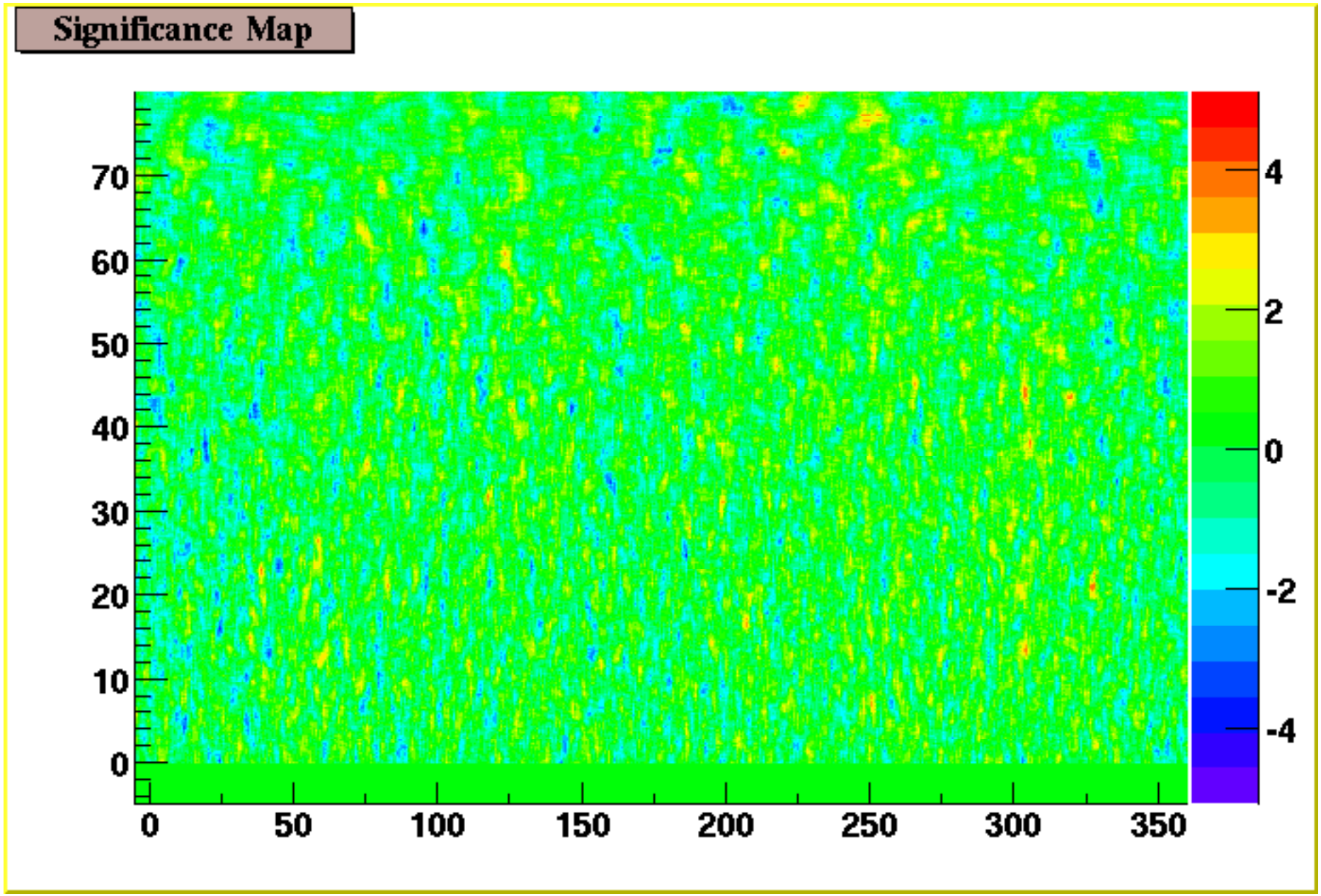
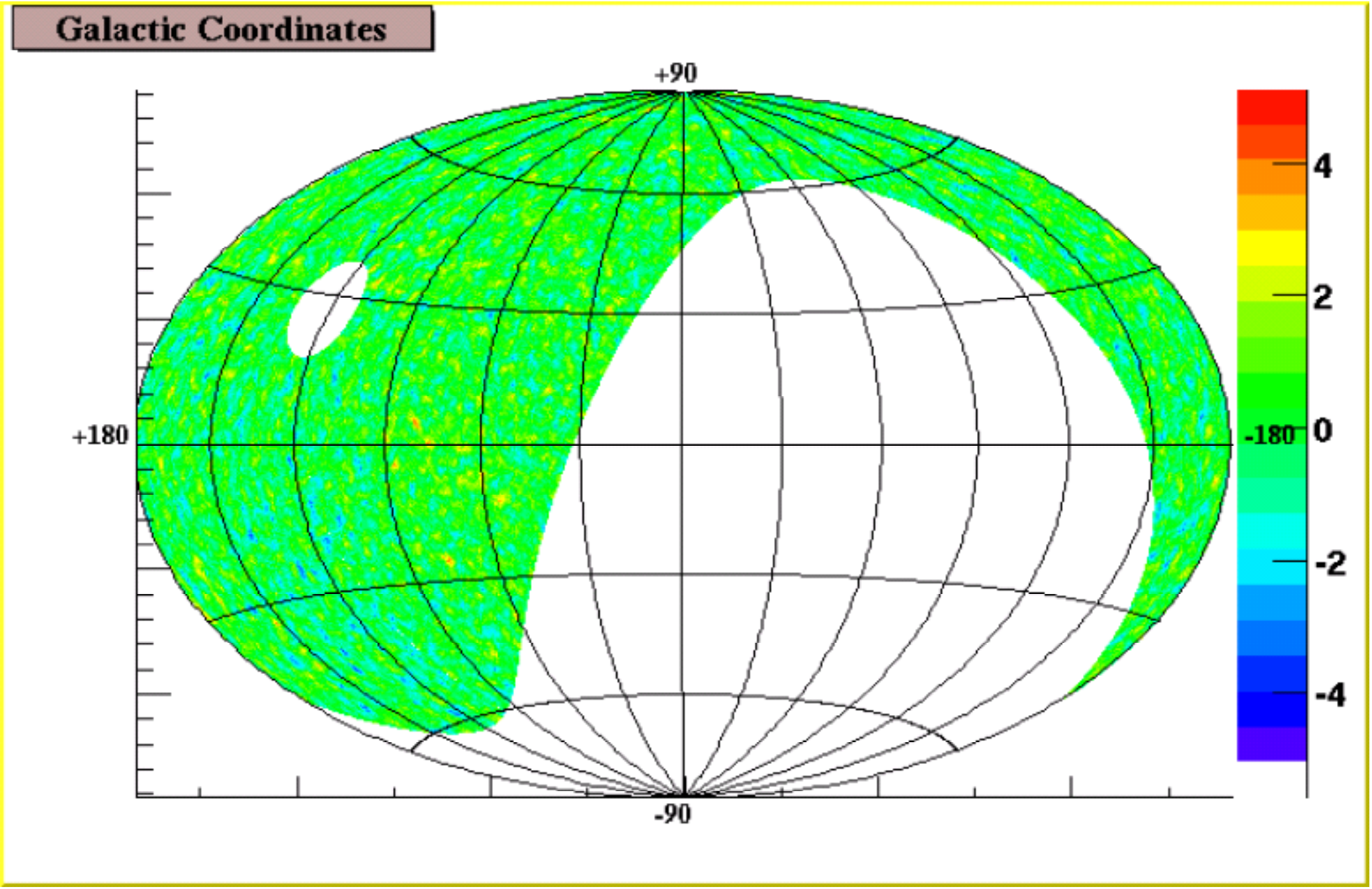
>2 Hour Online Transient Search

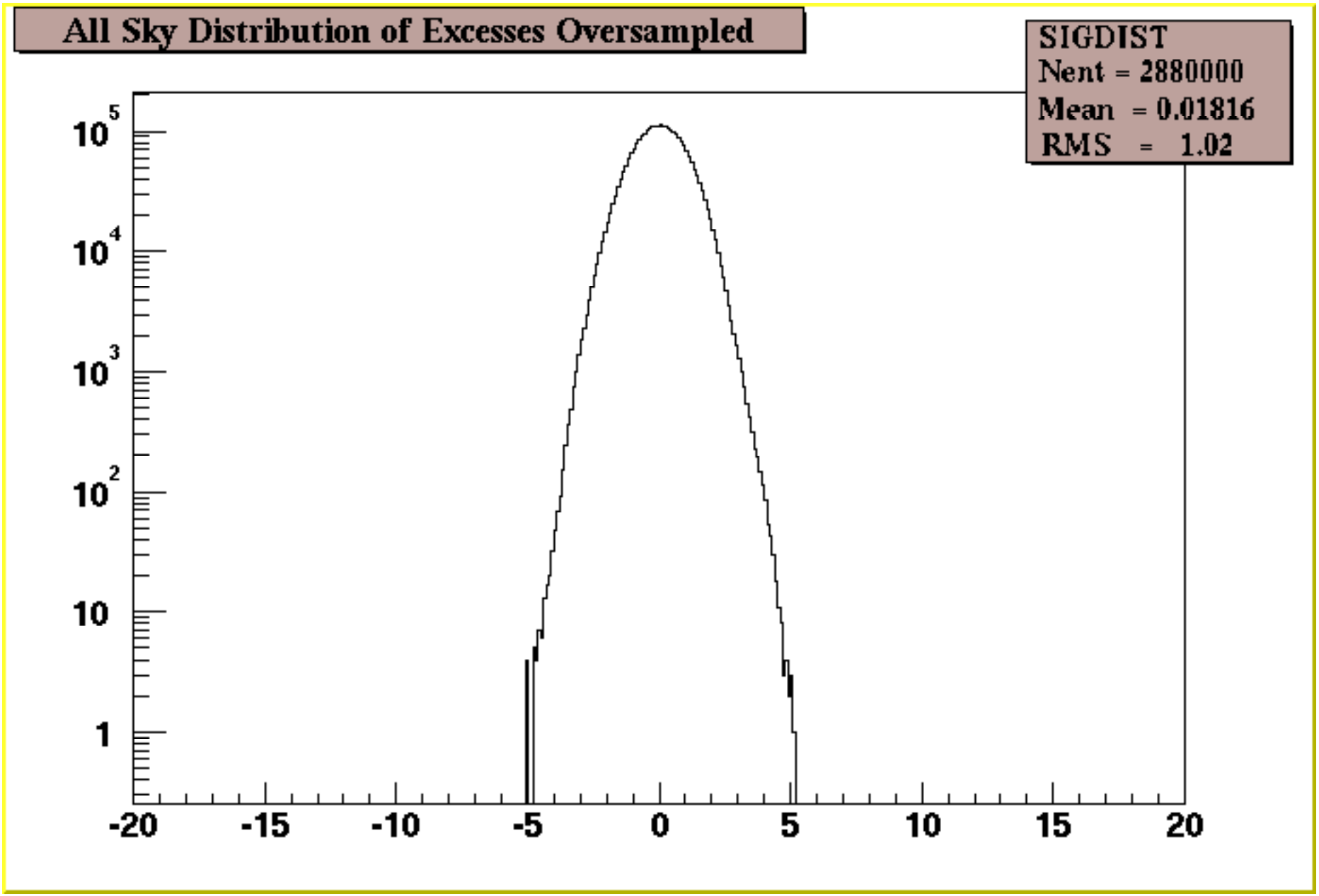
Running in real time online since Feb. 6, 2002.

Fully "databased" since Mar 4,2003.

2002-02-06 4:15:24 UT -> 2003-03-23 00:11:18 UT




Galactic Coordinates
+90
+180
-180
-90
4
2
0
-2
-4

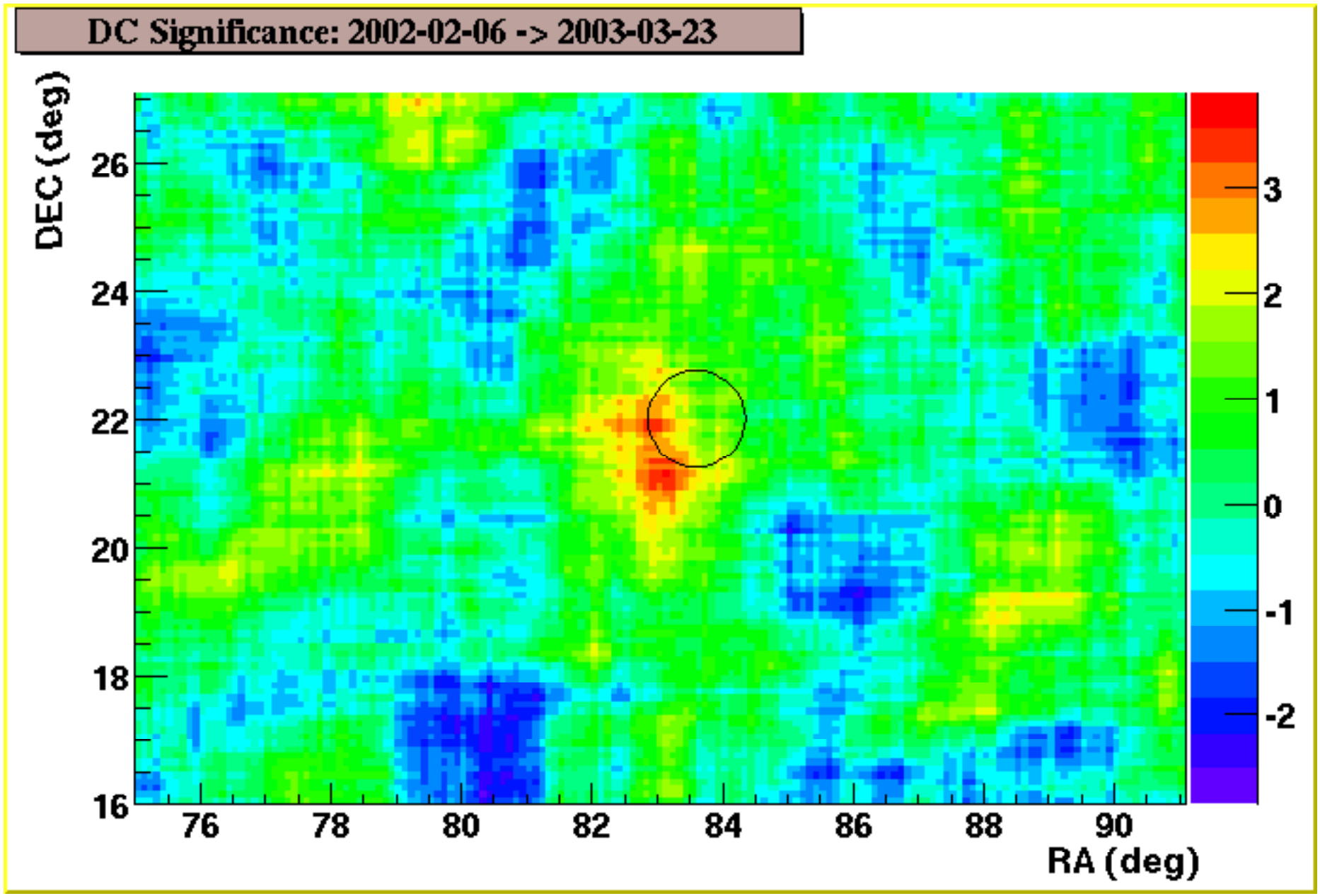

All Sky Distribution of Excesses Oversampled
SIGDIST
Nent = 2880000
Mean = 0.01816
RMS = 1.02
10^5
10^4
10^3
10^2
10
1
-20
-15
-10
-5
0
5
10
15
20

DC Map Hot Spots

Back to Search Results

>4.0 Sigma Locations				
RA (deg)	DEC (deg)	nOn	nExpected	Sigma
35.50	14.90	1126853	1121934.75	4.81
39.20	23.00	1728211	1722947.38	4.16
58.70	26.40	1921863	1916183.12	4.26
61.20	12.80	976397	972532.38	4.06
118.00	31.80	2234771	2228342.25	4.48
198.80	30.90	2176317	2170142.75	4.36
205.30	49.60	1849934	1844698.50	4.06
253.10	77.30	325868	323842.75	4.09
266.20	45.00	2235836	2229865.75	4.19
304.20	44.00	2176476	2170007.00	4.60
304.20	13.40	1011604	1007104.12	4.64
305.90	38.10	2361497	2353998.00	5.10
319.50	43.40	2228659	2221760.25	4.85
327.50	20.80	1569185	1563216.62	4.95

Crab bin
On: 1645818 Off: 1644425 Sigmas: 1.13

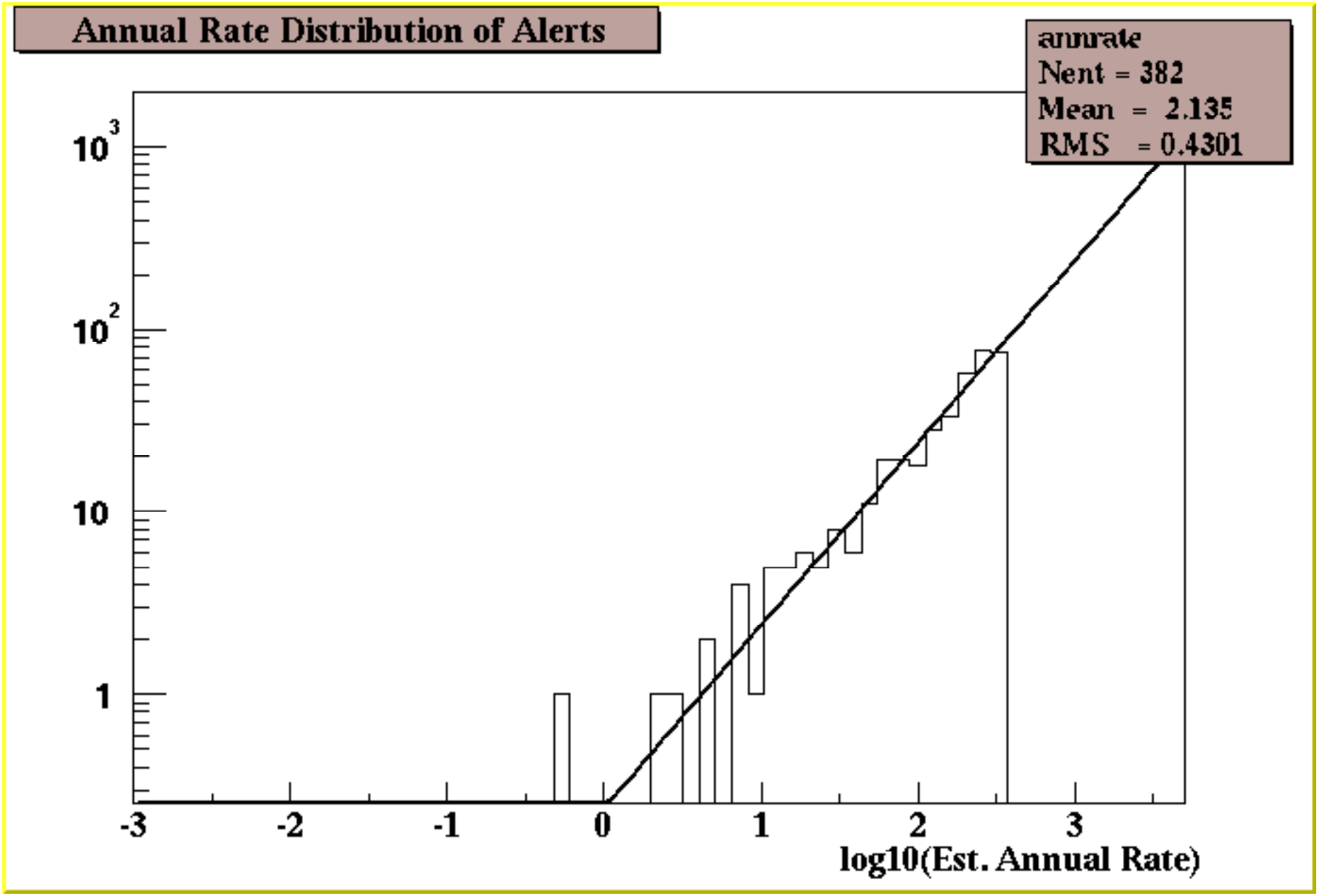


Hot Spots Report
From Mar 4, 2002
To Mar 27,2003

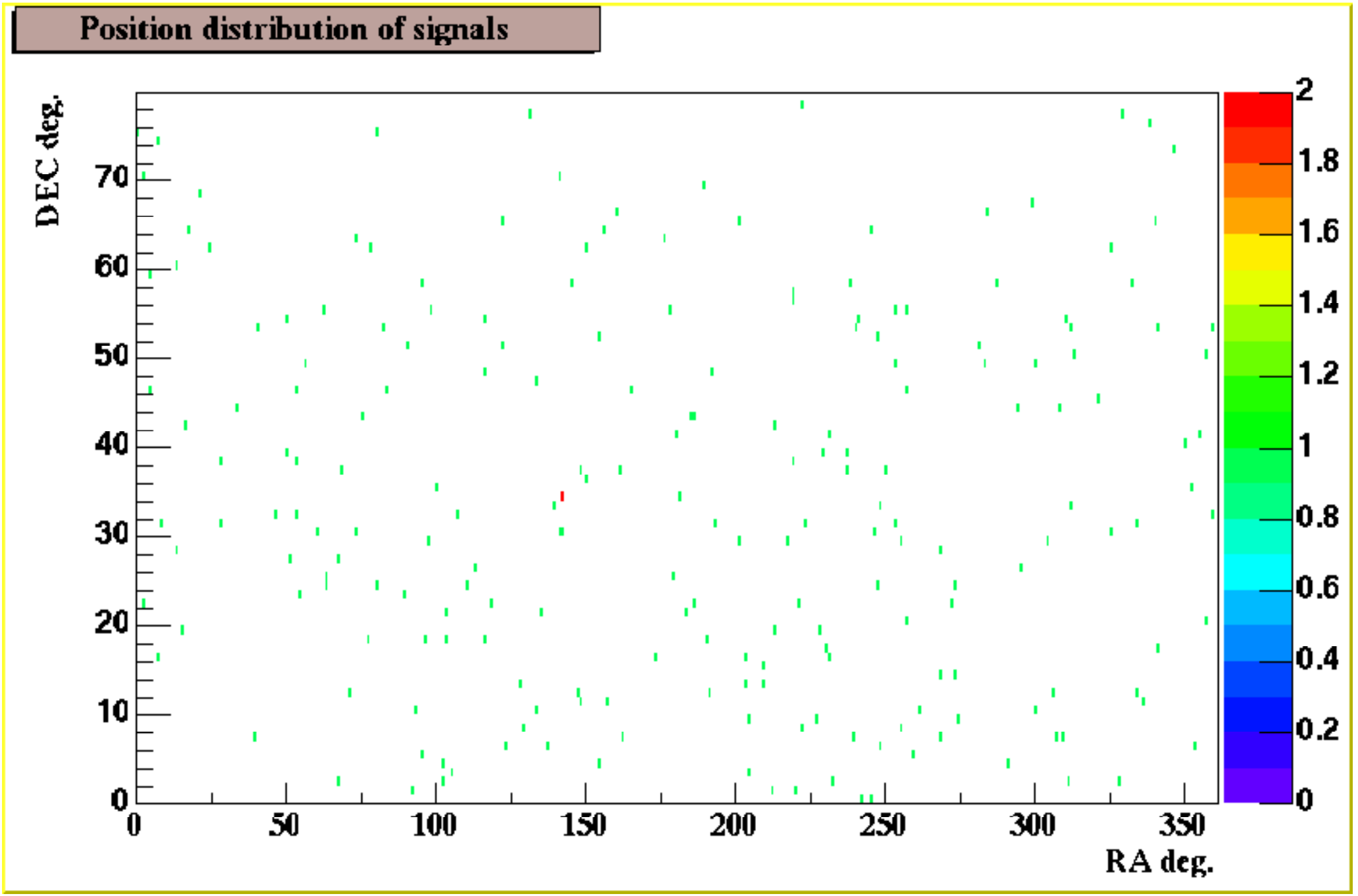
382 Alerts all time scales
214 2 hour alerts
63 day alerts
95 overlapping day alerts (repeat bug ~30)
9 week alerts
1 month alert

Conclusion: Rebalancing needed!

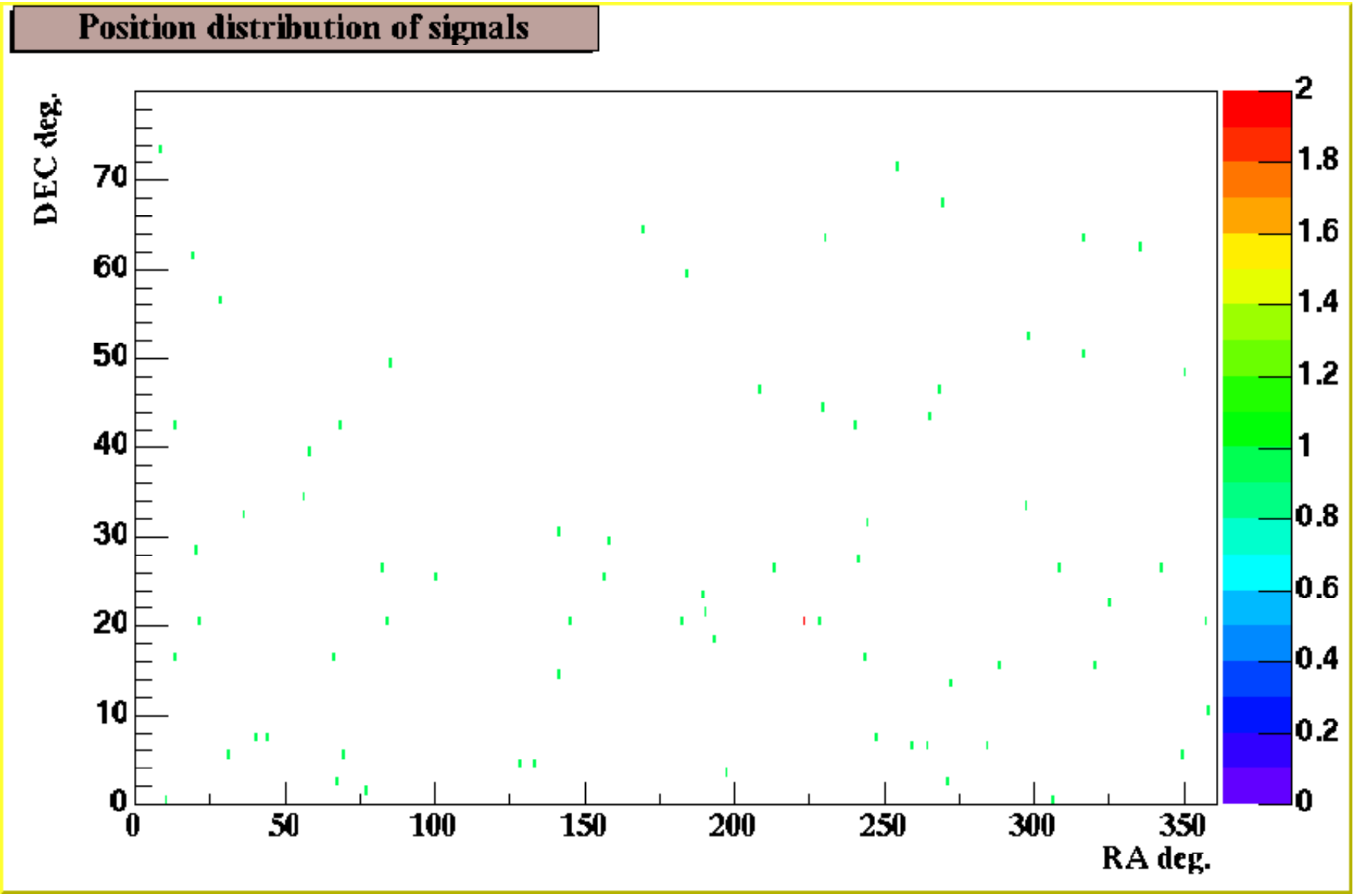
Also start monitoring alerts at lower thresholds.


Annual Rate Distribution of Alerts
annrate
Nent = 382
Mean = 2.135
RMS = 0.4301
10^3
10^2
10
1
-3
-2
-1
0
1
2
3
log10(Est. Annual Rate)

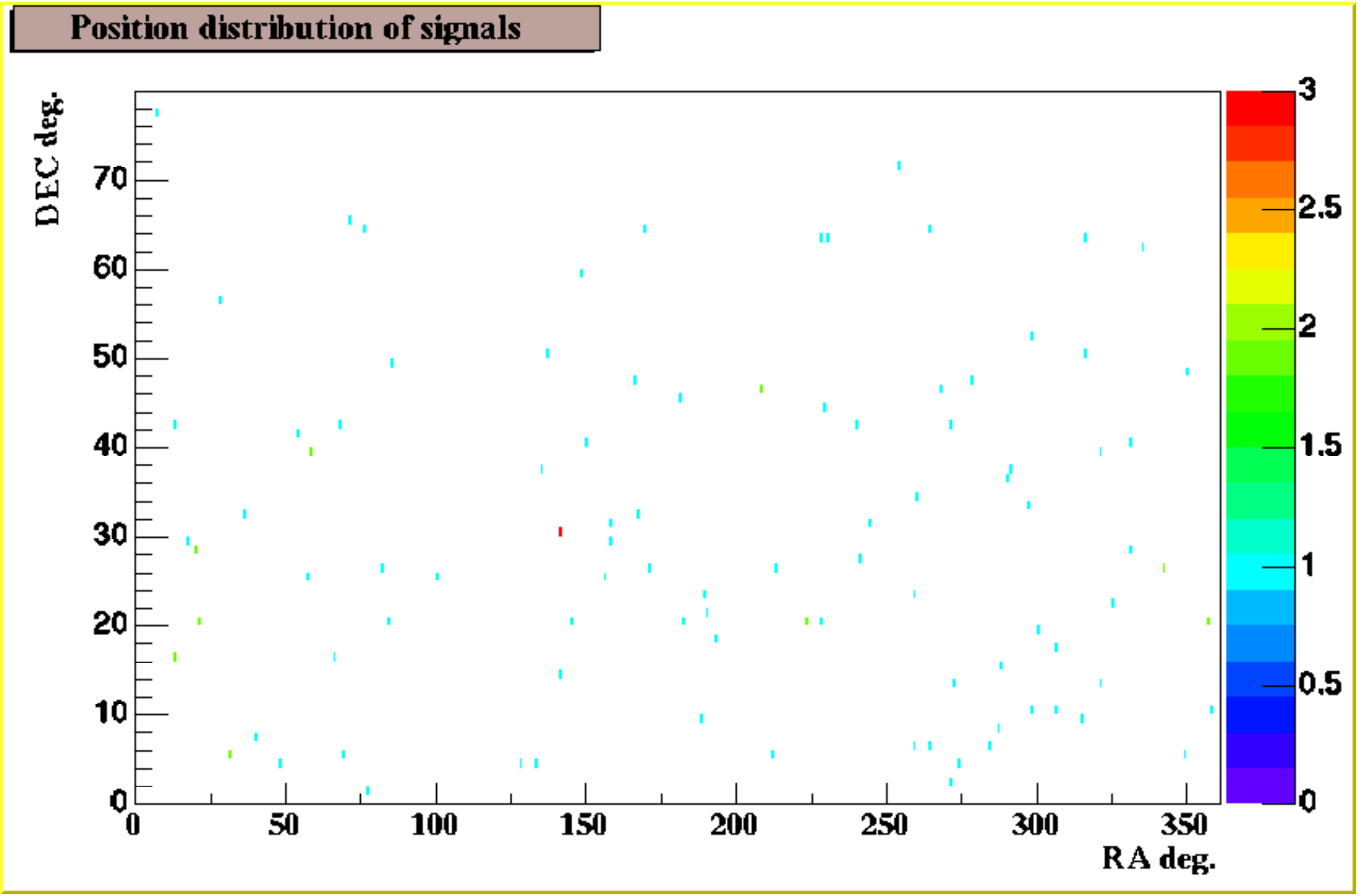
2 Hour time scale alerts >~5.2 sigma



Day, Week, Month time scale alerts >~5 sigma



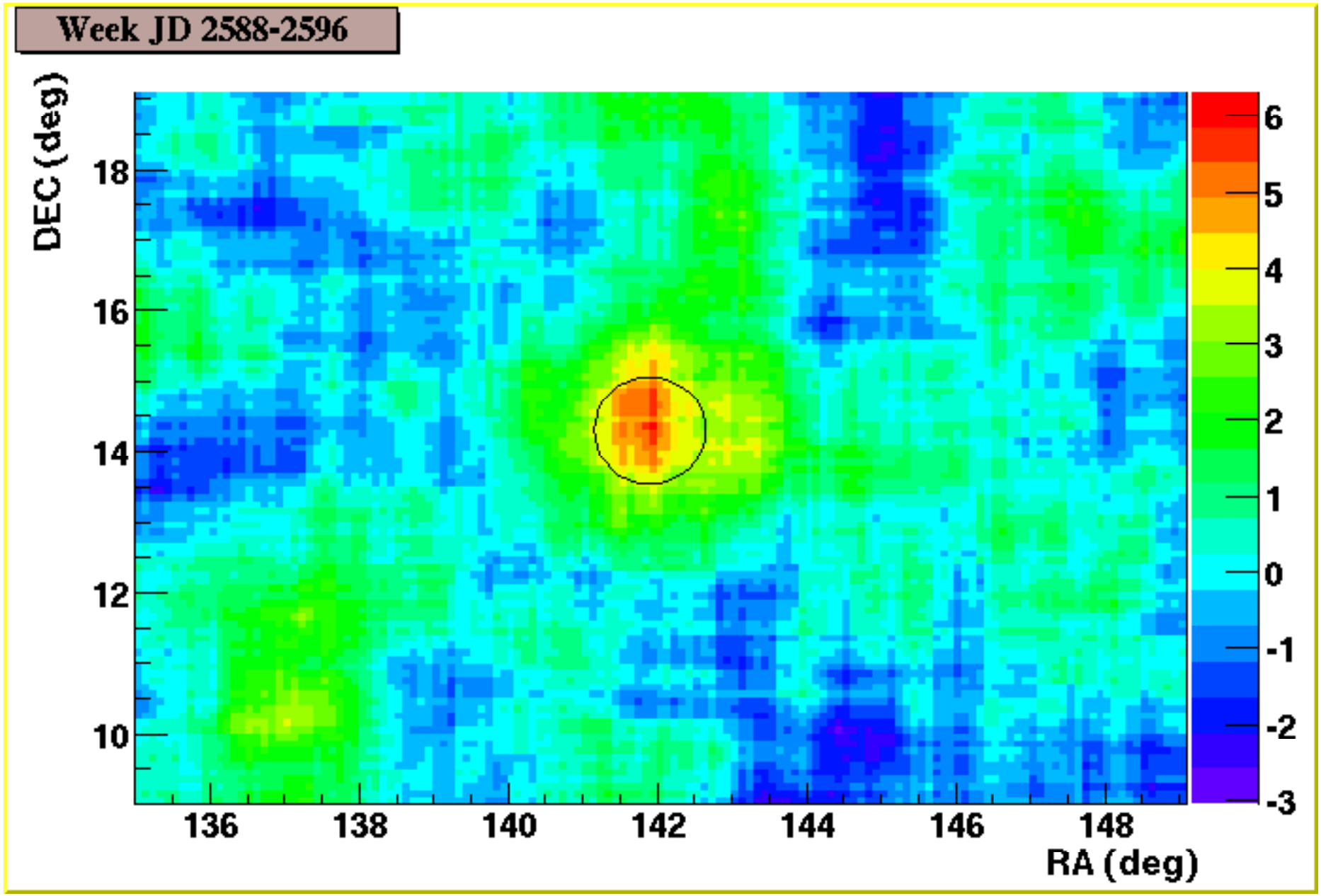
Overlapping Day, Week, Month >~ 5 sigma

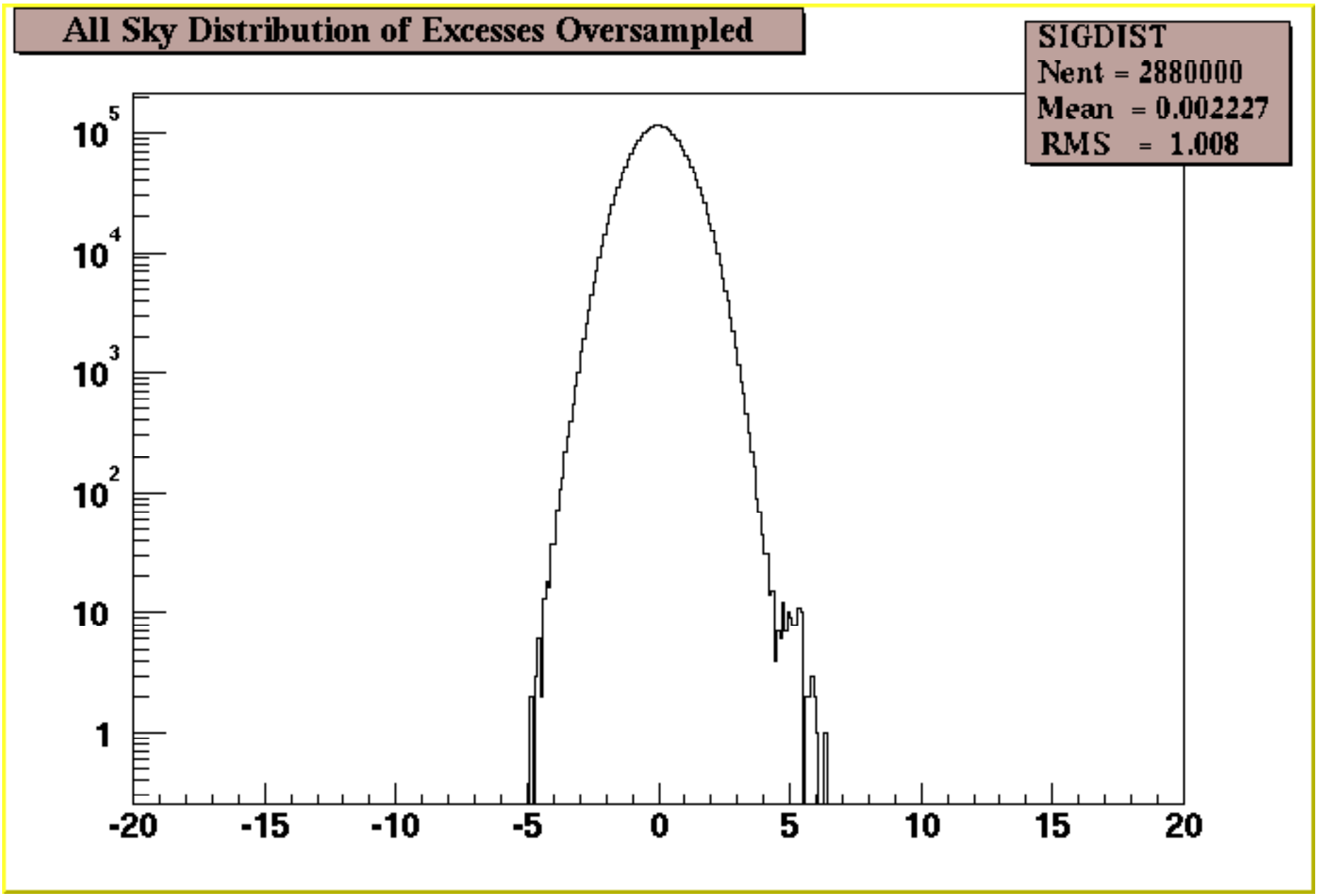


Most Significant Location

Week Map: 2001-11-10 00:22 2002-11-18 19:53
RA 141.9, DEC 14.3
On: 19252
Off:18425.9
Excess: 826.1
Sigma: 6.33

Note: Map includes calibration version change


Week JD 2588-2596
DEC (deg)
18
16
14
12
10
136
138
140
142
144
146
148
RA (deg)
6
5
4
3
2
1
0
-1
-2
-3


All Sky Distribution of Excesses Oversampled
SIGDIST
Nent = 2880000
Mean = 0.002227
RMS = 1.008
10^5
10^4
10^3
10^2
10
1
-20
-15
-10
-5
0
5
10
15
20

Why Stop There?

The search runs stably. We understand the alert rates fairly well. Time to start making some of these alerts available.

Some ideas for a public web page:

Timescales longer than a day are most interesting for flares.

By monitoring alerts at a lower threshold, we can pick up on likely candidates for low level flaring (recent MKN 421 behaviour).