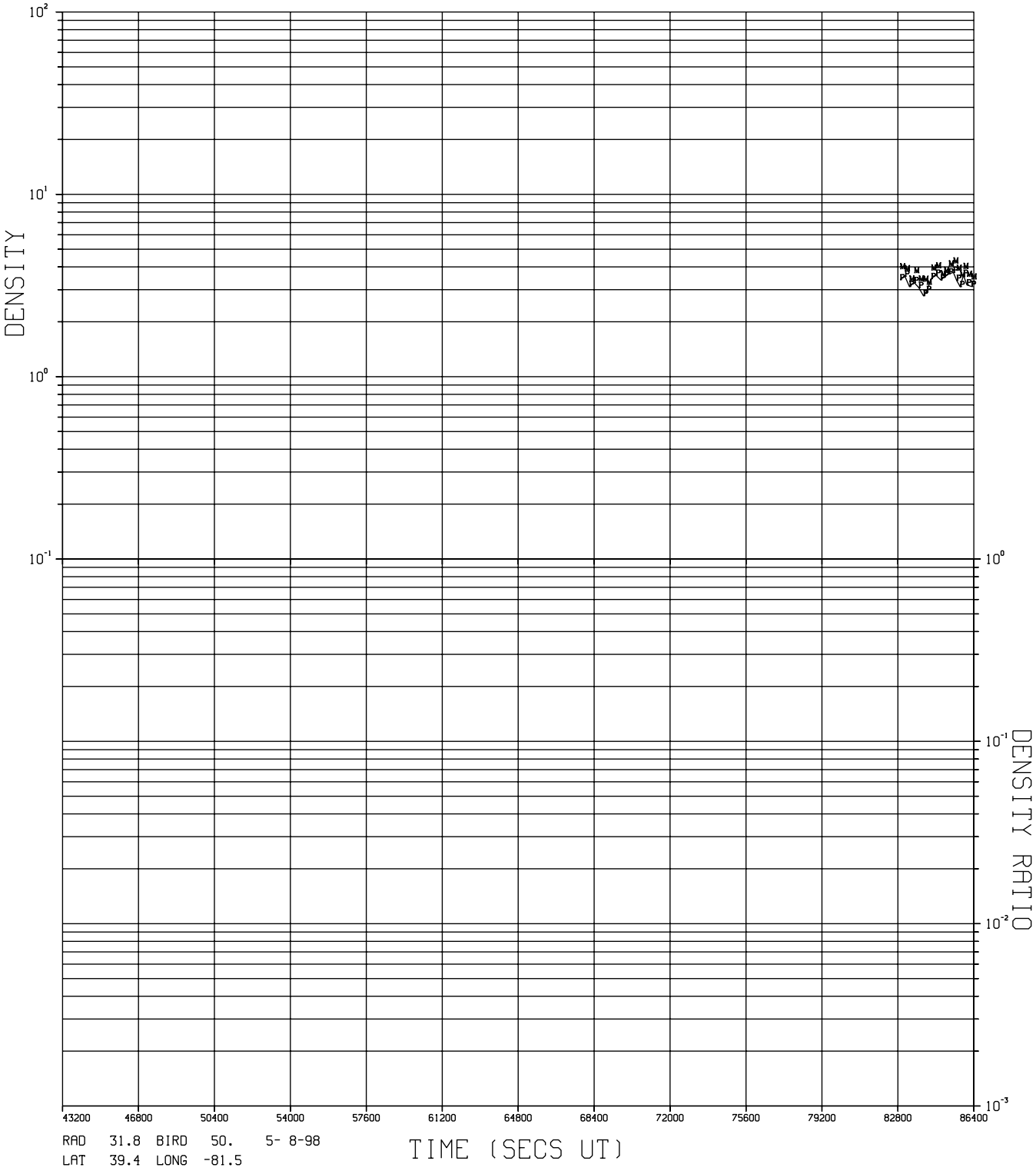
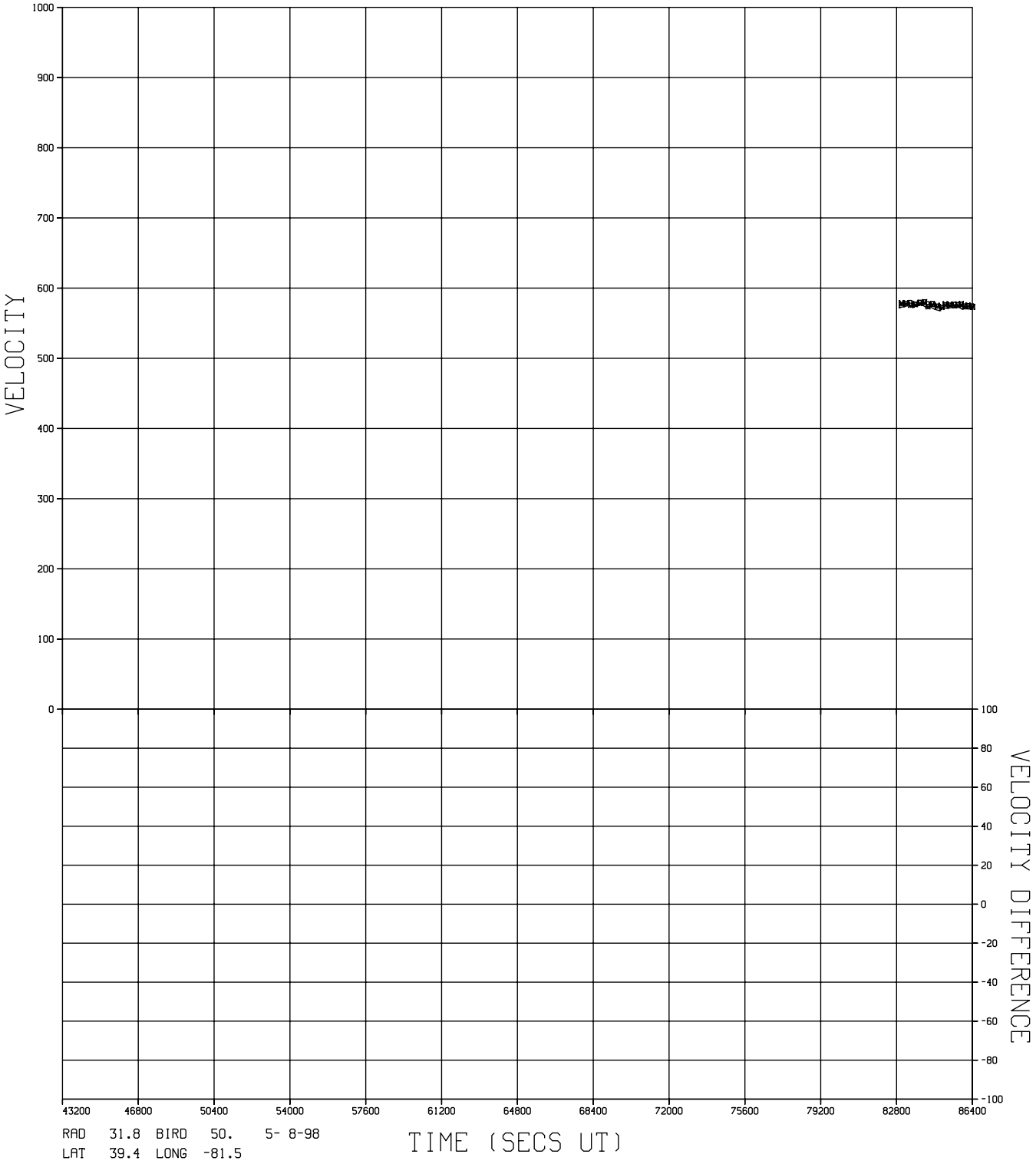
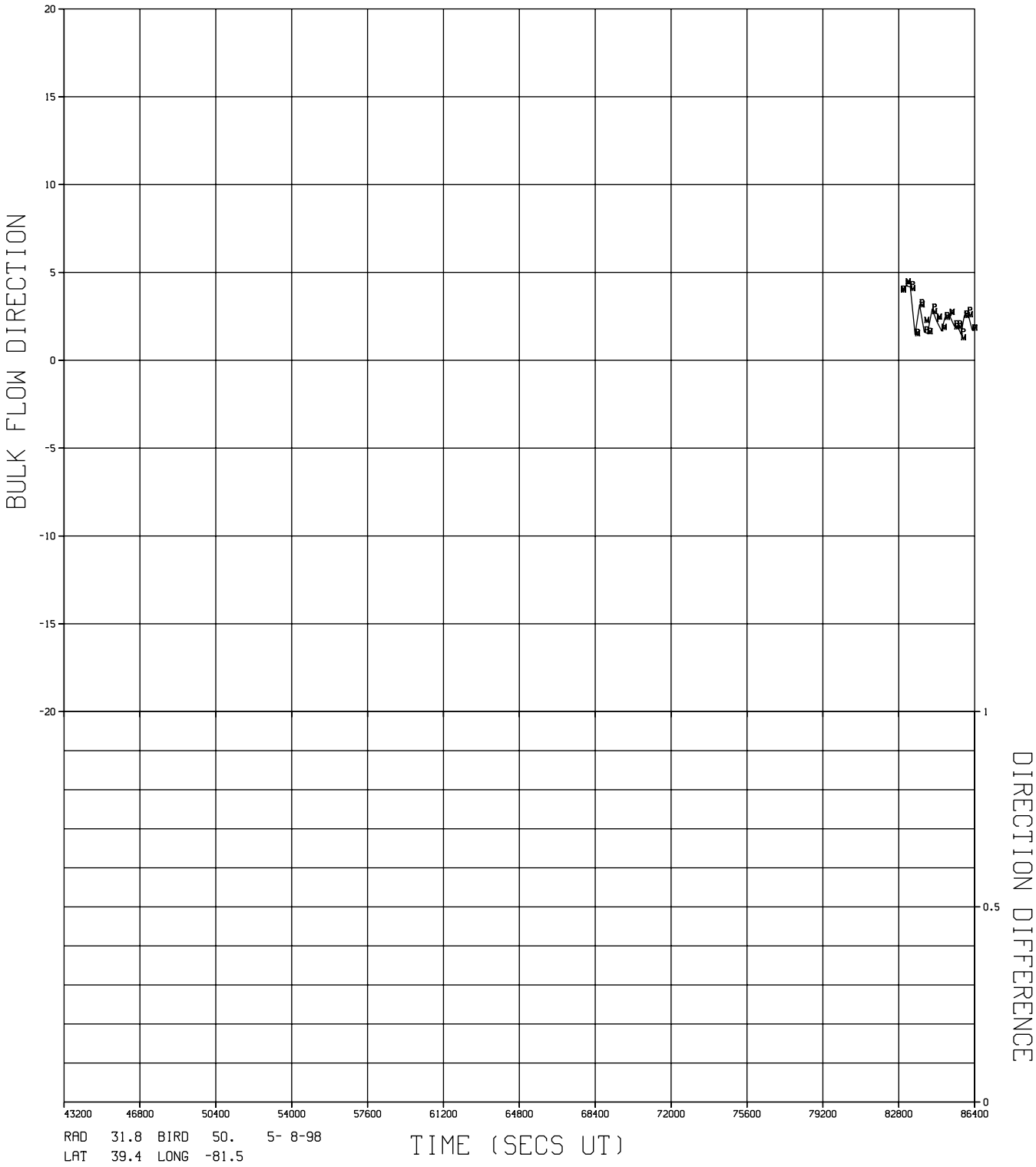
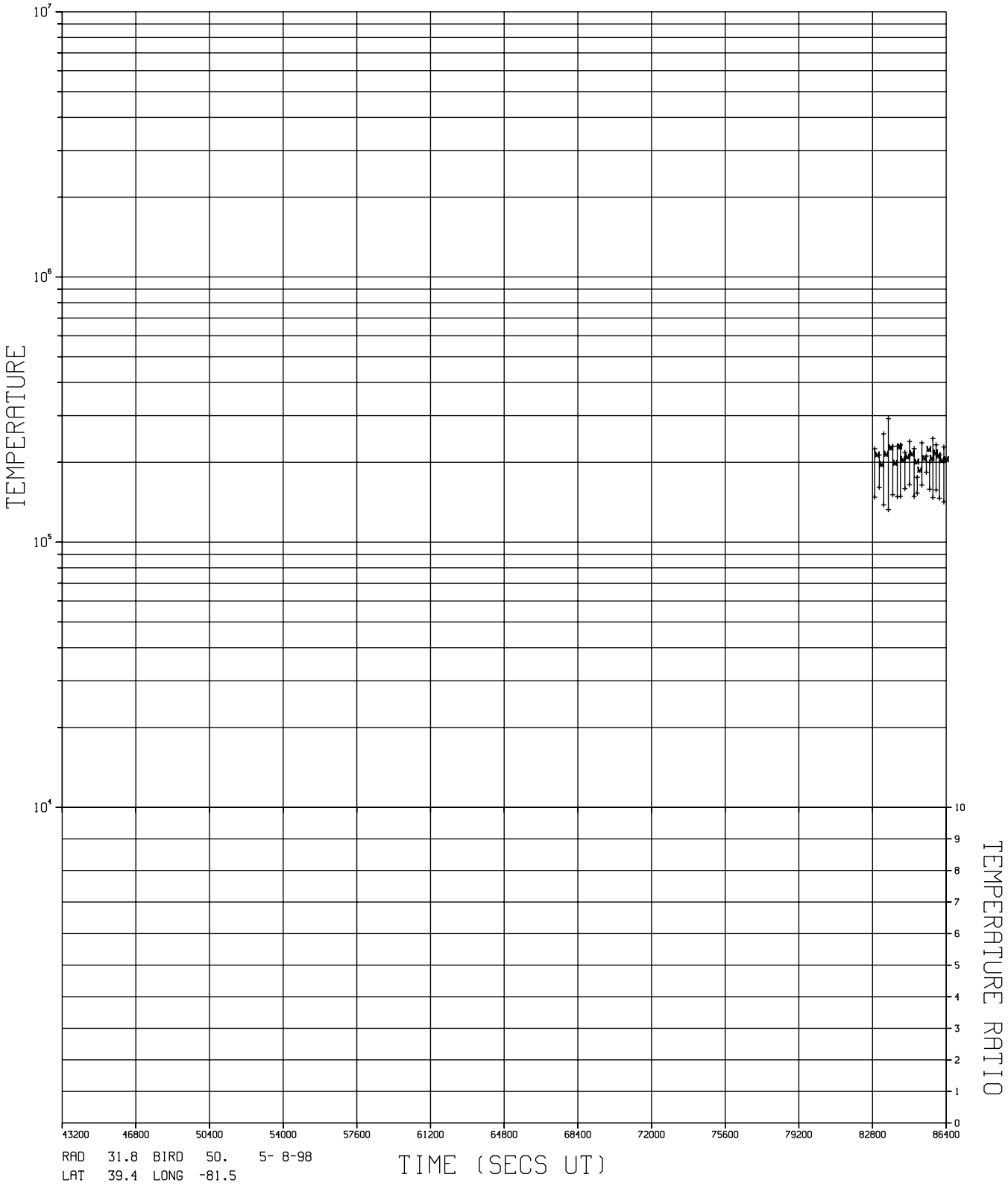
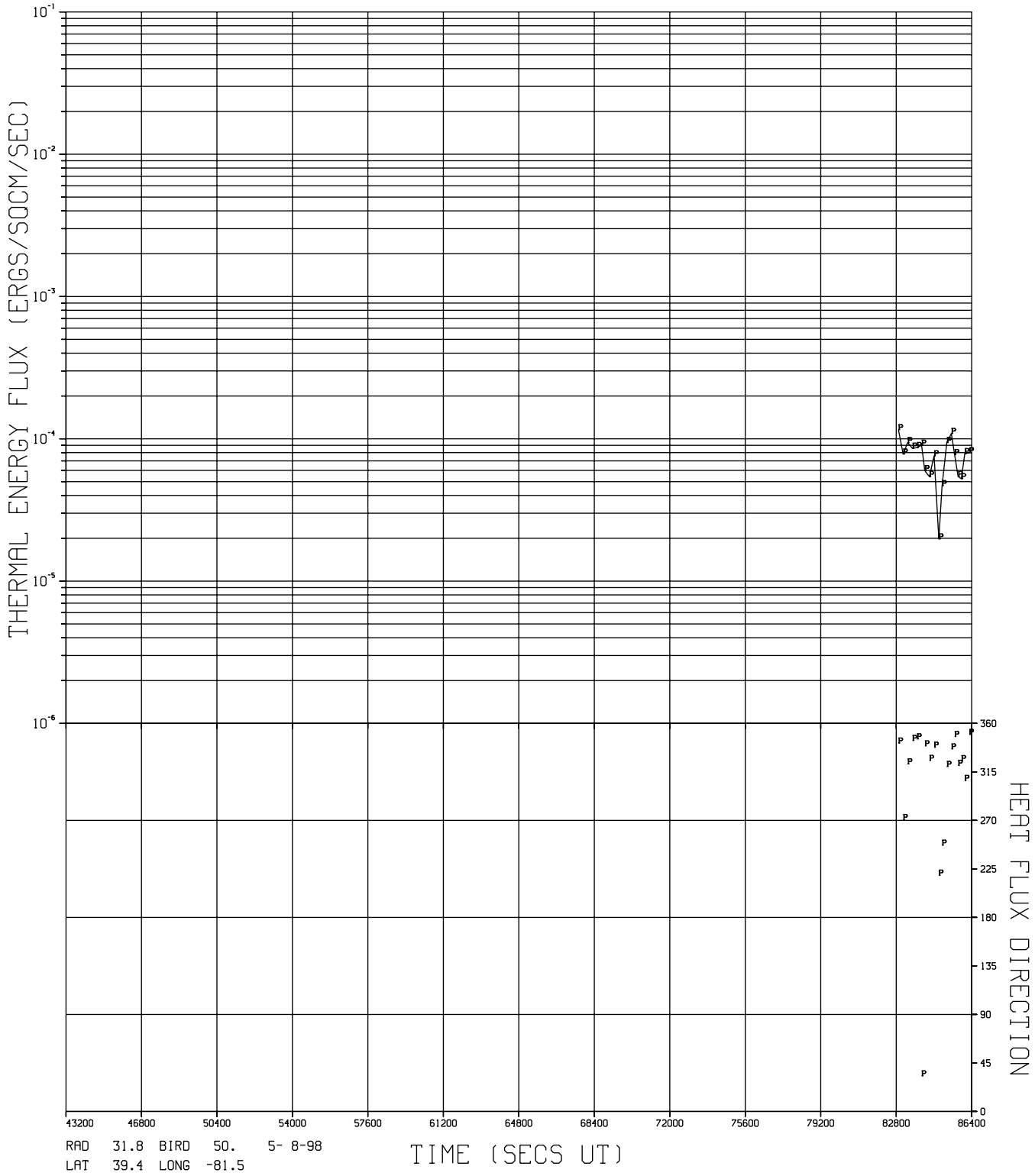
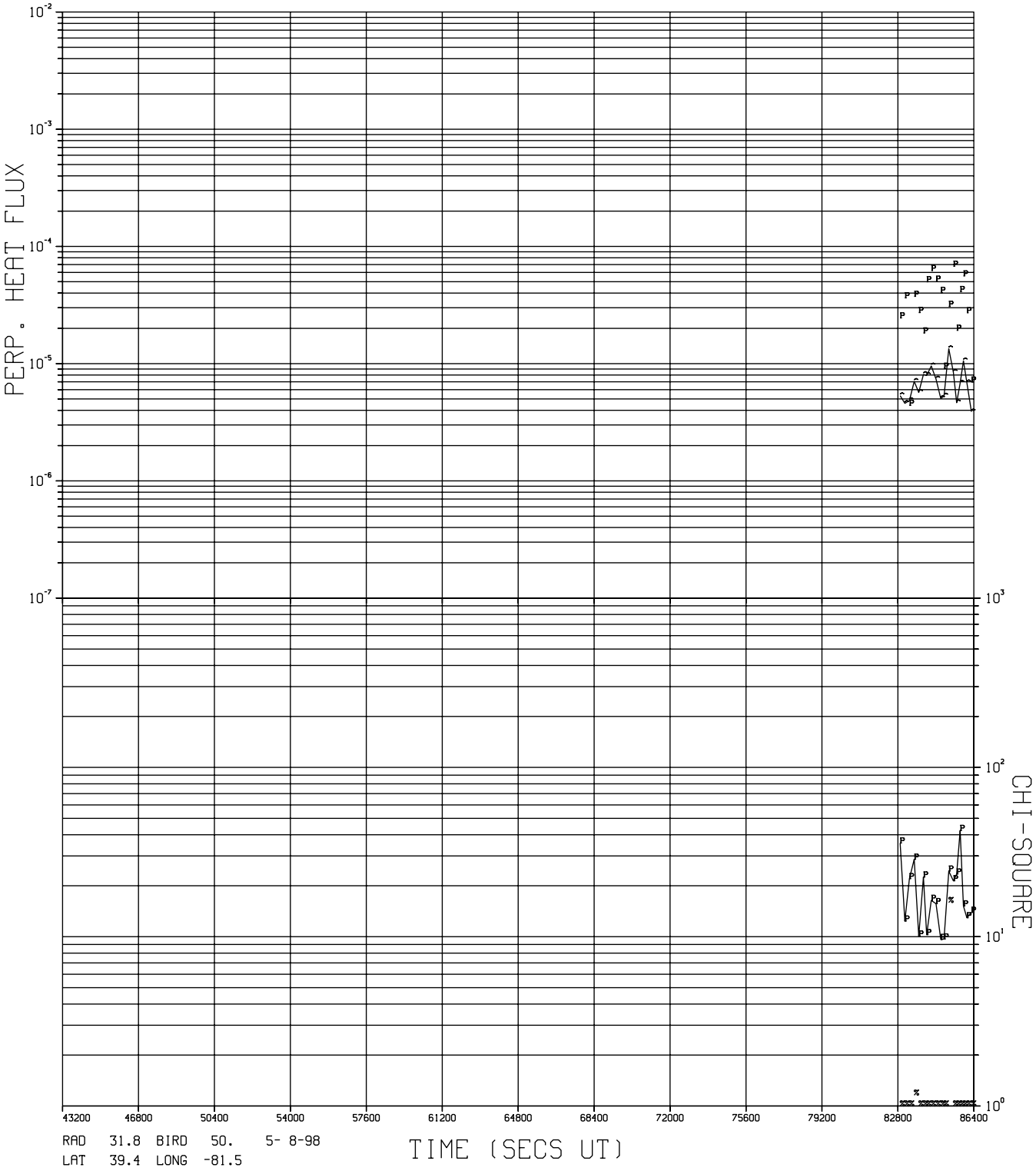

DENSITY
10^2
10^1
10^0
10^{-1}
DENSITY RATIO
10^0
10^{-1}
10^{-2}
10^{-3}
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 31.8 BIRD 50. 5- 8-98
LAT 39.4 LONG -81.5

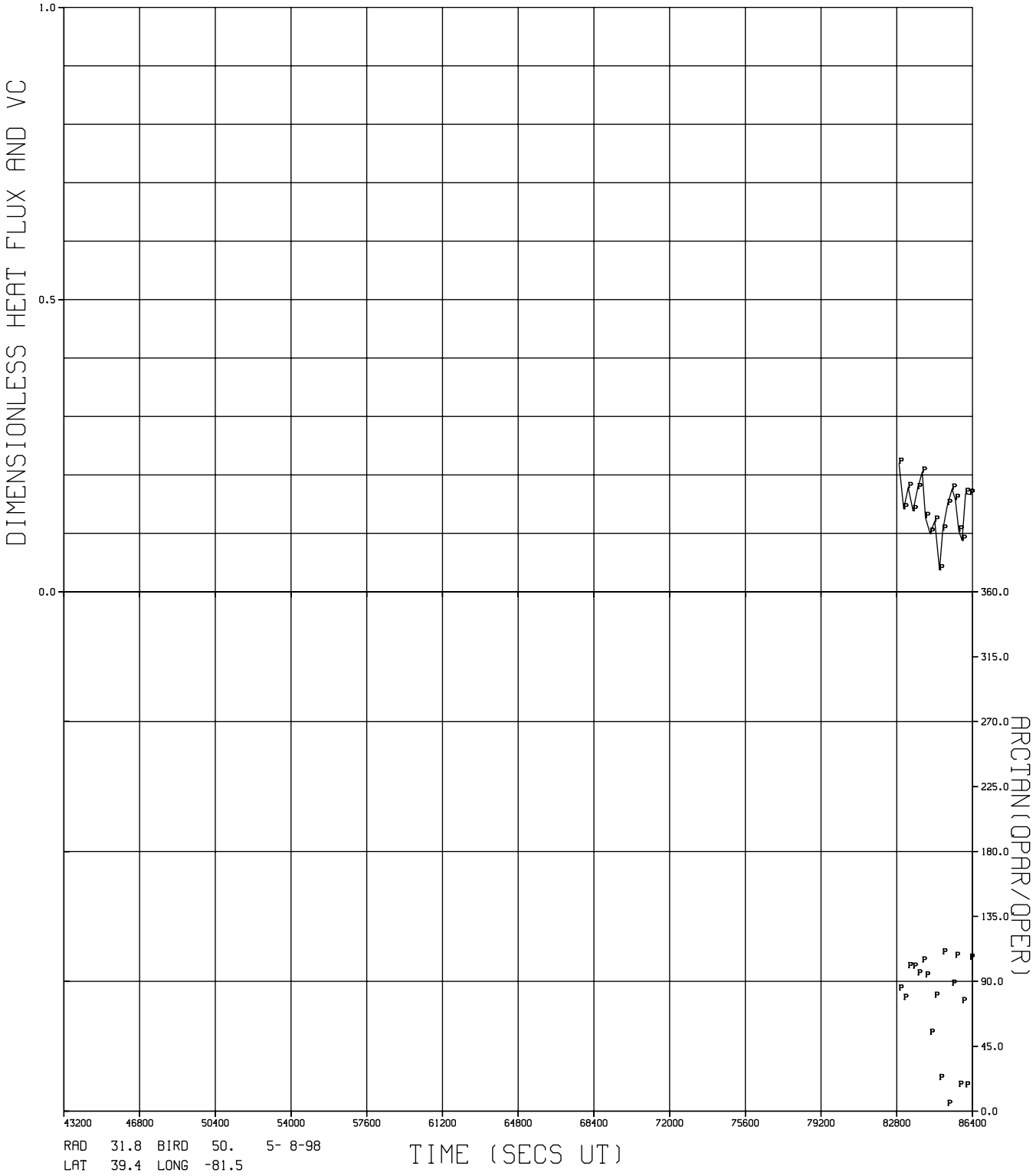

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 31.8 BIRD 50. 5- 8-98
LAT 39.4 LONG -81.5

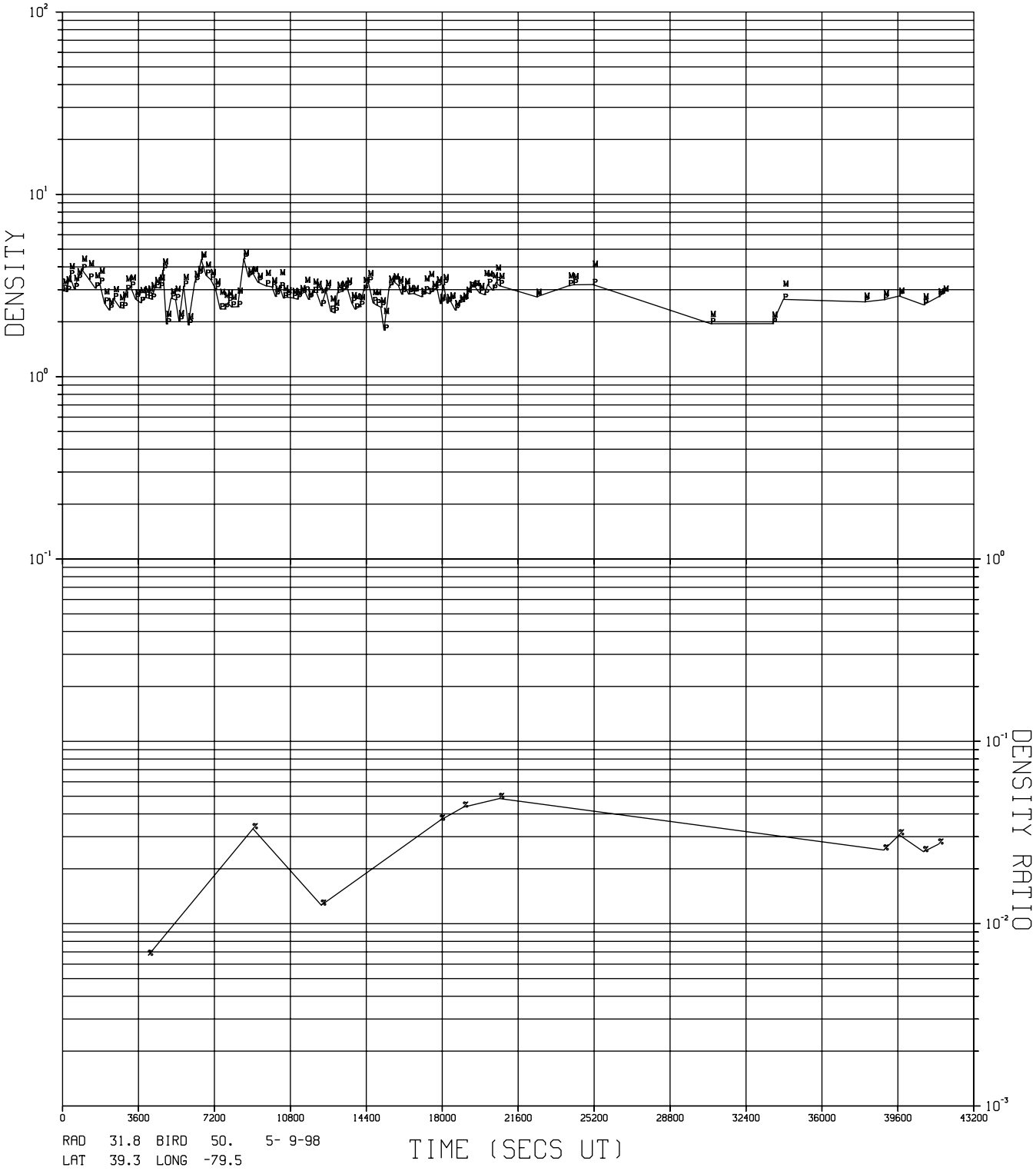

BULK FLOW DIRECTION
20
15
10
5
0
-5
-10
-15
-20
DIRECTION DIFFERENCE
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 31.8 BIRD 50. 5- 8-98
LAT 39.4 LONG -81.5

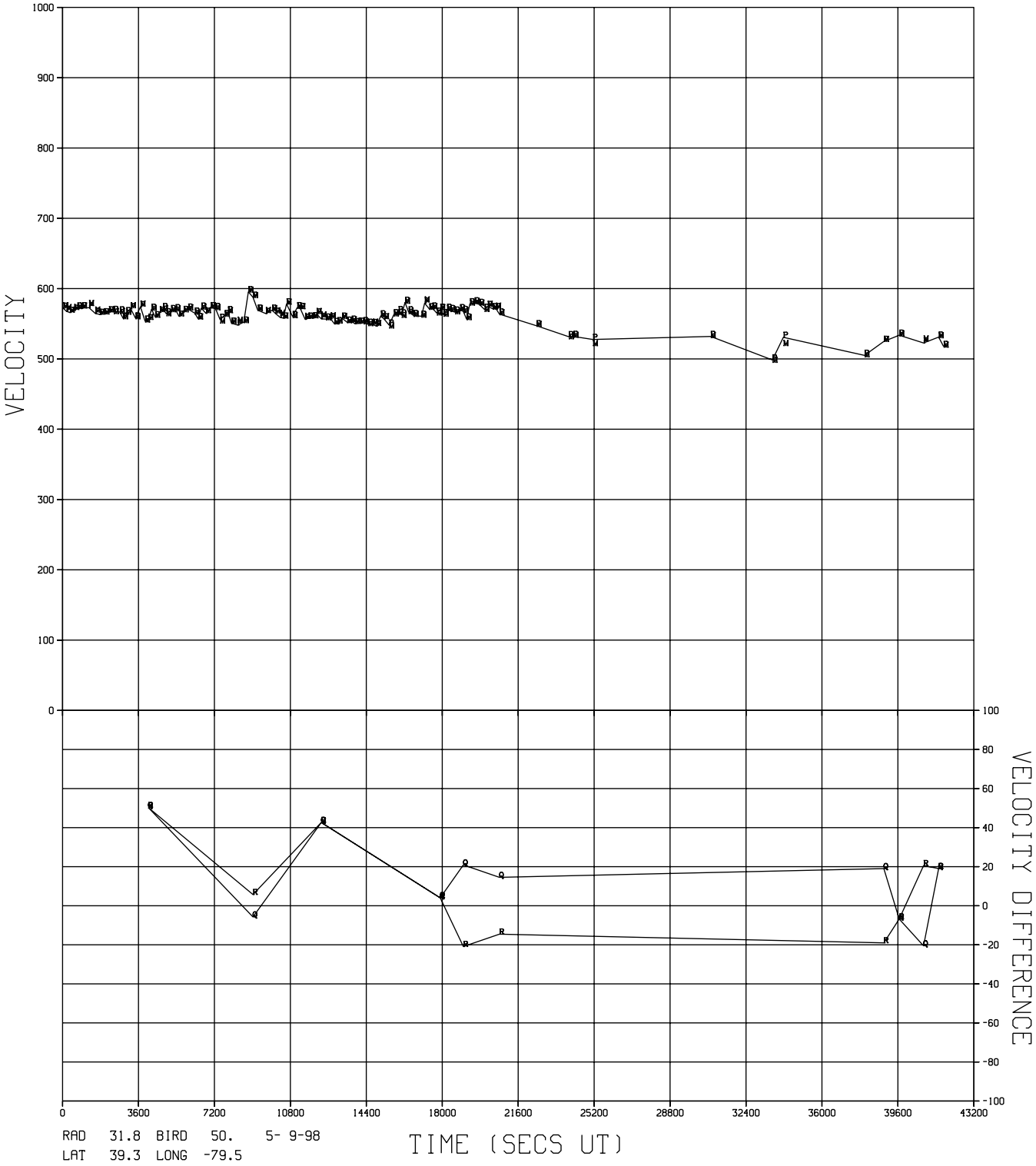

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
10
9
8
7
6
5
4
3
2
1
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 31.8 BIRD 50. 5- 8-98
LAT 39.4 LONG -81.5
TIME (SECS UT)

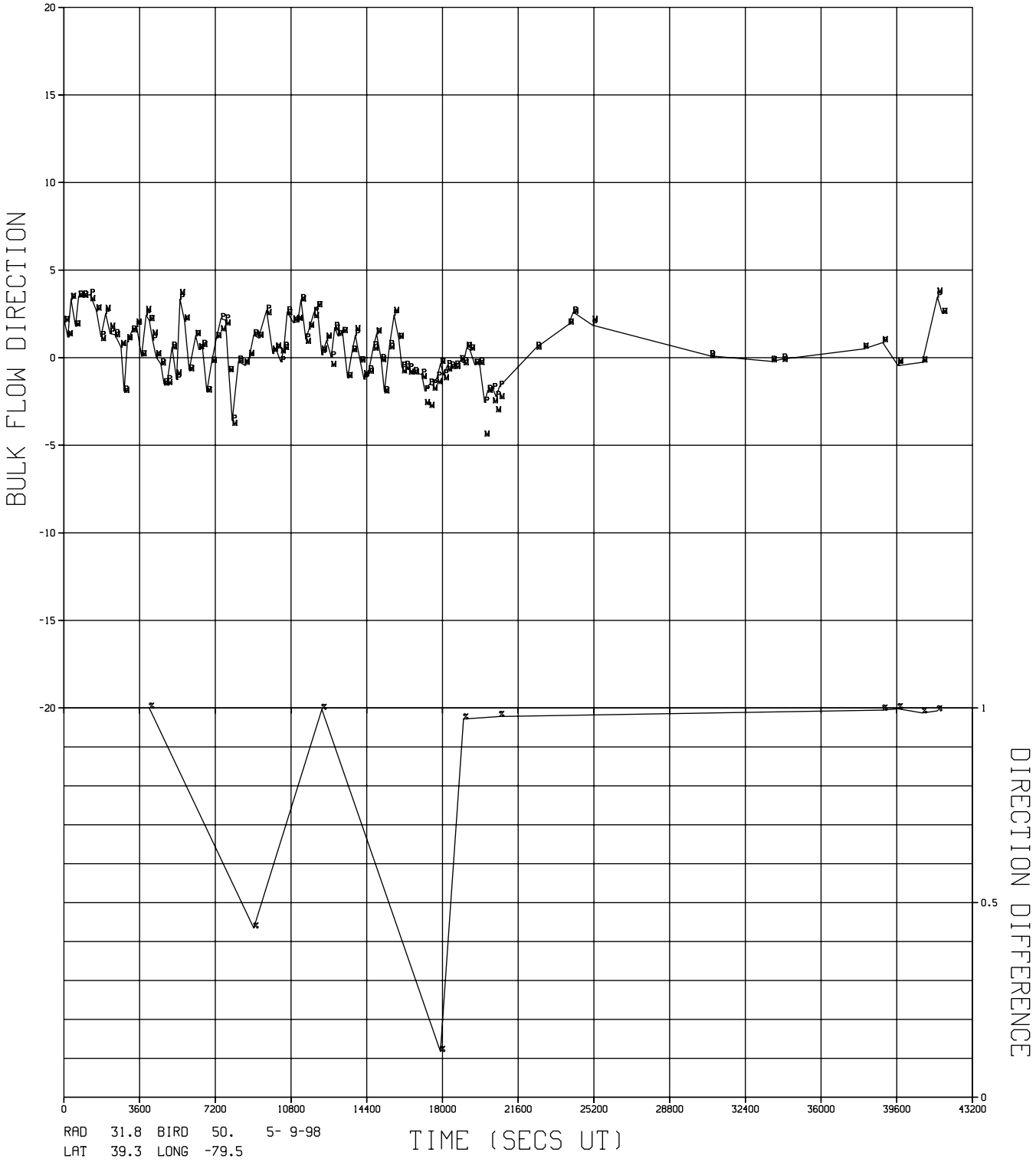

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
HEAT FLUX DIRECTION
360
315
270
225
180
135
90
45
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 31.8 BIRD 50. 5- 8-98
LAT 39.4 LONG -81.5

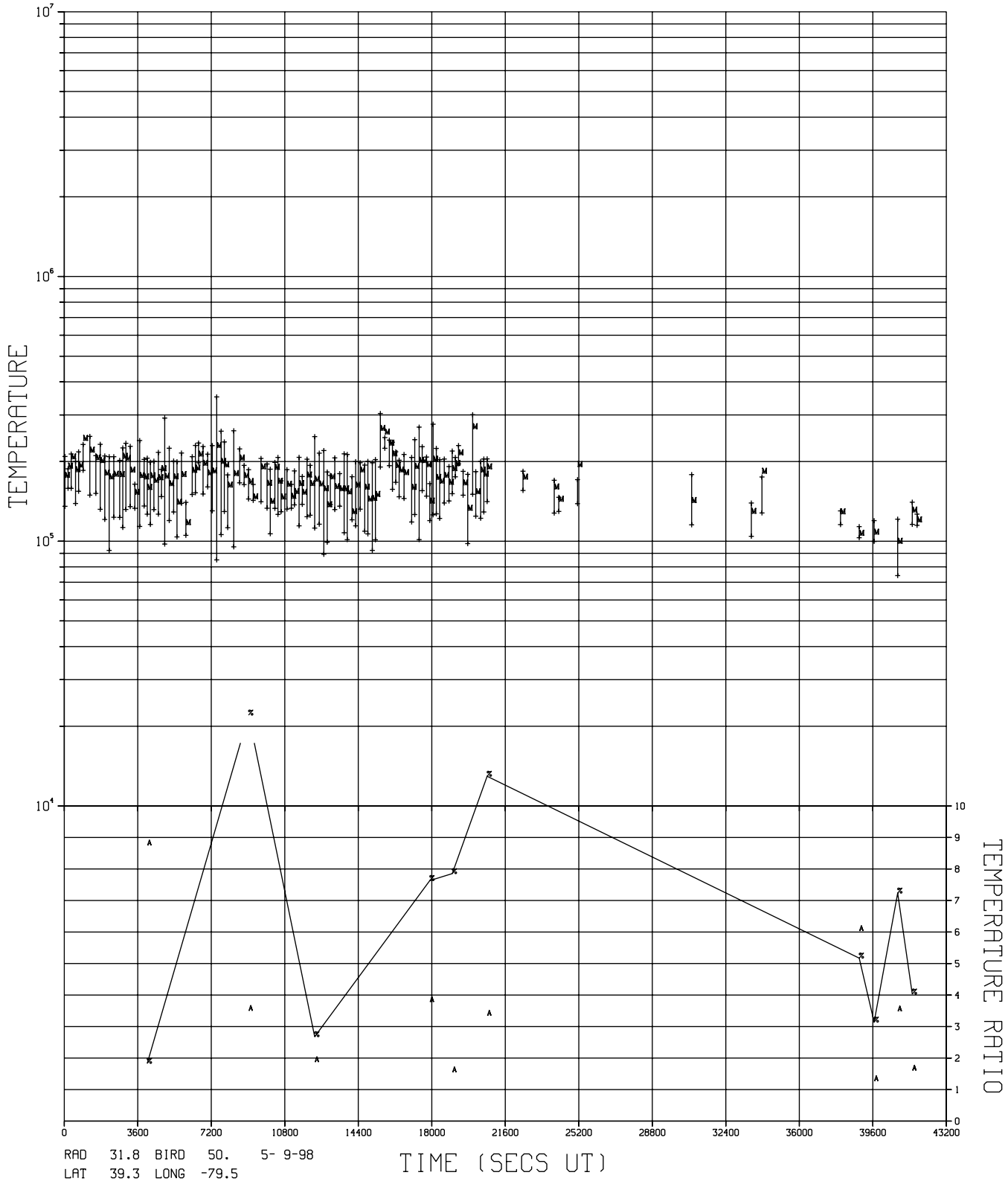

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 31.8 BIRD 50. 5- 8-98
LAT 39.4 LONG -81.5

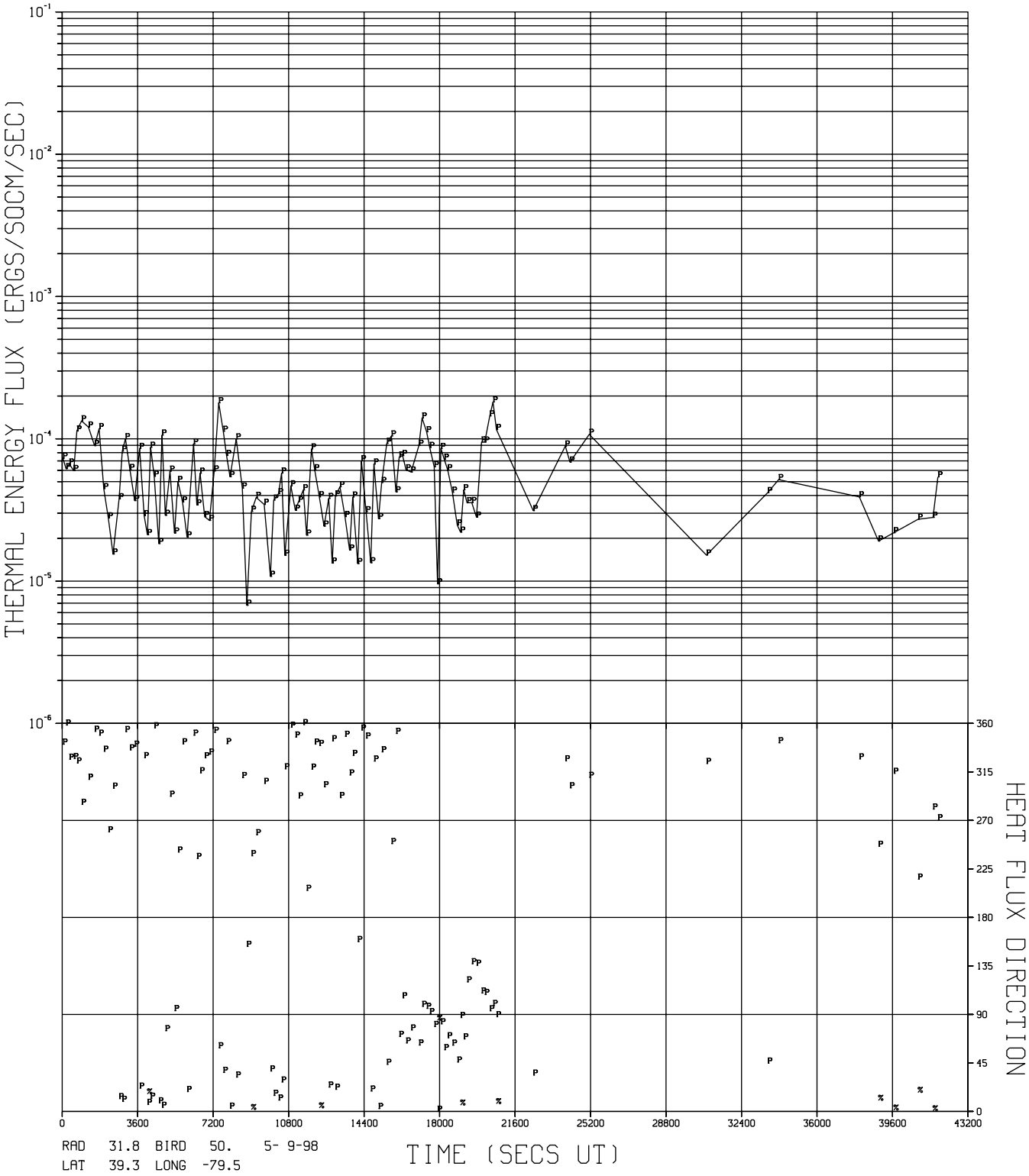

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 31.8 BIRD 50. 5- 8-98
LAT 39.4 LONG -81.5

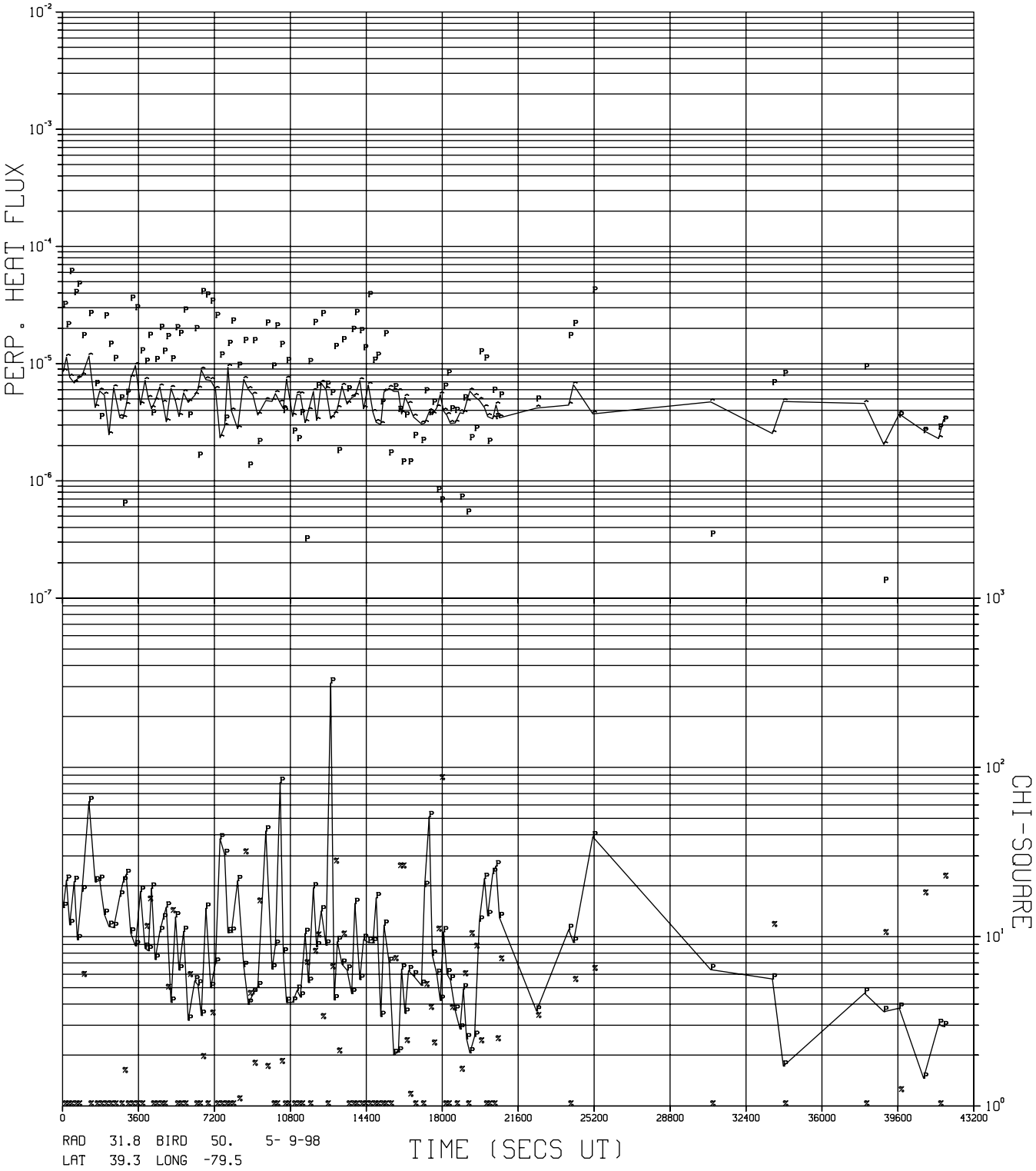

DENSITY
DENSITY RATIO
TIME (SECS UT)
RAD 31.8 BIRD 50. 5- 9-98
LAT 39.3 LONG -79.5

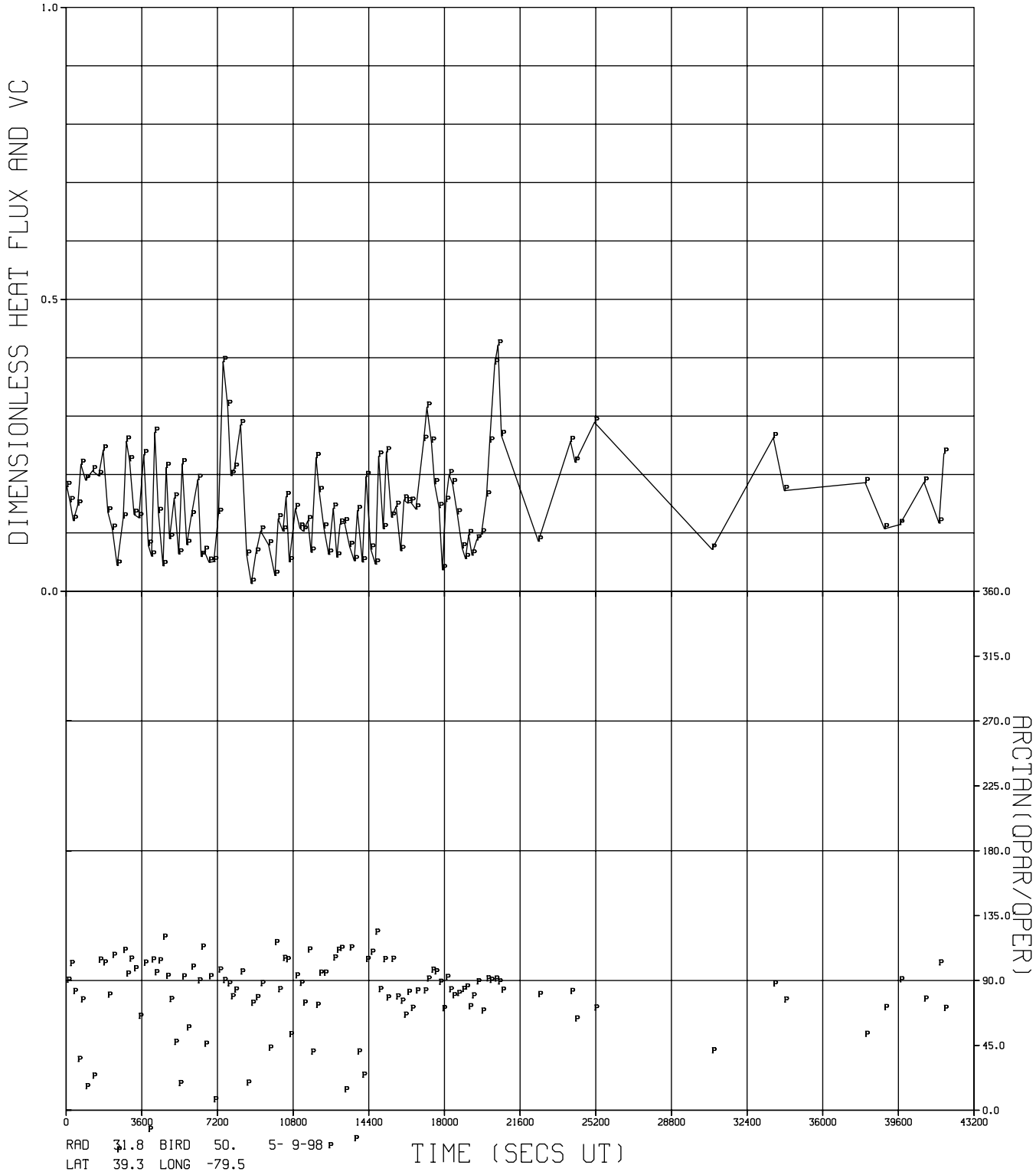

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 31.8 BIRD 50. 5- 9-98
LAT 39.3 LONG -79.5

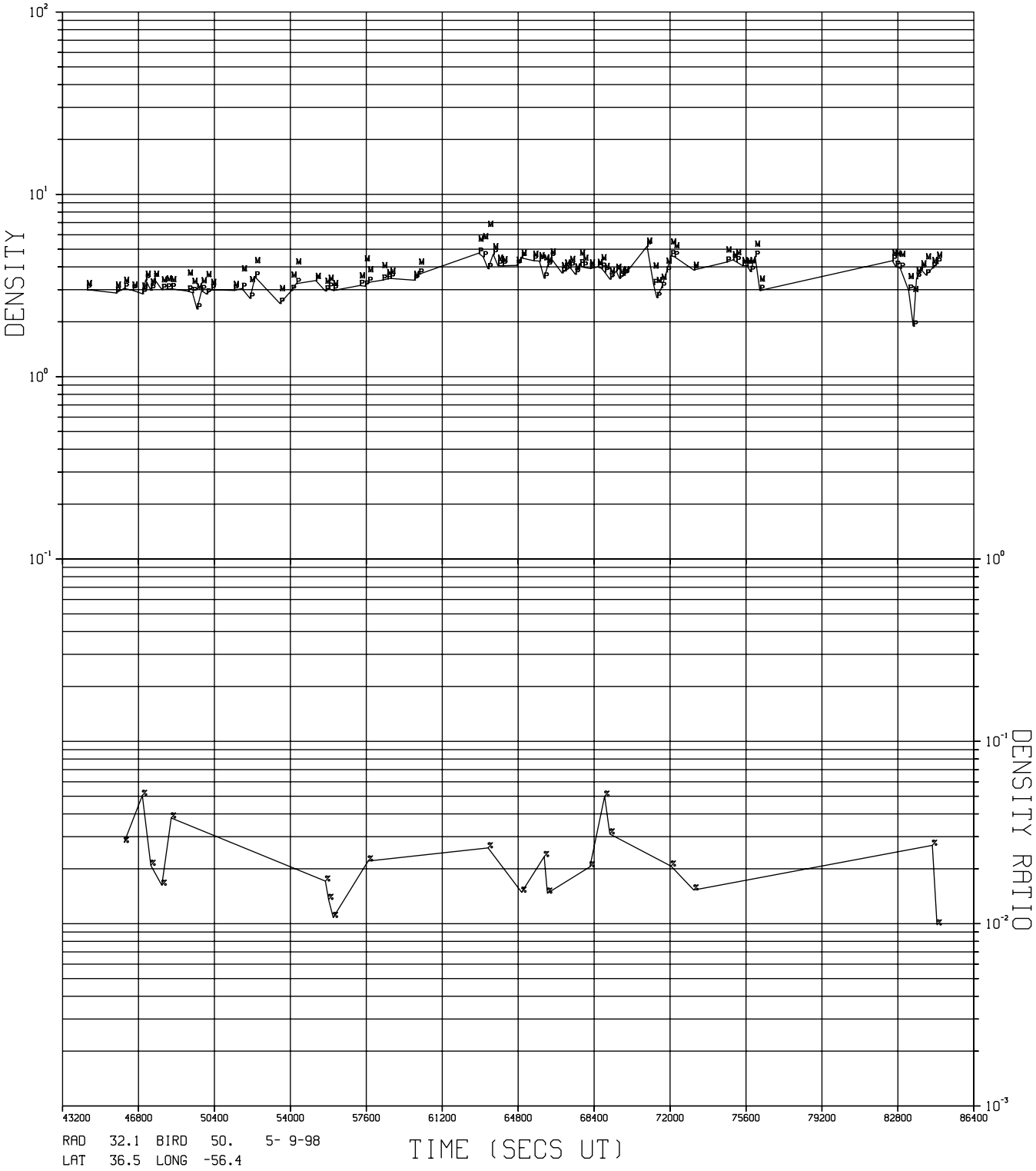

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 31.8 BIRD 50. 5- 9-98
LAT 39.3 LONG -79.5

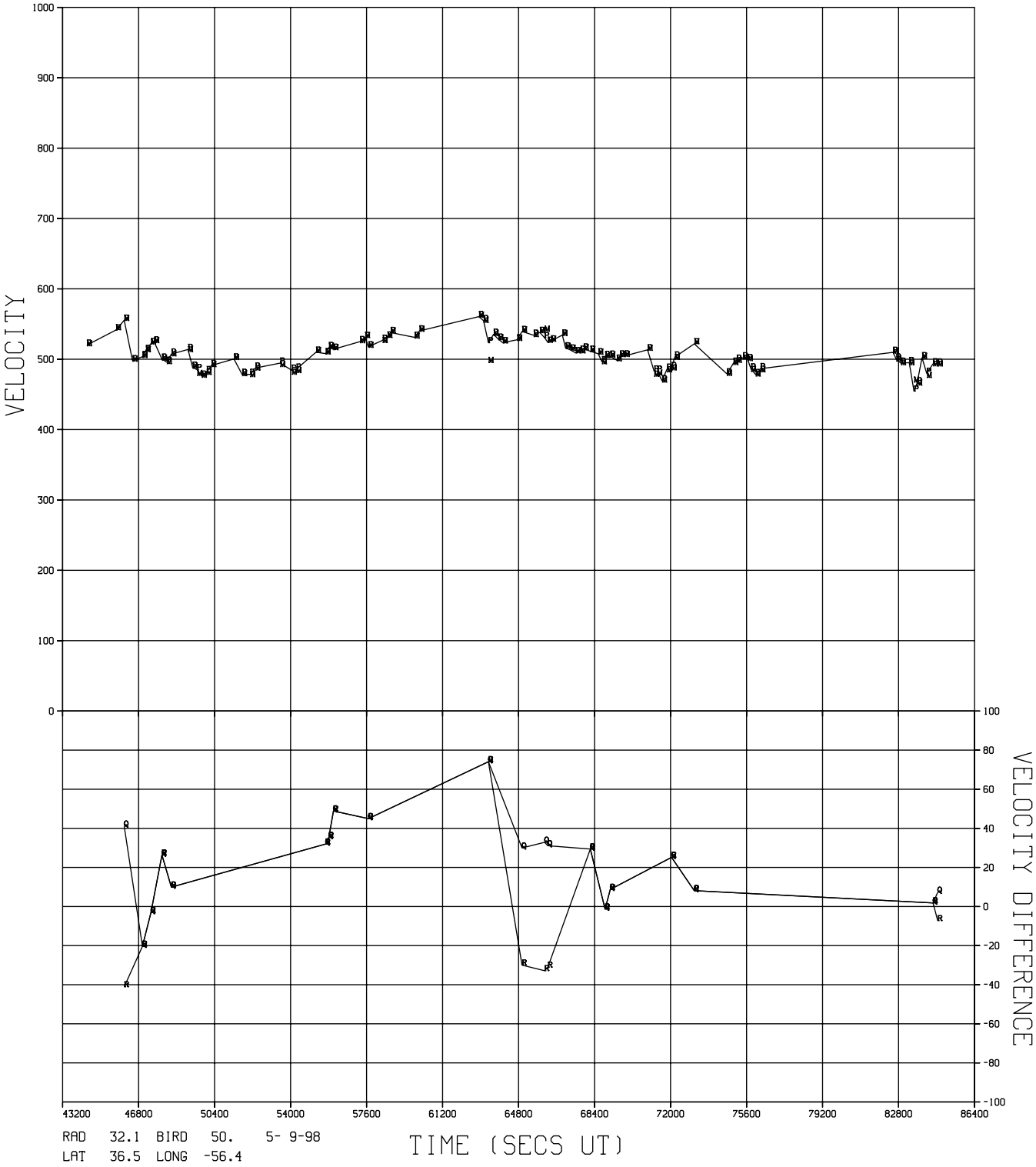

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 31.8 BIRD 50. 5- 9-98
LAT 39.3 LONG -79.5

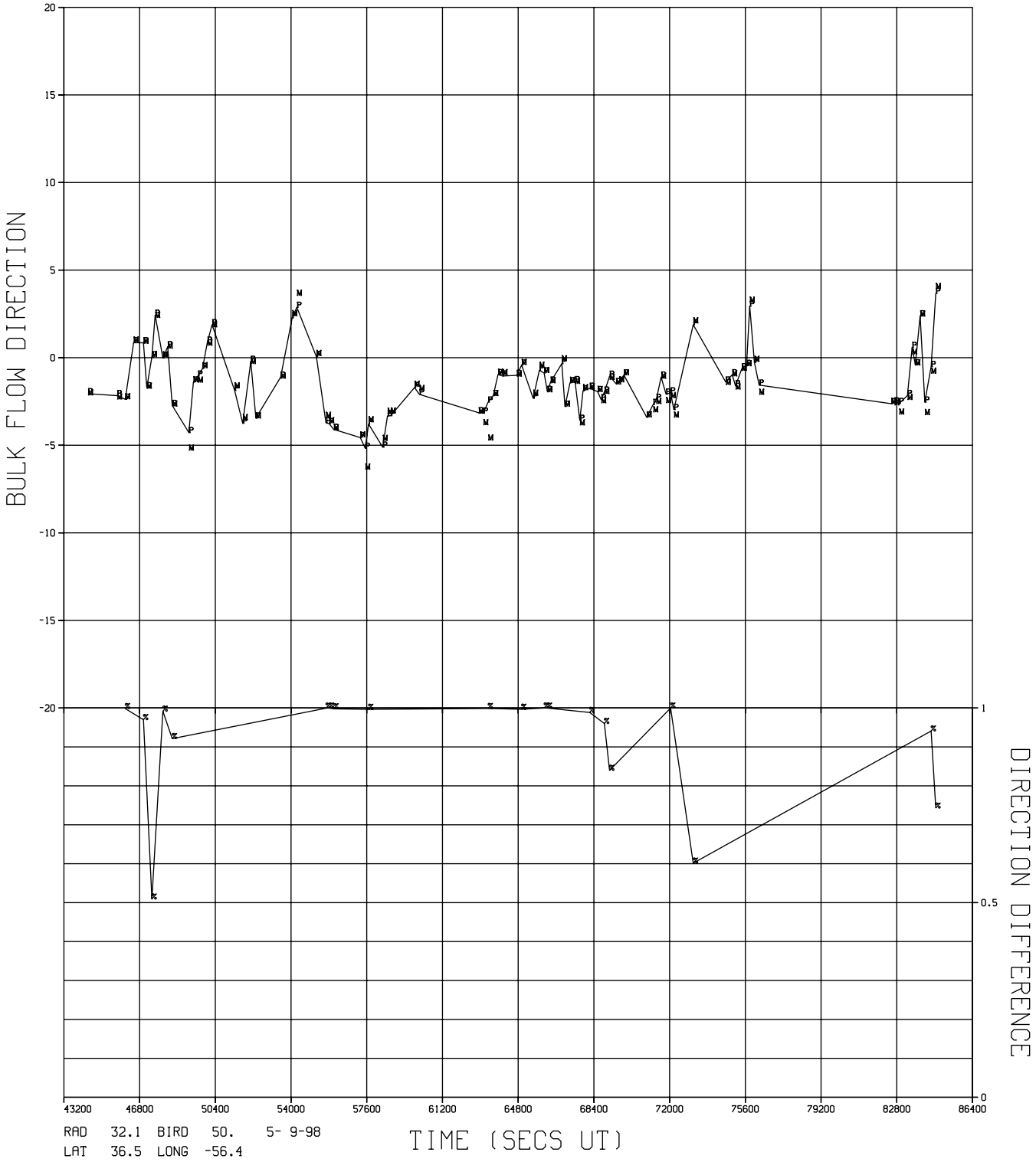

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 31.8 BIRD 50. 5- 9-98
LAT 39.3 LONG -79.5

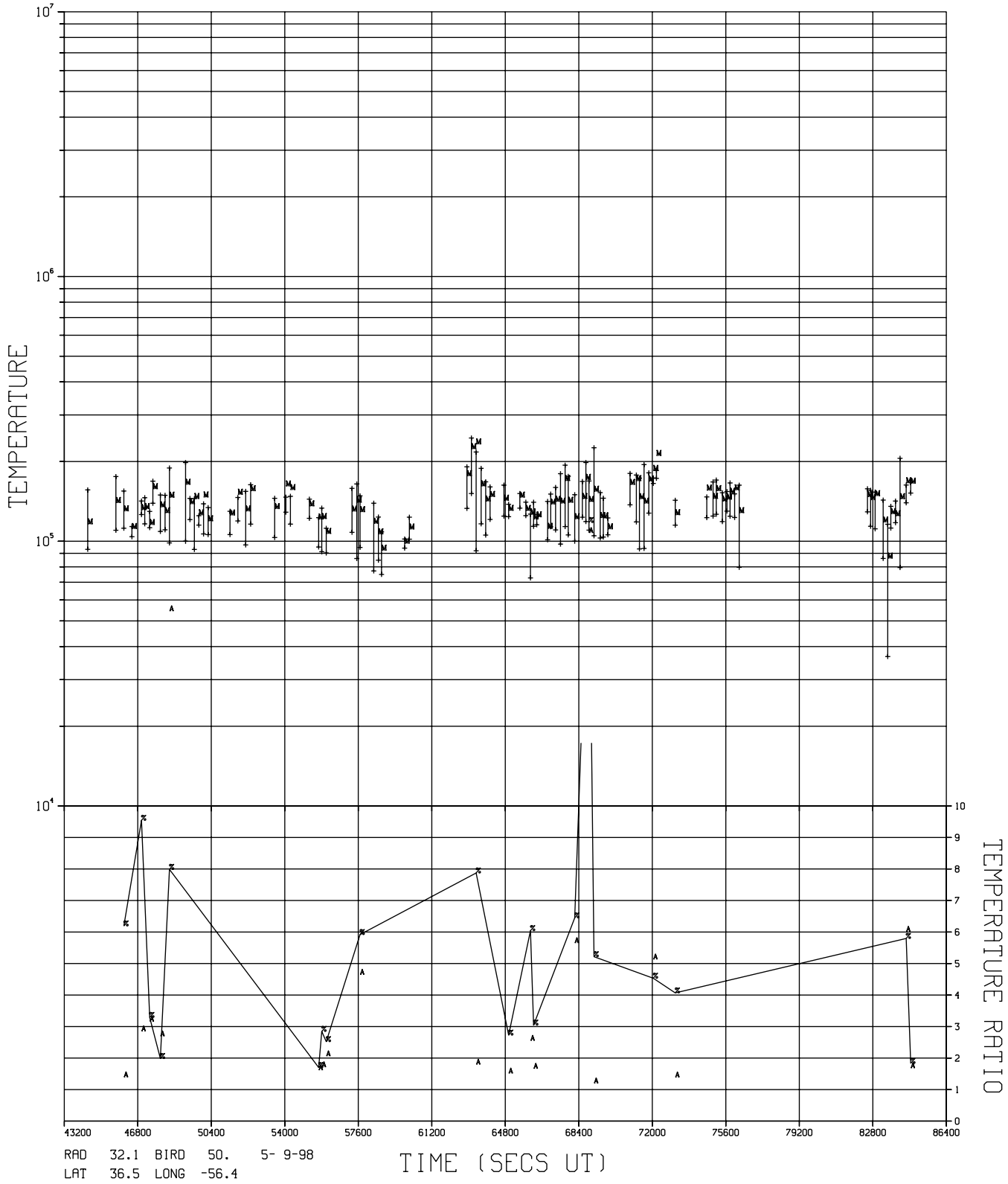

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 31.8 BIRD 50. 5- 9-98
LAT 39.3 LONG -79.5

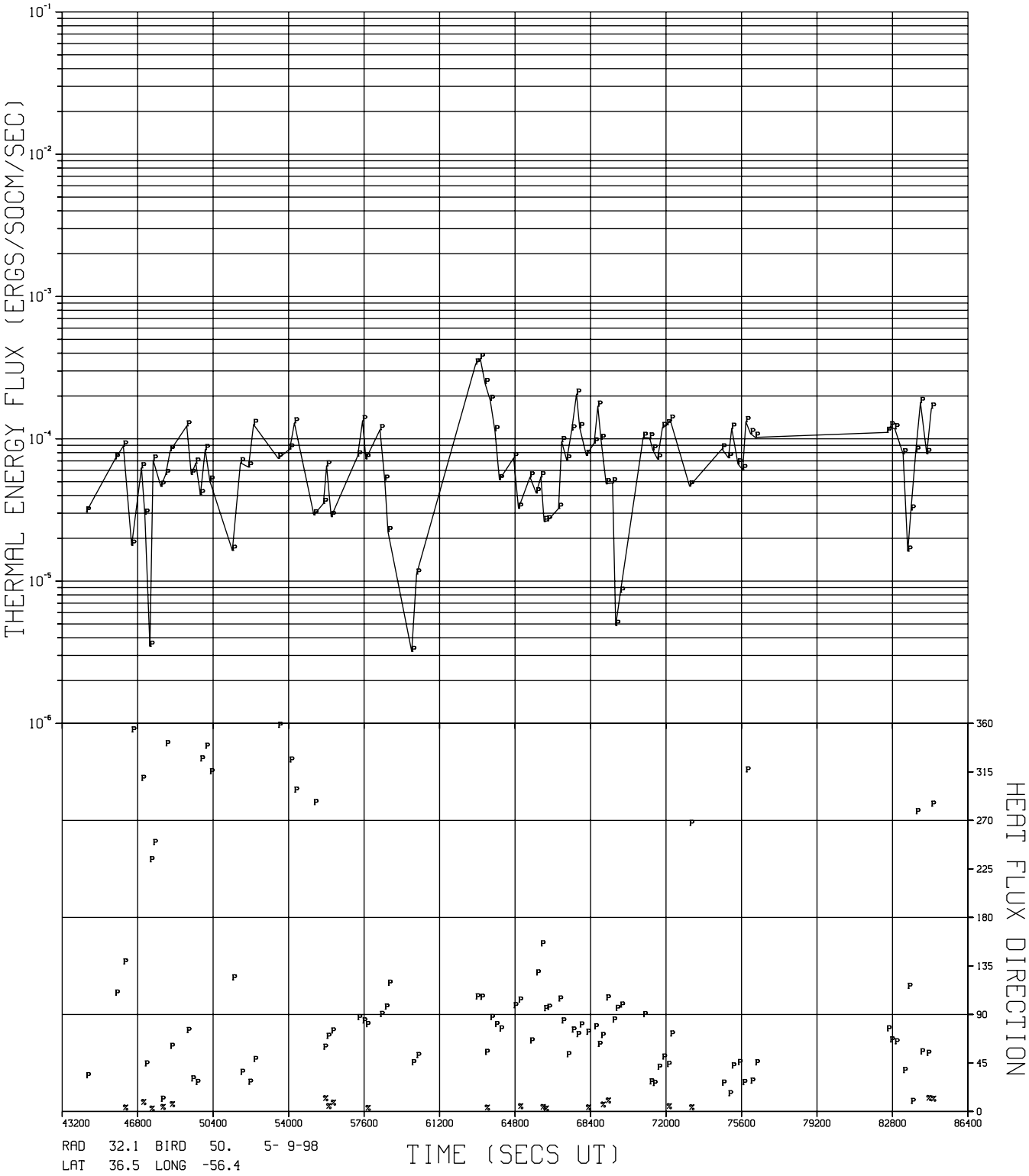

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 31.8 BIRD 50. 5- 9-98
LAT 39.3 LONG -79.5

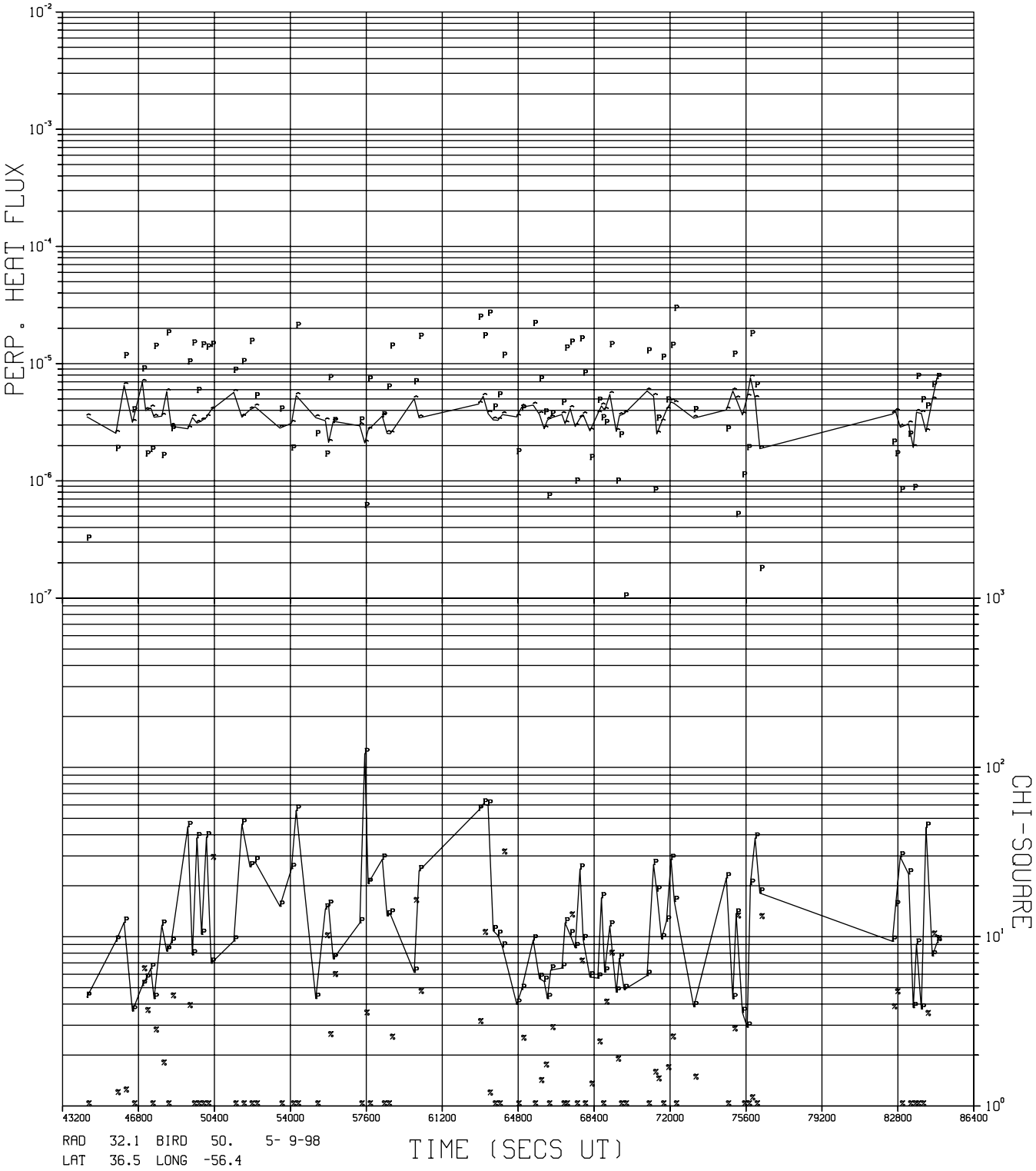

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 32.1 BIRD 50. 5- 9-98
LAT 36.5 LONG -56.4

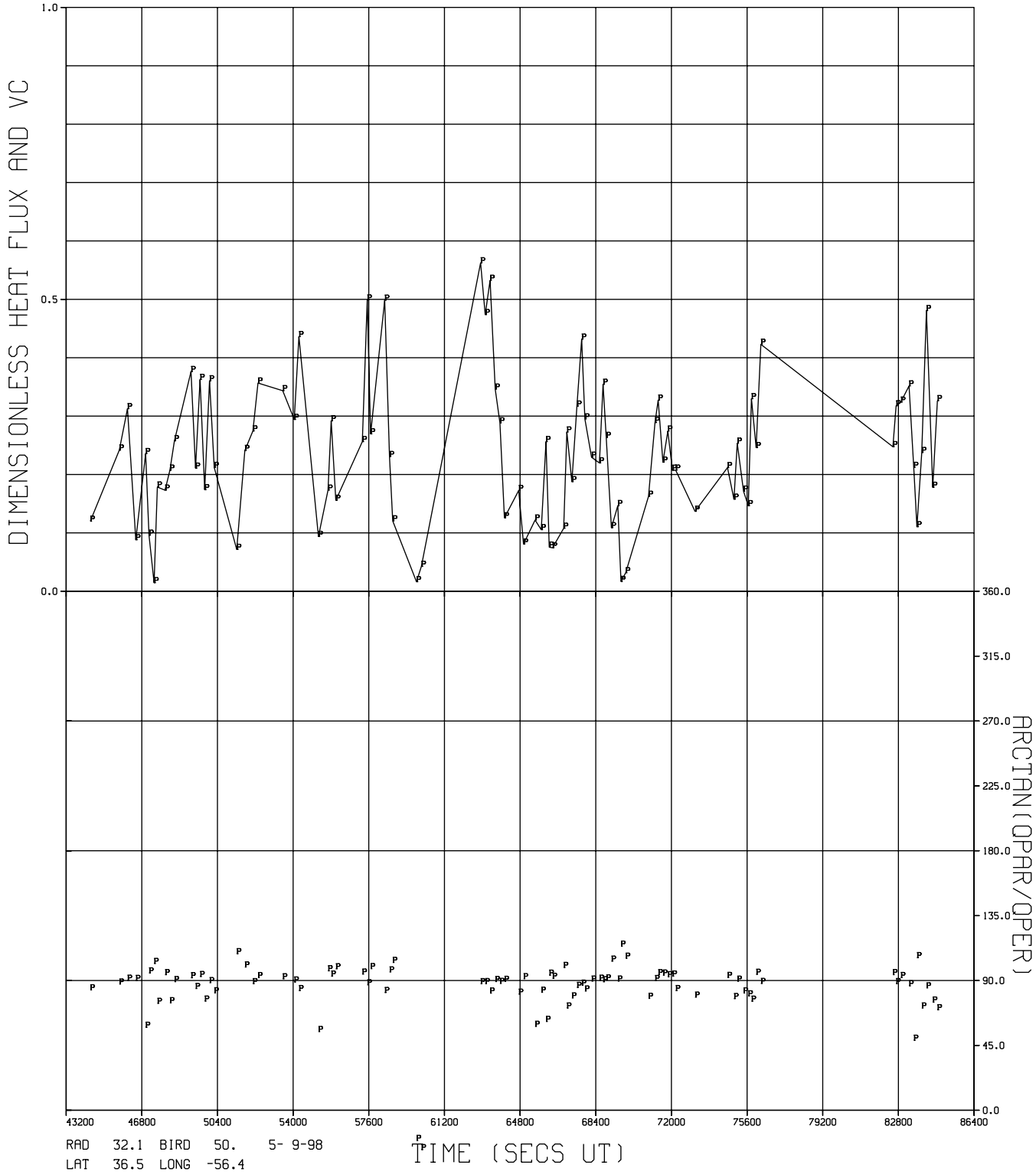

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 32.1 BIRD 50. 5- 9-98
LAT 36.5 LONG -56.4

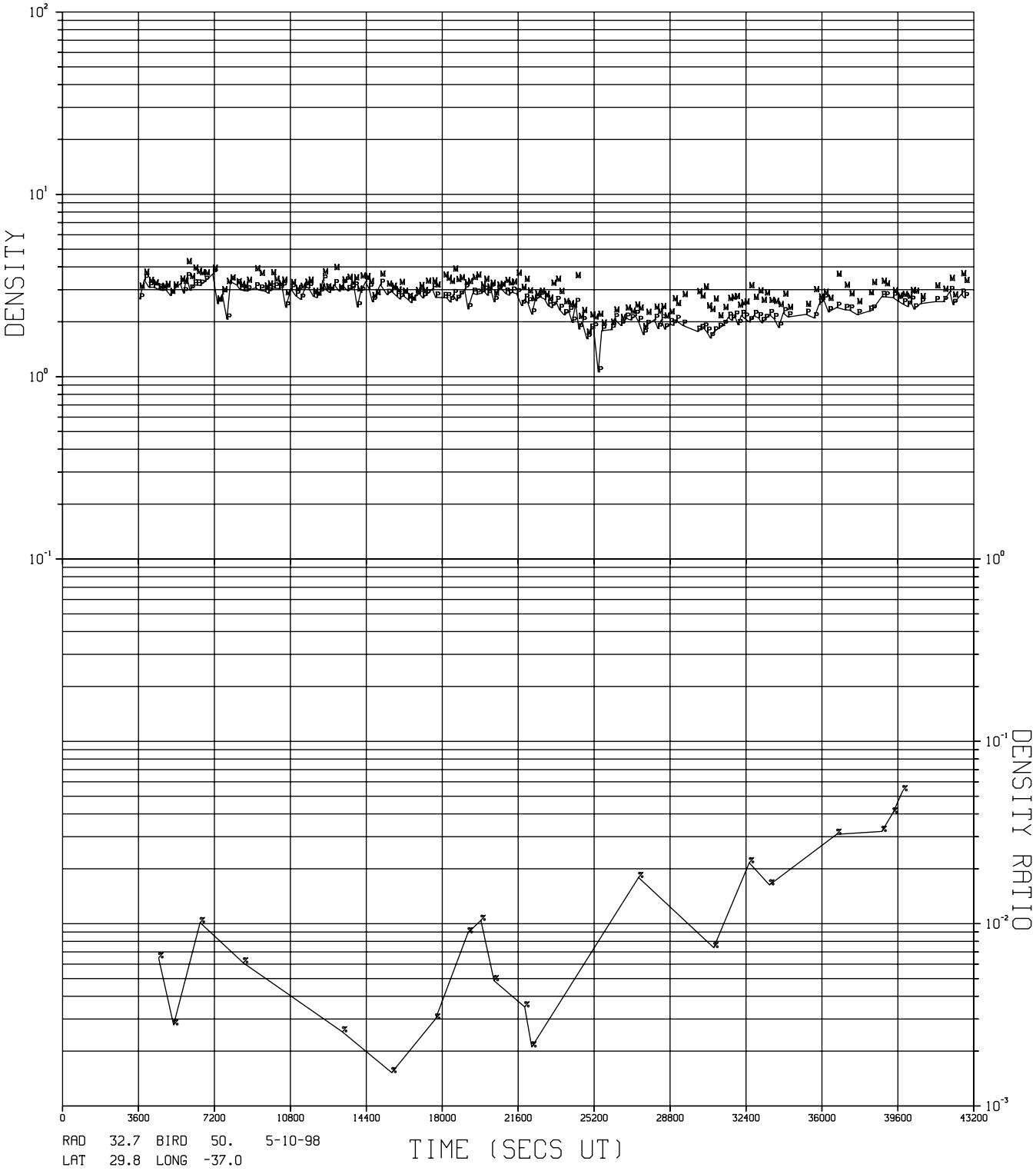

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 32.1 BIRD 50. 5- 9-98
LAT 36.5 LONG -56.4

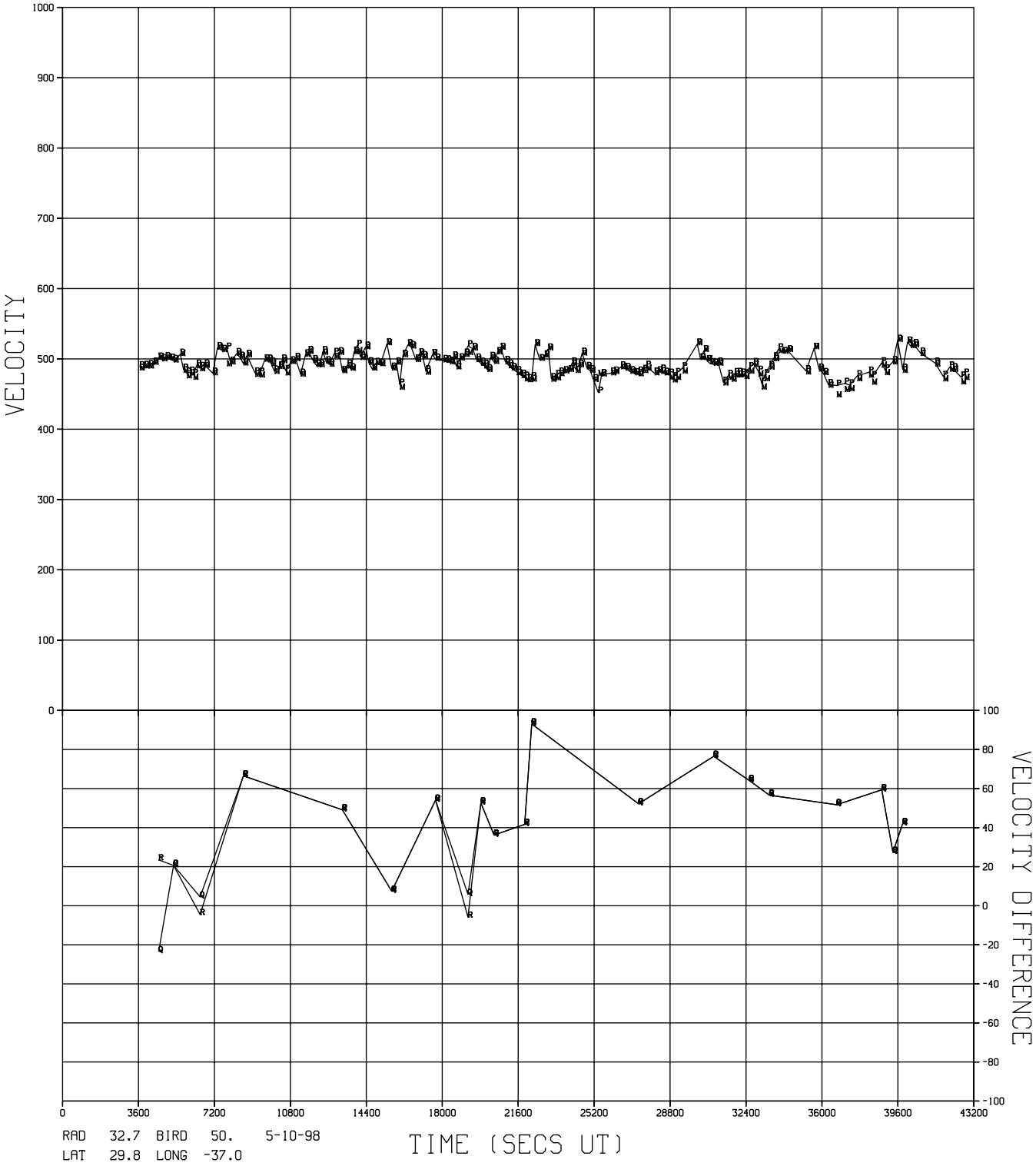

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 32.1 BIRD 50. 5- 9-98
LAT 36.5 LONG -56.4

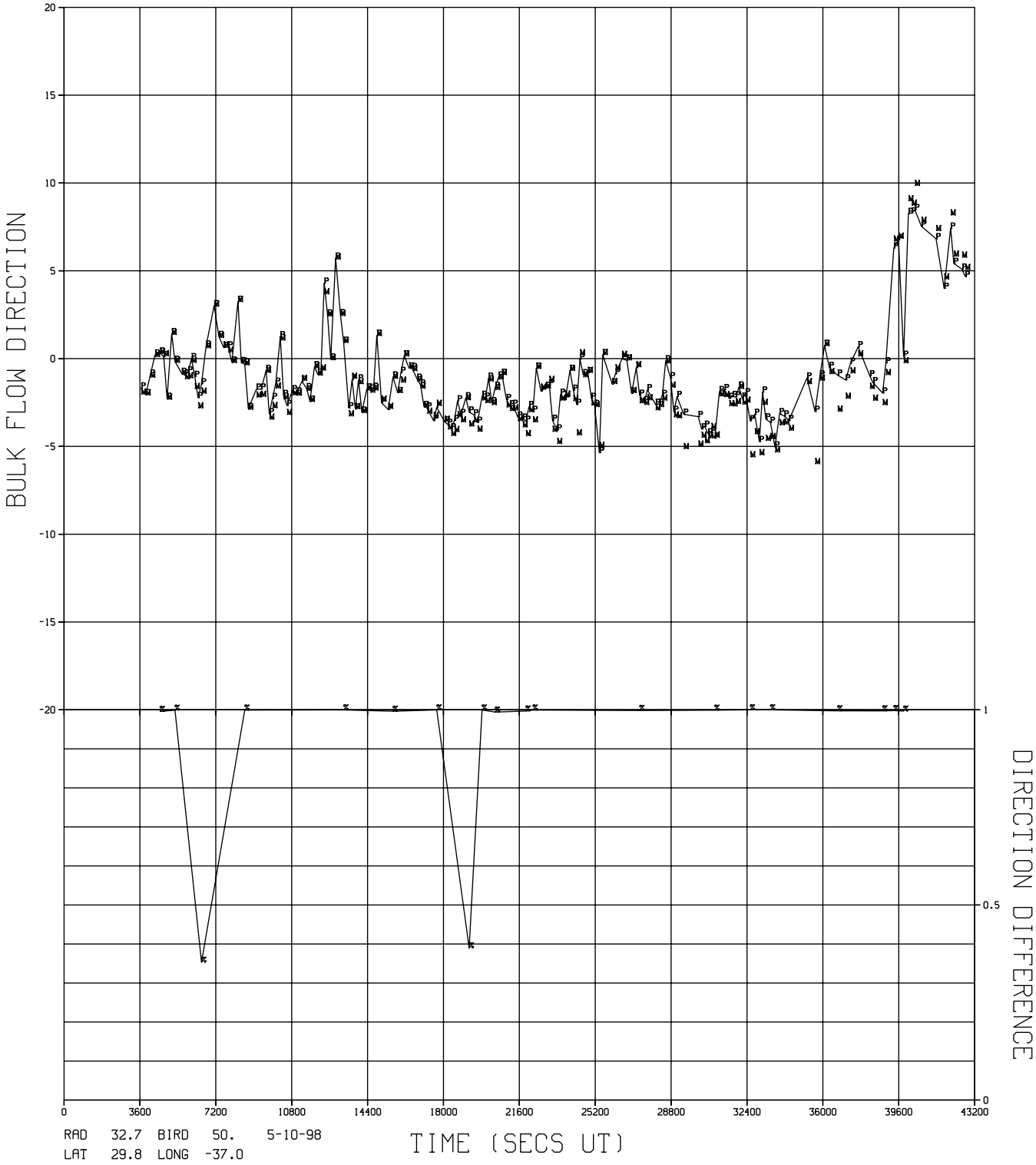

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 32.1 BIRD 50. 5- 9-98
LAT 36.5 LONG -56.4

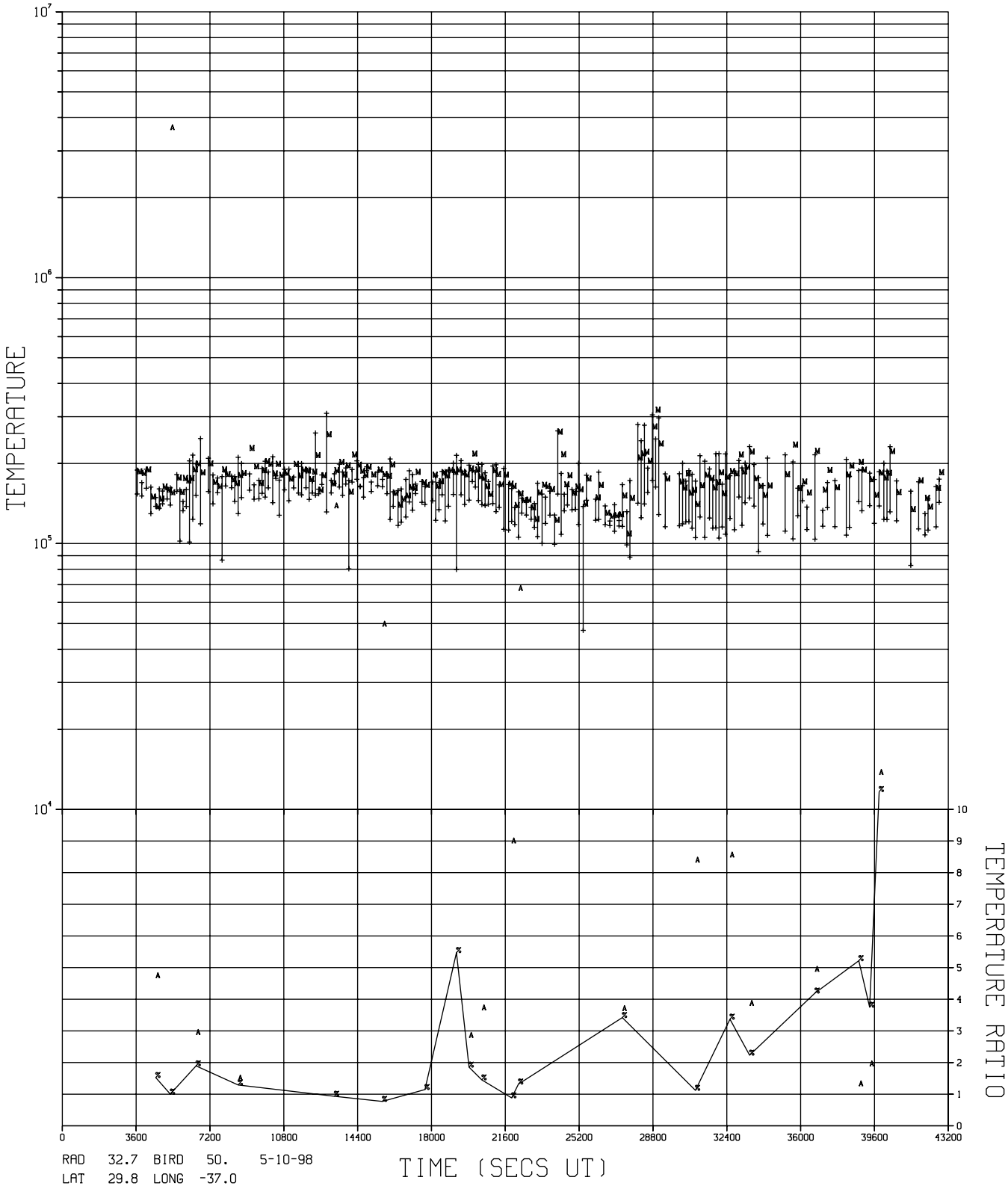

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 32.1 BIRD 50. 5- 9-98
LAT 36.5 LONG -56.4

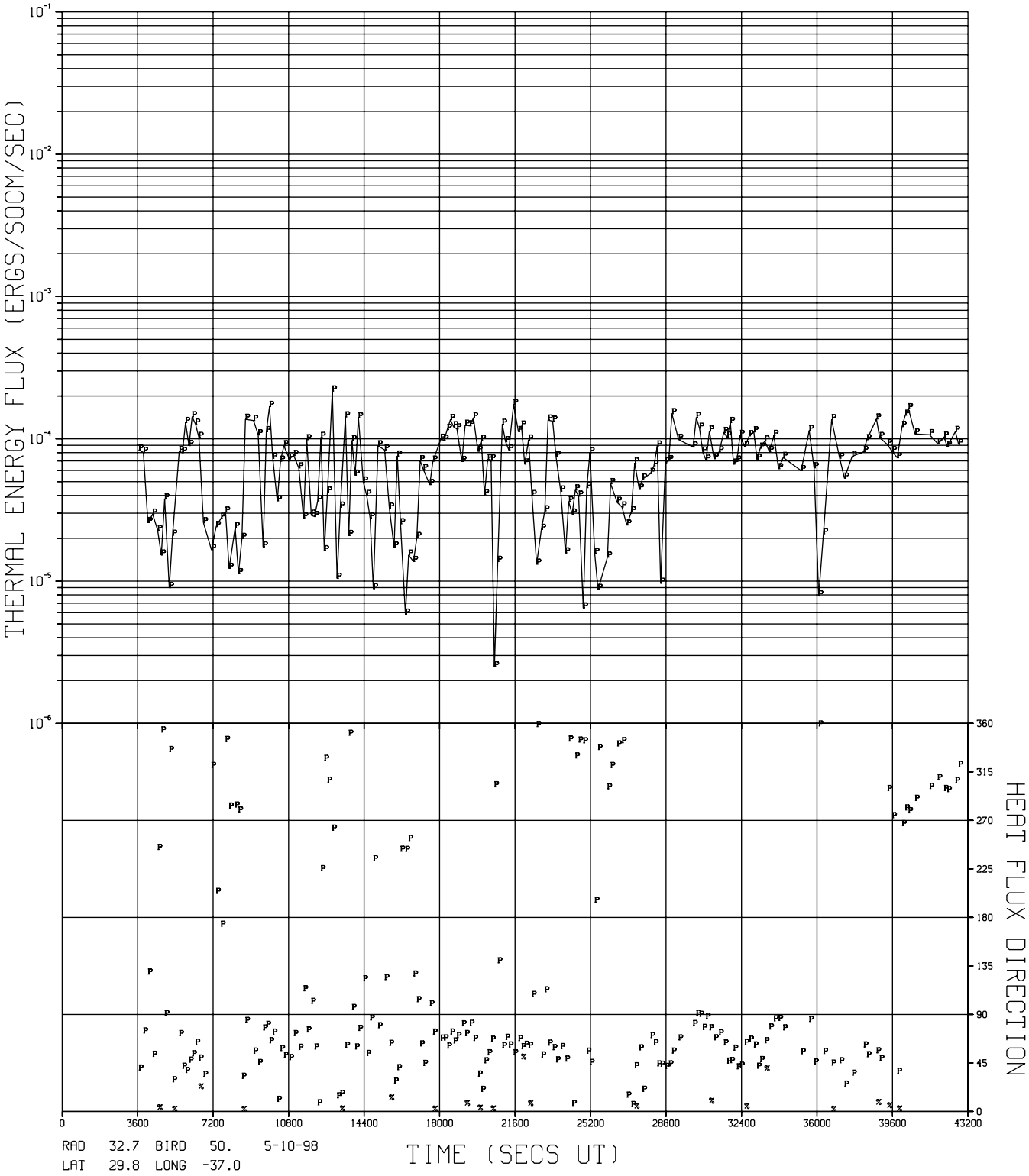

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 32.1 BIRD 50. 5- 9-98
LAT 36.5 LONG -56.4

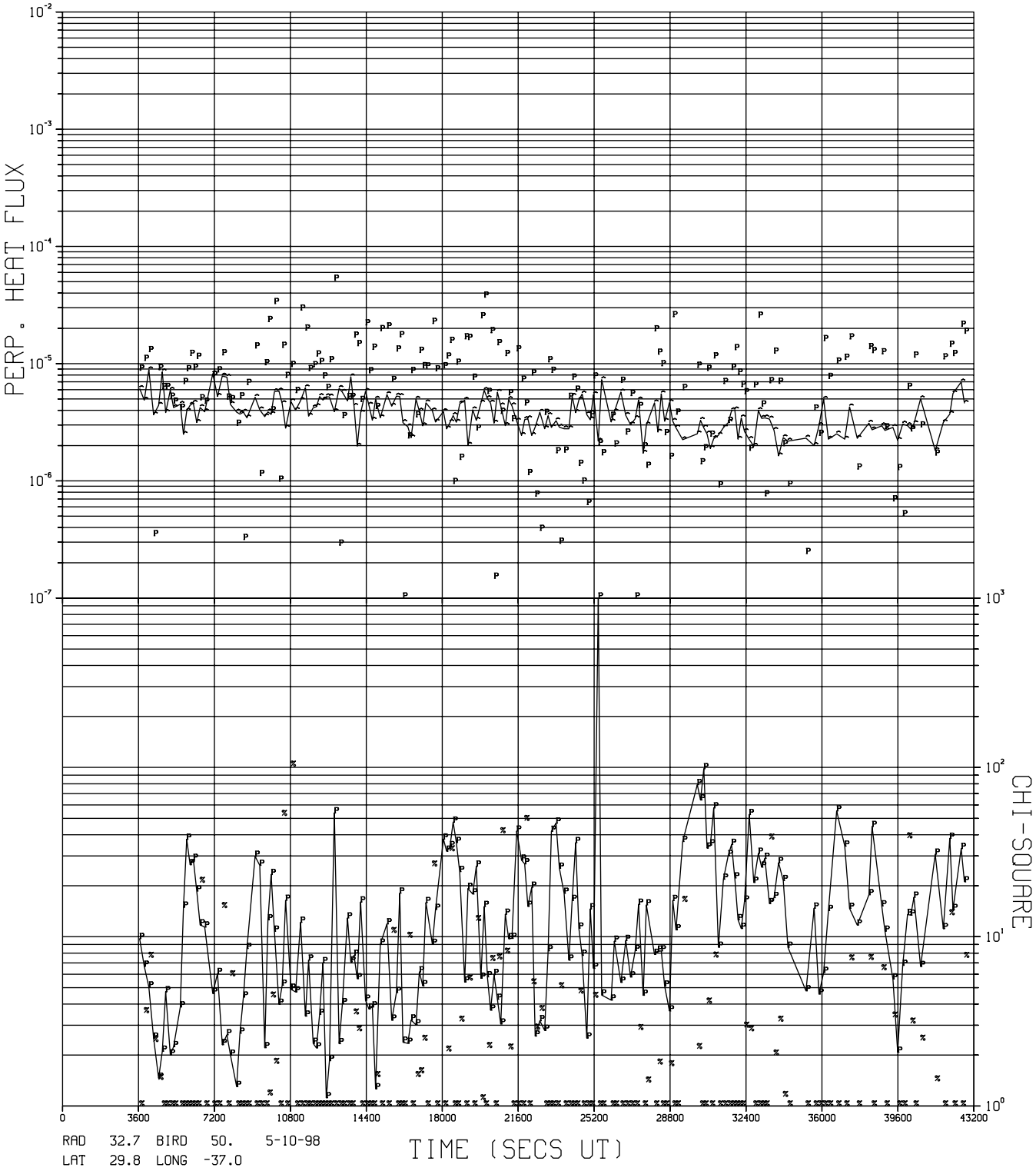

DENSITY
DENSITY RATIO
TIME (SECS UT)
RAD 32.7 BIRD 50. 5-10-98
LAT 29.8 LONG -37.0

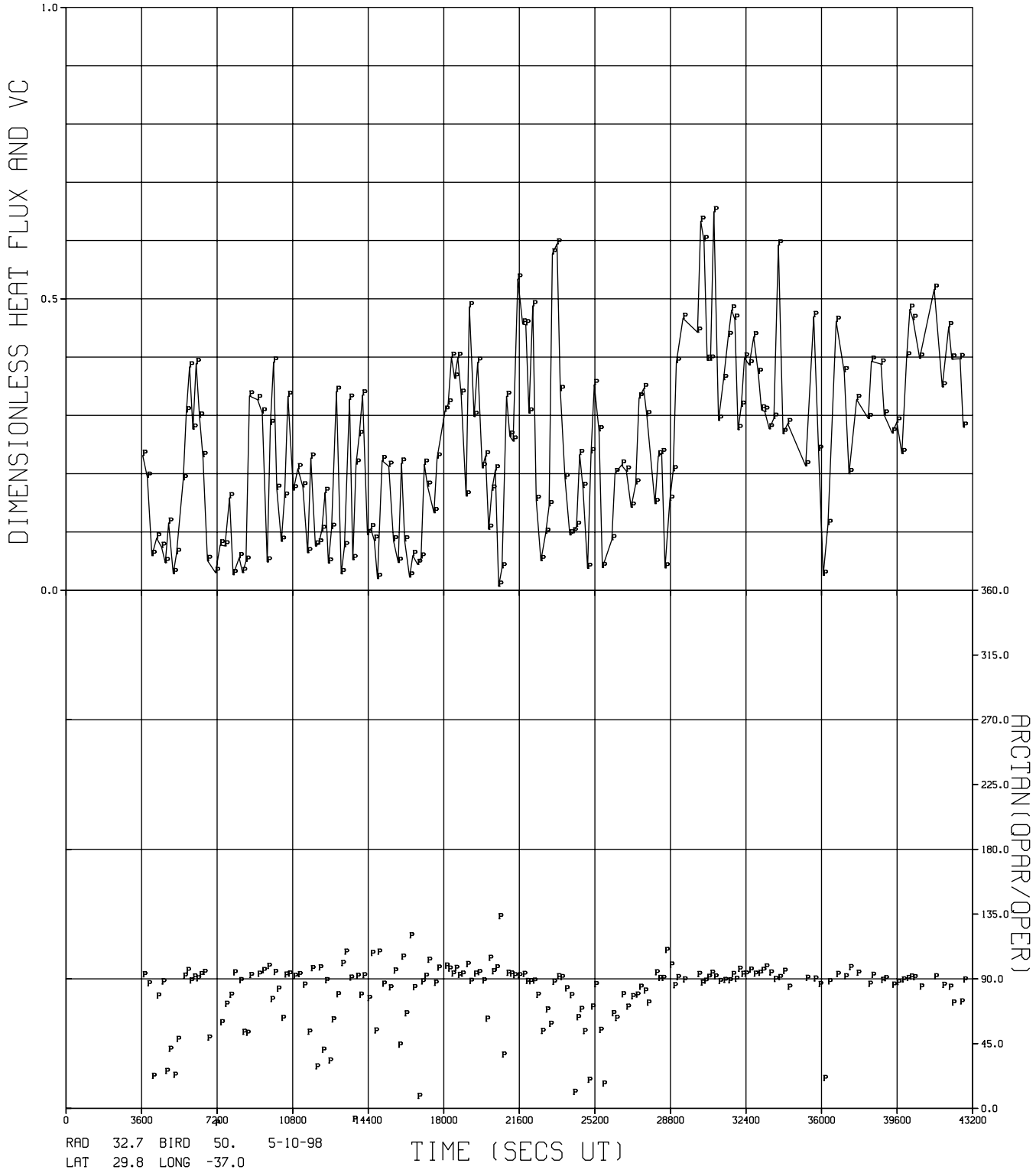

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 32.7 BIRD 50. 5-10-98
LAT 29.8 LONG -37.0

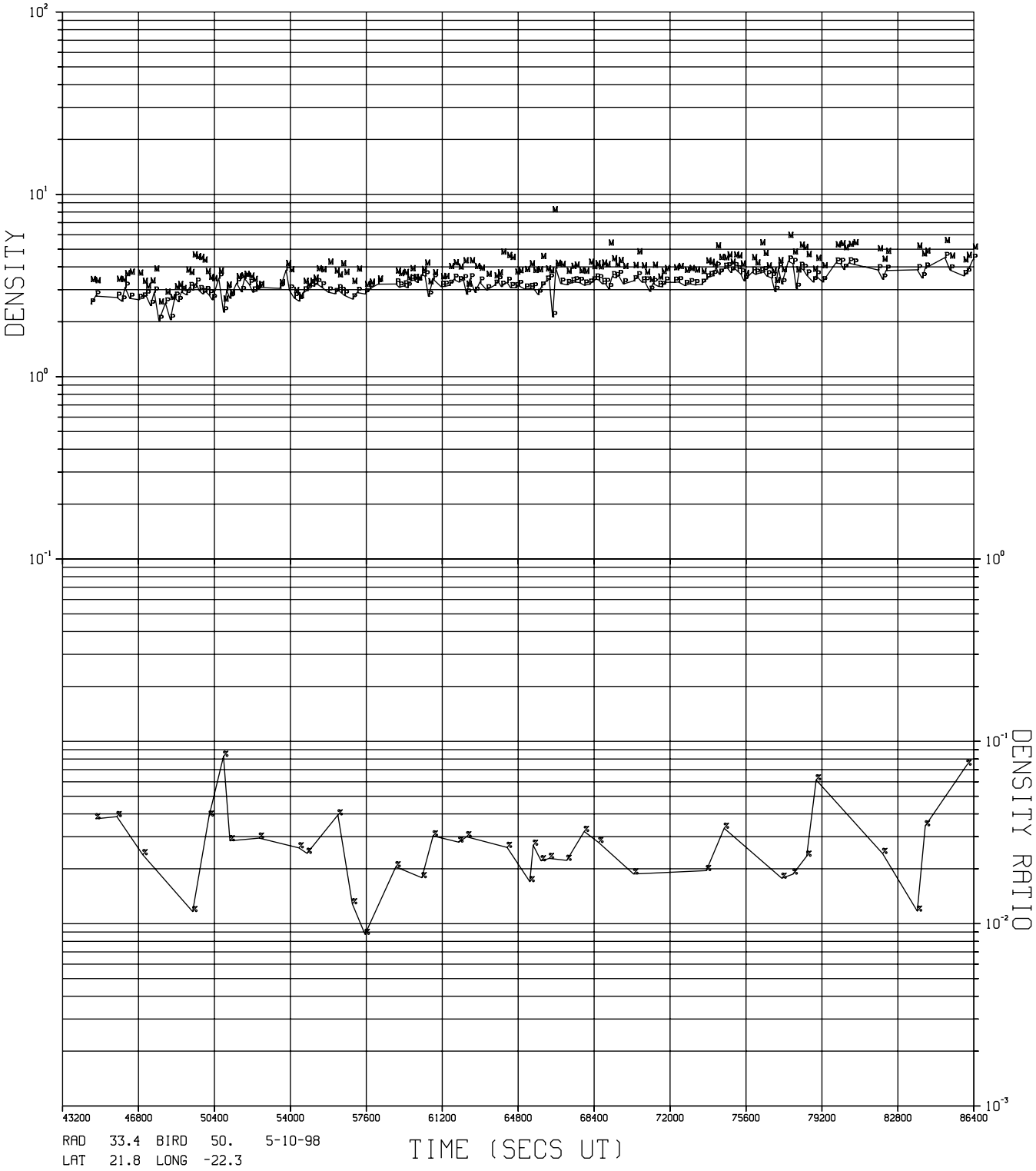

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 32.7 BIRD 50. 5-10-98
LAT 29.8 LONG -37.0

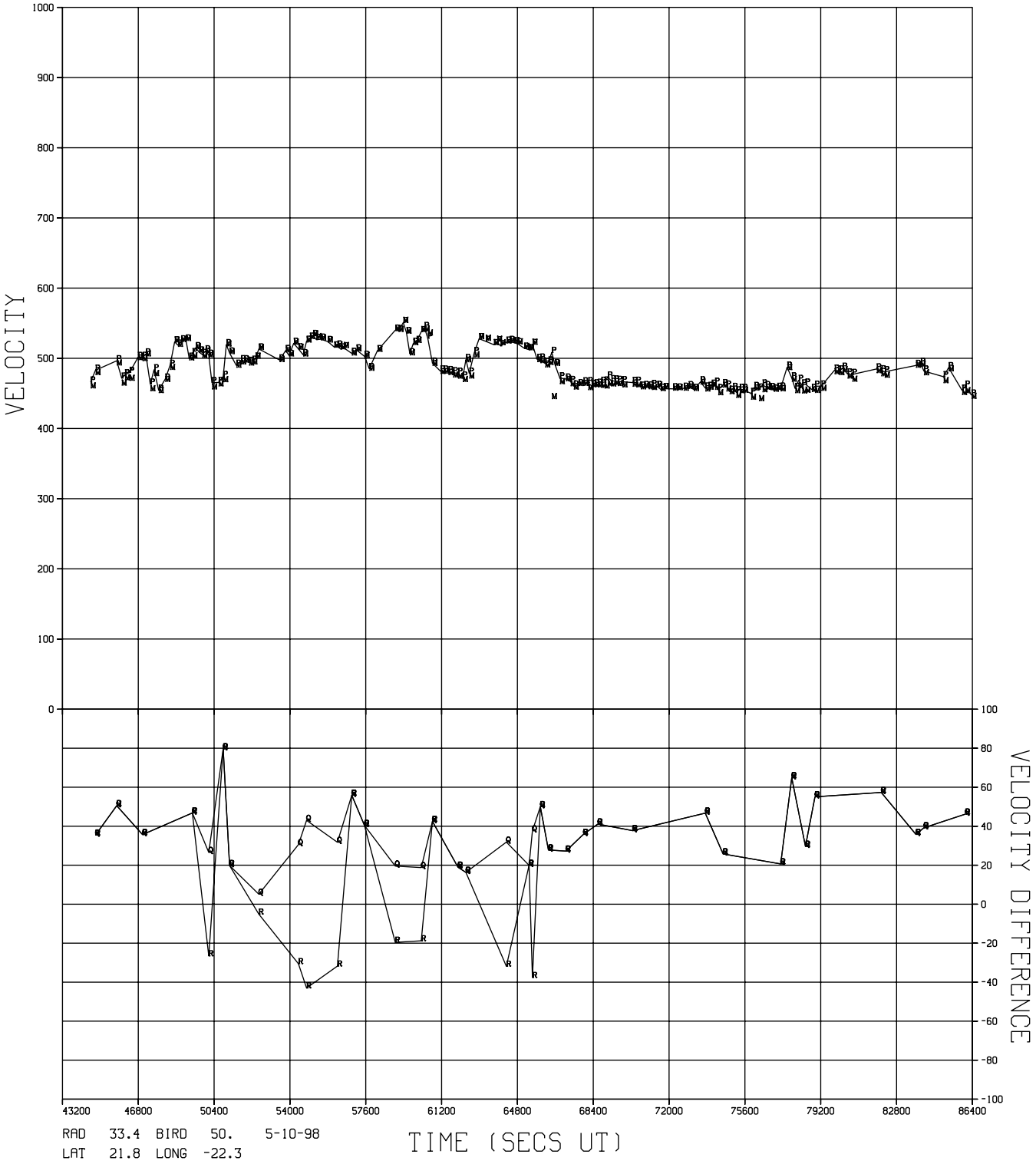

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 32.7 BIRD 50. 5-10-98
LAT 29.8 LONG -37.0

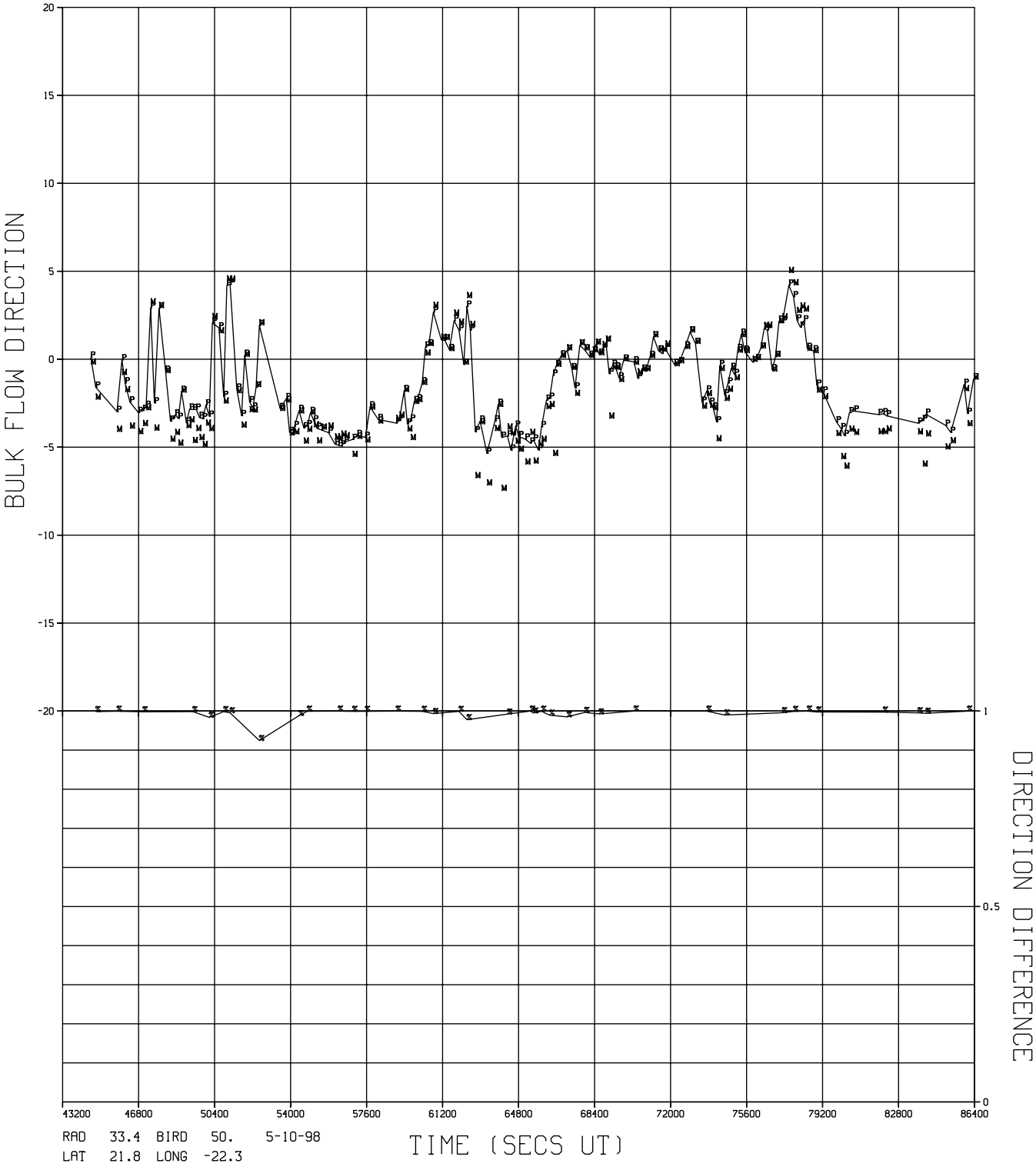

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 32.7 BIRD 50. 5-10-98
LAT 29.8 LONG -37.0

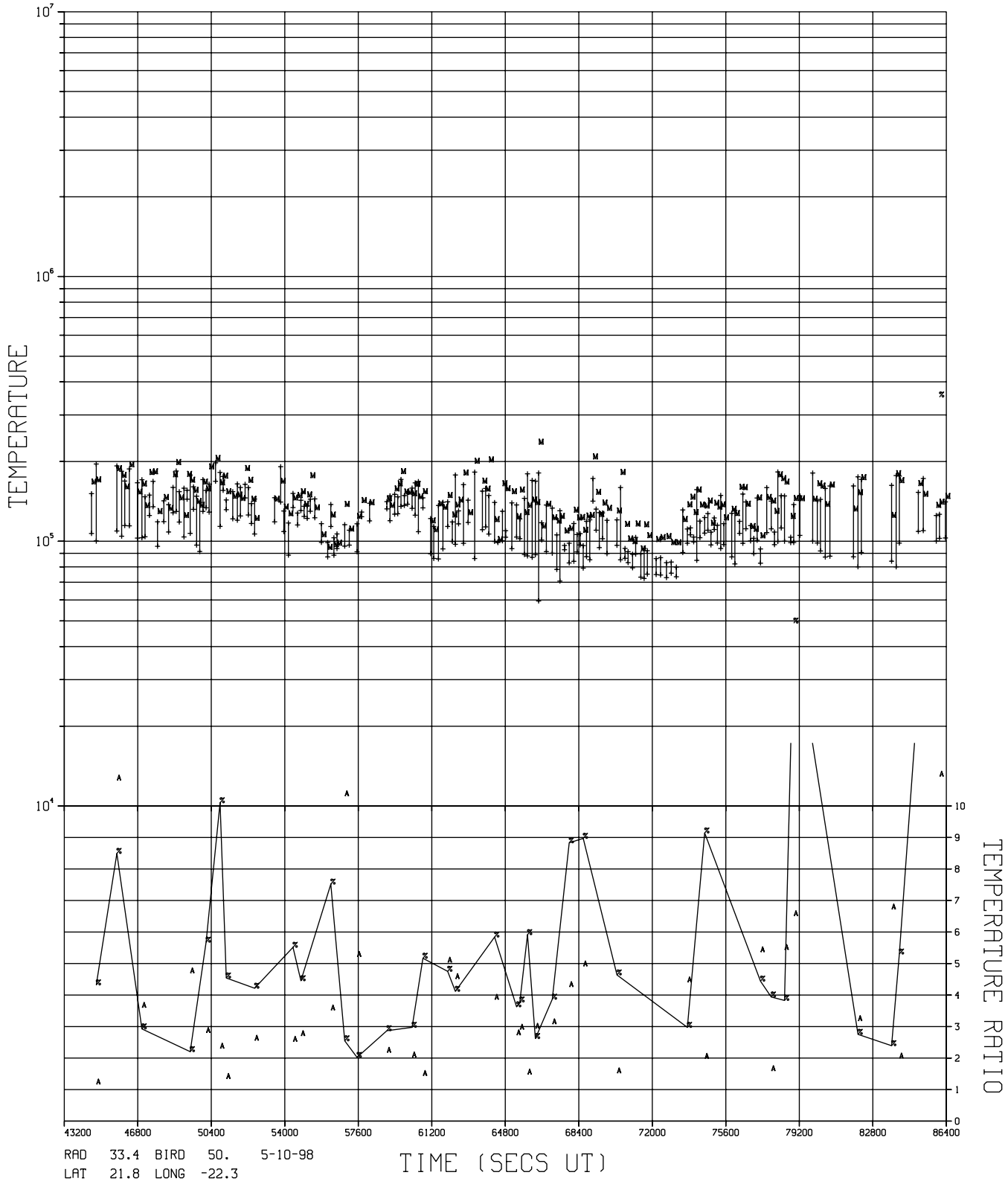

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 32.7 BIRD 50. 5-10-98
LAT 29.8 LONG -37.0

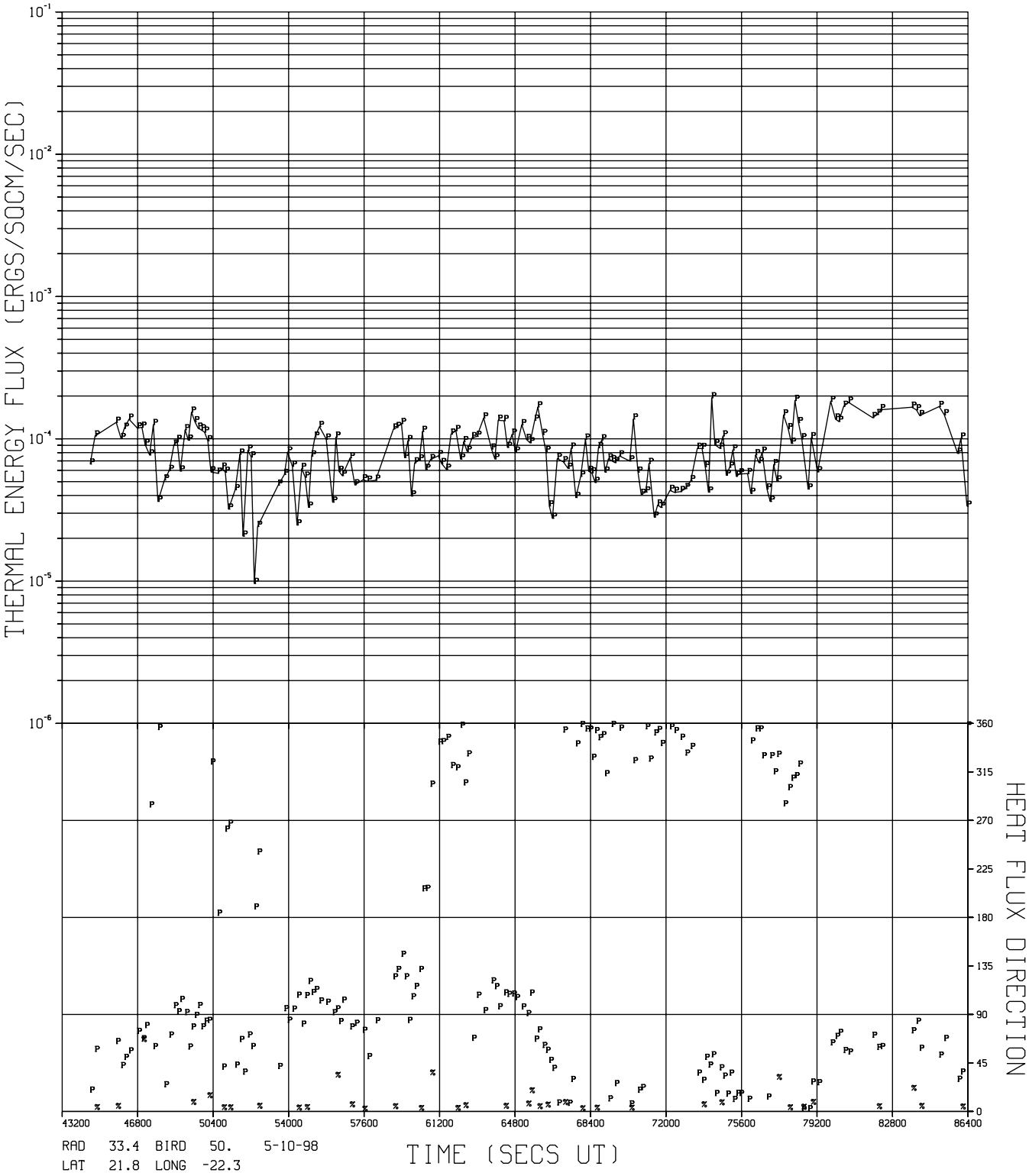

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 32.7 BIRD 50. 5-10-98
LAT 29.8 LONG -37.0

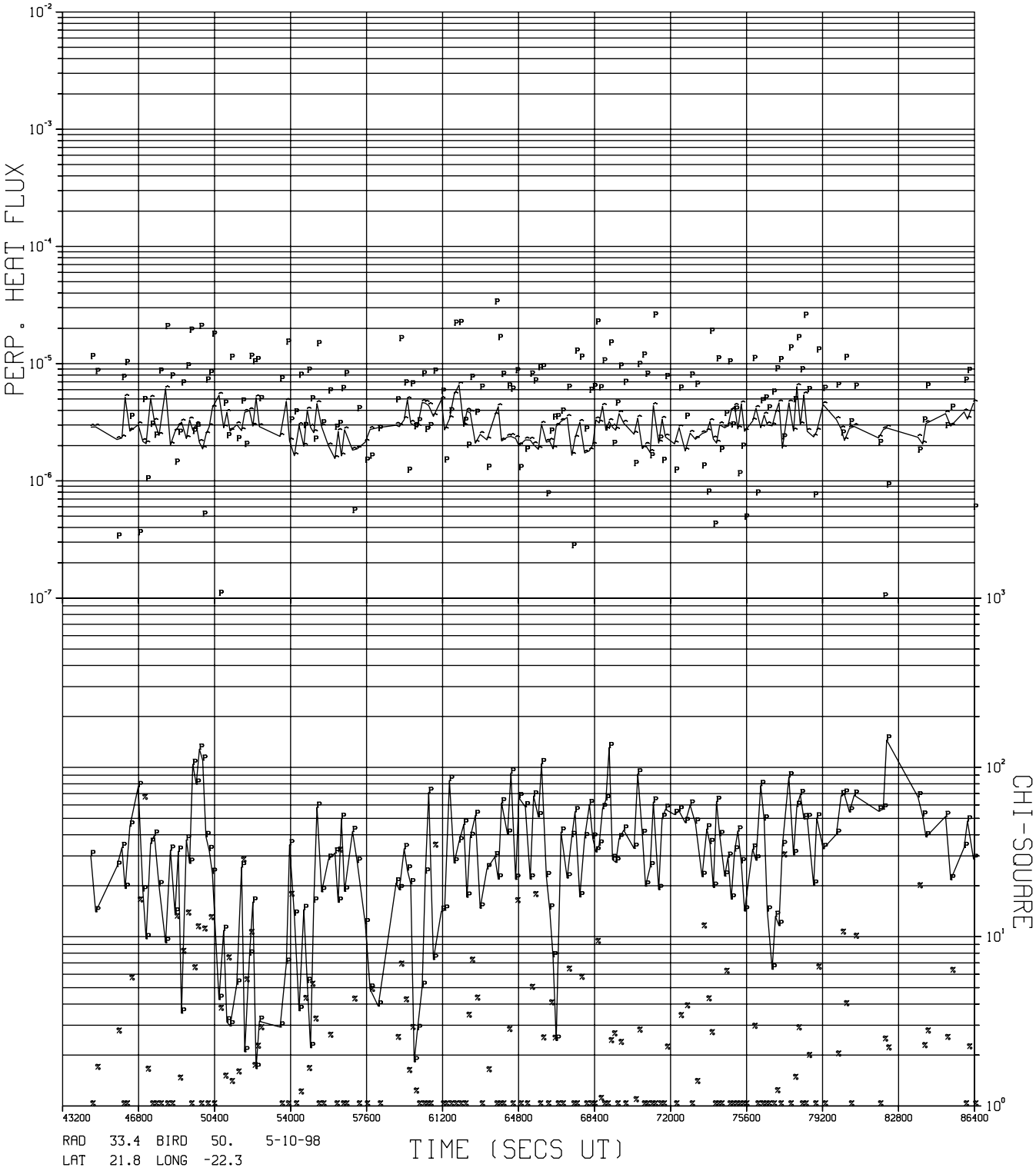

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 33.4 BIRD 50. 5-10-98
LAT 21.8 LONG -22.3

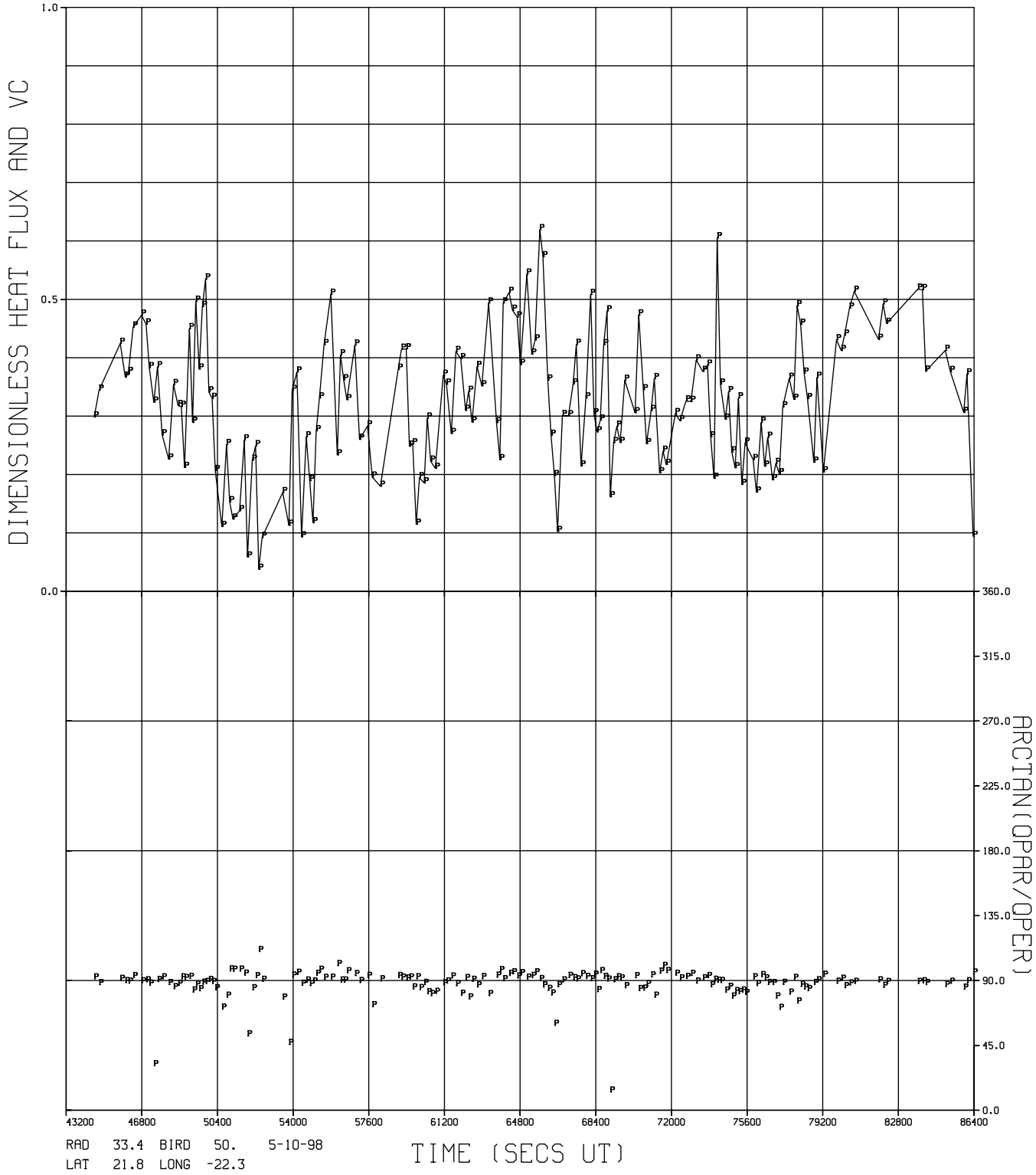

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 33.4 BIRD 50. 5-10-98
LAT 21.8 LONG -22.3

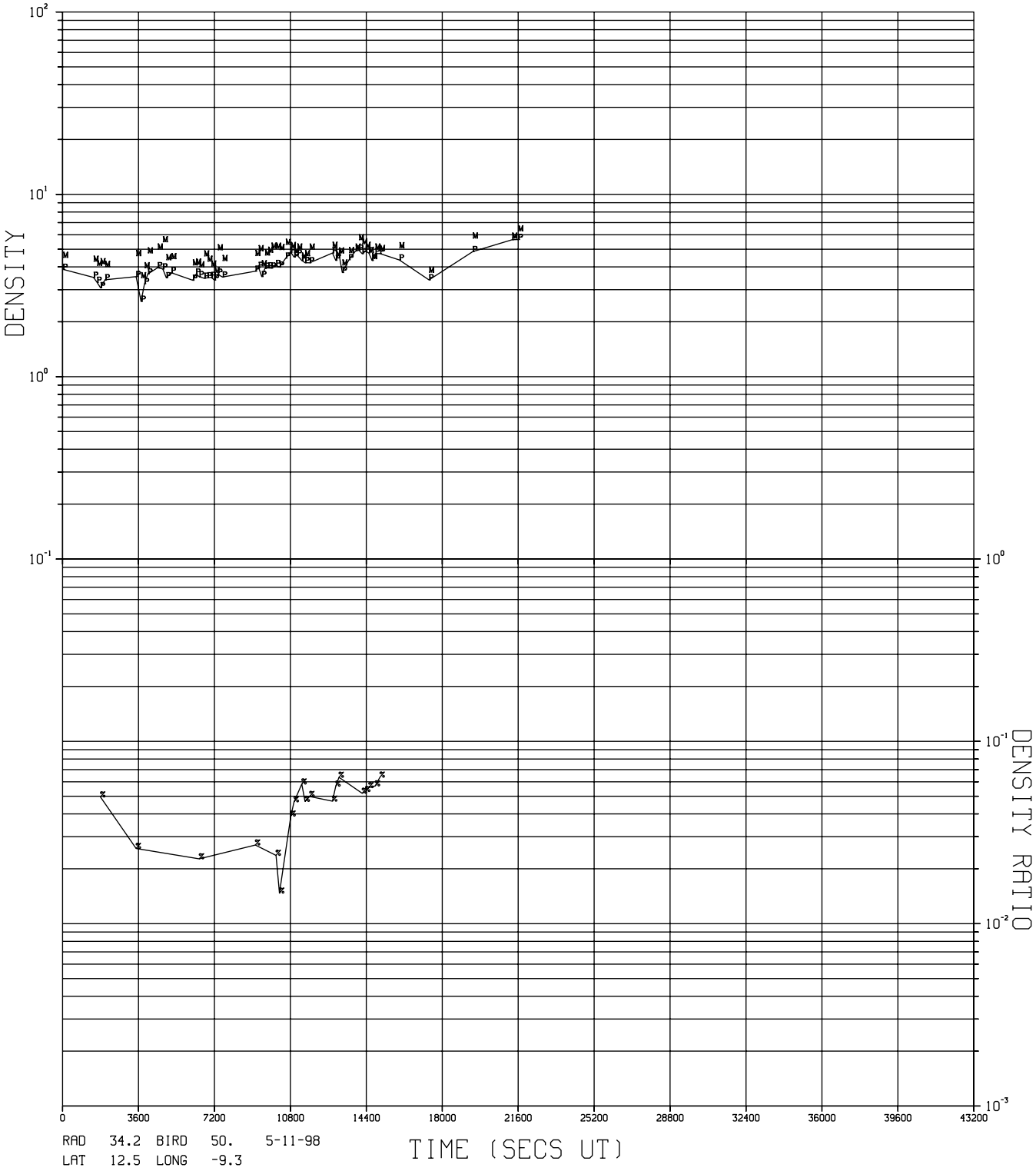

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 33.4 BIRD 50. 5-10-98
LAT 21.8 LONG -22.3

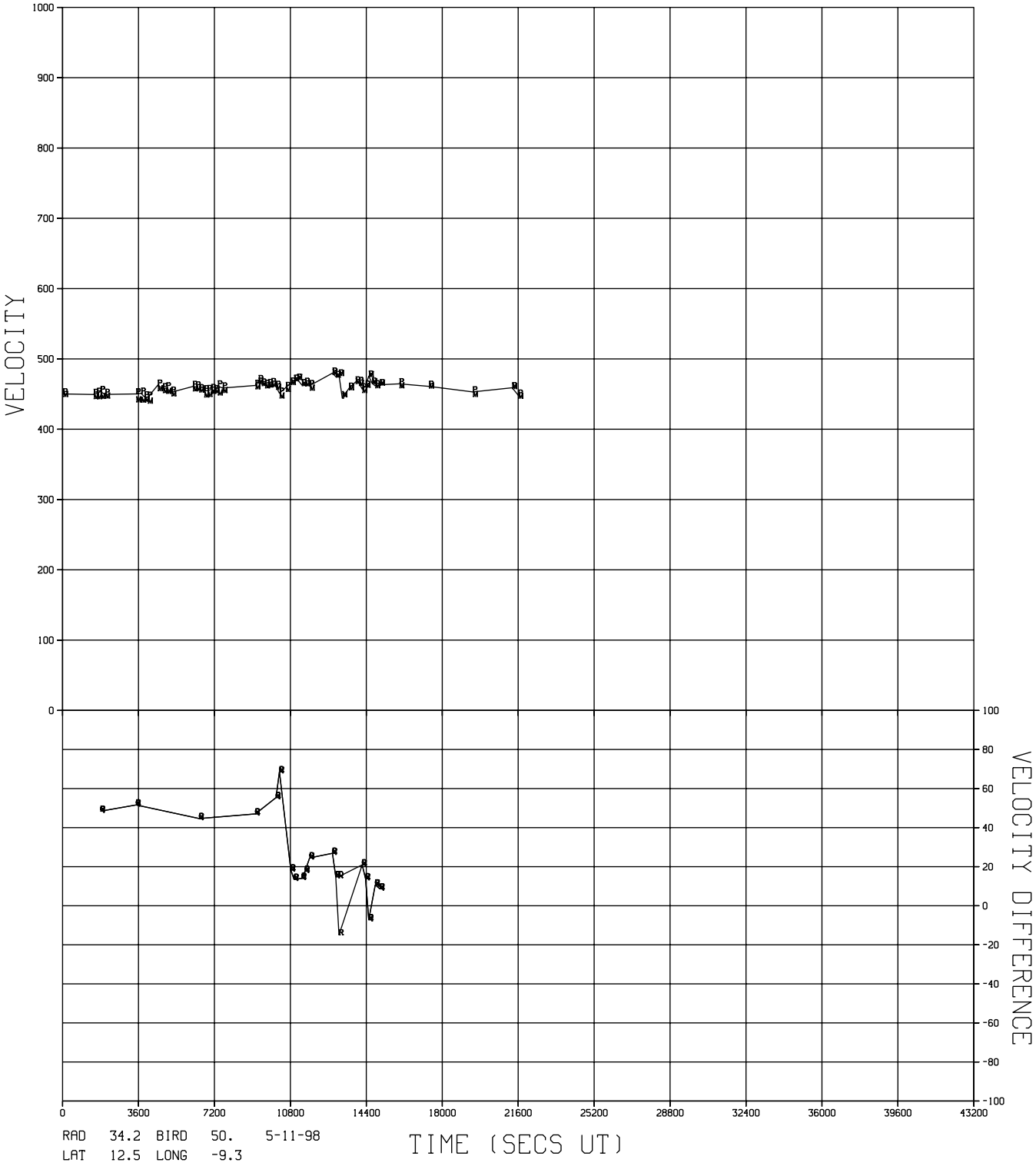

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 33.4 BIRD 50. 5-10-98
LAT 21.8 LONG -22.3

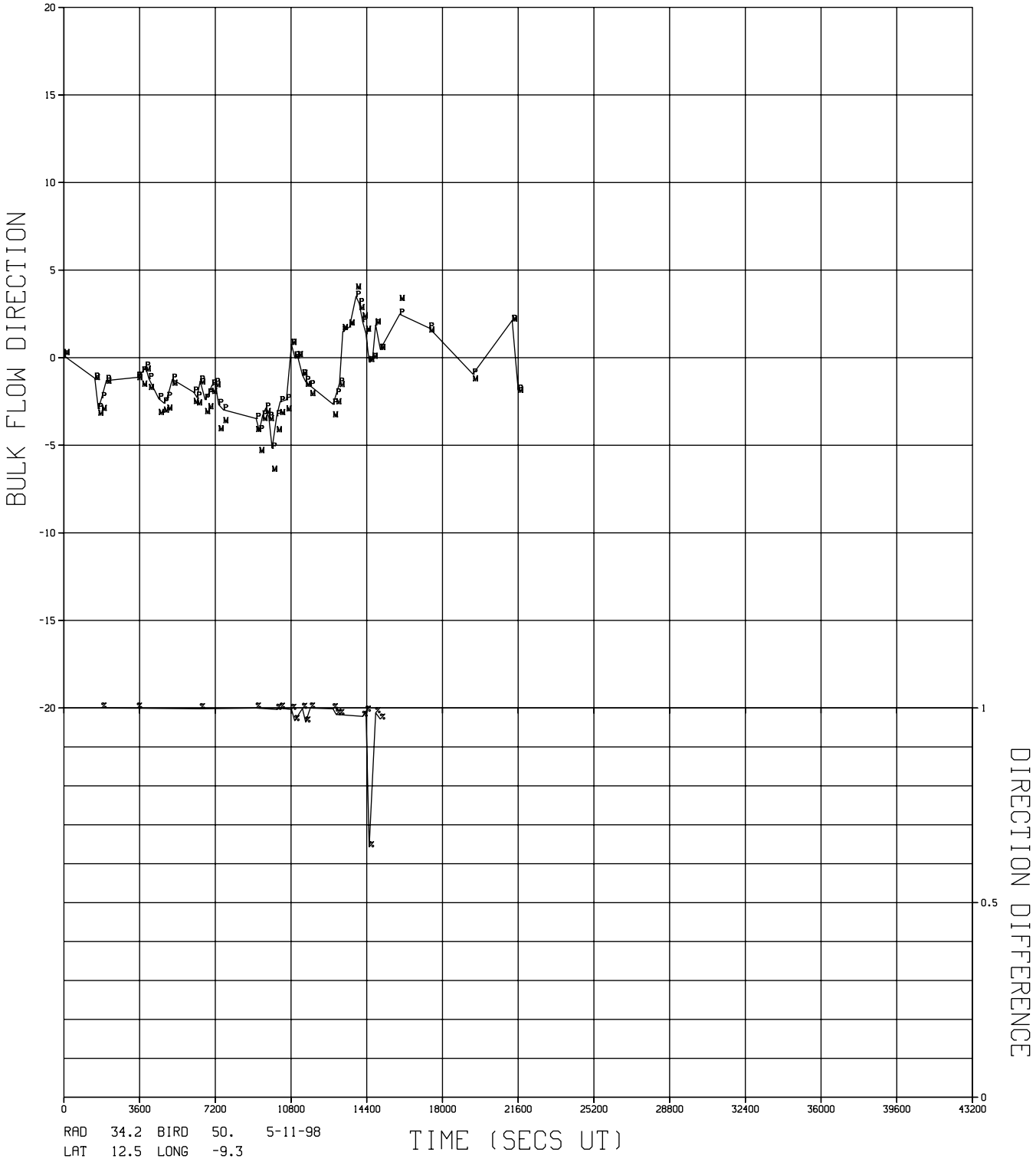

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 33.4 BIRD 50. 5-10-98
LAT 21.8 LONG -22.3

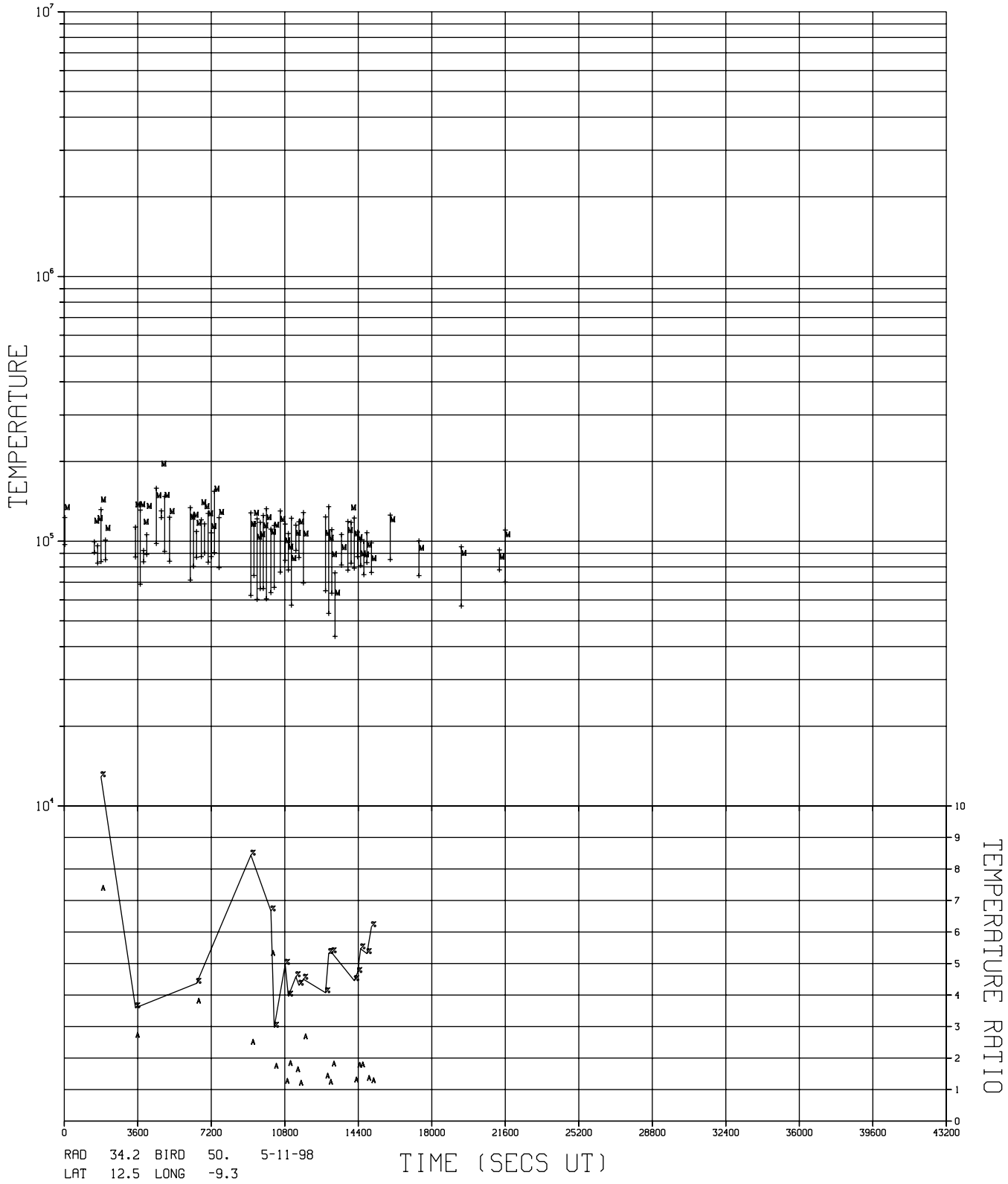

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 33.4 BIRD 50. 5-10-98
LAT 21.8 LONG -22.3

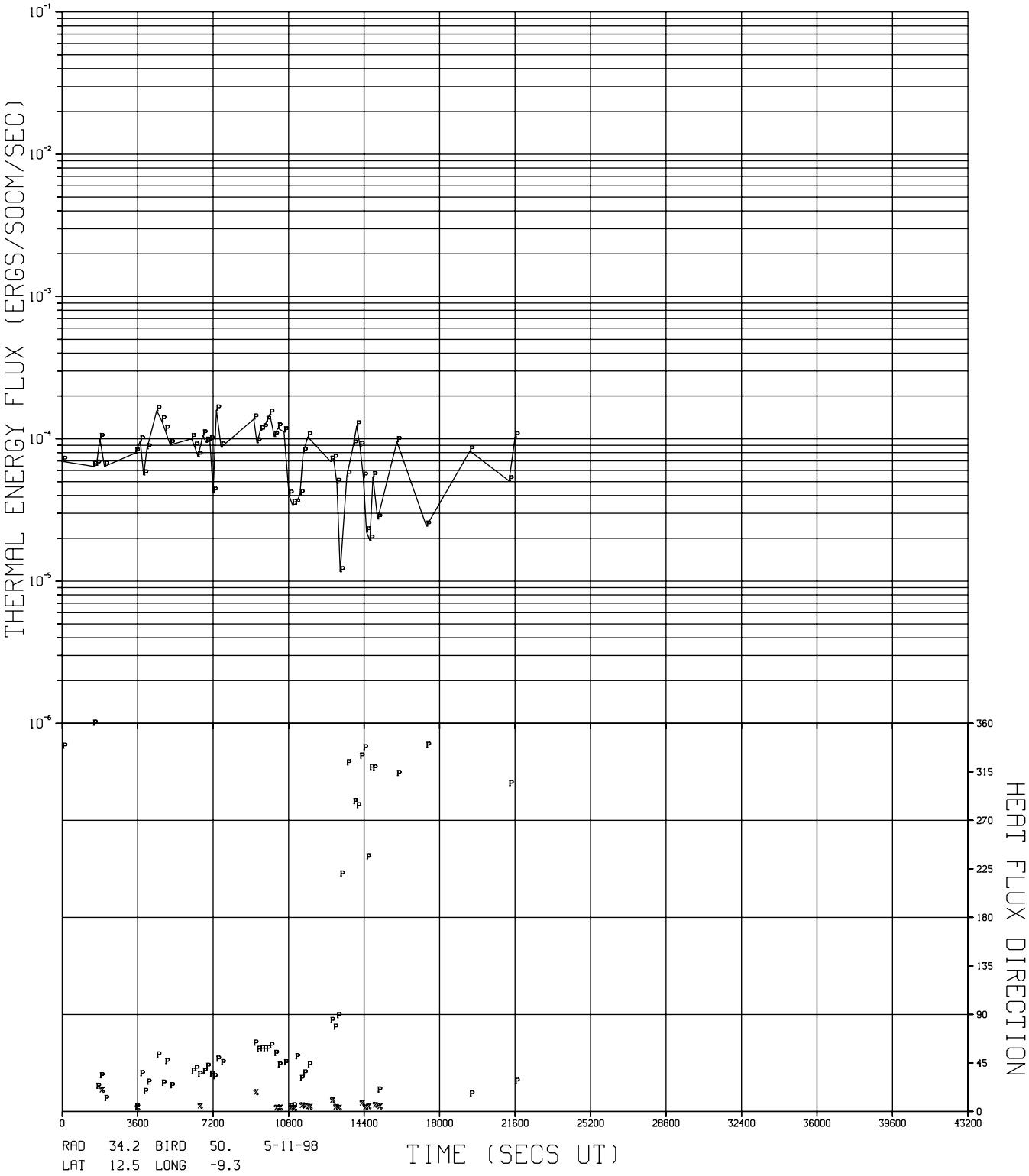

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 33.4 BIRD 50. 5-10-98
LAT 21.8 LONG -22.3

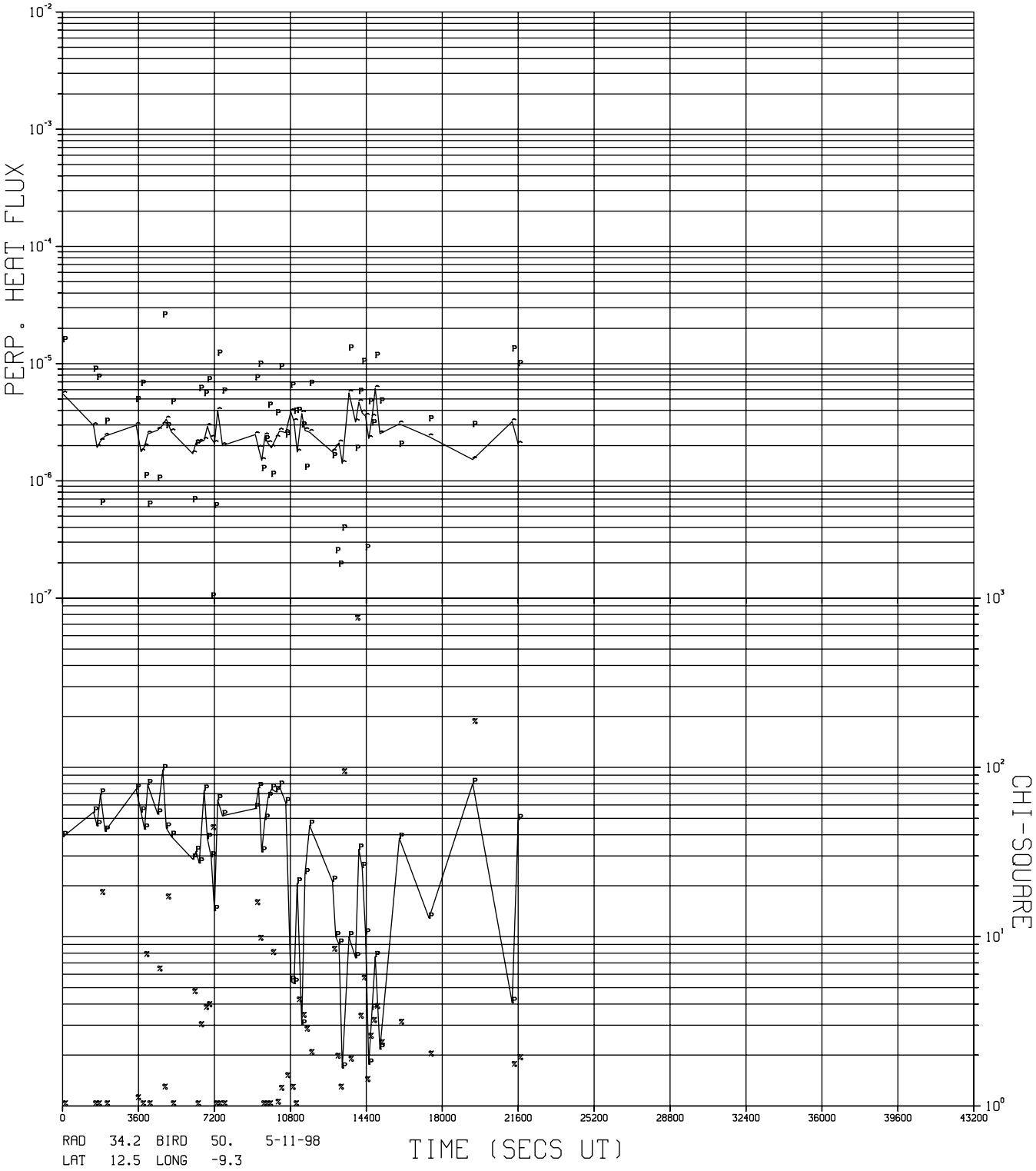

DENSITY
DENSITY RATIO
TIME (SECS UT)
RAD 34.2 BIRD 50. 5-11-98
LAT 12.5 LONG -9.3

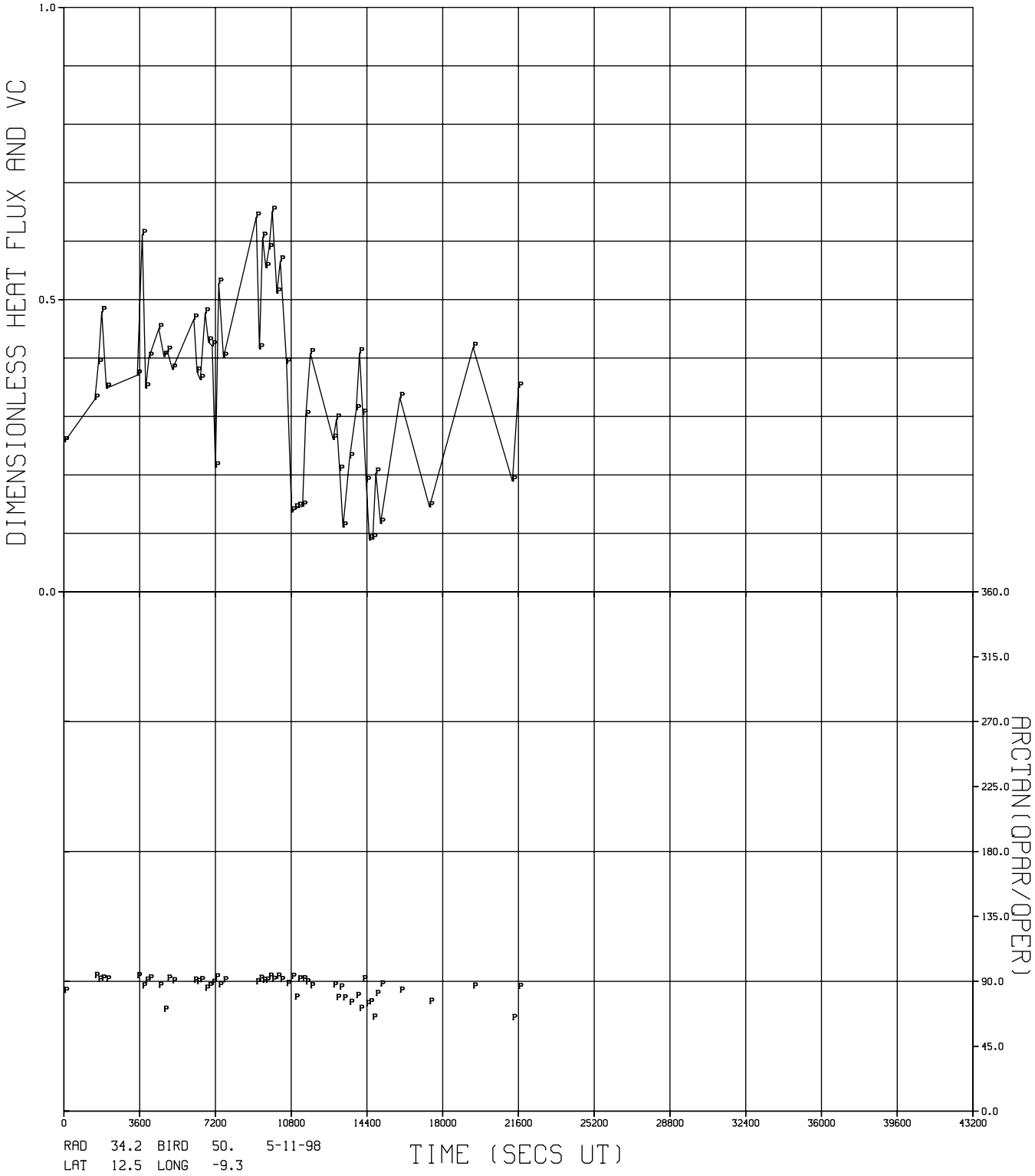

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
1000
900
800
700
600
500
400
300
200
100
0
100
80
60
40
20
0
-20
-40
-60
-80
-100
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 34.2 BIRD 50. 5-11-98
LAT 12.5 LONG -9.3

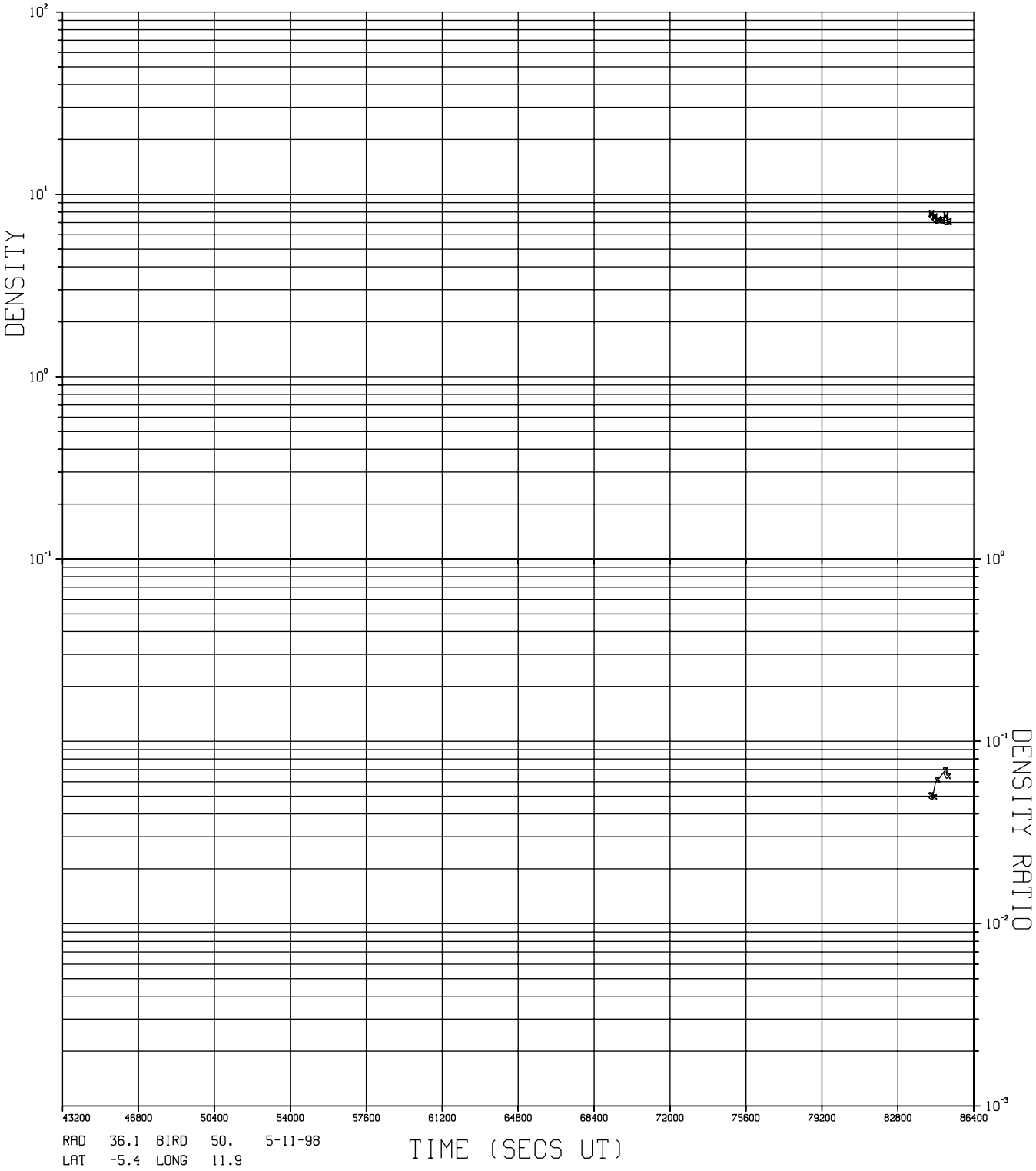

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 34.2 BIRD 50. 5-11-98
LAT 12.5 LONG -9.3

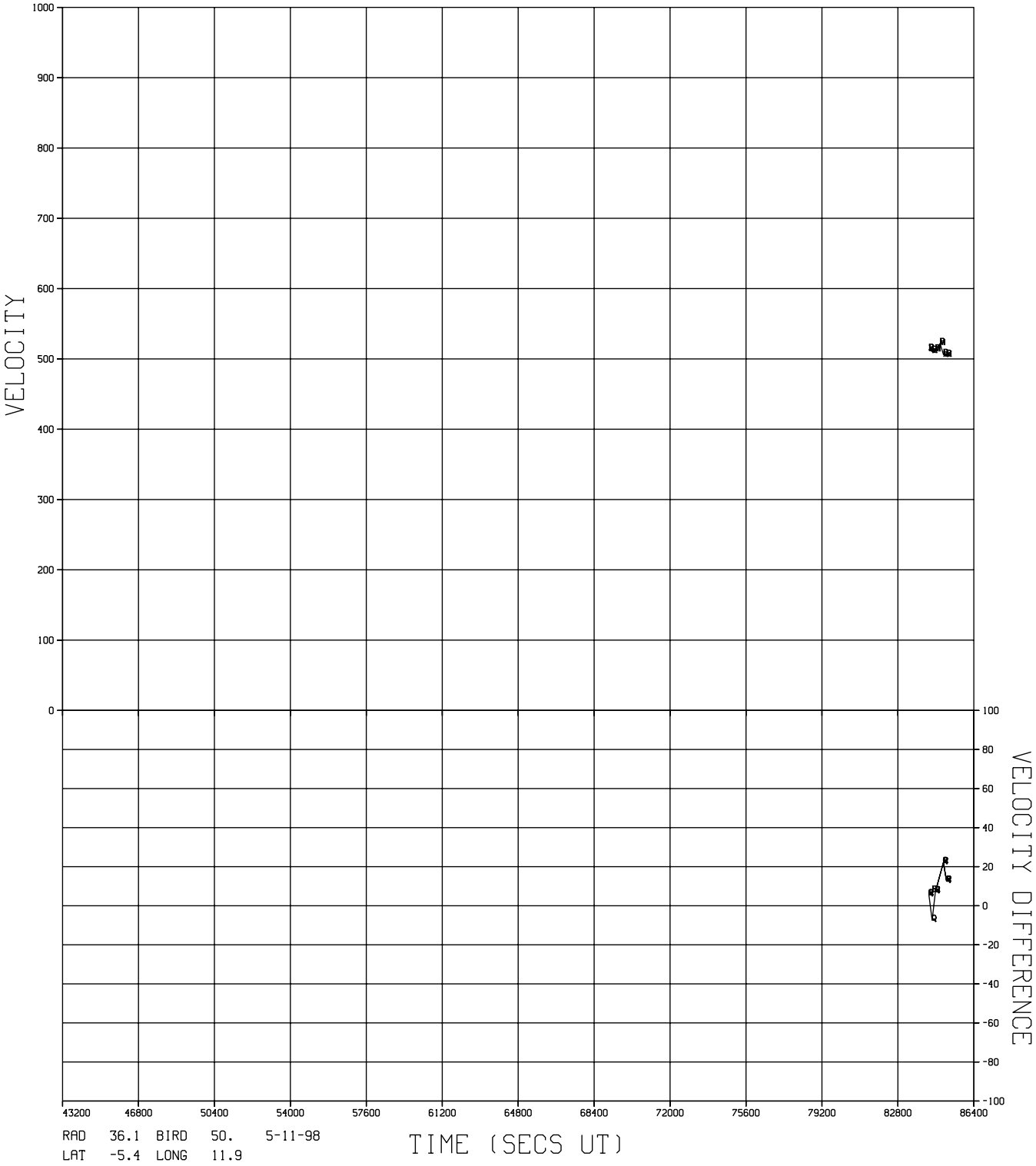

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 34.2 BIRD 50. 5-11-98
LAT 12.5 LONG -9.3

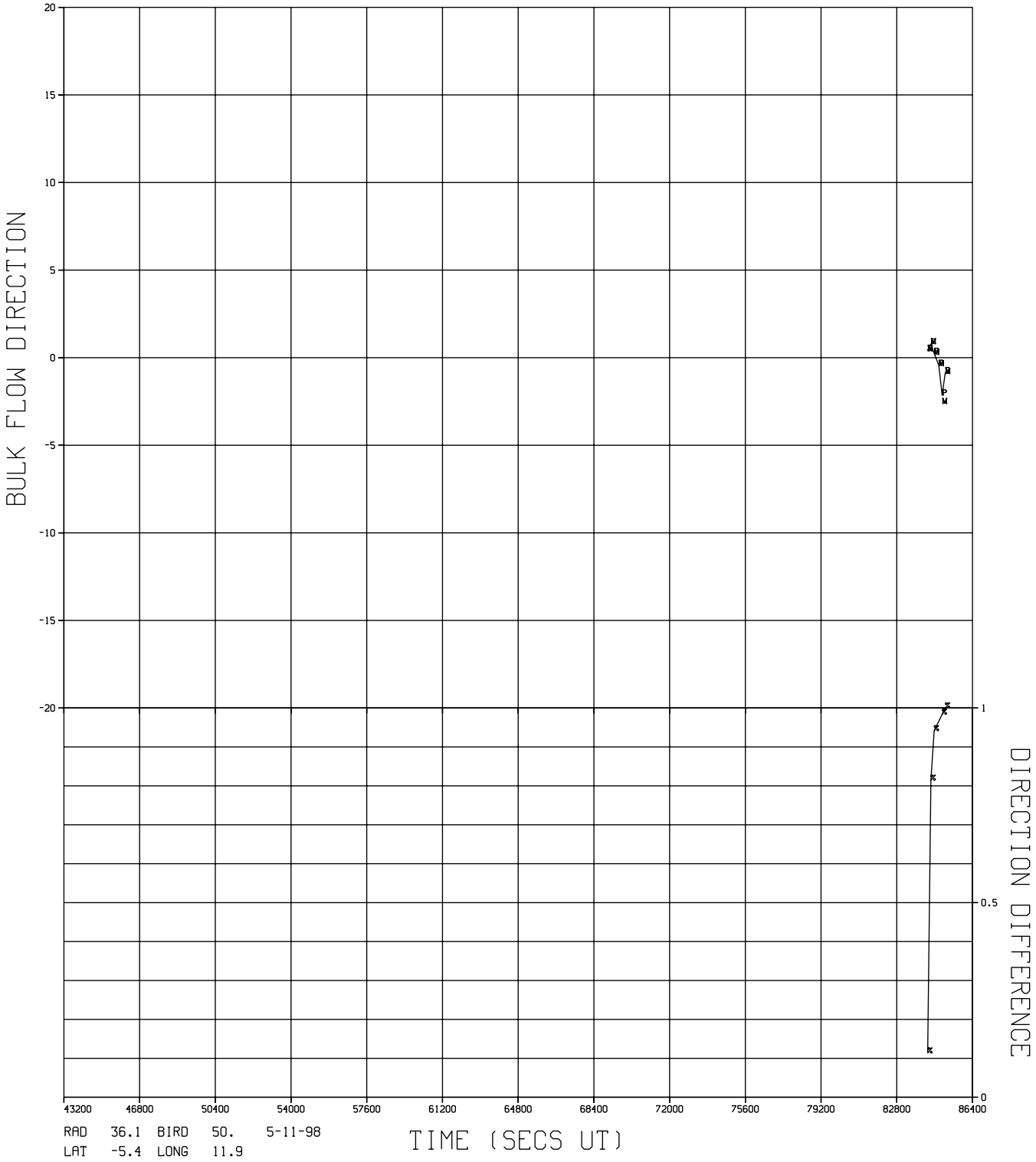

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 34.2 BIRD 50. 5-11-98
LAT 12.5 LONG -9.3

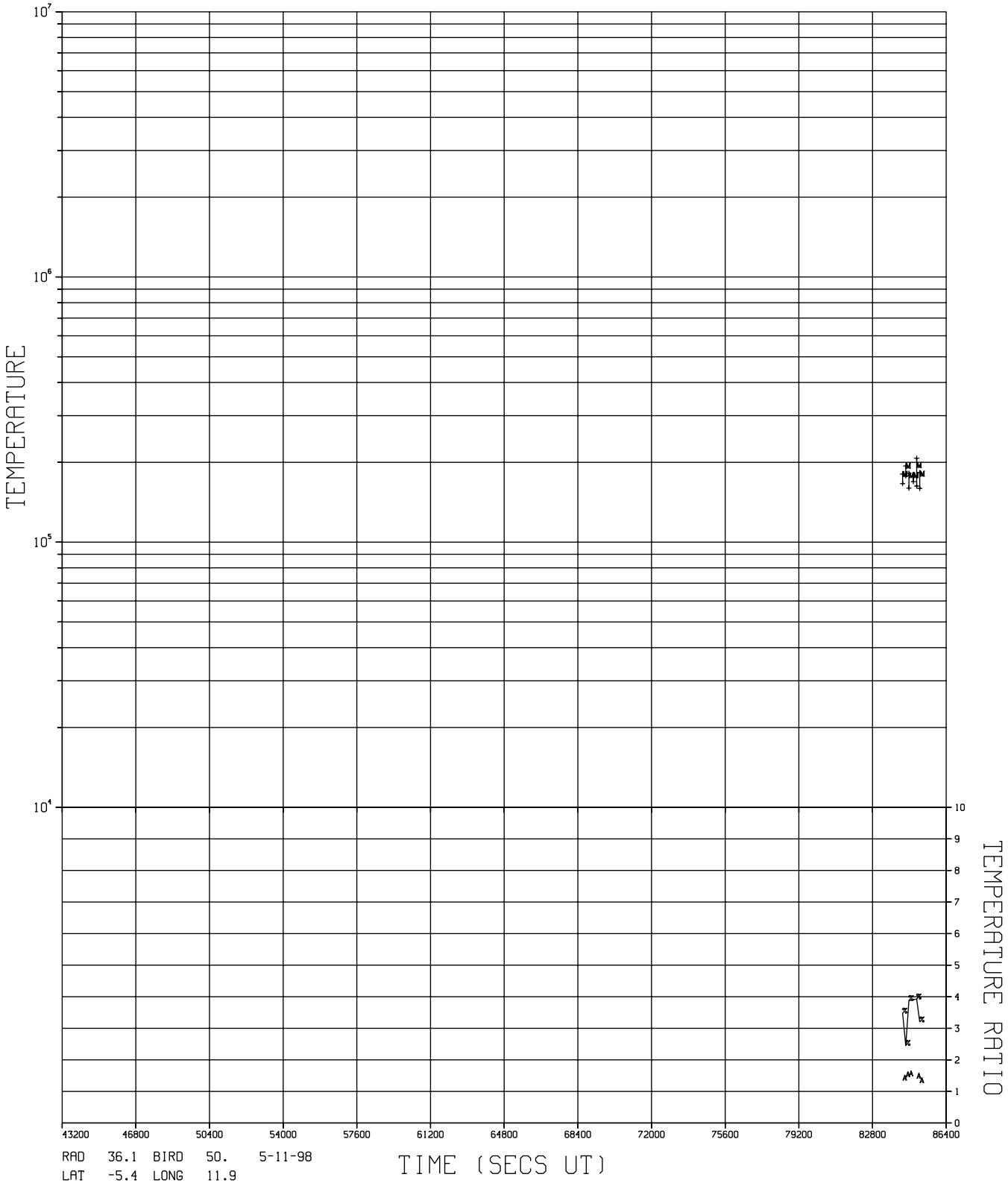

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 34.2 BIRD 50. 5-11-98
LAT 12.5 LONG -9.3

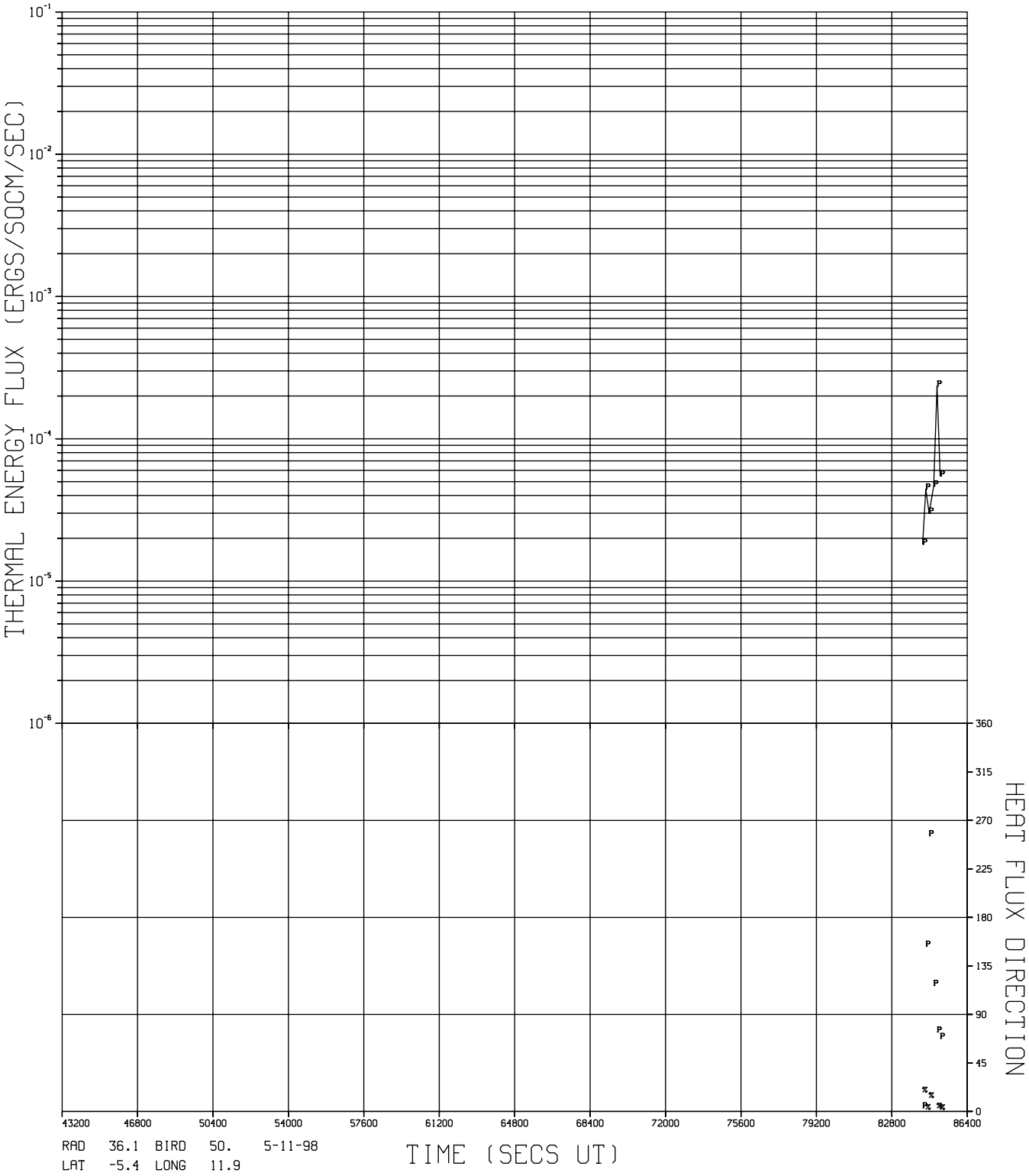

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 34.2 BIRD 50. 5-11-98
LAT 12.5 LONG -9.3

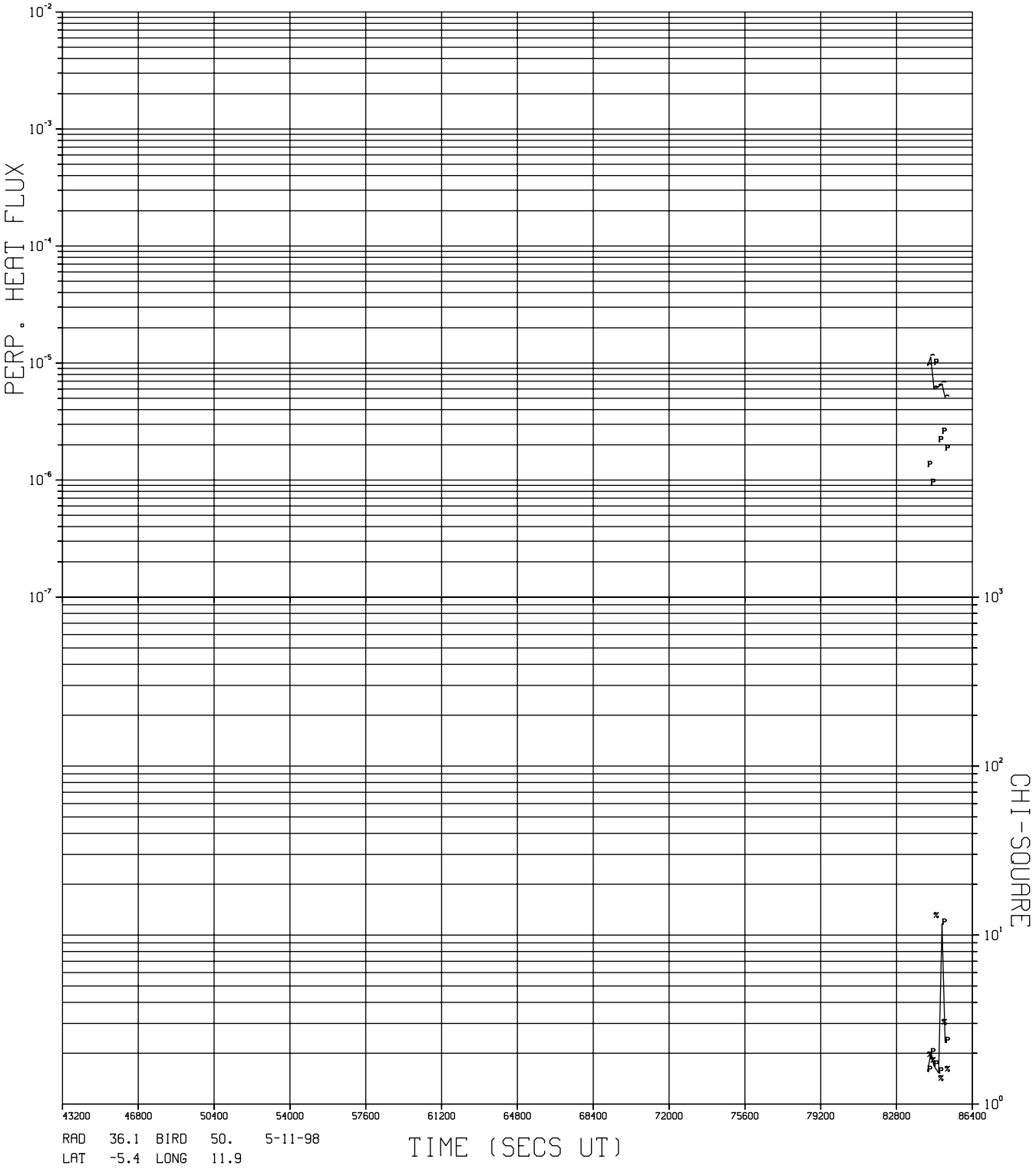

DENSITY
10^2
10^1
10^0
10^{-1}
DENSITY RATIO
10^0
10^{-1}
10^{-2}
10^{-3}
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.1 BIRD 50. 5-11-98
LAT -5.4 LONG 11.9

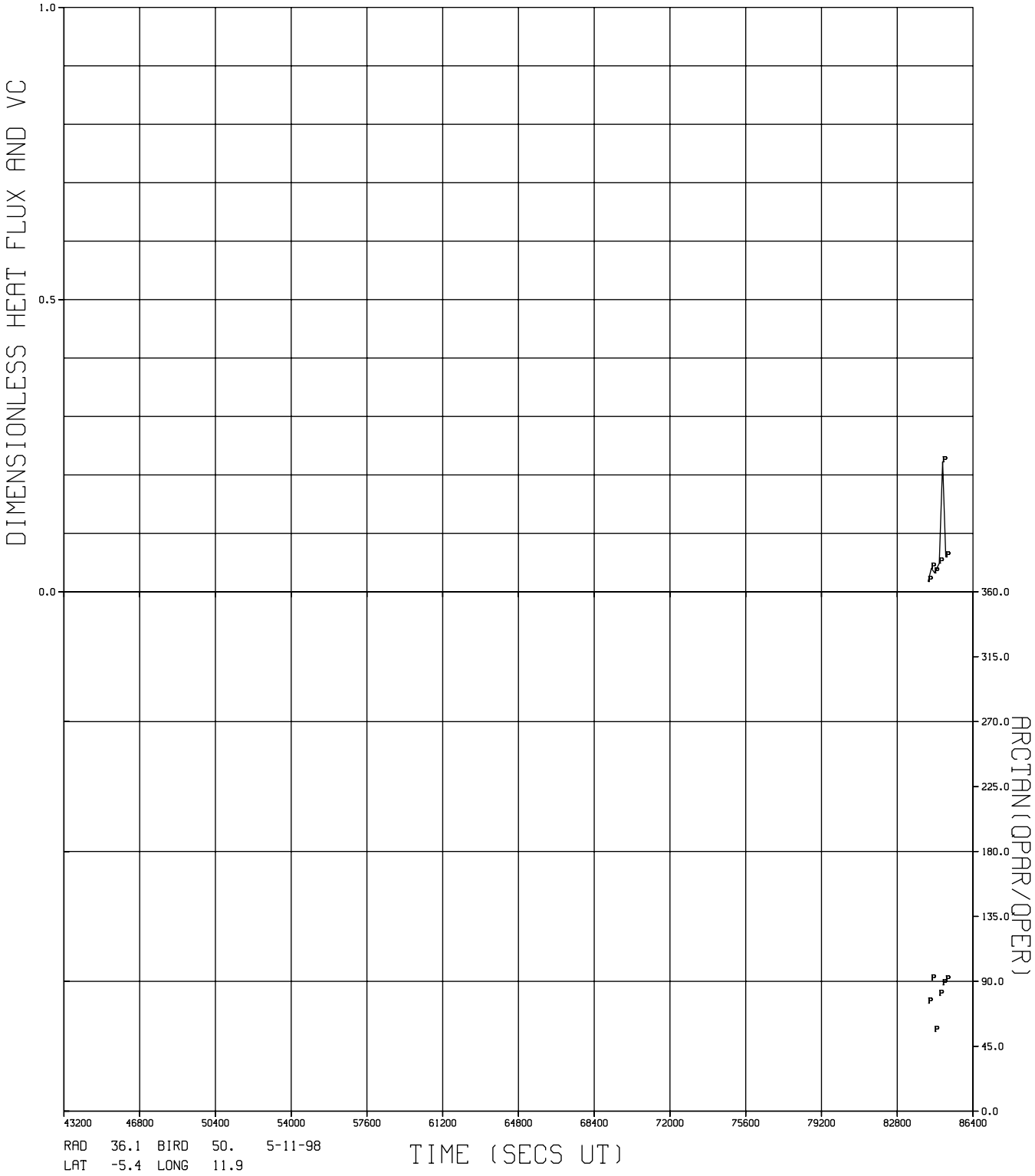

VELOCITY
1000
900
800
700
600
500
400
300
200
100
0
VELOCITY DIFFERENCE
100
80
60
40
20
0
-20
-40
-60
-80
-100
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.1 BIRD 50. 5-11-98
LAT -5.4 LONG 11.9

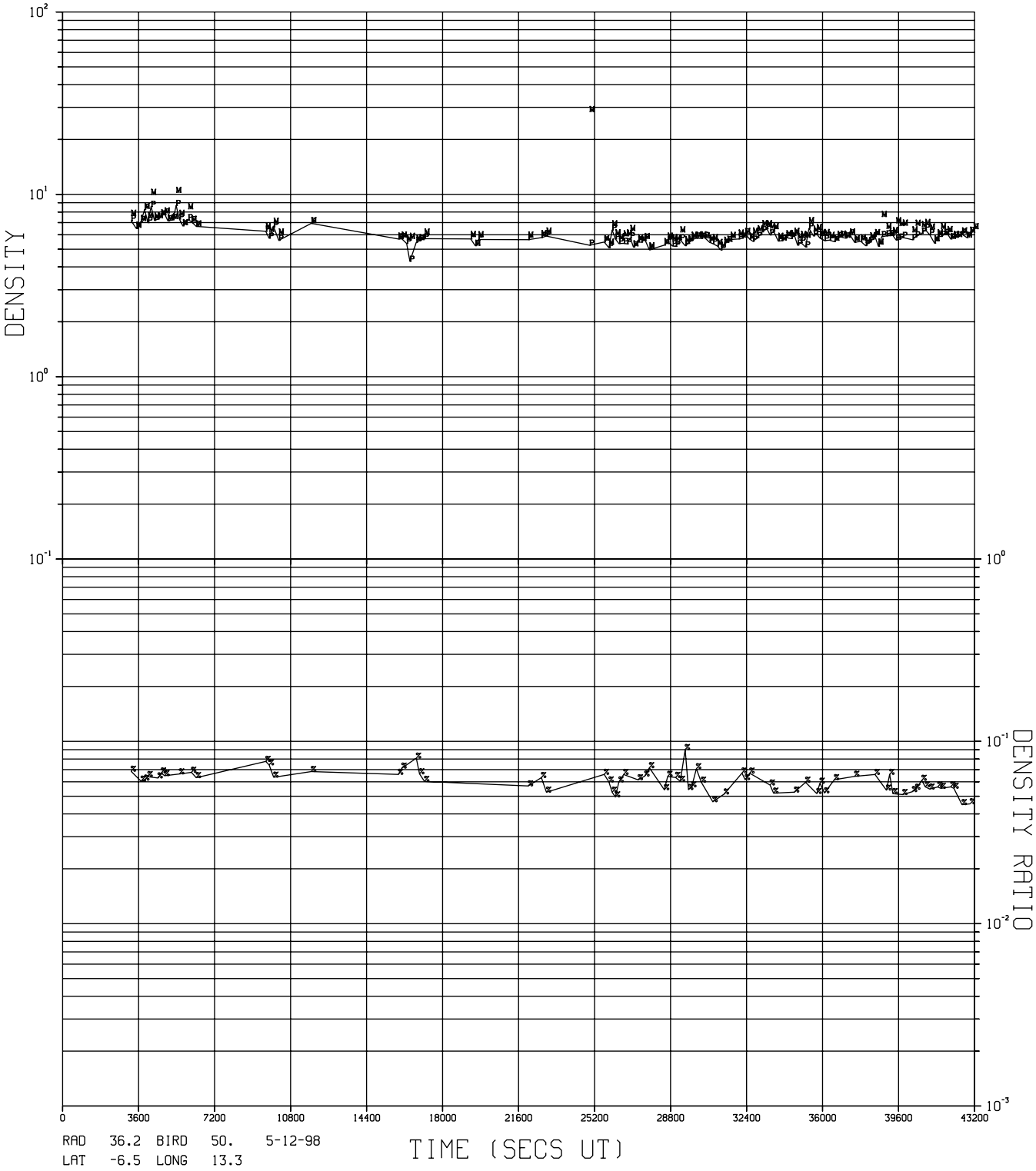

BULK FLOW DIRECTION
20
15
10
5
0
-5
-10
-15
-20
DIRECTION DIFFERENCE
1
0.5
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.1 BIRD 50. 5-11-98
LAT -5.4 LONG 11.9

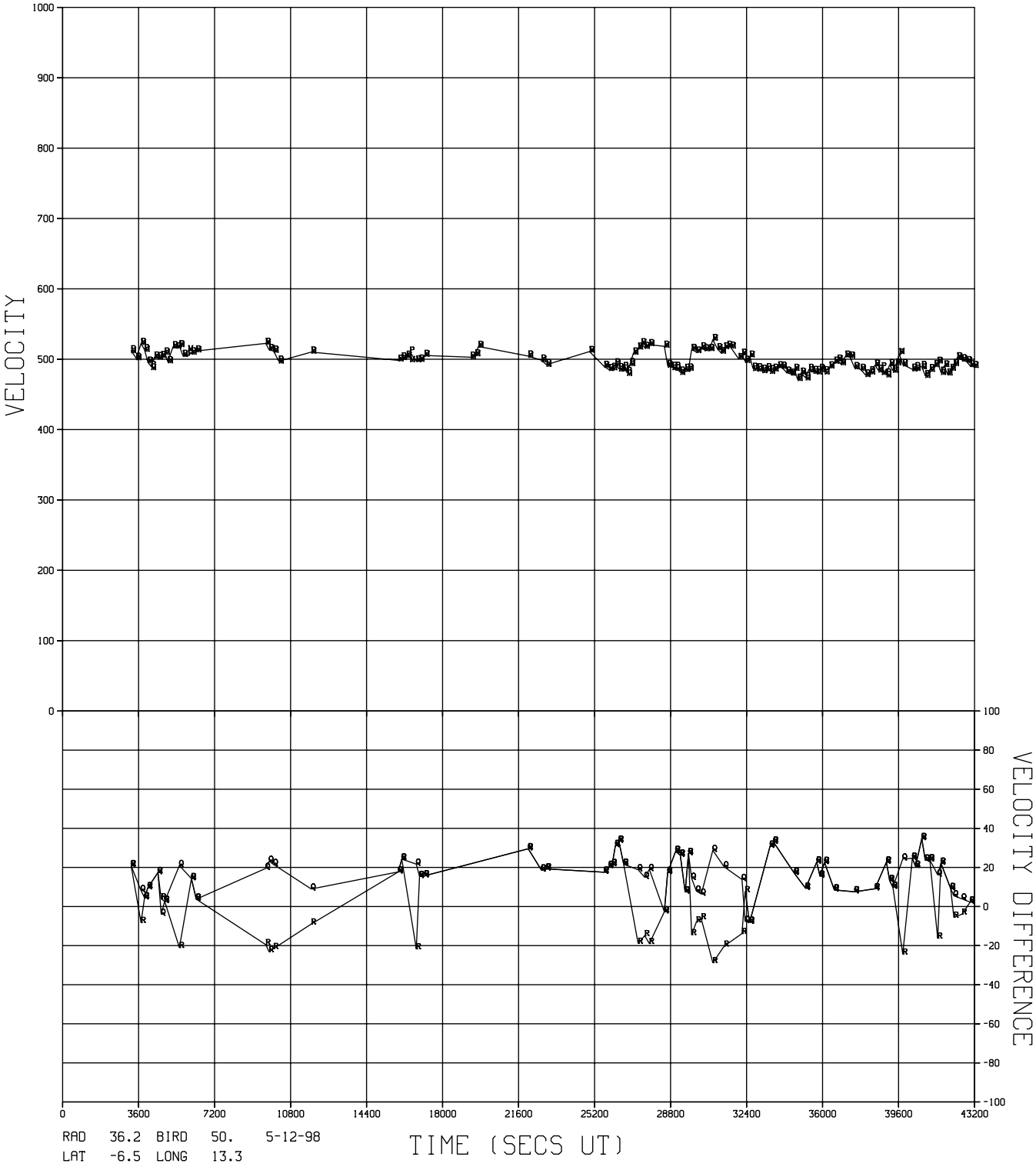

TEMPERATURE
10^7
10^6
10^5
10^4
TEMPERATURE RATIO
0
1
2
3
4
5
6
7
8
9
10
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.1 BIRD 50. 5-11-98
LAT -5.4 LONG 11.9

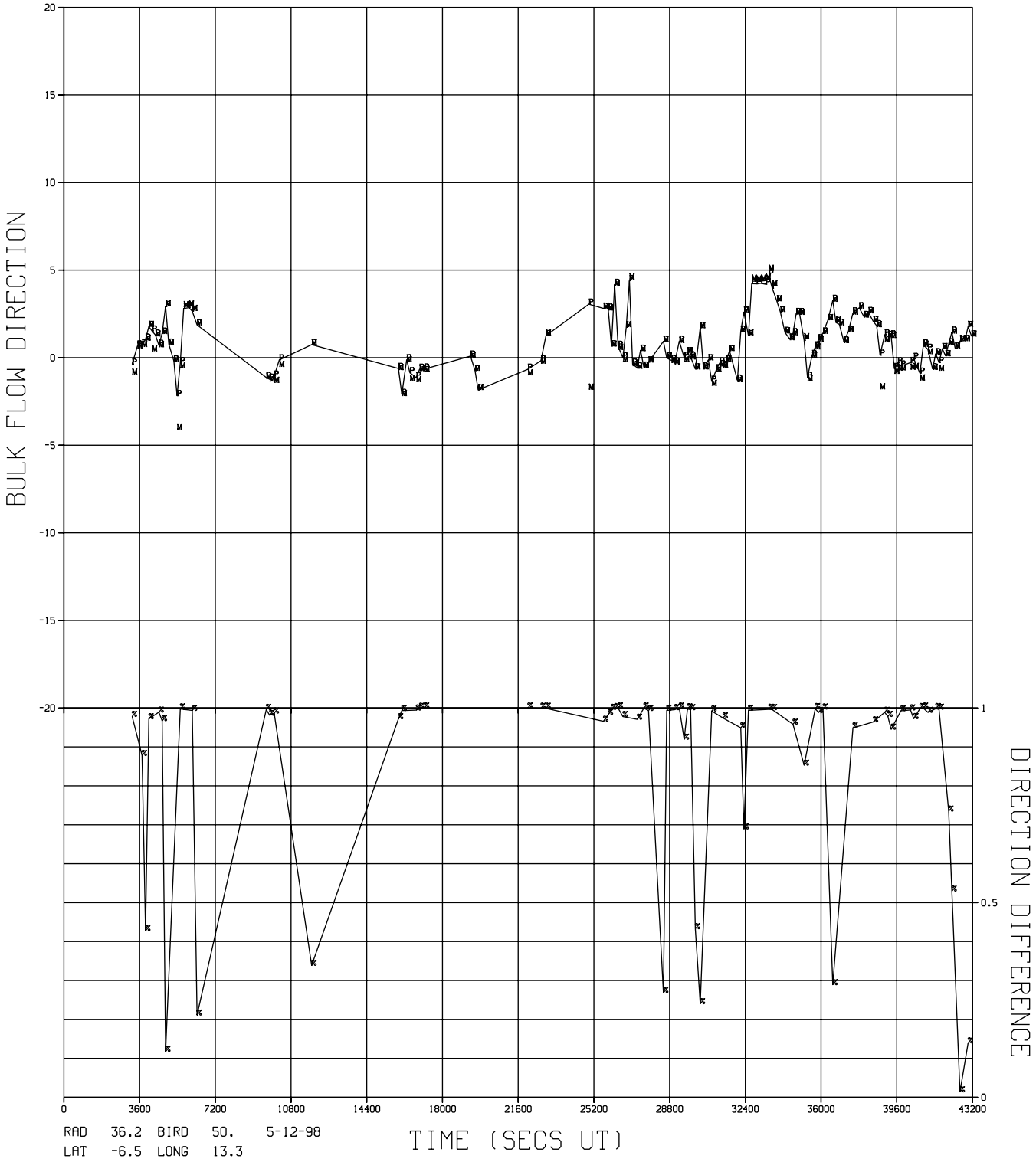

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
10^{-1}
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
HEAT FLUX DIRECTION
360
315
270
225
180
135
90
45
0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.1 BIRD 50. 5-11-98
LAT -5.4 LONG 11.9

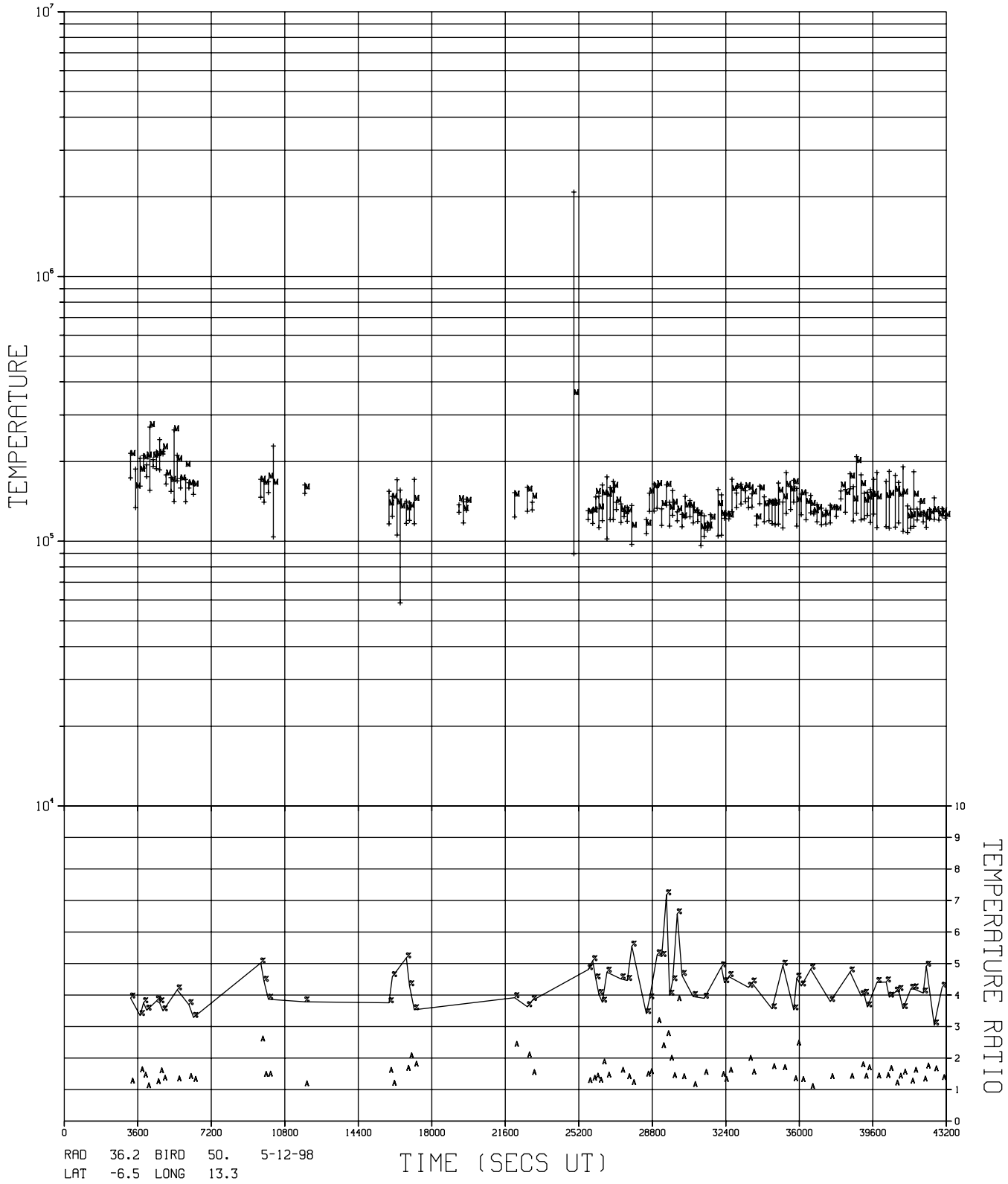

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 36.1 BIRD 50. 5-11-98
LAT -5.4 LONG 11.9

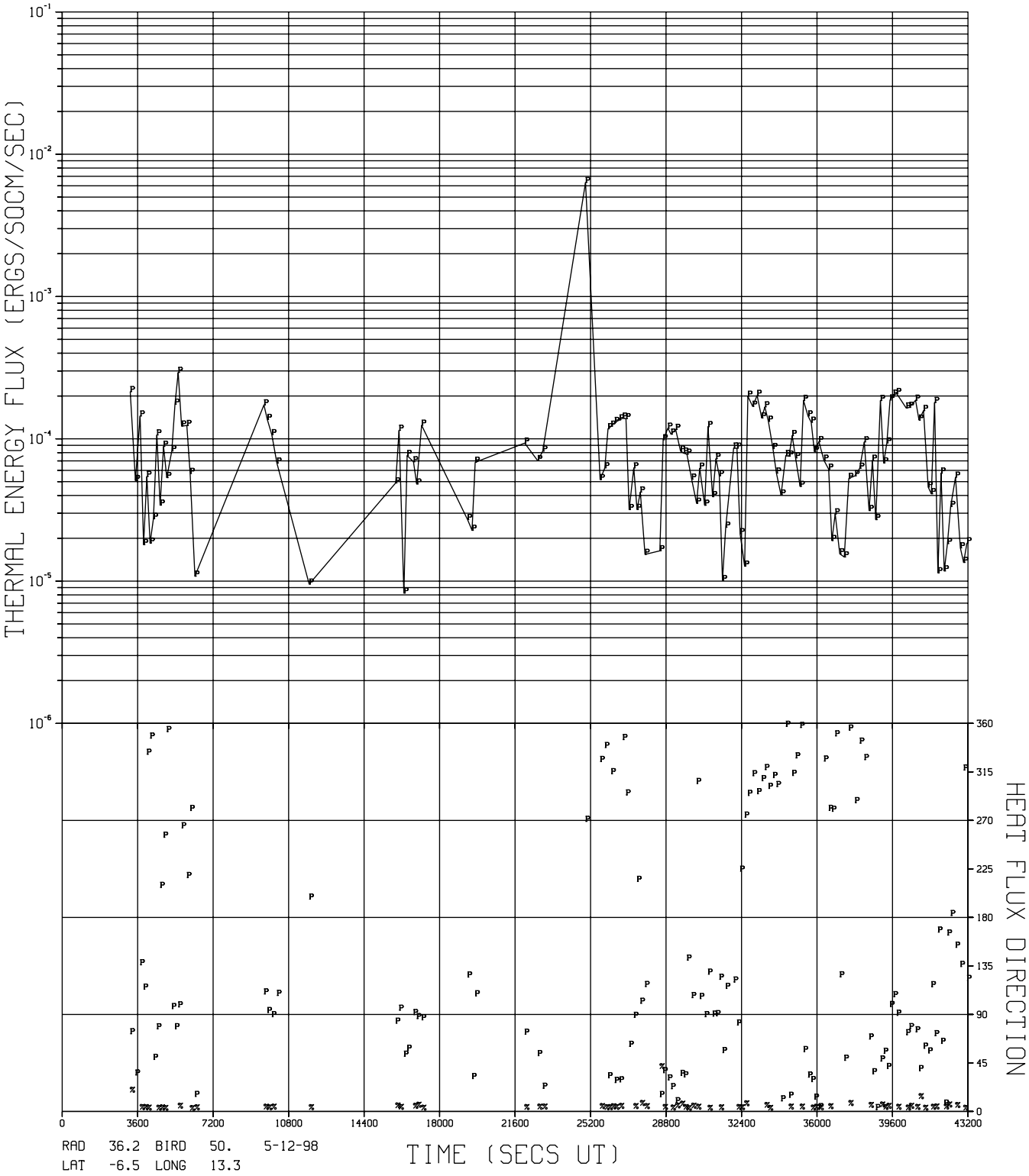

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
TIME (SECS UT)
RAD 36.1 BIRD 50. 5-11-98
LAT -5.4 LONG 11.9

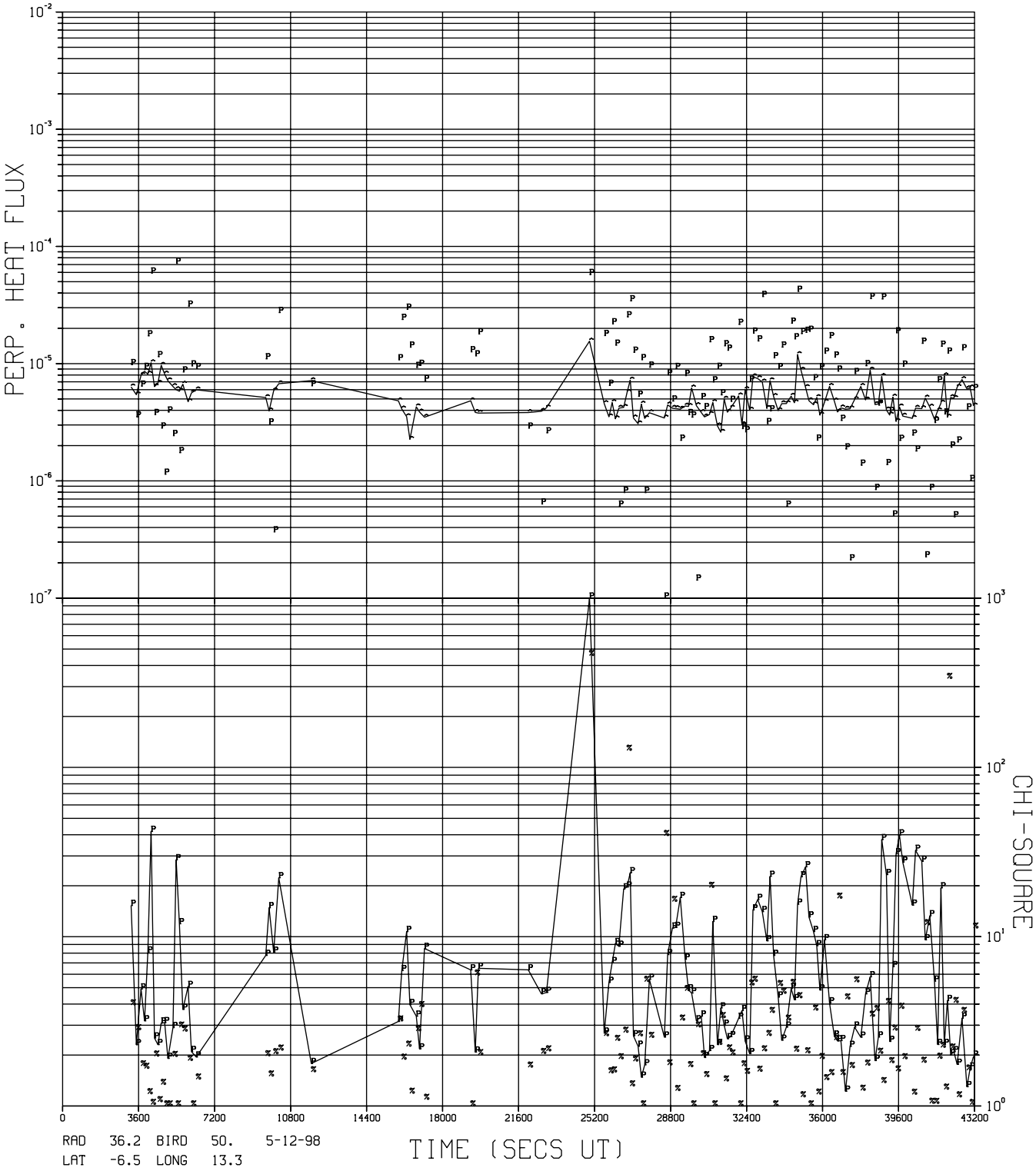

DENSITY
DENSITY RATIO
TIME (SECS UT)
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 36.2 BIRD 50. 5-12-98
LAT -6.5 LONG 13.3

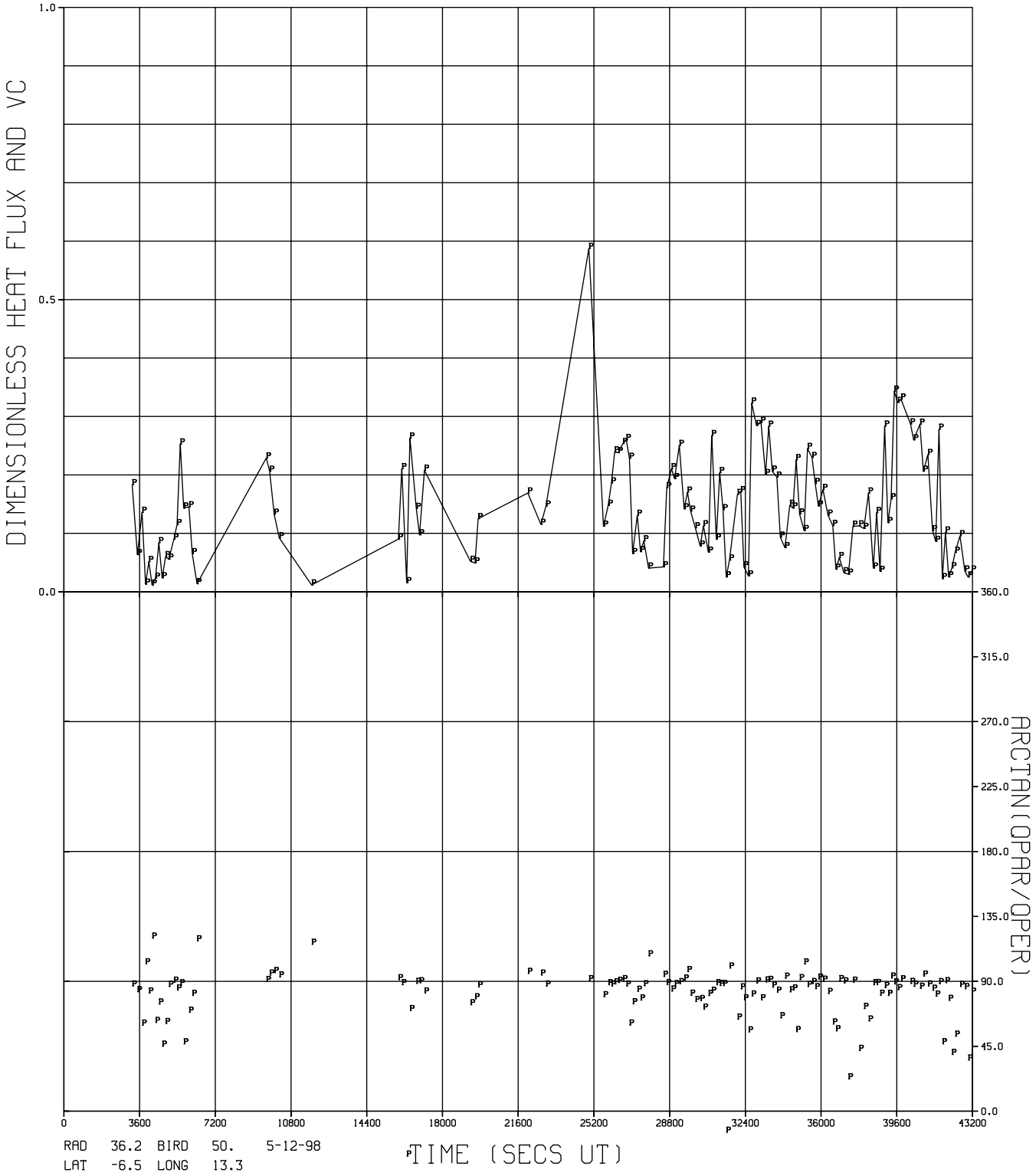

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 36.2 BIRD 50. 5-12-98
LAT -6.5 LONG 13.3

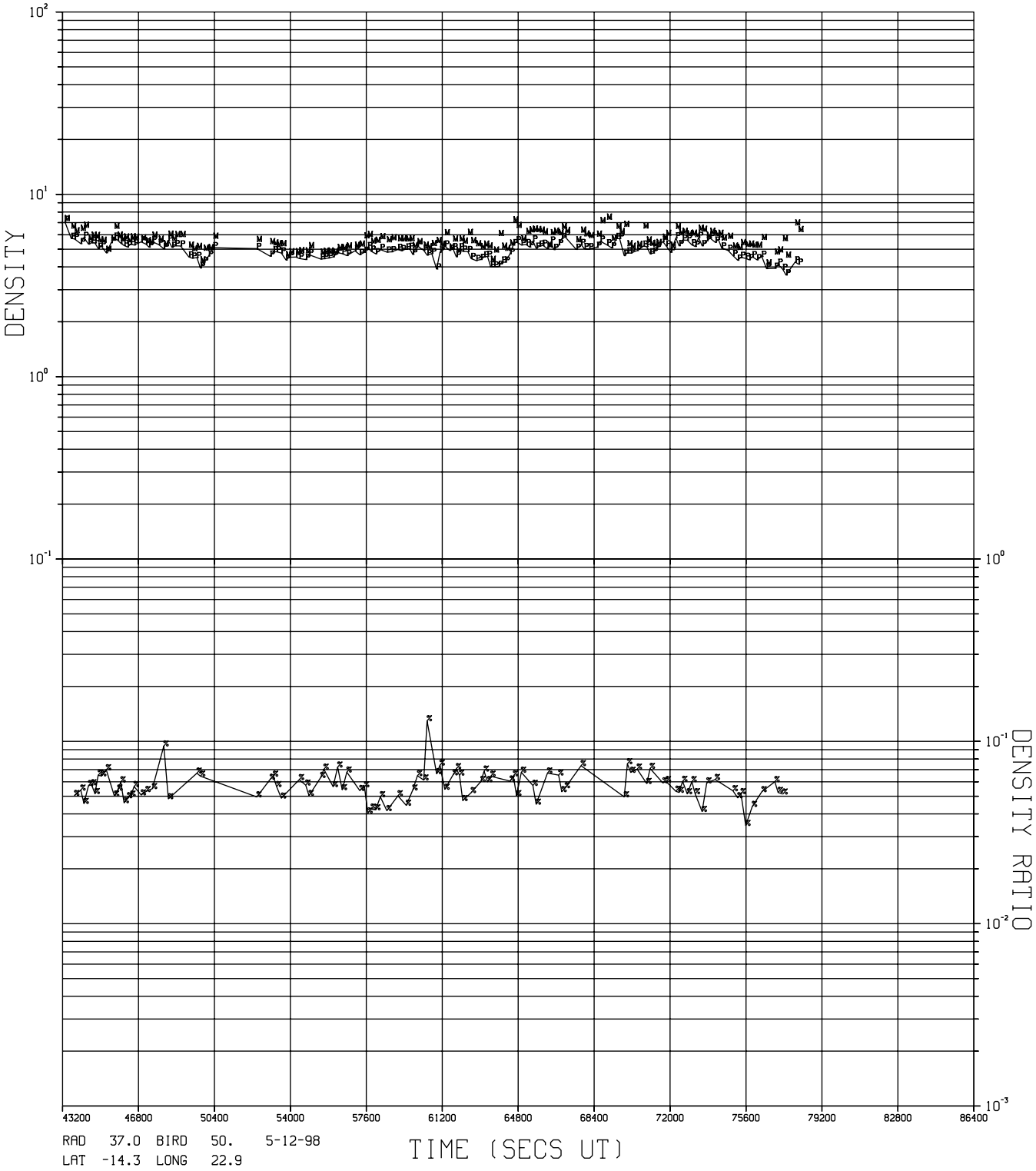

BULK FLOW DIRECTION
DIRECTION DIFFERENCE
TIME (SECS UT)
20
15
10
5
0
-5
-10
-15
-20
1
0.5
0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
RAD 36.2 BIRD 50. 5-12-98
LAT -6.5 LONG 13.3

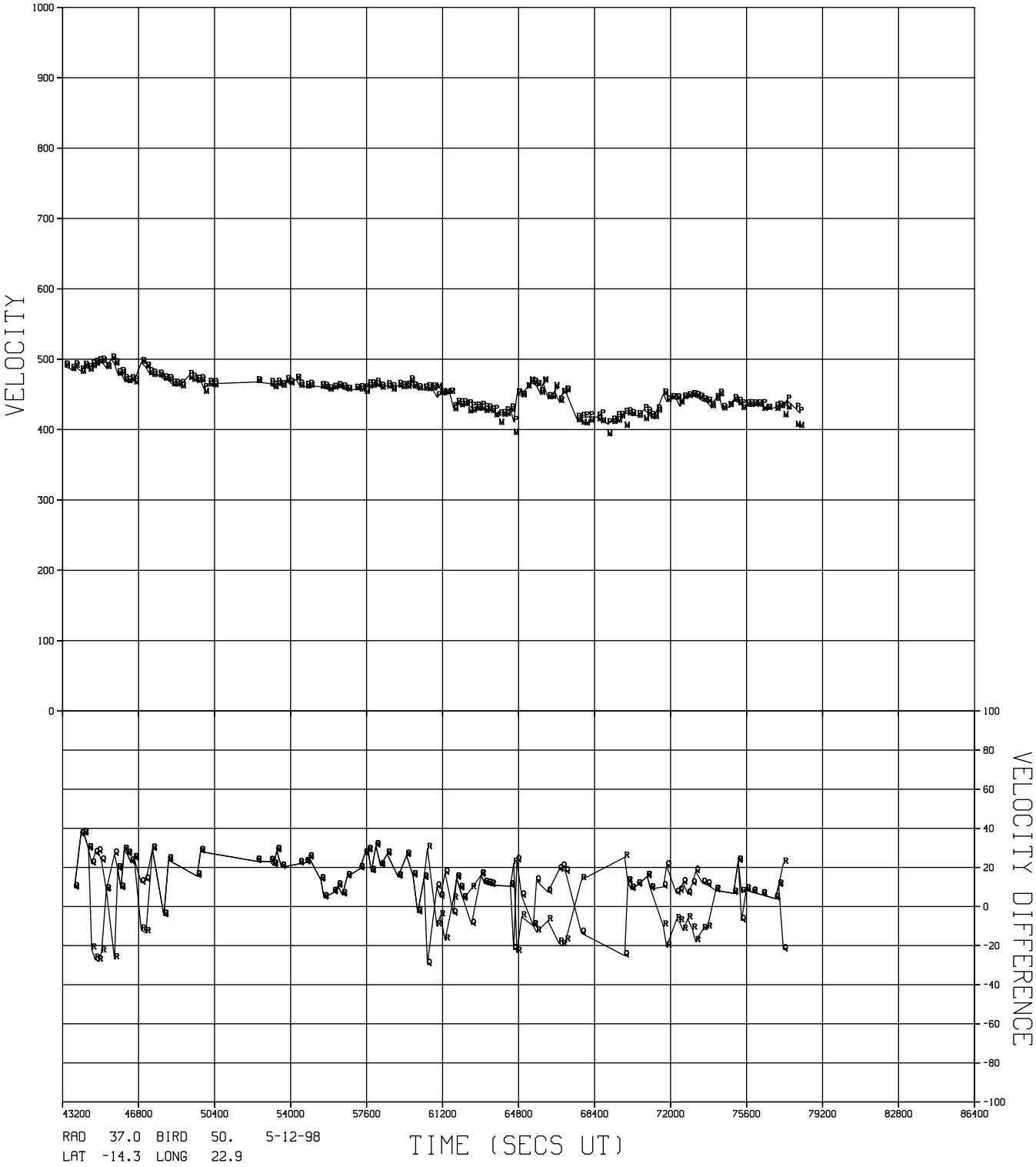

TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 36.2 BIRD 50. 5-12-98
LAT -6.5 LONG 13.3

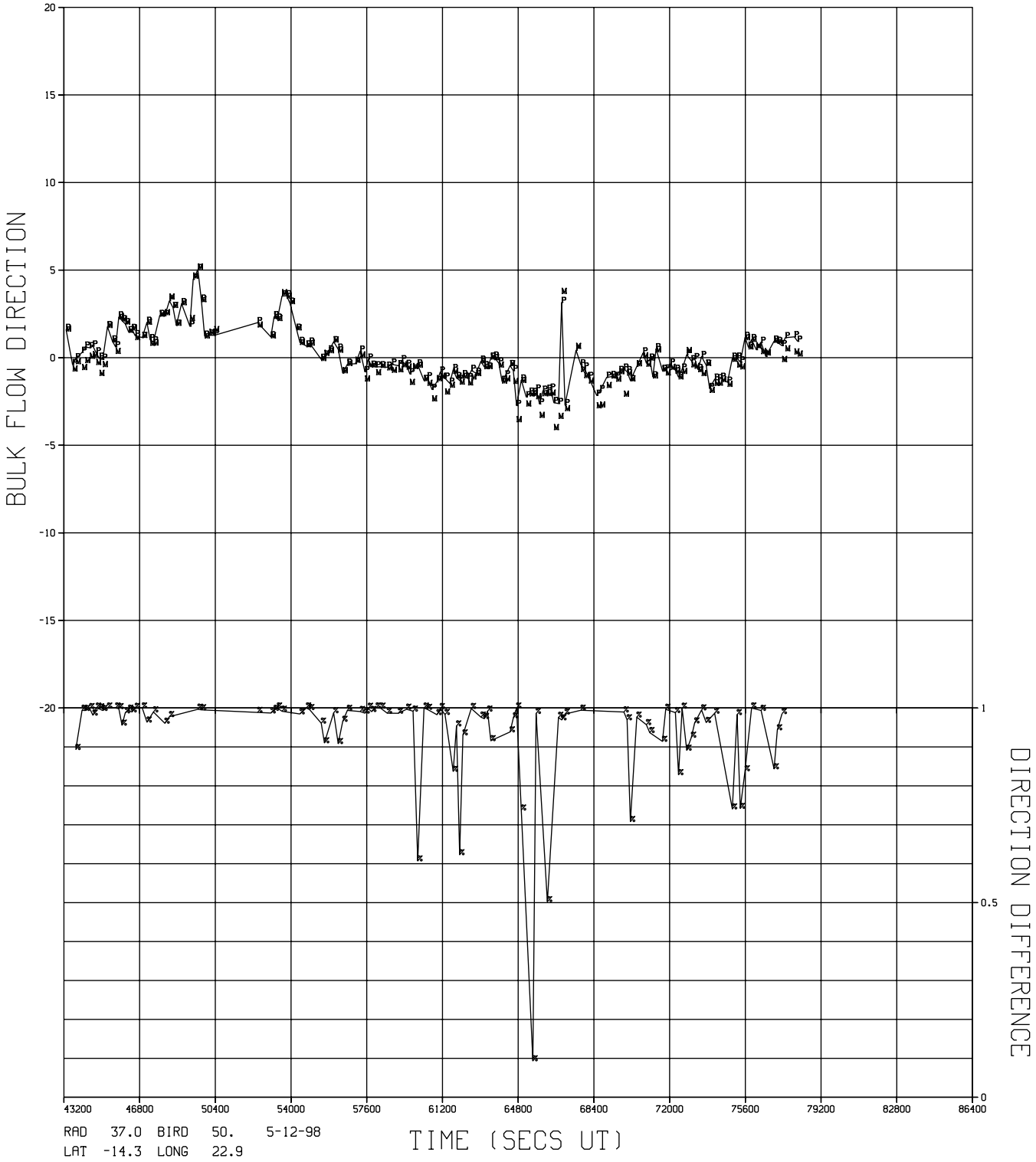

THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 36.2 BIRD 50. 5-12-98
LAT -6.5 LONG 13.3

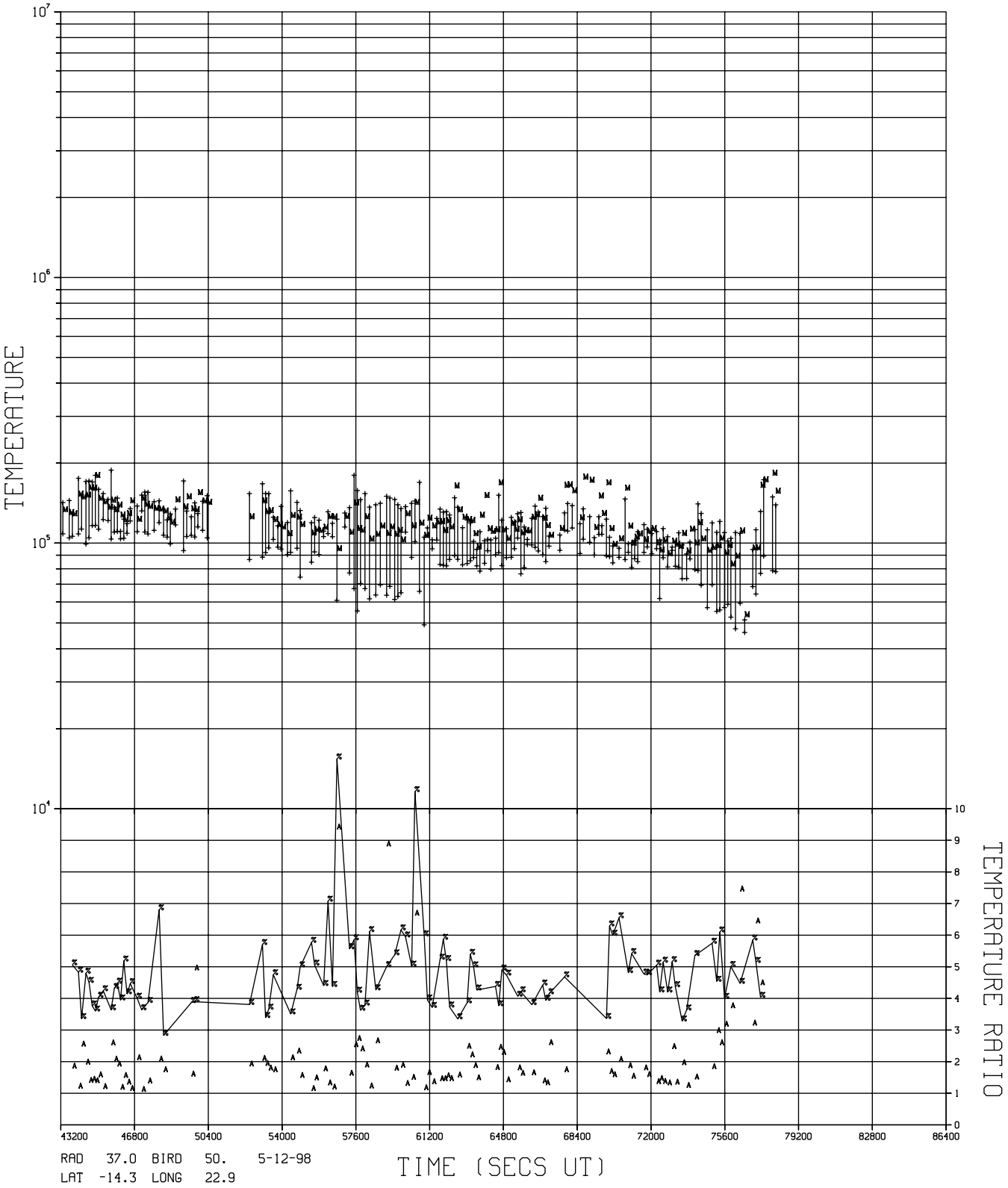

PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 36.2 BIRD 50. 5-12-98
LAT -6.5 LONG 13.3

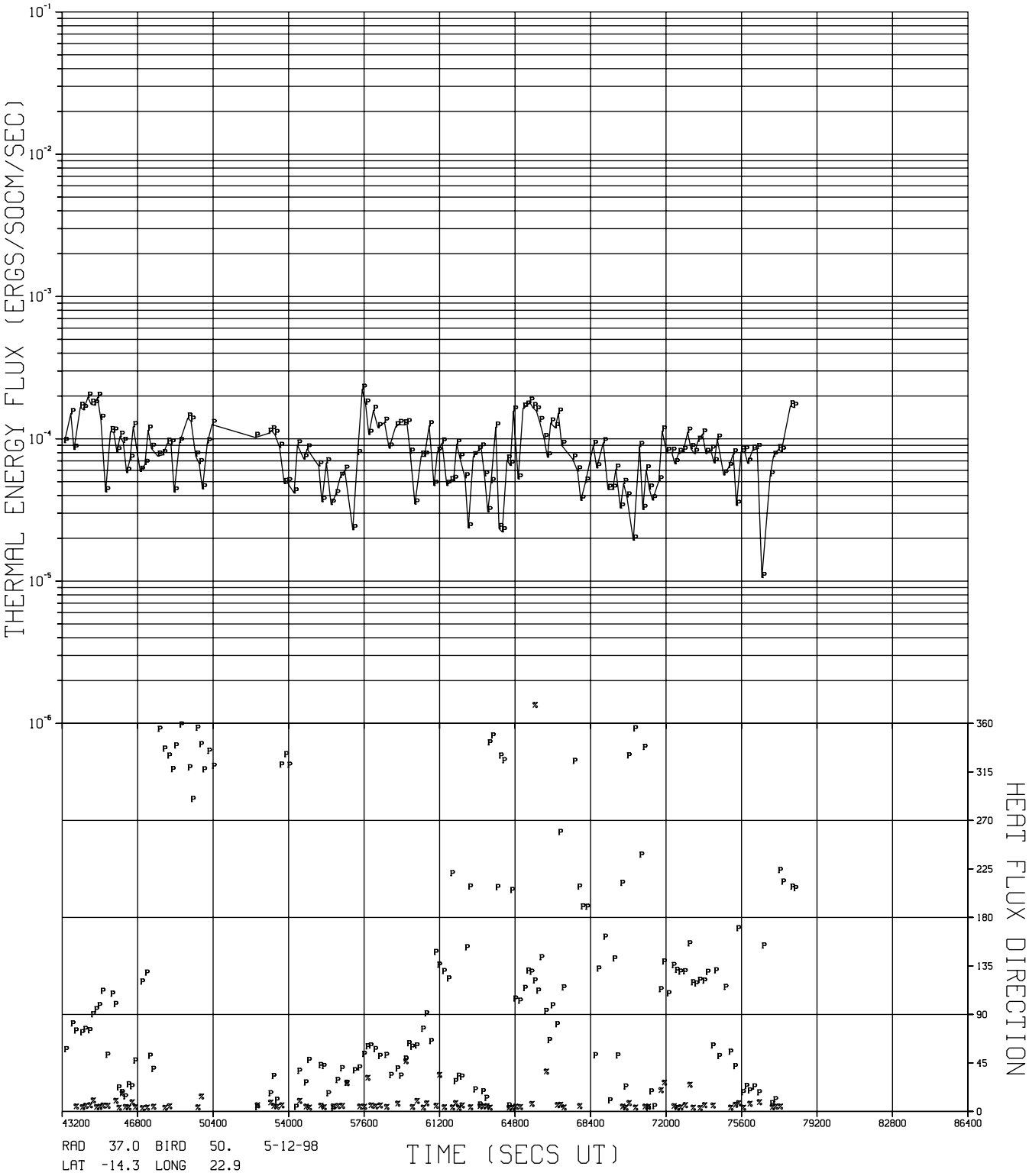

DIMENSIONLESS HEAT FLUX AND VC
1.0
0.5
0.0
ARCTAN(QPAR/QPER)
360.0
315.0
270.0
225.0
180.0
135.0
90.0
45.0
0.0
0
3600
7200
10800
14400
18000
21600
25200
28800
32400
36000
39600
43200
TIME (SECS UT)
RAD 36.2 BIRD 50. 5-12-98
LAT -6.5 LONG 13.3

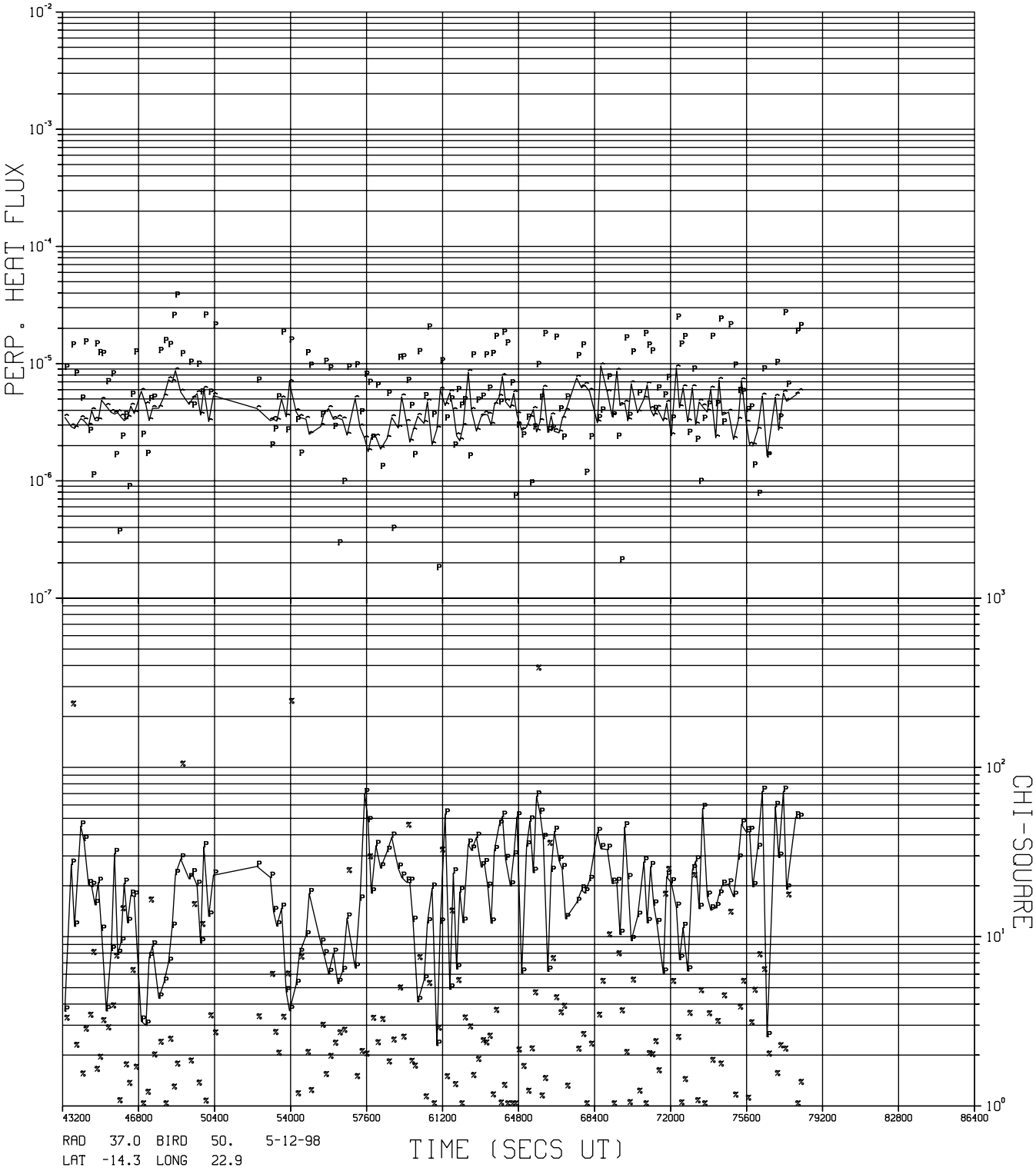

DENSITY
DENSITY RATIO
TIME (SECS UT)
43200
46800
50400
54000
57600
61200
64800
68400
72000
75600
79200
82800
86400
RAD 37.0 BIRD 50. 5-12-98
LAT -14.3 LONG 22.9

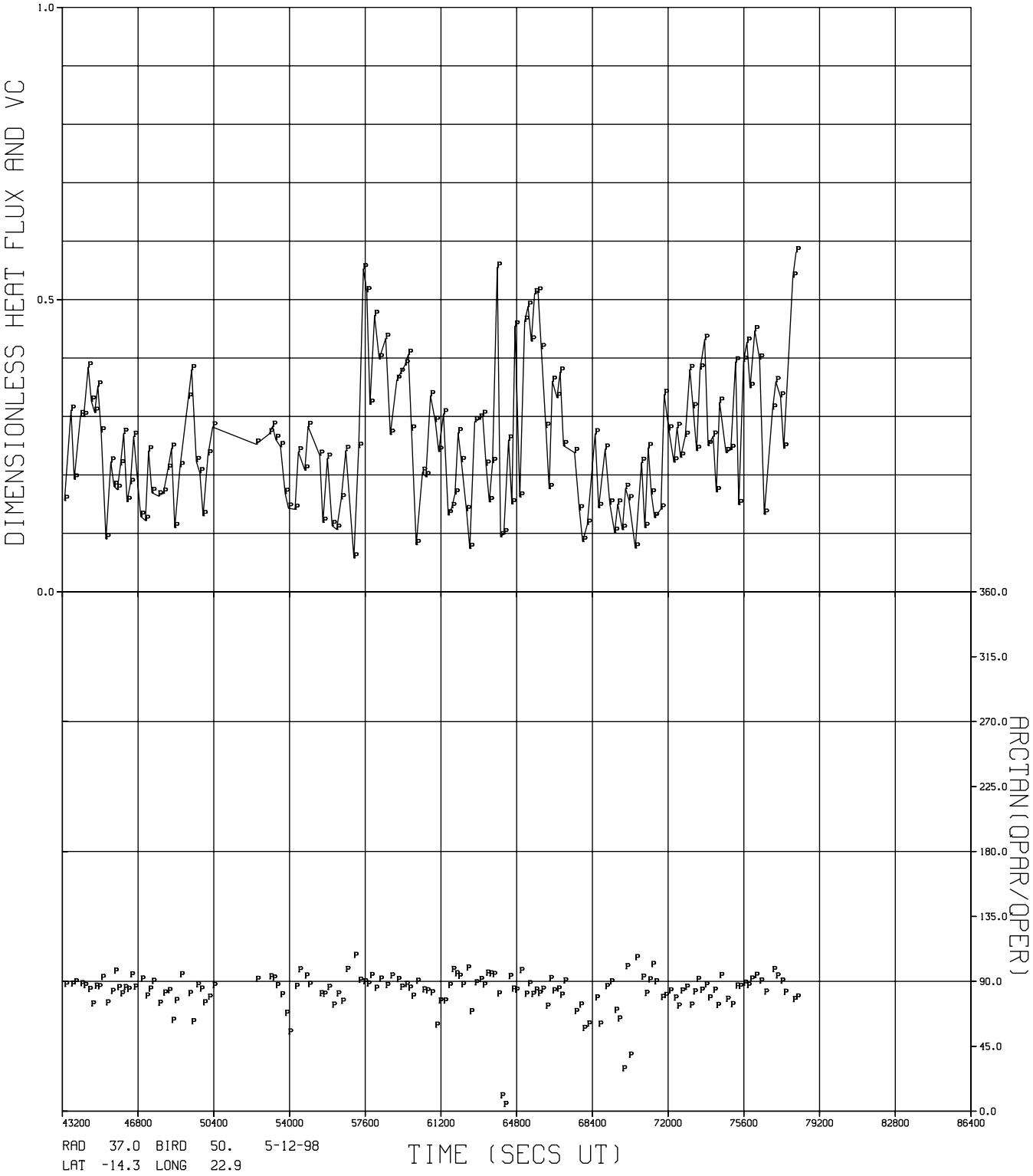

VELOCITY
VELOCITY DIFFERENCE
TIME (SECS UT)
RAD 37.0 BIRD 50. 5-12-98
LAT -14.3 LONG 22.9


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 37.0 BIRD 50. 5-12-98
LAT -14.3 LONG 22.9


TEMPERATURE
TEMPERATURE RATIO
TIME (SECS UT)
RAD 37.0 BIRD 50. 5-12-98
LAT -14.3 LONG 22.9


THERMAL ENERGY FLUX (ERGS/SQCM/SEC)
HEAT FLUX DIRECTION
TIME (SECS UT)
RAD 37.0 BIRD 50. 5-12-98
LAT -14.3 LONG 22.9


PERP. HEAT FLUX
CHI-SQUARE
TIME (SECS UT)
RAD 37.0 BIRD 50. 5-12-98
LAT -14.3 LONG 22.9


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 37.0 BIRD 50. 5-12-98
LAT -14.3 LONG 22.9