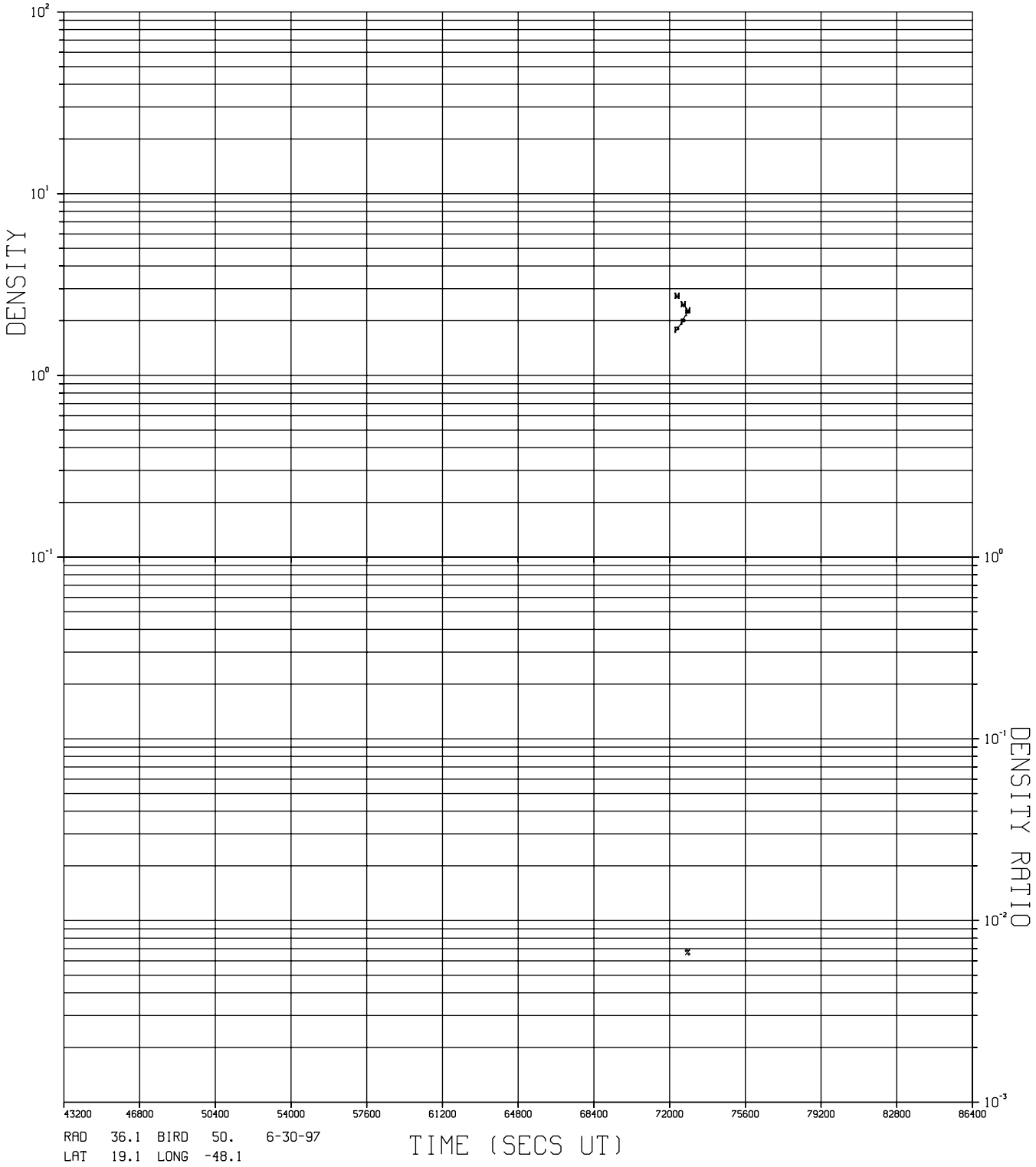
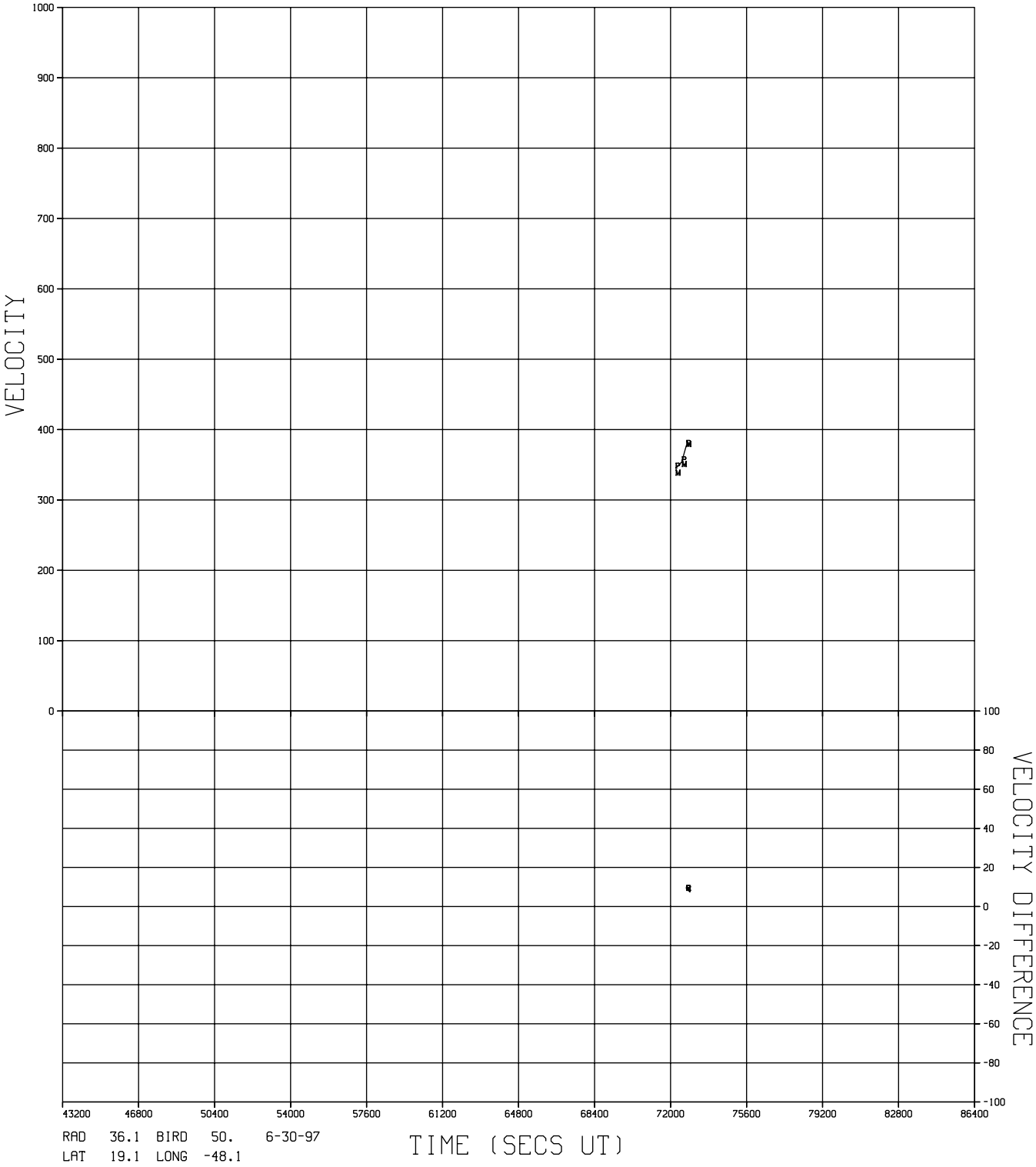
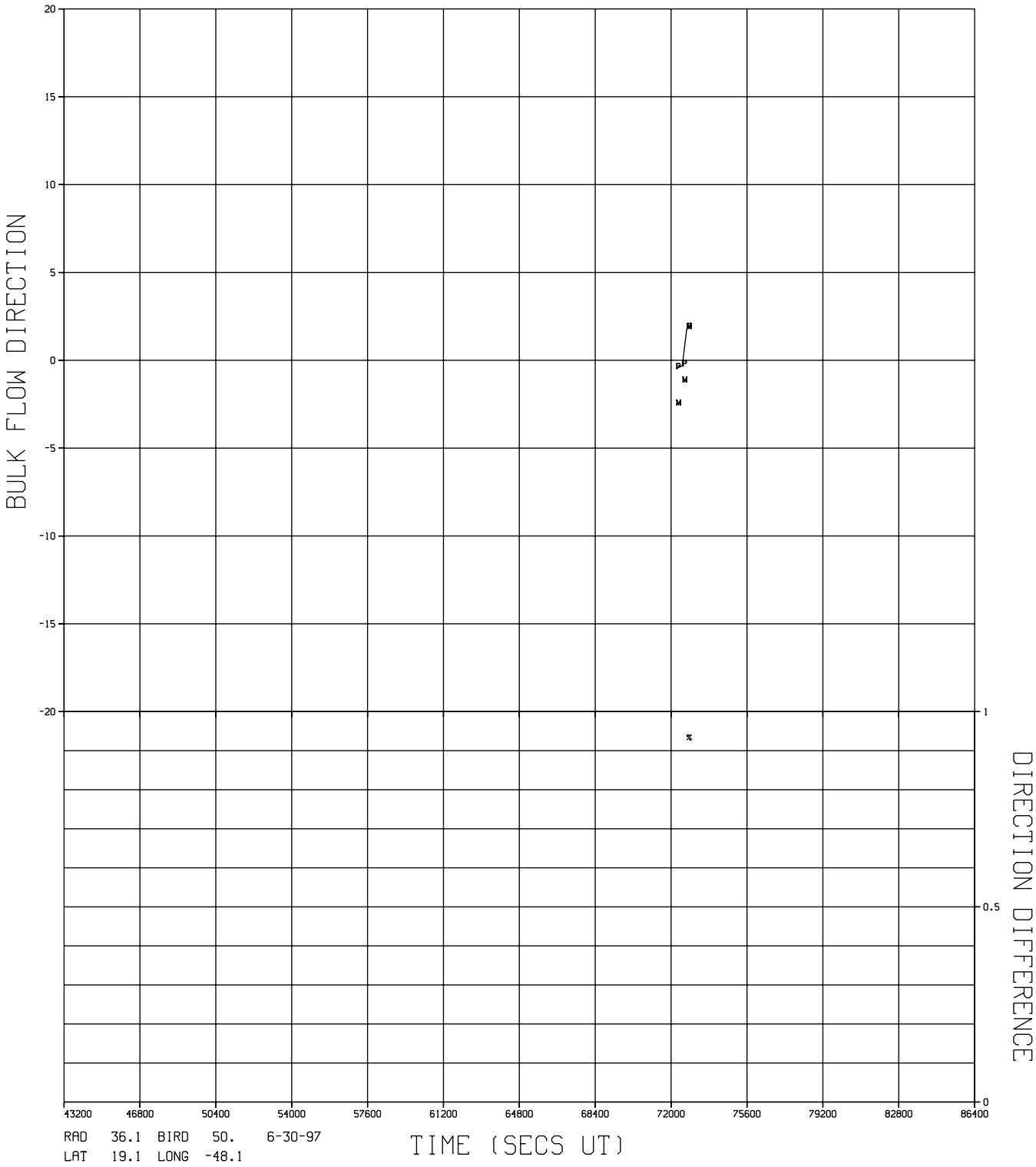
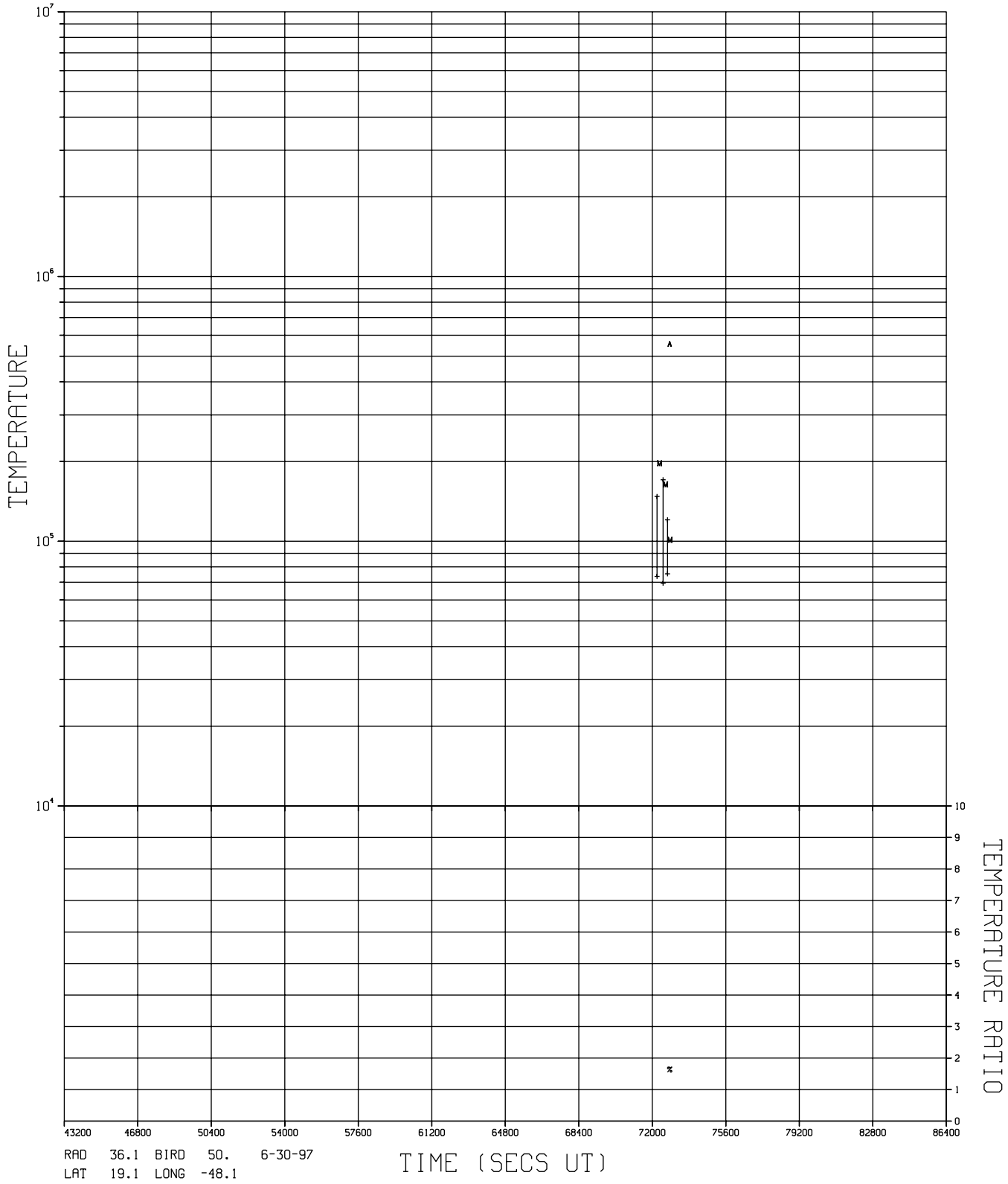
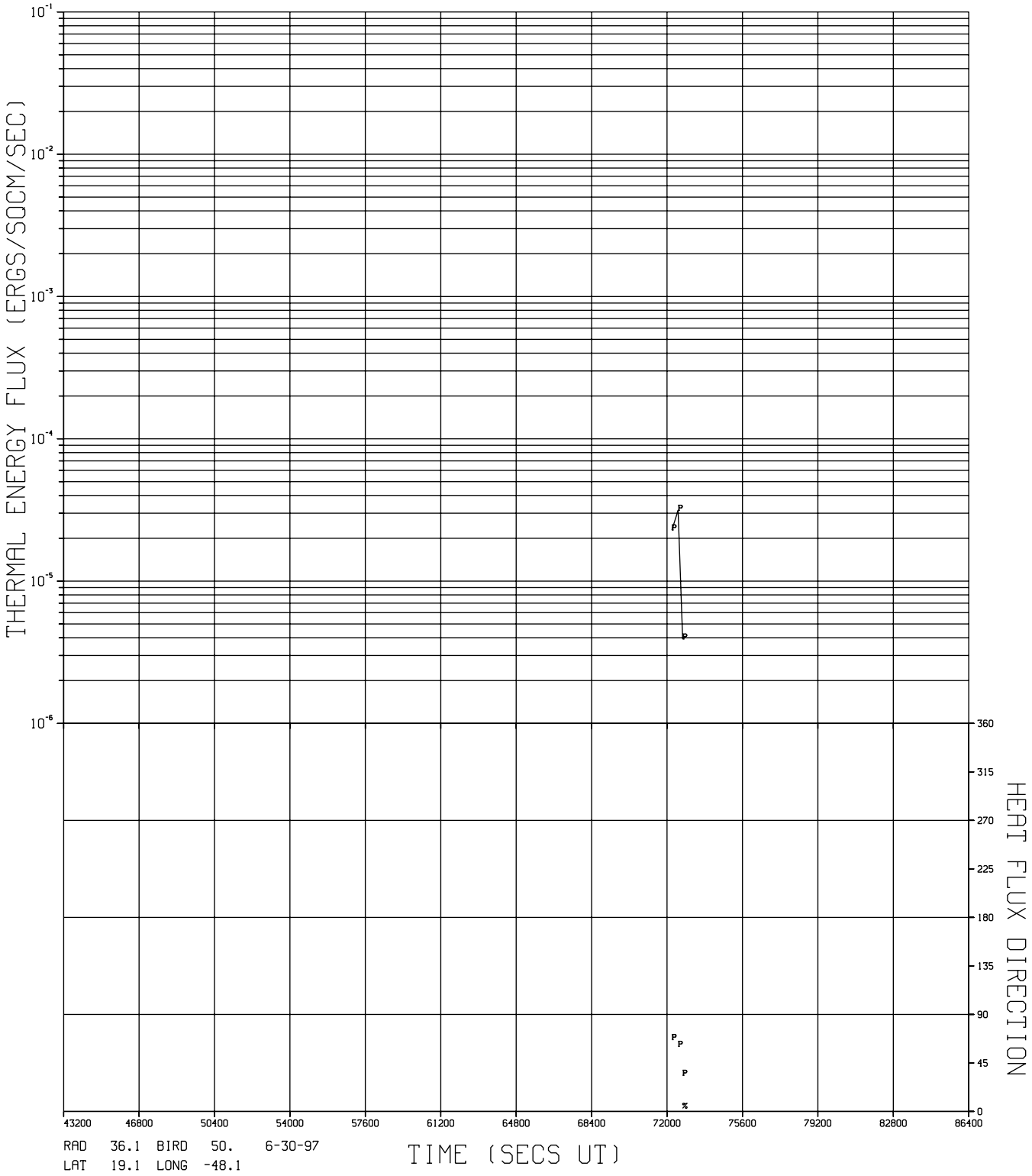
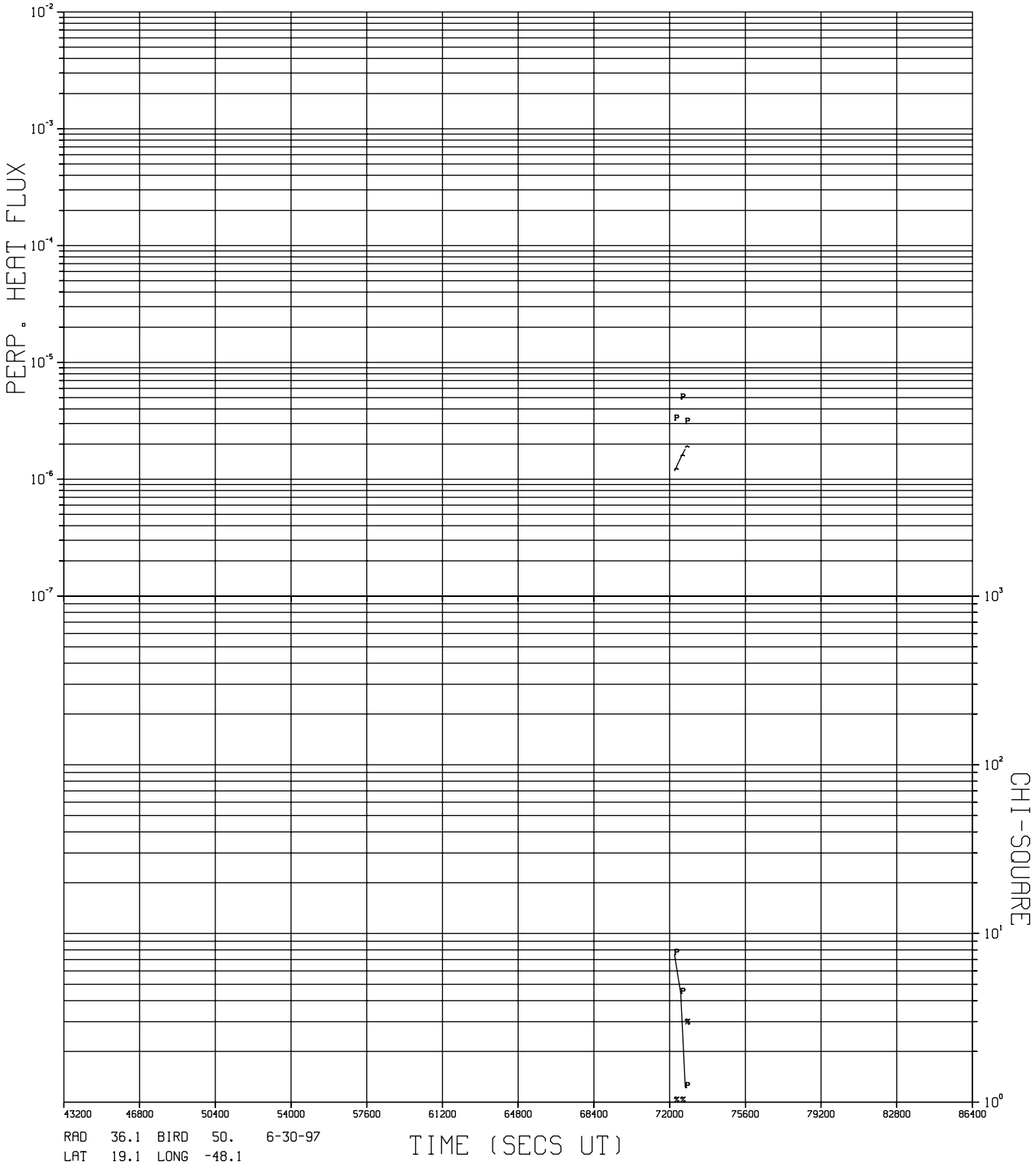

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.1 BIRD 50. 6-30-97
LAT 19.1 LONG -48.1

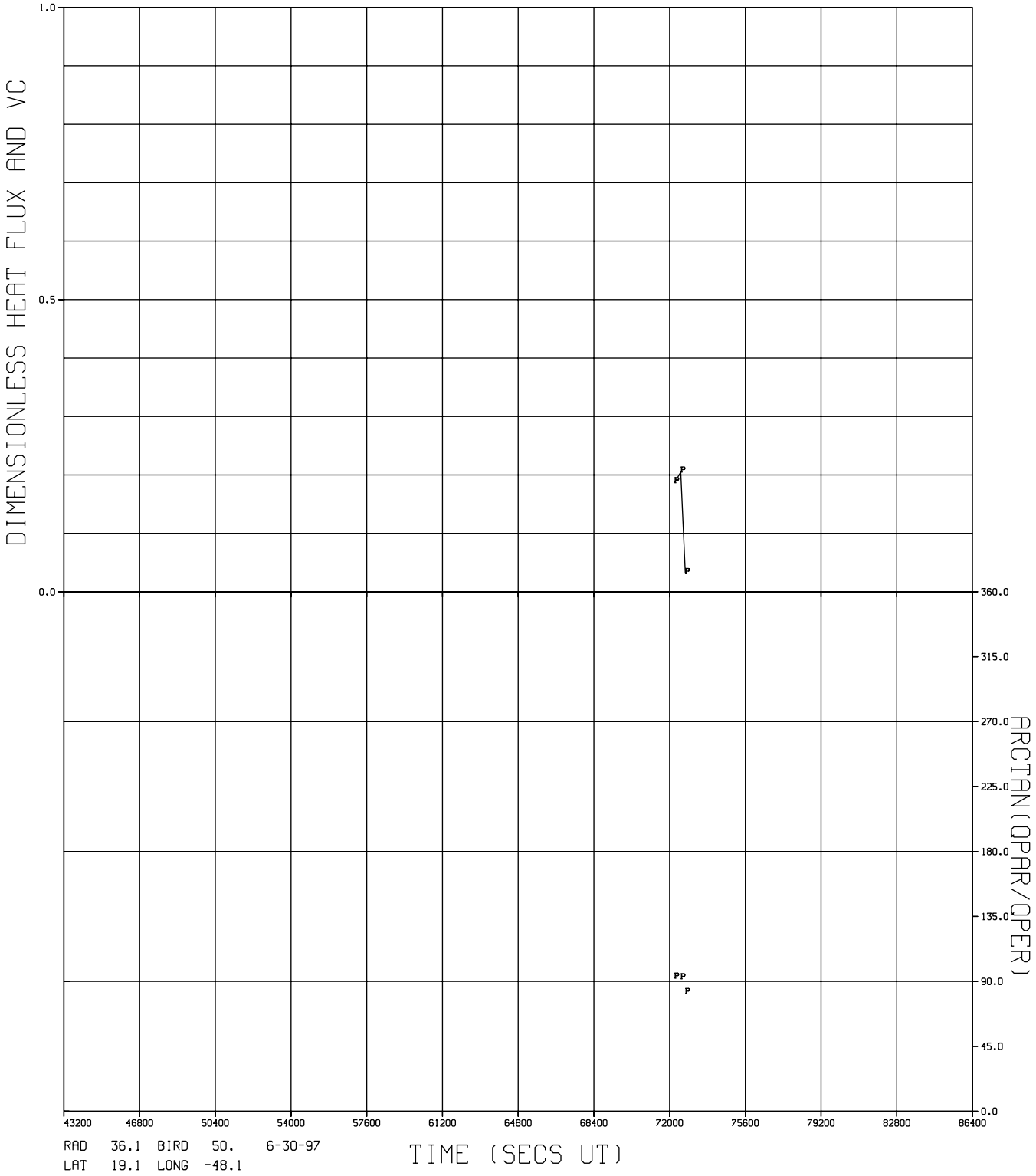

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.1 BIRD 50. 6-30-97
LAT 19.1 LONG -48.1

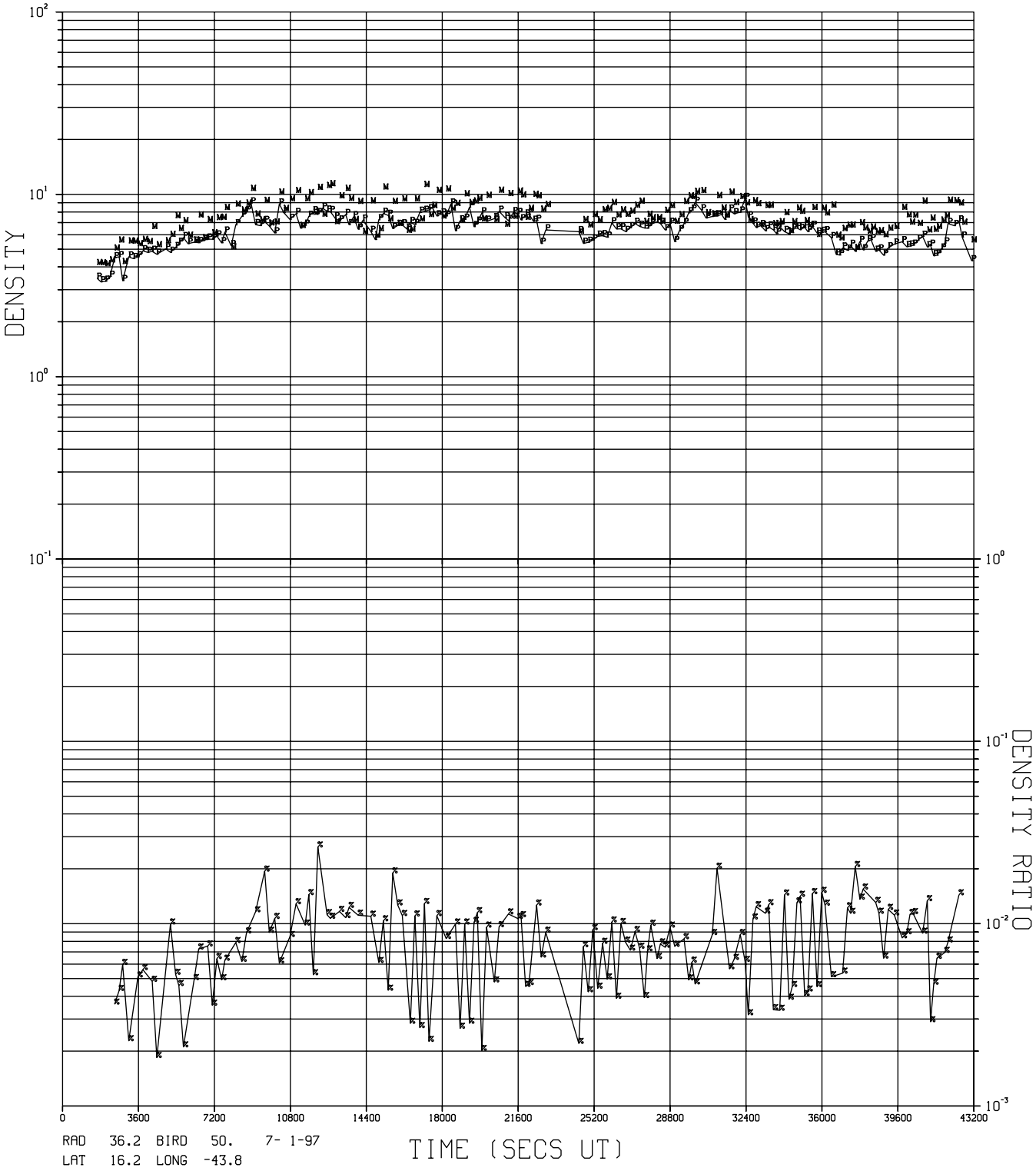

BULK FLOW DIRECTION
20
15
10
5
0
-5
-10
-15
-20
DIRECTION DIFFERENCE
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.1 BIRD 50. 6-30-97
LAT 19.1 LONG -48.1

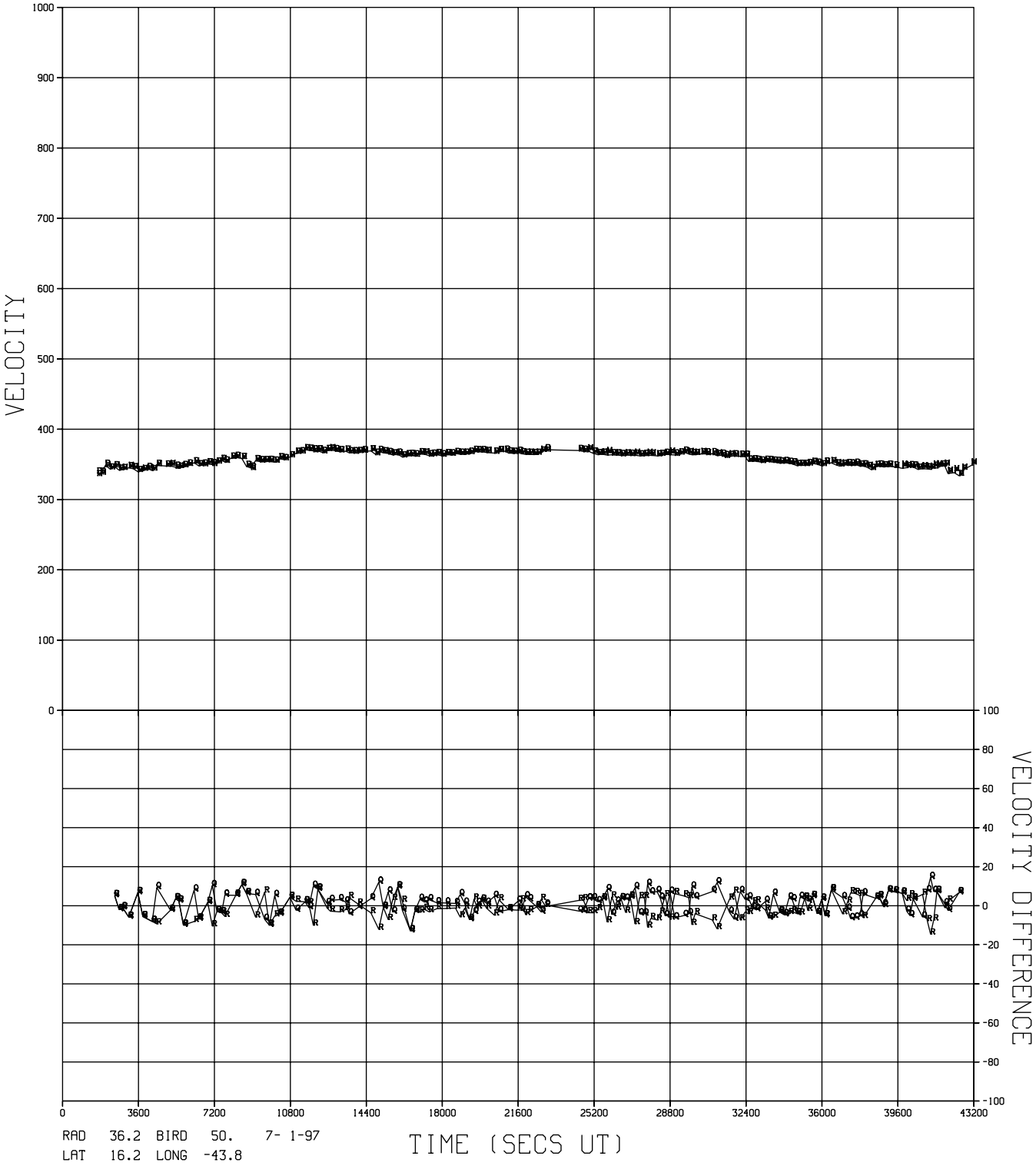

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.1 BIRD 50. 6-30-97
LAT 19.1 LONG -48.1

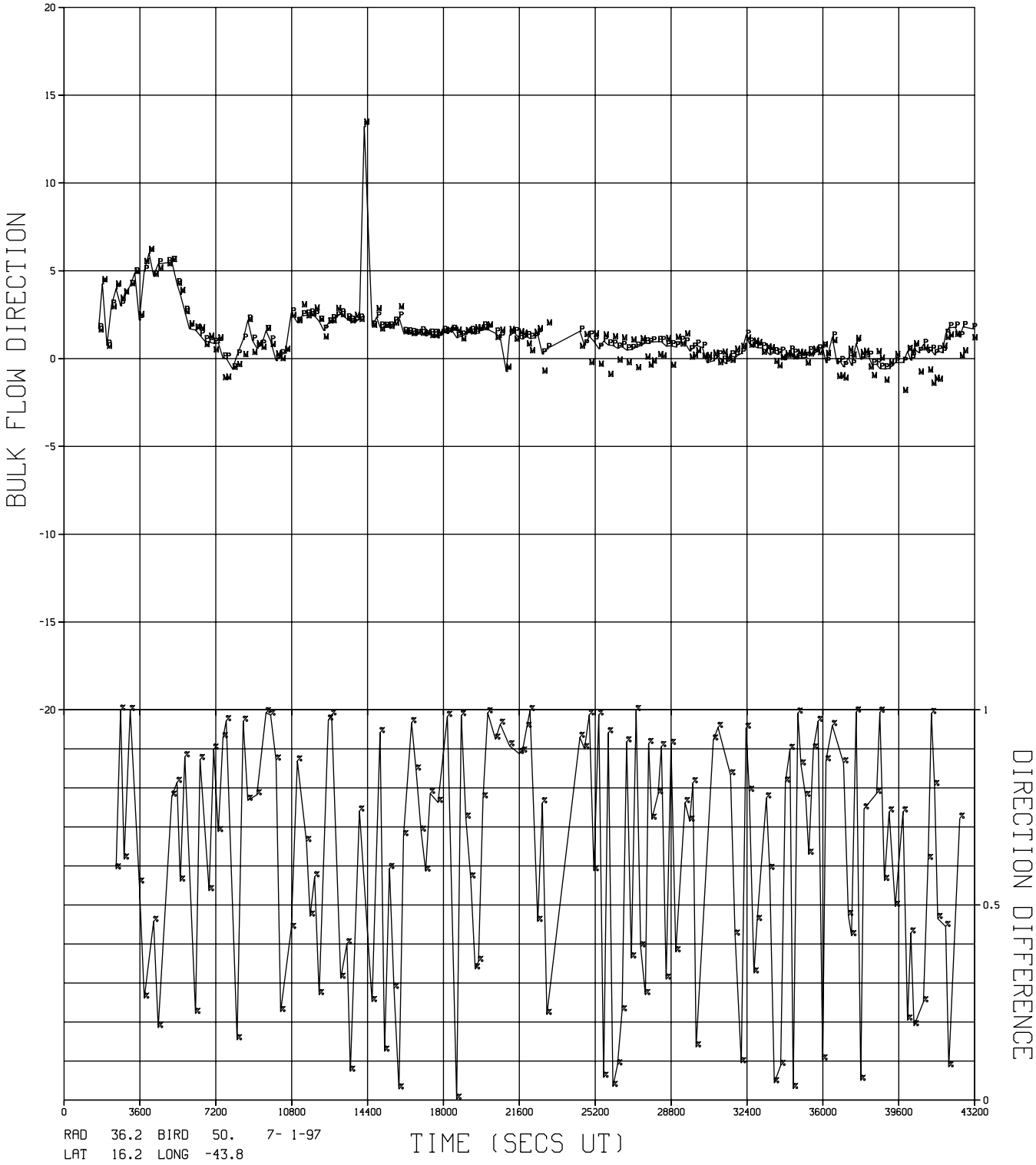

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
HEAT FLUX DIRECTION
360
315
270
225
180
135
90
45
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.1 BIRD 50. 6-30-97
LAT 19.1 LONG -48.1

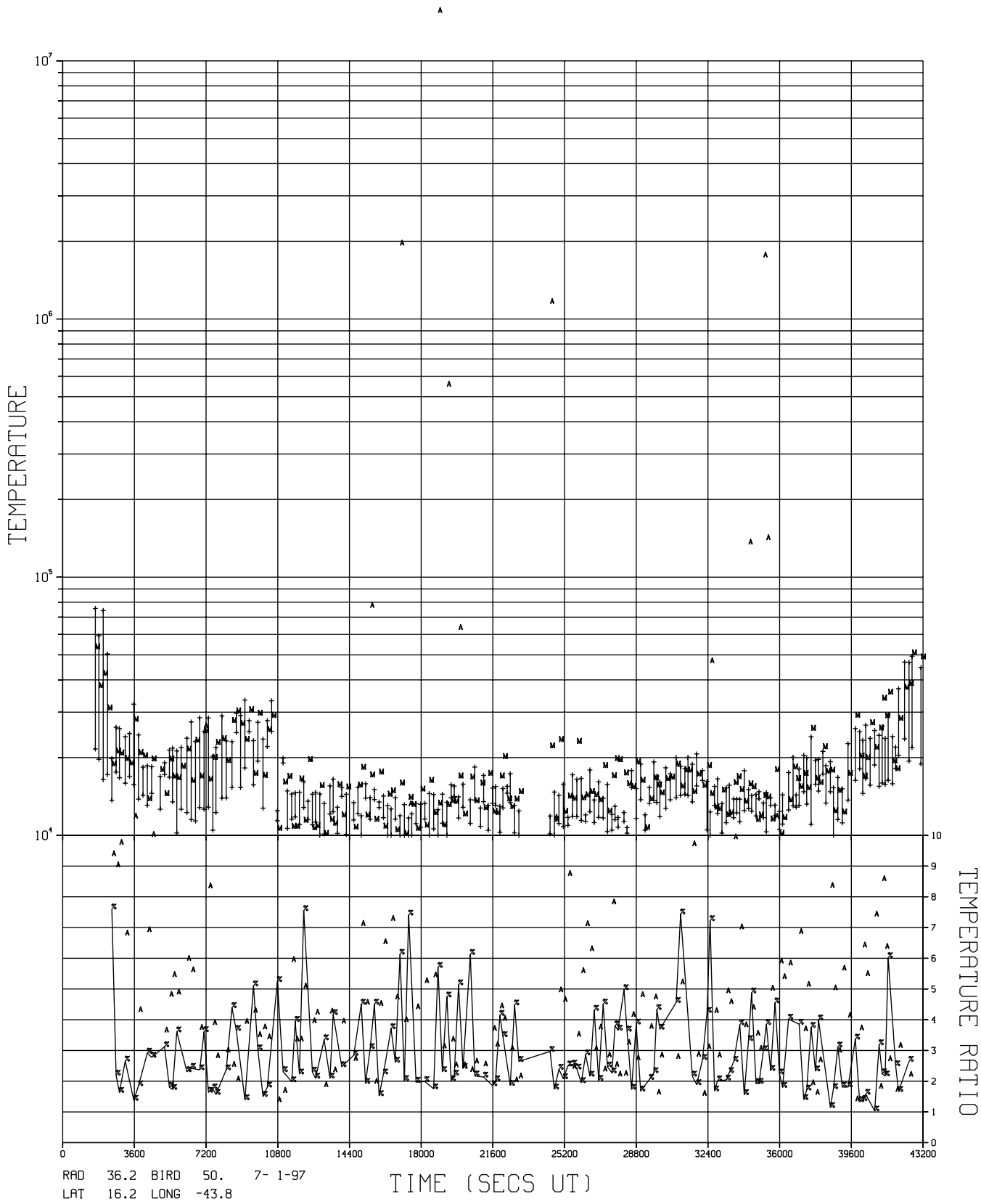

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.1 BIRD 50. 6-30-97
LAT 19.1 LONG -48.1

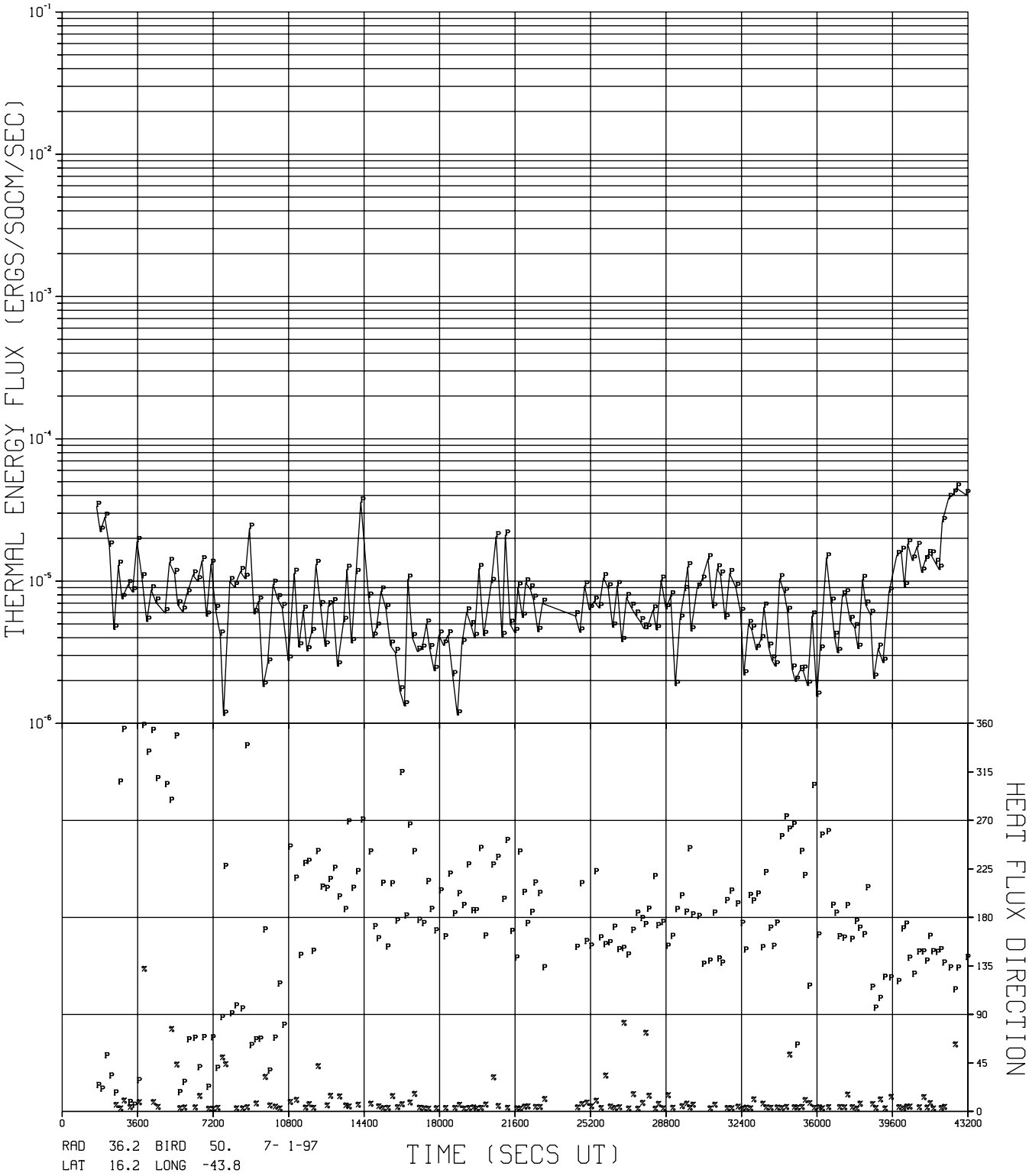

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.1 BIRD 50. 6-30-97
LAT 19.1 LONG -48.1

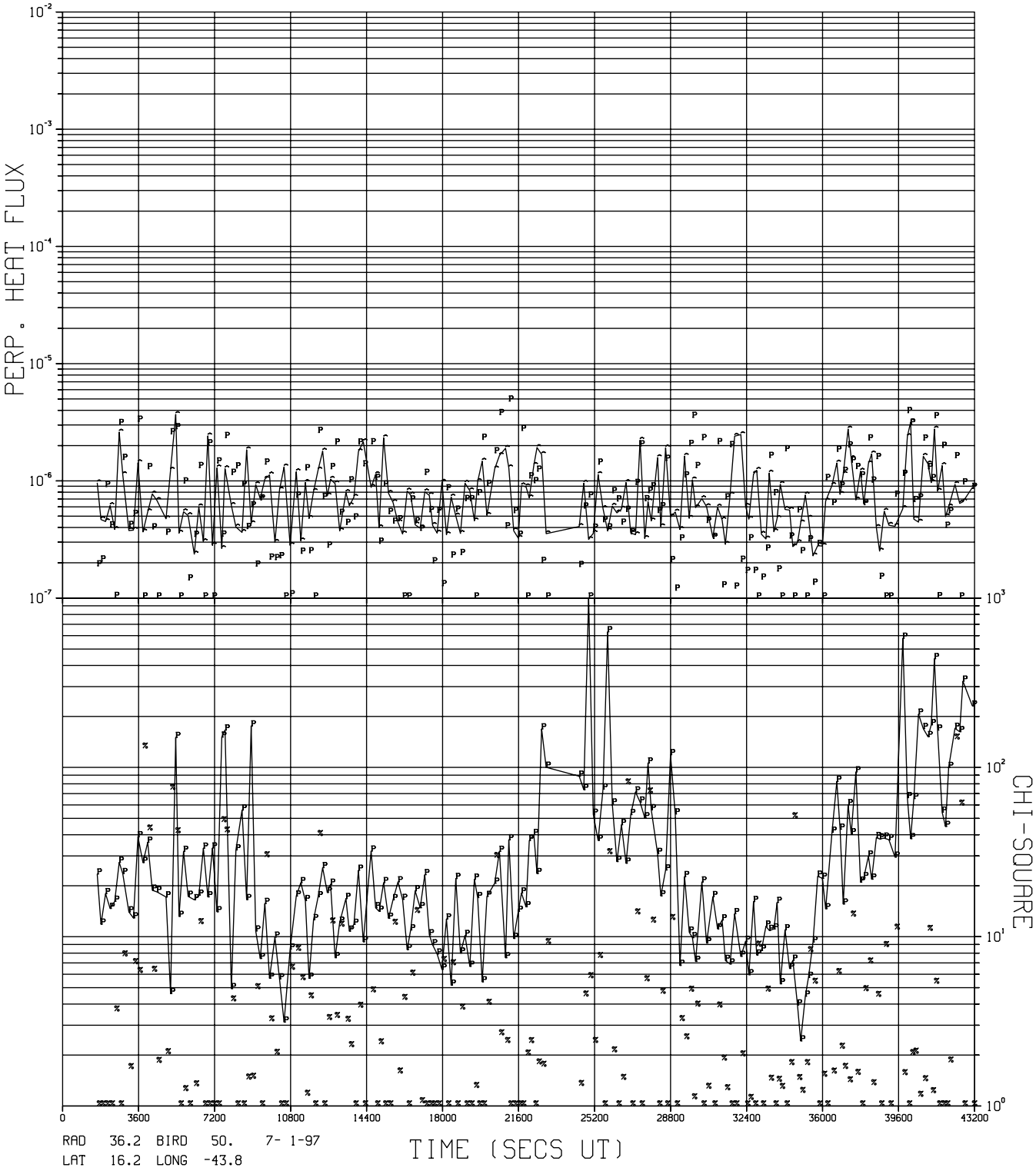

DENSITY
DENSITY RATIO
TIME (SECS UT)
RAD 36.2 BIRD 50. 7- 1-97
LAT 16.2 LONG -43.8

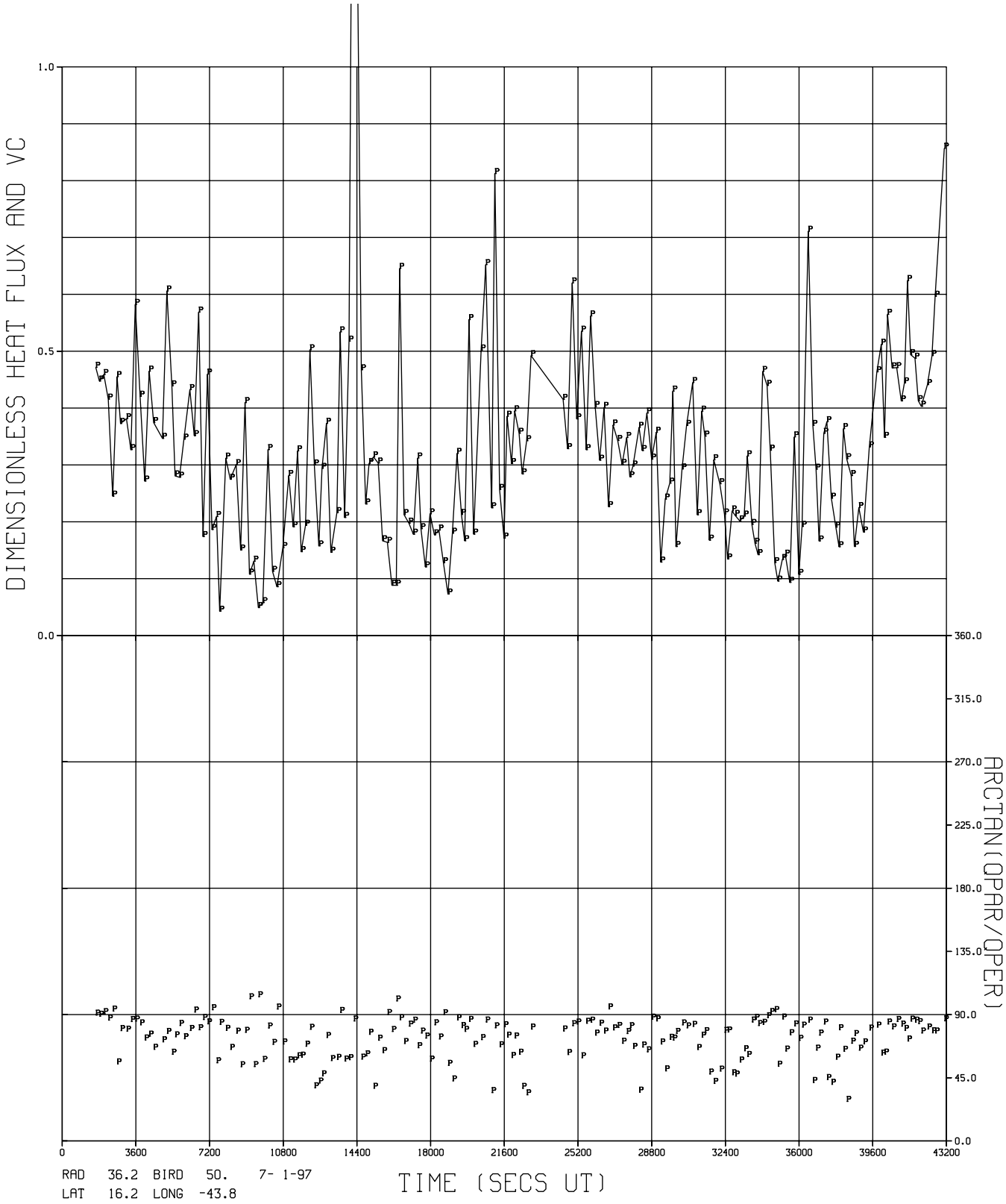

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 36.2 BIRD 50. 7- 1-97
LAT 16.2 LONG -43.8
TIME (SECS UT)


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 36.2 BIRD 50. 7- 1-97
LAT 16.2 LONG -43.8

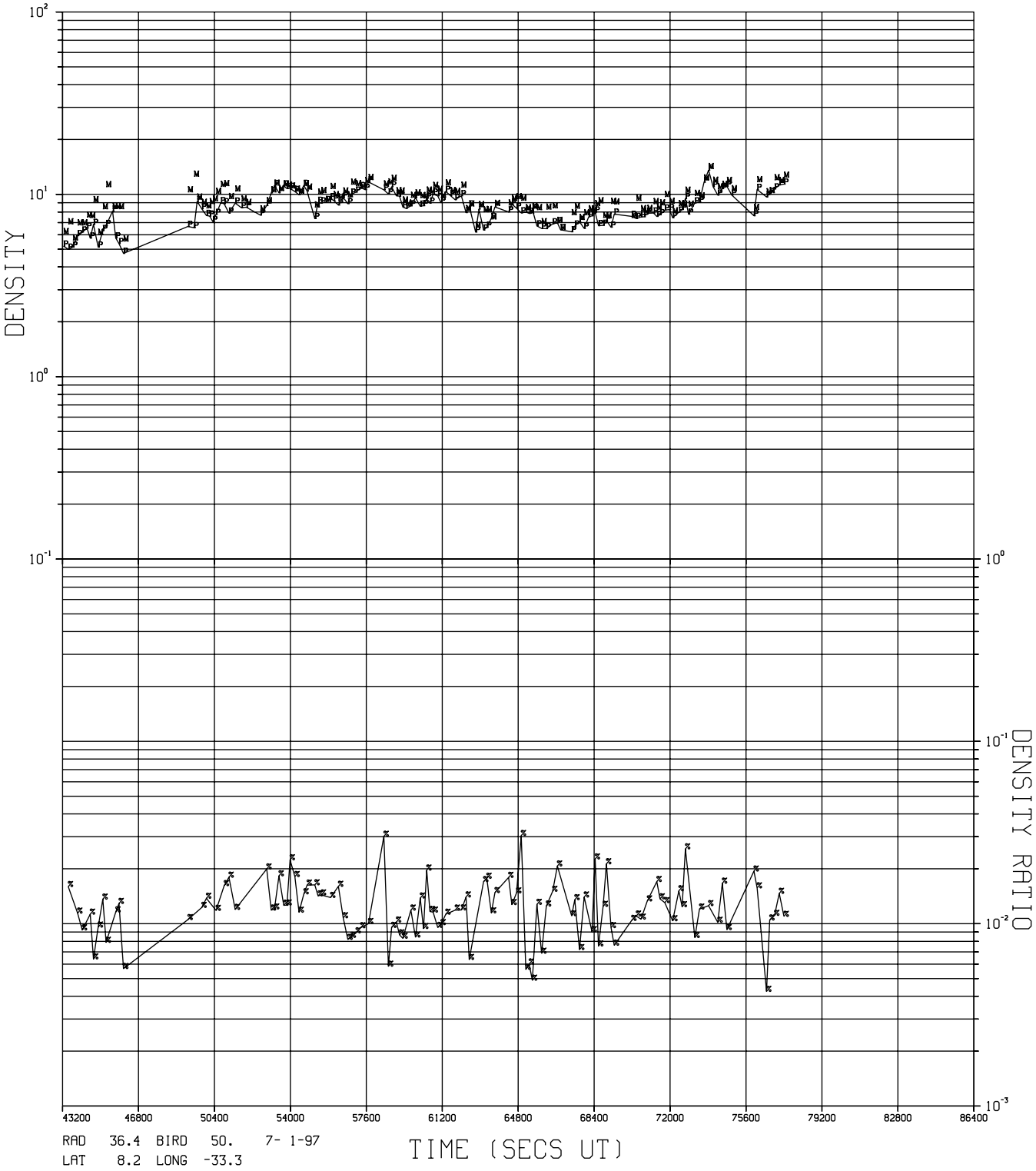

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 36.2 BIRD 50. 7- 1-97
LAT 16.2 LONG -43.8

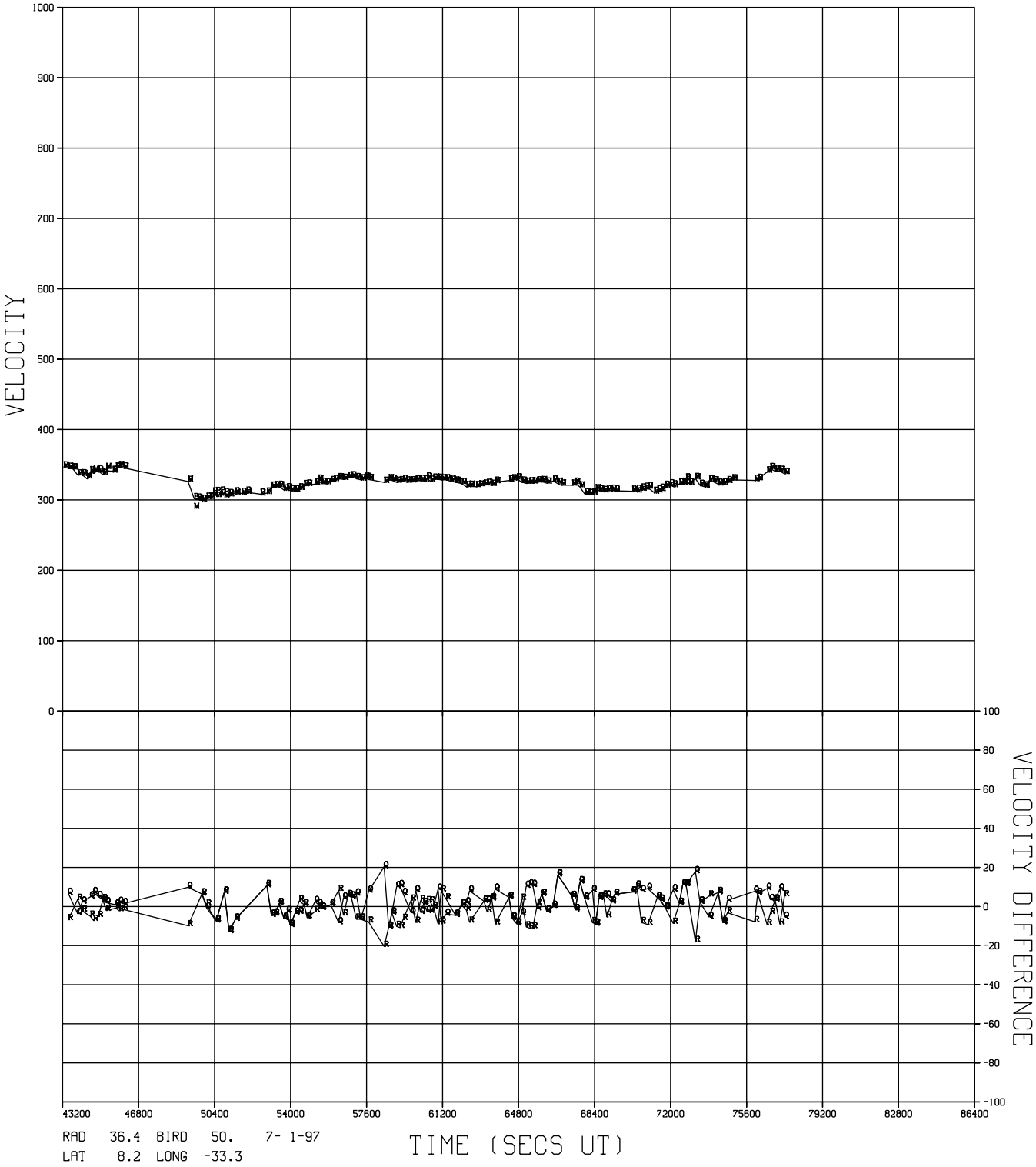

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 36.2 BIRD 50. 7- 1-97
LAT 16.2 LONG -43.8

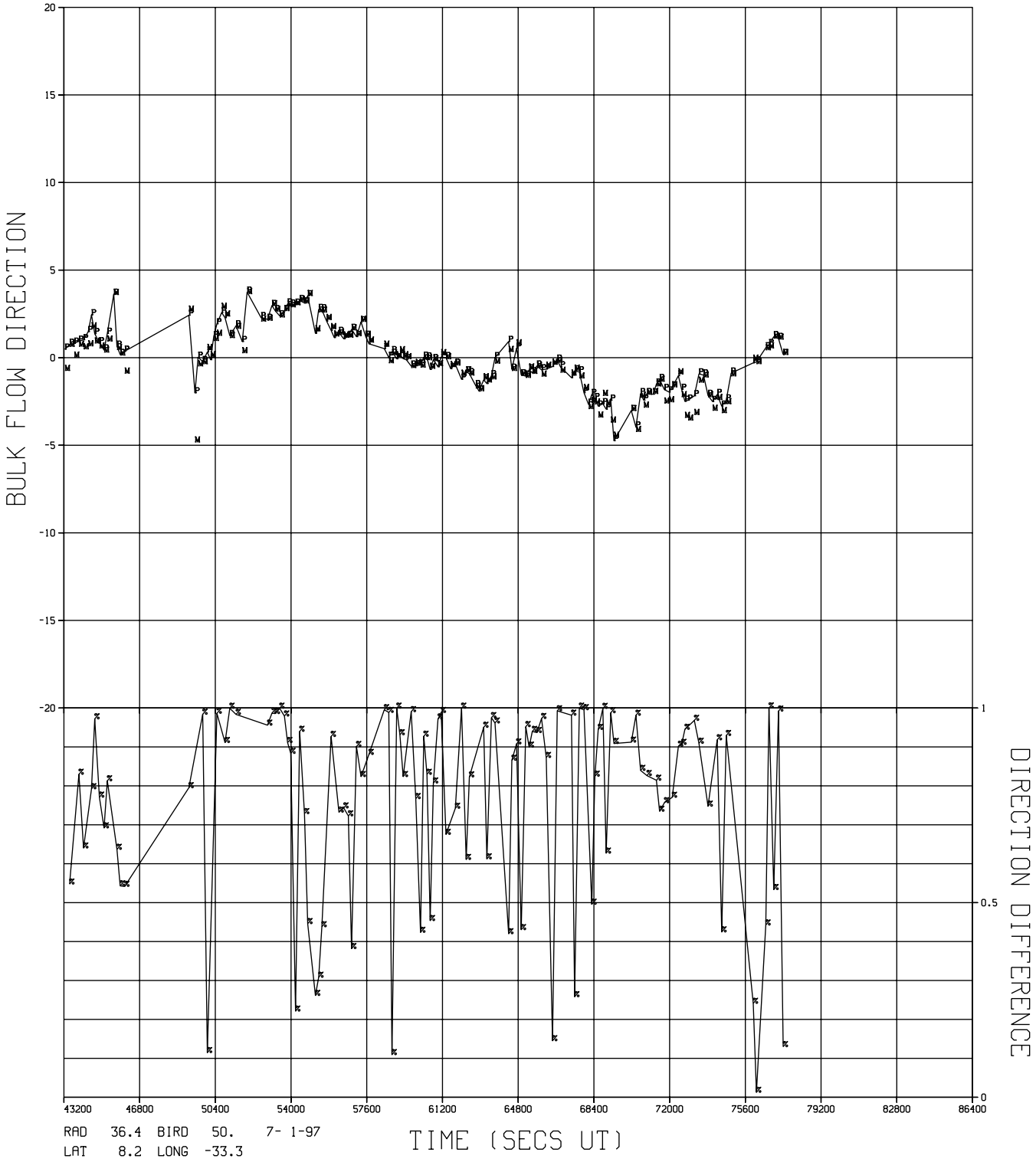

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 36.2 BIRD 50. 7- 1-97
LAT 16.2 LONG -43.8

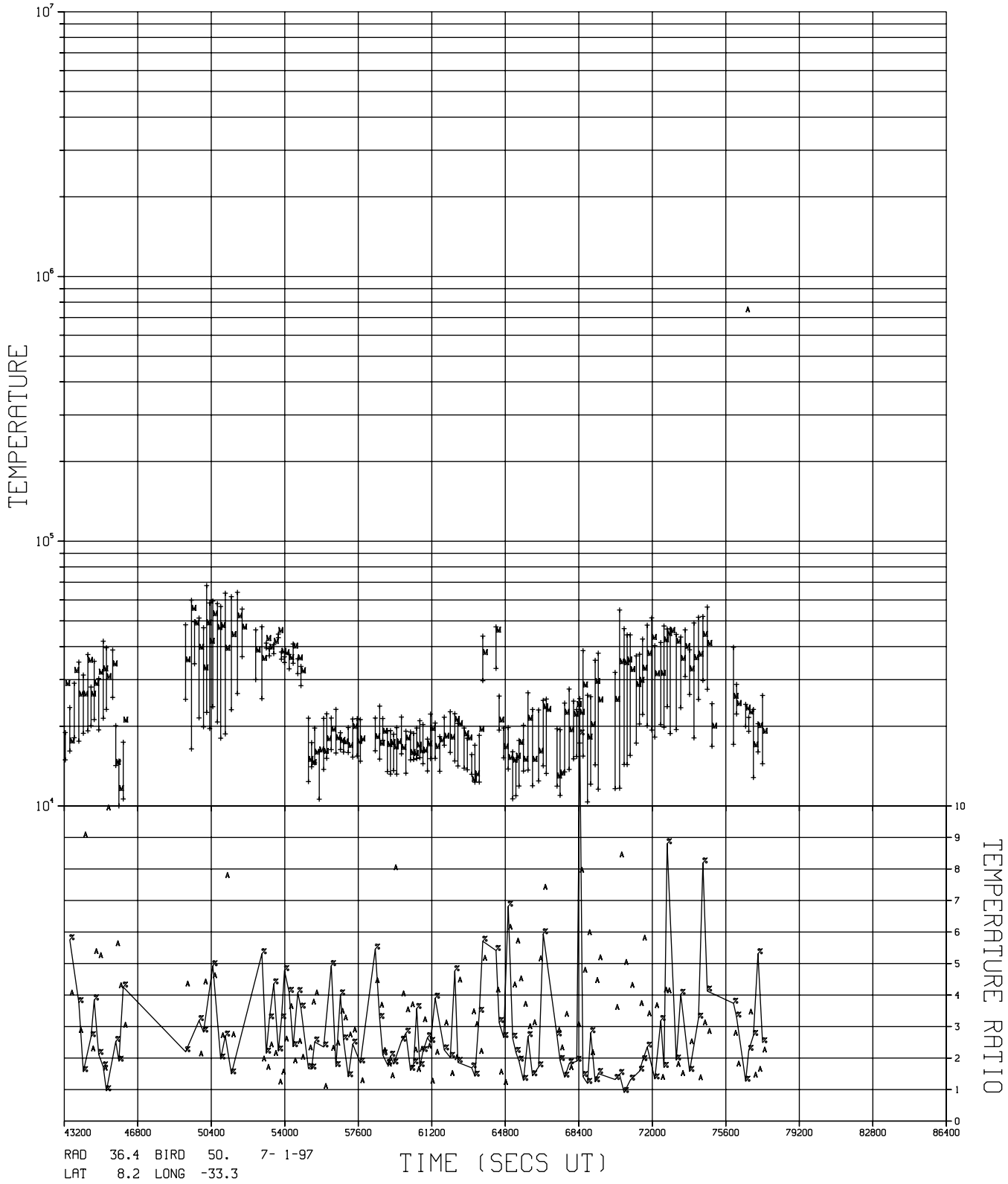


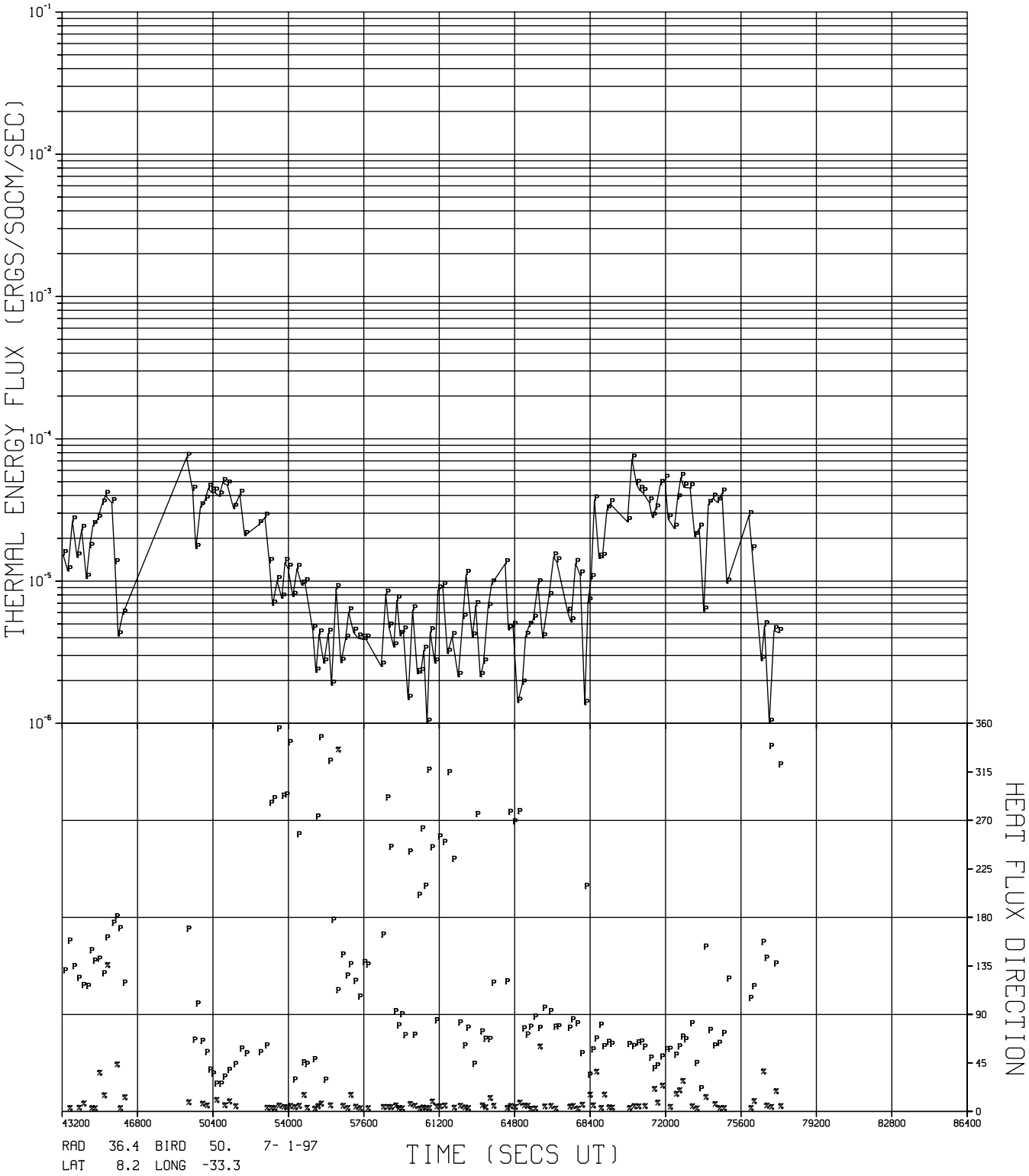
RAD 36.2 BIRD 50. 7- 1-97
LAT 16.2 LONG -43.8

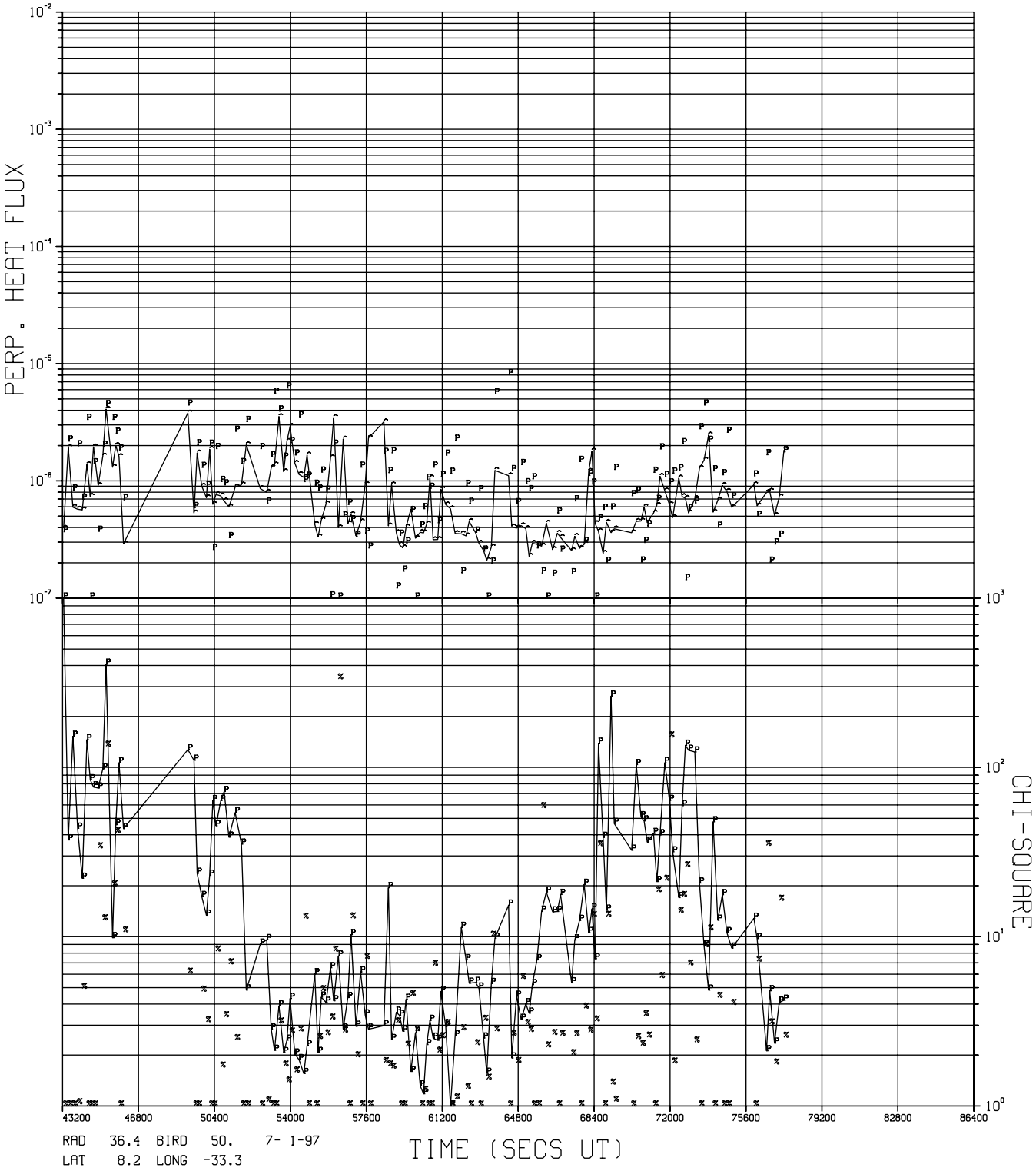

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.4 BIRD 50. 7- 1-97
LAT 8.2 LONG -33.3

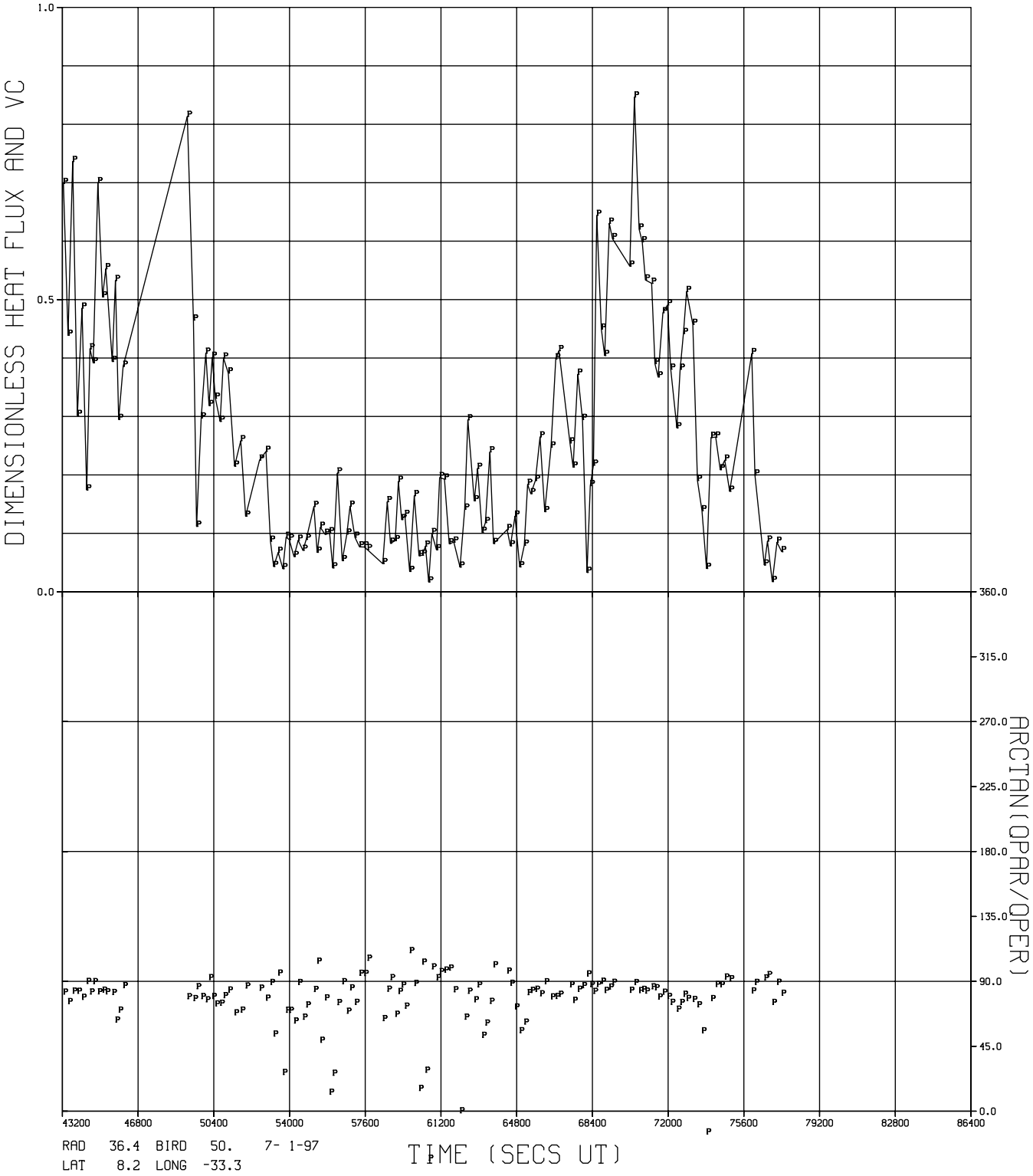

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 36.4 BIRD 50. 7- 1-97
LAT 8.2 LONG -33.3

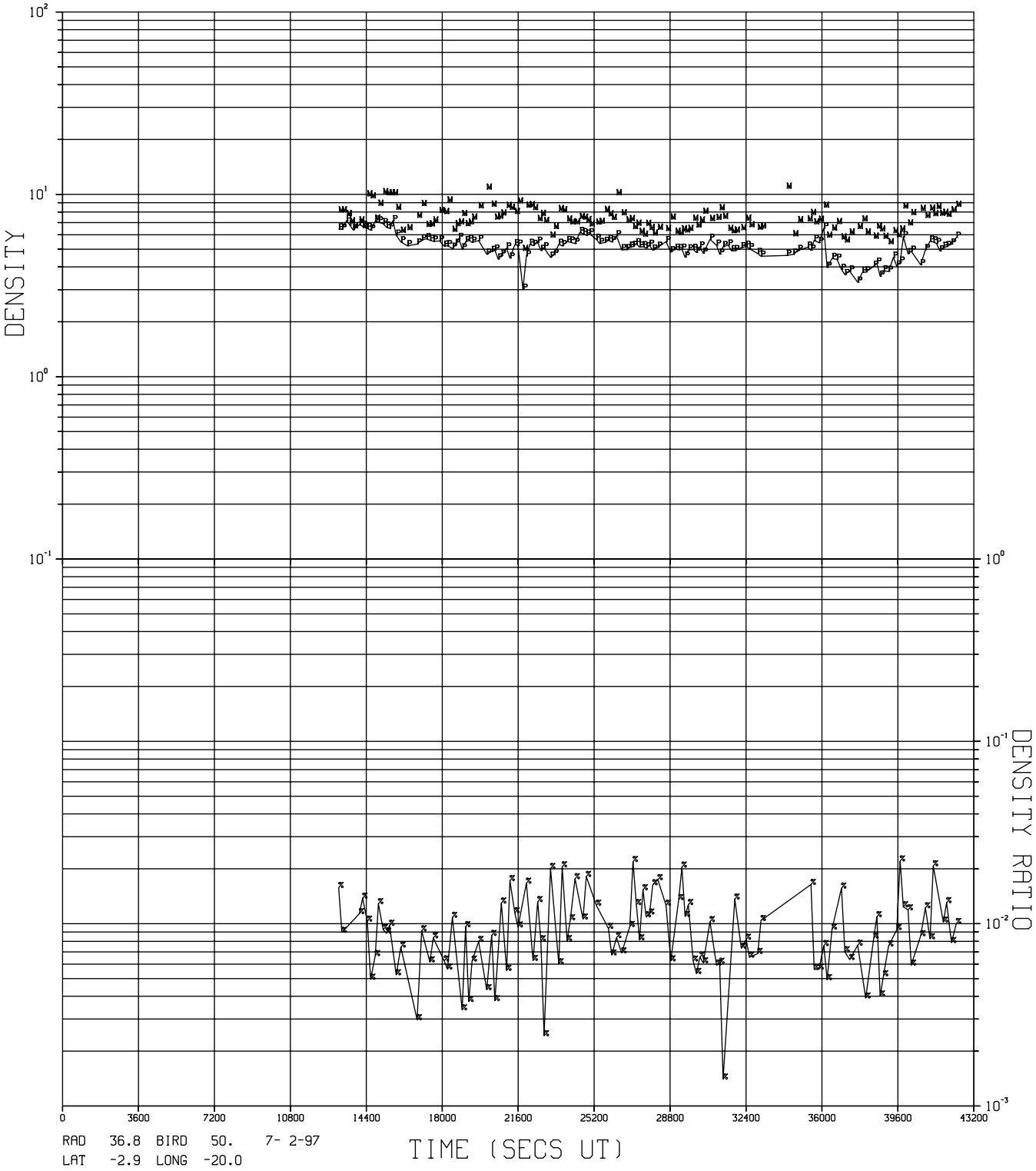

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.4 BIRD 50. 7- 1-97
LAT 8.2 LONG -33.3

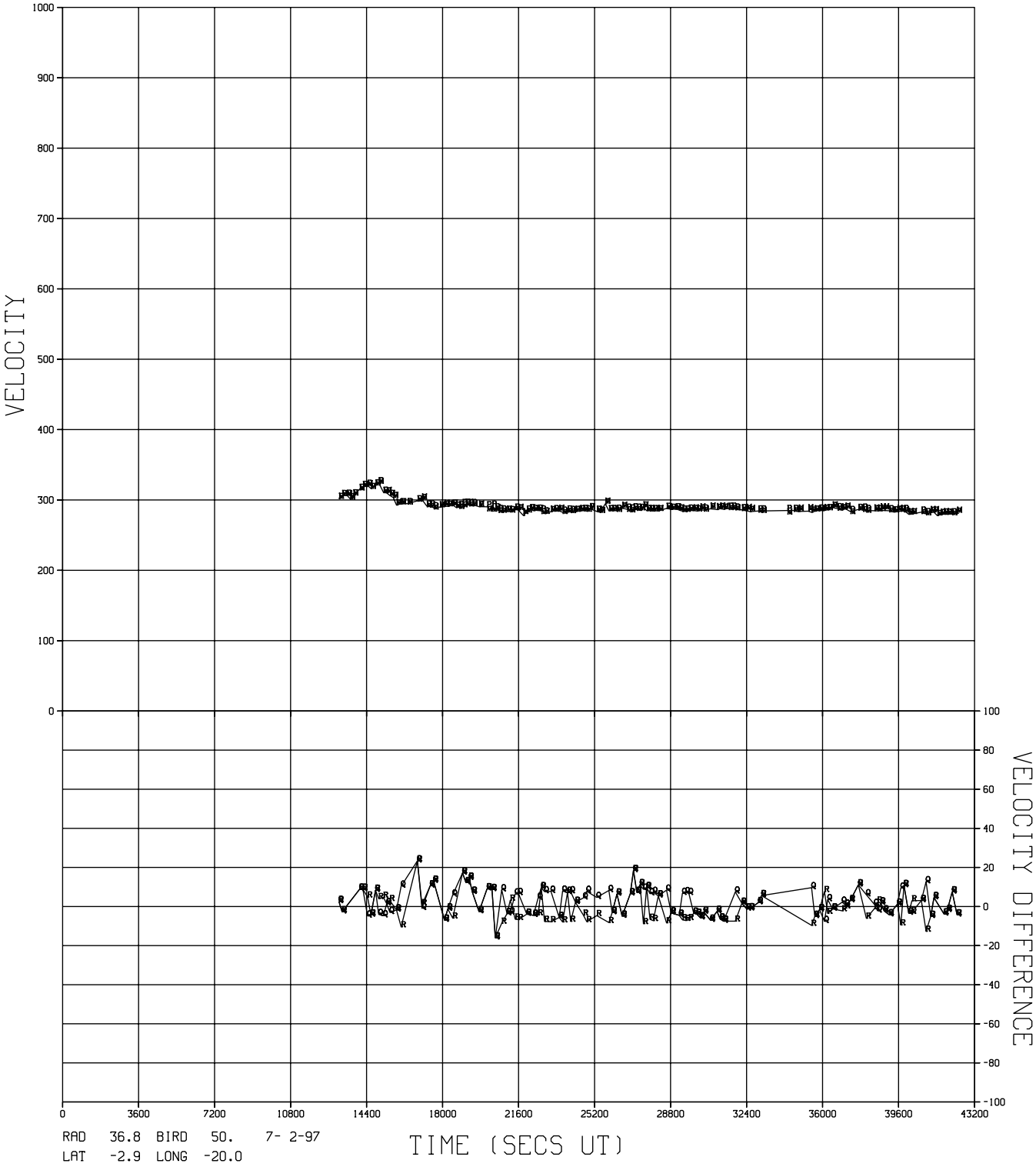

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 36.4 BIRD 50. 7- 1-97
LAT 8.2 LONG -33.3

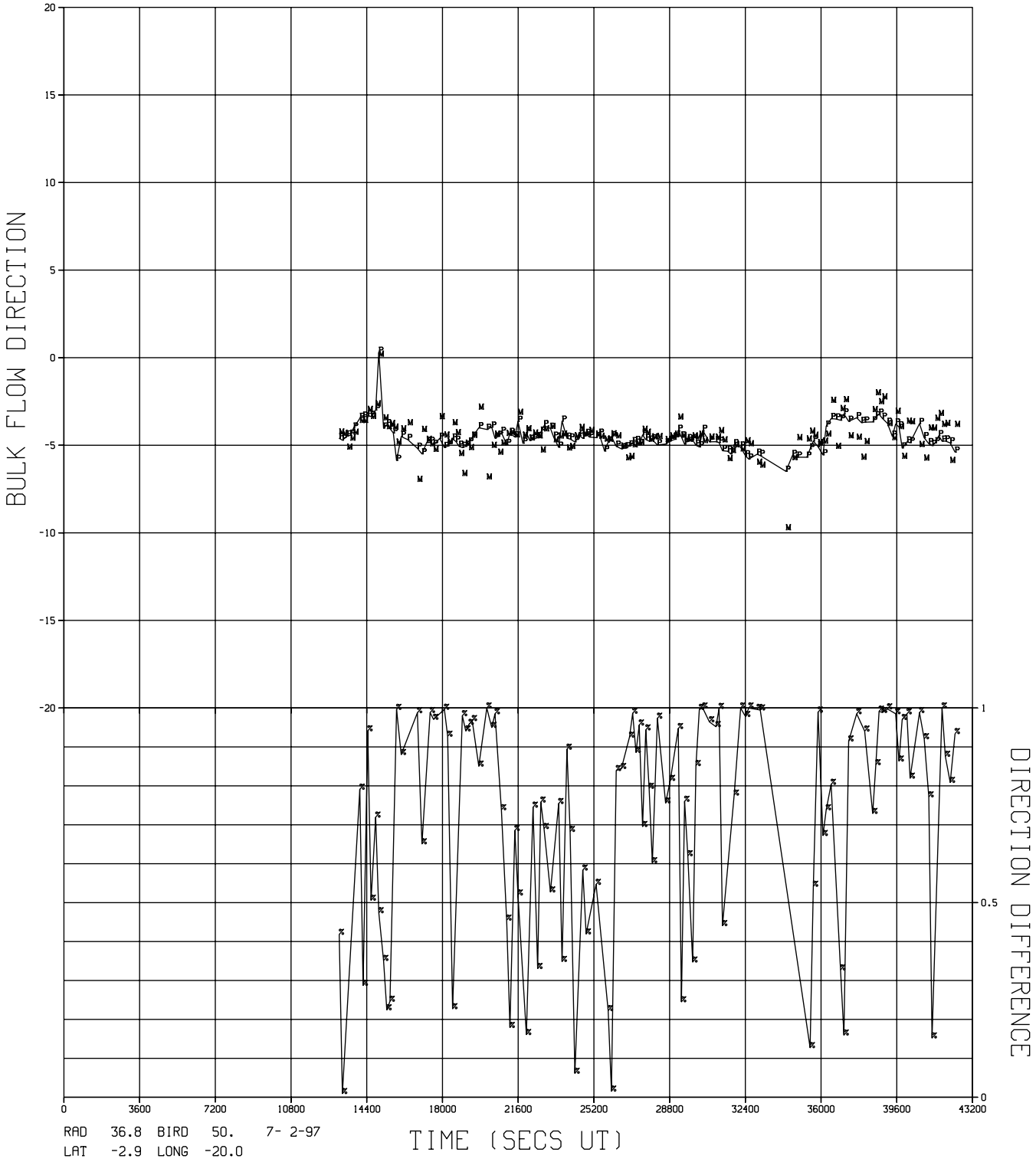

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 36.4 BIRD 50. 7- 1-97
LAT 8.2 LONG -33.3

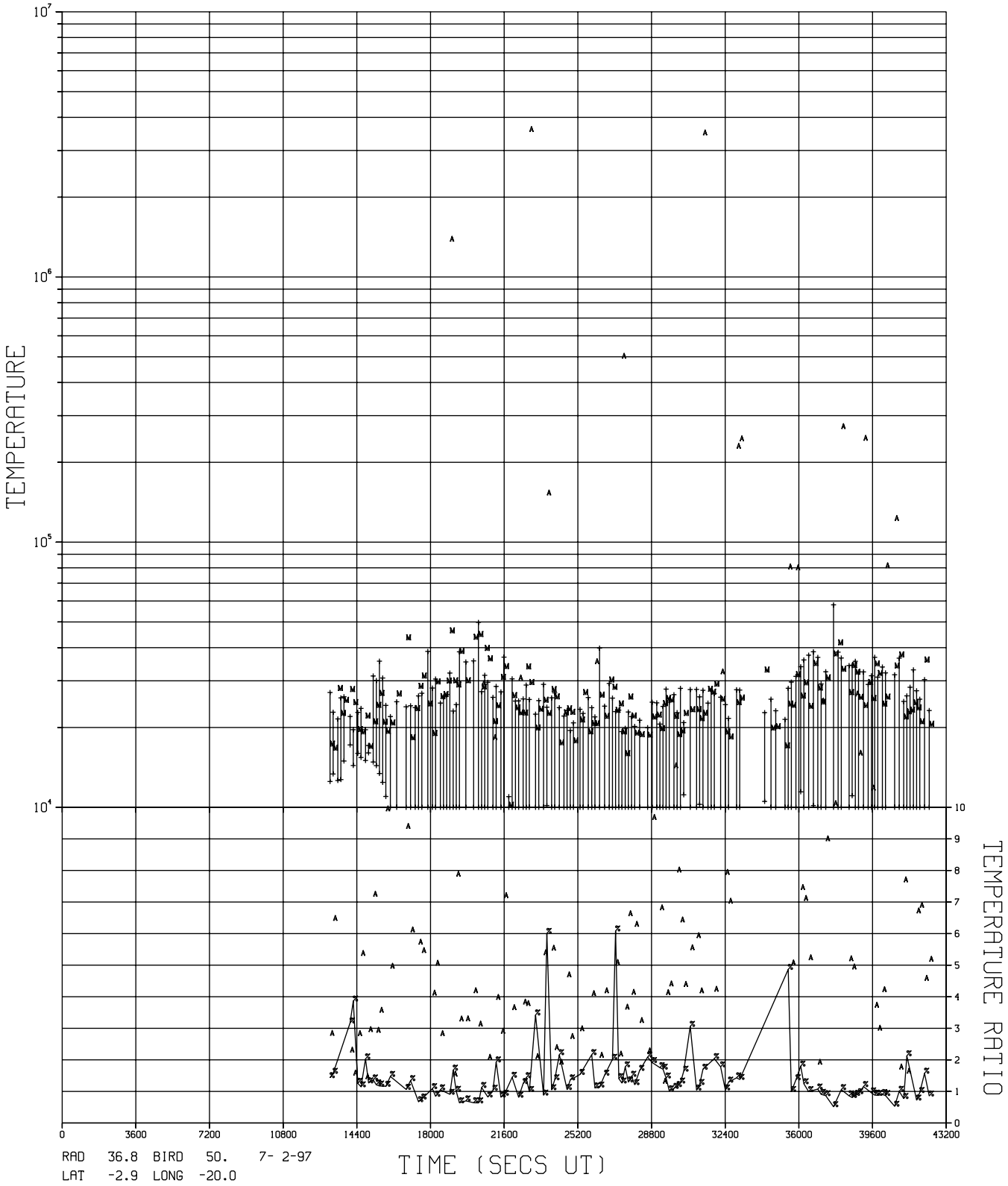

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.4 BIRD 50. 7- 1-97
LAT 8.2 LONG -33.3

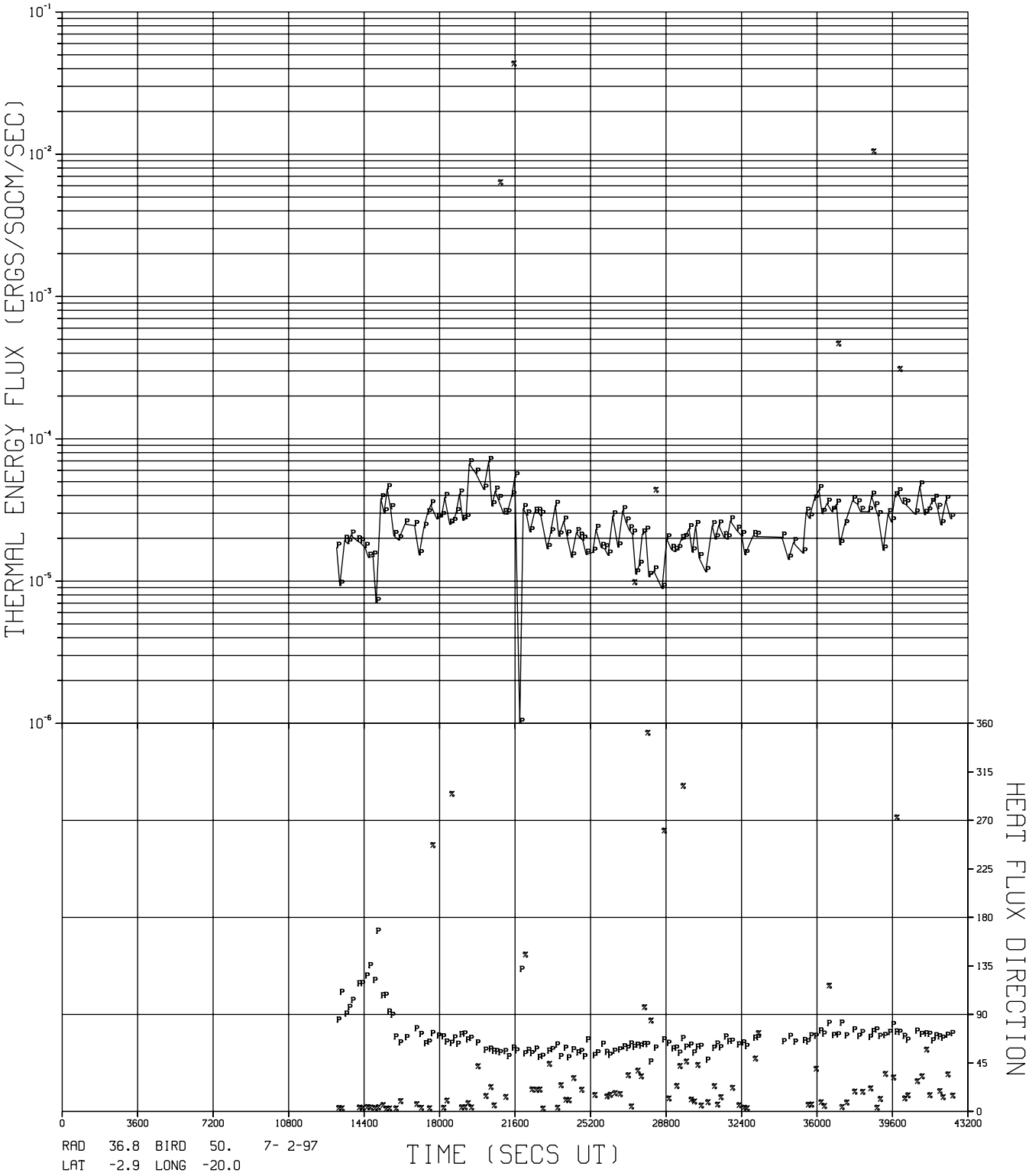

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.4 BIRD 50. 7- 1-97
LAT 8.2 LONG -33.3

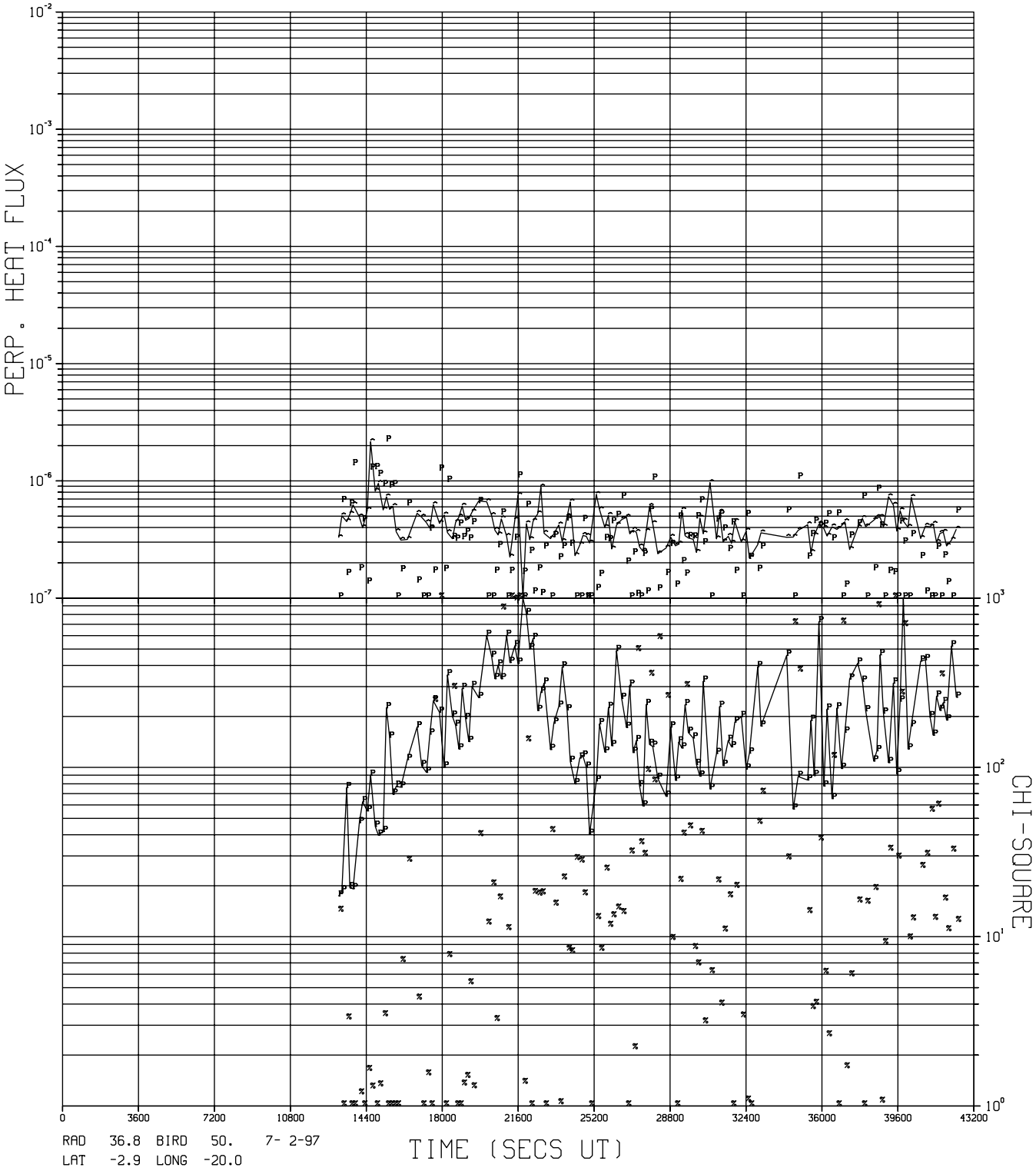

DENSITY
DENSITY RATIO
TIME (SECS UT)
RAD 36.8 BIRD 50. 7- 2-97
LAT -2.9 LONG -20.0

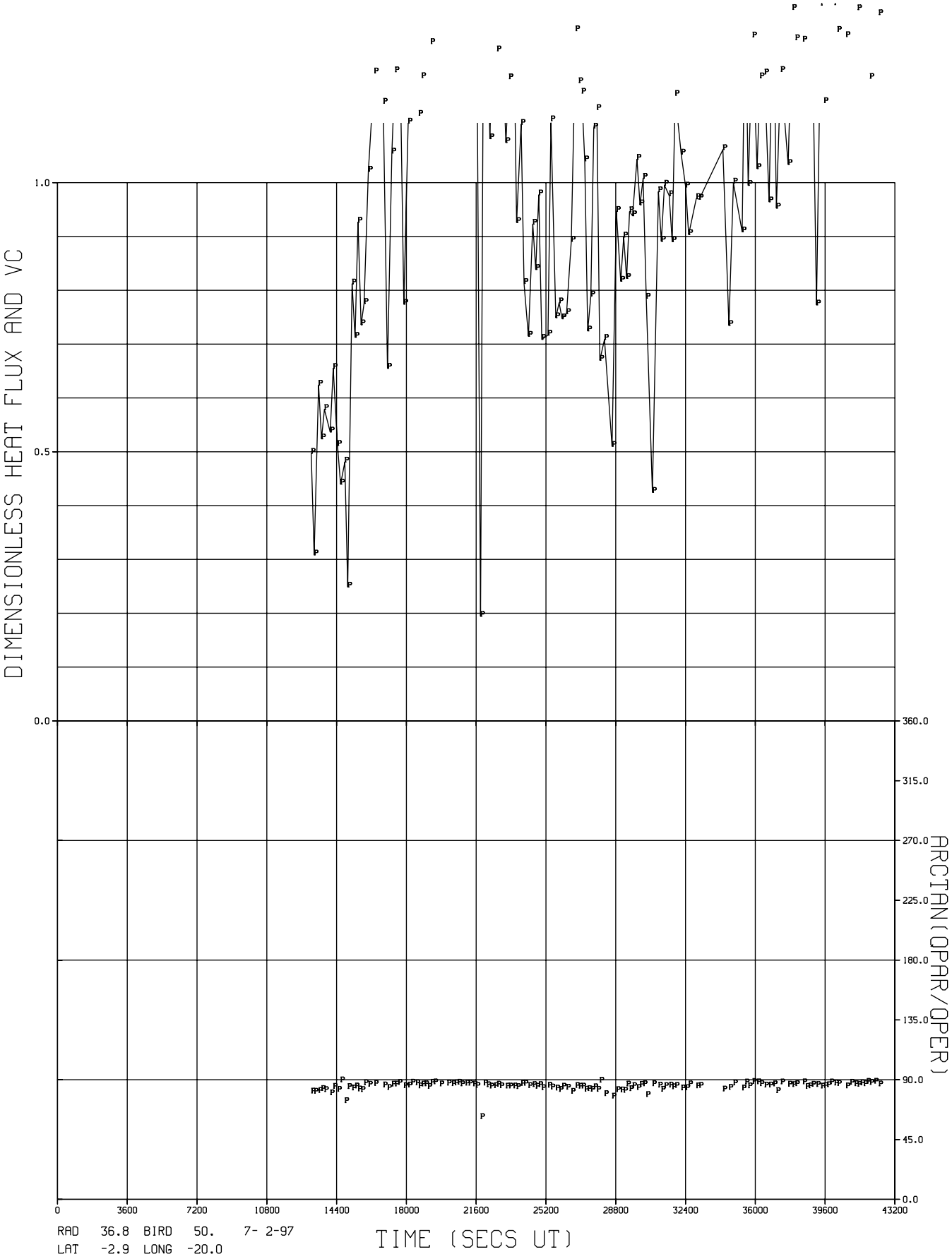

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 36.8 BIRD 50. 7- 2-97
LAT -2.9 LONG -20.0

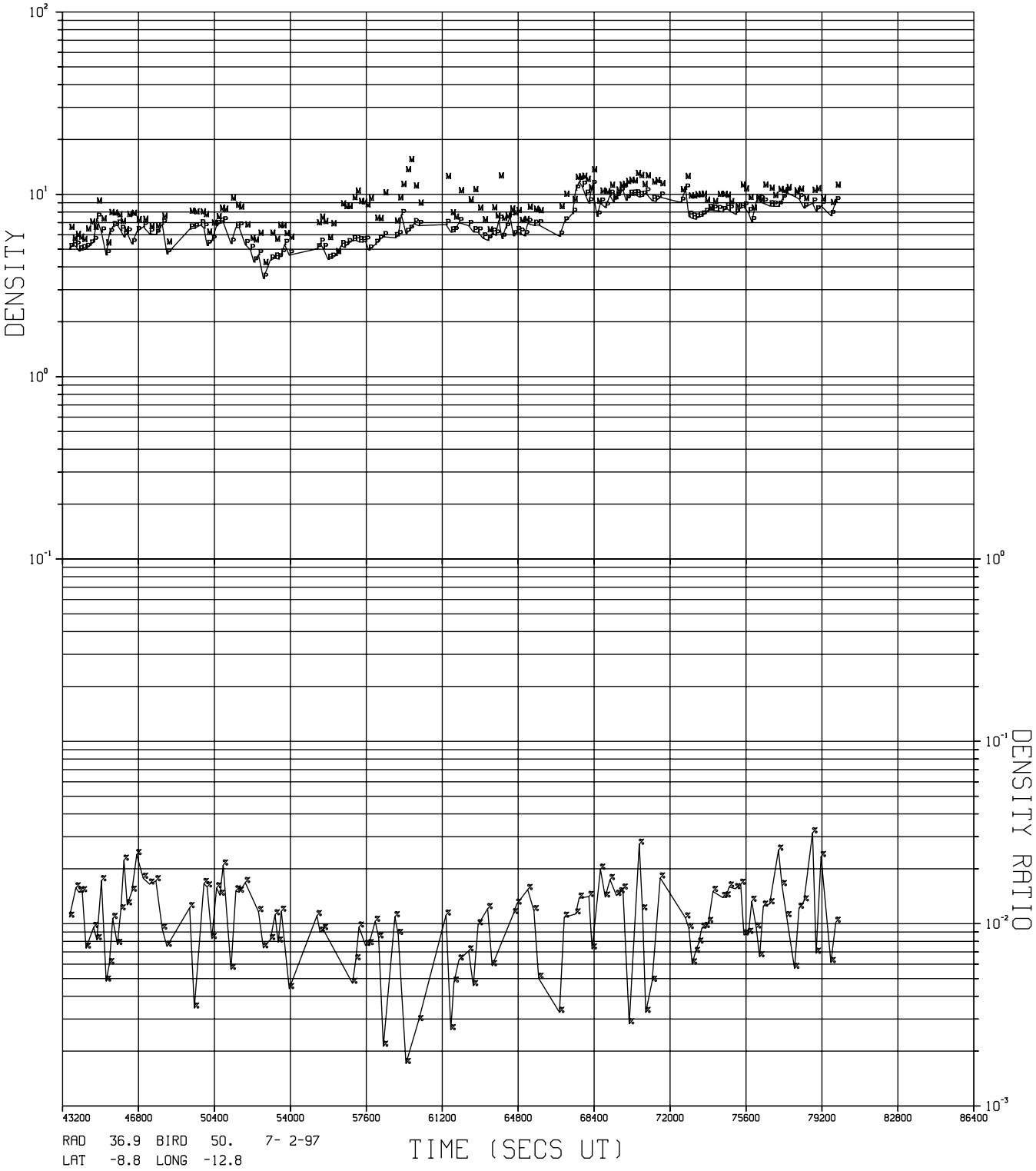

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 36.8 BIRD 50. 7- 2-97
LAT -2.9 LONG -20.0

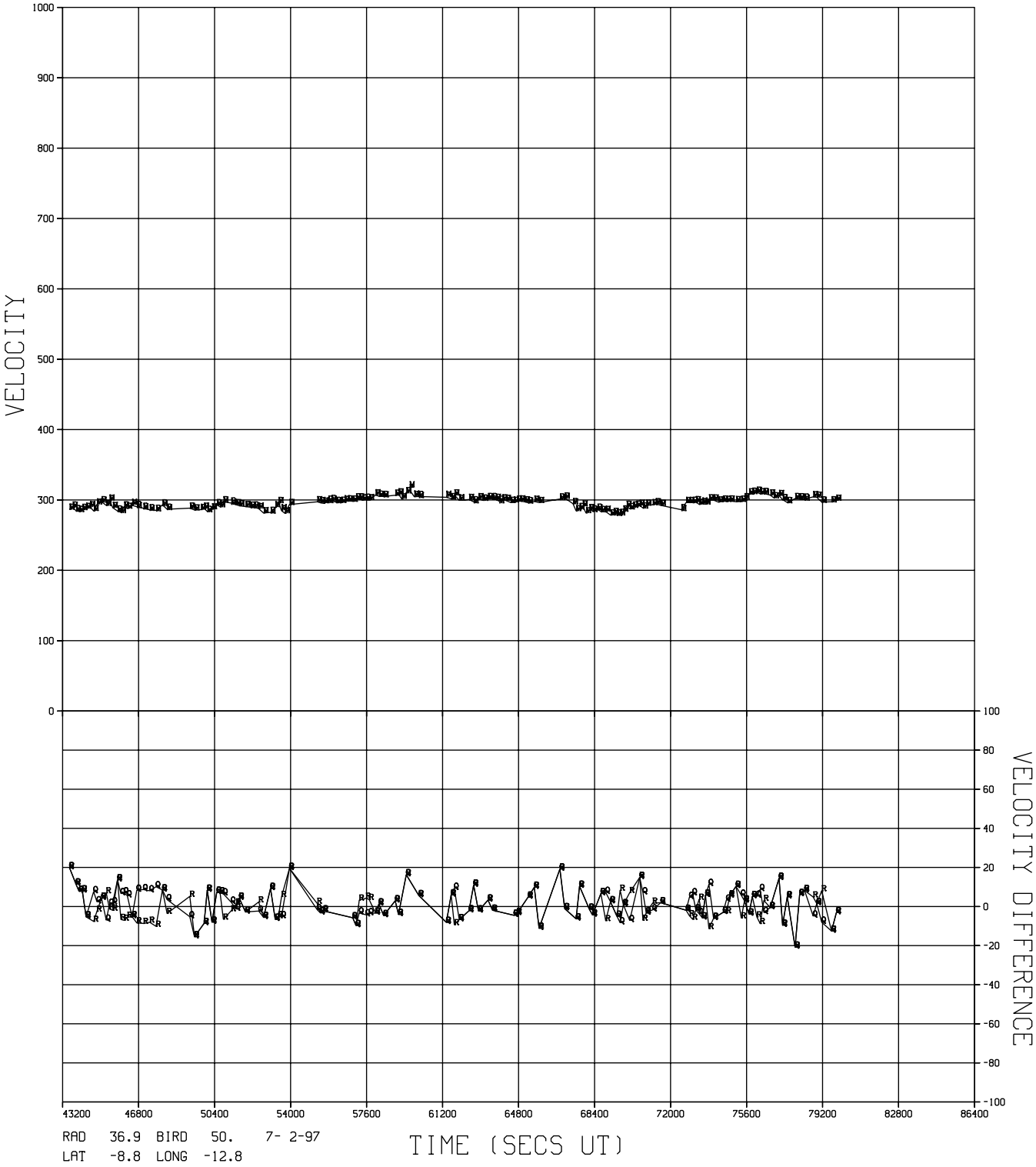

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 36.8 BIRD 50. 7- 2-97
LAT -2.9 LONG -20.0

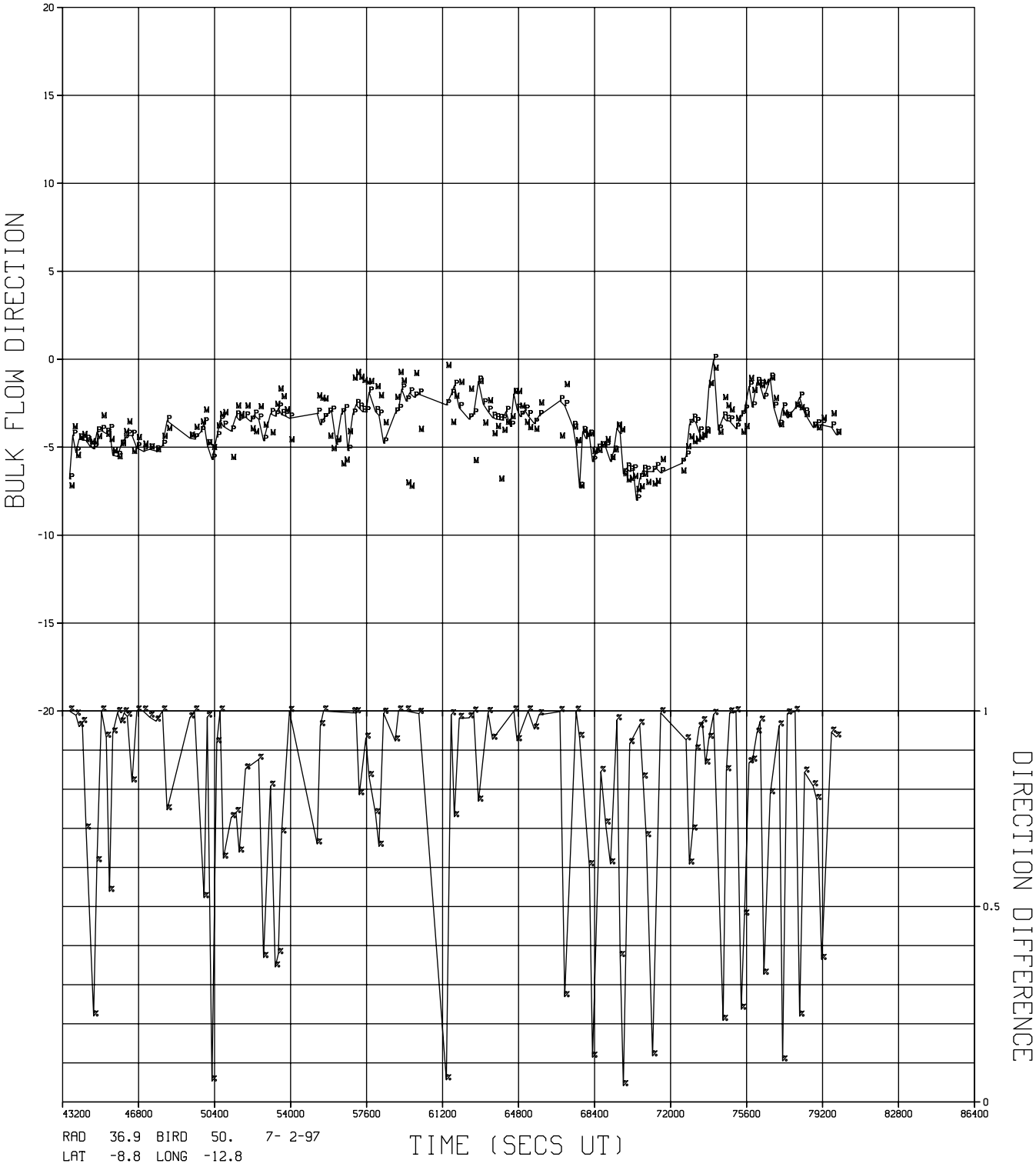

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 36.8 BIRD 50. 7- 2-97
LAT -2.9 LONG -20.0

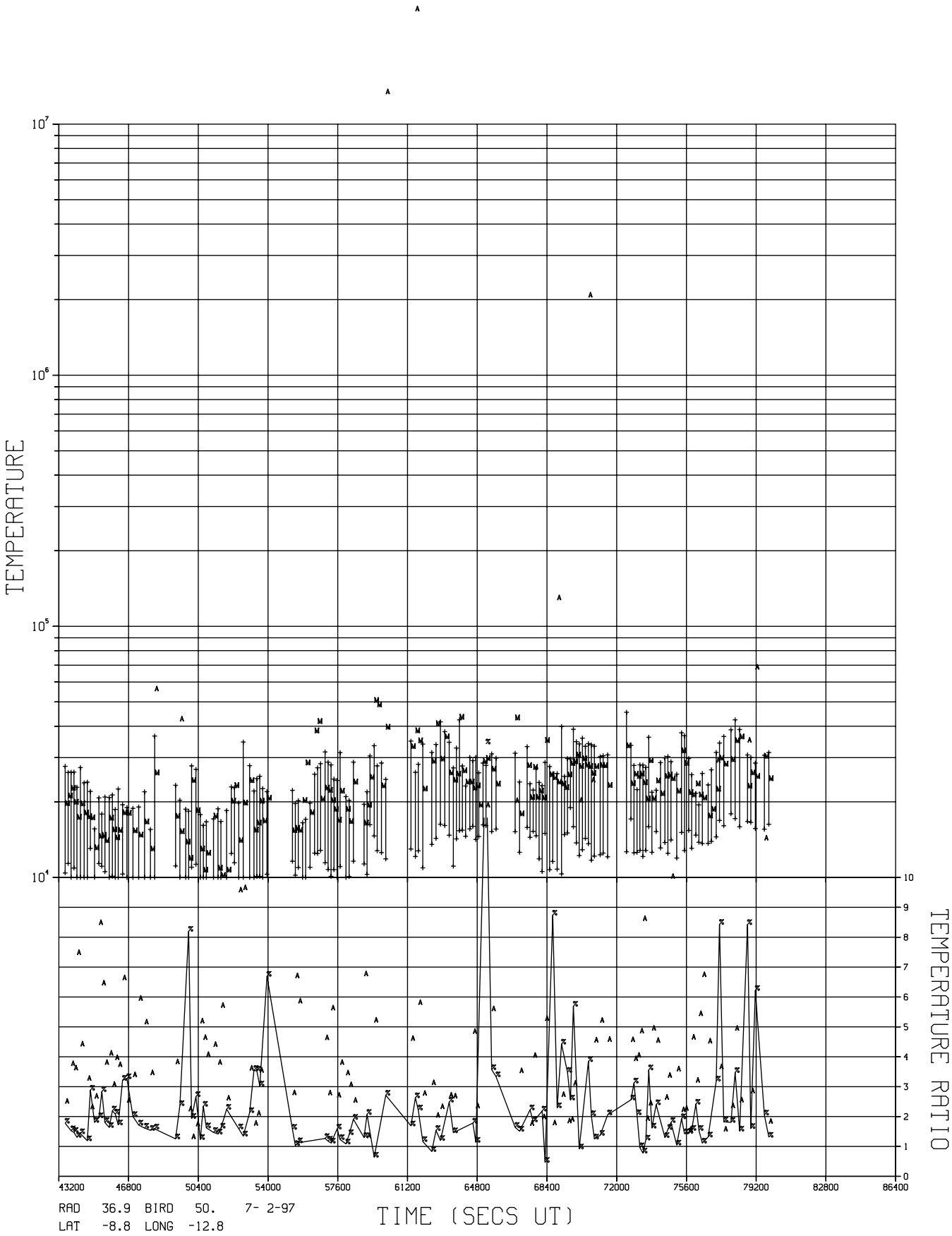

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 36.8 BIRD 50. 7- 2-97
LAT -2.9 LONG -20.0

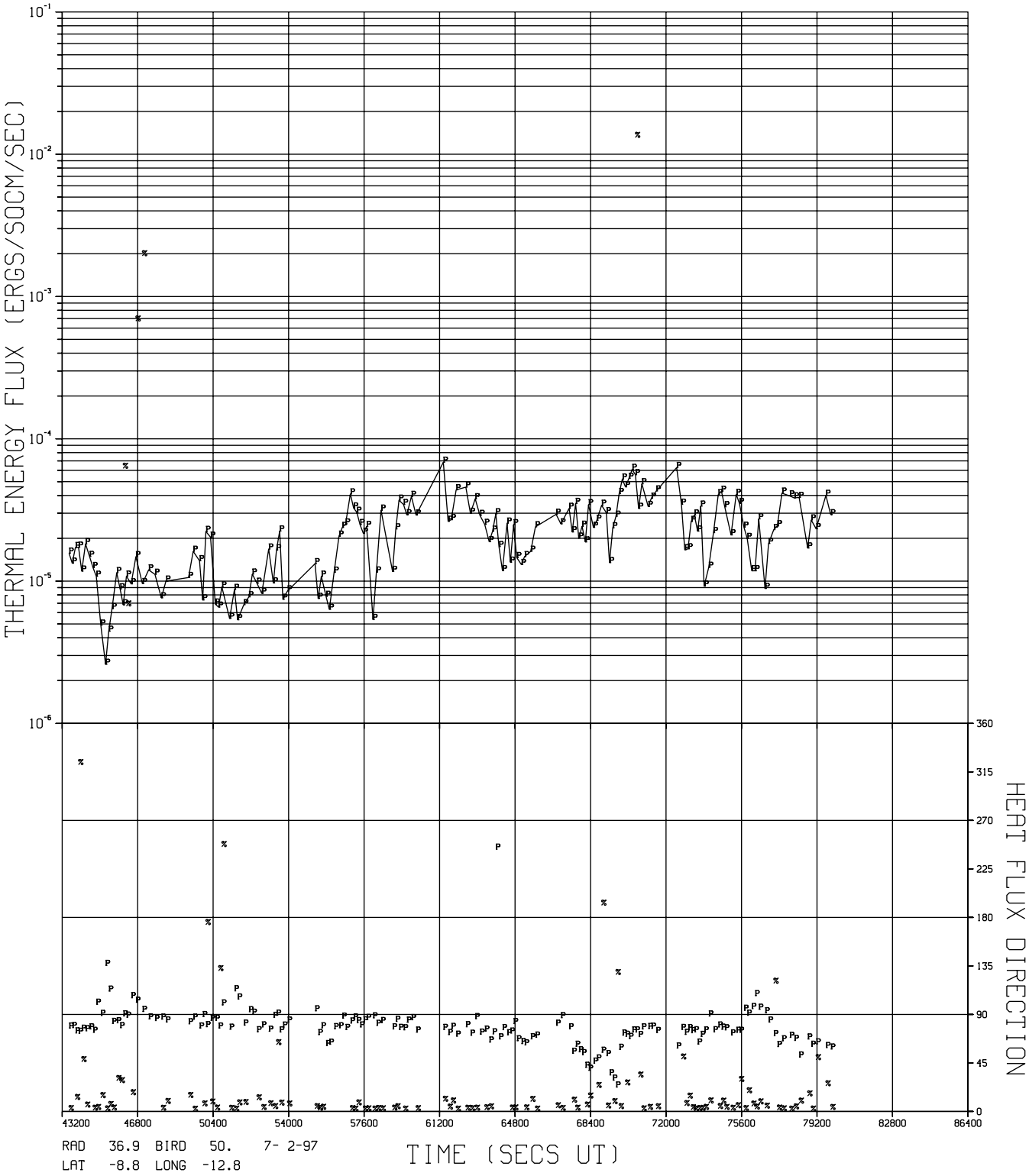

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 36.8 BIRD 50. 7- 2-97
LAT -2.9 LONG -20.0

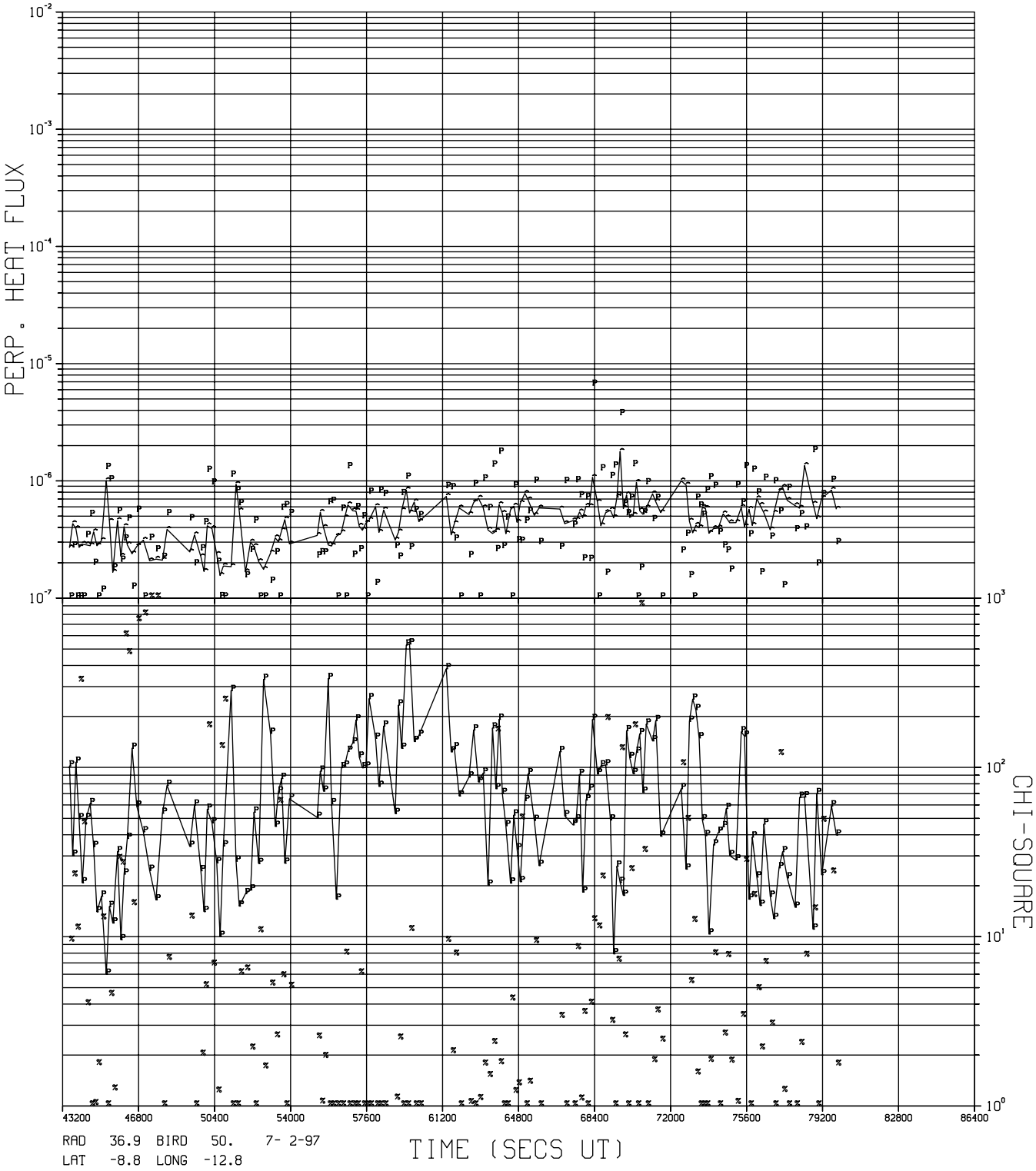

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.9 BIRD 50. 7- 2-97
LAT -8.8 LONG -12.8

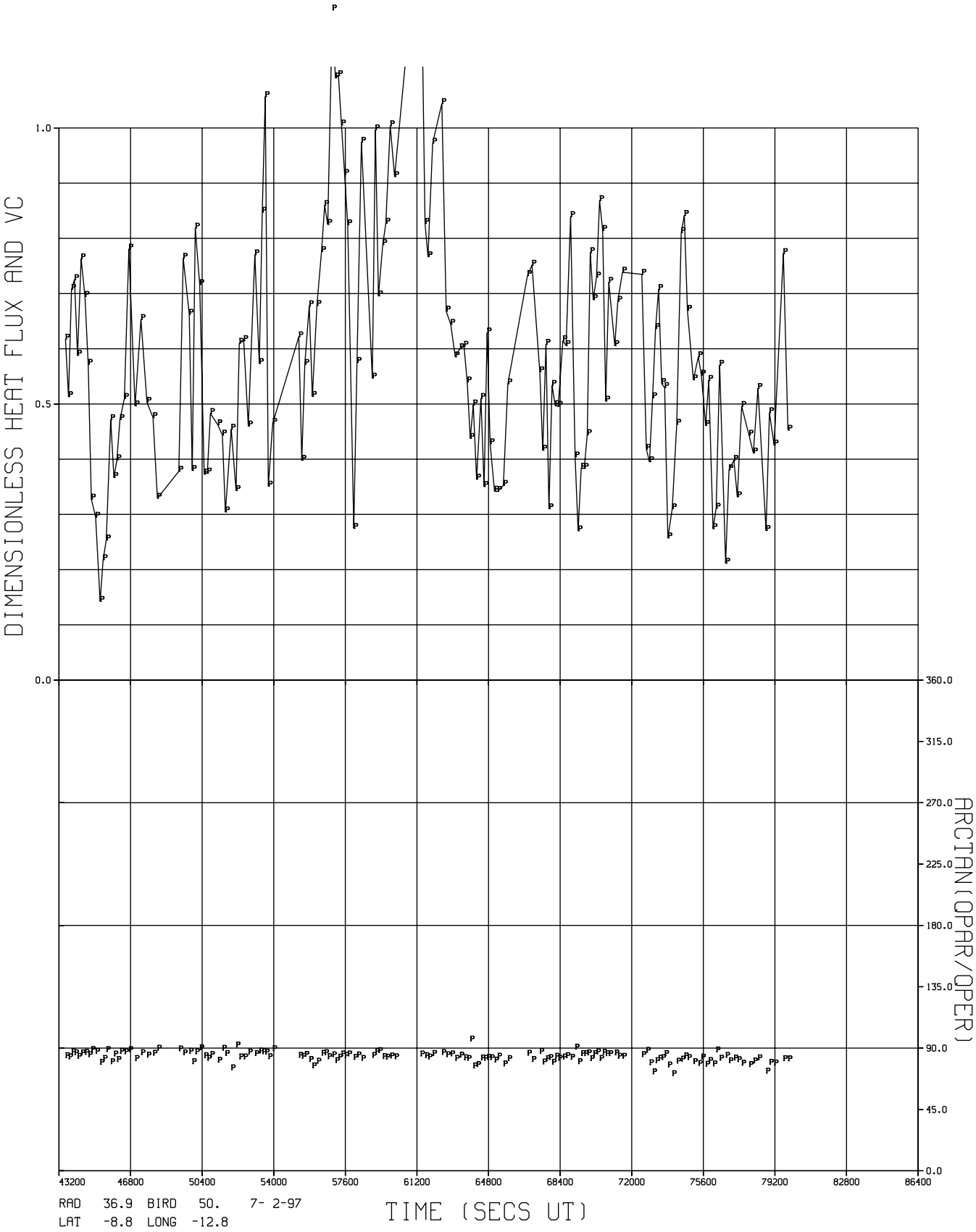

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.9 BIRD 50. 7- 2-97
LAT -8.8 LONG -12.8
TIME (SECS UT)

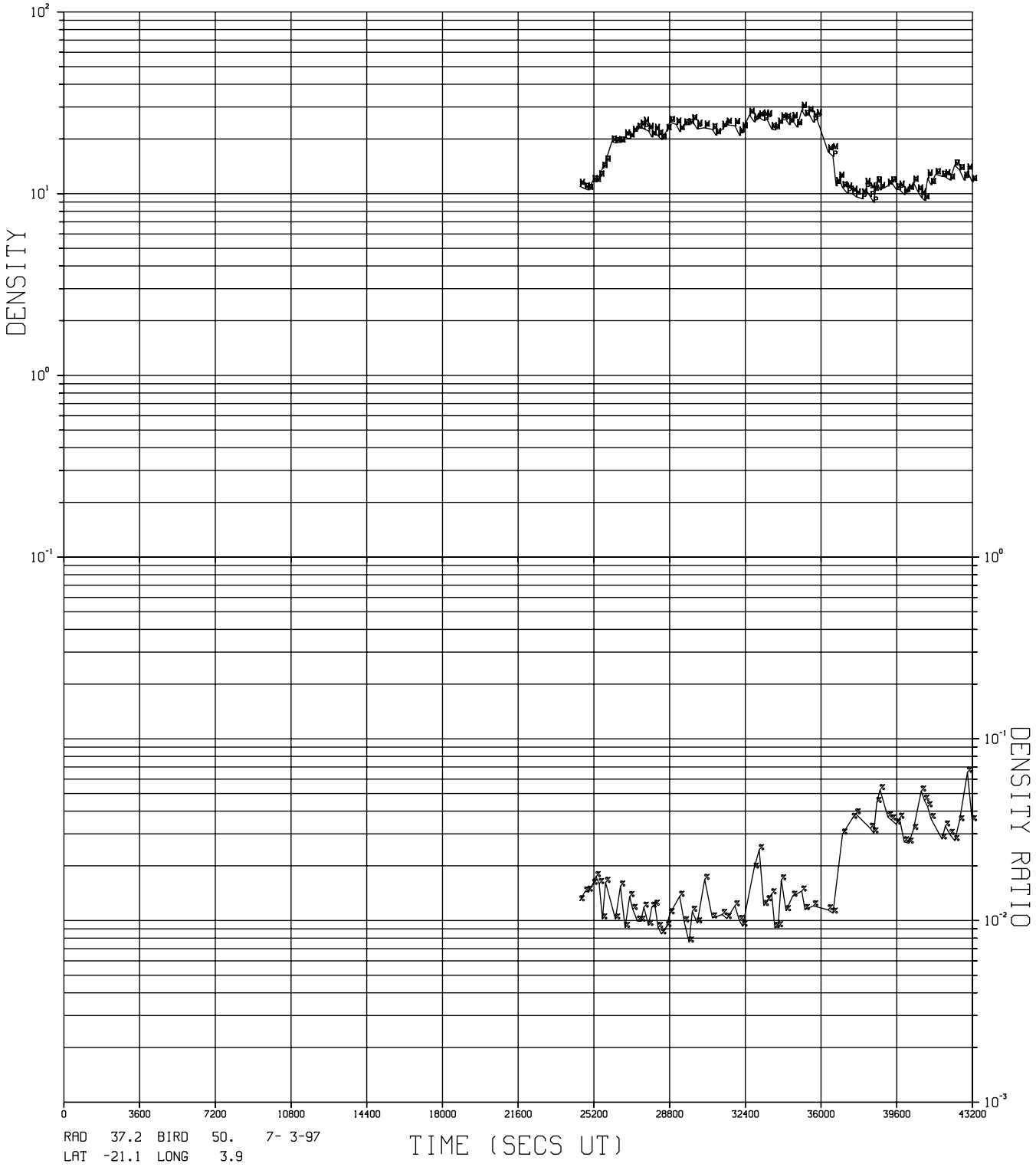

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.9 BIRD 50. 7- 2-97
LAT -8.8 LONG -12.8

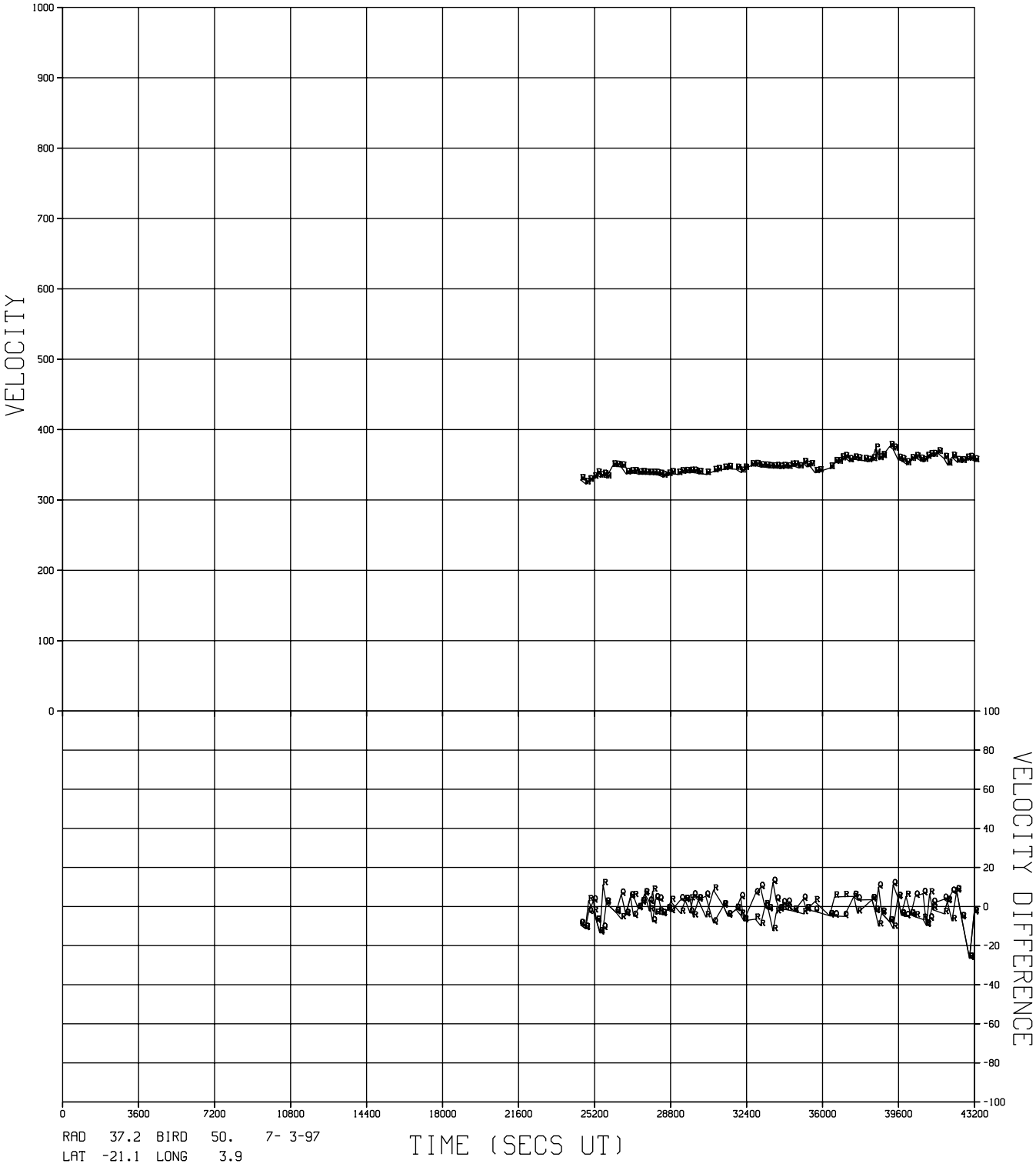

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 36.9 BIRD 50. 7- 2-97
LAT -8.8 LONG -12.8

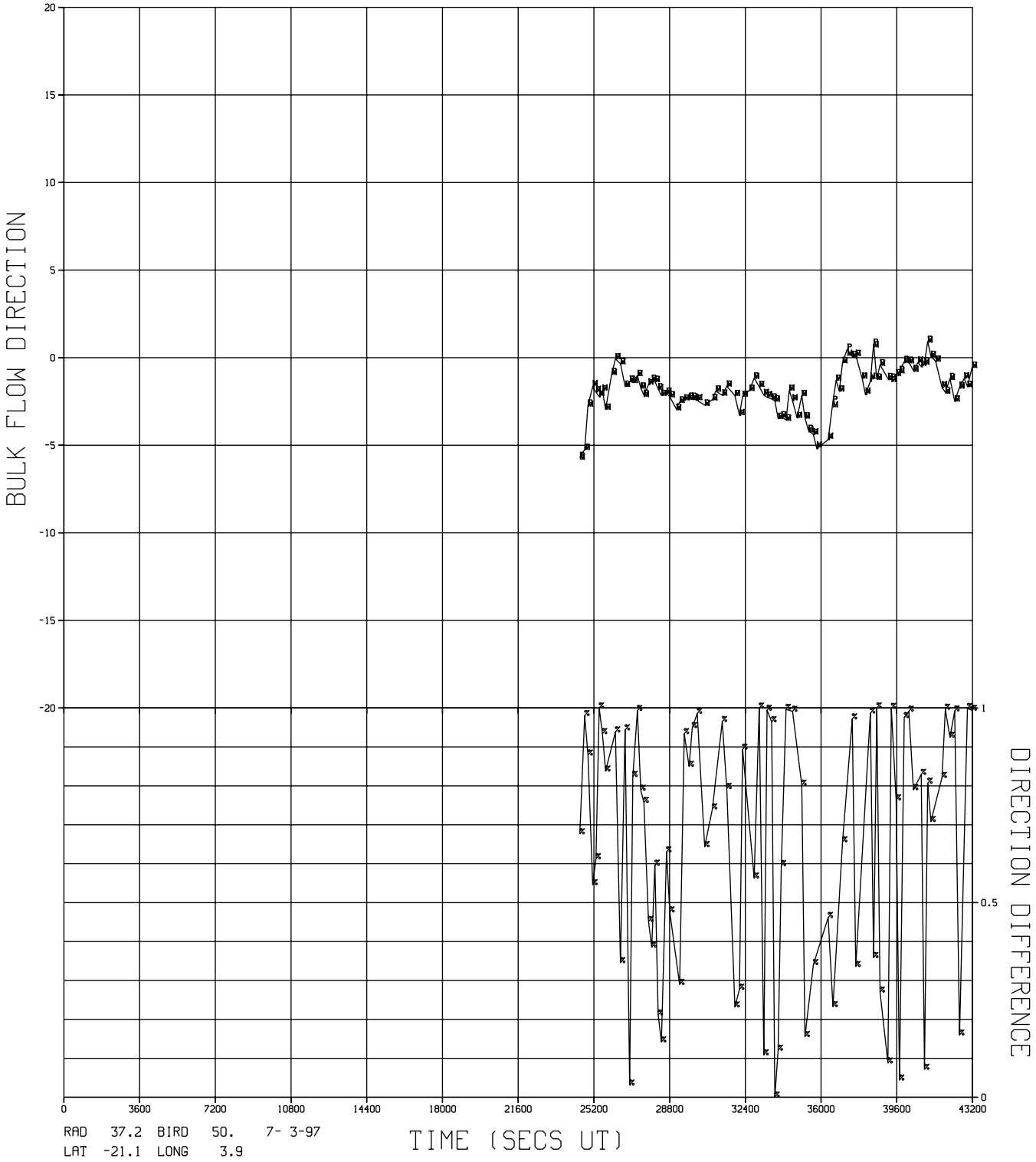

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 36.9 BIRD 50. 7- 2-97
LAT -8.8 LONG -12.8

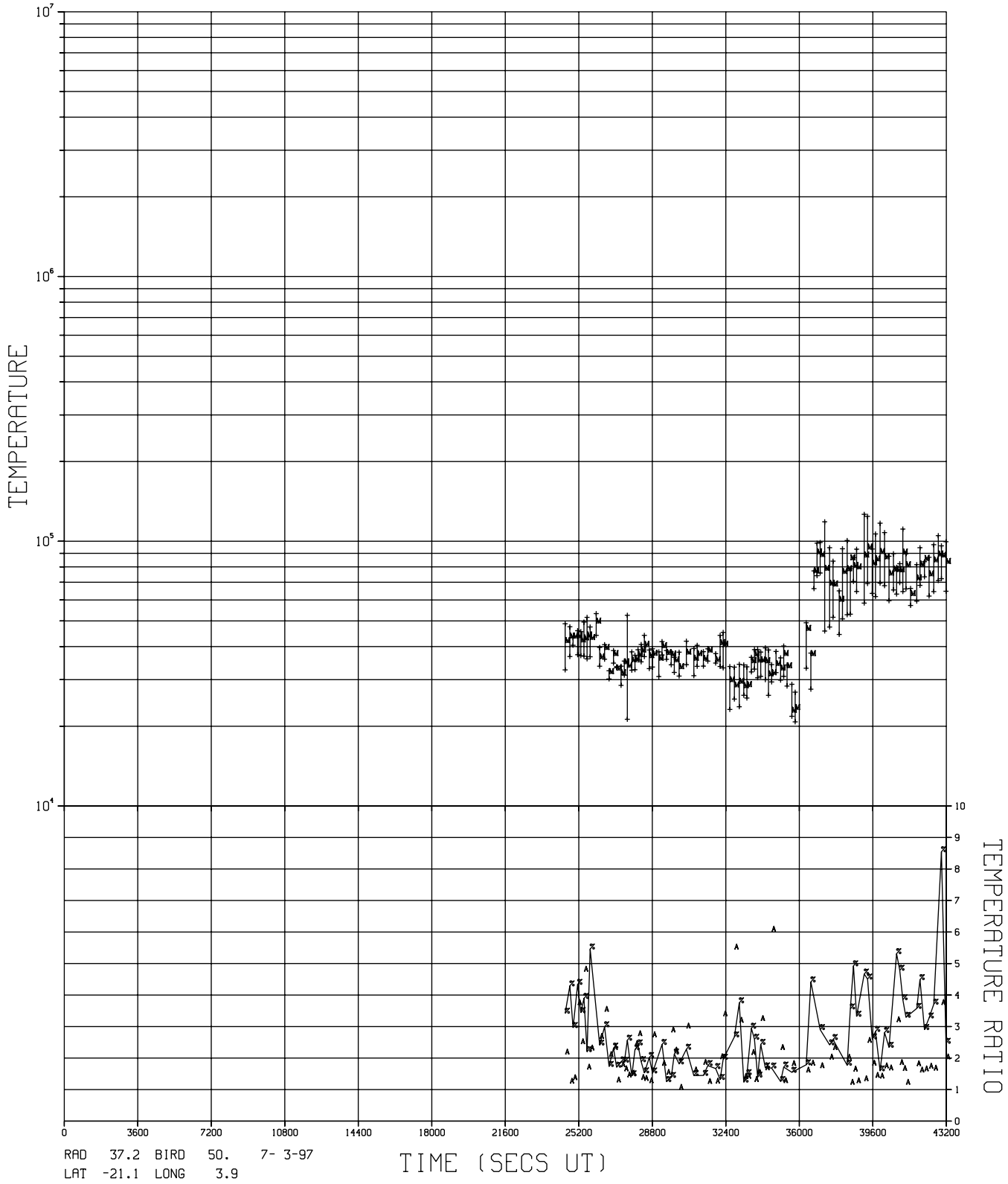

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 36.9 BIRD 50. 7- 2-97
LAT -8.8 LONG -12.8

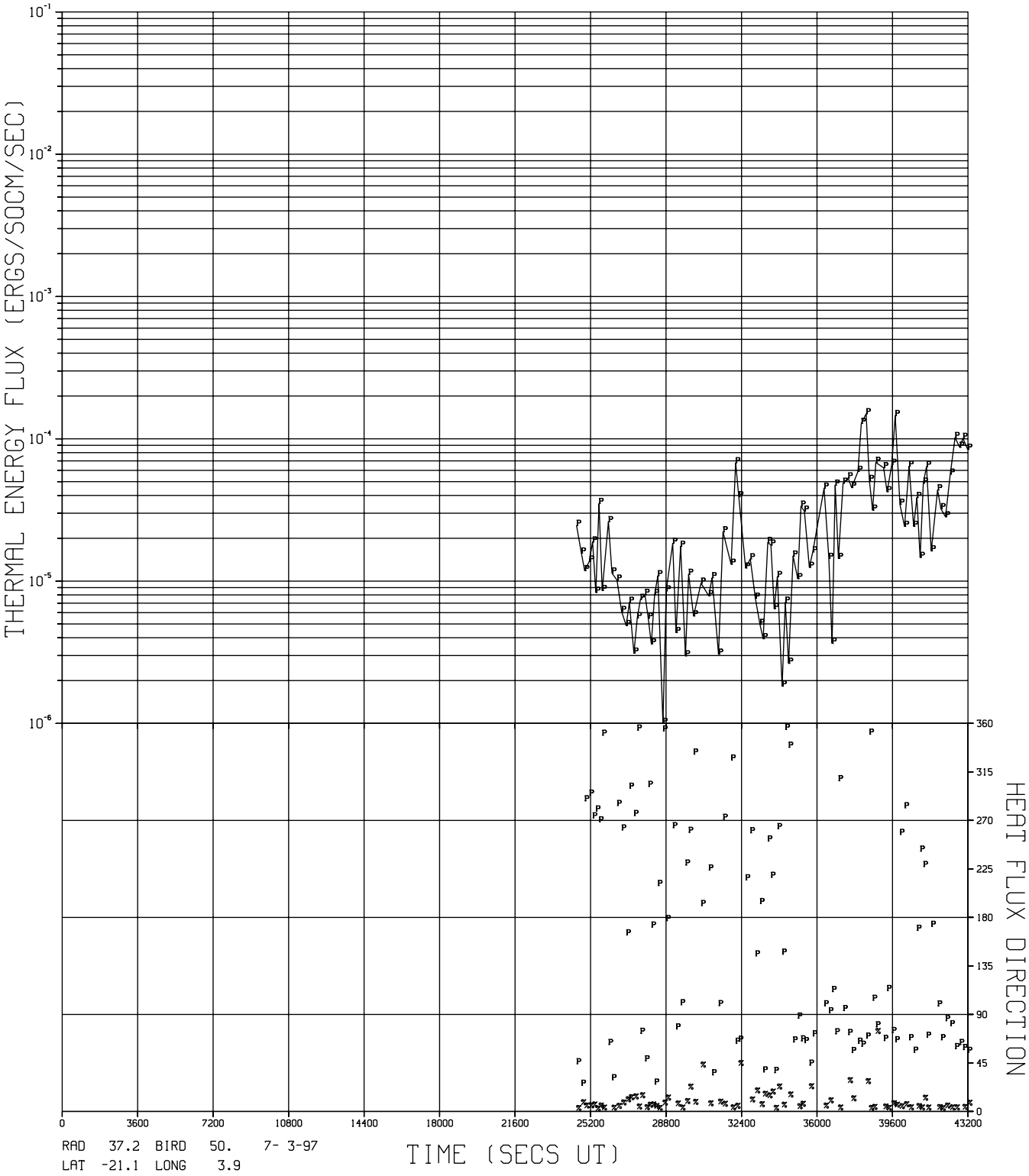

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.9 BIRD 50. 7- 2-97
LAT -8.8 LONG -12.8

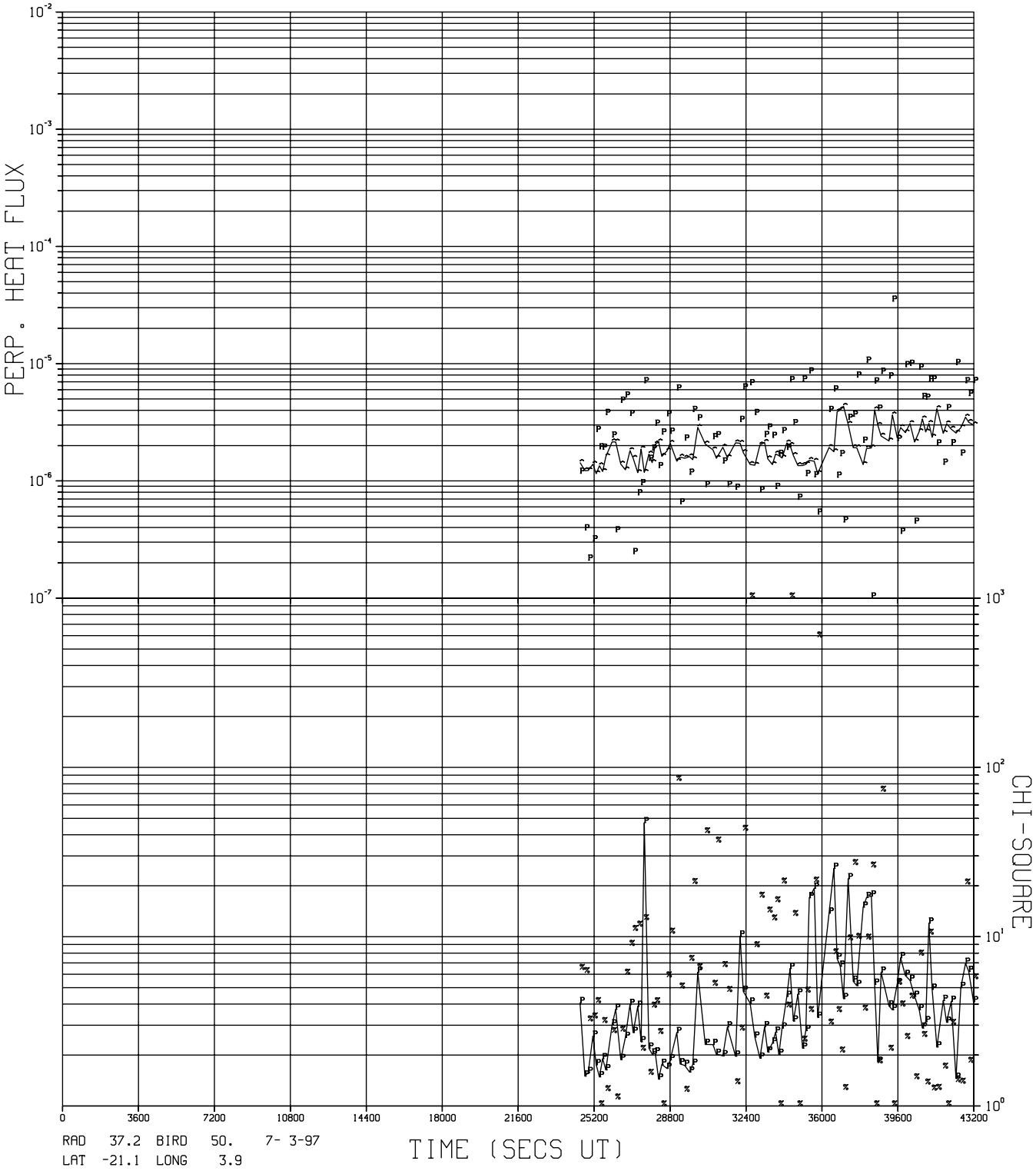

DENSITY
DENSITY RATIO
TIME (SECS UT)
10^2
10^1
10^0
10^{-1}
10^{-2}
10^{-3}
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.2 BIRD 50. 7- 3-97
LAT -21.1 LONG 3.9

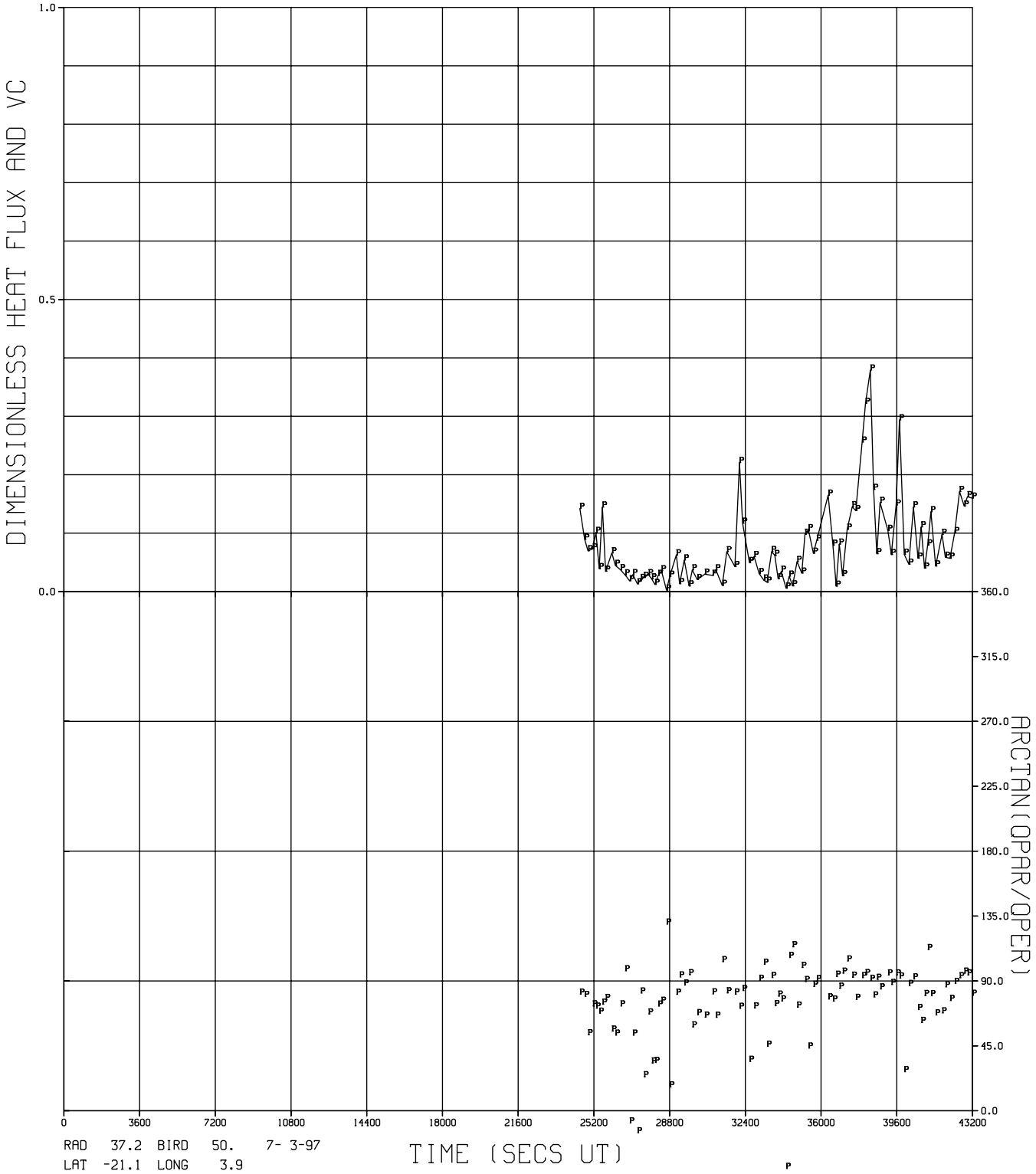

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 37.2 BIRD 50. 7- 3-97
LAT -21.1 LONG 3.9

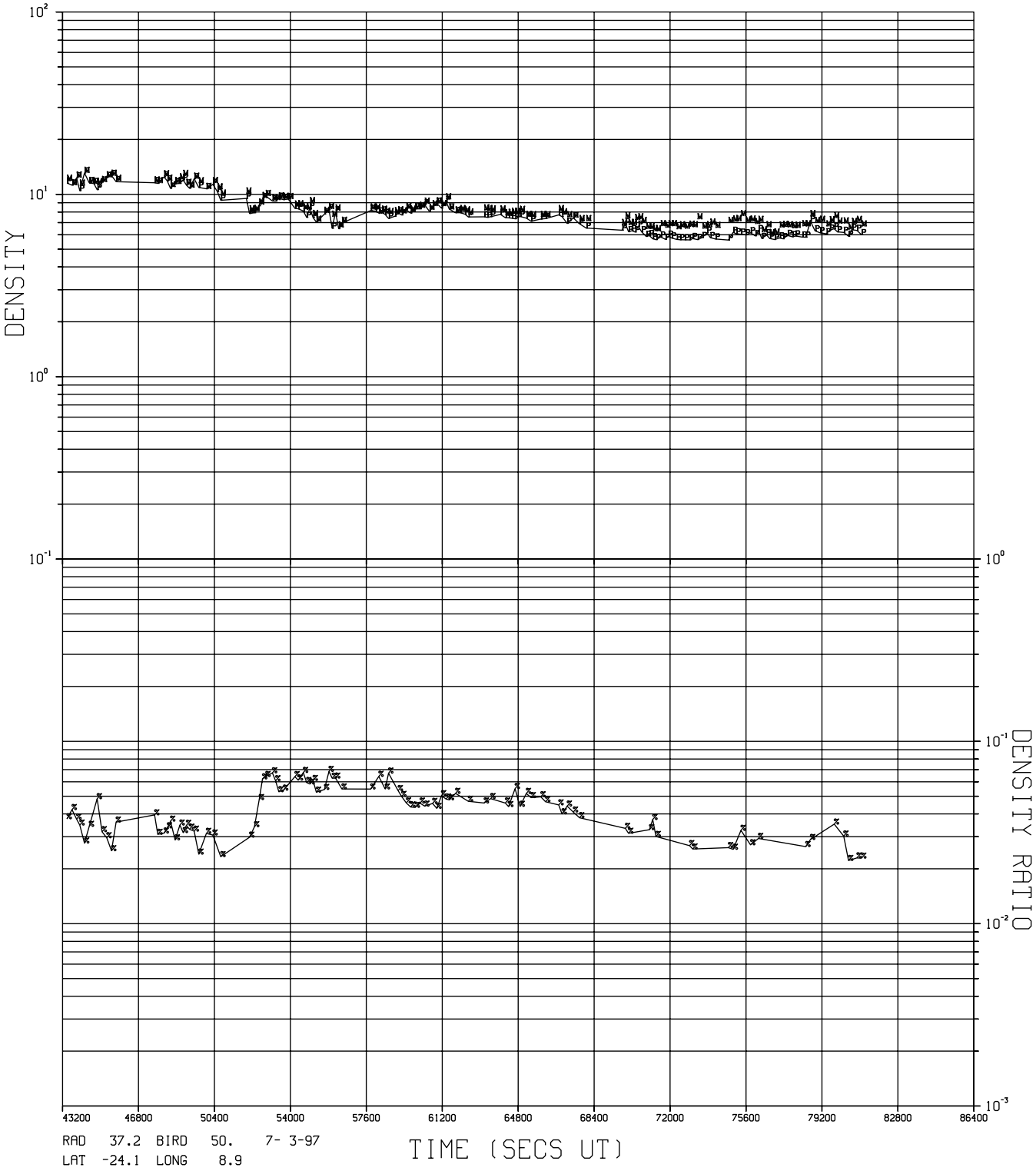

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.2 BIRD 50. 7- 3-97
LAT -21.1 LONG 3.9

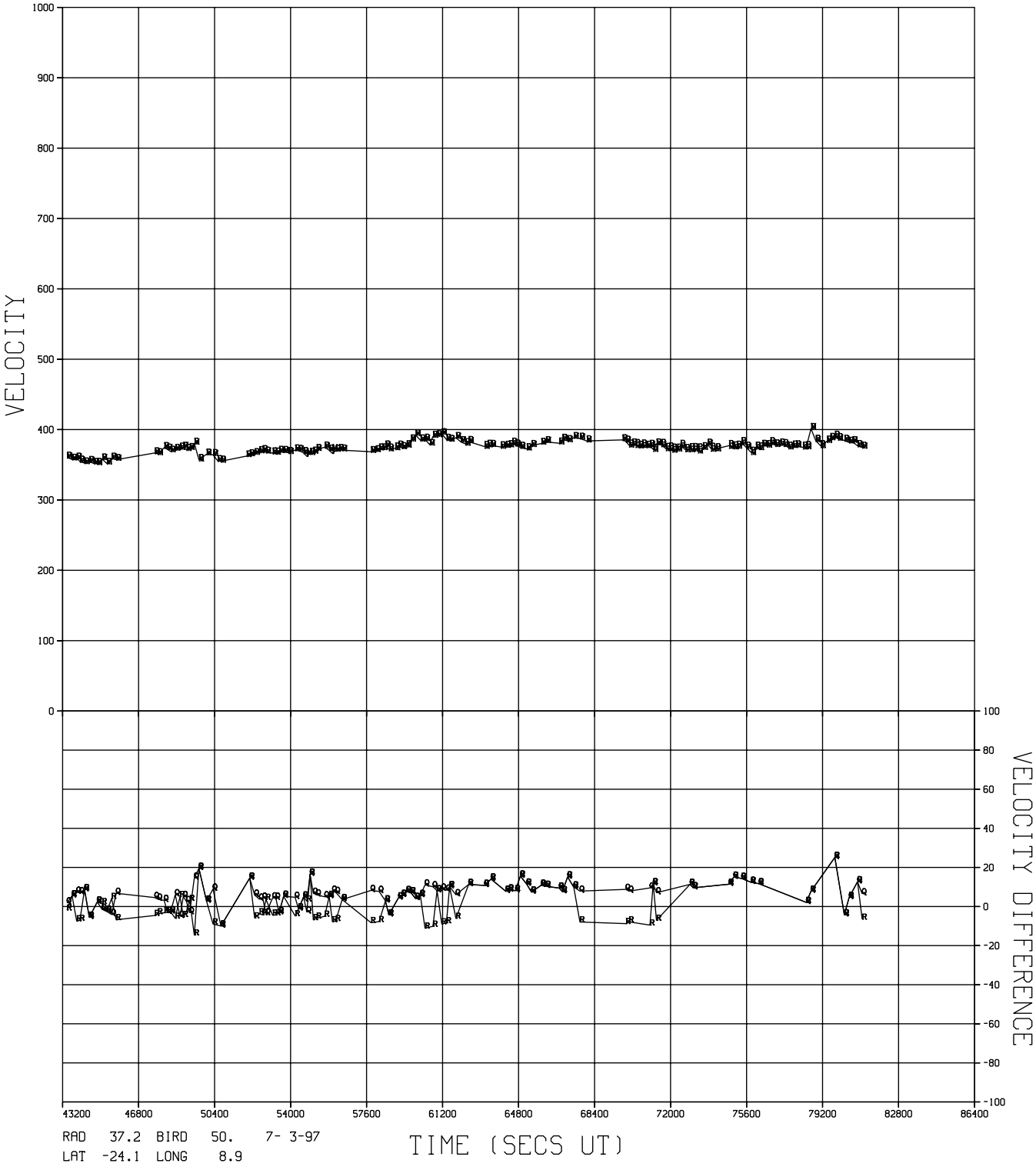

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 37.2 BIRD 50. 7- 3-97
LAT -21.1 LONG 3.9

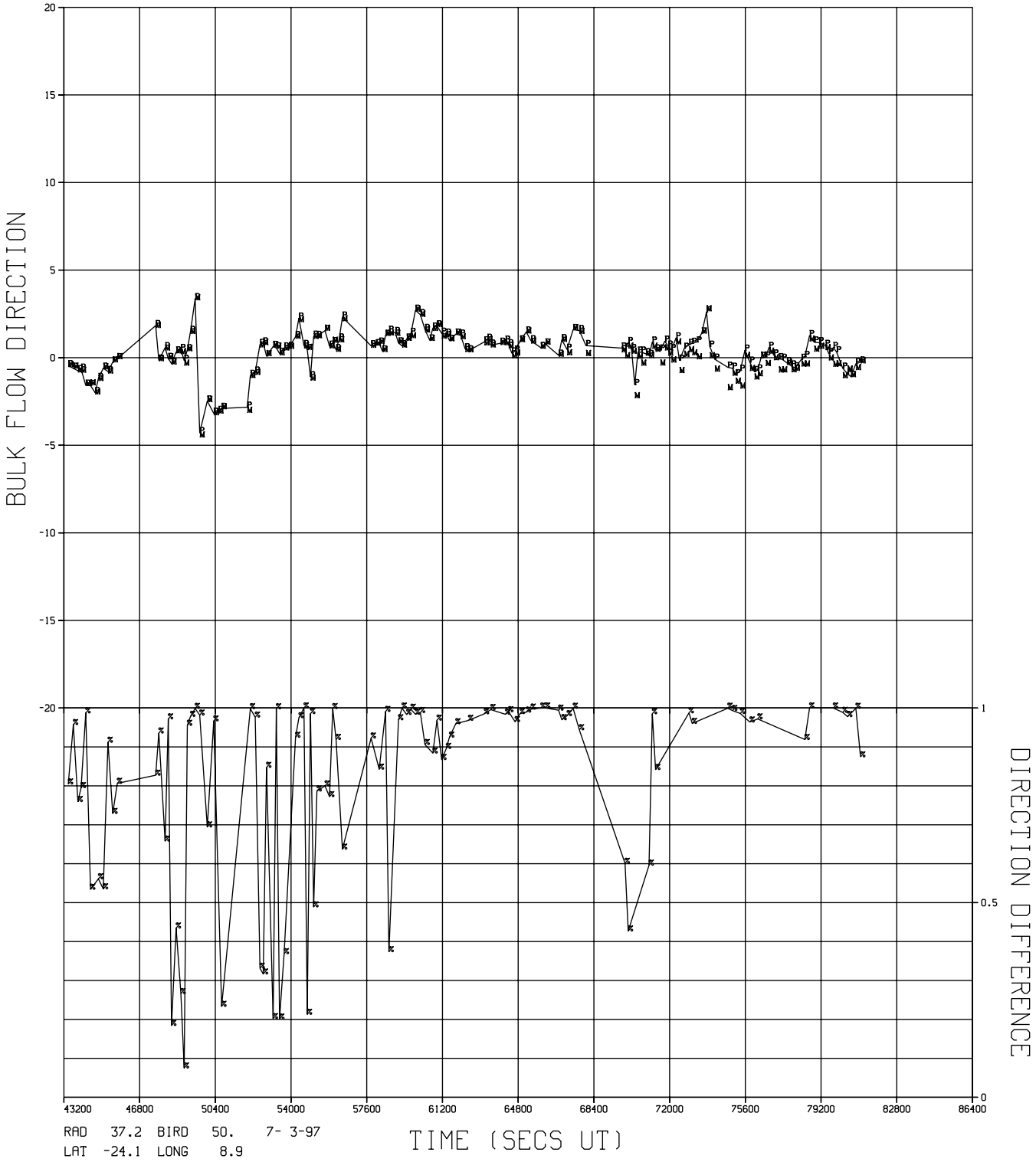

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.2 BIRD 50. 7- 3-97
LAT -21.1 LONG 3.9

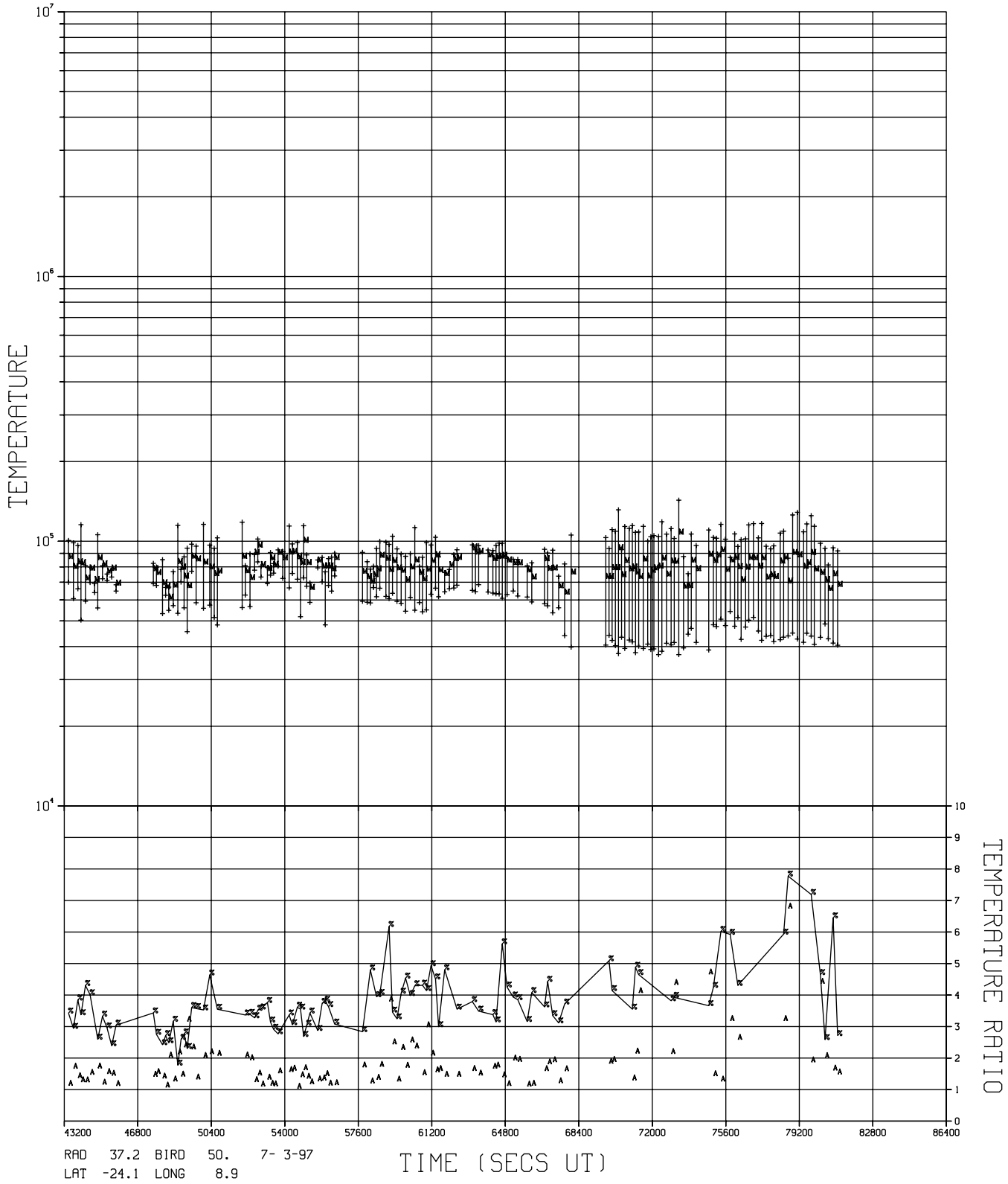

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 37.2 BIRD 50. 7- 3-97
LAT -21.1 LONG 3.9

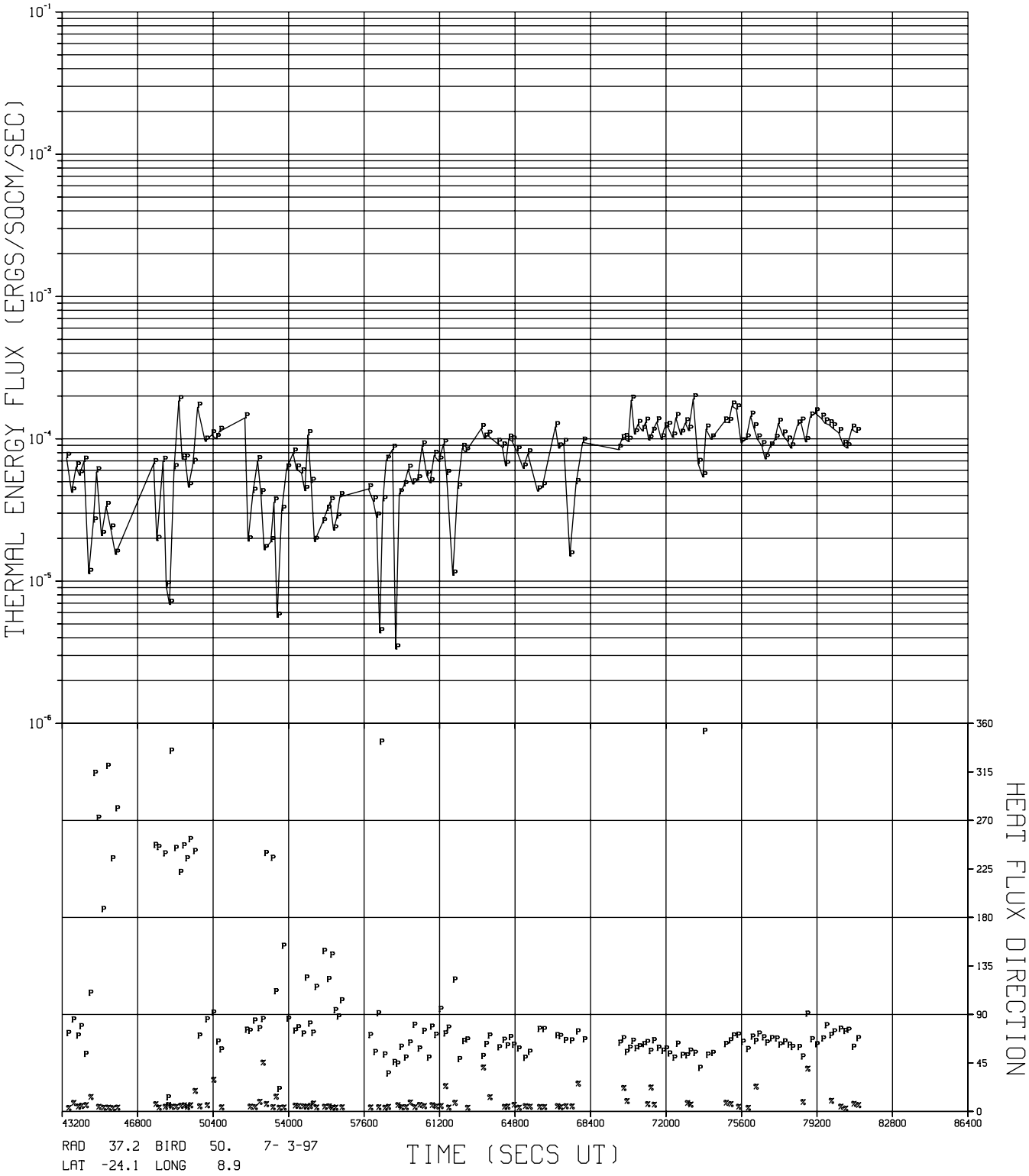

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 37.2 BIRD 50. 7- 3-97
LAT -21.1 LONG 3.9

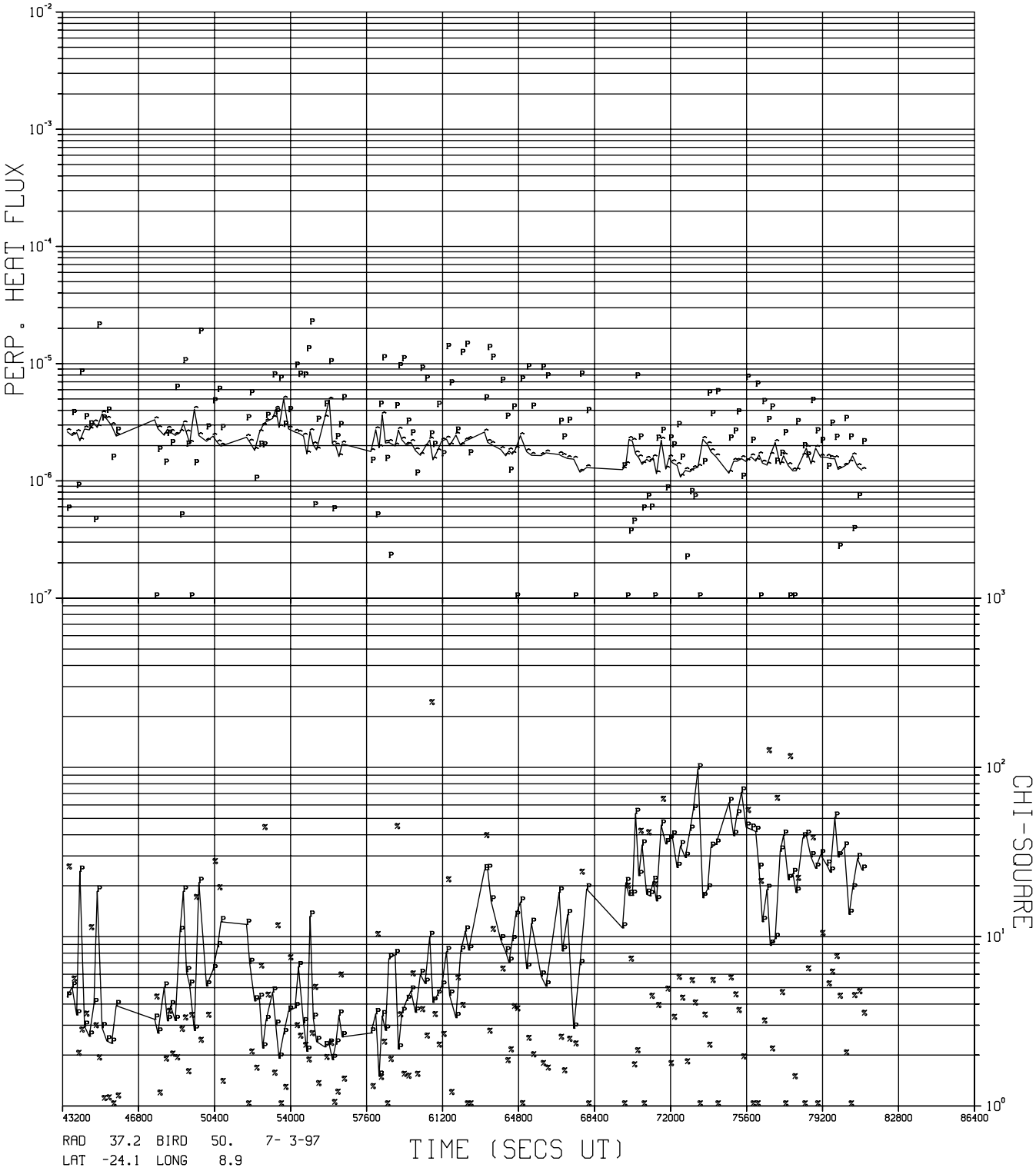

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.2 BIRD 50. 7- 3-97
LAT -24.1 LONG 8.9

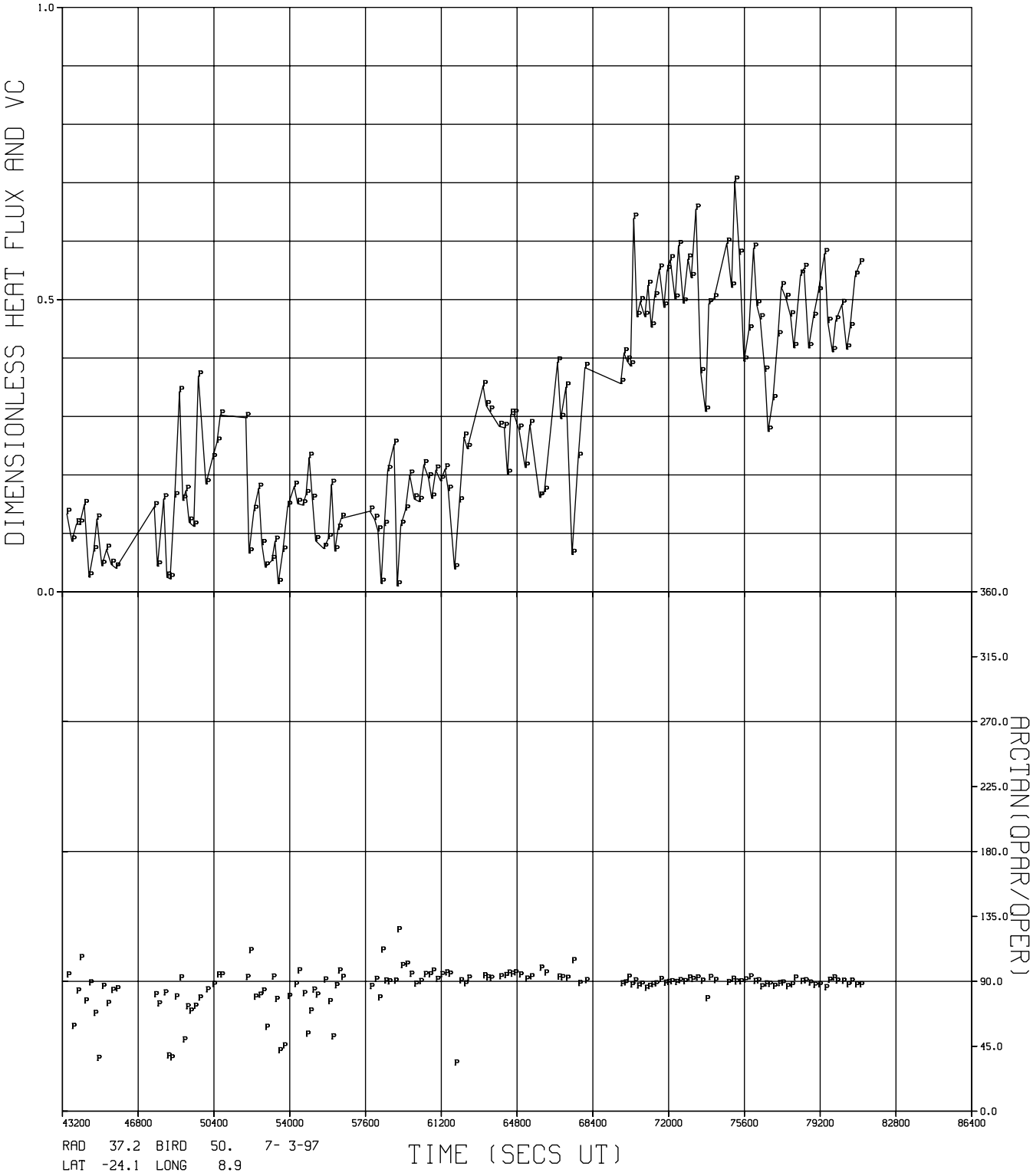

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.2 BIRD 50. 7- 3-97
LAT -24.1 LONG 8.9
TIME (SECS UT)

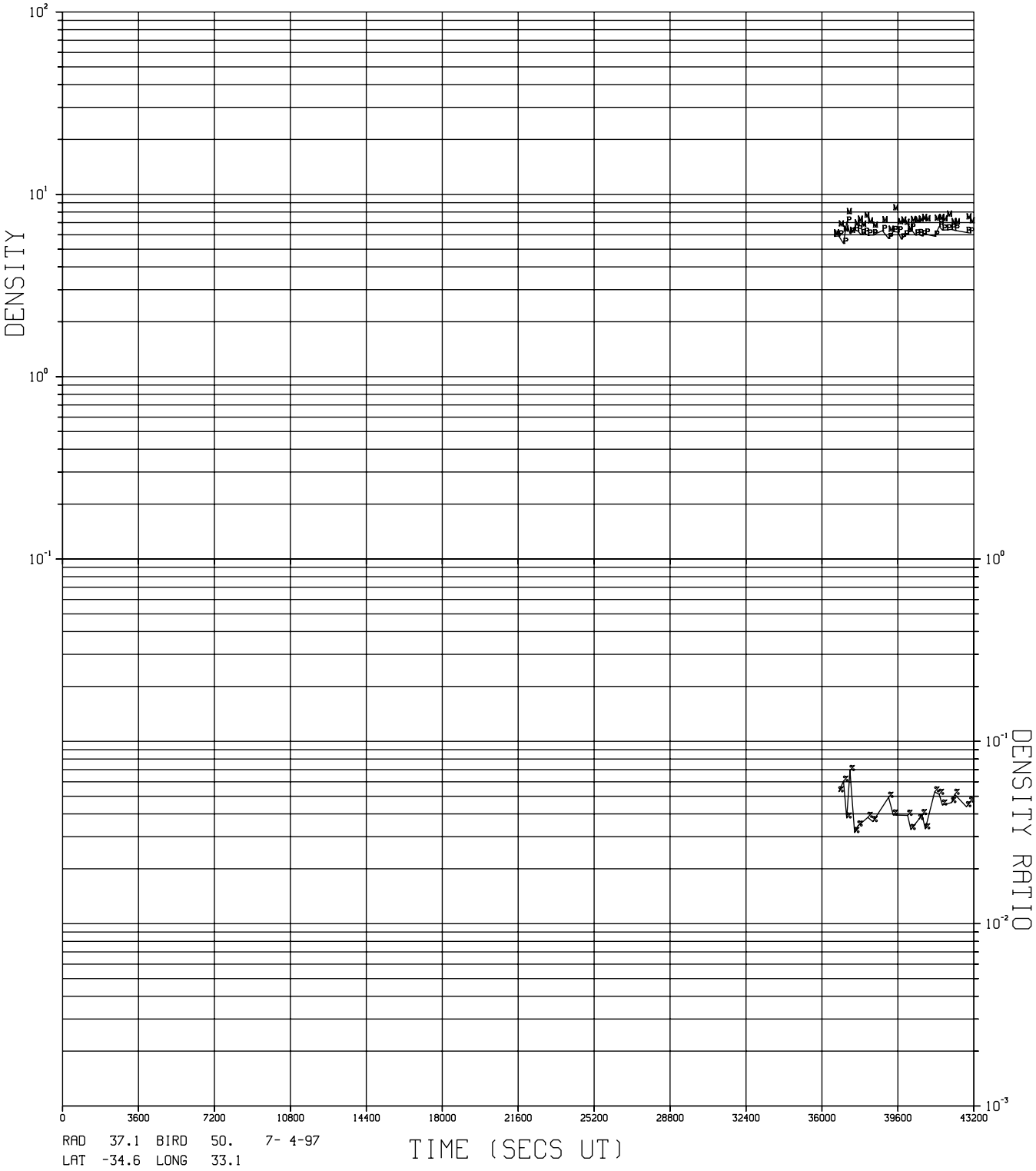

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.2 BIRD 50. 7- 3-97
LAT -24.1 LONG 8.9

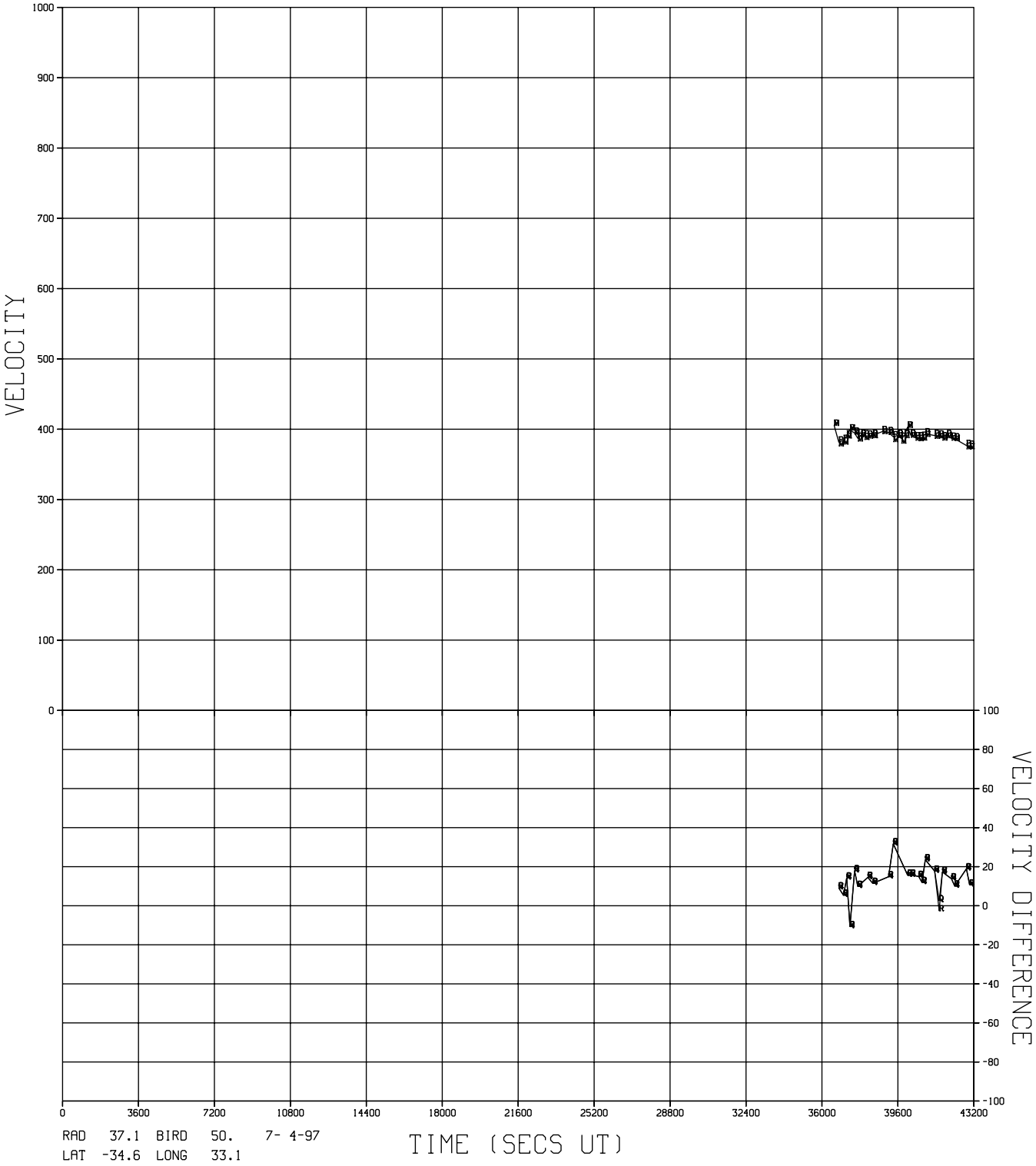

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 37.2 BIRD 50. 7- 3-97
LAT -24.1 LONG 8.9

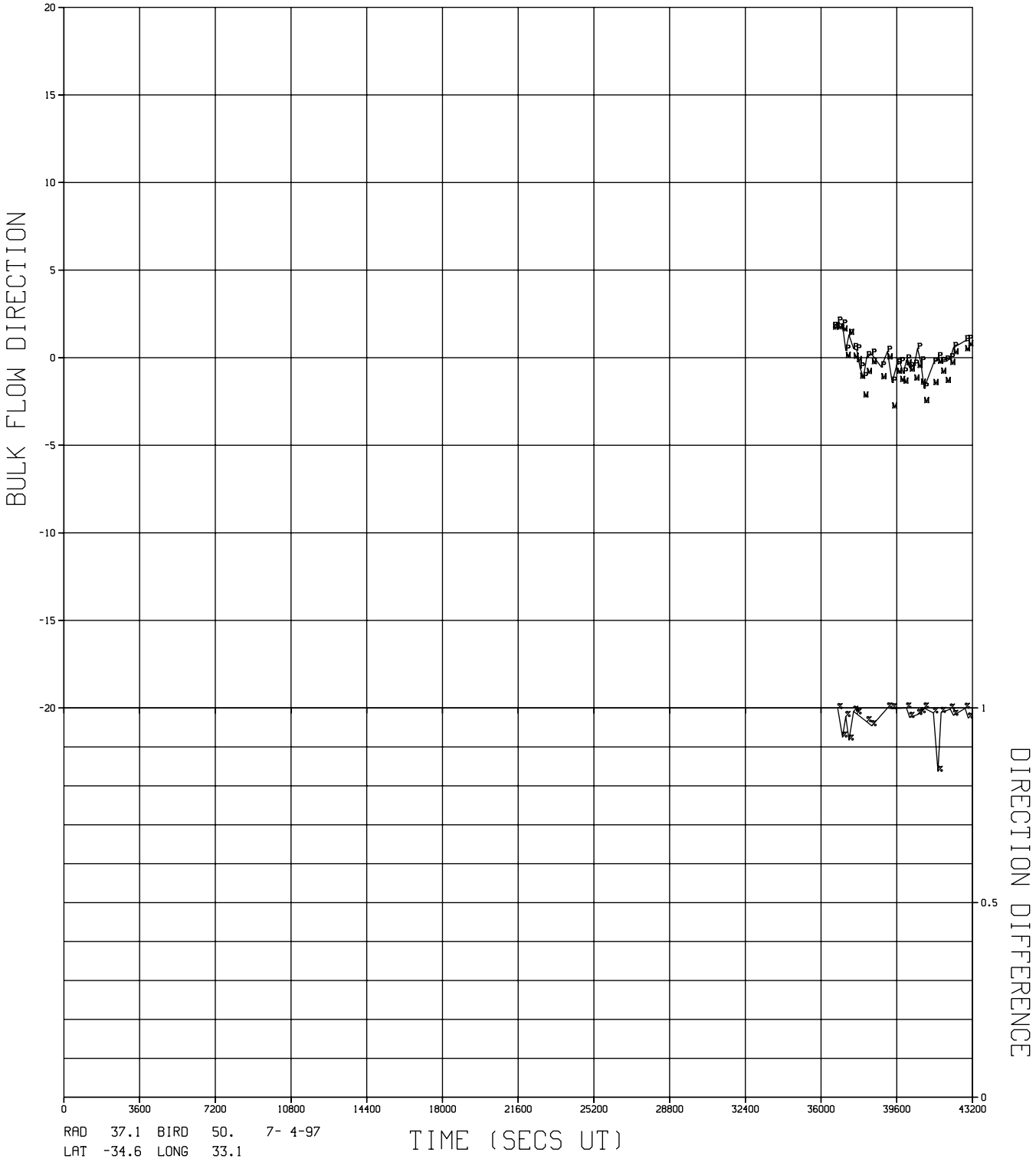

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.2 BIRD 50. 7- 3-97
LAT -24.1 LONG 8.9

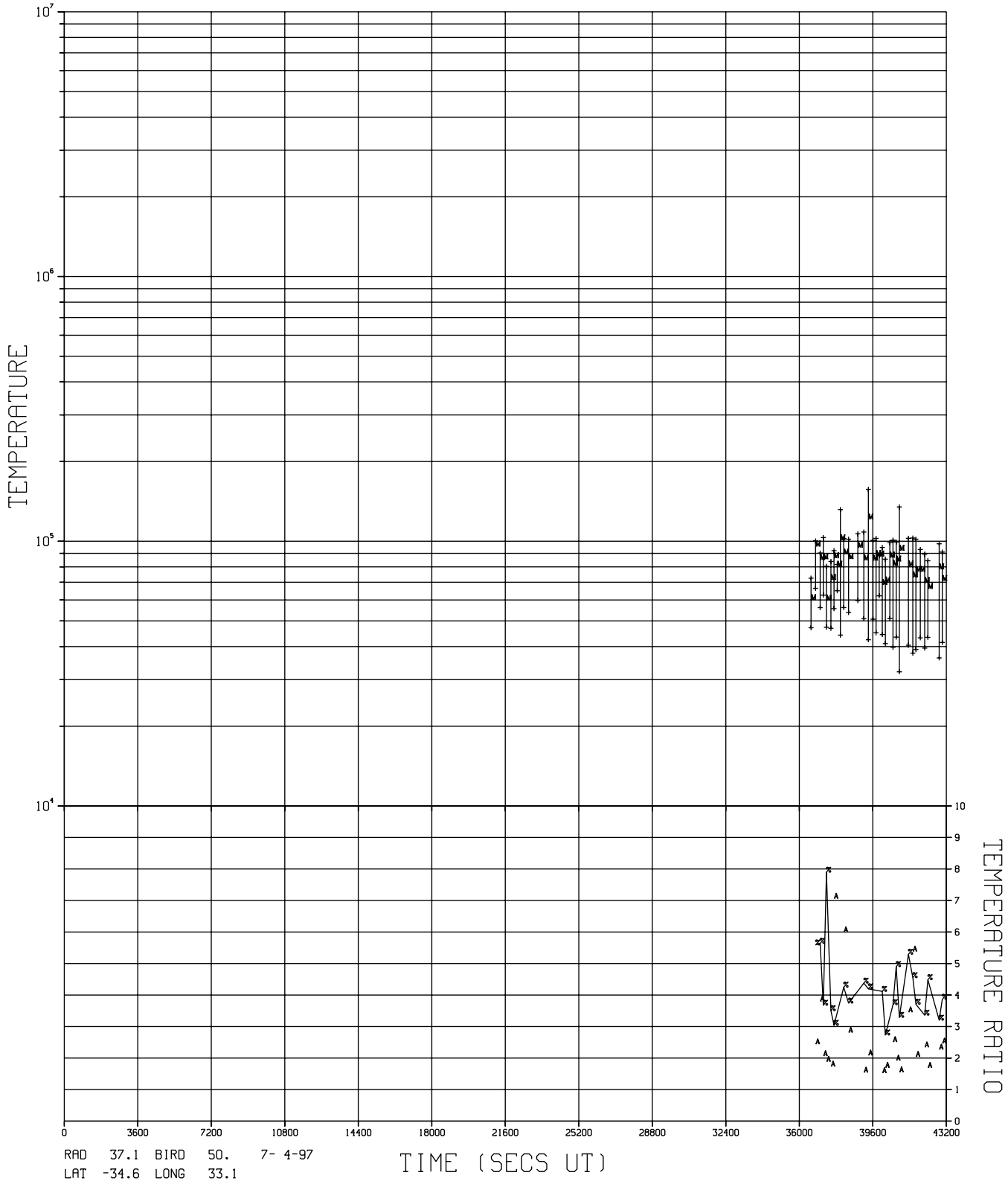

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.2 BIRD 50. 7- 3-97
LAT -24.1 LONG 8.9

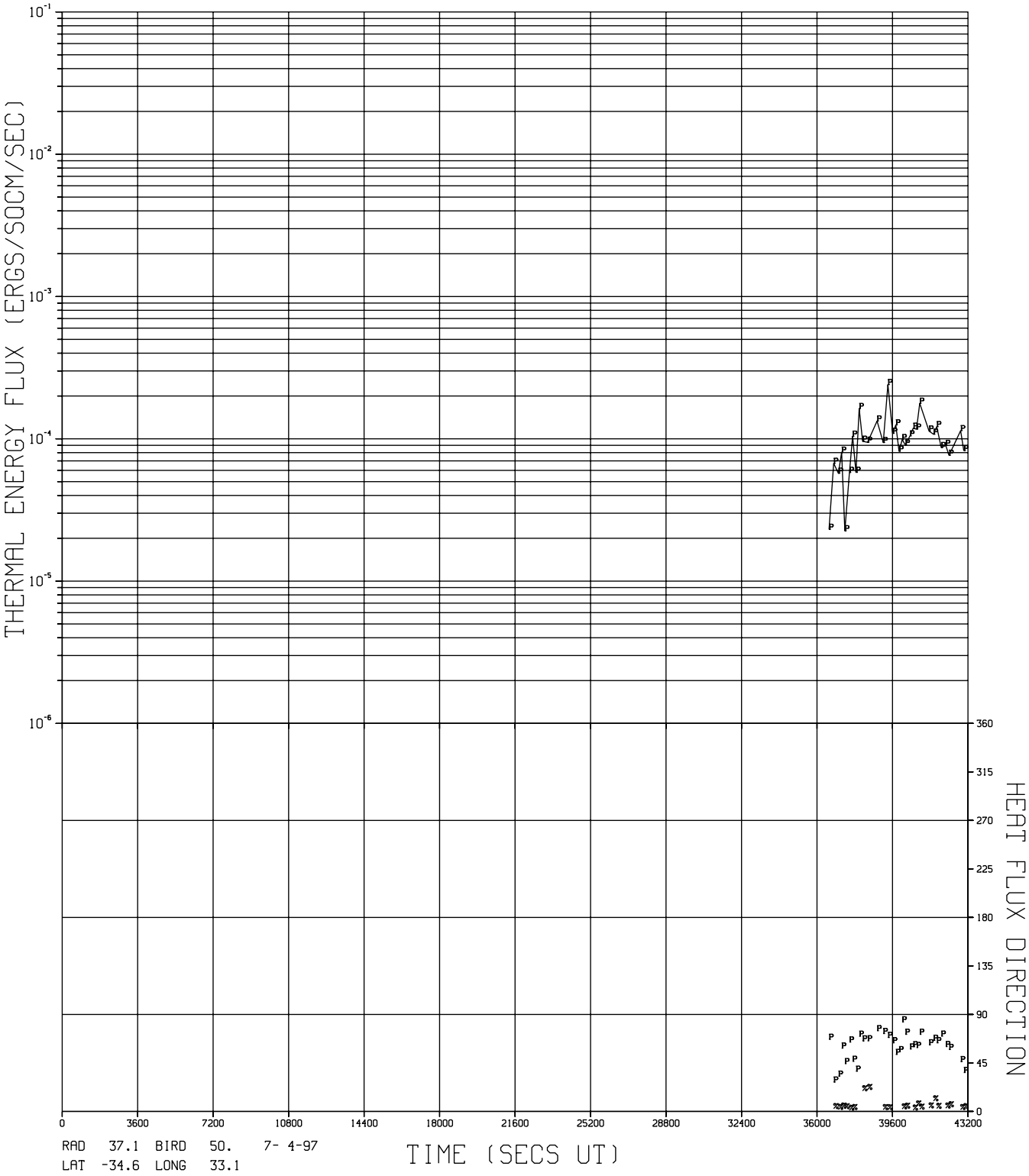

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 37.2 BIRD 50. 7- 3-97
LAT -24.1 LONG 8.9

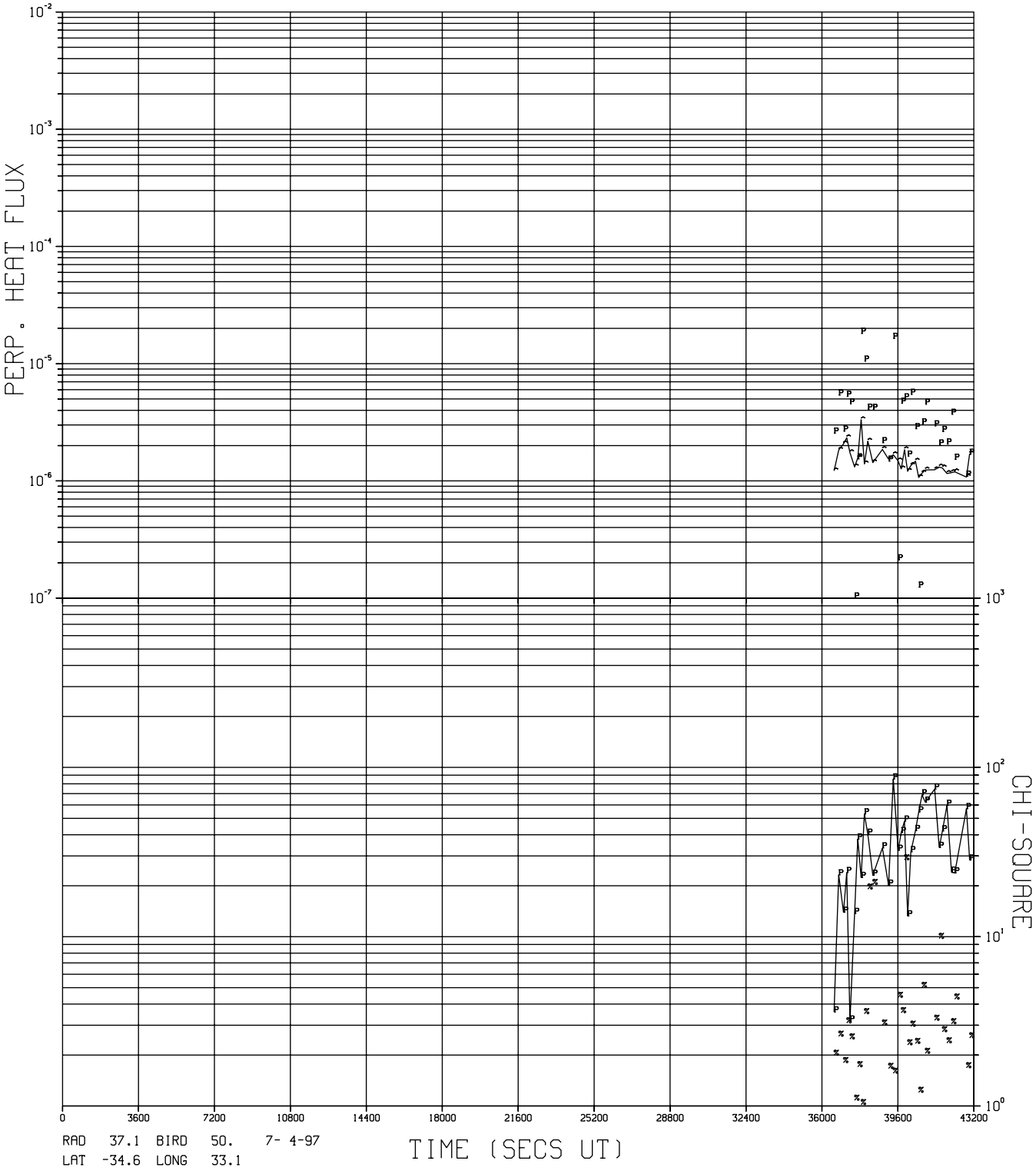

DENSITY
DENSITY RATIO
TIME (SECS UT)
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.1 BIRD 50. 7- 4-97
LAT -34.6 LONG 33.1

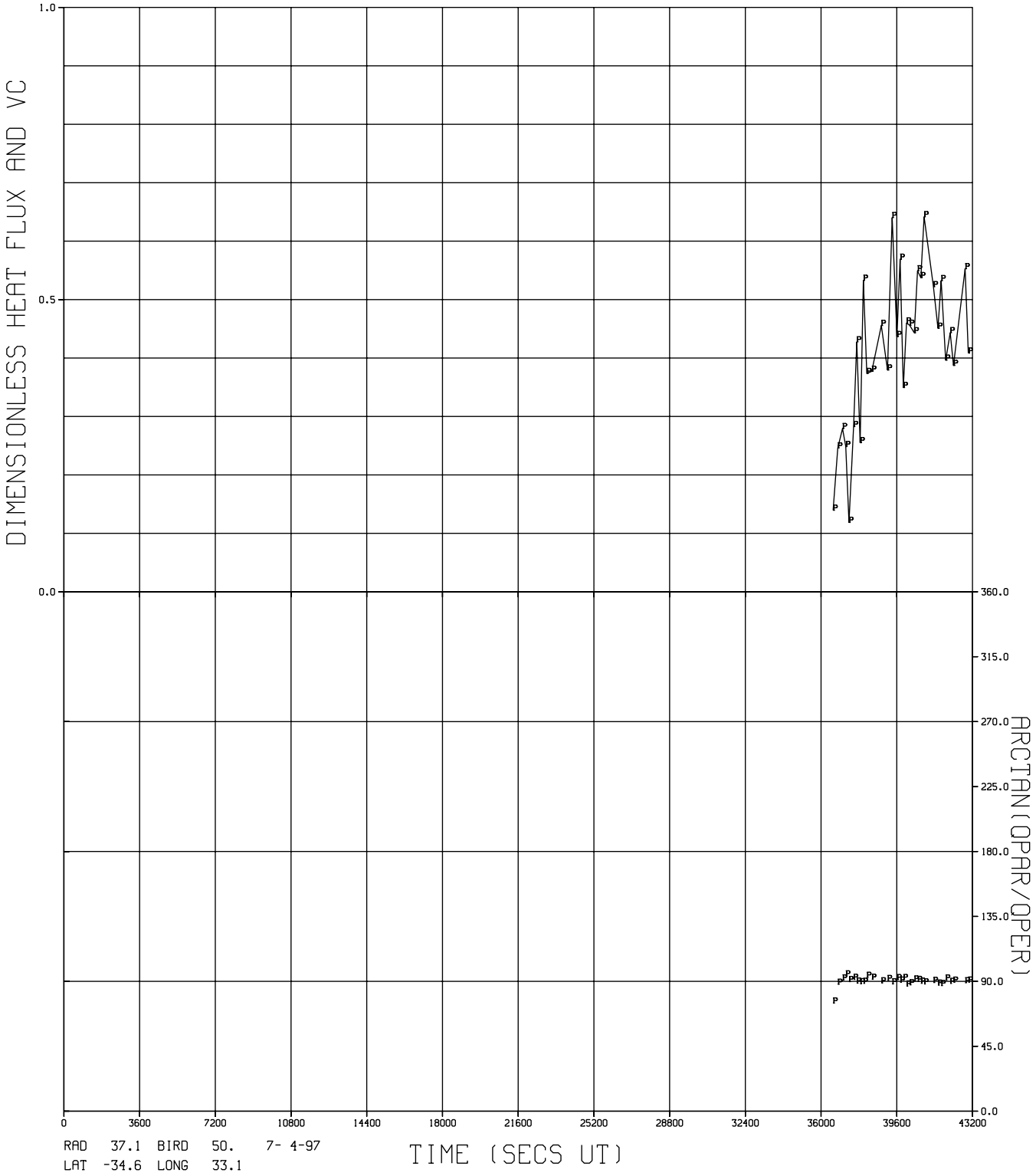

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 37.1 BIRD 50. 7- 4-97
LAT -34.6 LONG 33.1

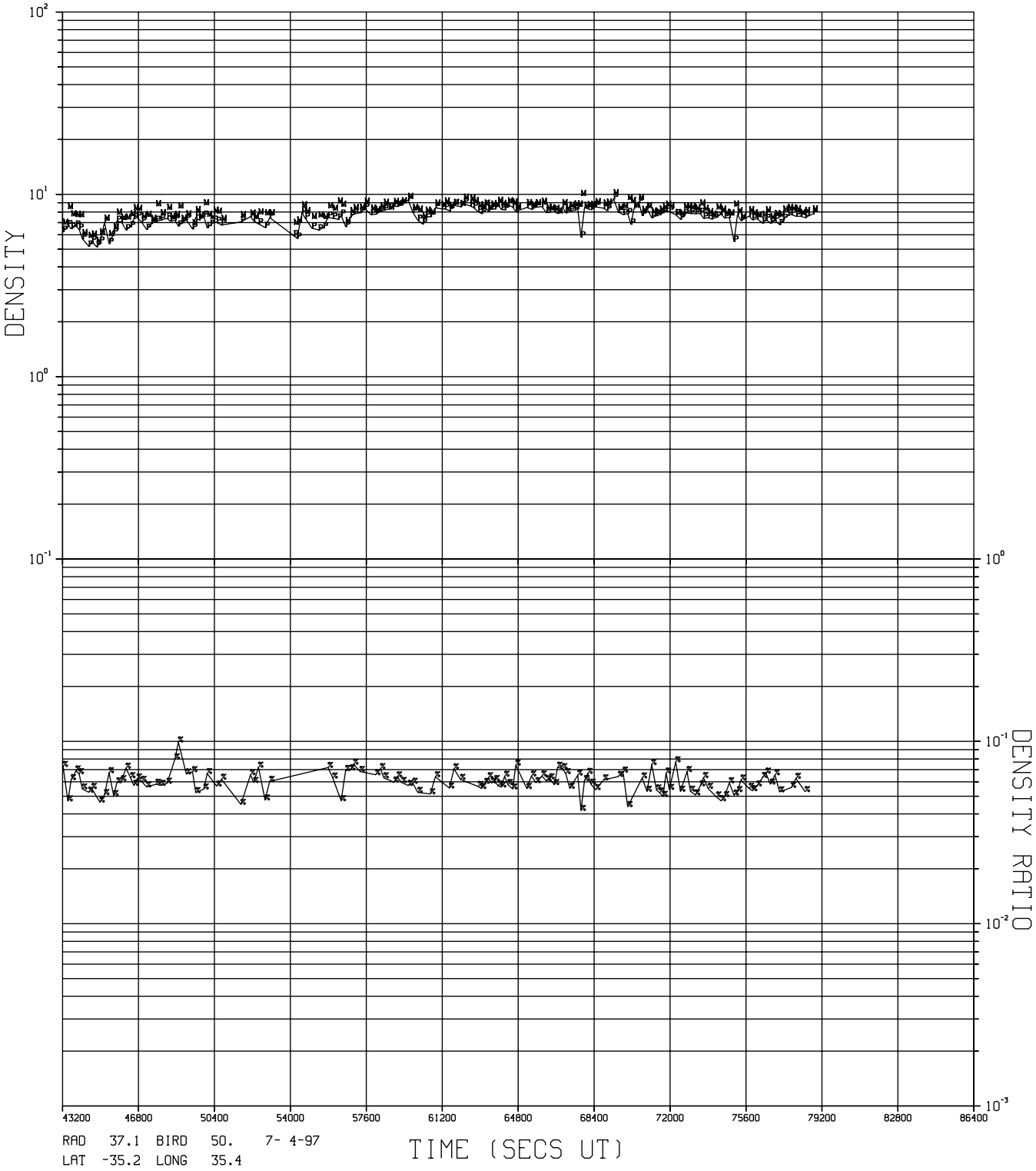

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 37.1 BIRD 50. 7- 4-97
LAT -34.6 LONG 33.1

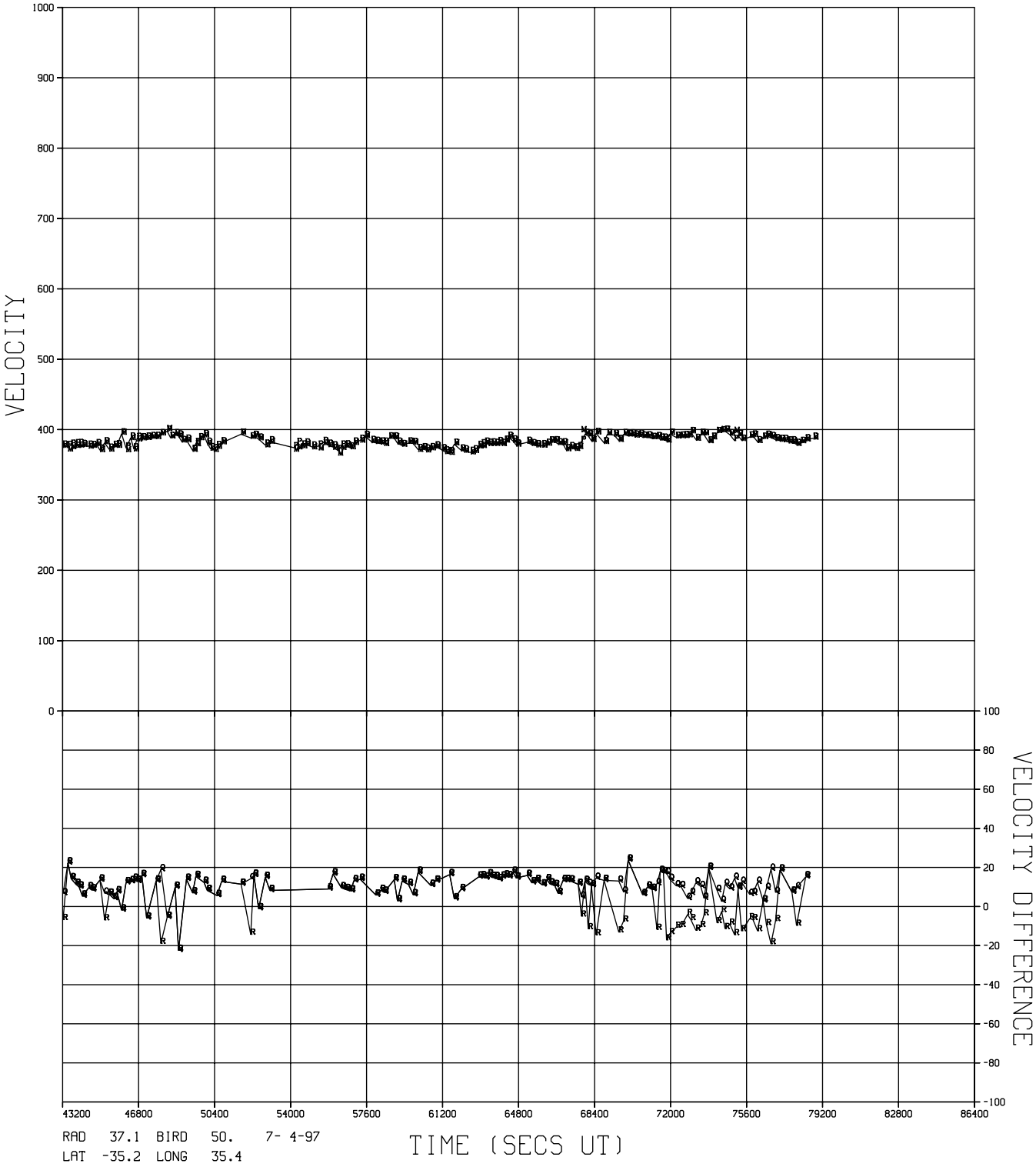

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 37.1 BIRD 50. 7- 4-97
LAT -34.6 LONG 33.1

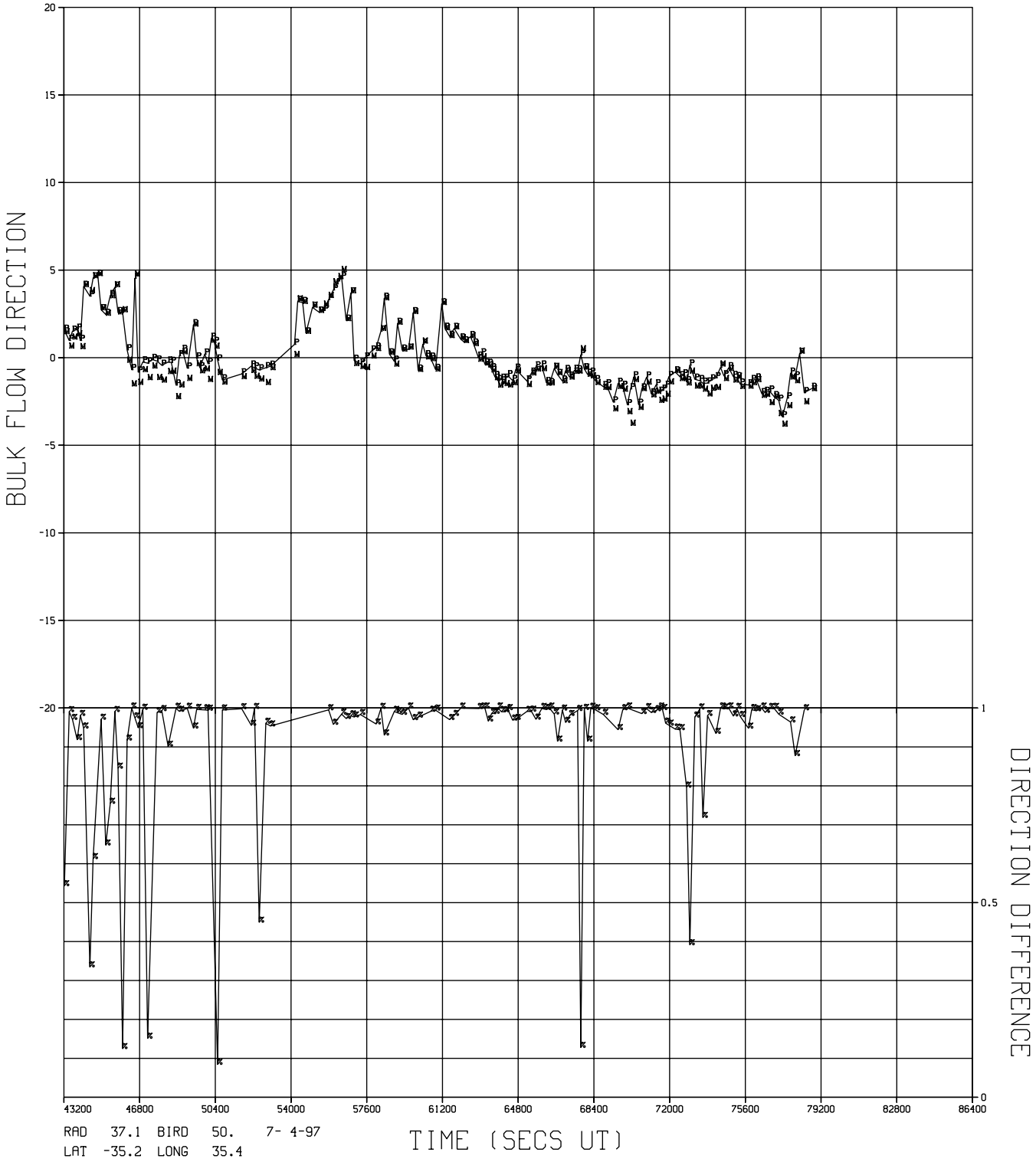

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.1 BIRD 50. 7- 4-97
LAT -34.6 LONG 33.1

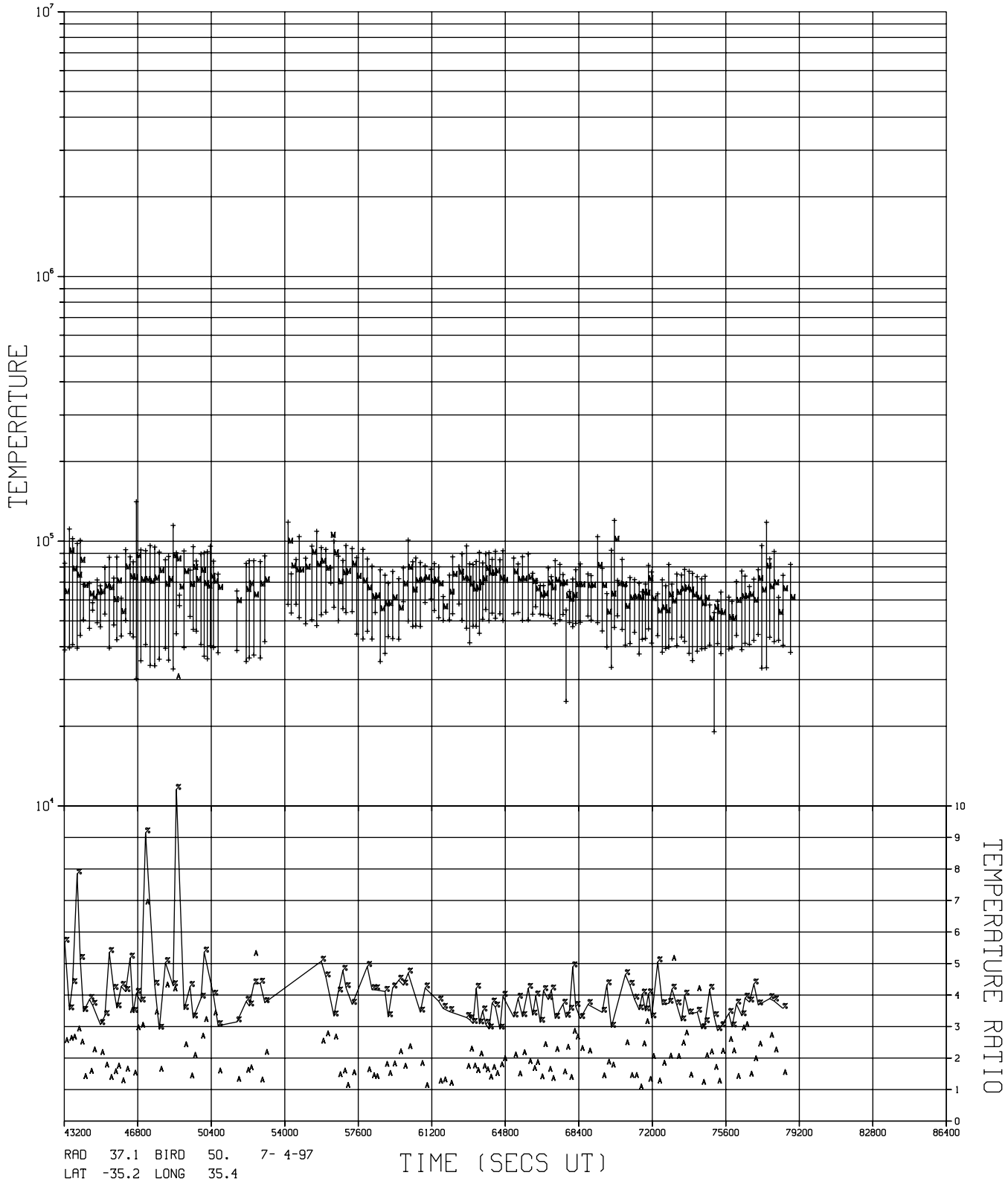

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 37.1 BIRD 50. 7- 4-97
LAT -34.6 LONG 33.1

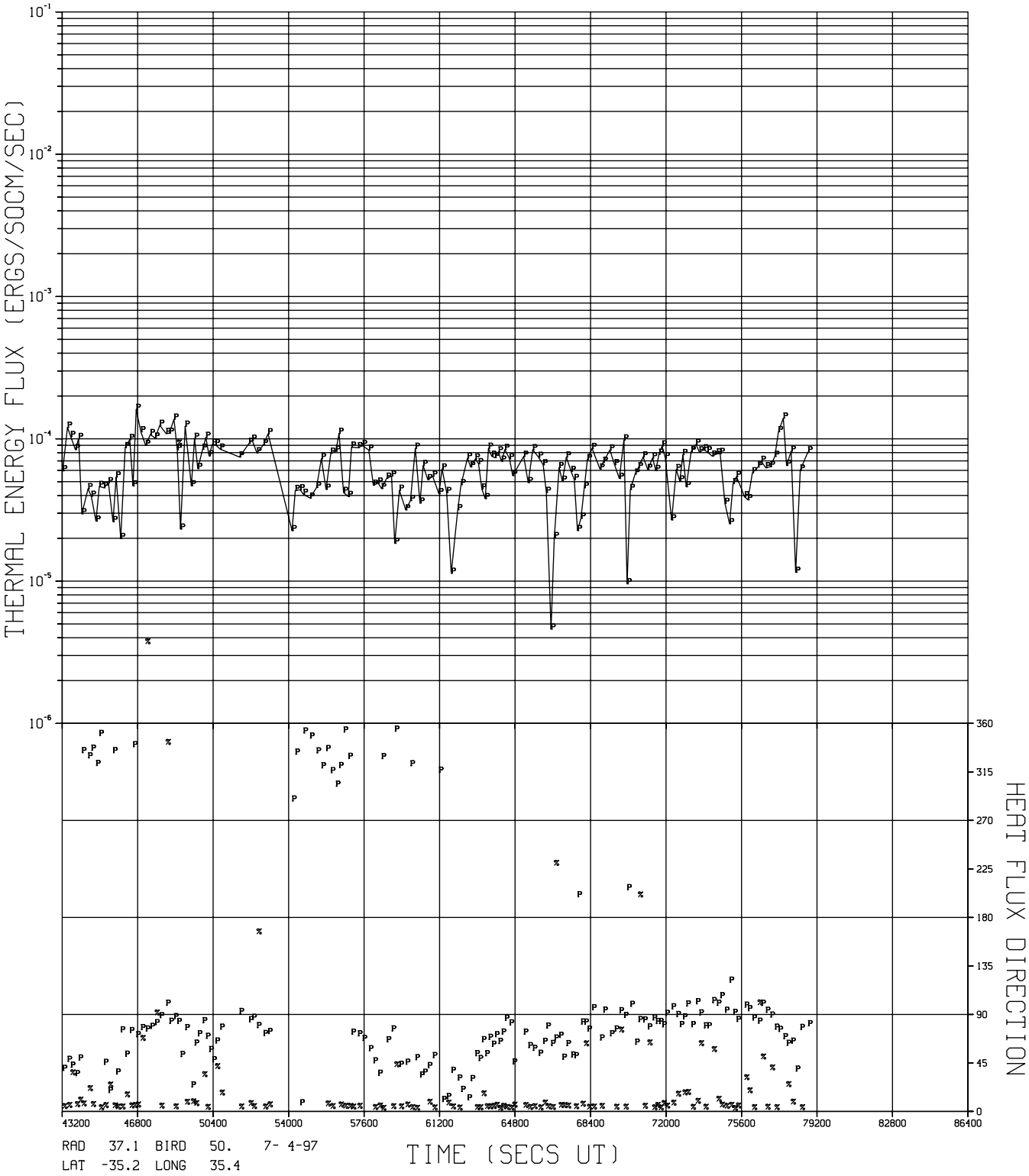

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 37.1 BIRD 50. 7- 4-97
LAT -34.6 LONG 33.1

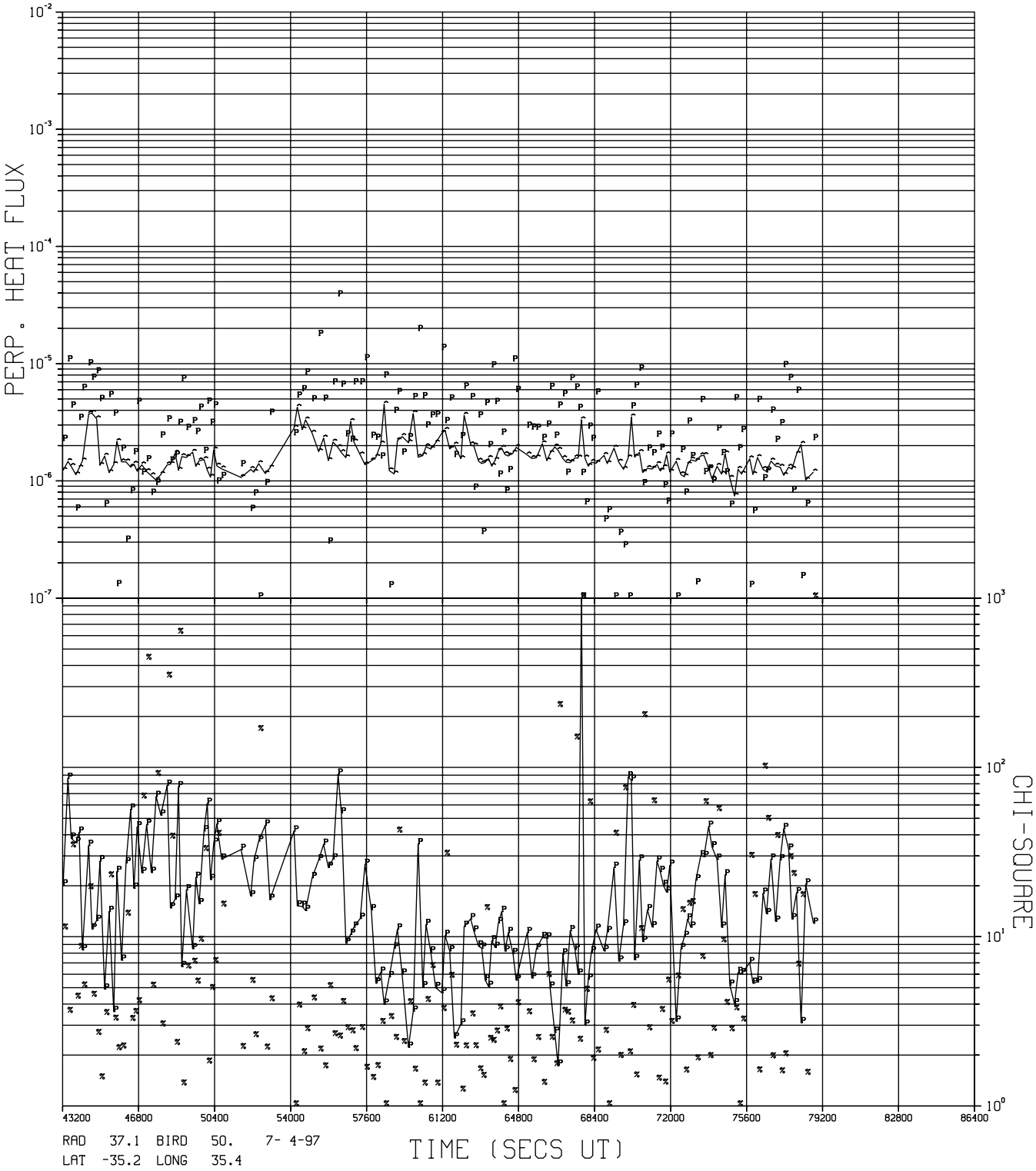

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.1 BIRD 50. 7- 4-97
LAT -35.2 LONG 35.4

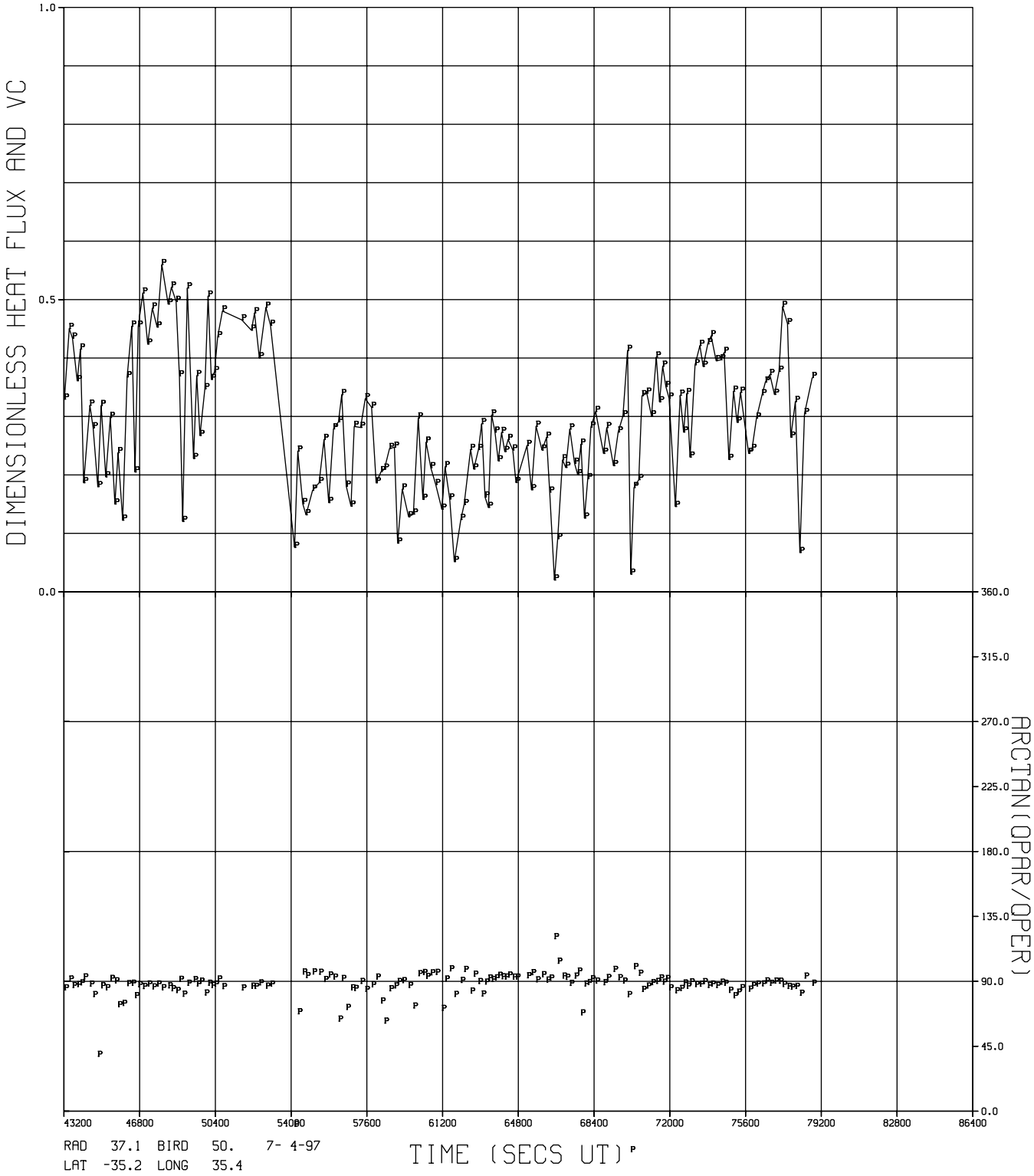

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 37.1 BIRD 50. 7- 4-97
LAT -35.2 LONG 35.4


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 37.1 BIRD 50. 7- 4-97
LAT -35.2 LONG 35.4


TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 37.1 BIRD 50. 7- 4-97
LAT -35.2 LONG 35.4


THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.1 BIRD 50. 7- 4-97
LAT -35.2 LONG 35.4


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. 7- 4-97
LAT -35.2 LONG 35.4


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 37.1 BIRD 50. 7- 4-97
LAT -35.2 LONG 35.4