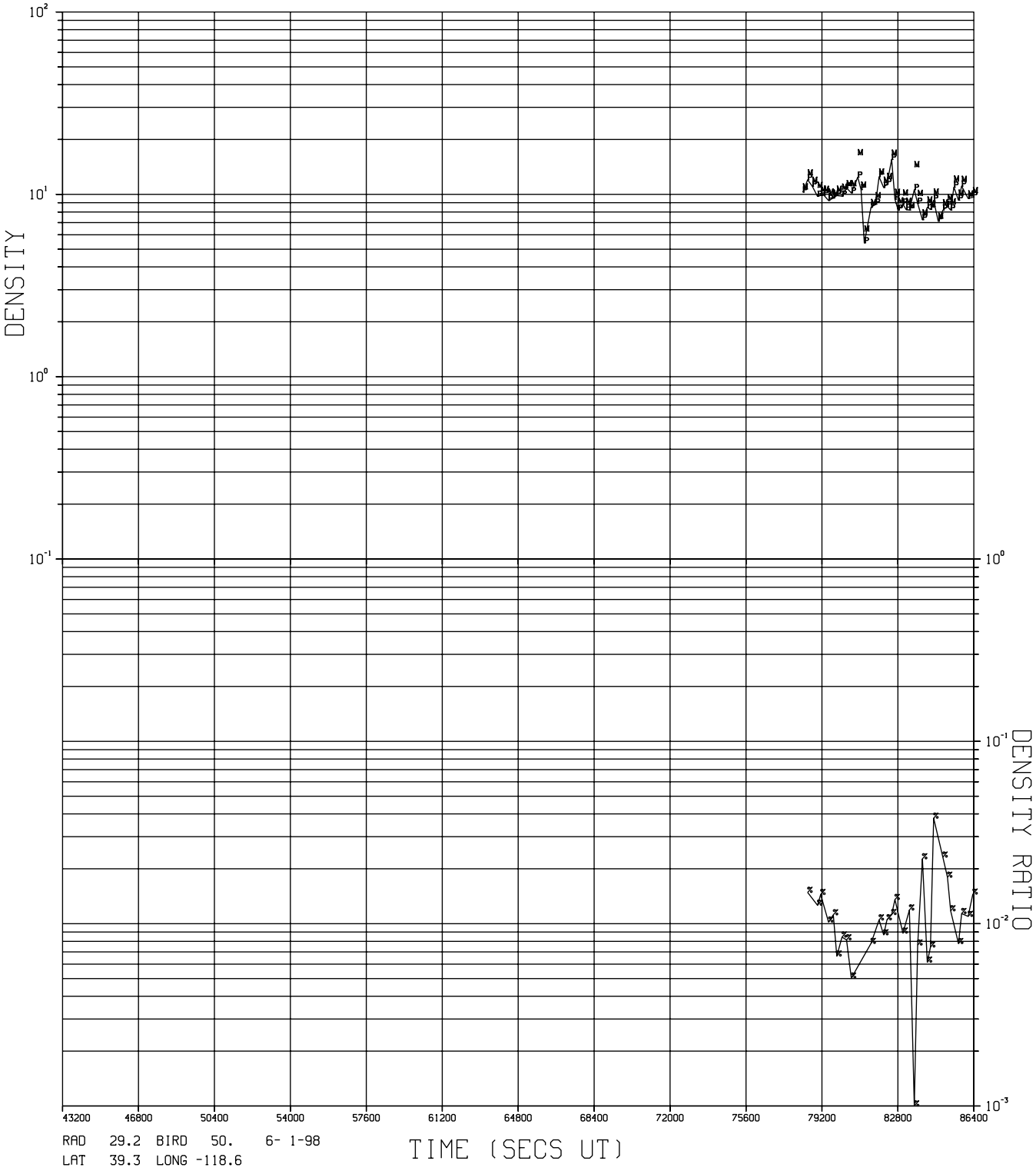
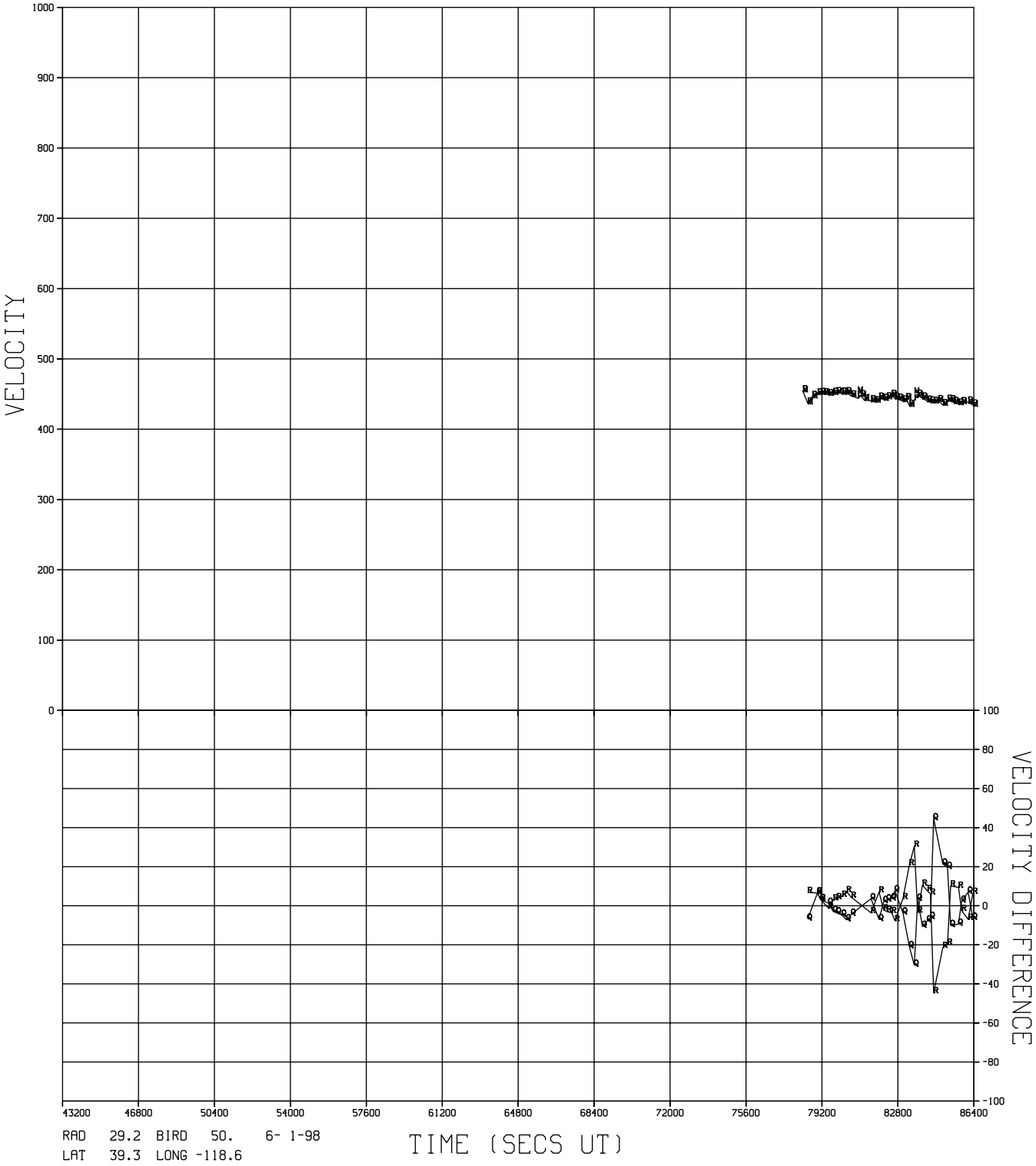
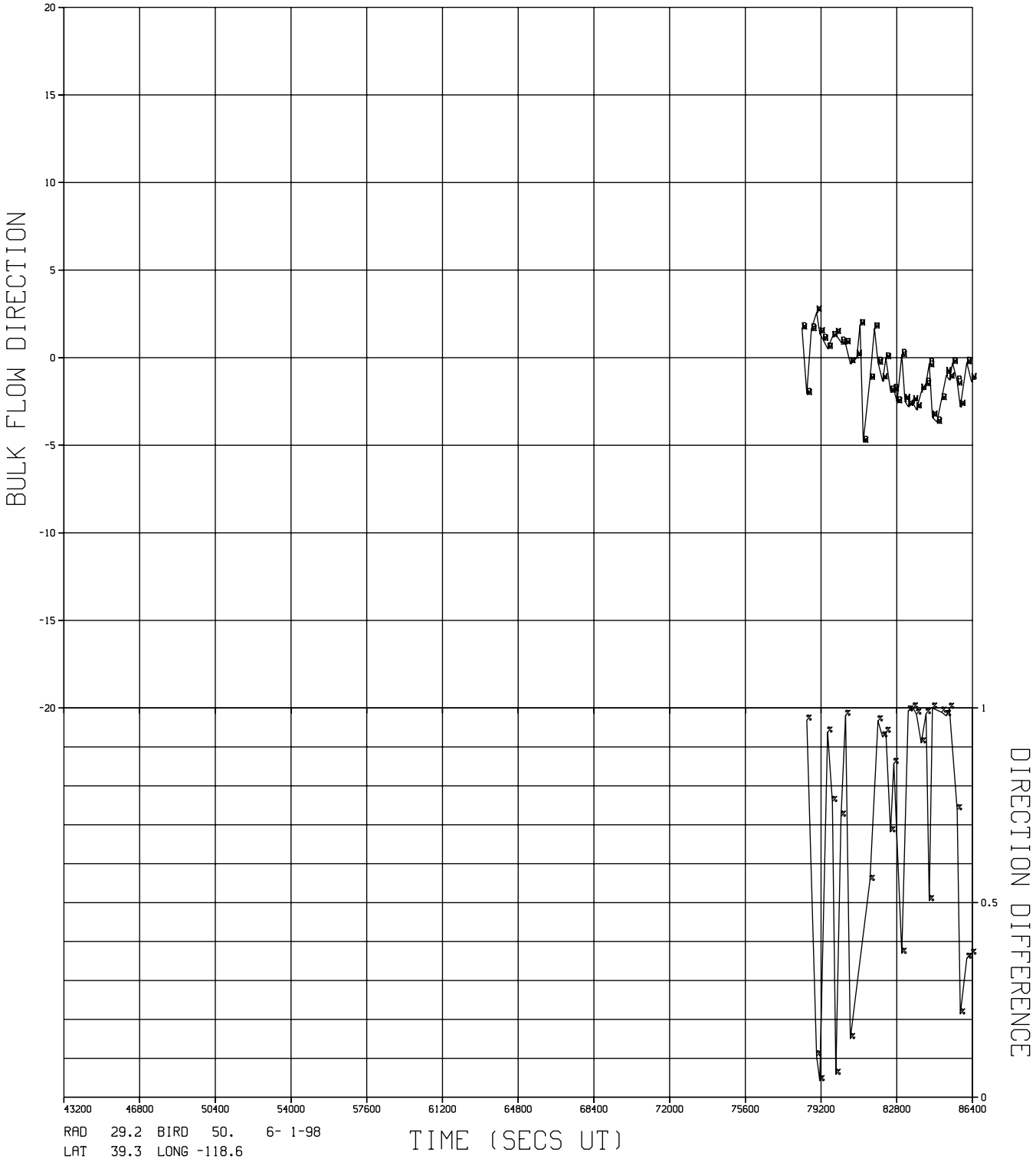
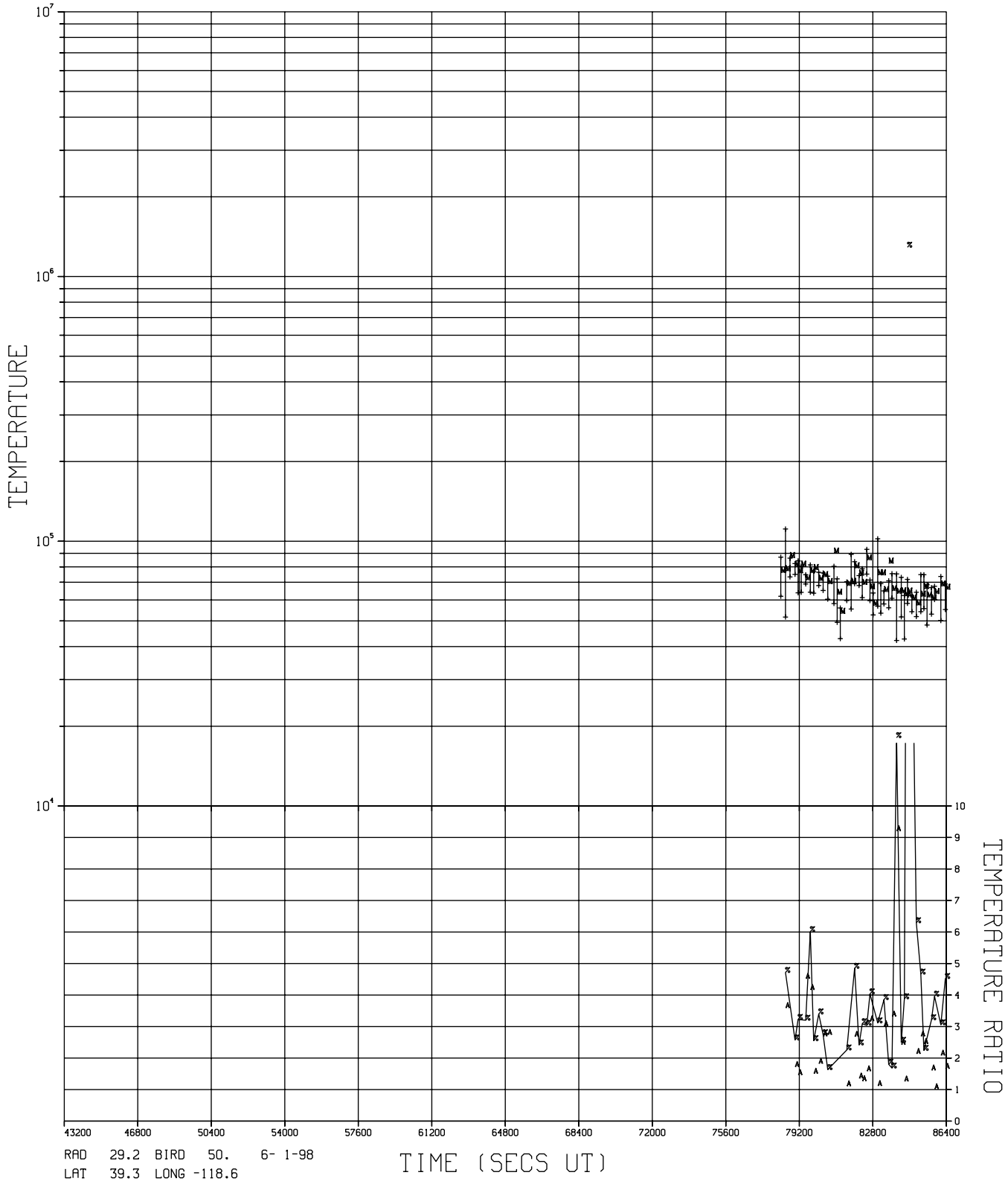
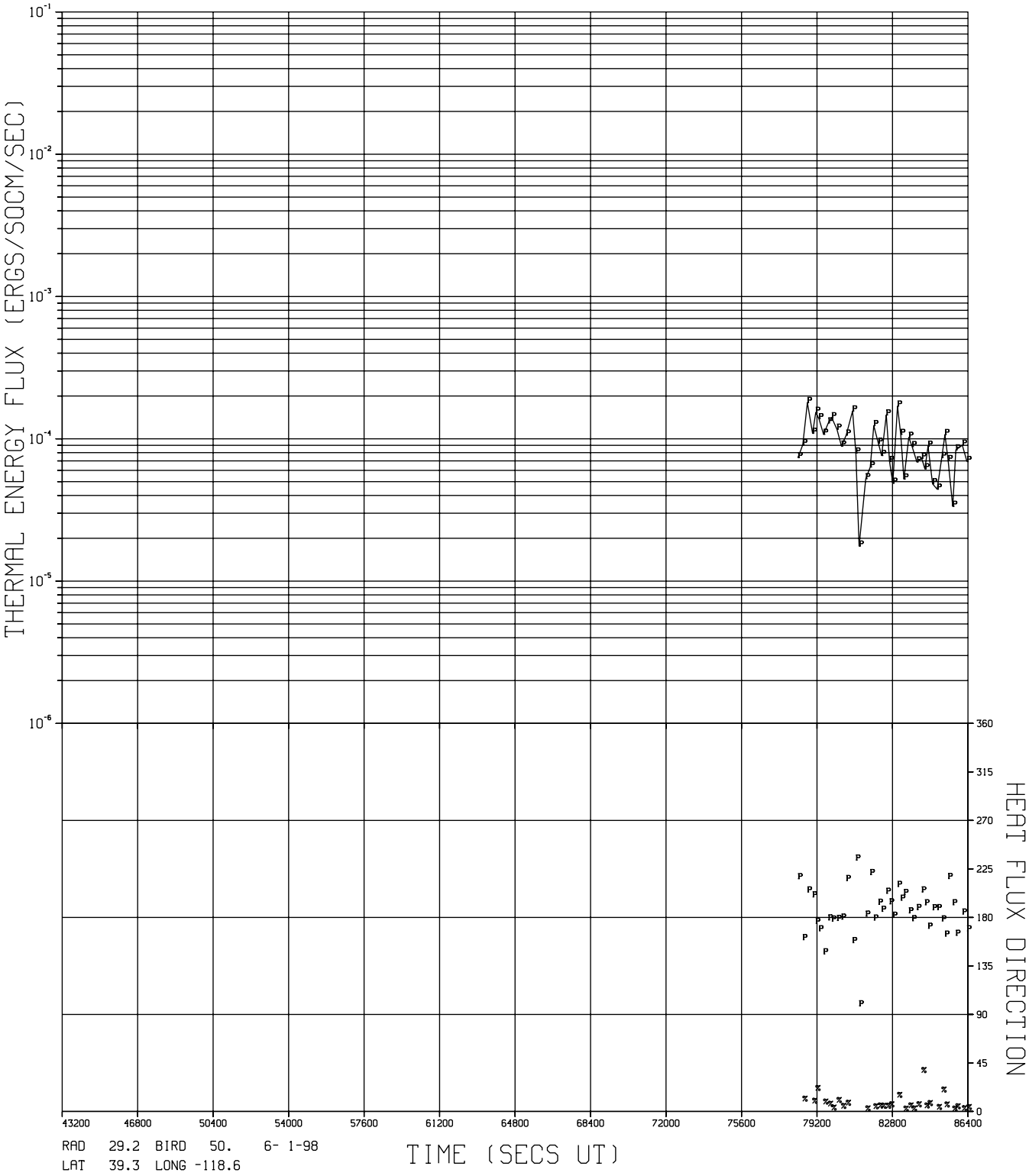
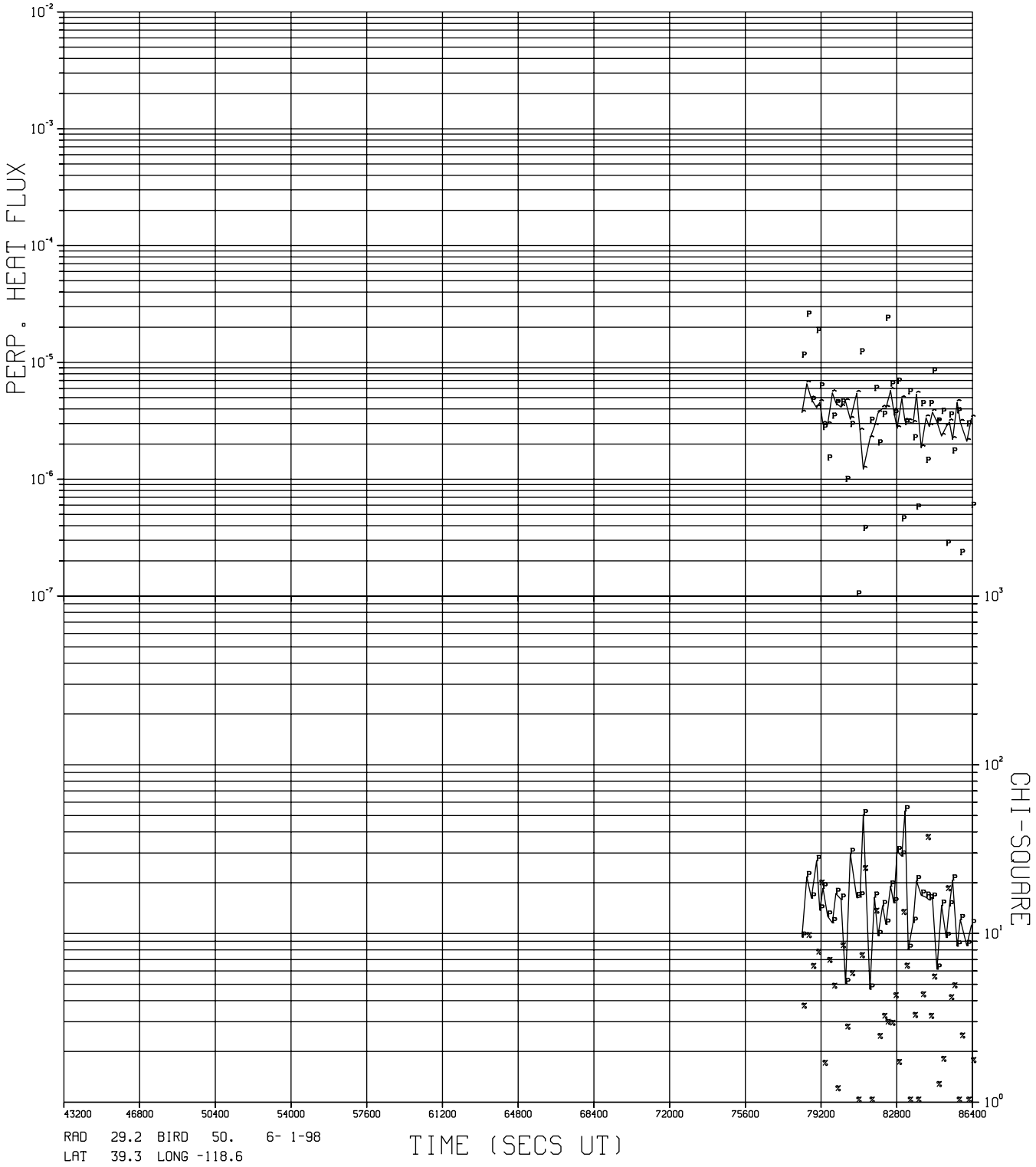

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 29.2 BIRD 50. 6- 1-98
LAT 39.3 LONG -118.6

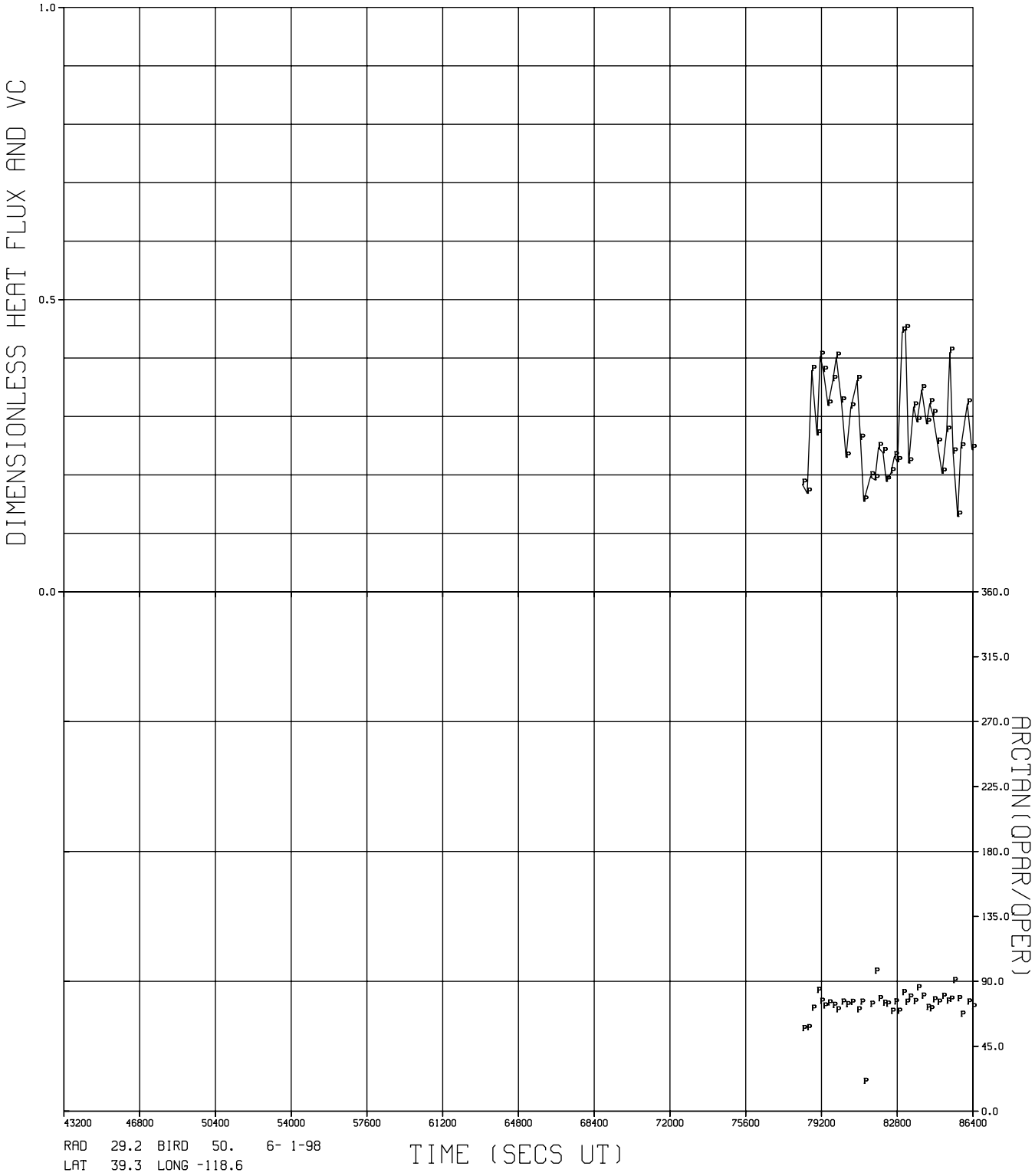

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 29.2 BIRD 50. 6- 1-98
LAT 39.3 LONG -118.6

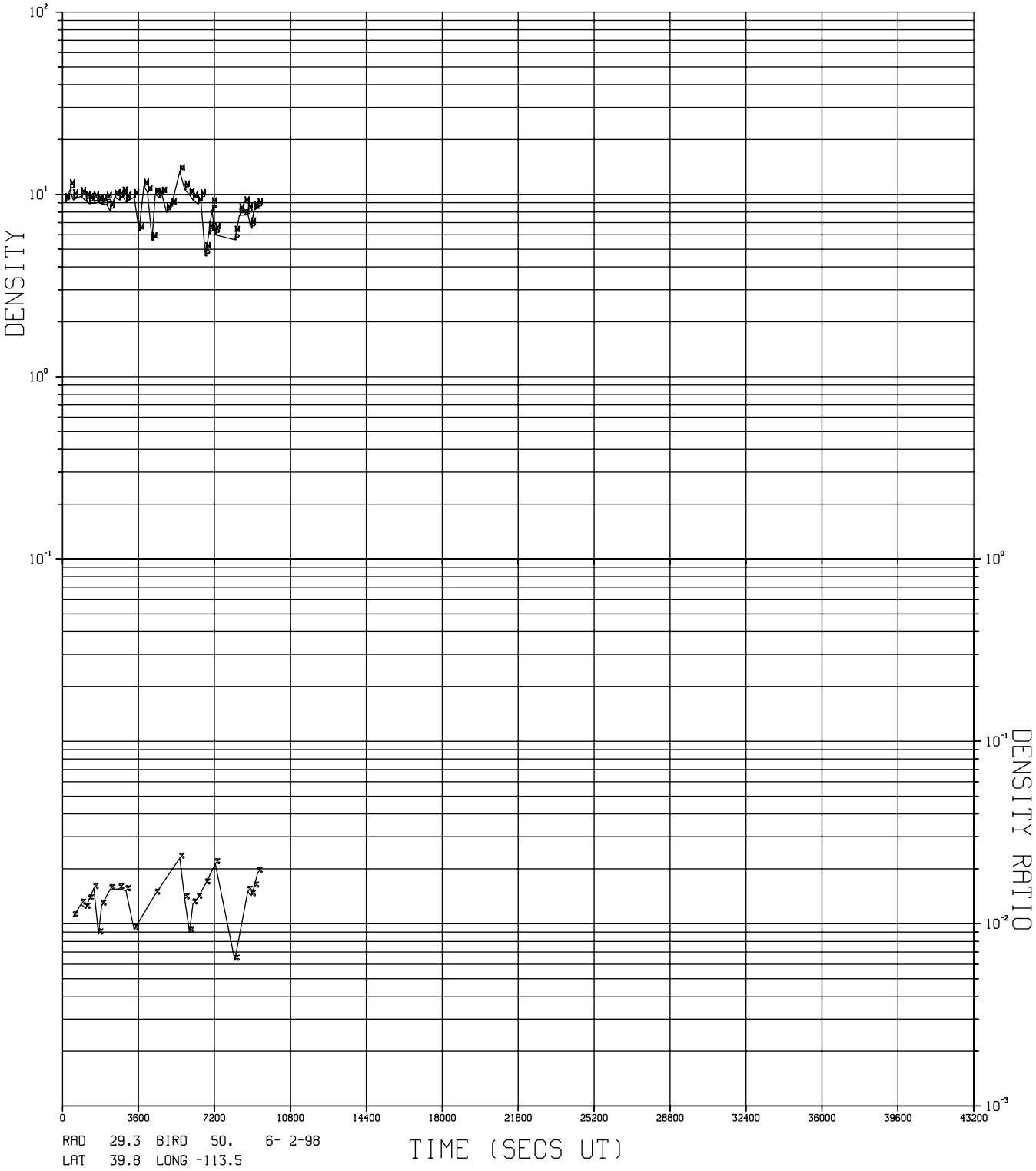

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 29.2 BIRD 50. 6- 1-98
LAT 39.3 LONG -118.6

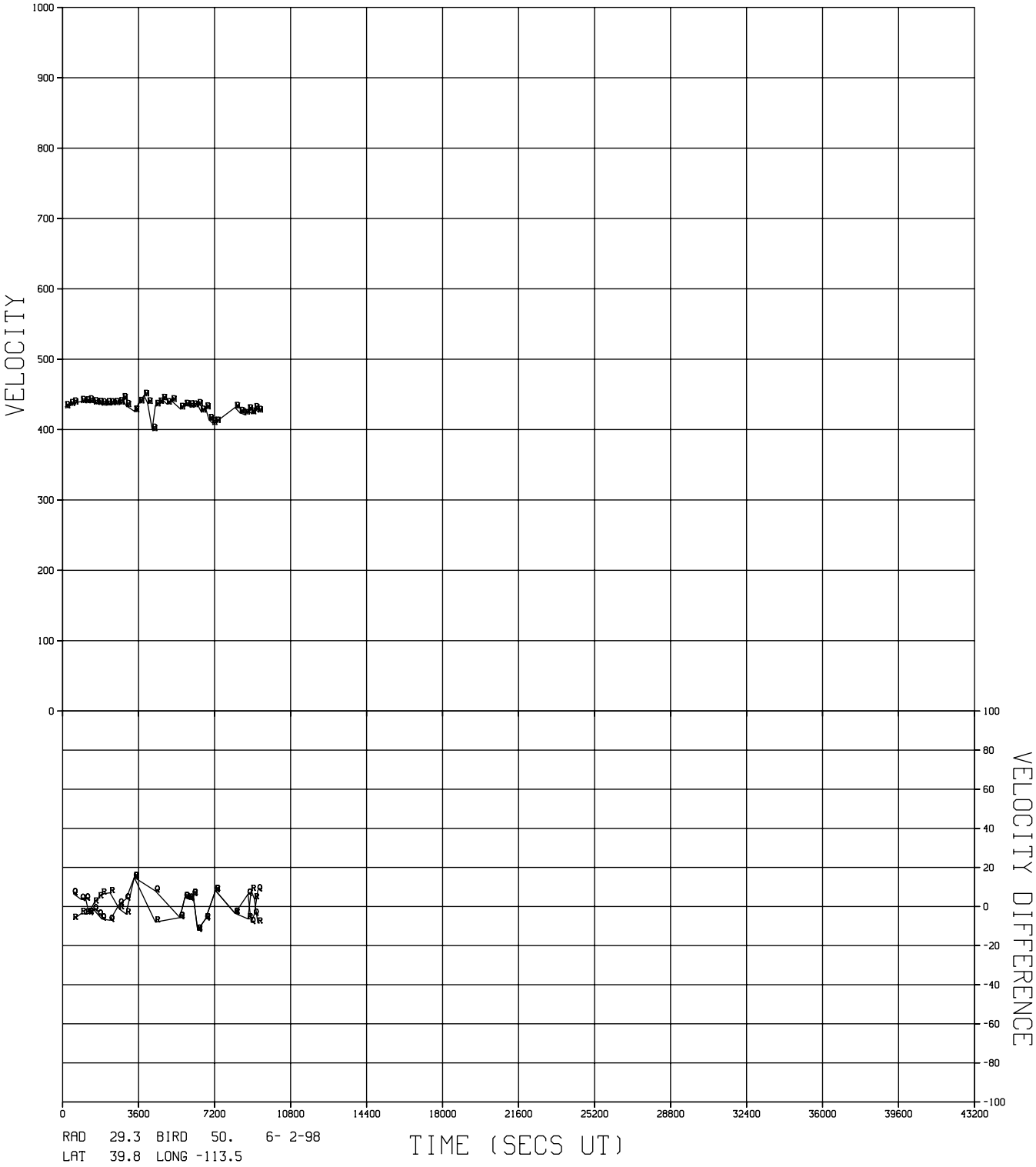

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 29.2 BIRD 50. 6- 1-98
LAT 39.3 LONG -118.6

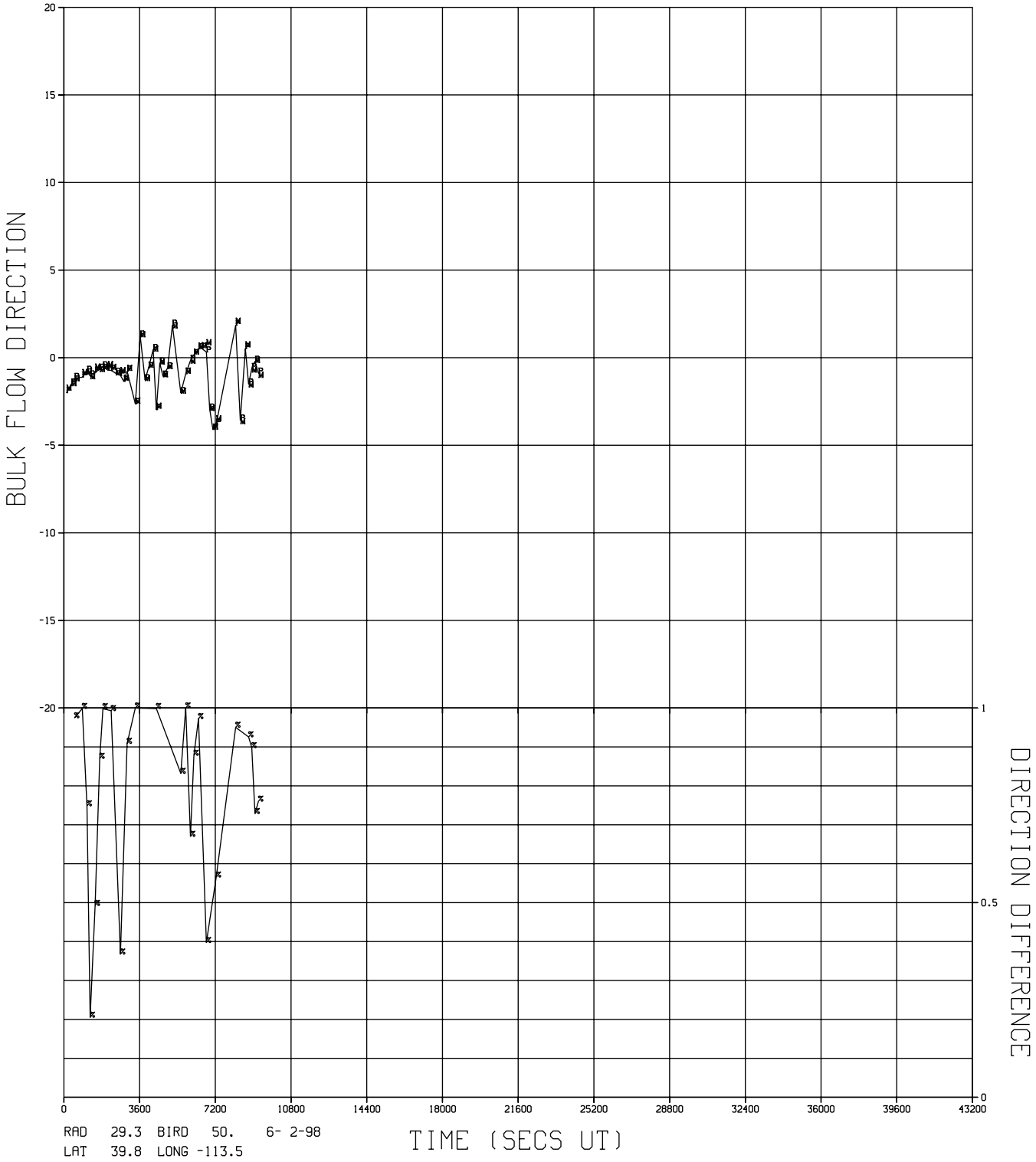

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 29.2 BIRD 50. 6- 1-98
LAT 39.3 LONG -118.6

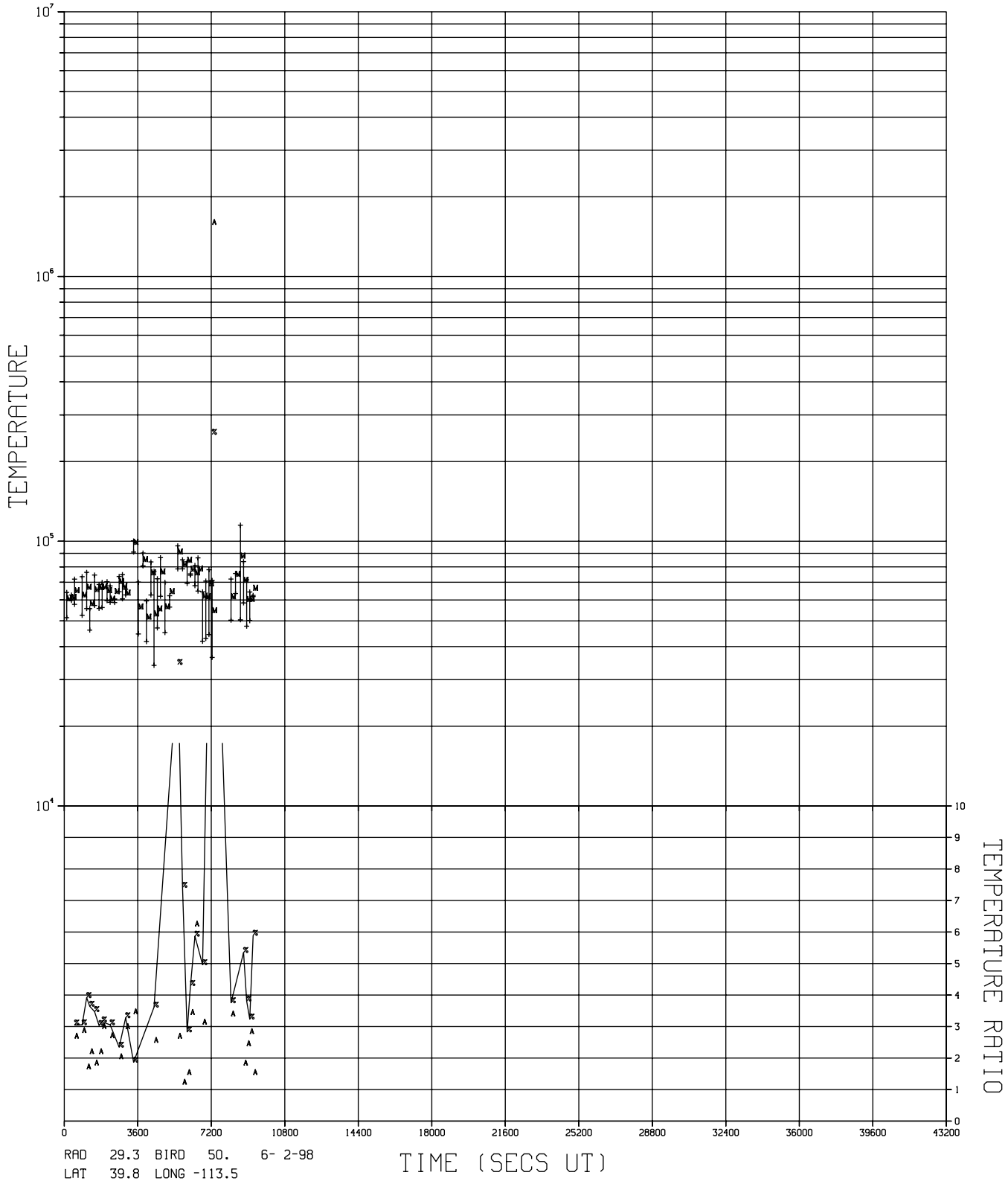

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 29.2 BIRD 50. 6- 1-98
LAT 39.3 LONG -118.6

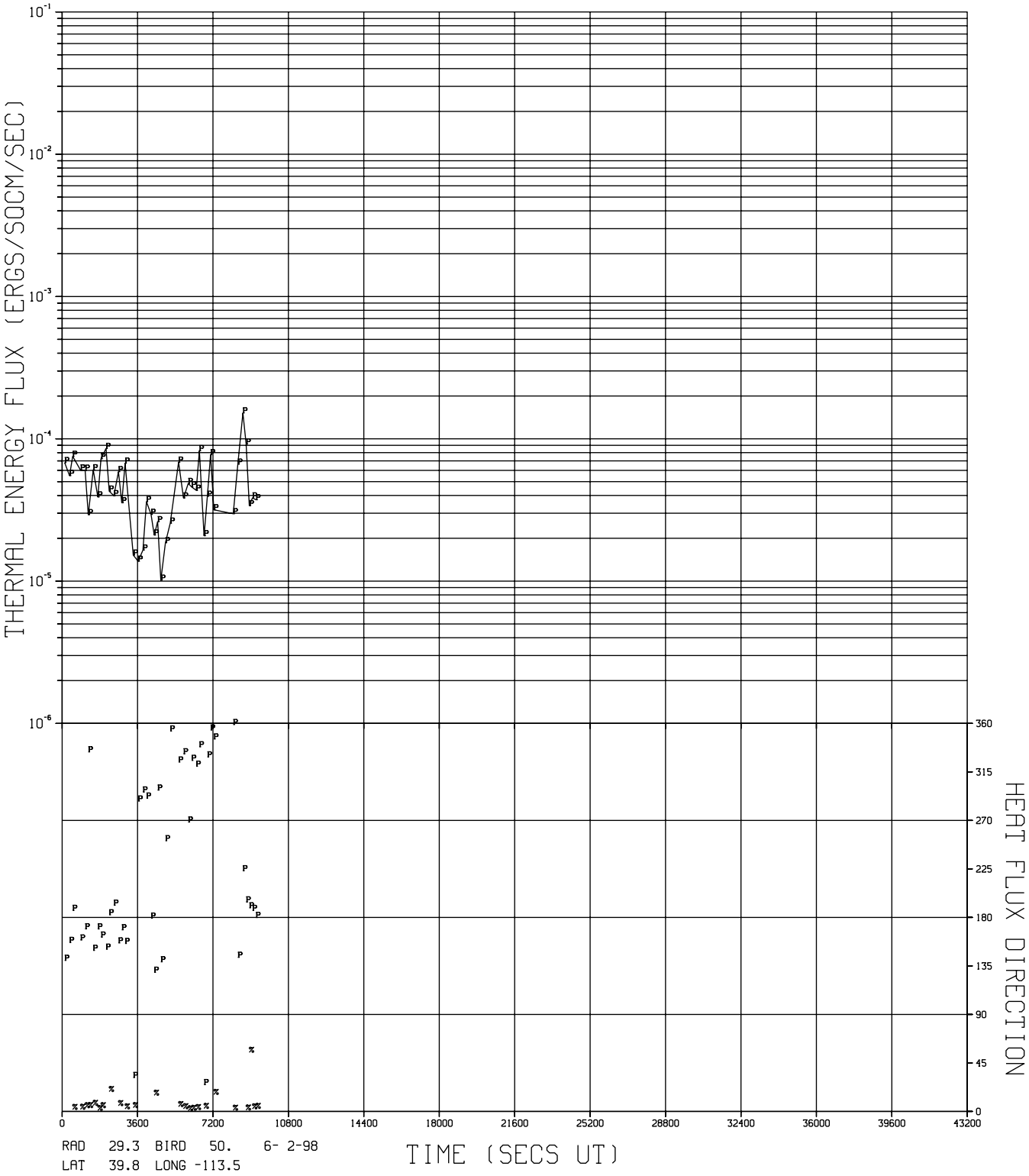

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 29.2 BIRD 50. 6- 1-98
LAT 39.3 LONG -118.6

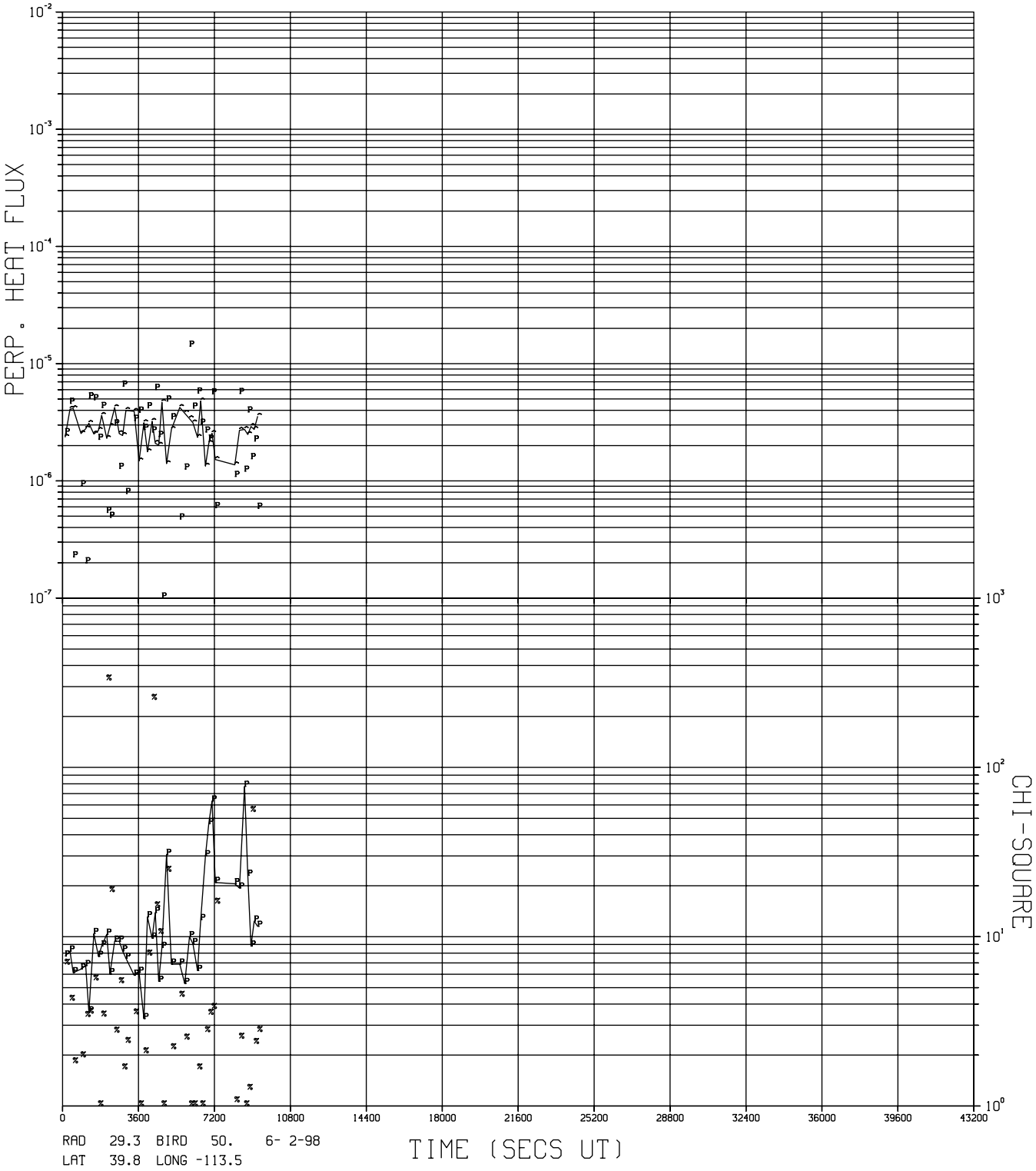

DENSITY
DENSITY RATIO
TIME (SECS UT)
RAD 29.3 BIRD 50. 6- 2-98
LAT 39.8 LONG -113.5

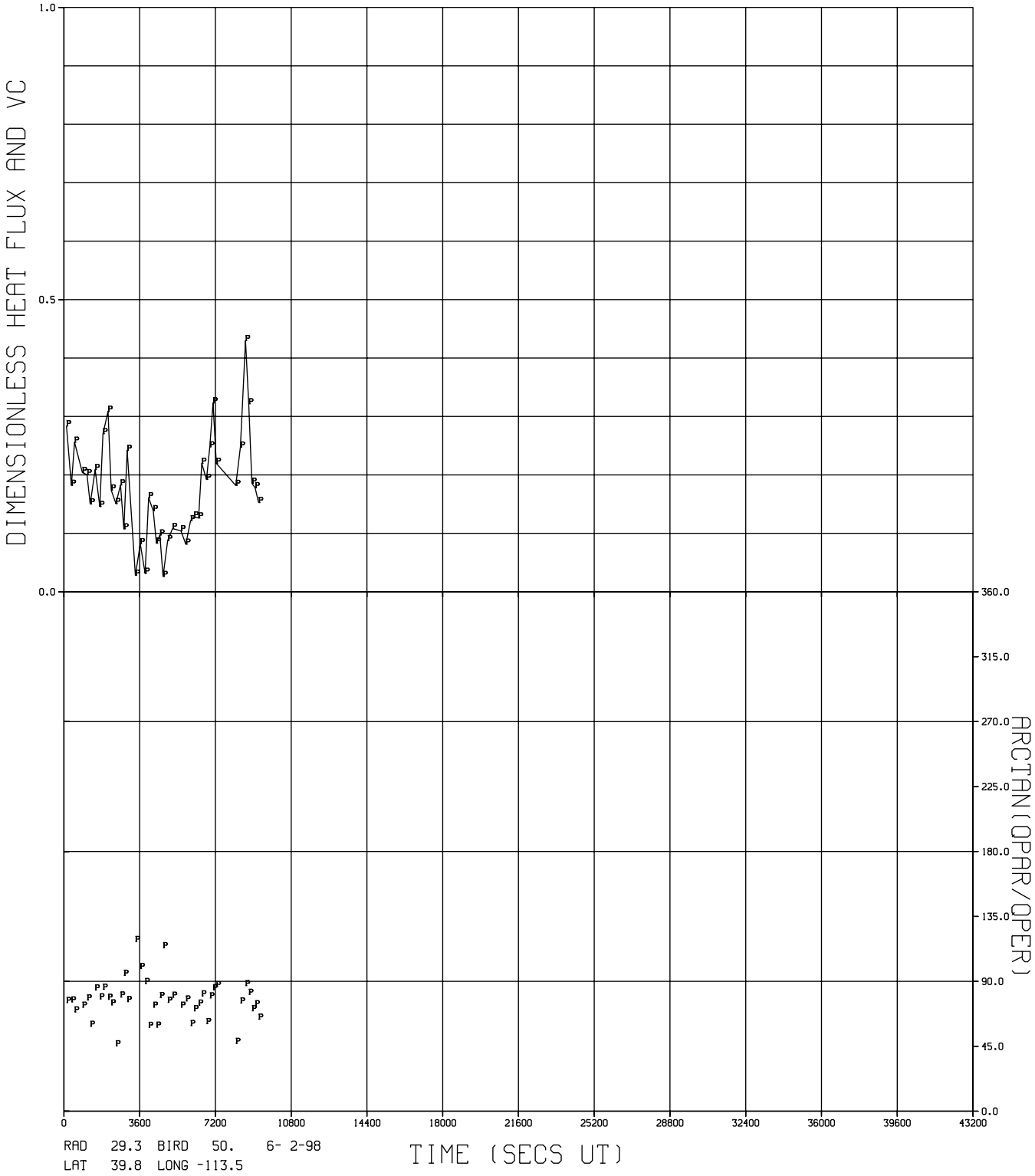

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 29.3 BIRD 50. 6- 2-98
LAT 39.8 LONG -113.5

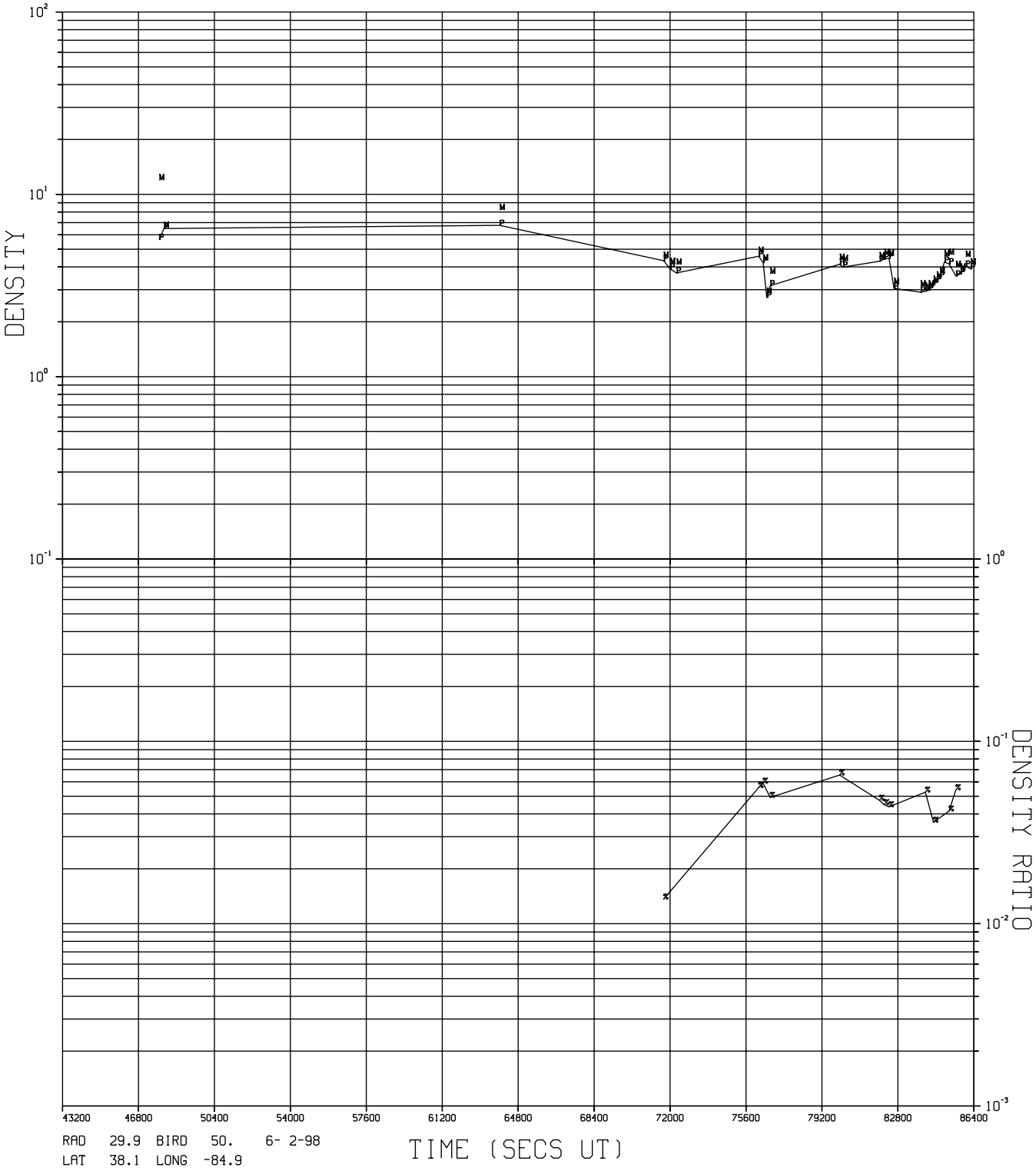

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 29.3 BIRD 50. 6- 2-98
LAT 39.8 LONG -113.5

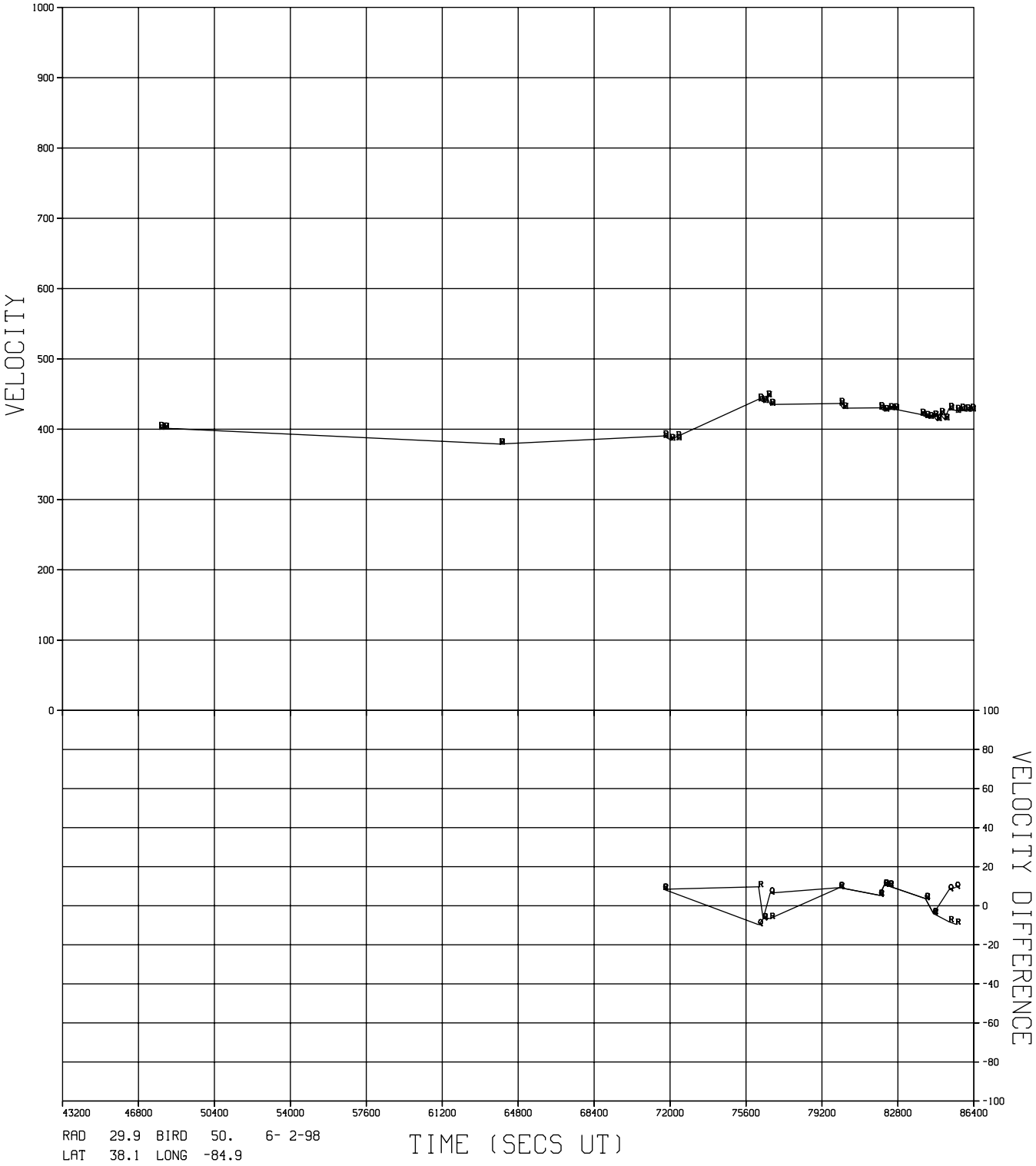

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 29.3 BIRD 50. 6- 2-98
LAT 39.8 LONG -113.5

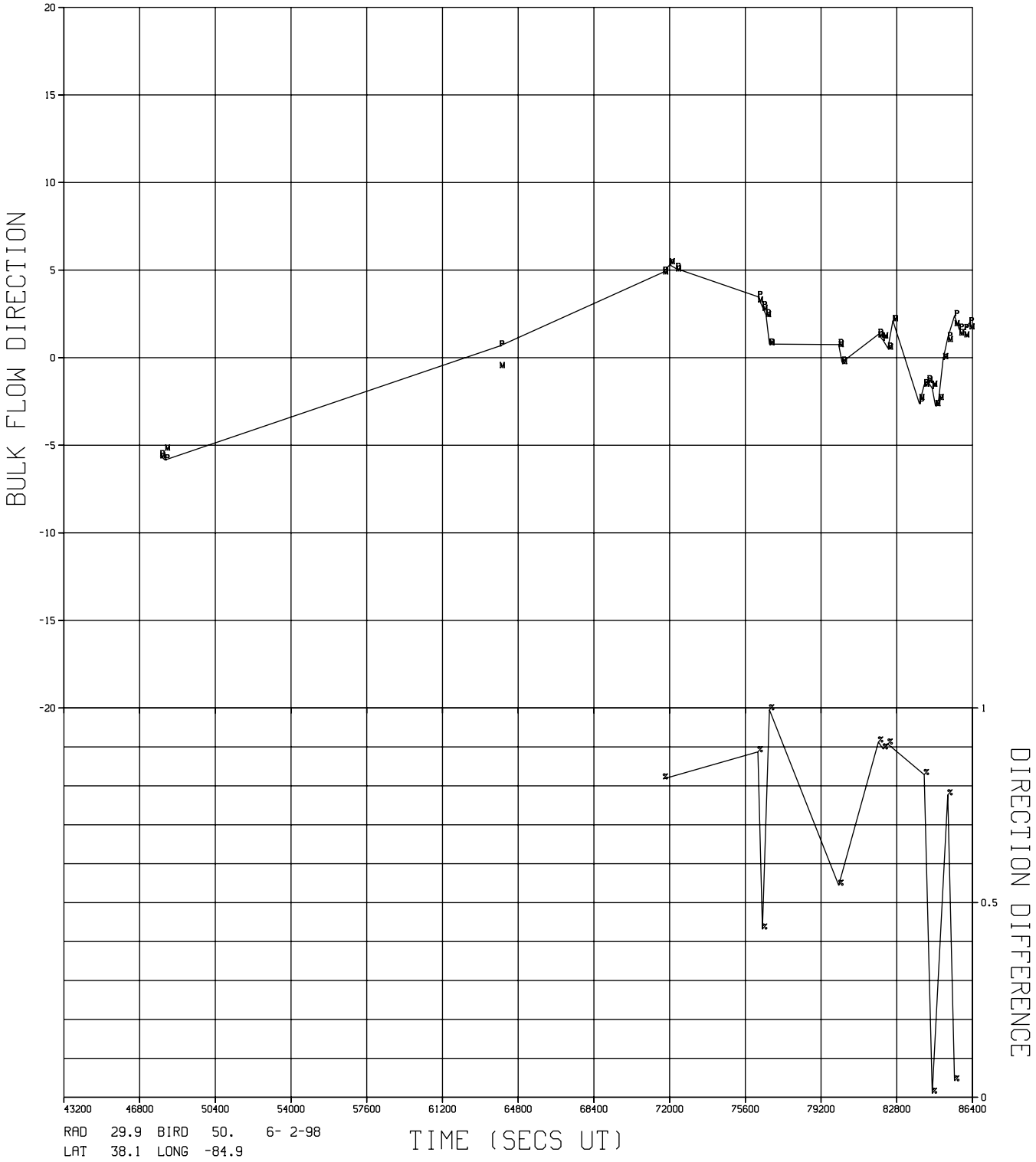

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 29.3 BIRD 50. 6- 2-98
LAT 39.8 LONG -113.5

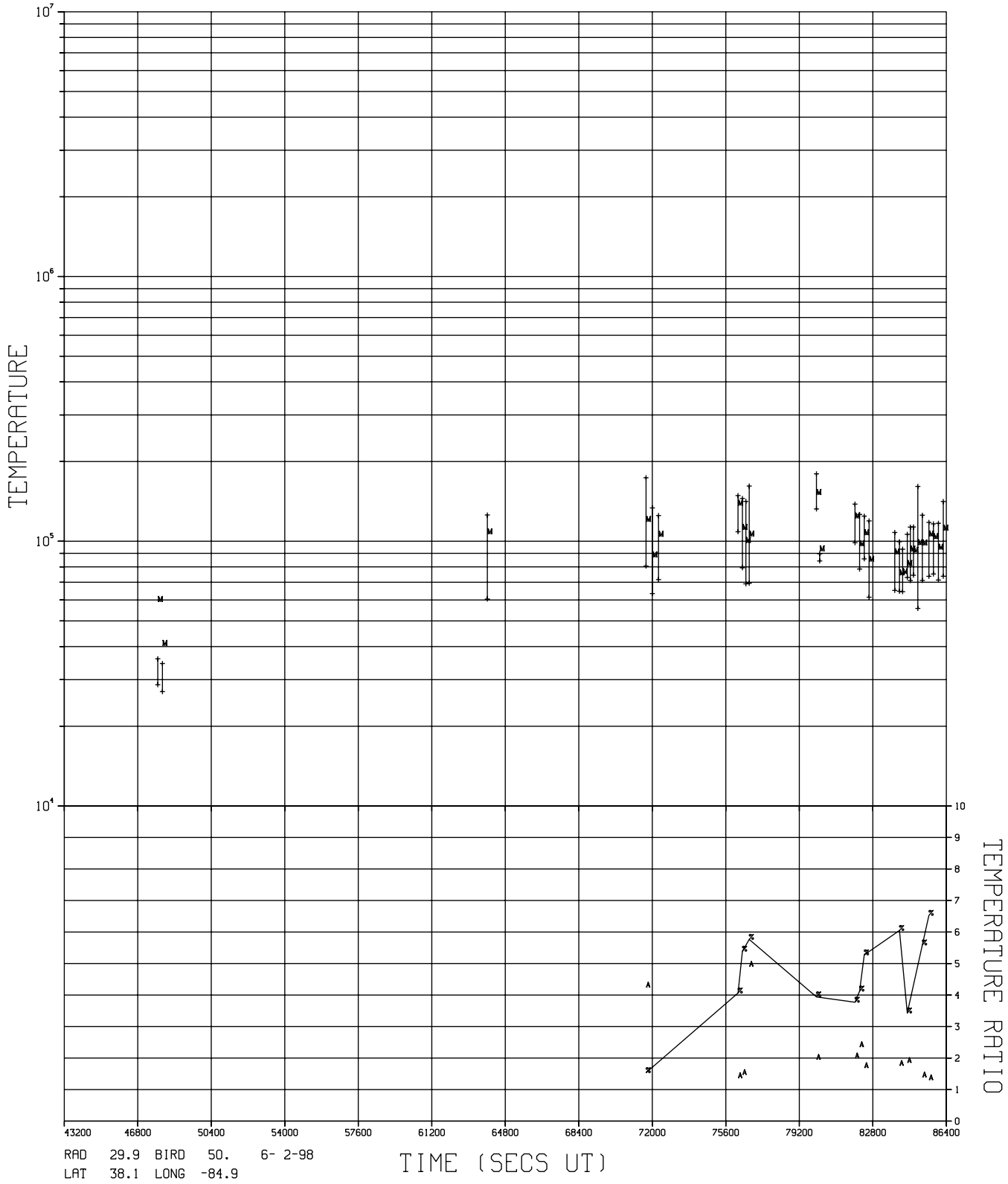

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 29.3 BIRD 50. 6- 2-98
LAT 39.8 LONG -113.5

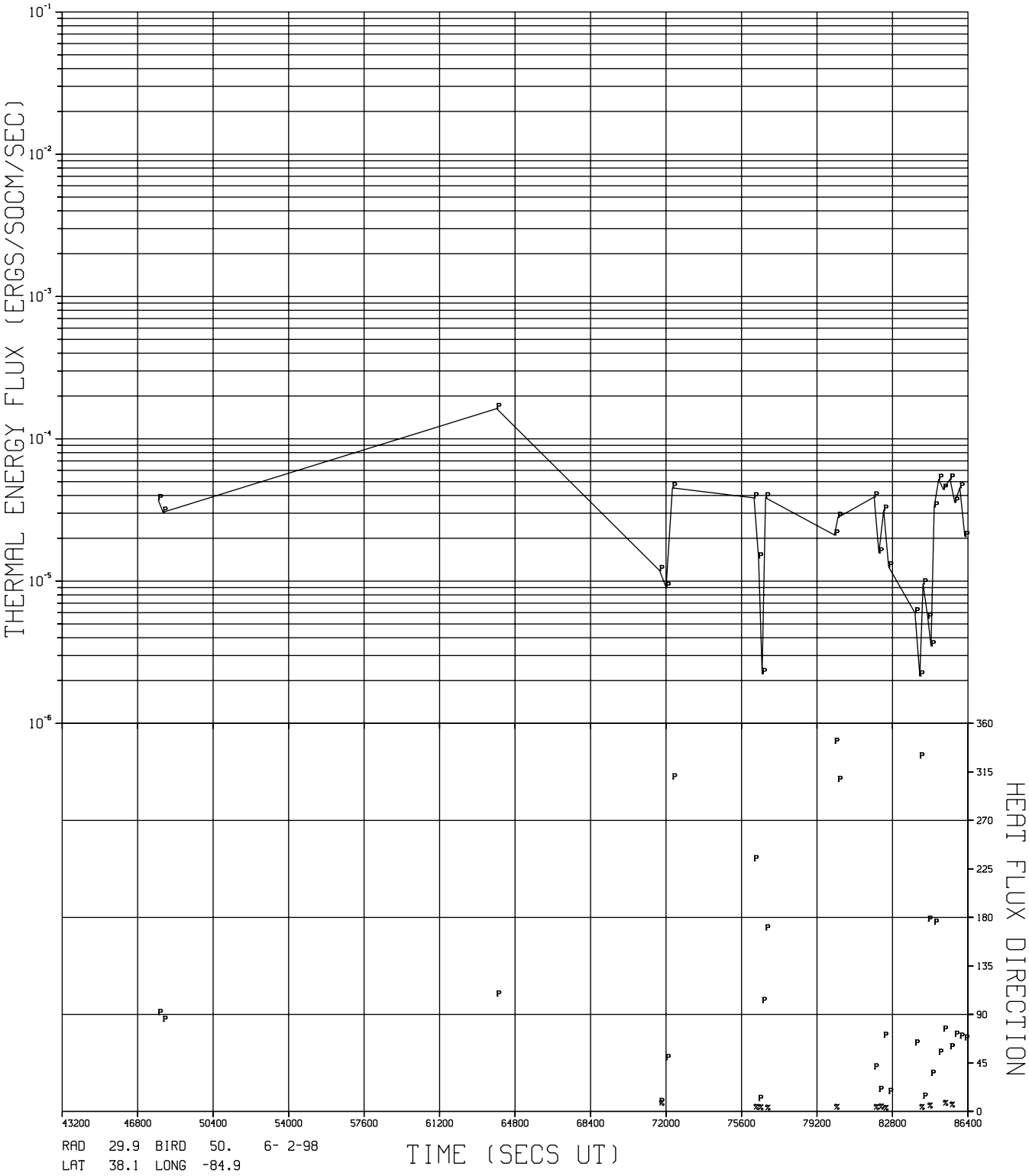

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 29.3 BIRD 50. 6- 2-98
LAT 39.8 LONG -113.5

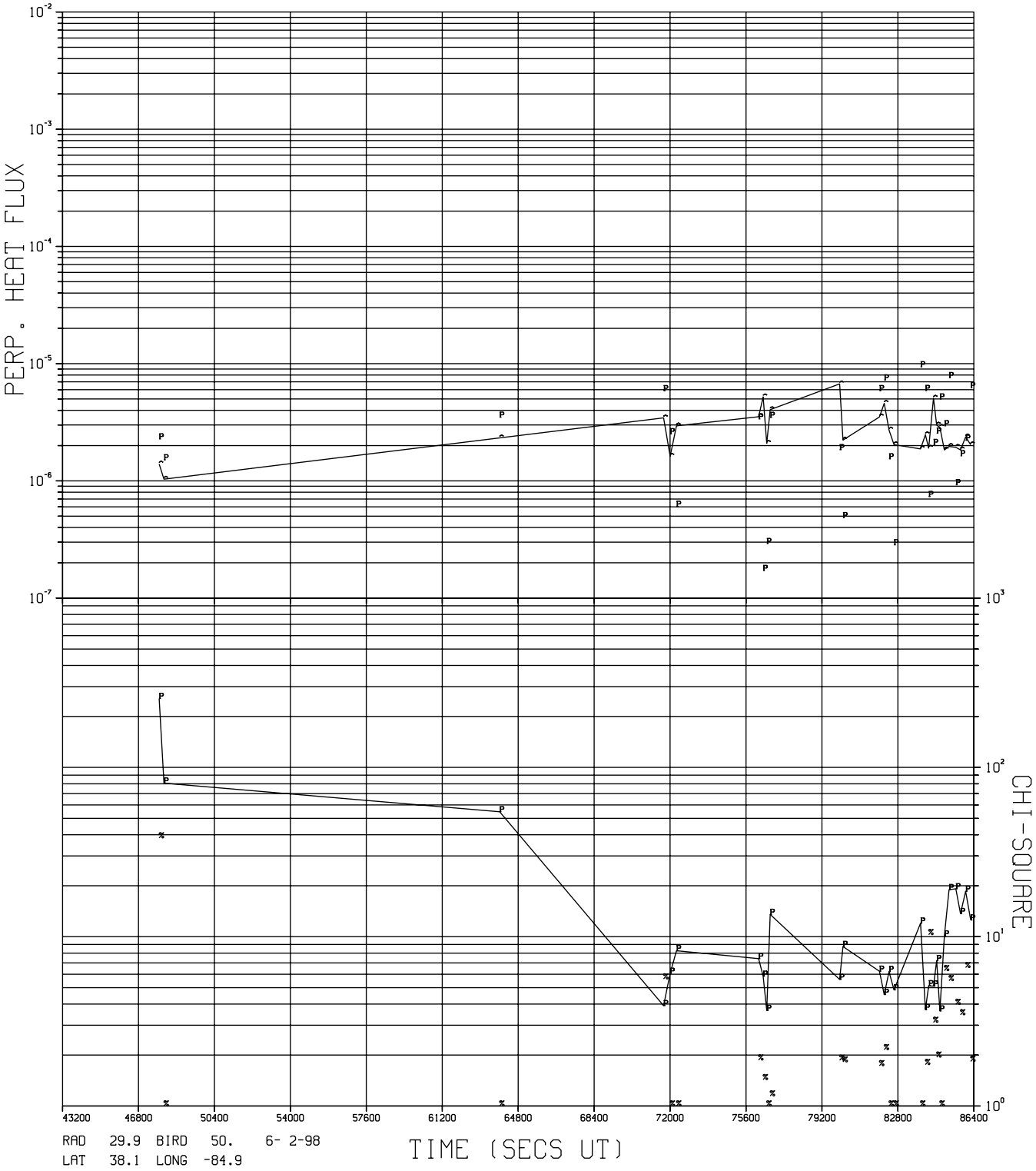

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 29.9 BIRD 50. 6- 2-98
LAT 38.1 LONG -84.9

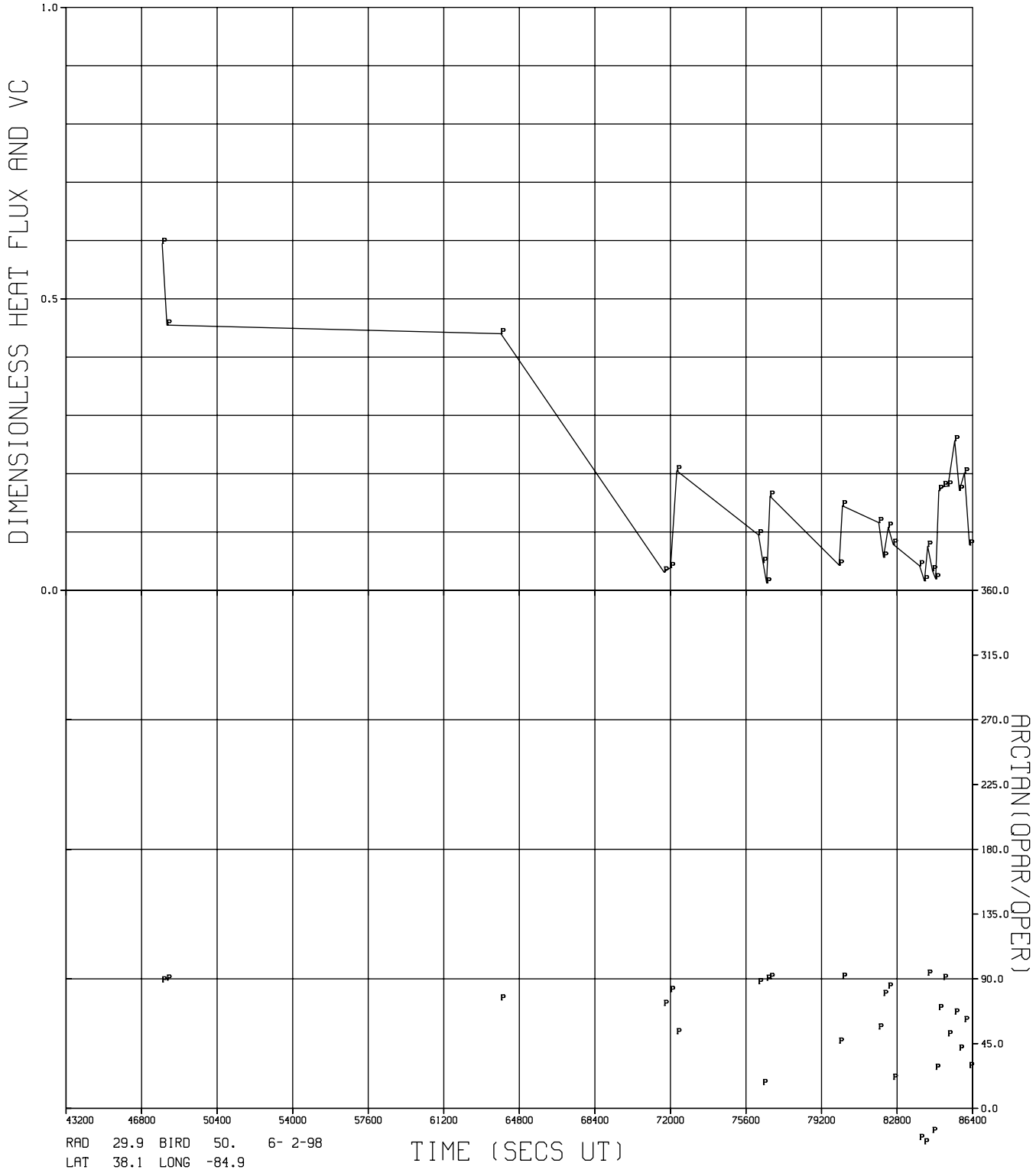

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 29.9 BIRD 50. 6- 2-98
LAT 38.1 LONG -84.9
TIME (SECS UT)

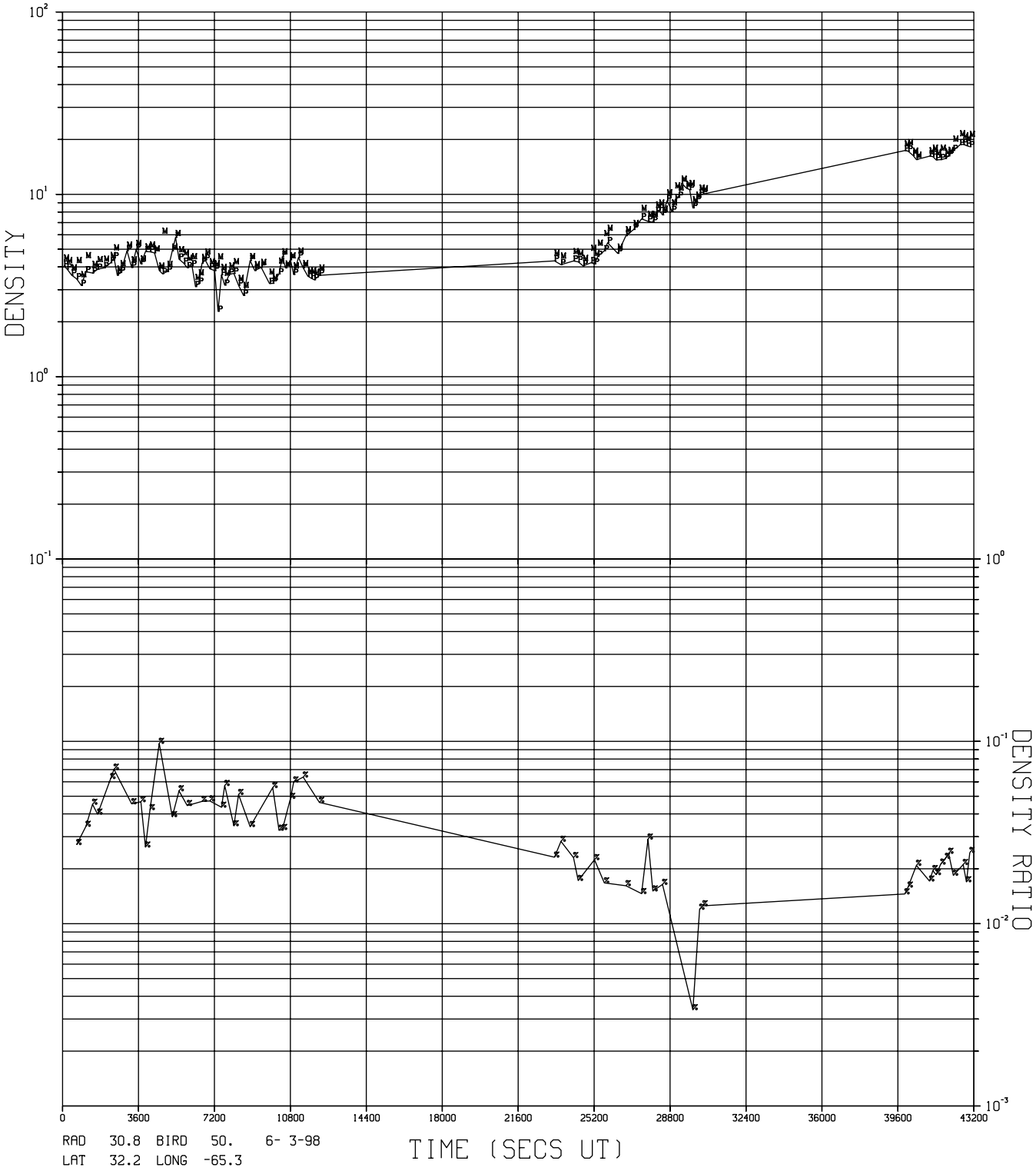

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 29.9 BIRD 50. 6- 2-98
LAT 38.1 LONG -84.9

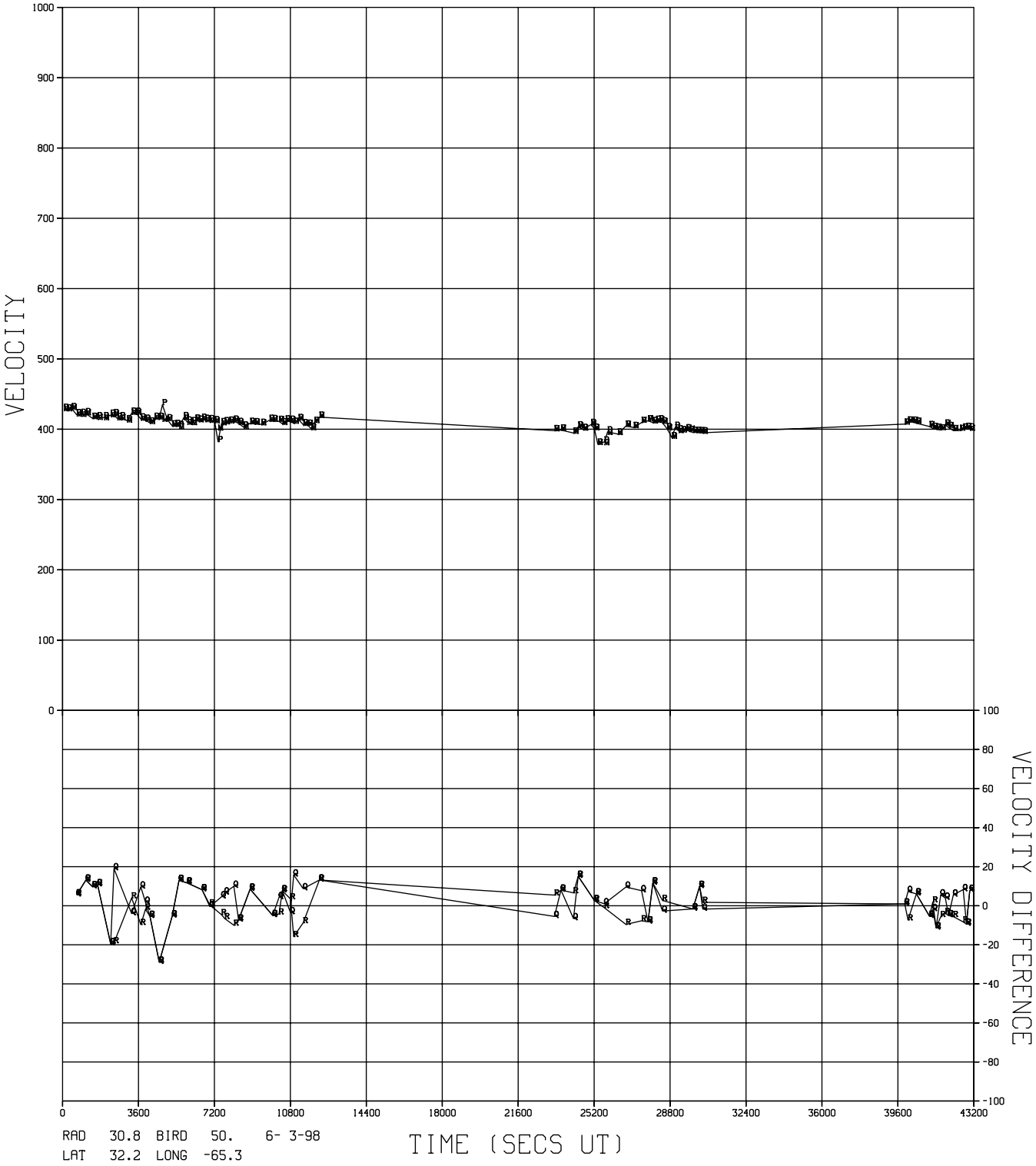

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 29.9 BIRD 50. 6- 2-98
LAT 38.1 LONG -84.9

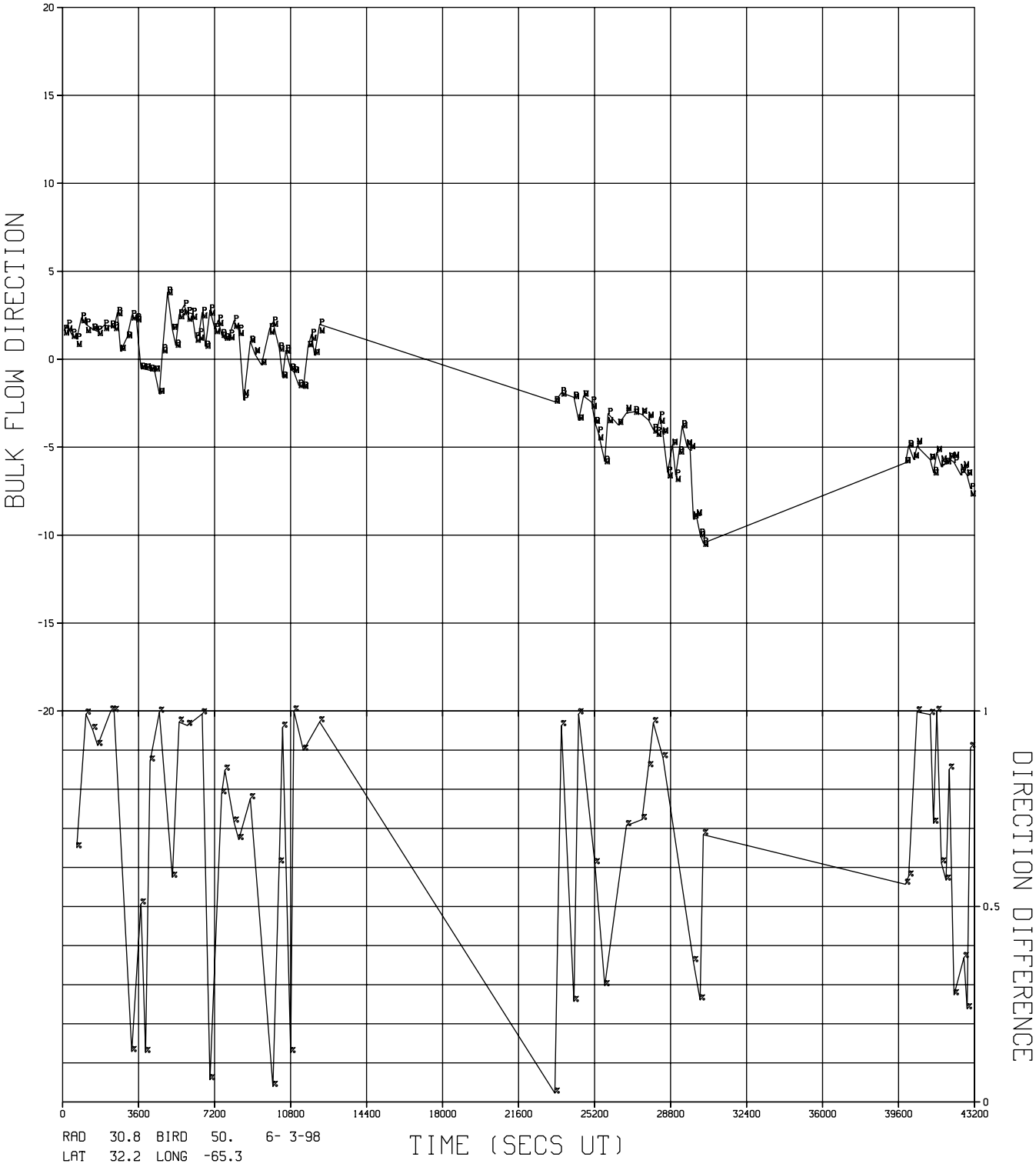

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 29.9 BIRD 50. 6- 2-98
LAT 38.1 LONG -84.9

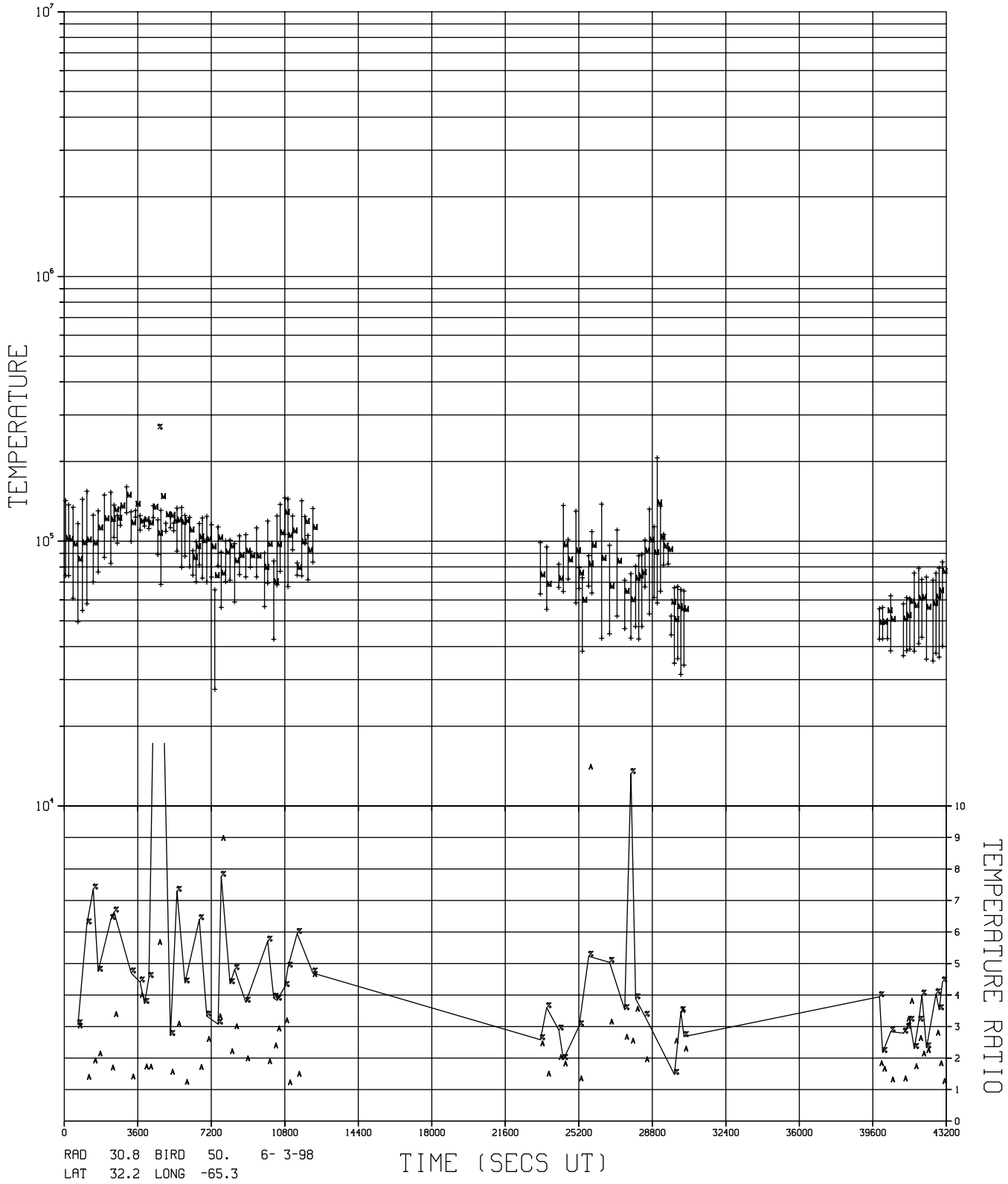

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 29.9 BIRD 50. 6- 2-98
LAT 38.1 LONG -84.9

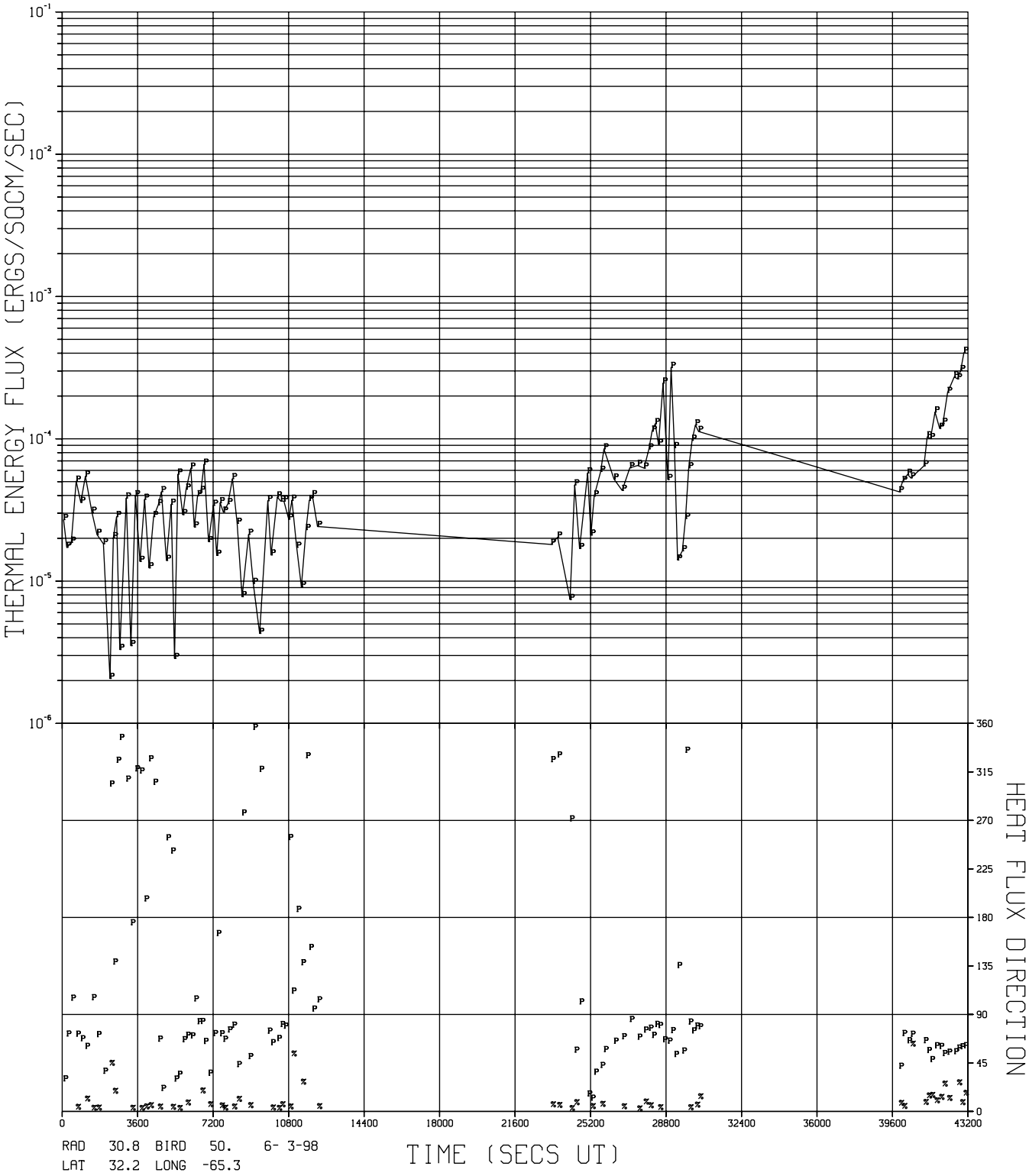

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 29.9 BIRD 50. 6- 2-98
LAT 38.1 LONG -84.9

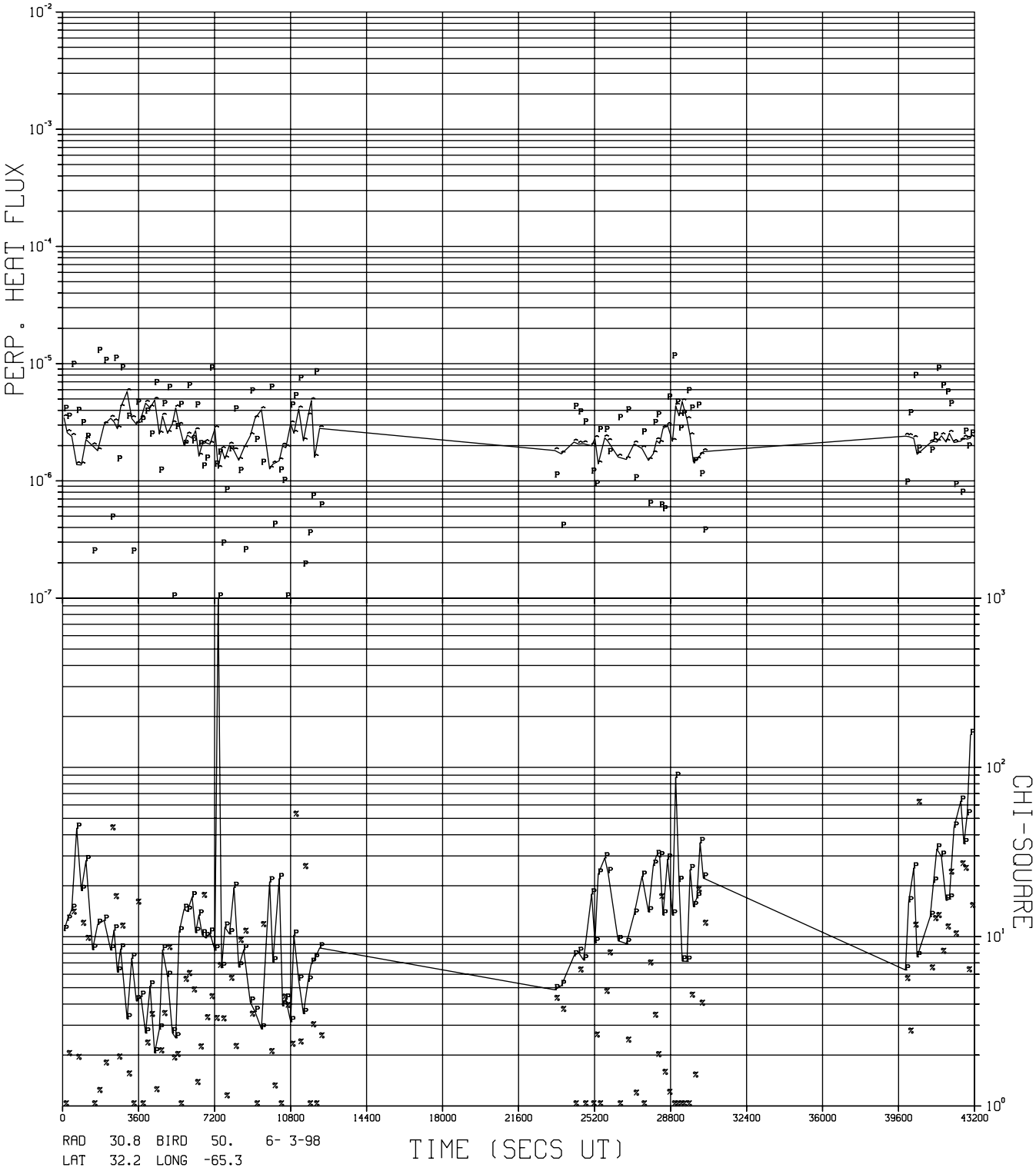

DENSITY
DENSITY RATIO
TIME (SECS UT)
RAD 30.8 BIRD 50. 6- 3-98
LAT 32.2 LONG -65.3

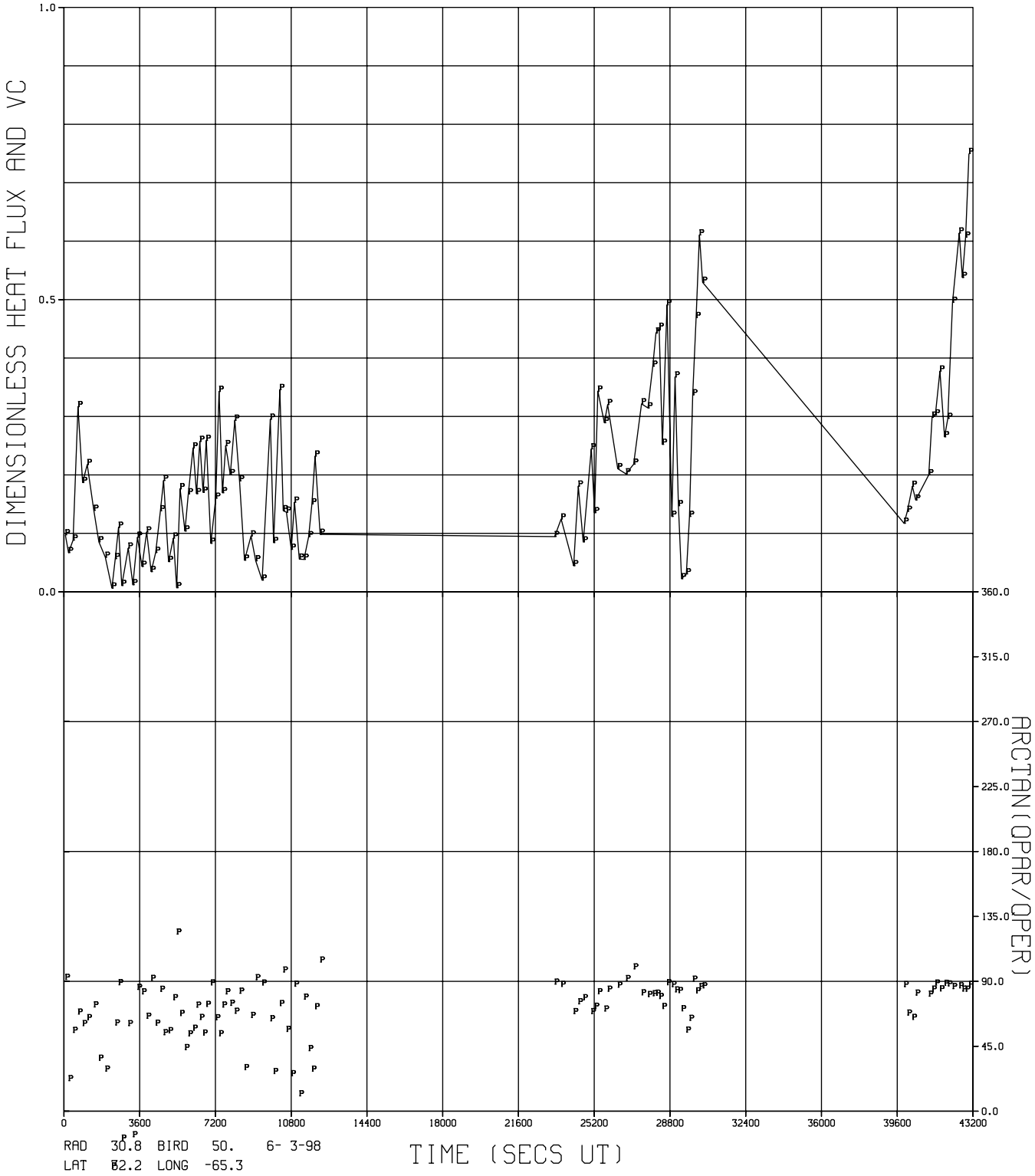

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 30.8 BIRD 50. 6- 3-98
LAT 32.2 LONG -65.3
TIME (SECS UT)

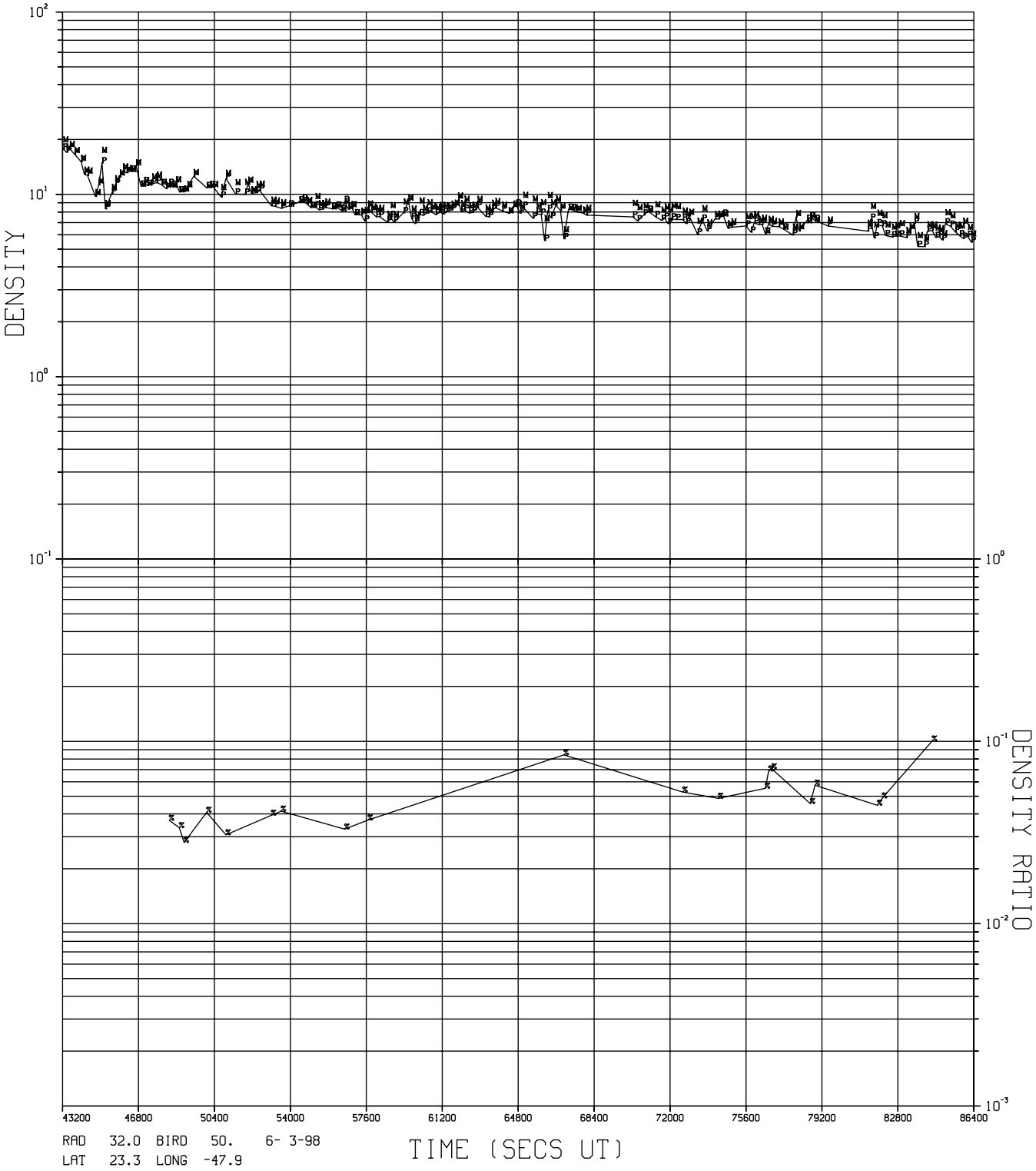

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 30.8 BIRD 50. 6- 3-98
LAT 32.2 LONG -65.3

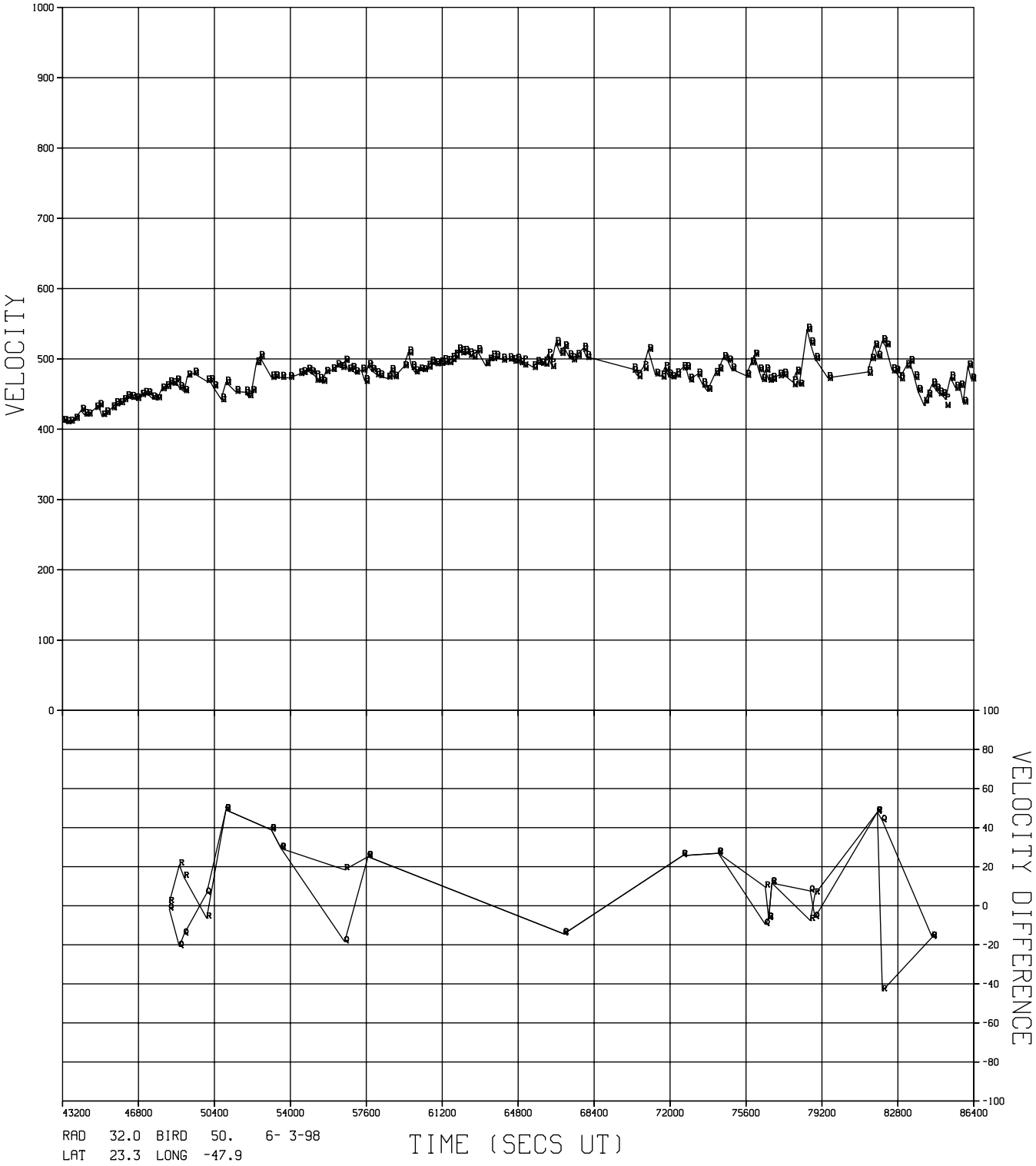

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 30.8 BIRD 50. 6- 3-98
LAT 32.2 LONG -65.3

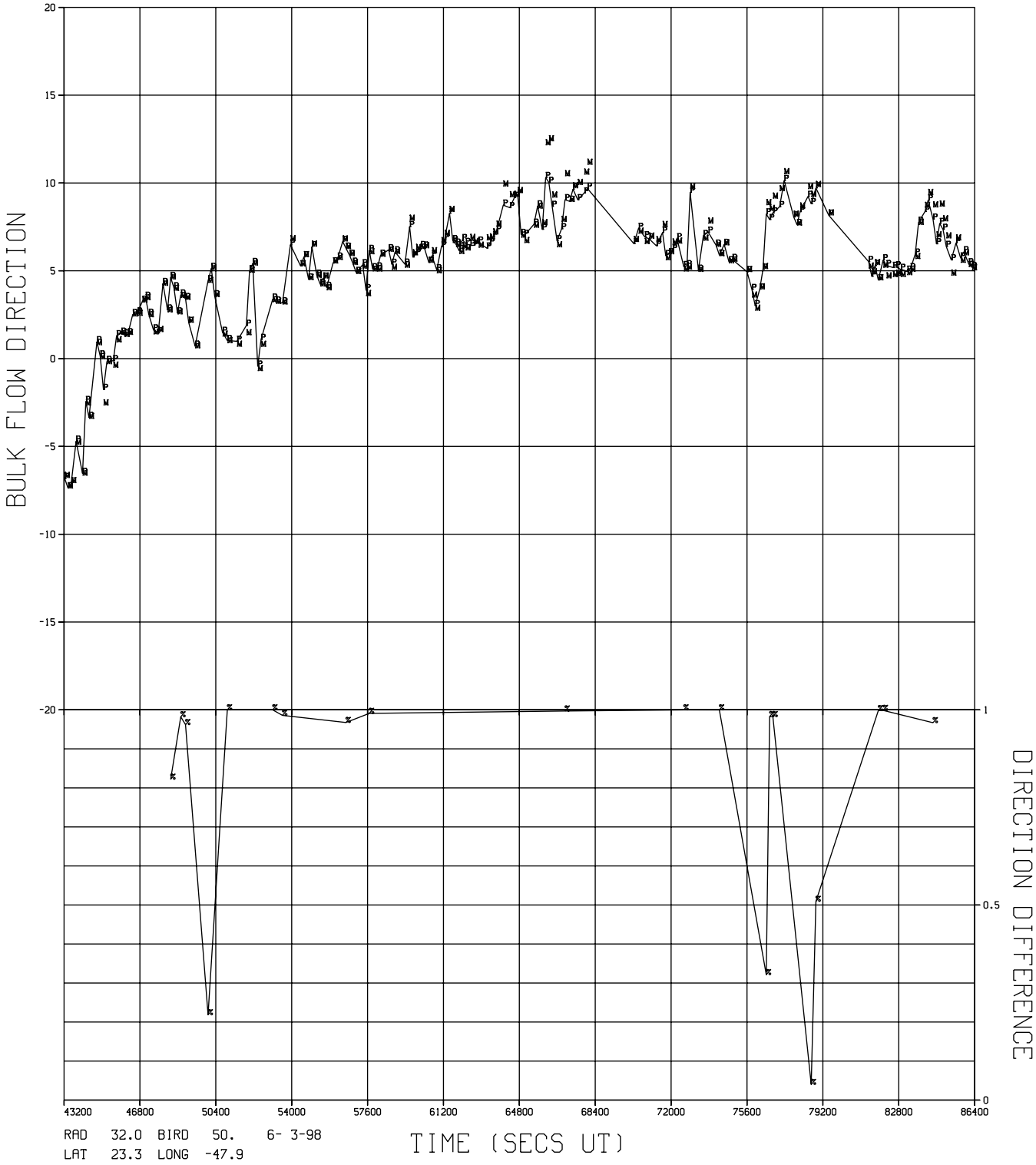

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 30.8 BIRD 50. 6- 3-98
LAT 32.2 LONG -65.3

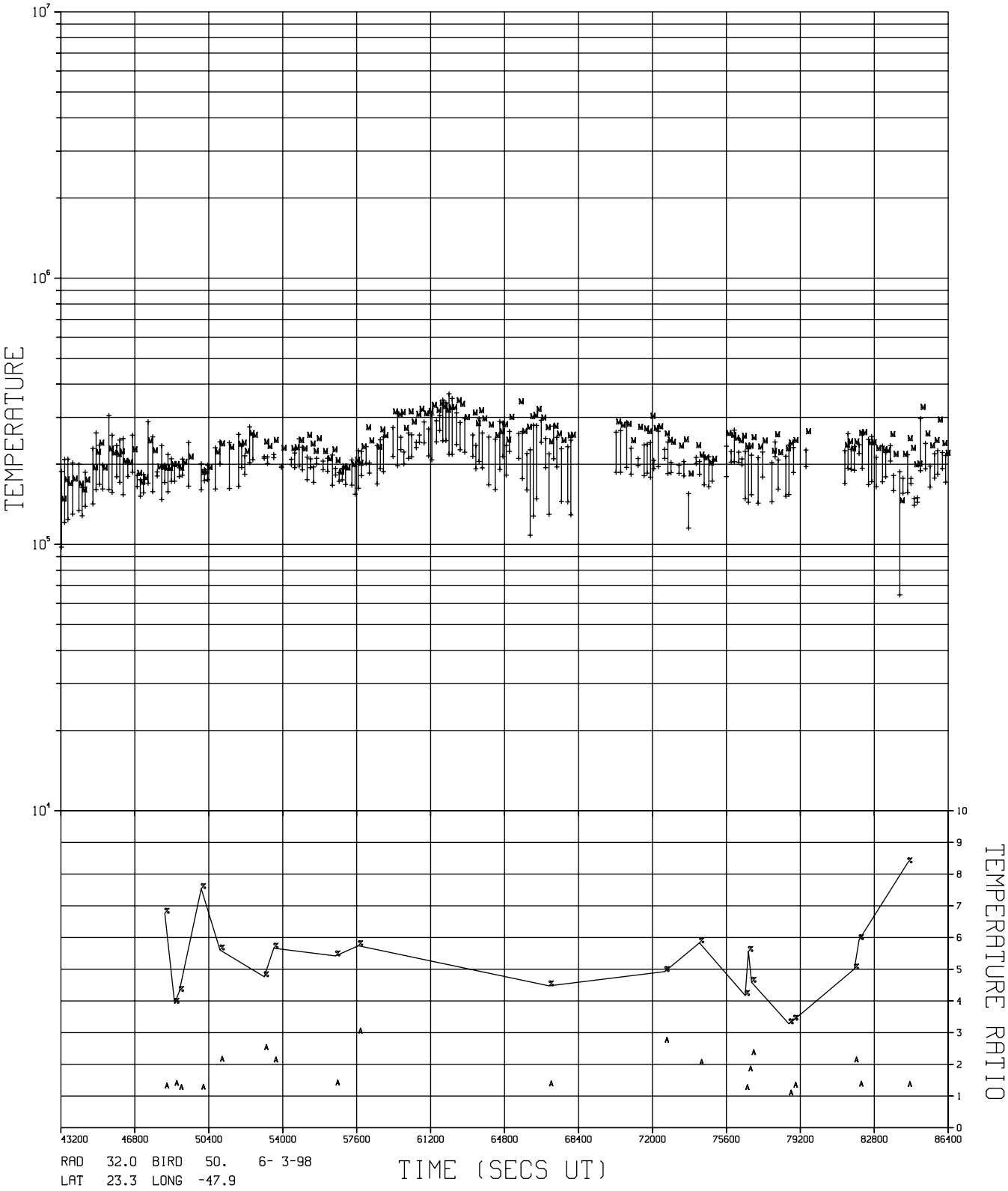

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 30.8 BIRD 50. 6- 3-98
LAT 32.2 LONG -65.3

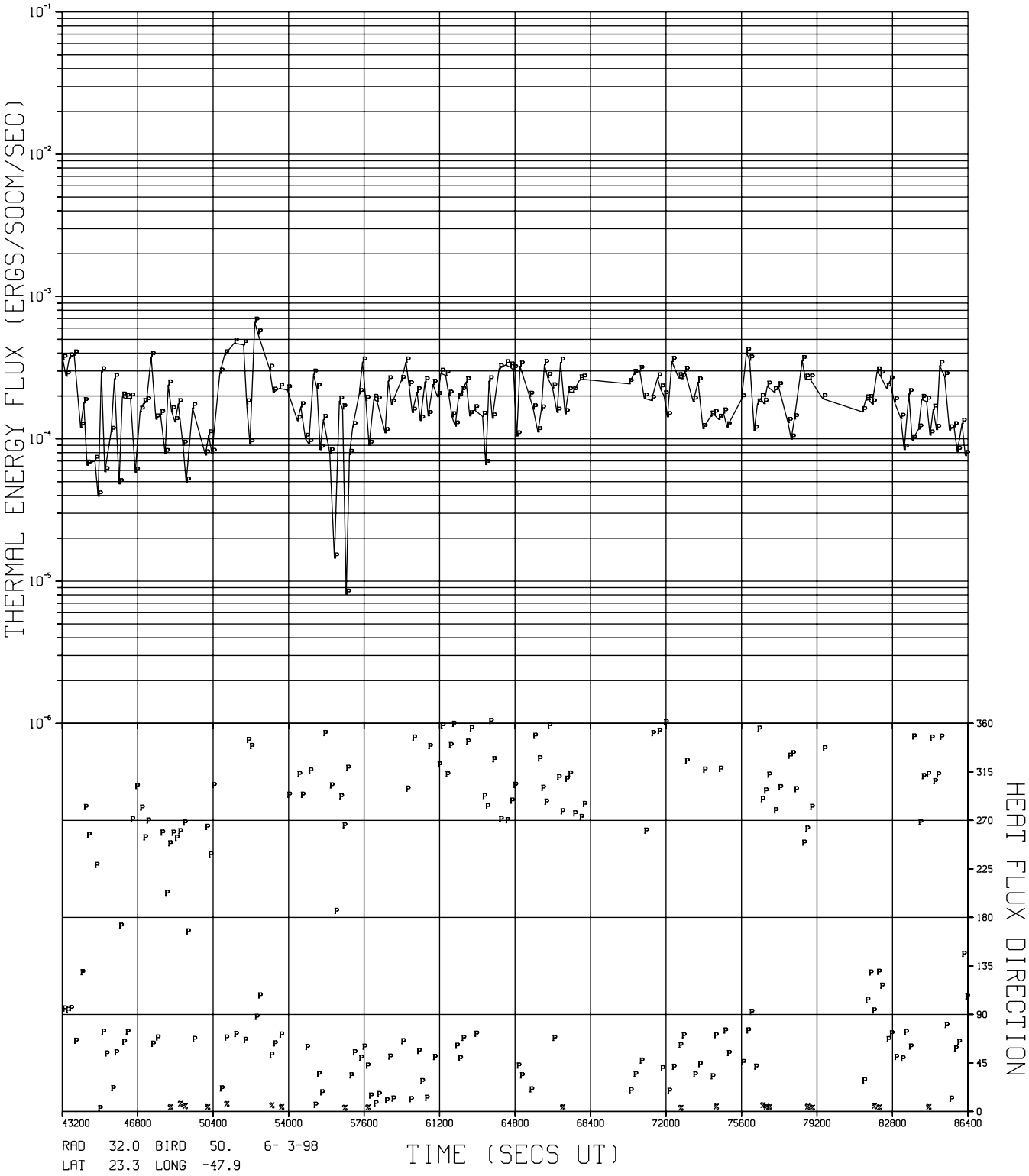

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 30.8 BIRD 50. 6- 3-98
LAT 62.2 LONG -65.3

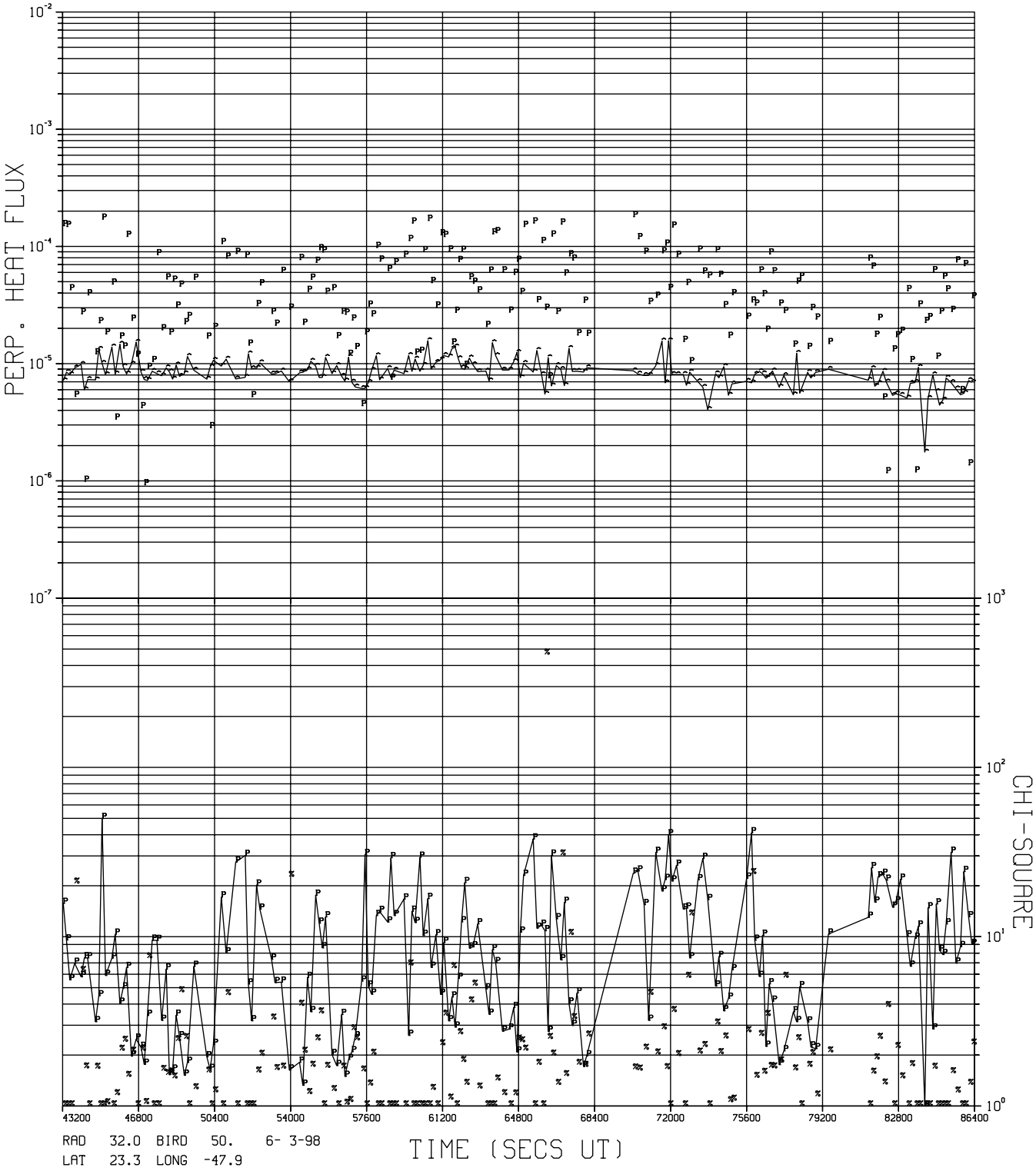

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 32.0 BIRD 50. 6- 3-98
LAT 23.3 LONG -47.9

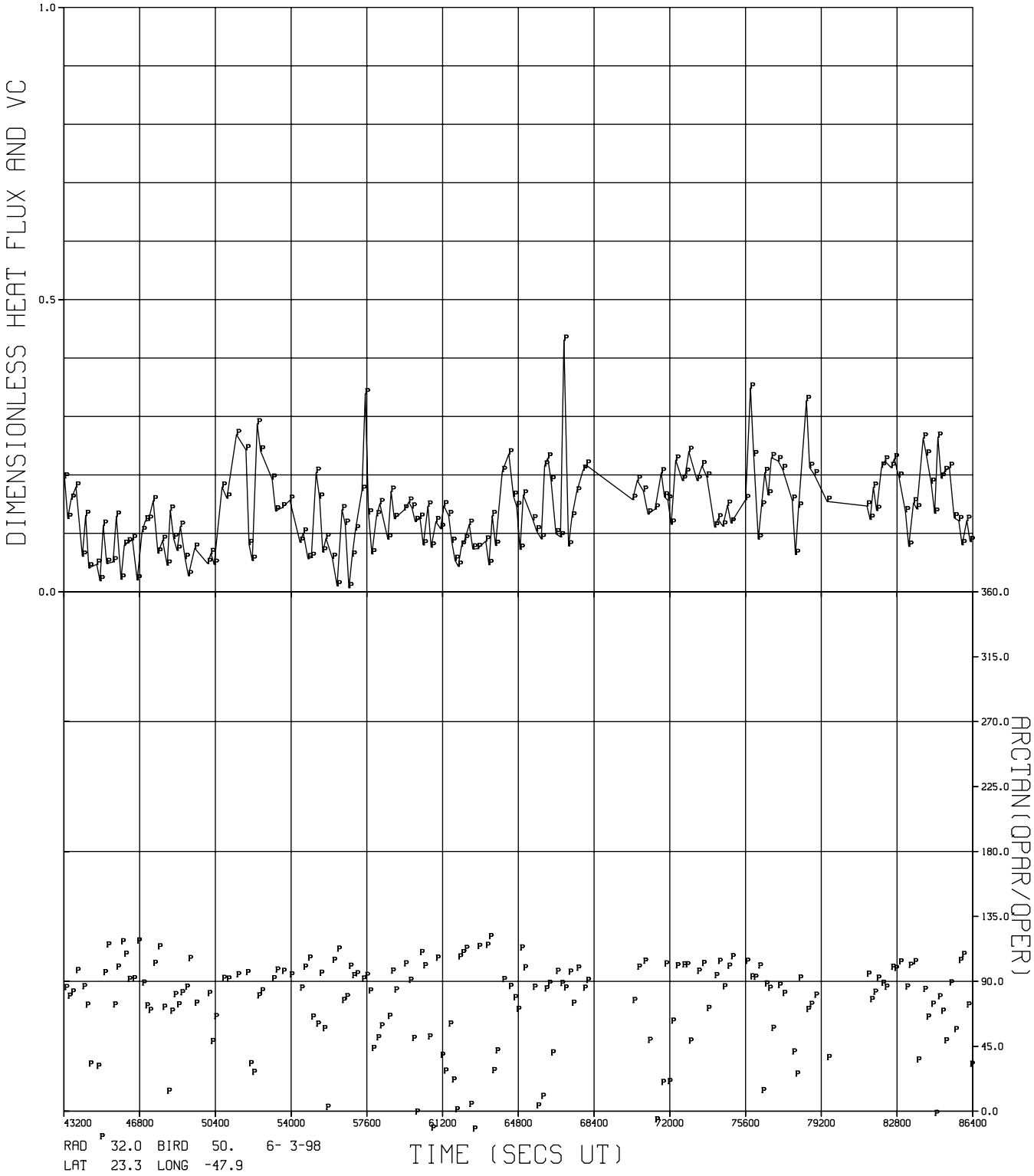

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 32.0 BIRD 50. 6- 3-98
LAT 23.3 LONG -47.9

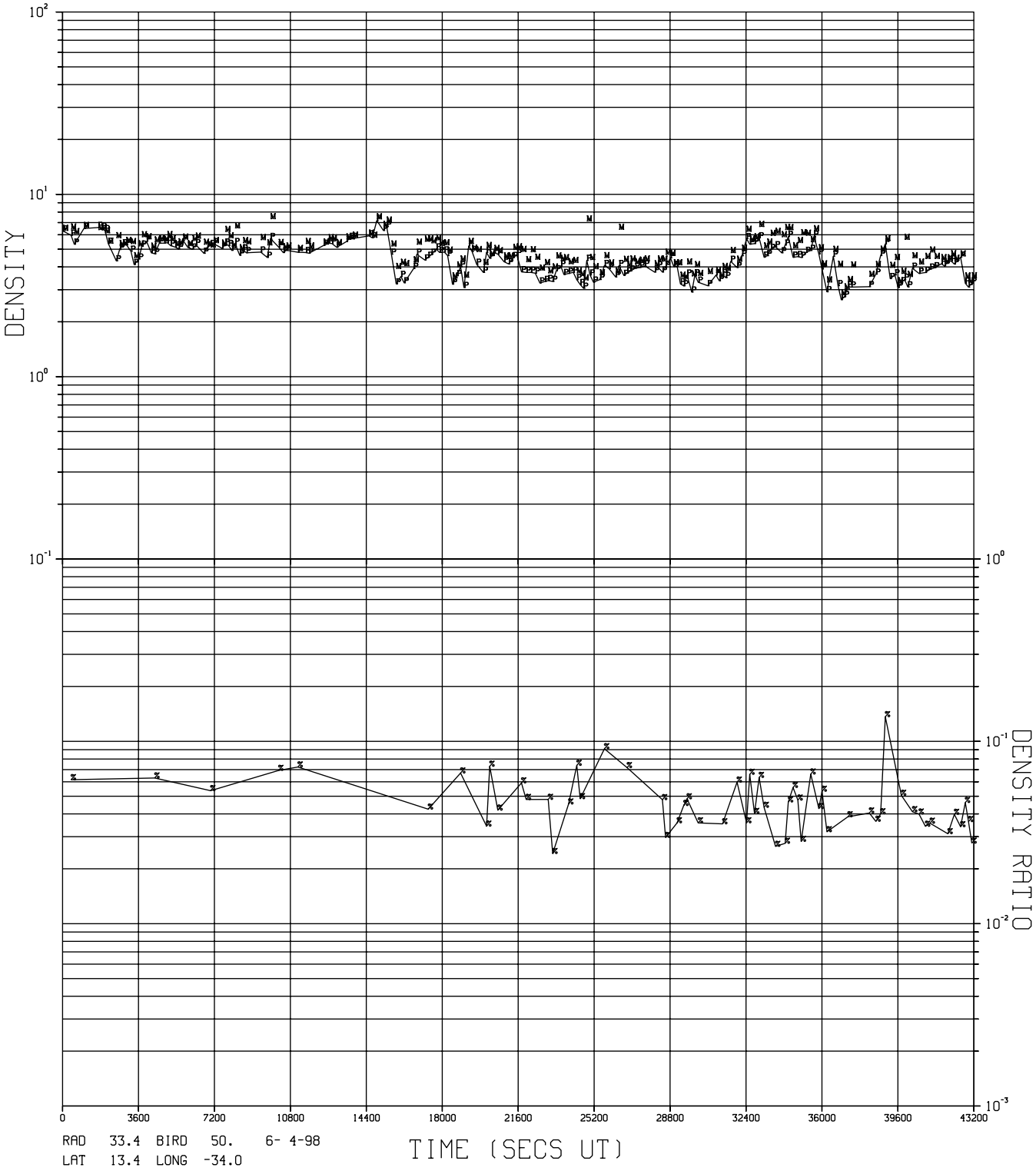

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 32.0 BIRD 50. 6- 3-98
LAT 23.3 LONG -47.9

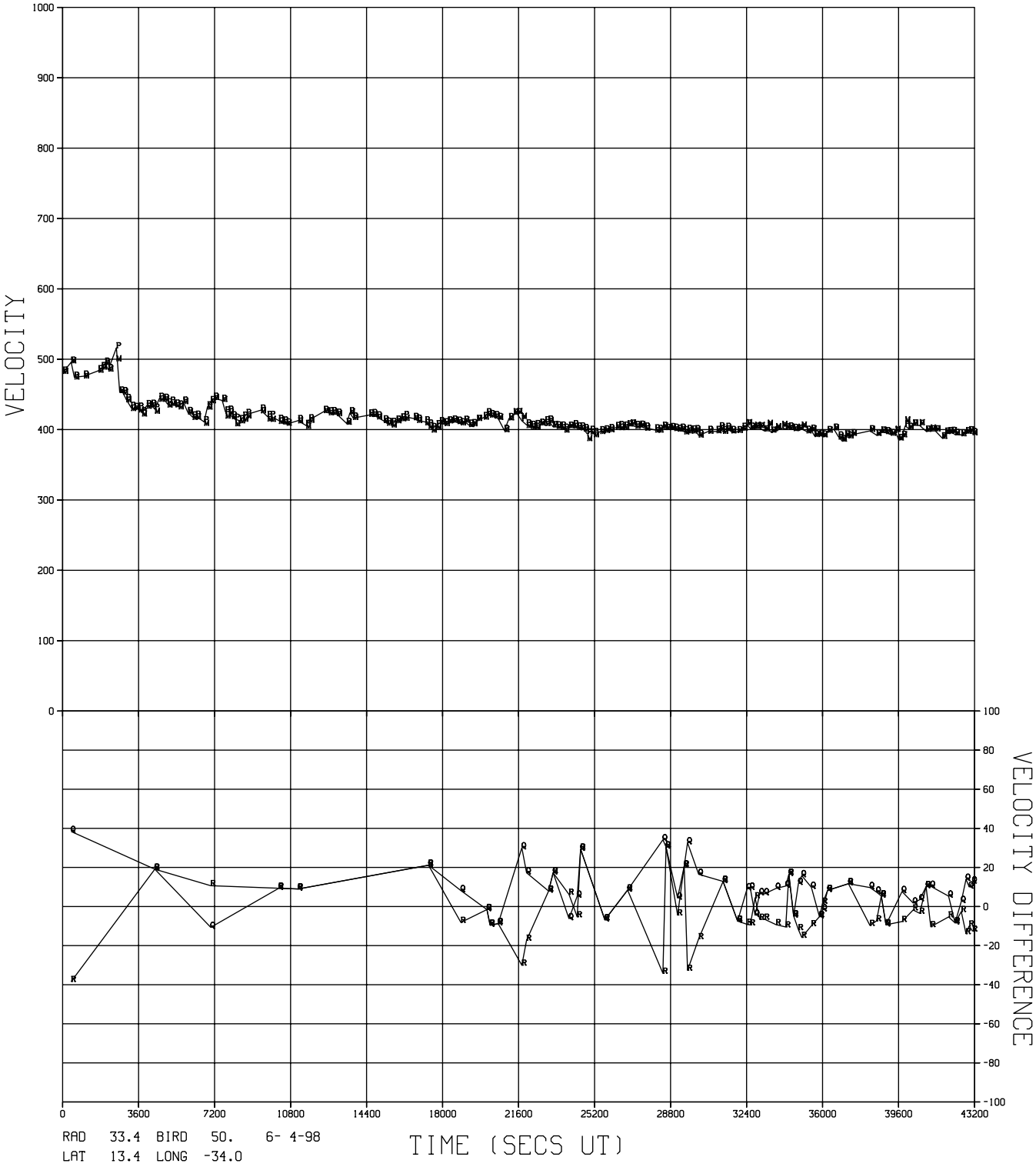

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 32.0 BIRD 50. 6- 3-98
LAT 23.3 LONG -47.9

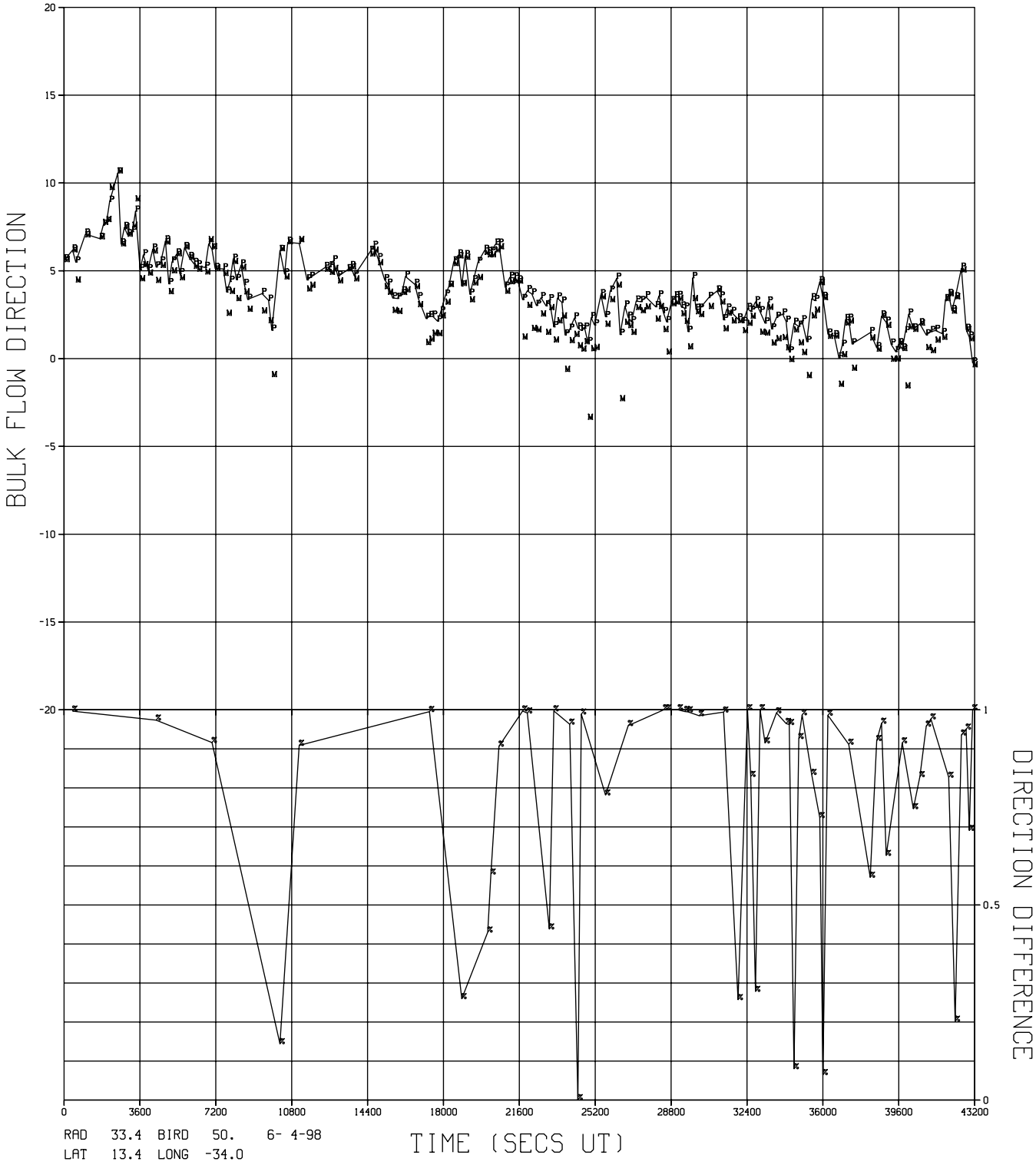

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 32.0 BIRD 50. 6- 3-98
LAT 23.3 LONG -47.9

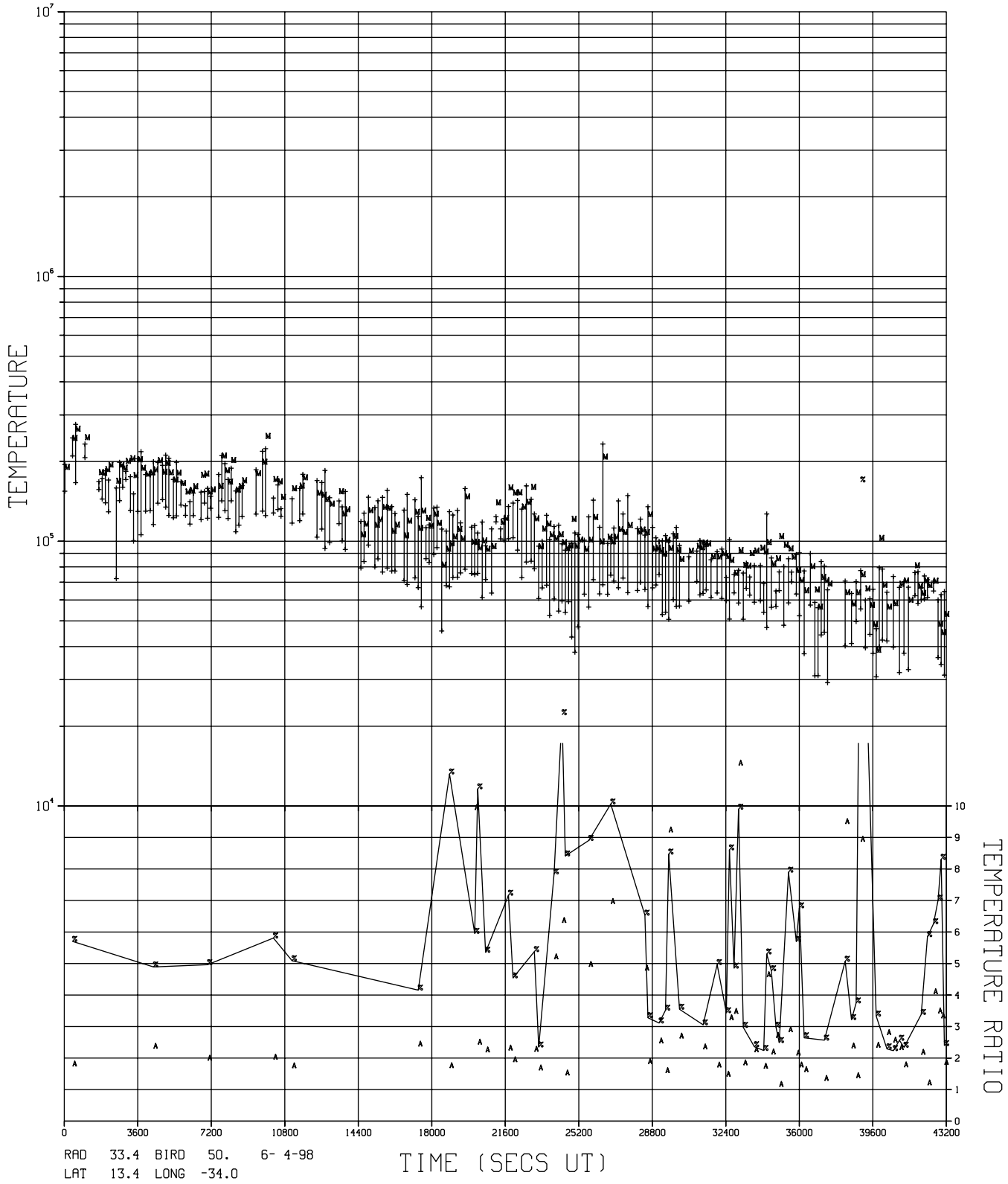

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 32.0 BIRD 50. 6- 3-98
LAT 23.3 LONG -47.9

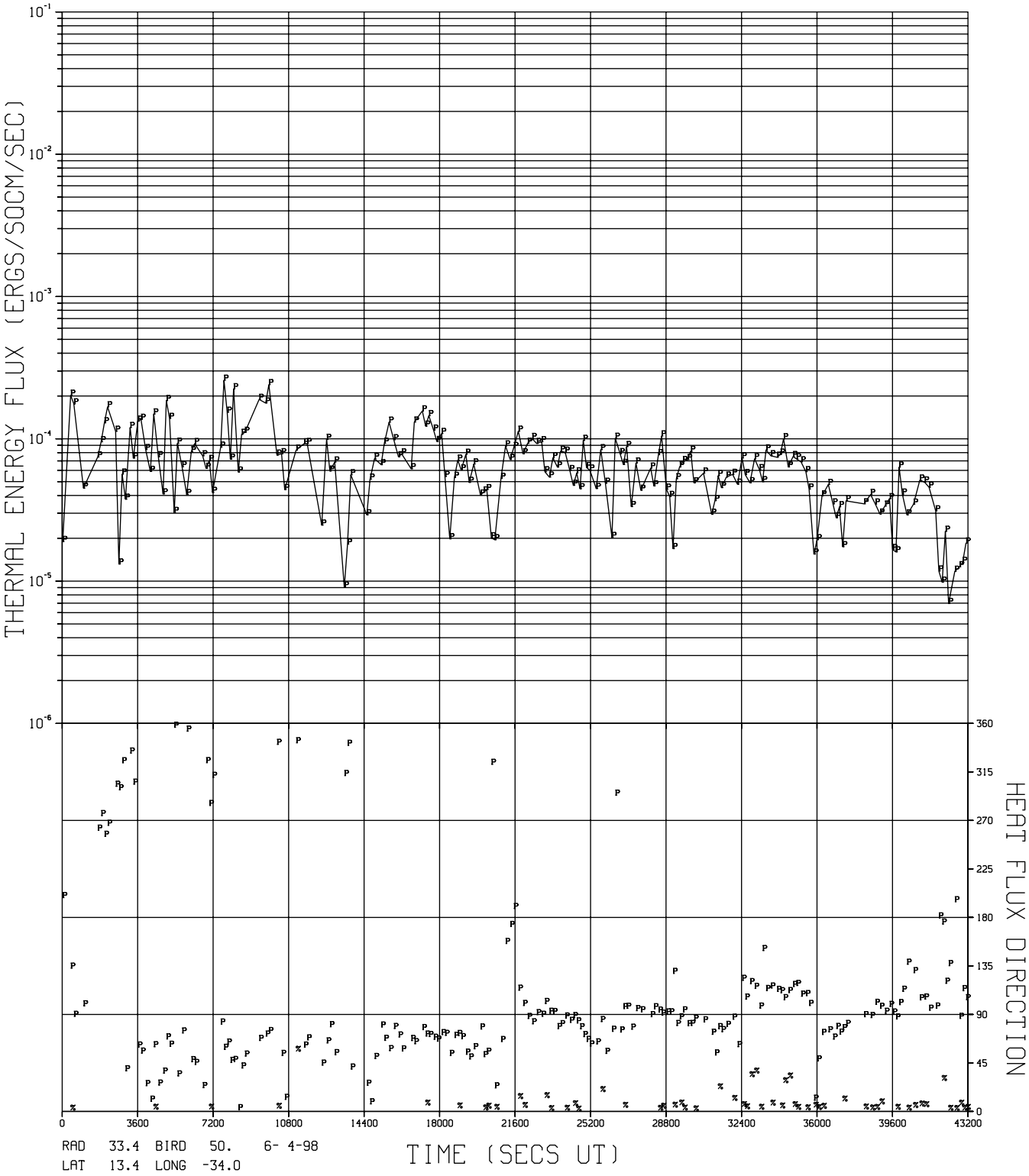

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 32.0 BIRD 50. 6- 3-98
LAT 23.3 LONG -47.9

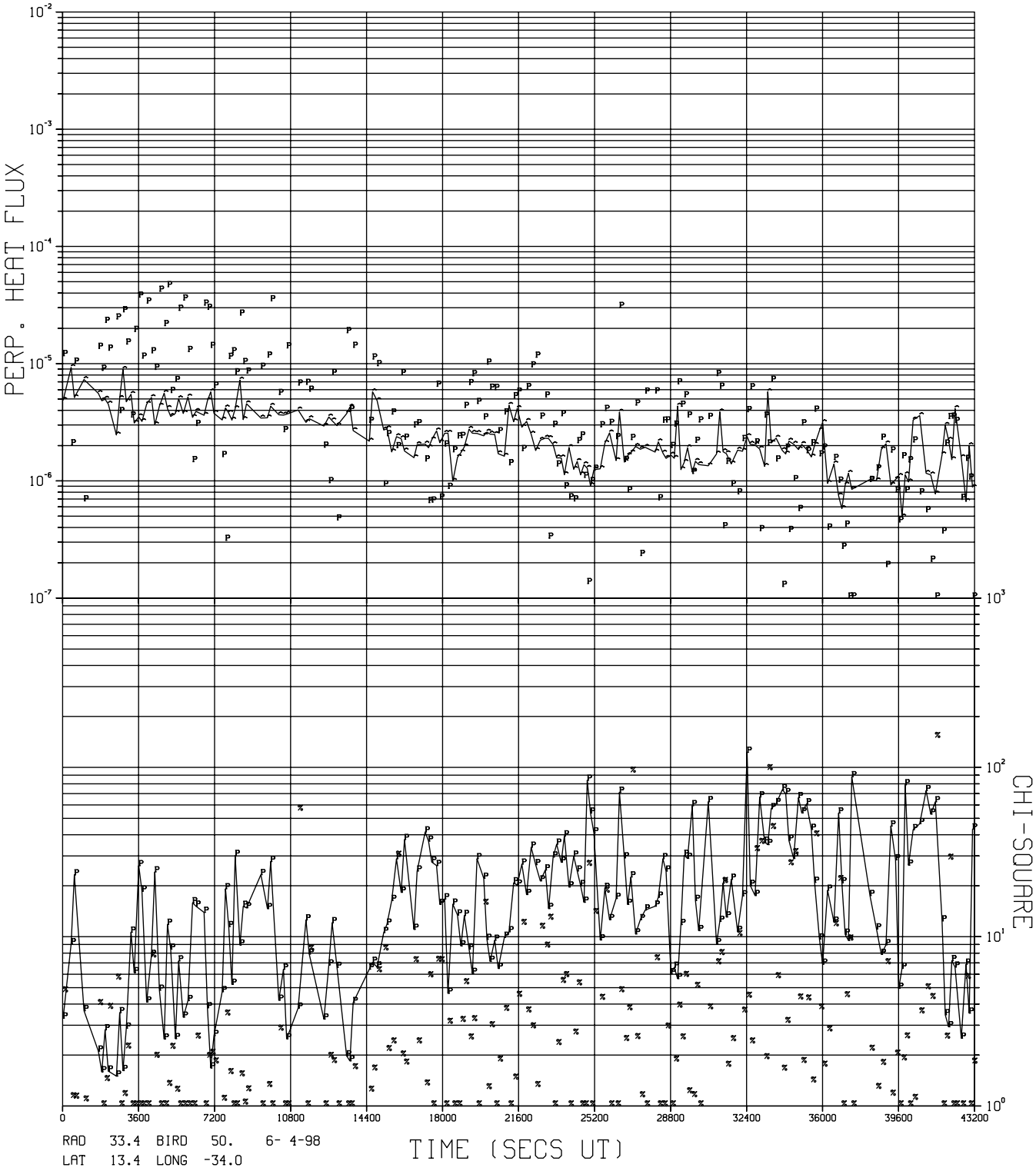

DENSITY
DENSITY RATIO
TIME (SECS UT)
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 33.4 BIRD 50. 6- 4-98
LAT 13.4 LONG -34.0

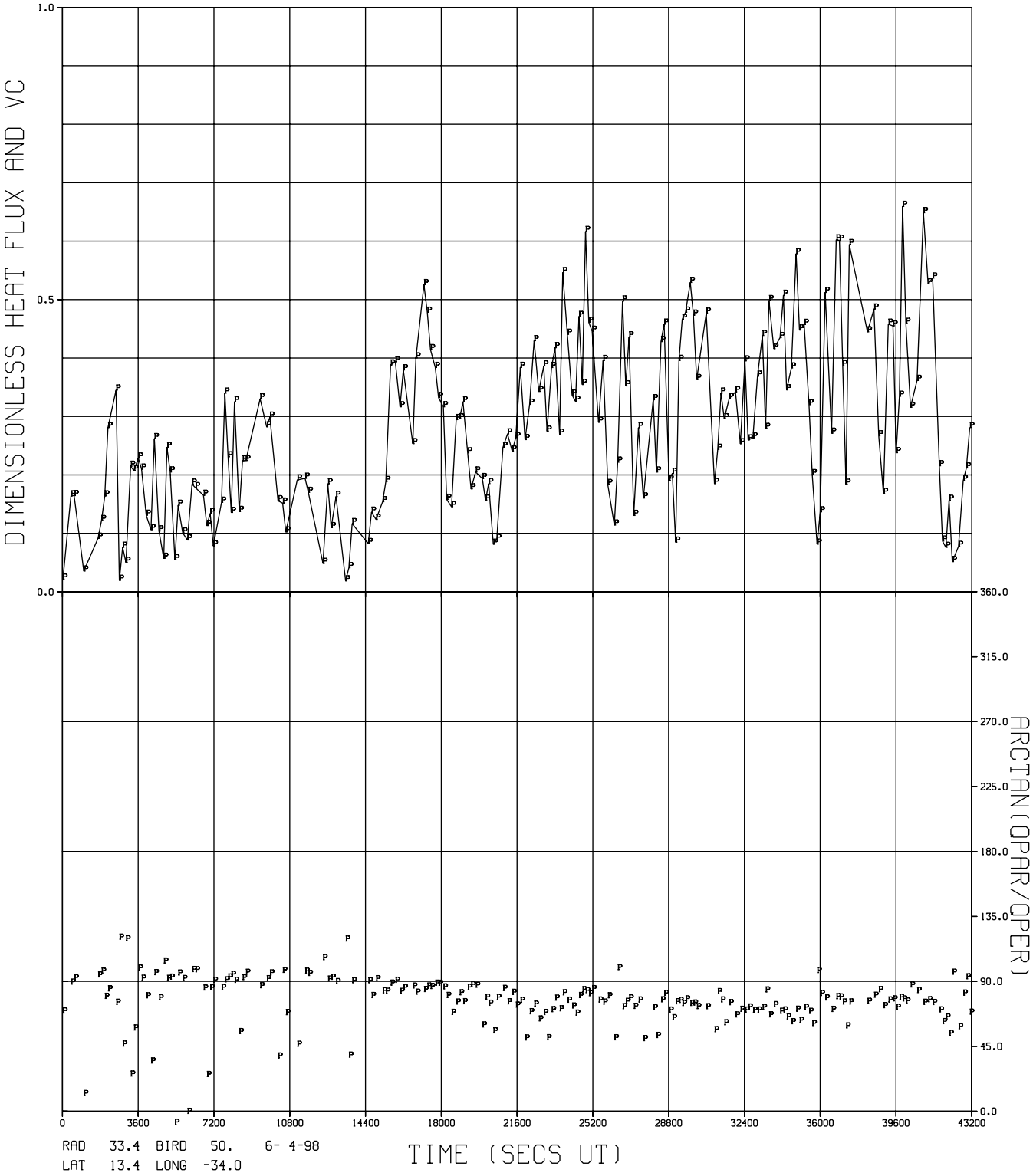

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 33.4 BIRD 50. 6- 4-98
LAT 13.4 LONG -34.0

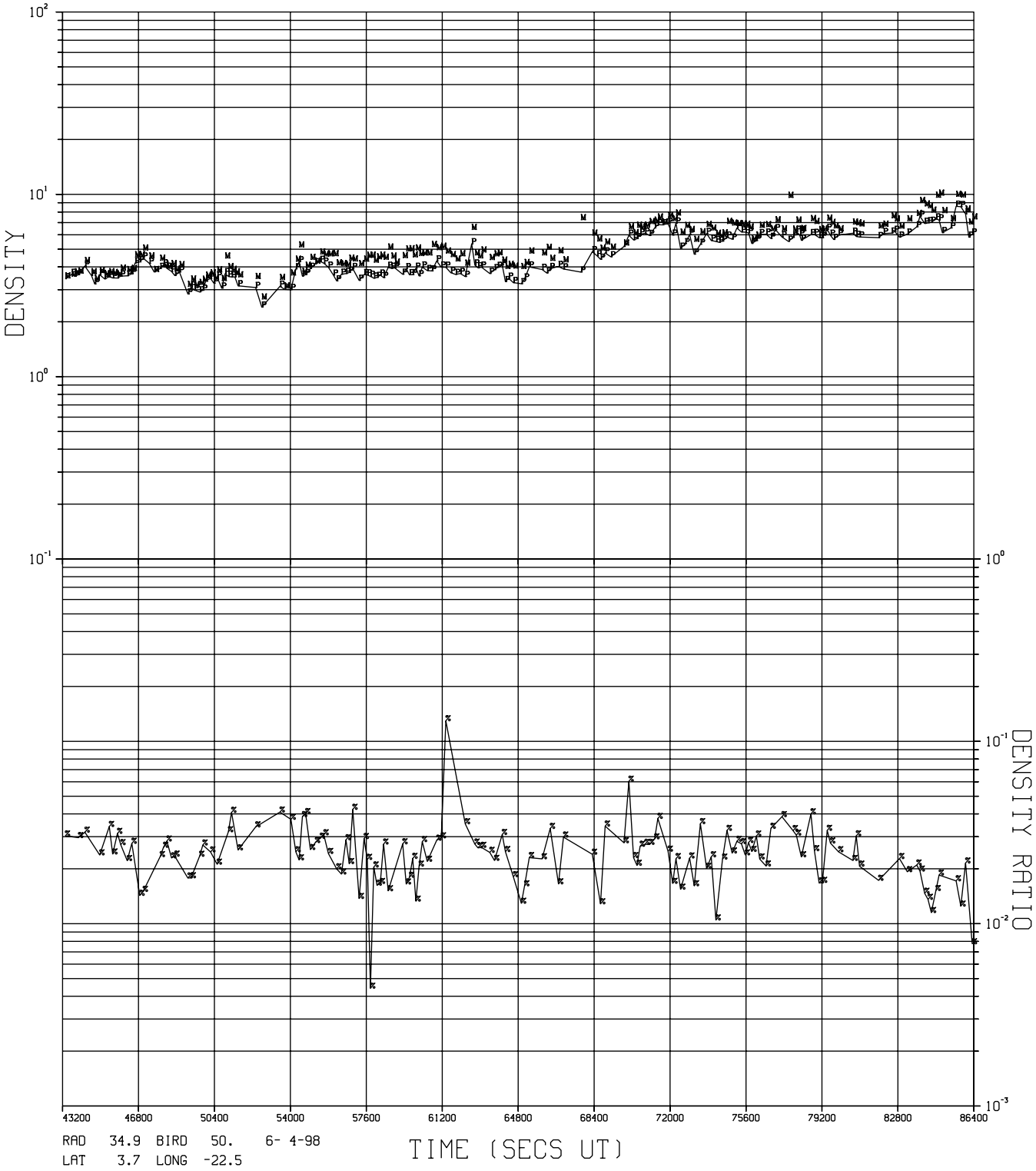

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 33.4 BIRD 50. 6- 4-98
LAT 13.4 LONG -34.0

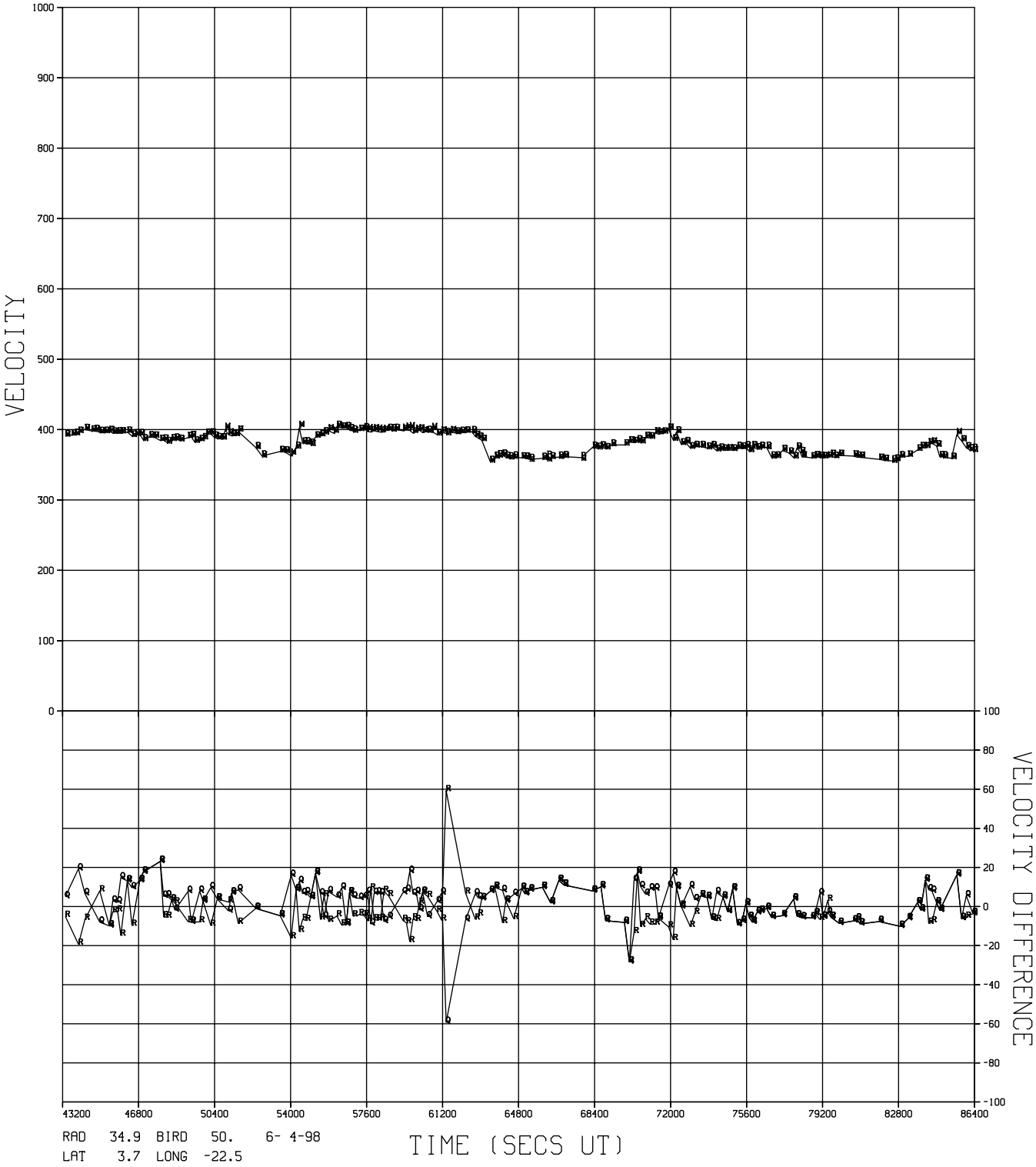

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 33.4 BIRD 50. 6- 4-98
LAT 13.4 LONG -34.0

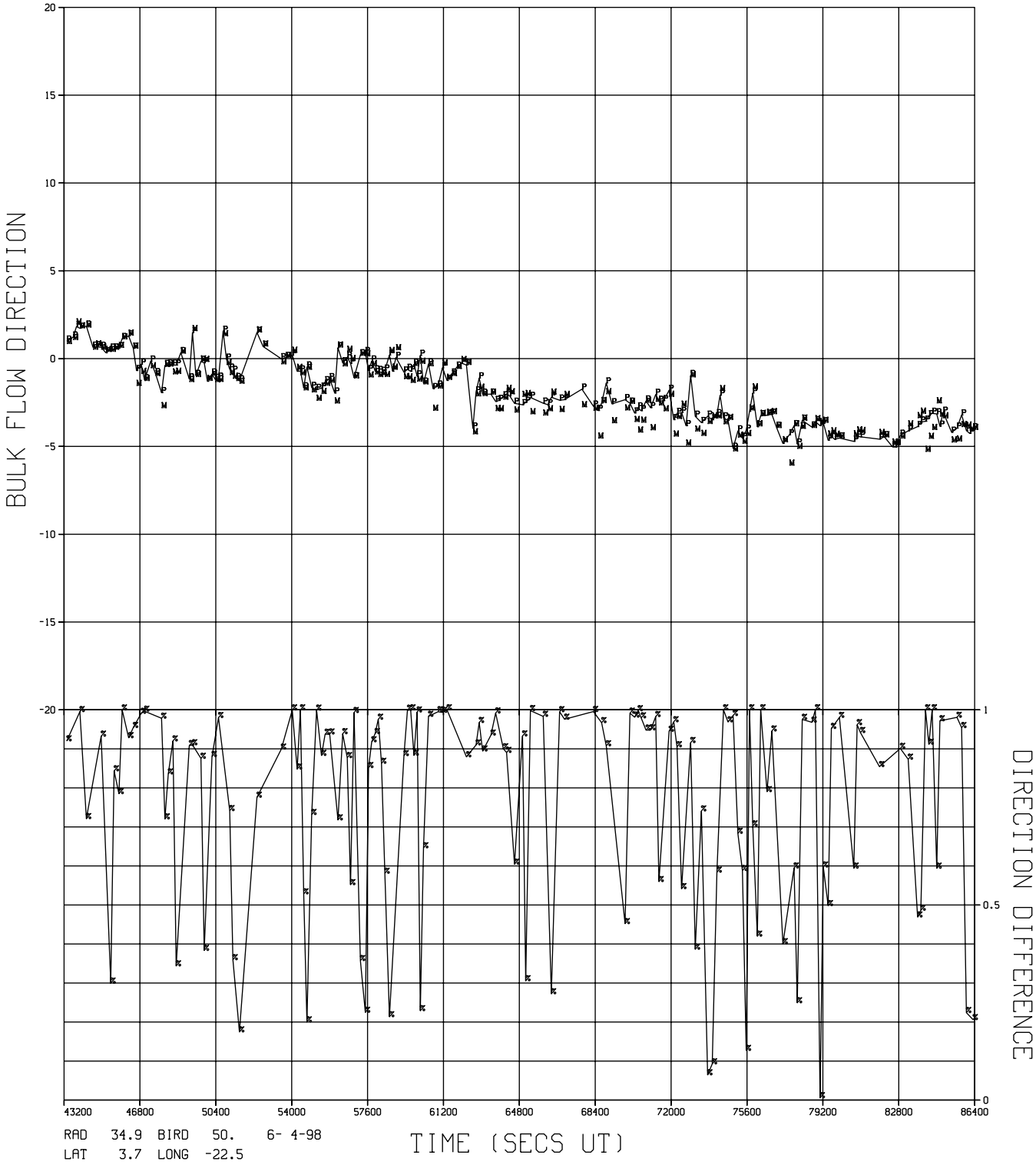

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 33.4 BIRD 50. 6- 4-98
LAT 13.4 LONG -34.0

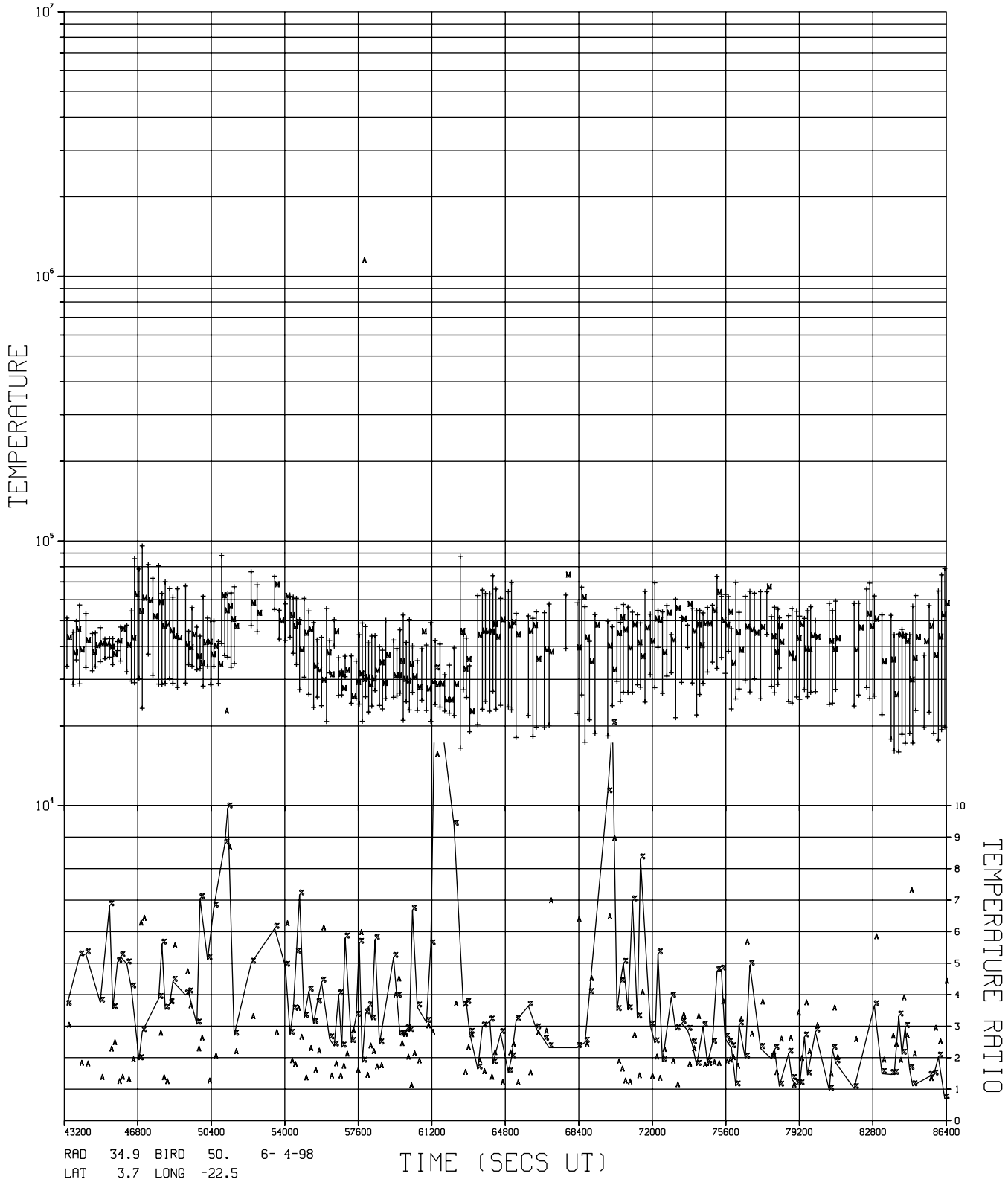

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 33.4 BIRD 50. 6- 4-98
LAT 13.4 LONG -34.0

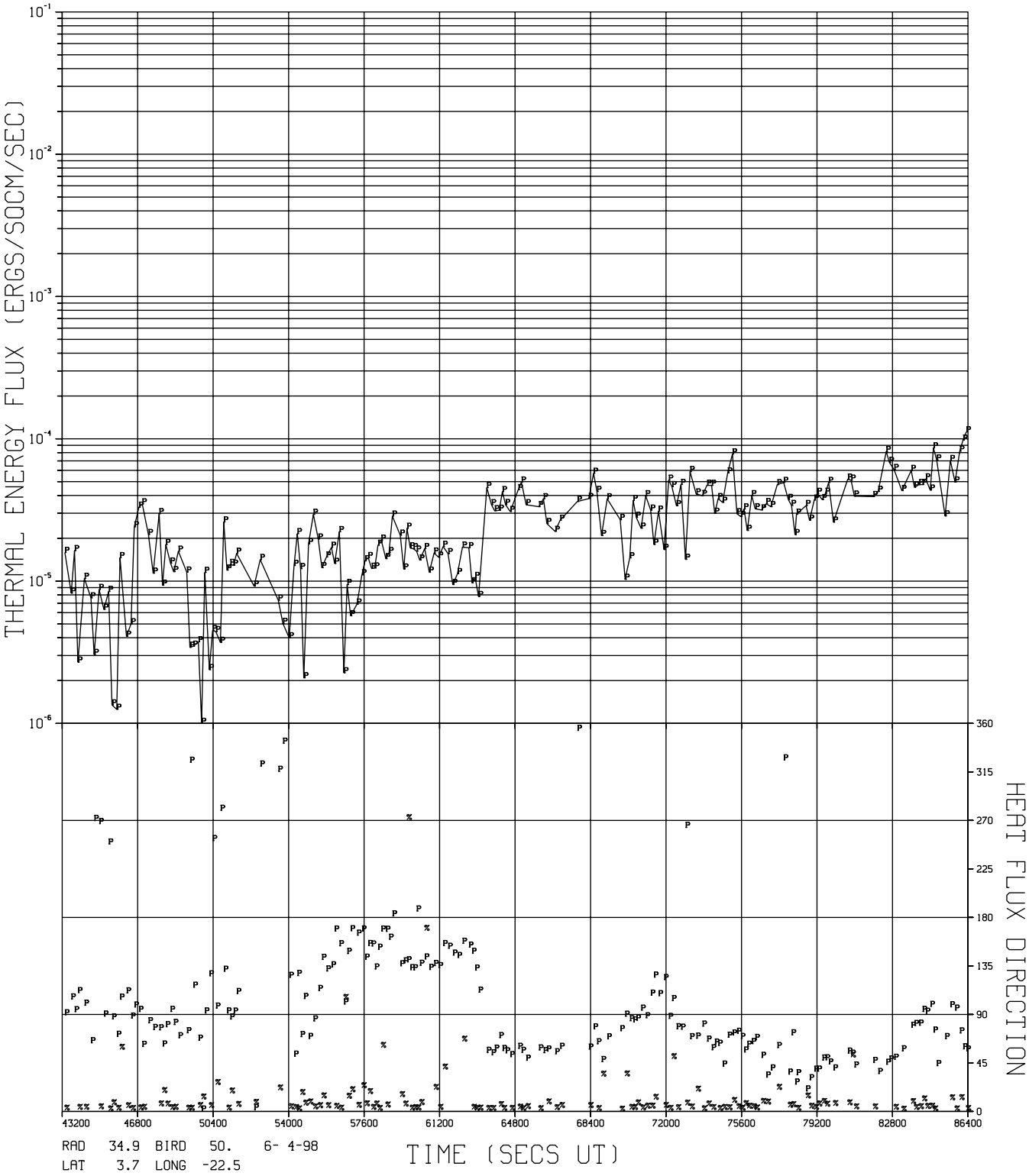

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 33.4 BIRD 50. 6- 4-98
LAT 13.4 LONG -34.0

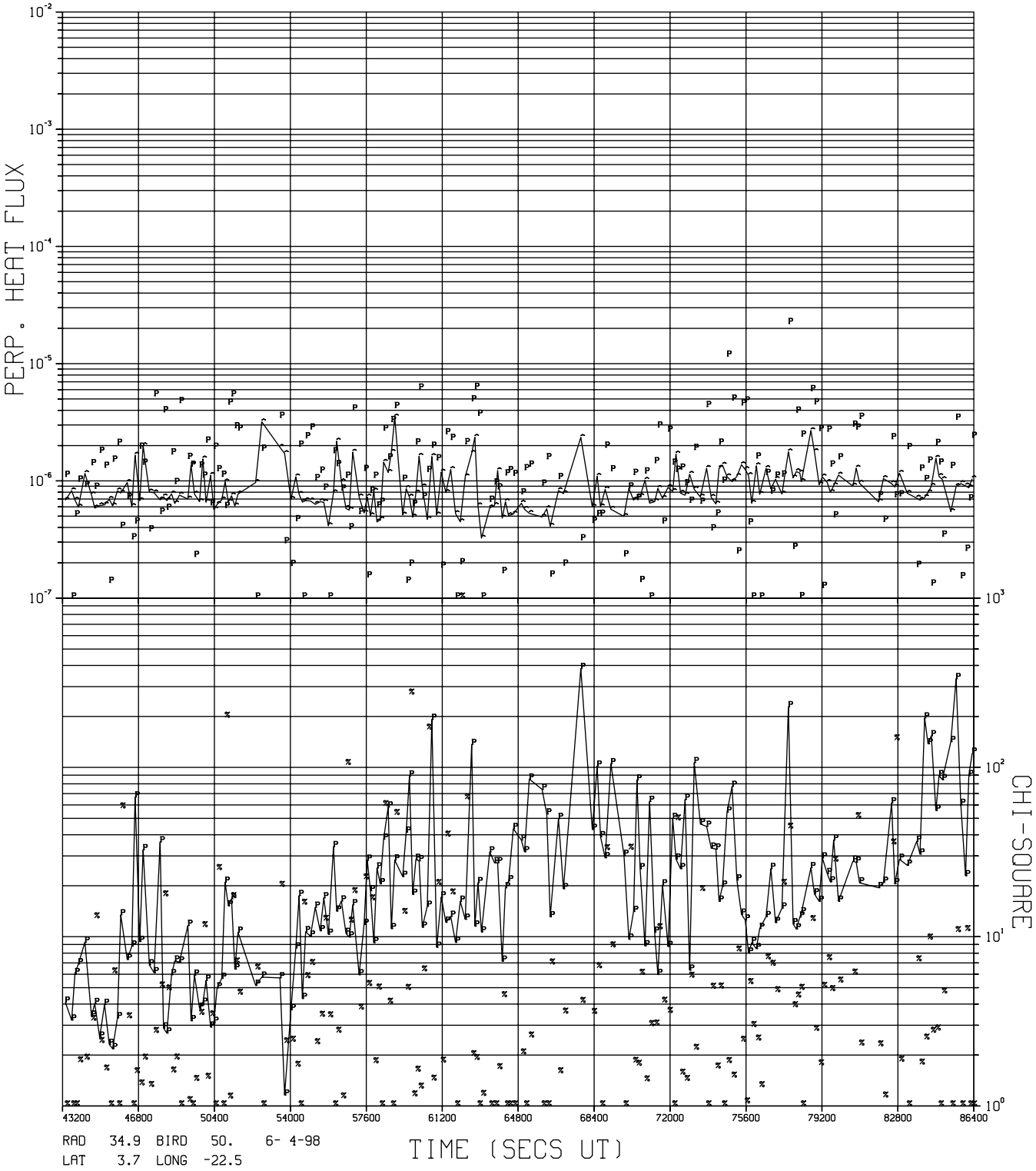

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 34.9 BIRD 50. 6- 4-98
LAT 3.7 LONG -22.5

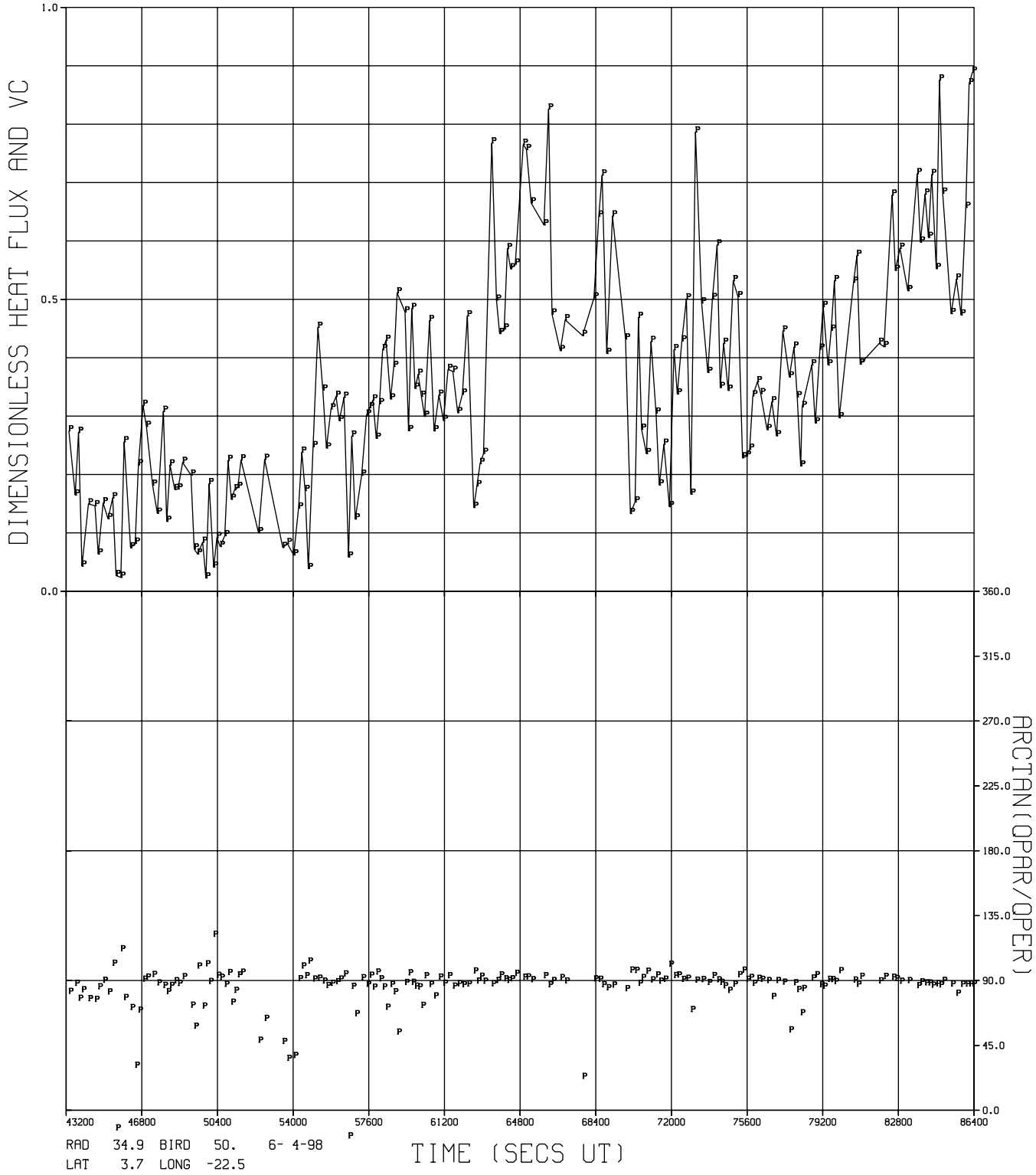

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 34.9 BIRD 50. 6- 4-98
LAT 3.7 LONG -22.5
TIME (SECS UT)

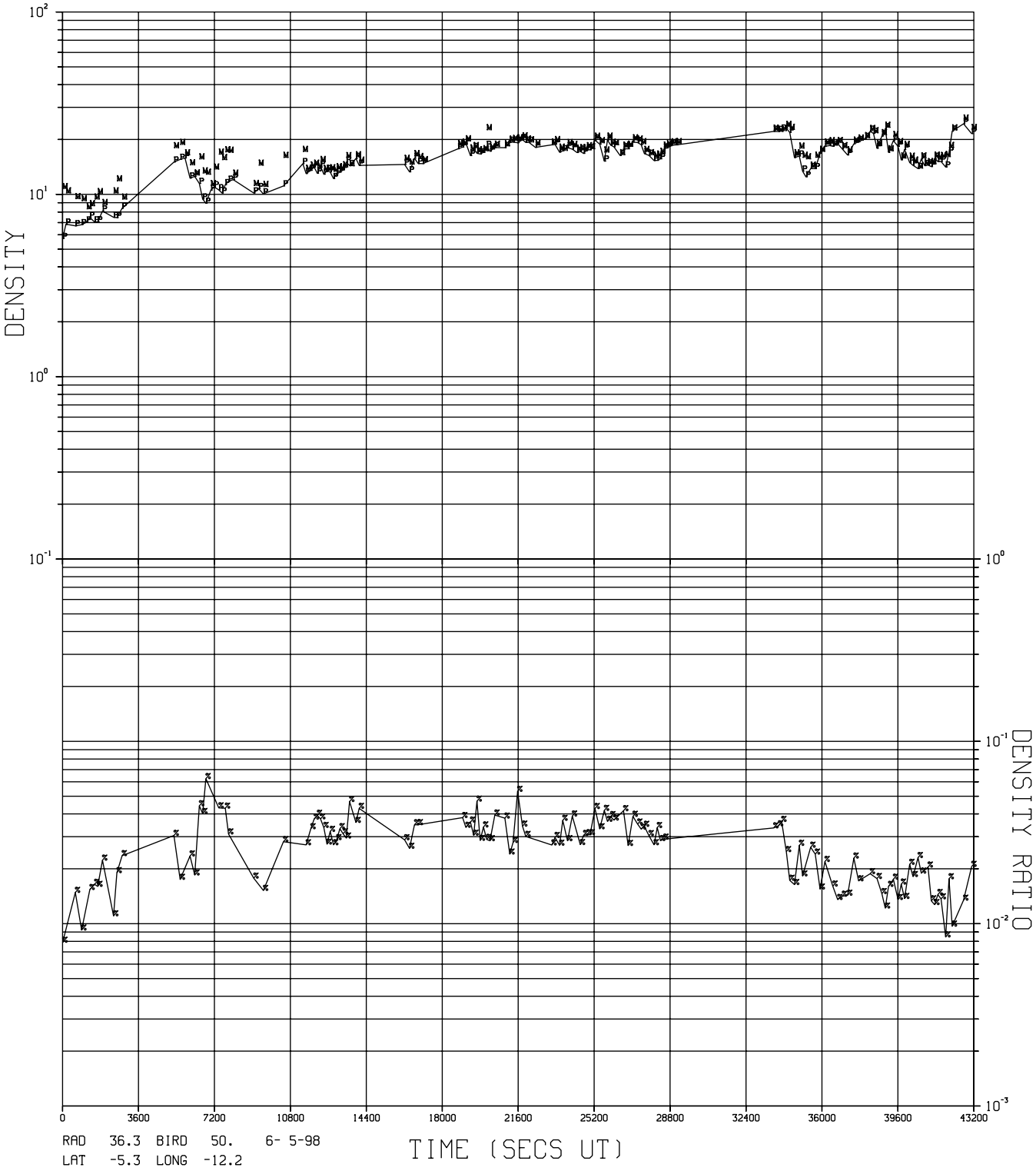

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 34.9 BIRD 50. 6- 4-98
LAT 3.7 LONG -22.5

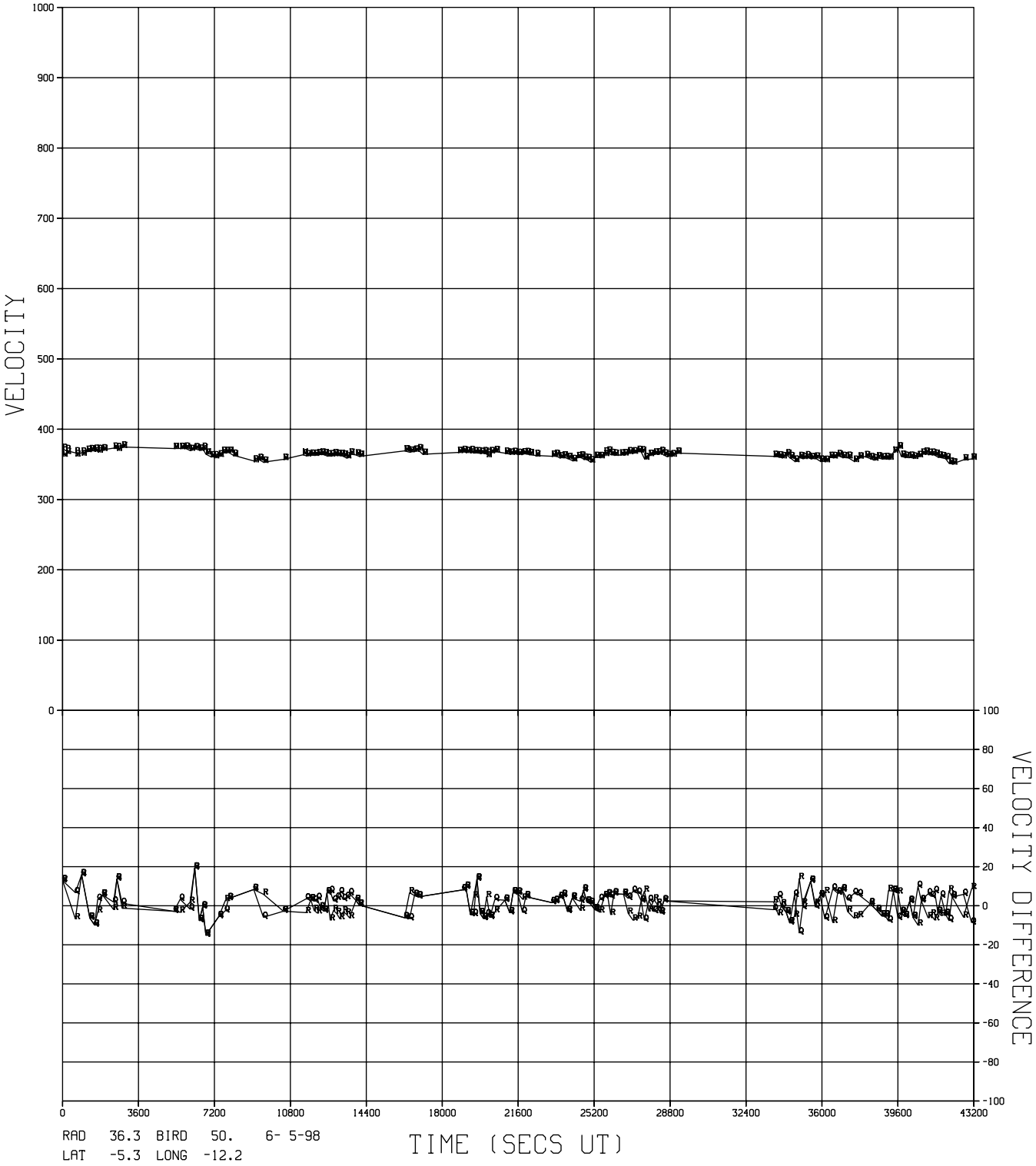

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 34.9 BIRD 50. 6- 4-98
LAT 3.7 LONG -22.5

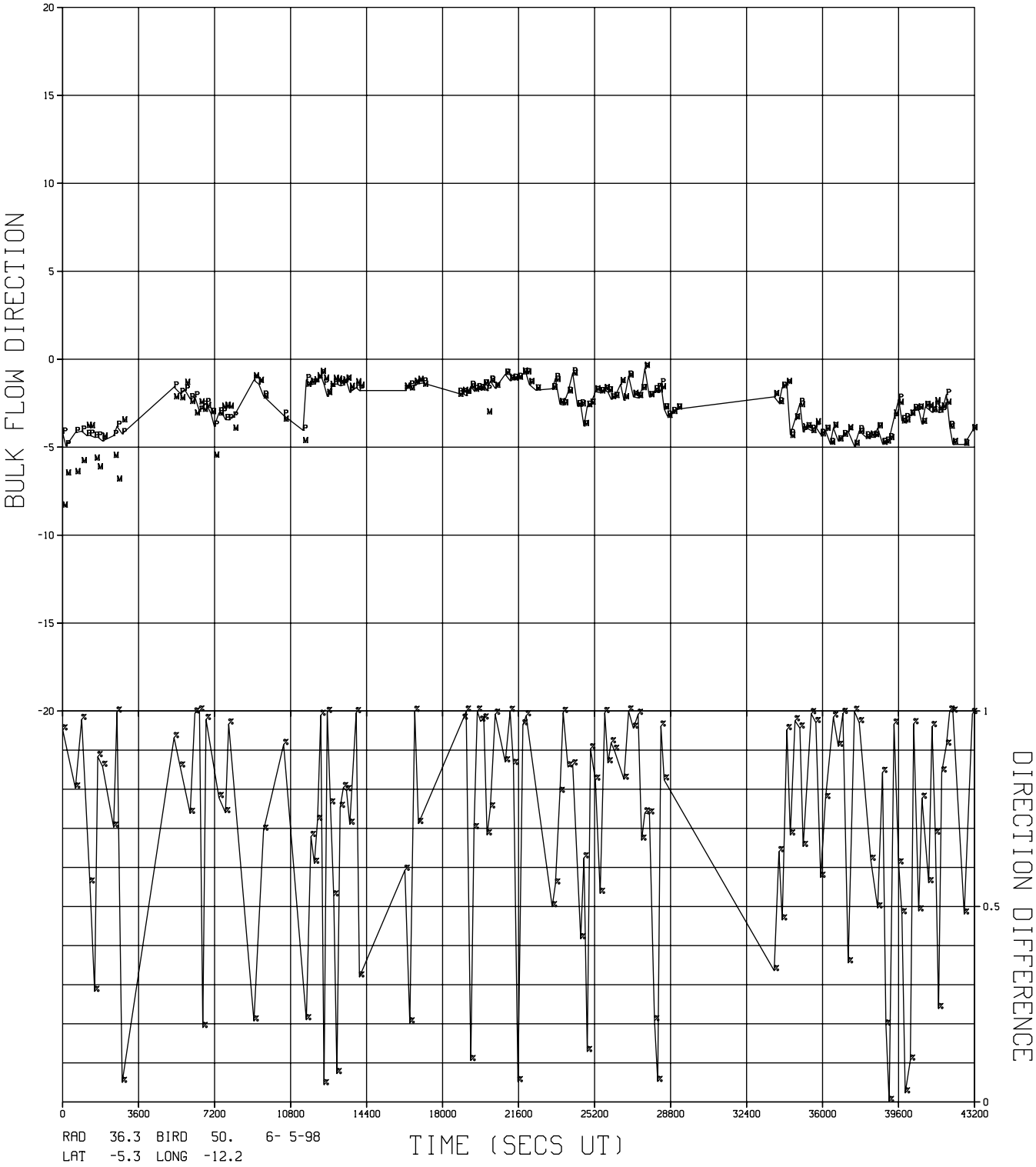

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 34.9 BIRD 50. 6- 4-98
LAT 3.7 LONG -22.5

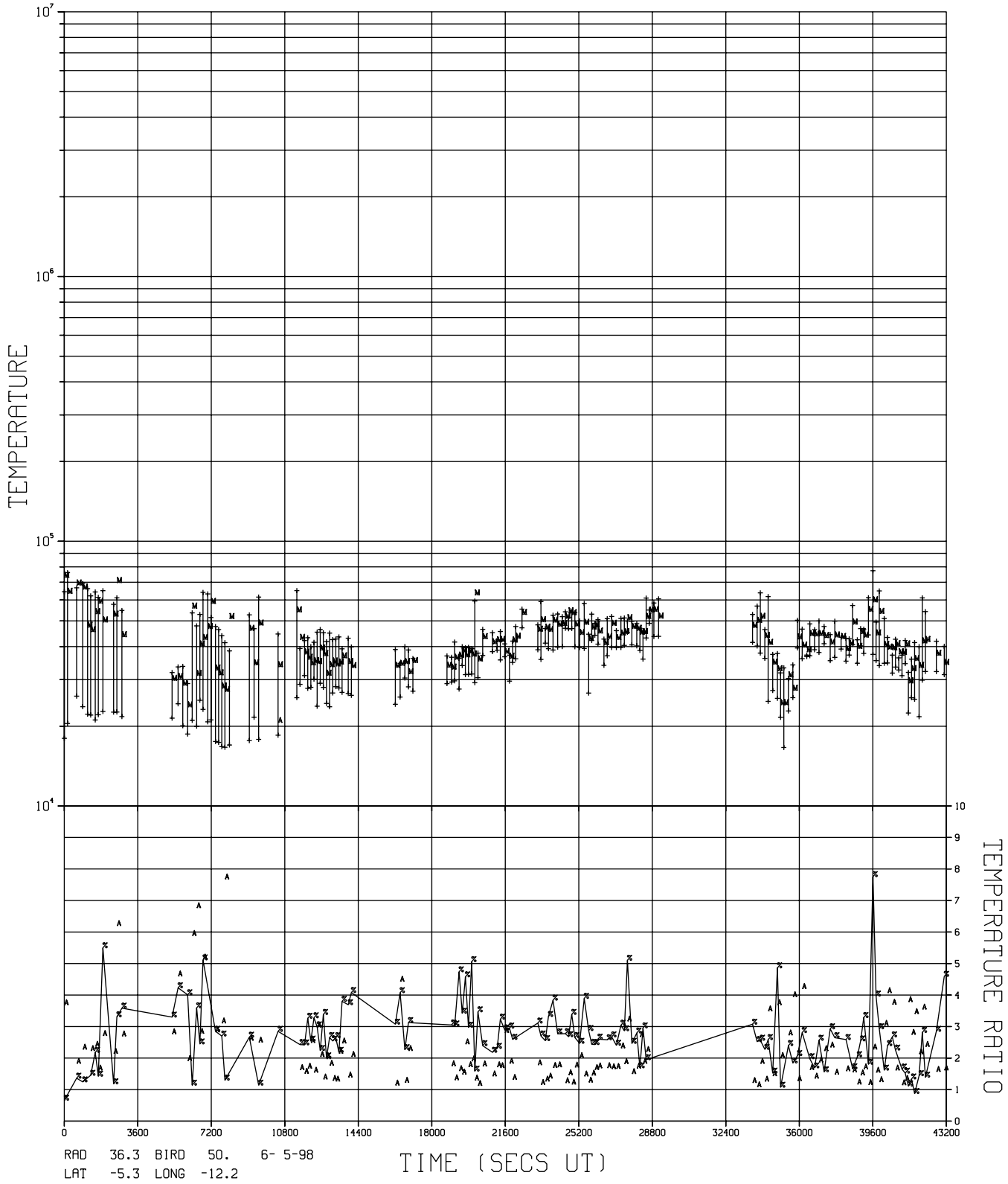

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 34.9 BIRD 50. 6- 4-98
LAT 3.7 LONG -22.5

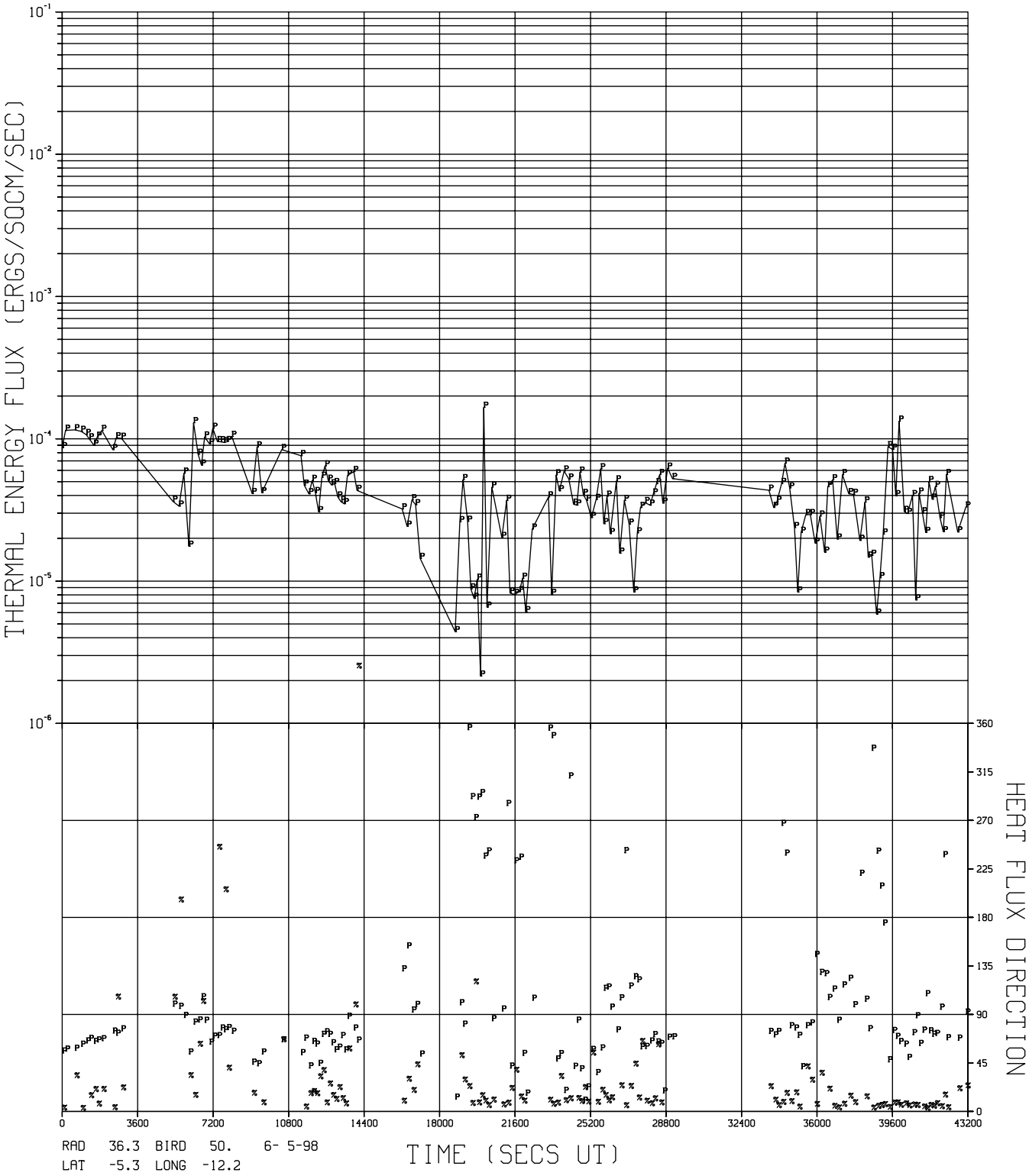

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 34.9 BIRD 50. 6- 4-98
LAT 3.7 LONG -22.5

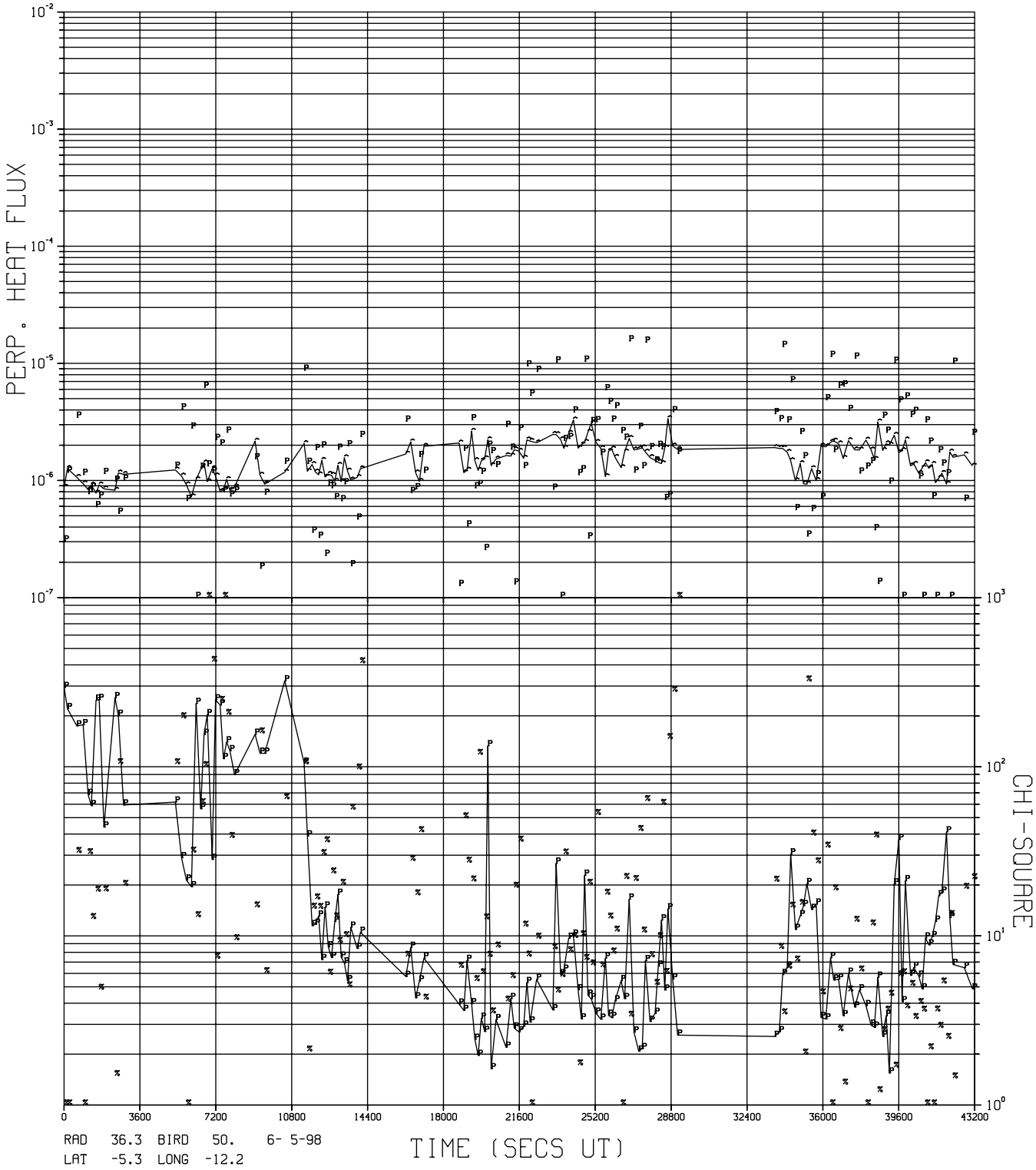

DENSITY
DENSITY RATIO
TIME (SECS UT)
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 36.3 BIRD 50. 6- 5-98
LAT -5.3 LONG -12.2

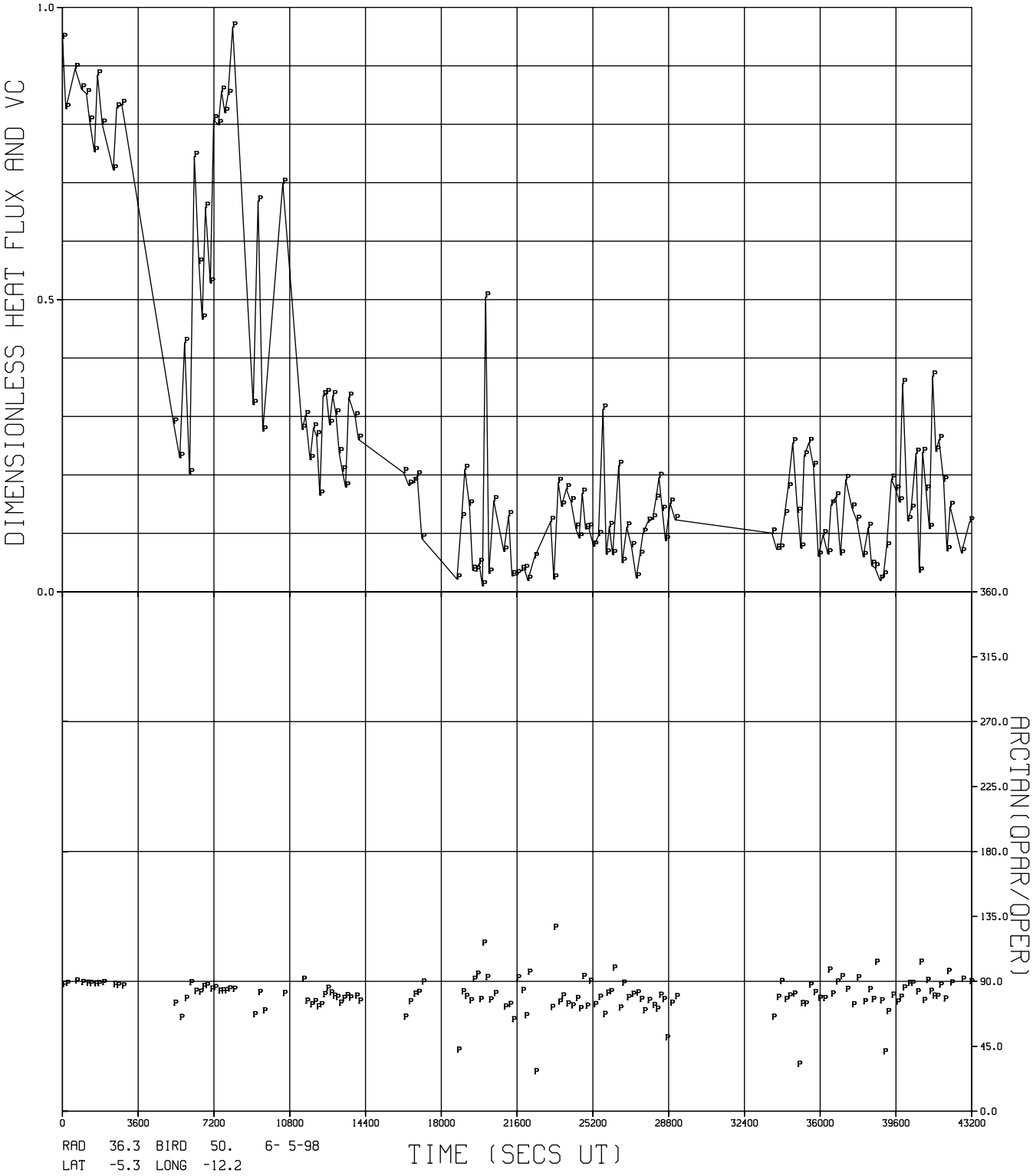

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 36.3 BIRD 50. 6- 5-98
LAT -5.3 LONG -12.2
TIME (SECS UT)

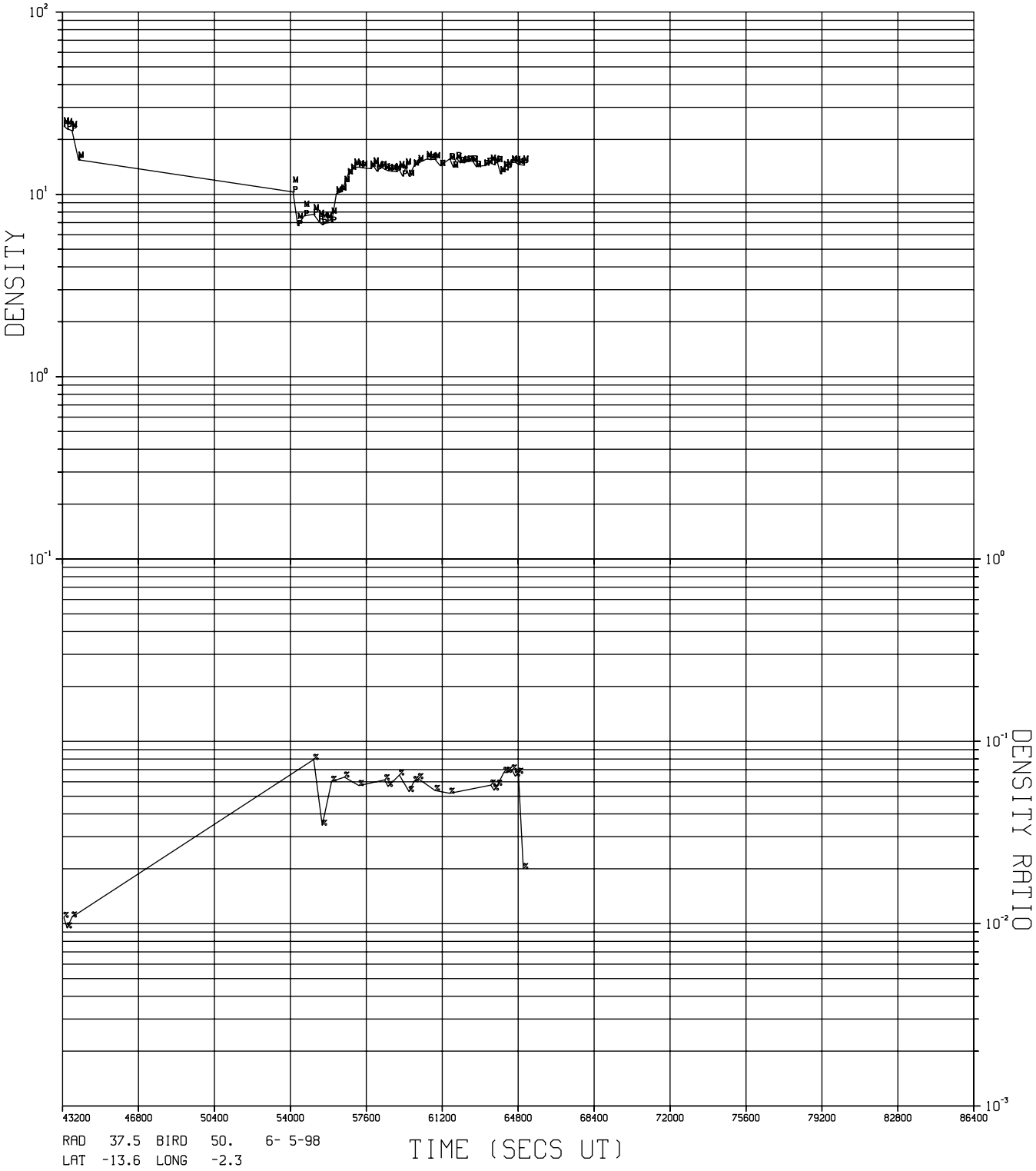

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 36.3 BIRD 50. 6- 5-98
LAT -5.3 LONG -12.2

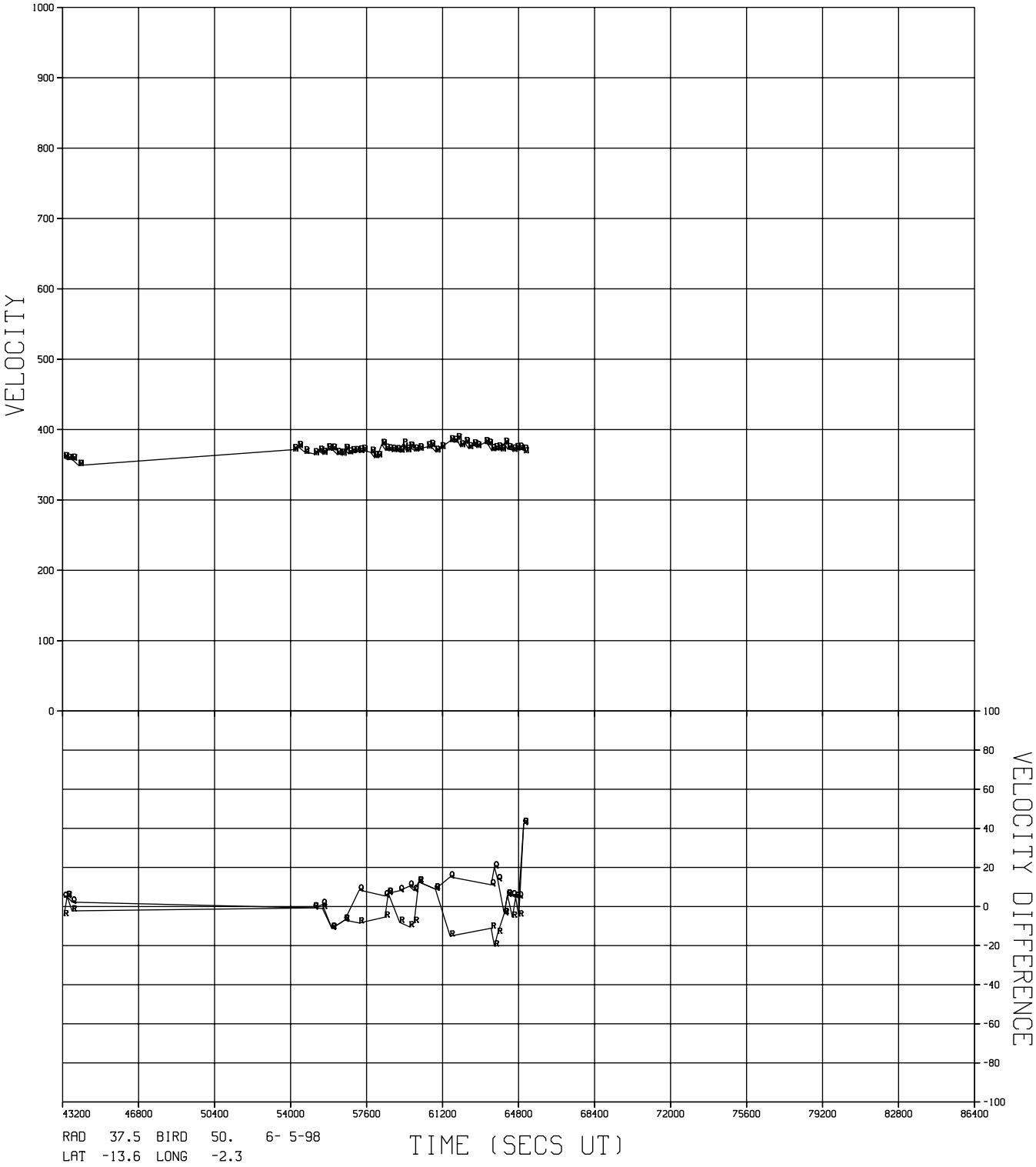

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 36.3 BIRD 50. 6- 5-98
LAT -5.3 LONG -12.2

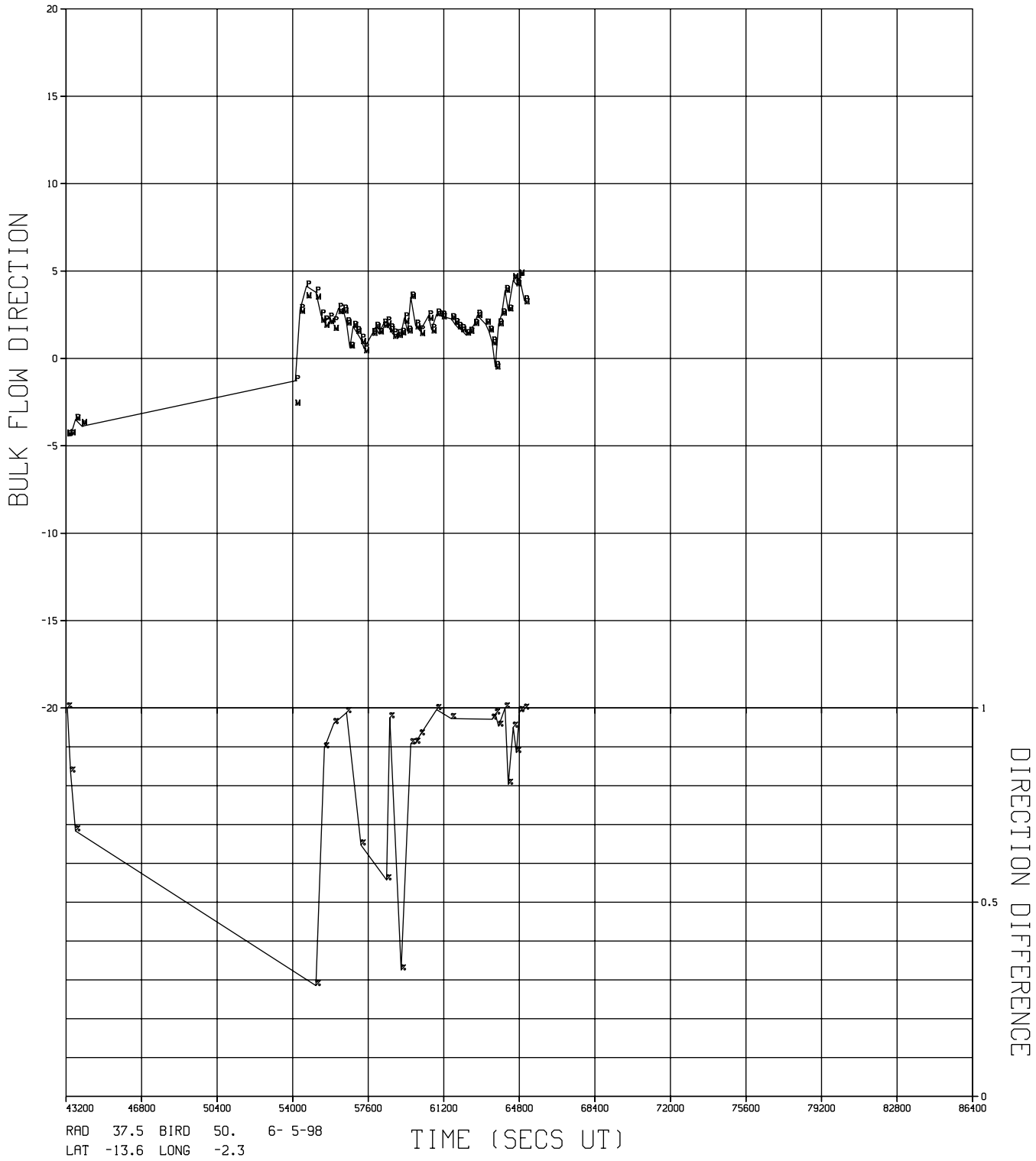

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 36.3 BIRD 50. 6- 5-98
LAT -5.3 LONG -12.2

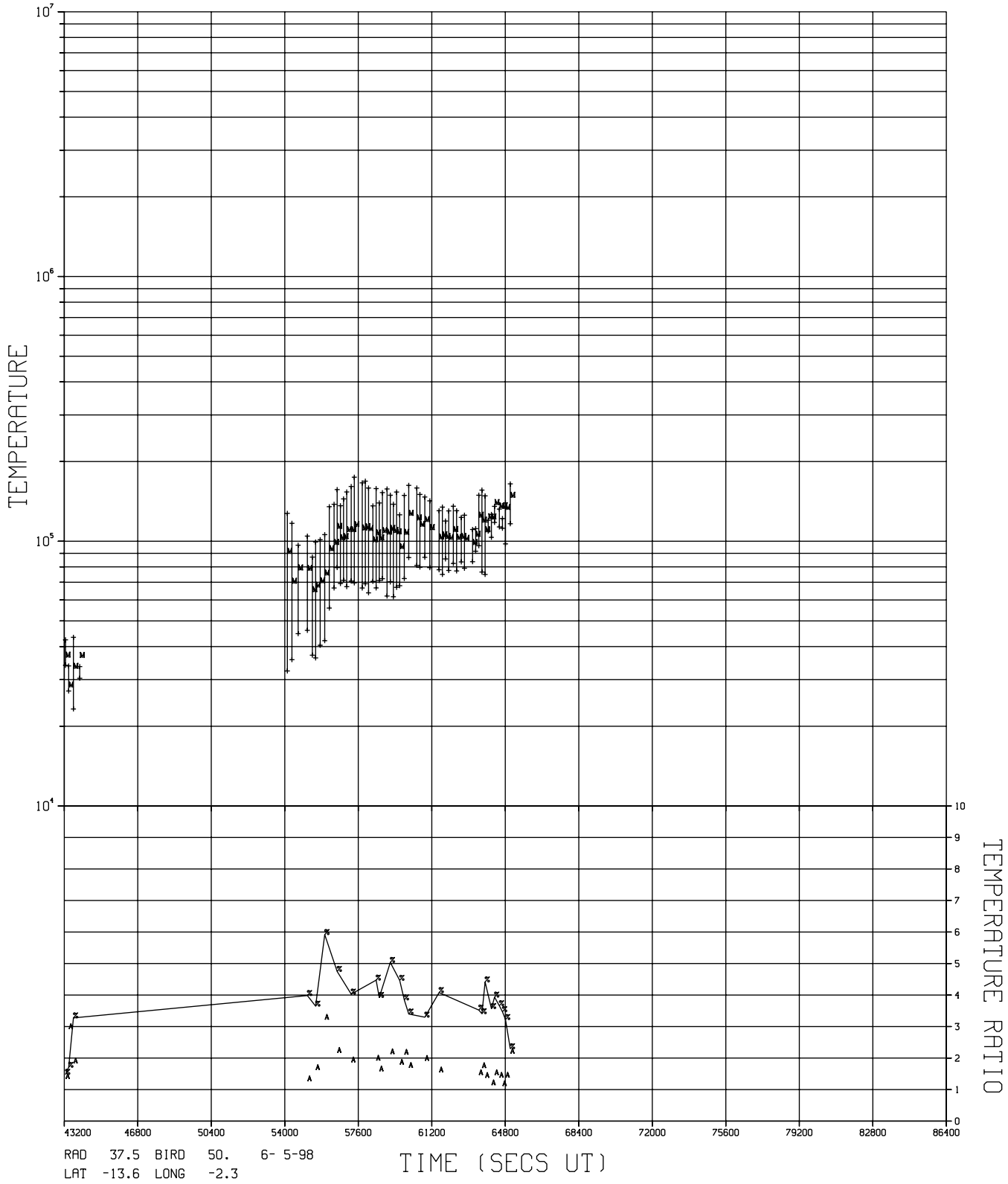

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 36.3 BIRD 50. 6- 5-98
LAT -5.3 LONG -12.2

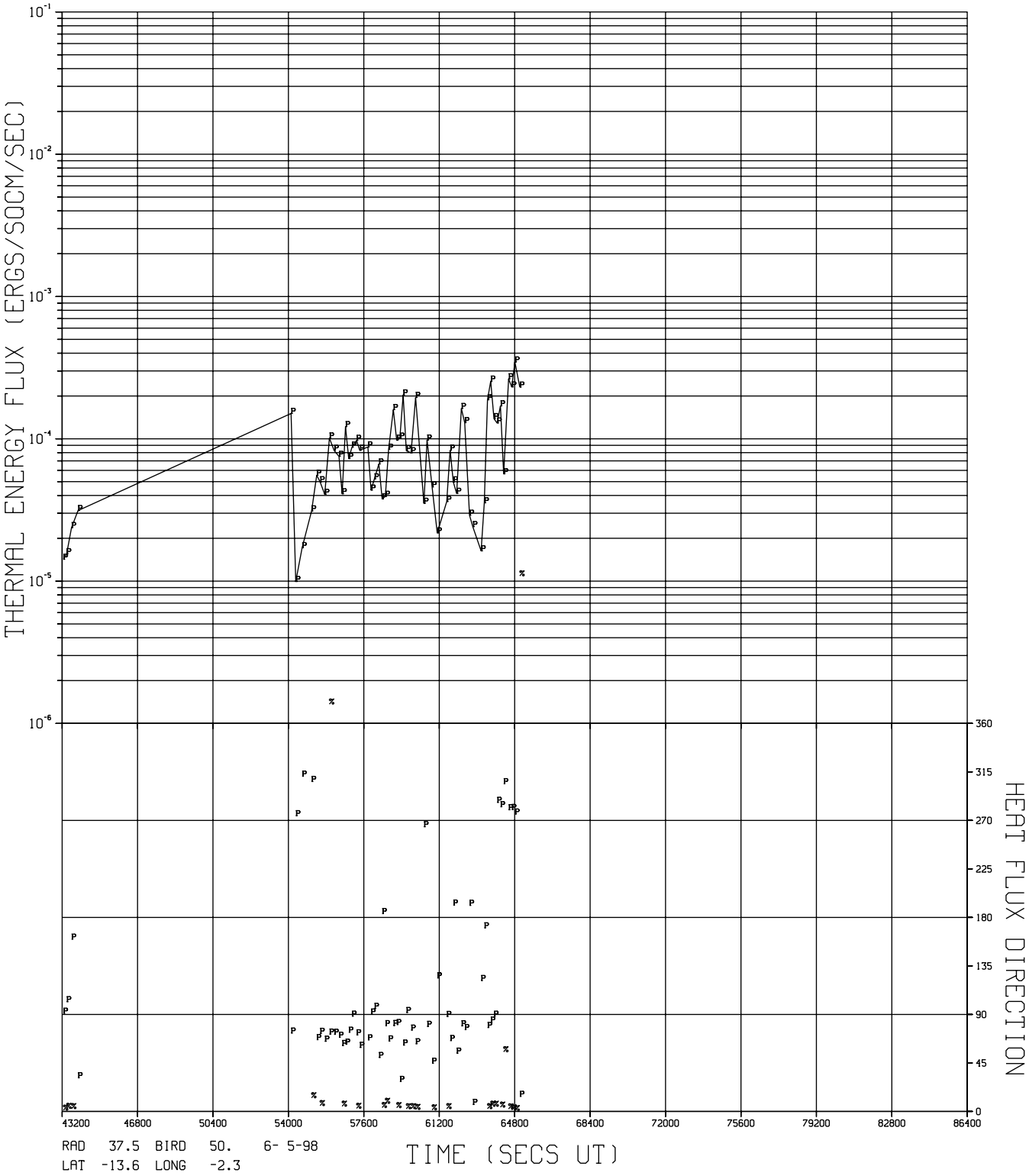

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 36.3 BIRD 50. 6- 5-98
LAT -5.3 LONG -12.2

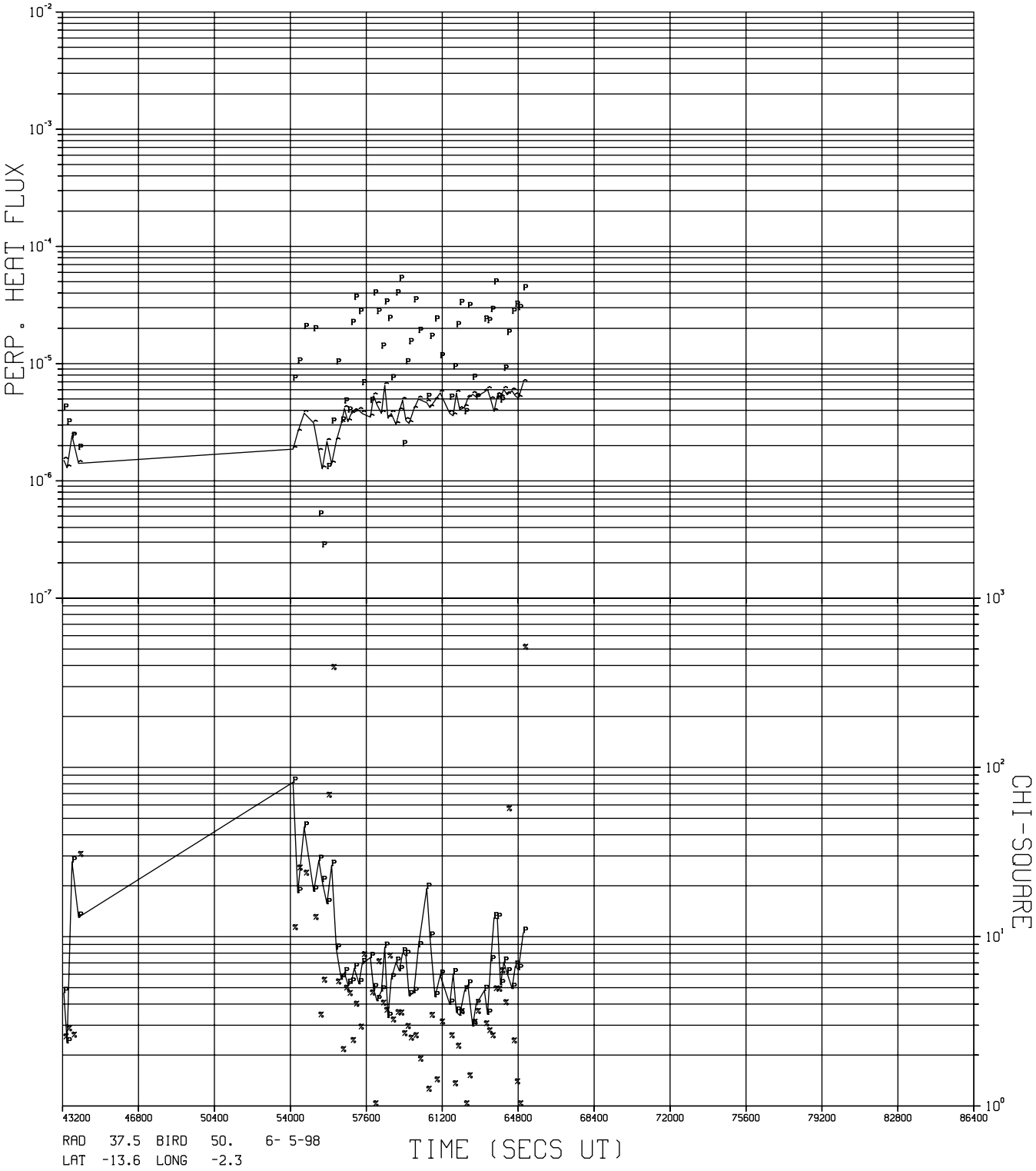

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.5 BIRD 50. 6- 5-98
LAT -13.6 LONG -2.3

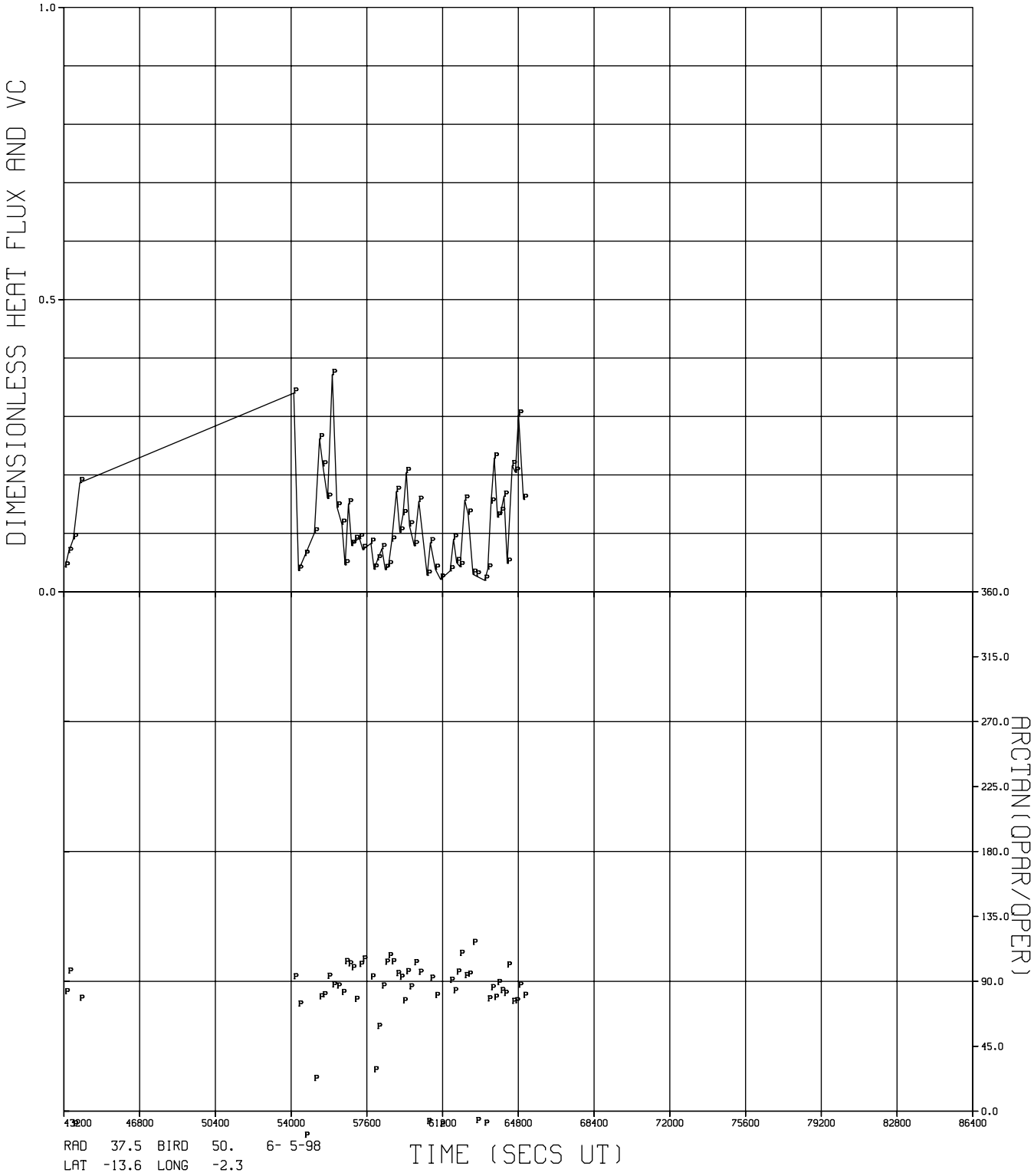

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 37.5 BIRD 50. 6- 5-98
LAT -13.6 LONG -2.3


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 37.5 BIRD 50. 6- 5-98
LAT -13.6 LONG -2.3


TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
10^7
10^6
10^5
10^4
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.5 BIRD 50. 6- 5-98
LAT -13.6 LONG -2.3


THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.5 BIRD 50. 6- 5-98
LAT -13.6 LONG -2.3


PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.5 BIRD 50. 6- 5-98
LAT -13.6 LONG -2.3


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 37.5 BIRD 50. 6- 5-98
LAT -13.6 LONG -2.3