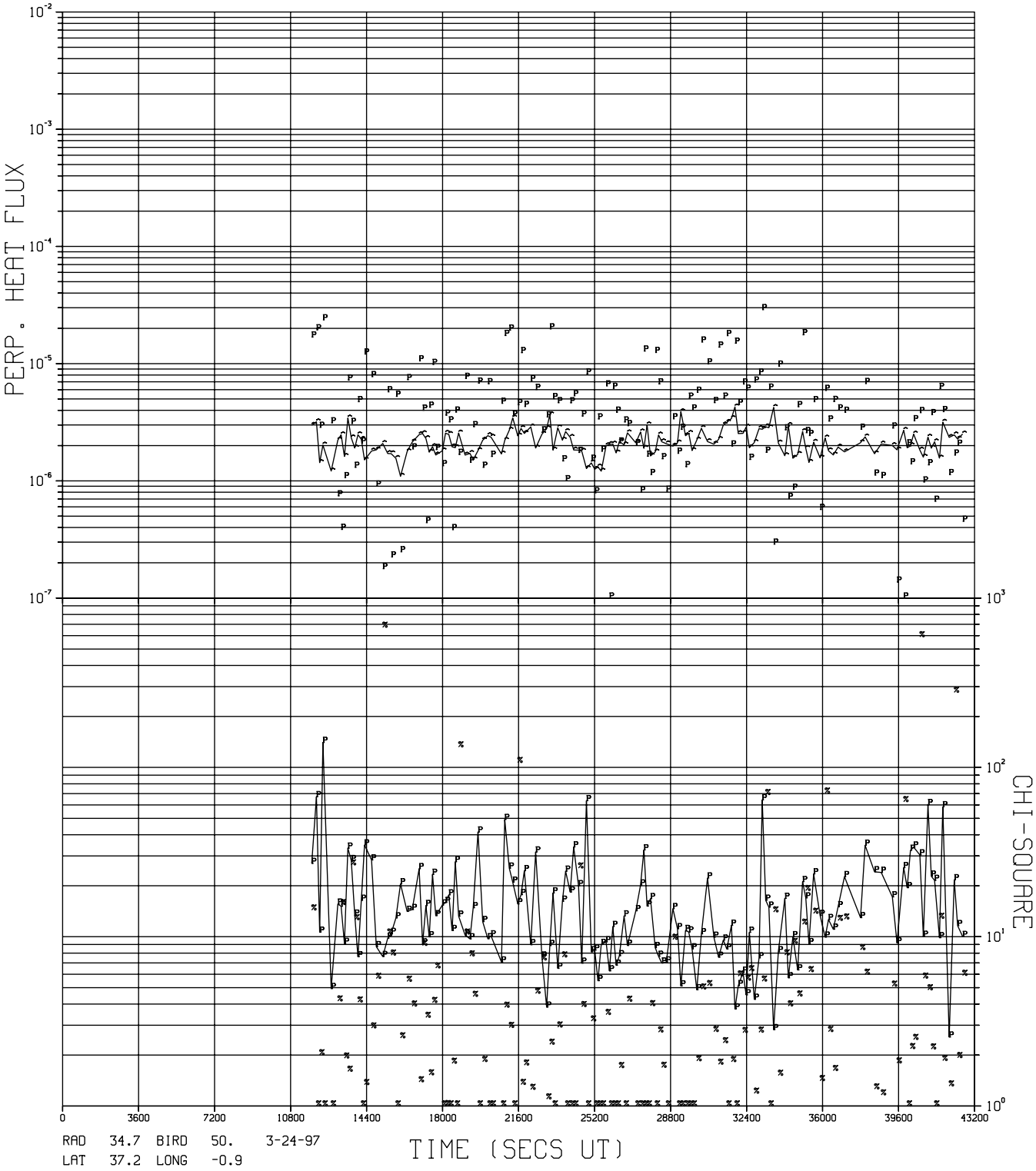

DENSITY
DENSITY RATIO
TIME (SECS UT)
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 34.7 BIRD 50. 3-24-97
LAT 37.2 LONG -0.9

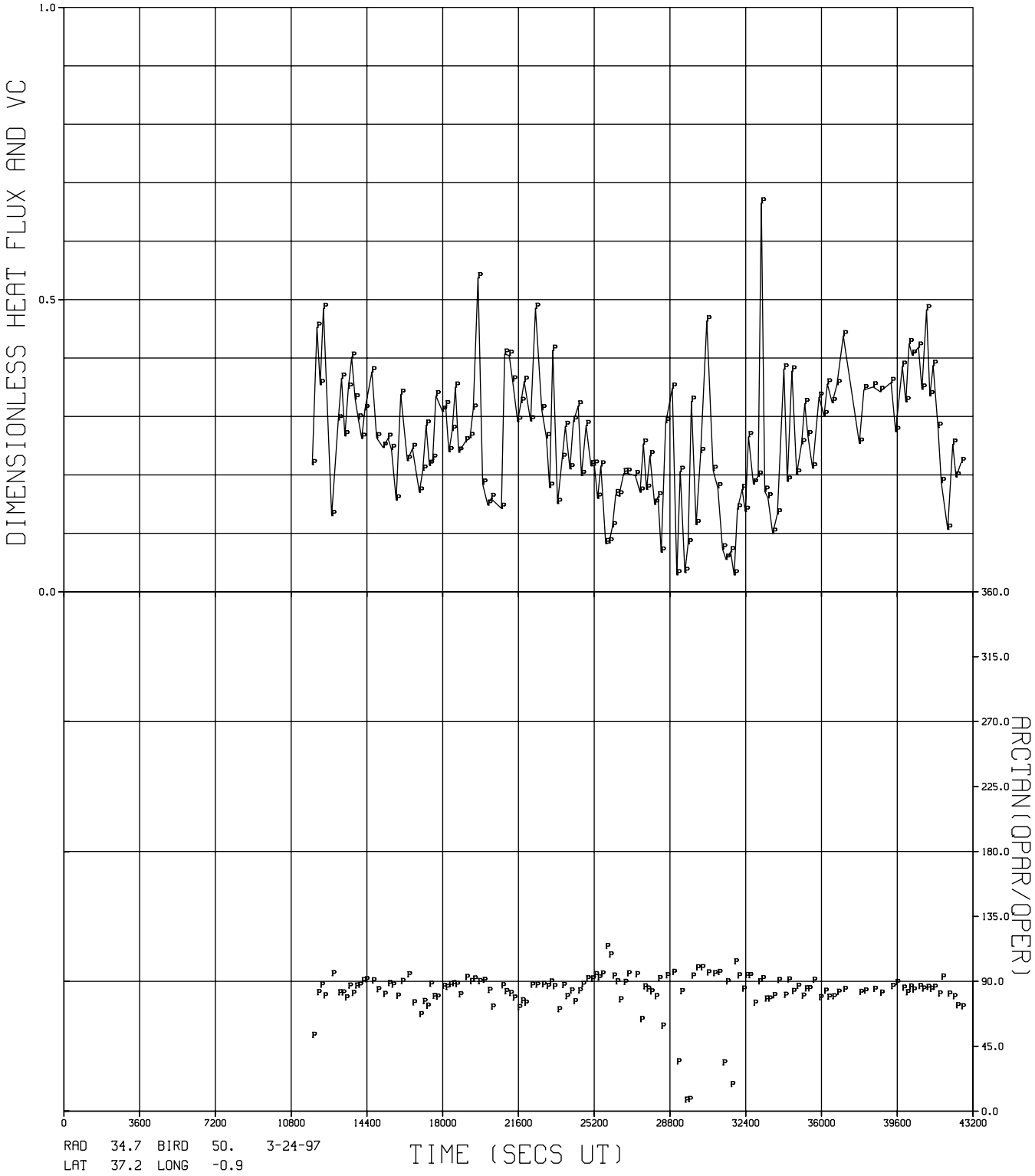

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 34.7 BIRD 50. 3-24-97
LAT 37.2 LONG -0.9

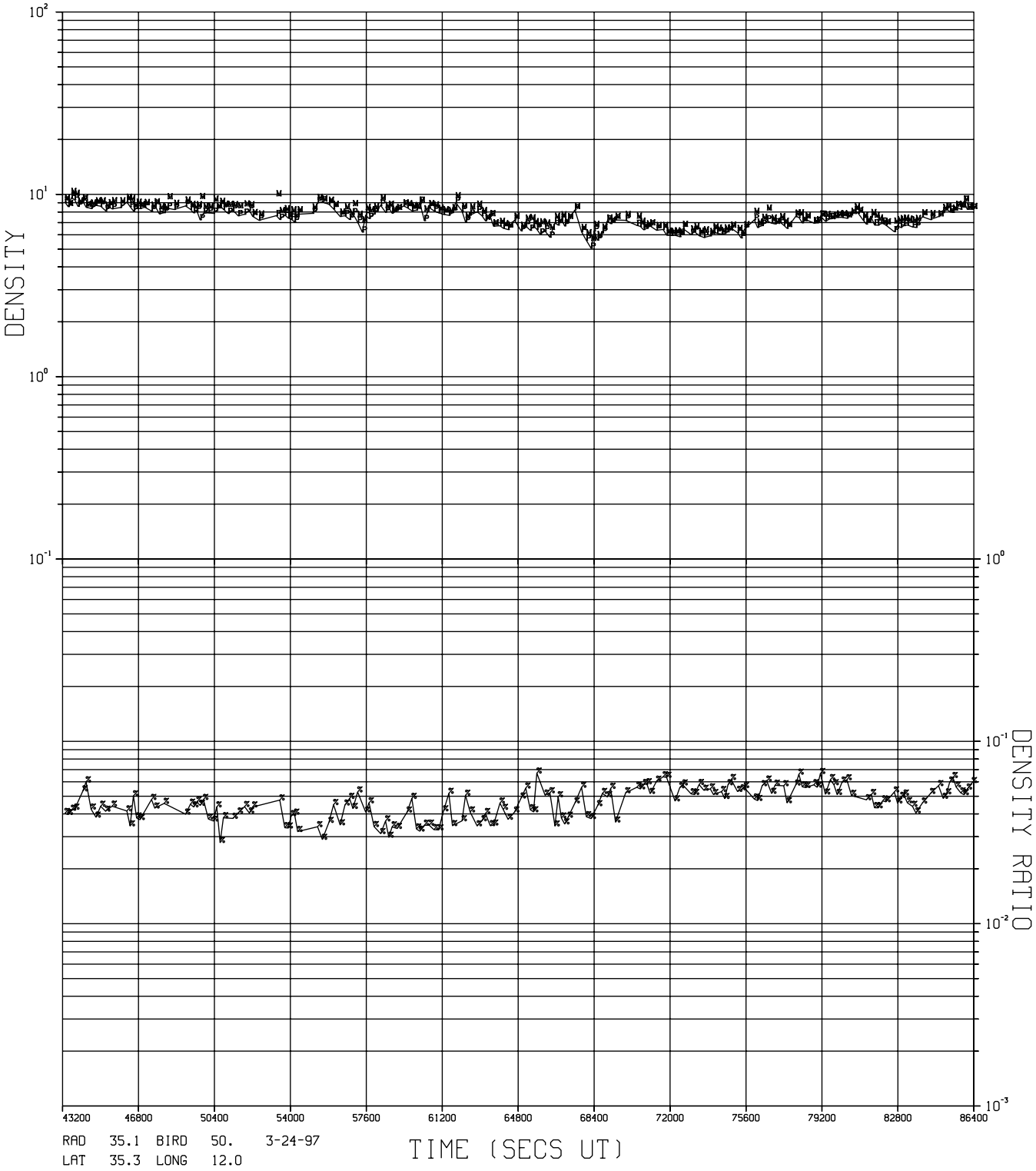

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 34.7 BIRD 50. 3-24-97
LAT 37.2 LONG -0.9

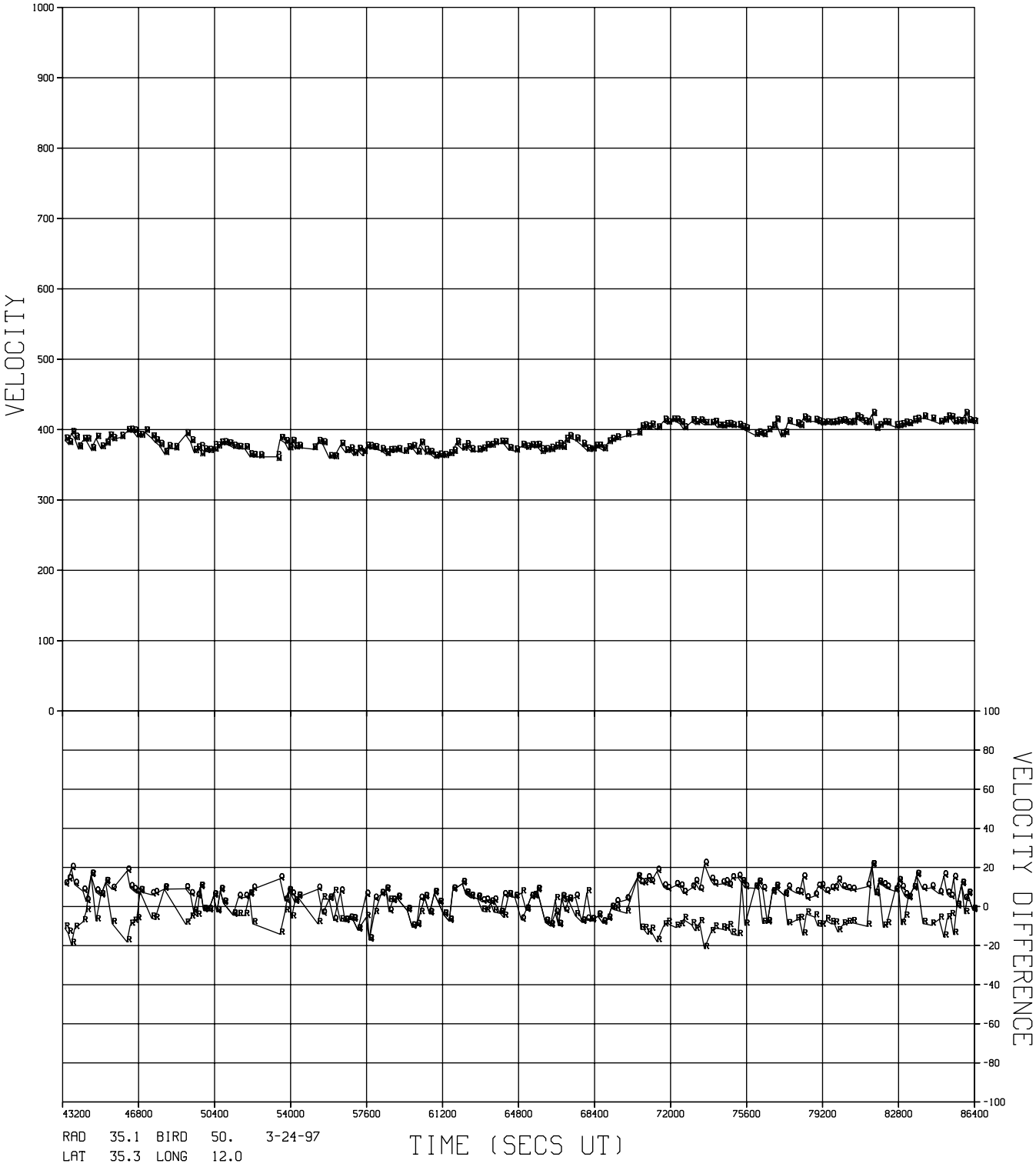

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 34.7 BIRD 50. 3-24-97
LAT 37.2 LONG -0.9

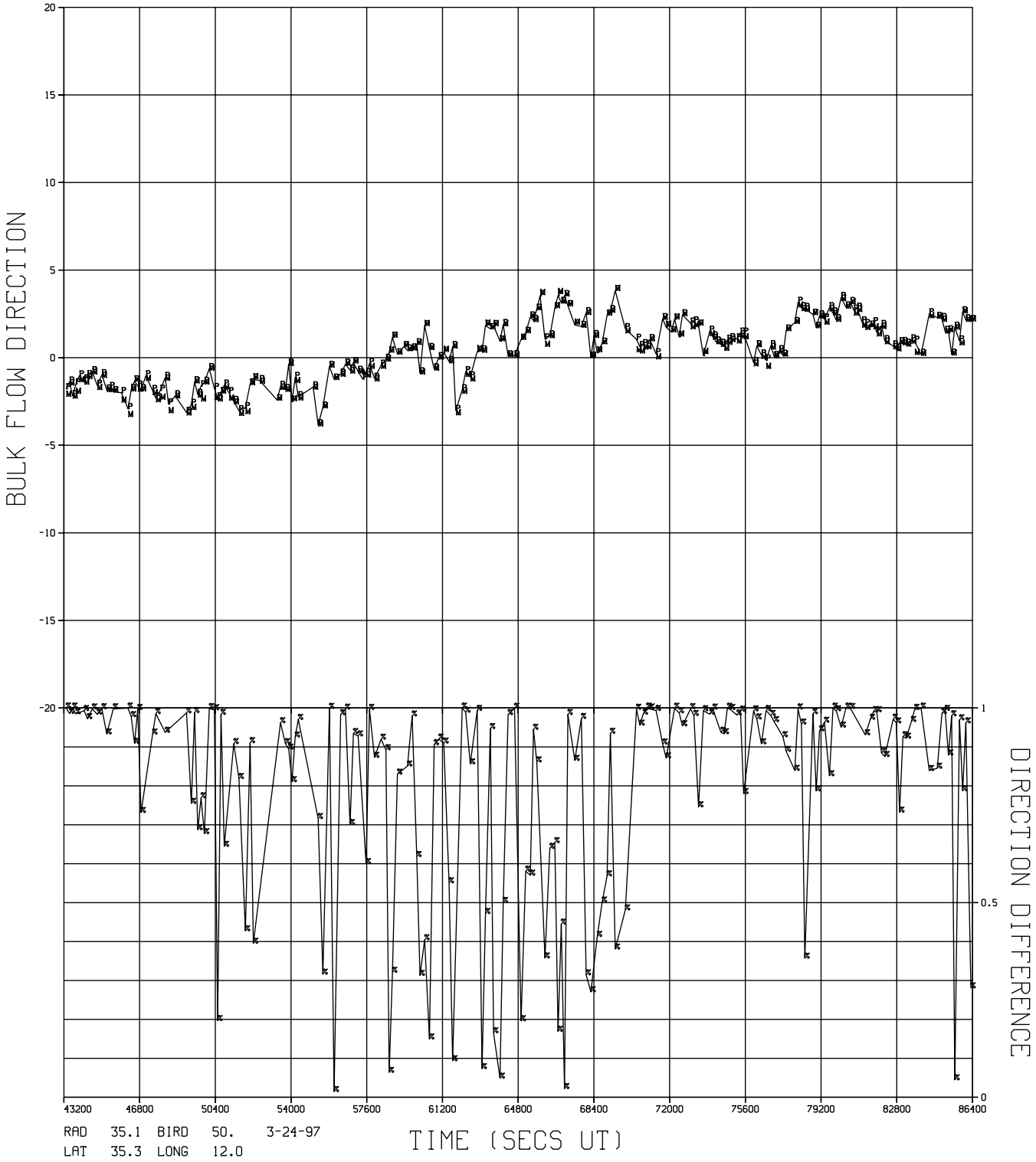

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 34.7 BIRD 50. 3-24-97
LAT 37.2 LONG -0.9

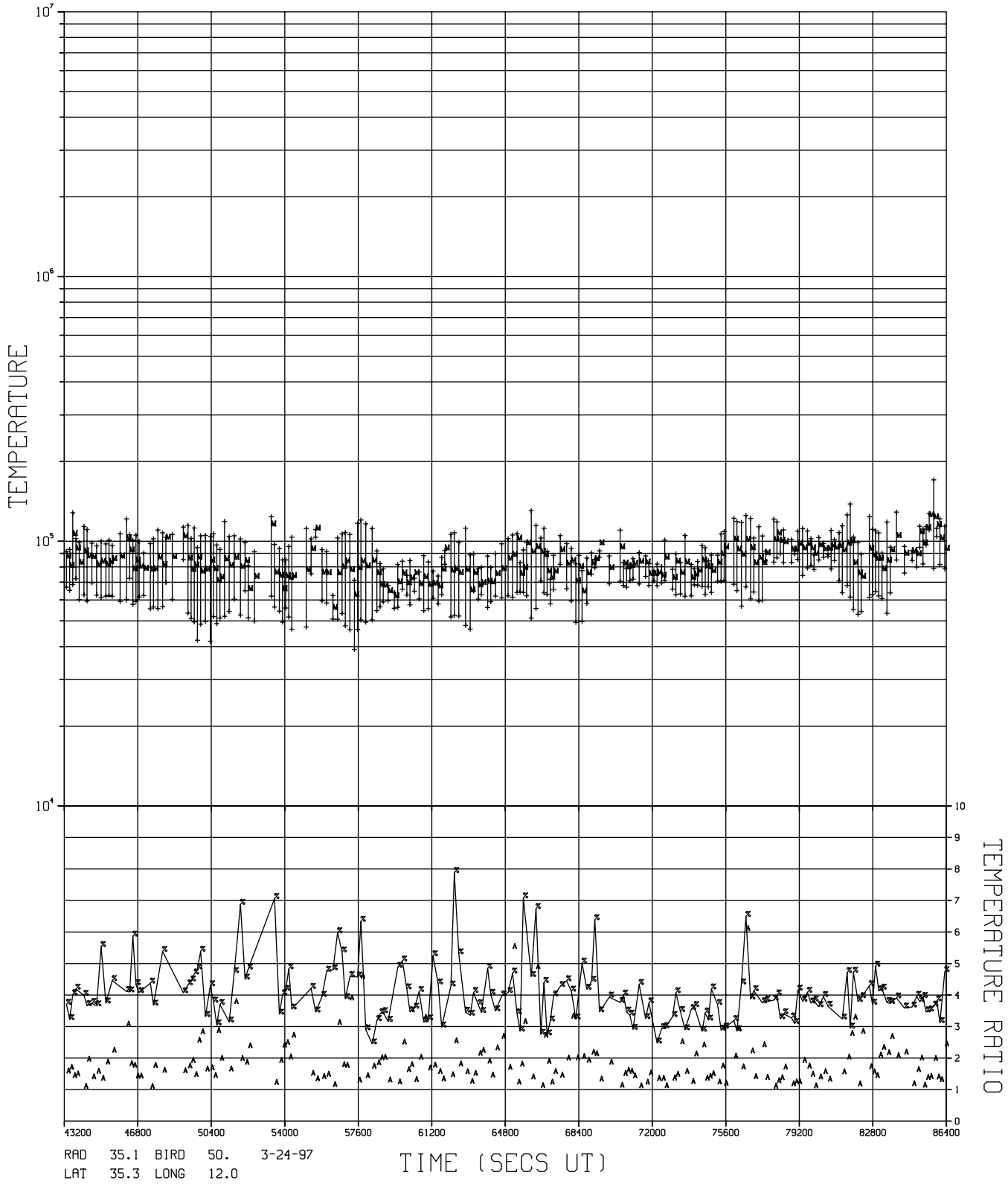

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 34.7 BIRD 50. 3-24-97
LAT 37.2 LONG -0.9

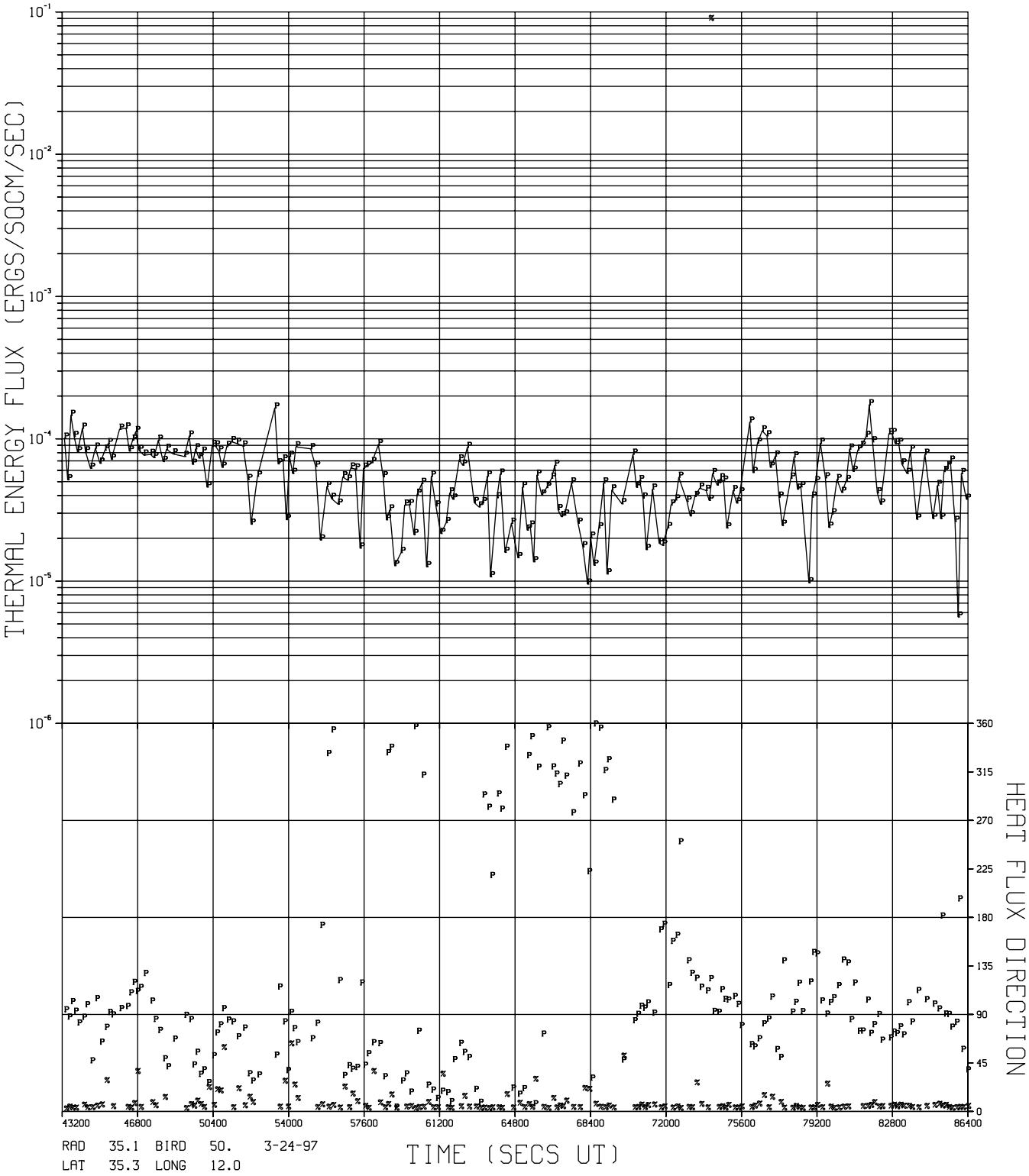

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 34.7 BIRD 50. 3-24-97
LAT 37.2 LONG -0.9

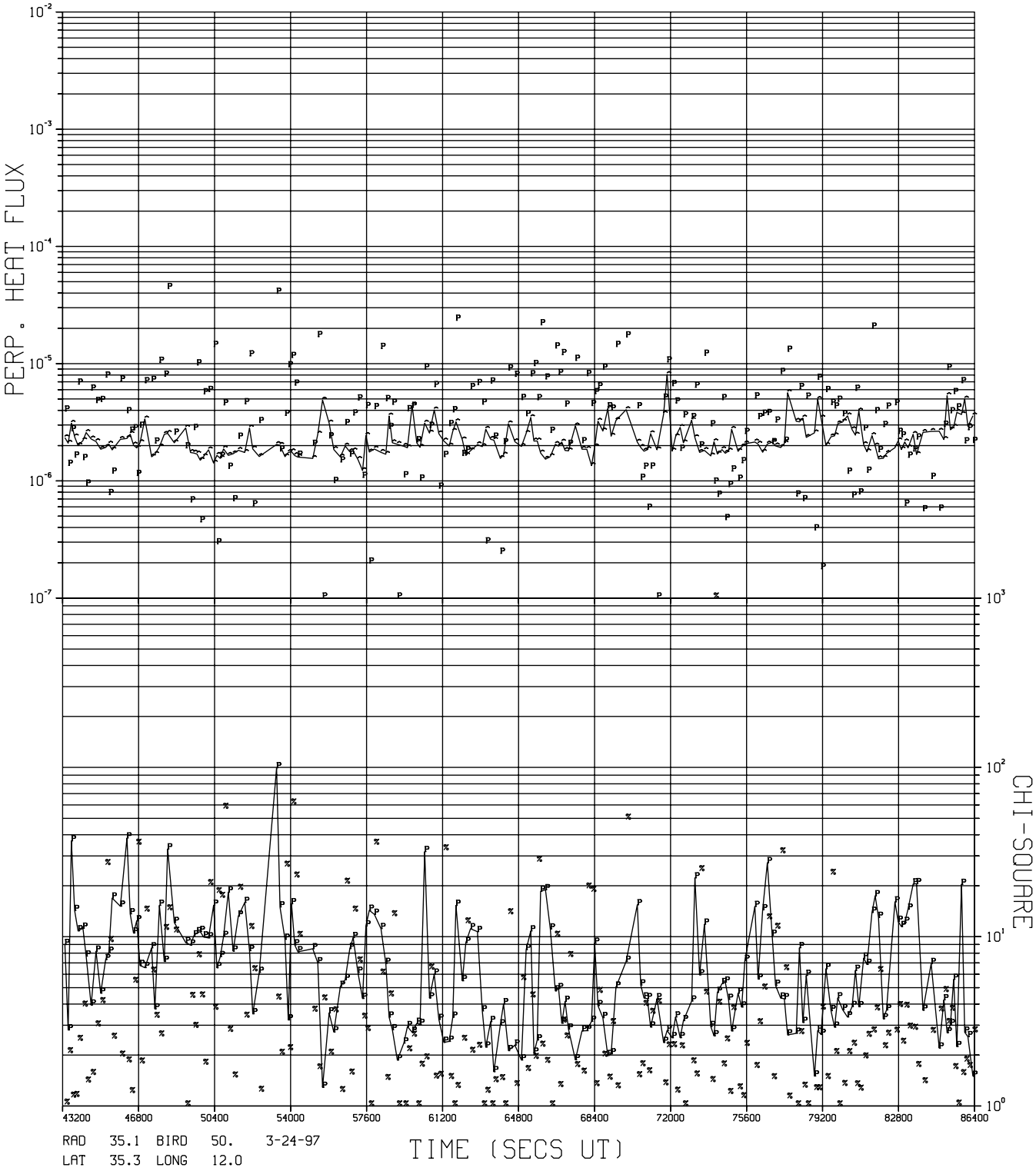

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 35.1 BIRD 50. 3-24-97
LAT 35.3 LONG 12.0

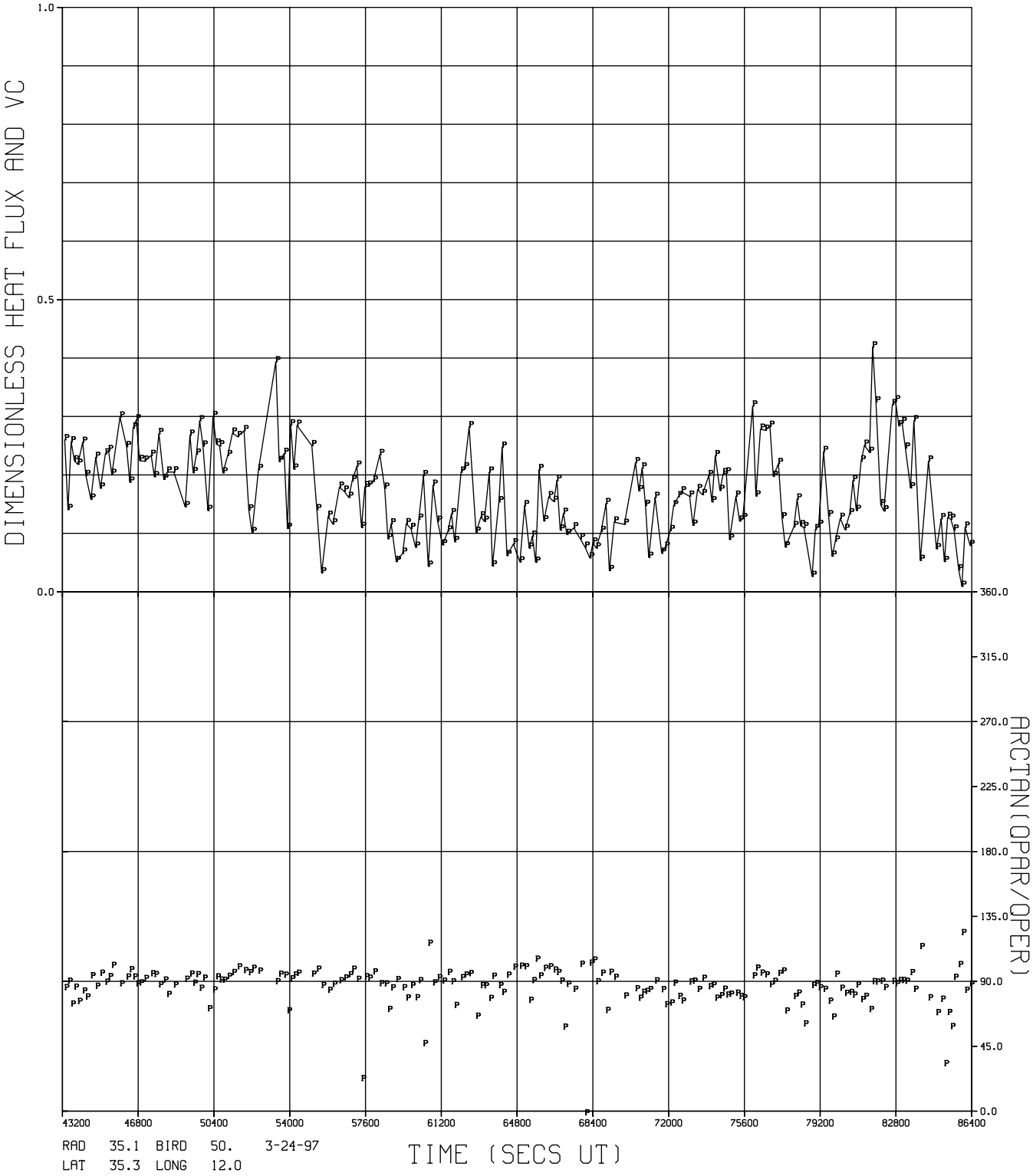

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 35.1 BIRD 50. 3-24-97
LAT 35.3 LONG 12.0

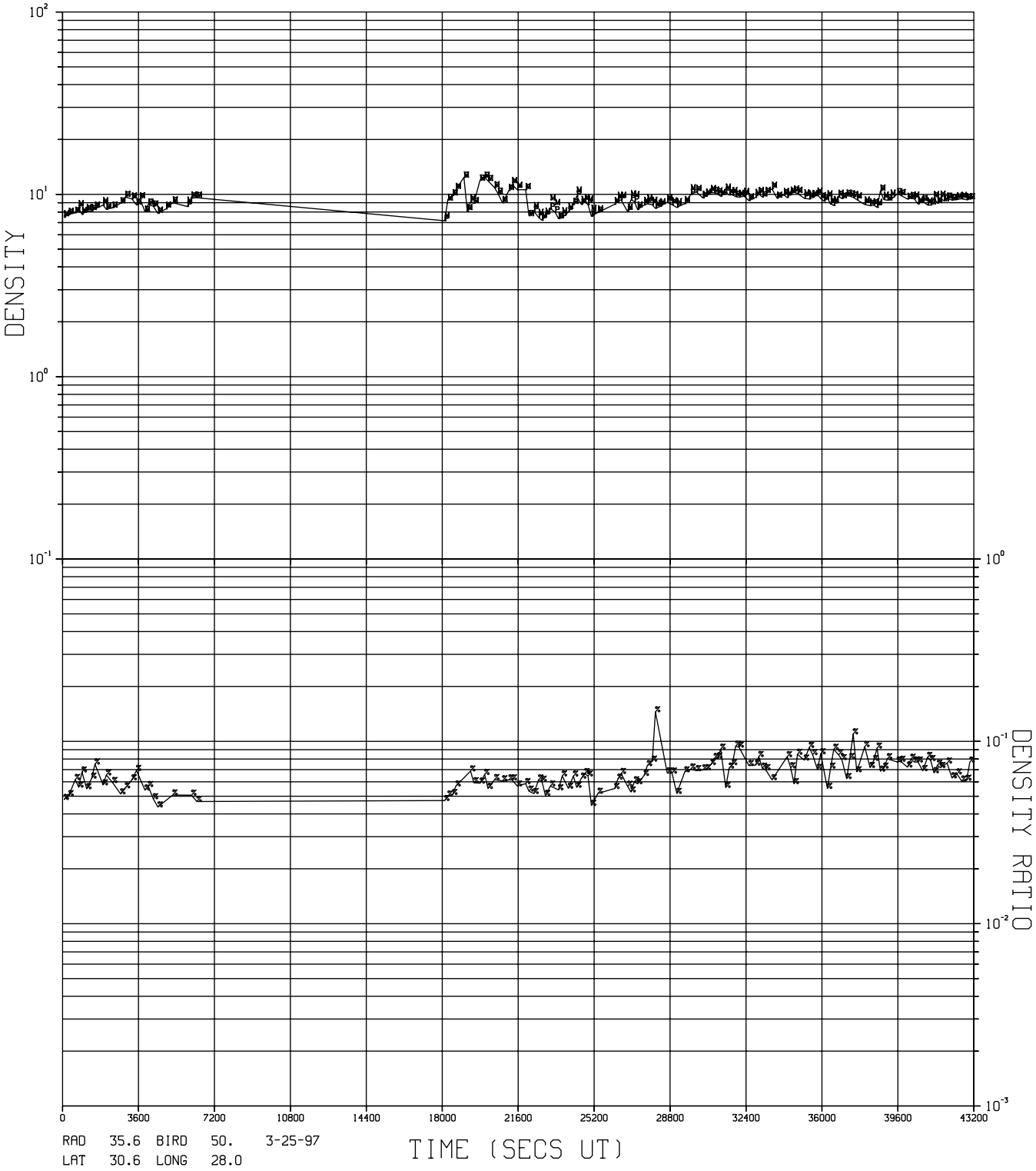

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 35.1 BIRD 50. 3-24-97
LAT 35.3 LONG 12.0

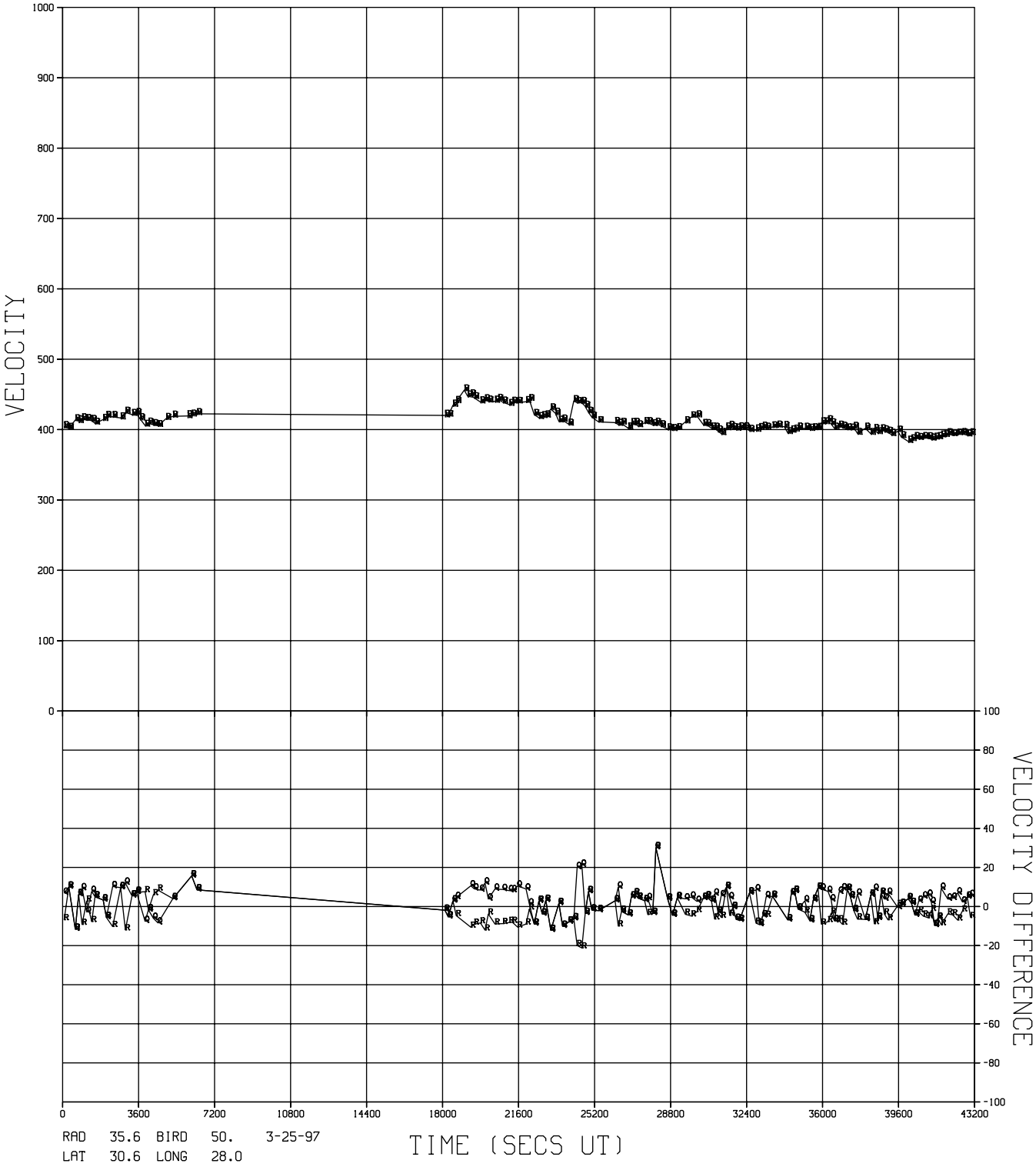

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 35.1 BIRD 50. 3-24-97
LAT 35.3 LONG 12.0

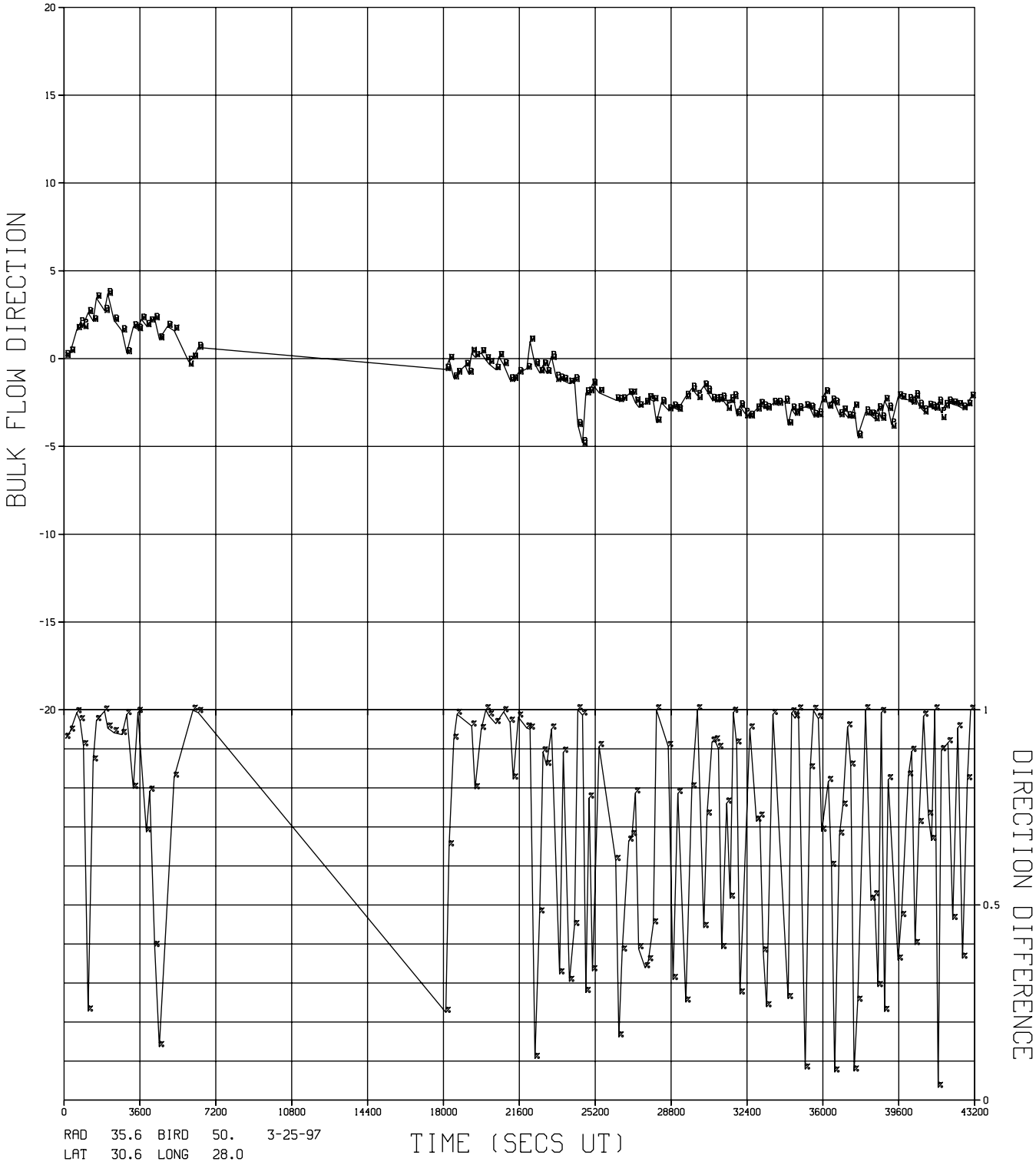

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 35.1 BIRD 50. 3-24-97
LAT 35.3 LONG 12.0

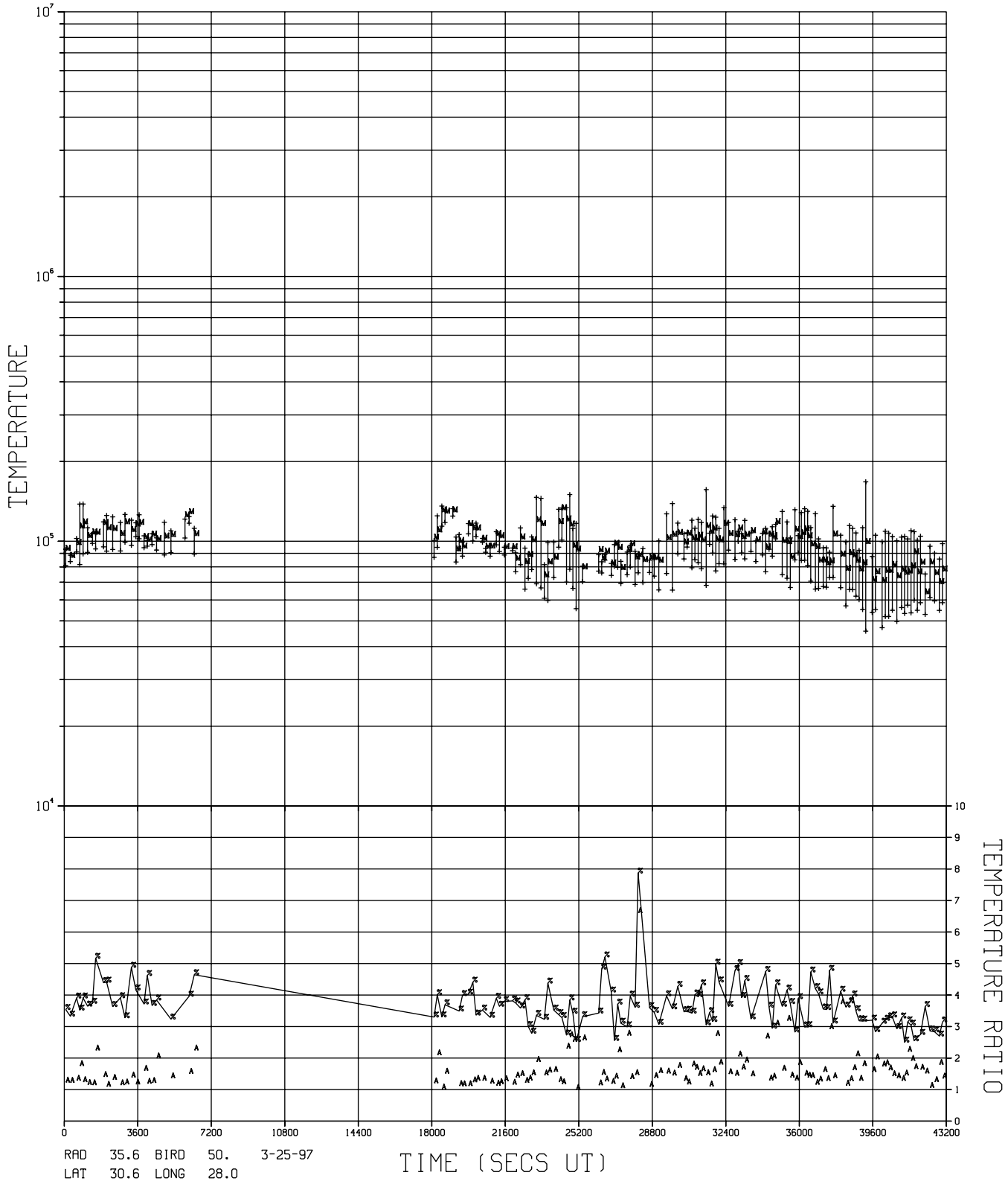

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 35.1 BIRD 50. 3-24-97
LAT 35.3 LONG 12.0

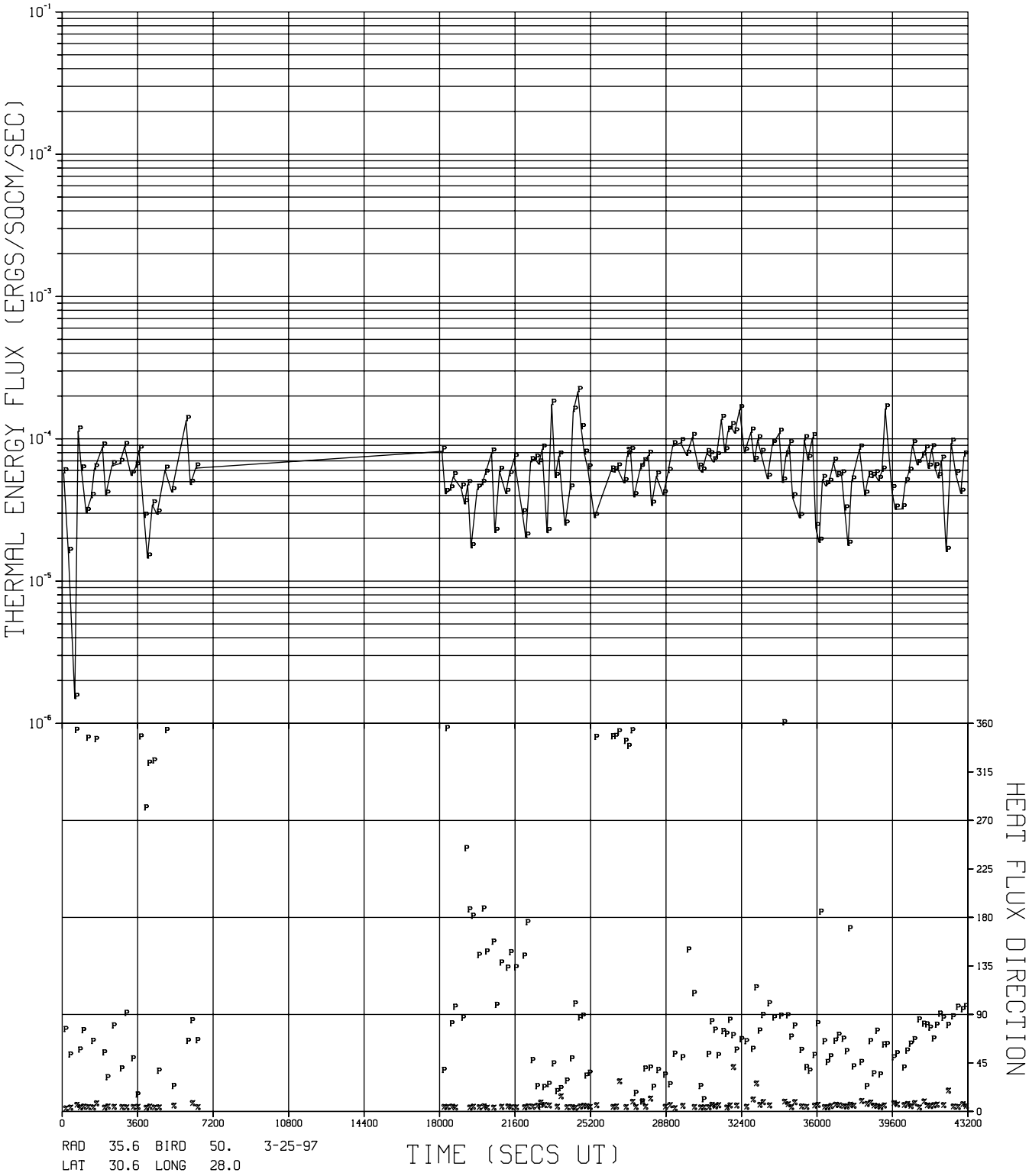

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 35.1 BIRD 50. 3-24-97
LAT 35.3 LONG 12.0

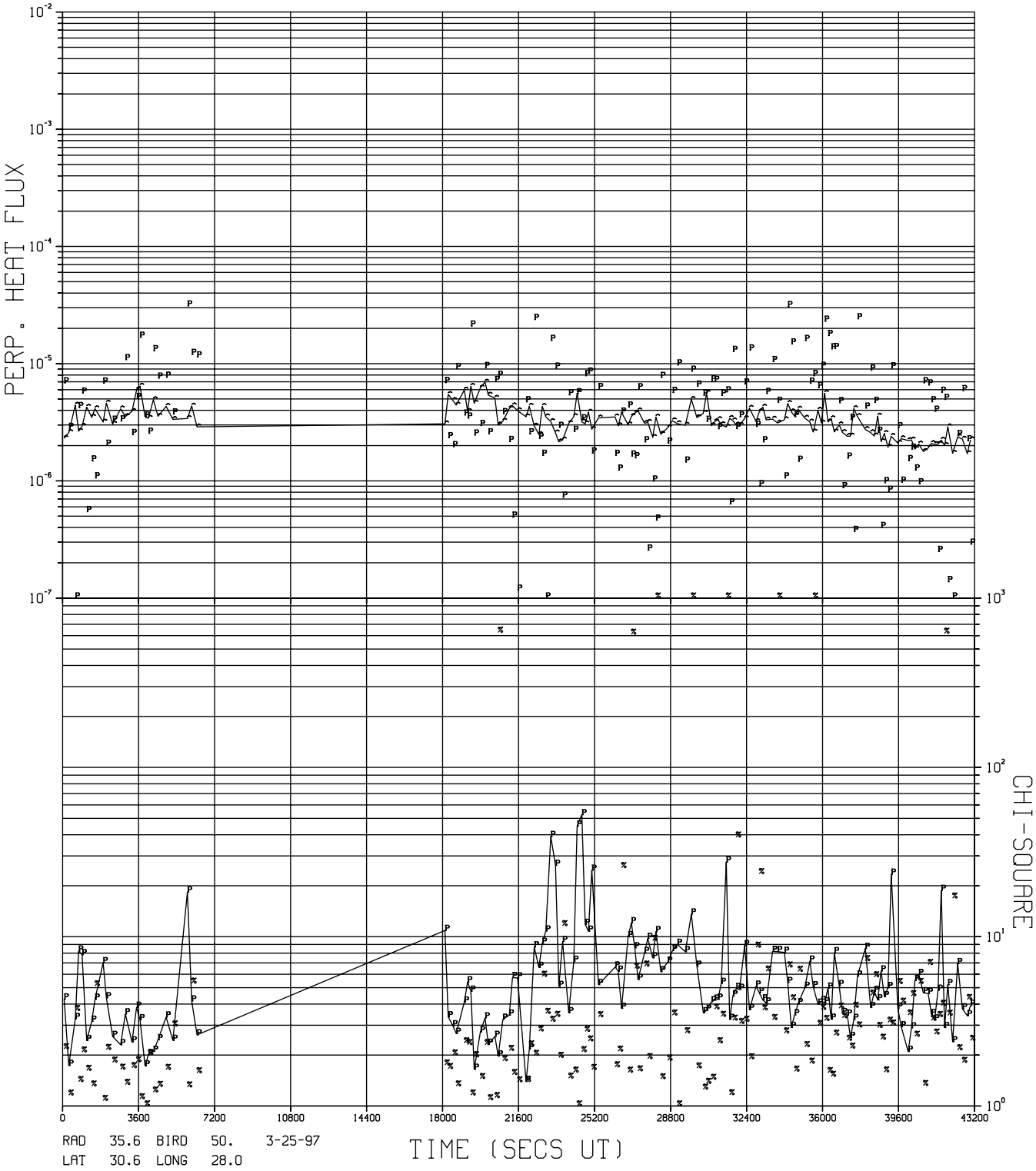

DENSITY
DENSITY RATIO
TIME (SECS UT)
RAD 35.6 BIRD 50. 3-25-97
LAT 30.6 LONG 28.0

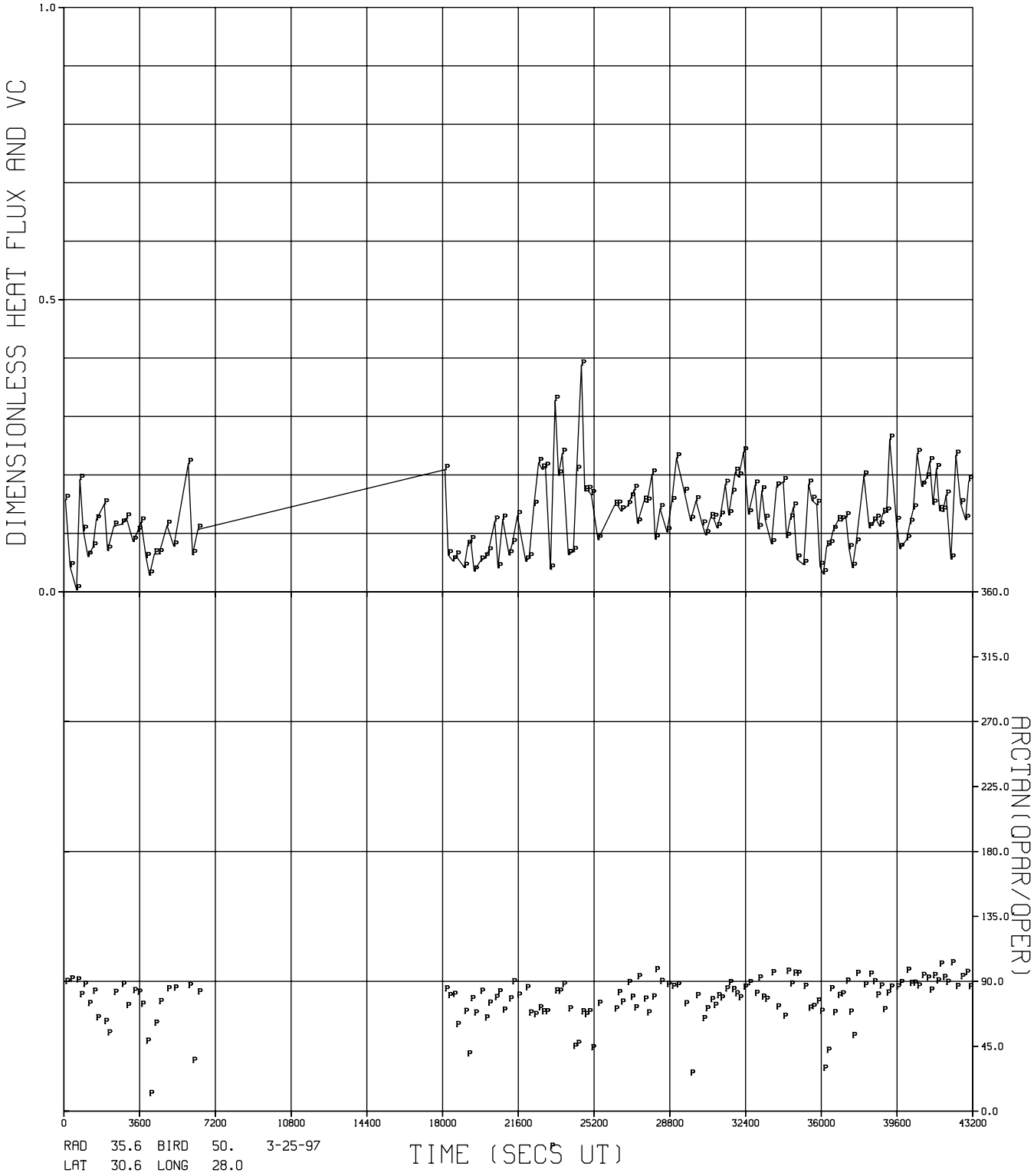

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 35.6 BIRD 50. 3-25-97
LAT 30.6 LONG 28.0
TIME (SECS UT)

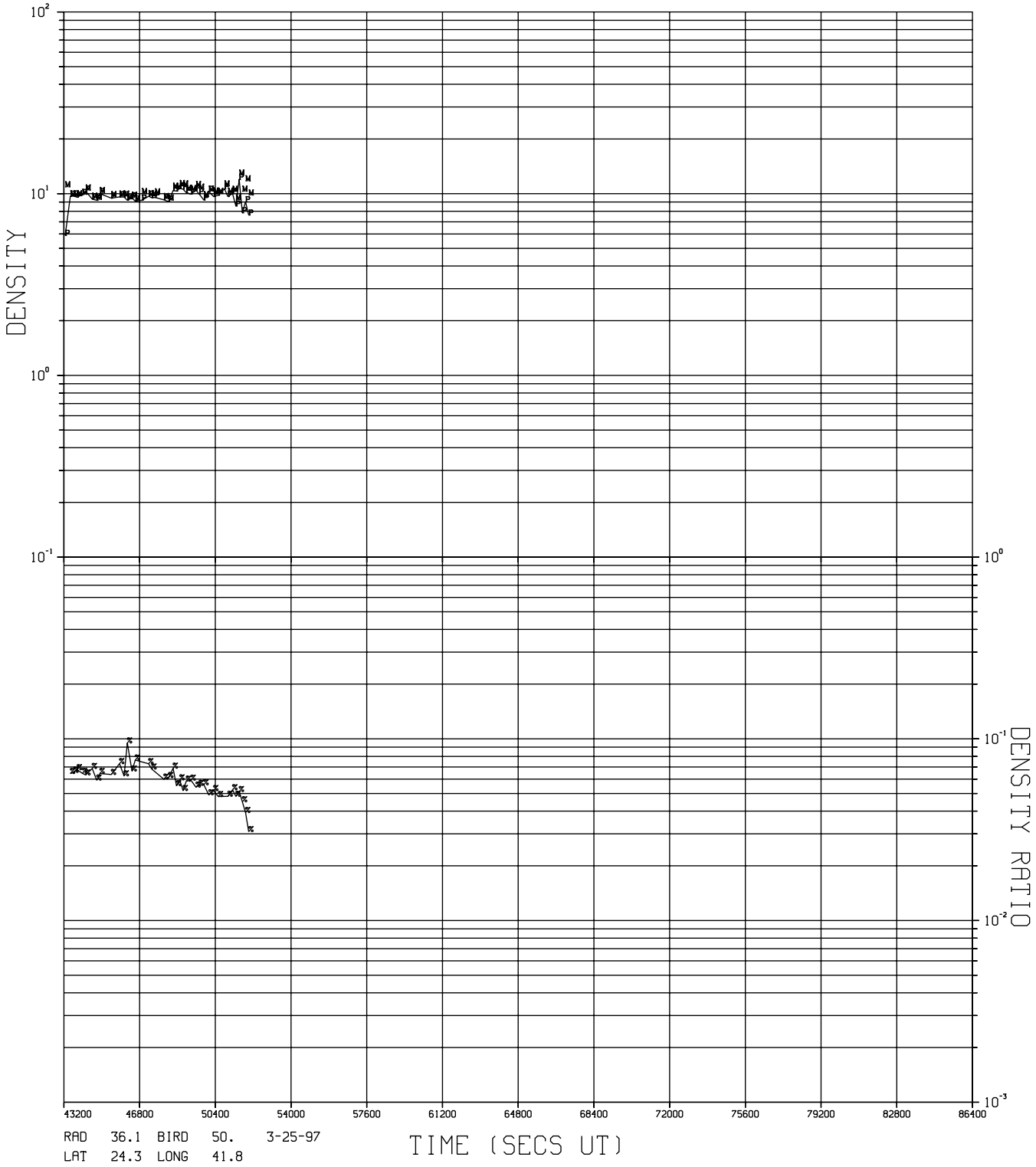

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 35.6 BIRD 50. 3-25-97
LAT 30.6 LONG 28.0

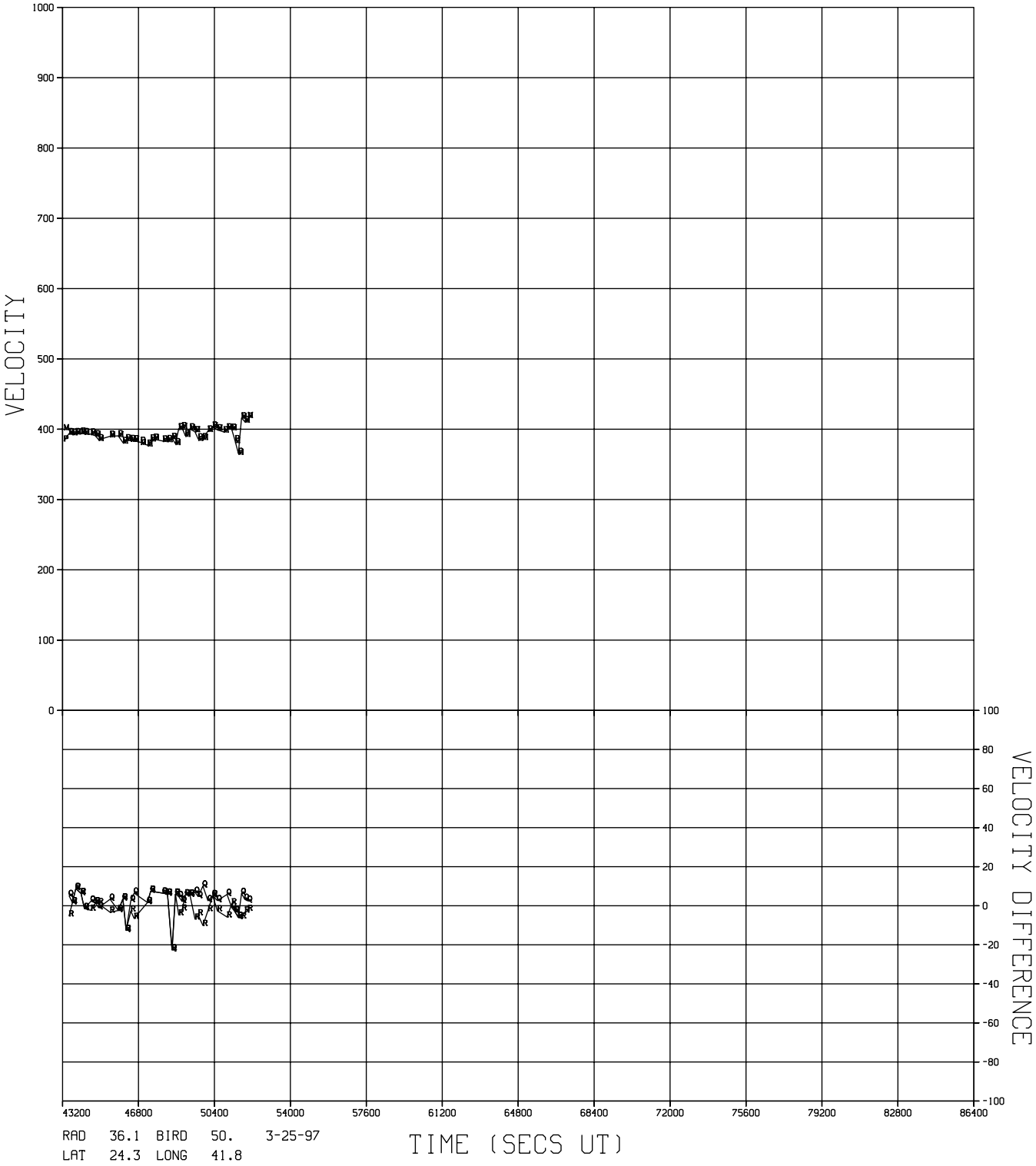

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 35.6 BIRD 50. 3-25-97
LAT 30.6 LONG 28.0
TIME (SECS UT)

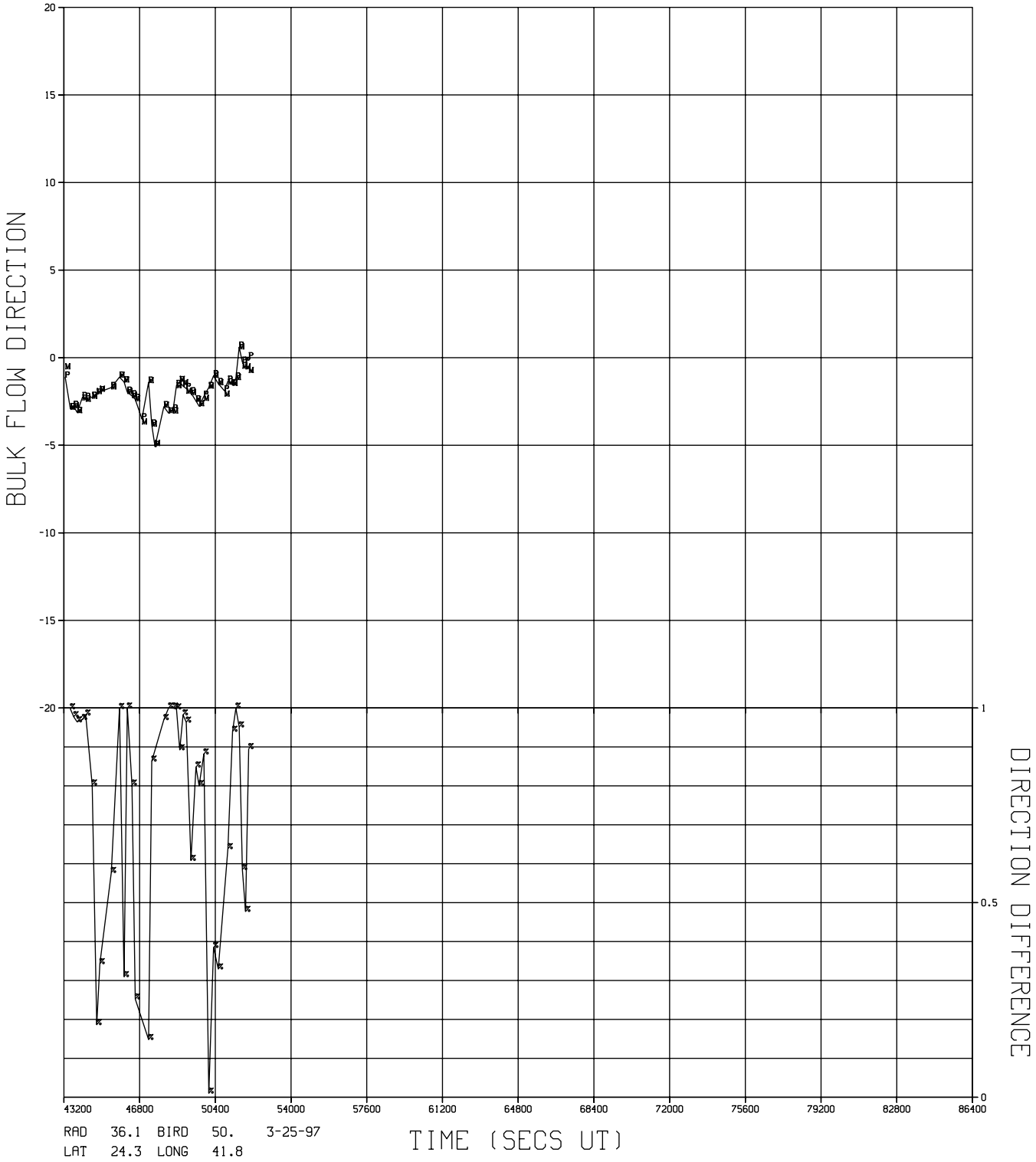

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 35.6 BIRD 50. 3-25-97
LAT 30.6 LONG 28.0

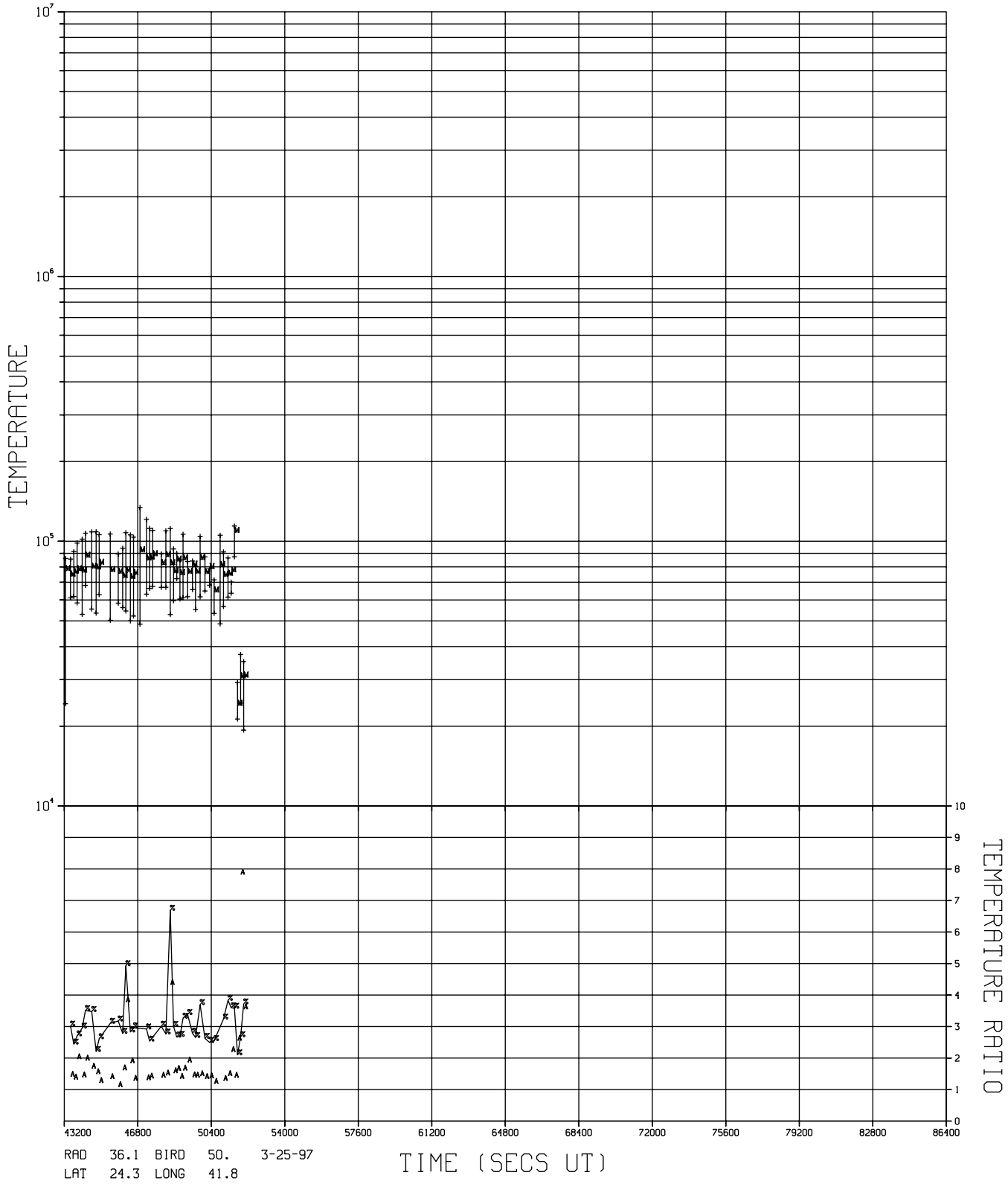

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 35.6 BIRD 50. 3-25-97
LAT 30.6 LONG 28.0

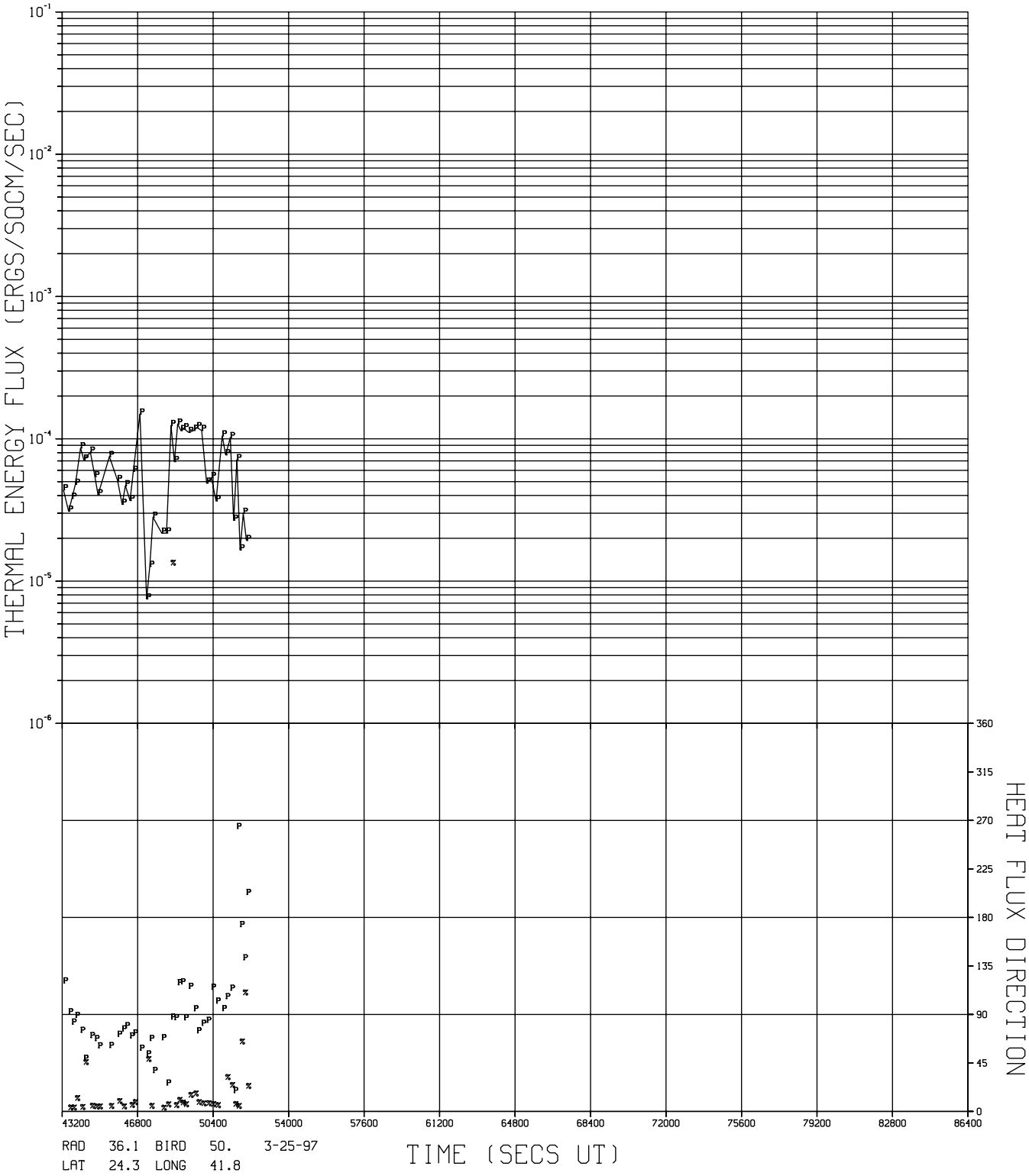

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 35.6 BIRD 50. 3-25-97
LAT 30.6 LONG 28.0

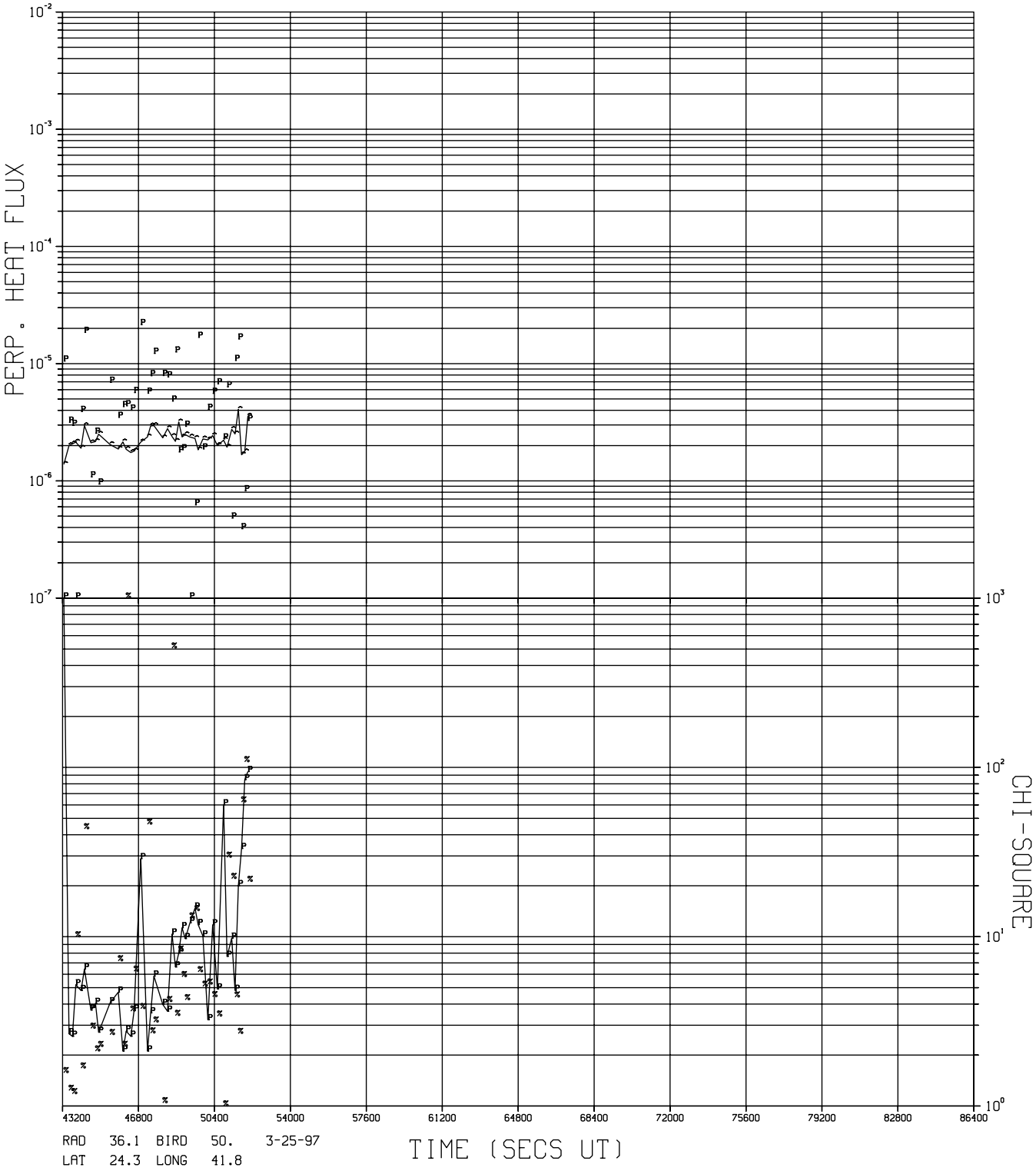

DENSITY
DENSITY RATIO
TIME (SECS UT)
10^2
10^1
10^0
10^{-1}
10^{-2}
10^{-3}
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.1 BIRD 50. 3-25-97
LAT 24.3 LONG 41.8

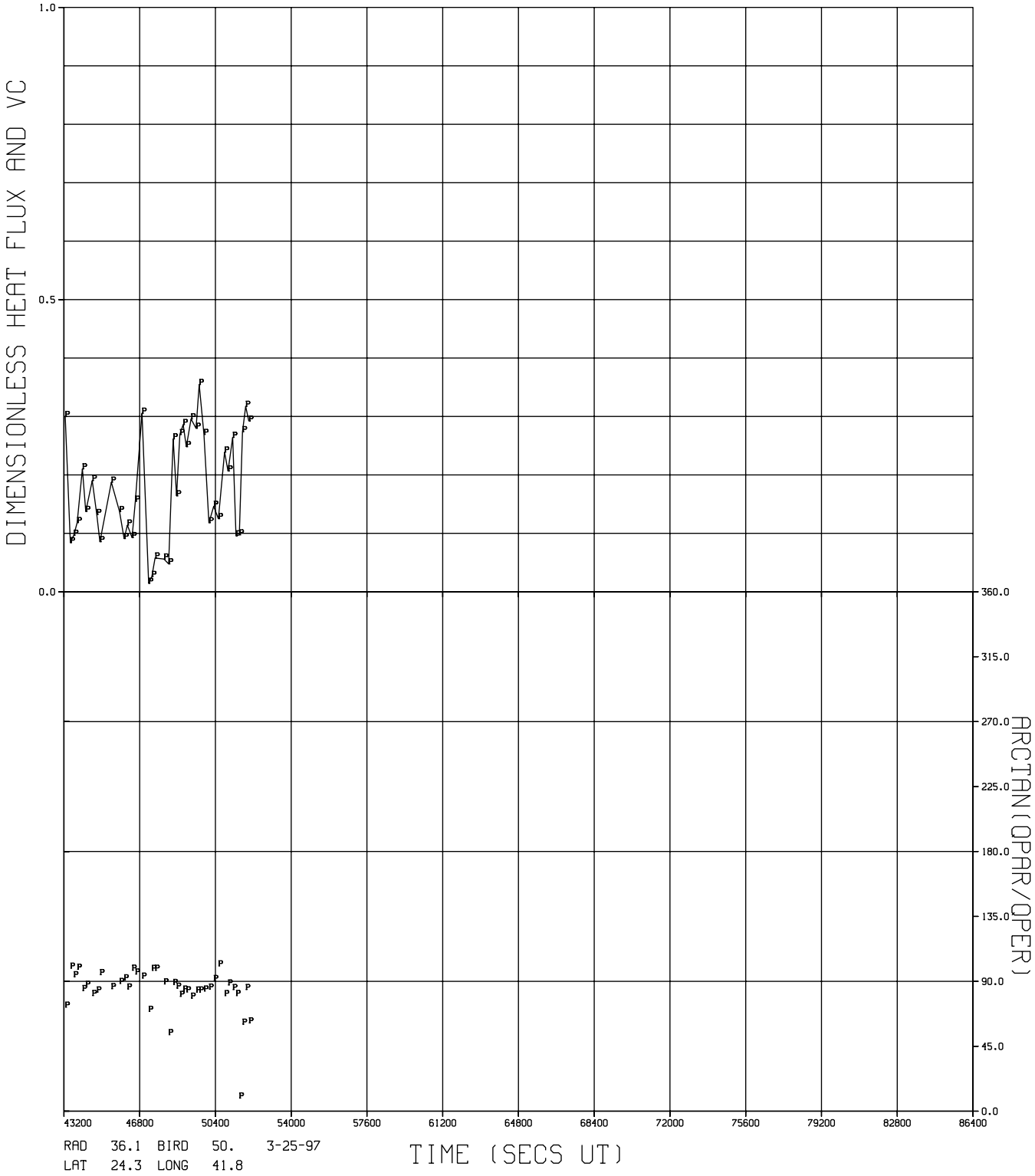

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.1 BIRD 50. 3-25-97
LAT 24.3 LONG 41.8


BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.1 BIRD 50. 3-25-97
LAT 24.3 LONG 41.8


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 36.1 BIRD 50. 3-25-97
LAT 24.3 LONG 41.8


THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 36.1 BIRD 50. 3-25-97
LAT 24.3 LONG 41.8


PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.1 BIRD 50. 3-25-97
LAT 24.3 LONG 41.8


DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.1 BIRD 50. 3-25-97
LAT 24.3 LONG 41.8