

Update on 2011 Houston air quality and H-NET

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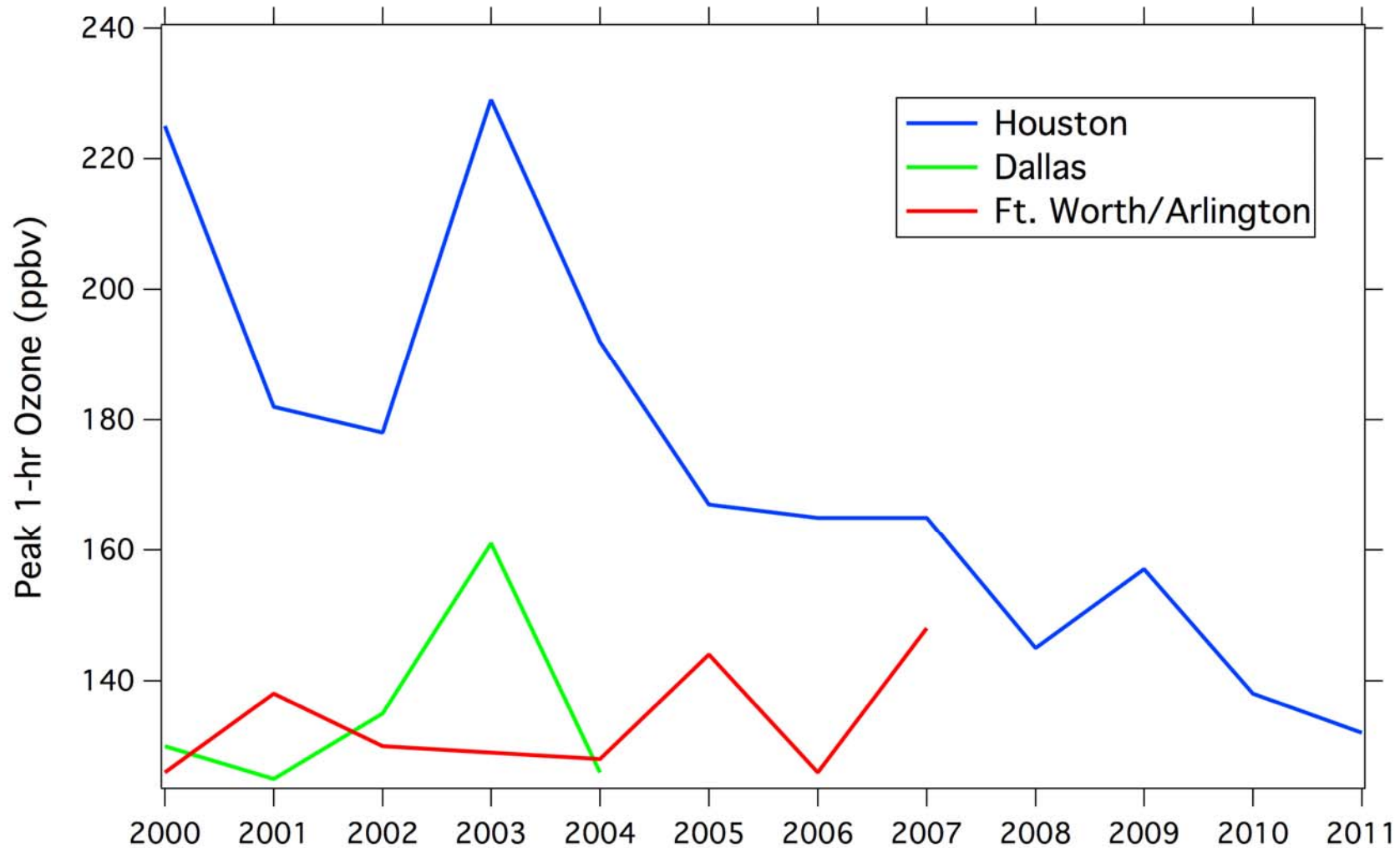
Number of 8-hr Ozone Exceedances



As of 22 August 2011, for all monitors, different number monitors over time

http://www.tceq.state.tx.us/cgi-bin/compliance/monops/ozone_summary.pl

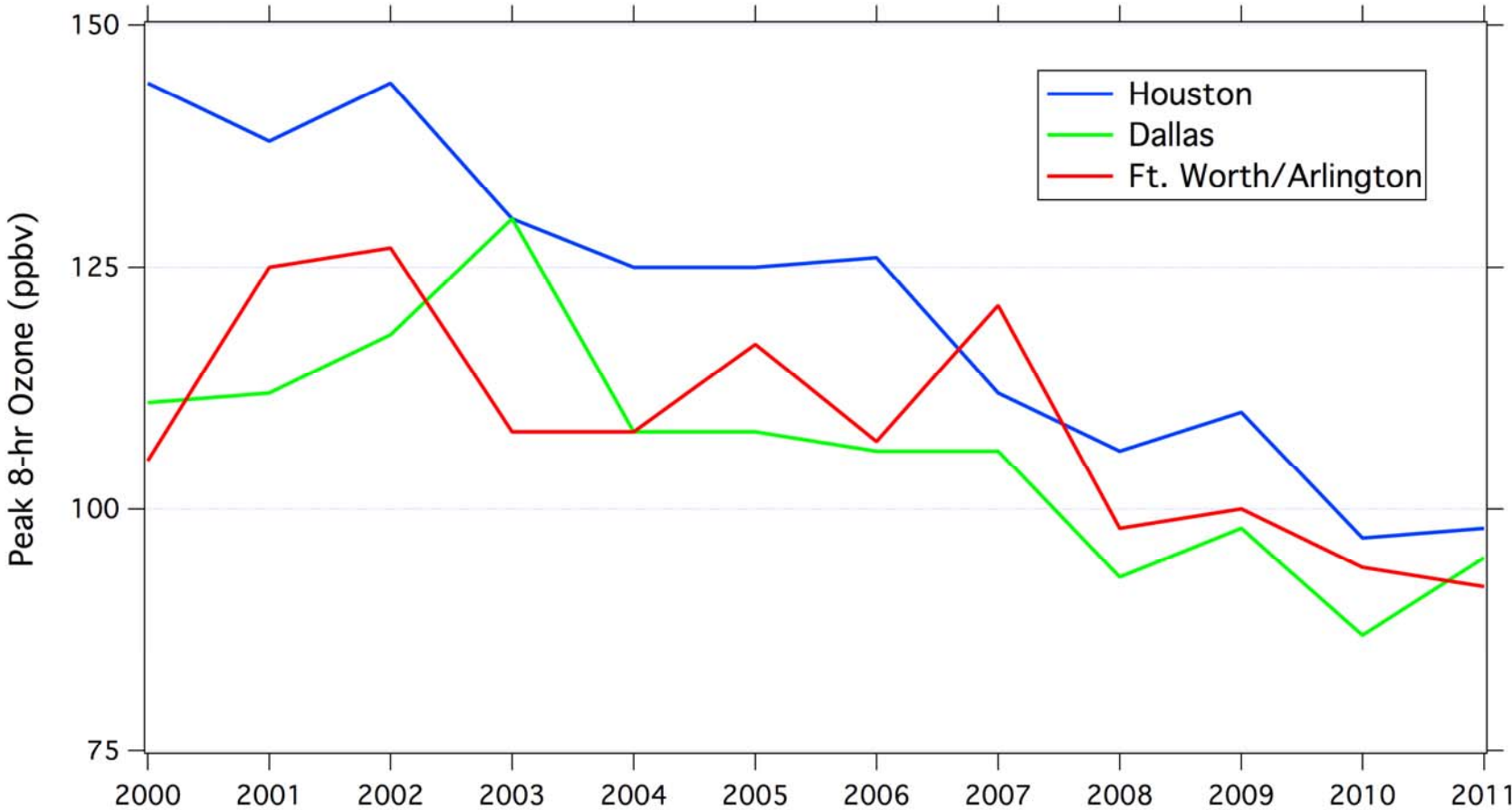
Peak 1-hr Ozone (greater than 125 ppbv)



As of 22 August 2011, for all monitors, different number monitors over time

http://www.tceq.state.tx.us/cgi-bin/compliance/monops/ozone_summary.pl

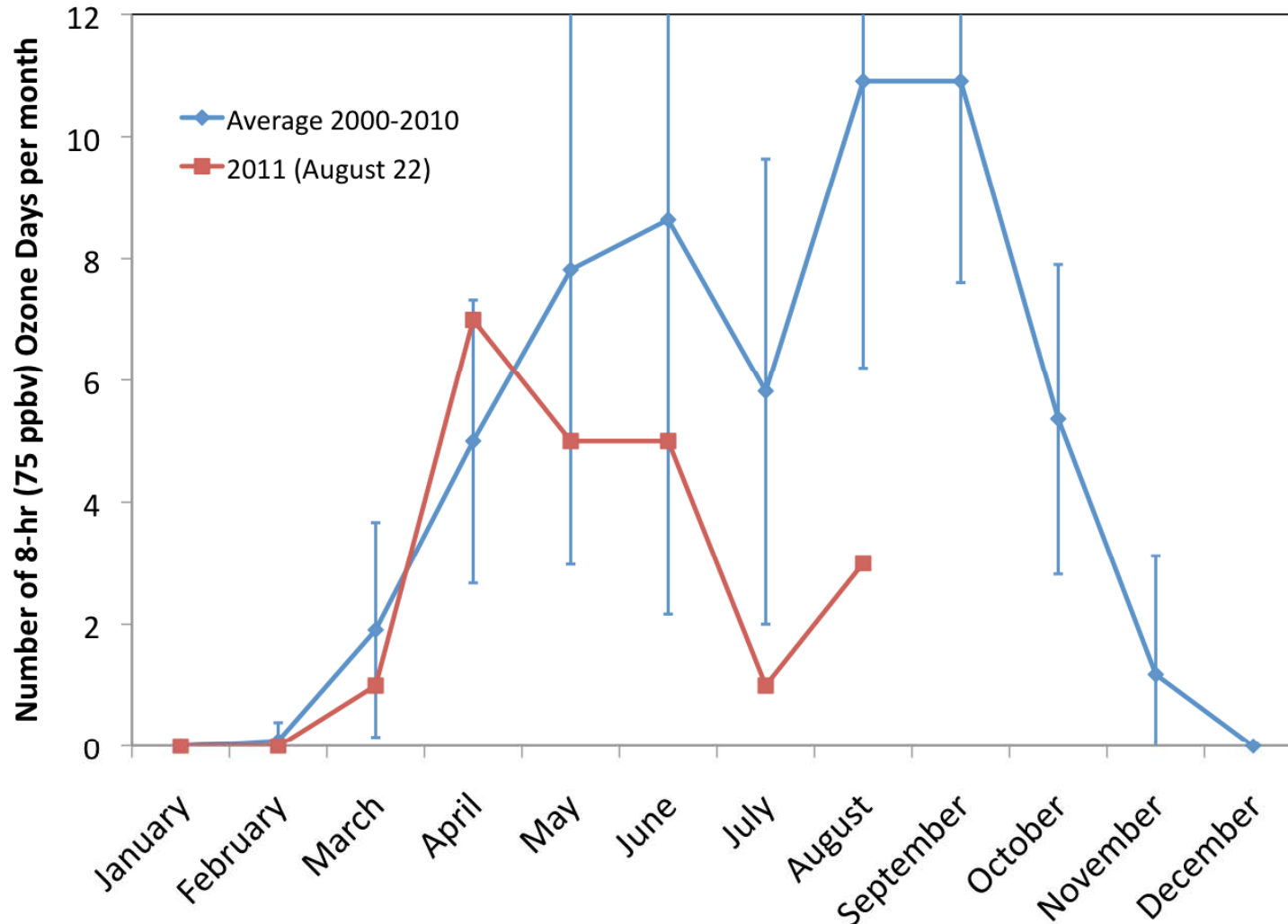
Peak 8-hr Ozone



As of 22 August 2011, for all monitors, different number monitors over time

http://www.tceq.state.tx.us/cgi-bin/compliance/monops/ozone_summary.pl

Monthly 8-hr Ozone Event Distribution



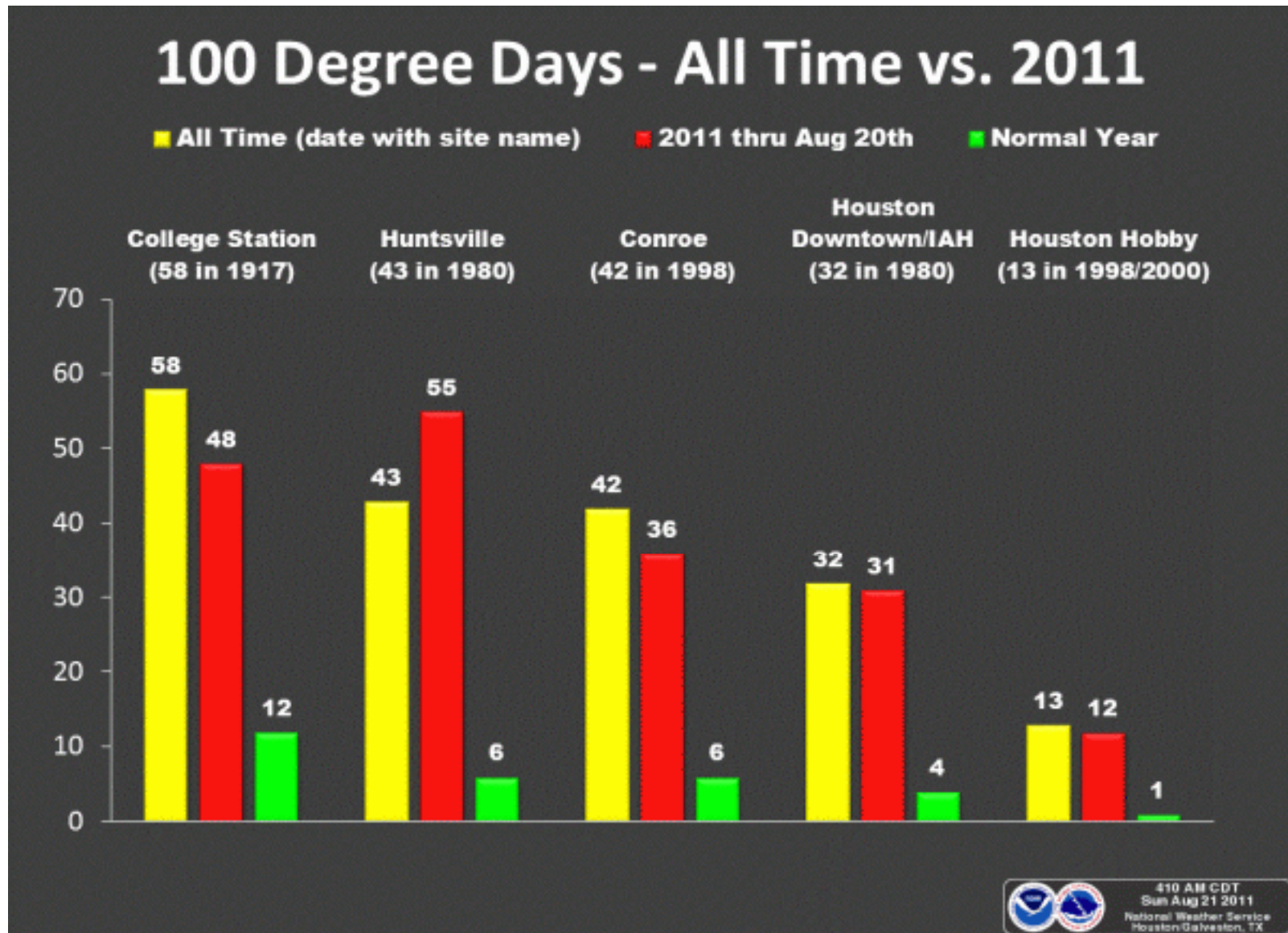
As of 22 August 2011, for all monitors, different number monitors over time

http://www.tceq.state.tx.us/cgi-bin/compliance/monops/8hr_monthly.pl

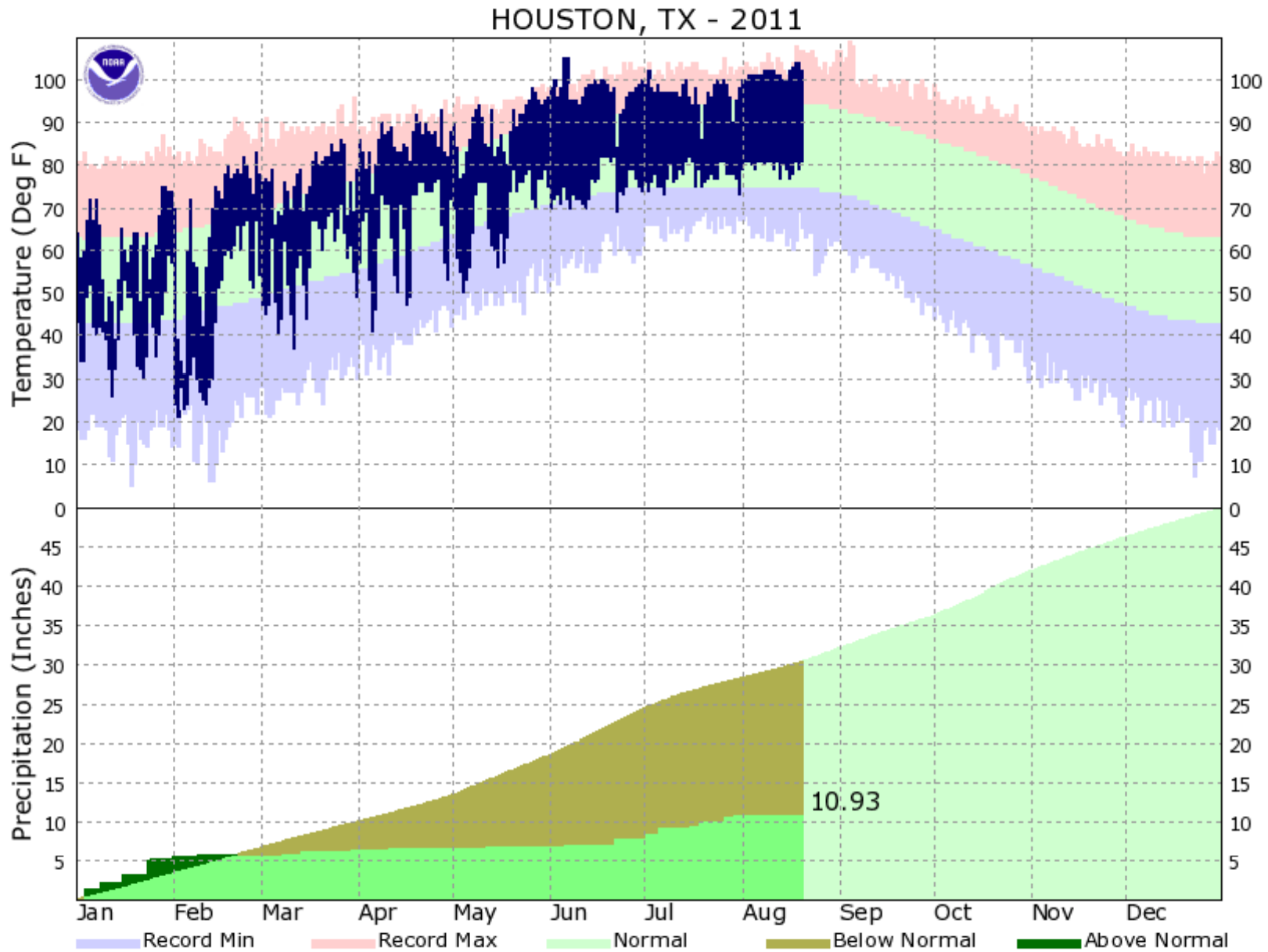
Temperatures Last Week

Date	High T	Low T	Average	Departure	Rainfall
Monday	100	79	90	+5	0.00
Tuesday	102	77	90	+5	0.00
Wednesday	103	78	91	+6	0.00
Thursday	104	81	93	+8	0.00
Friday	104	79	92	+7	0.00
Saturday	102	81	92	+7	0.00
Sunday	103	75	89	+4	0.00
Average	102.6	78.6	90.6	+6	0.00

Houston Hotter than Normal 2011



Hotter and Drier



<http://www.srh.weather.gov/rtimages/hgx/KIAH2011plot.png>

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2011 Drought

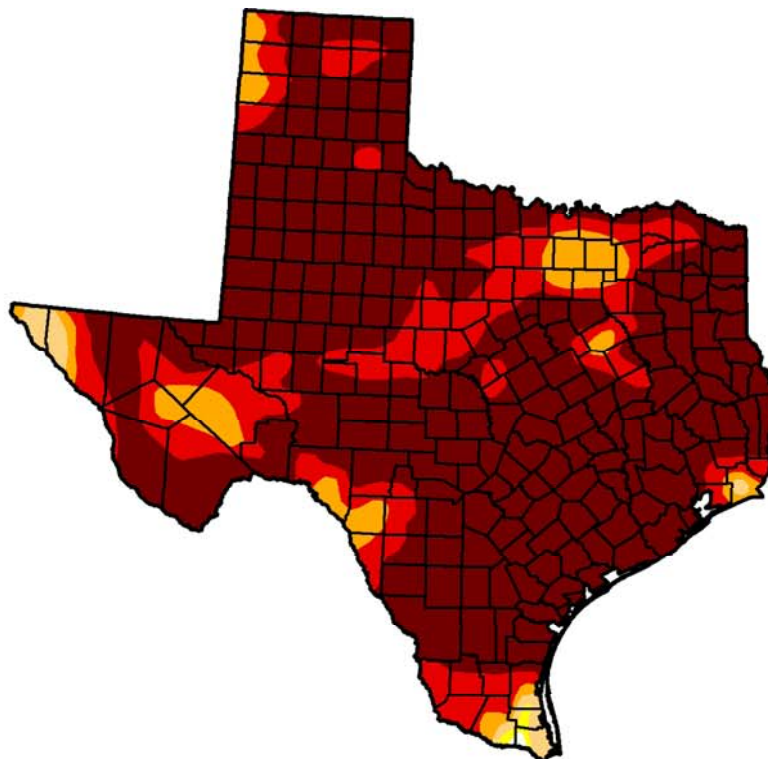
U.S. Drought Monitor

August 16, 2011

Valid 7 a.m. EST

Texas

	Drought Conditions (Percent Area)					
	None	D0-D4	D1-D4	D2-D4	D3-D4	D4
Current	0.07	99.93	99.72	98.36	92.78	74.50
Last Week (08/09/2011 map)	0.07	99.93	99.48	97.99	94.27	78.26
3 Months Ago (05/17/2011 map)	0.00	100.00	97.01	92.40	80.02	47.87
Start of Calendar Year (12/28/2010 map)	7.89	92.11	69.43	37.46	9.59	0.00
Start of Water Year (09/28/2010 map)	75.57	24.43	2.43	0.99	0.00	0.00
One Year Ago (08/10/2010 map)	90.68	9.32	2.45	0.22	0.00	0.00



Intensity:

- D0 Abnormally Dry
- D1 Drought - Moderate
- D2 Drought - Severe
- D3 Drought - Extreme
- D4 Drought - Exceptional

The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

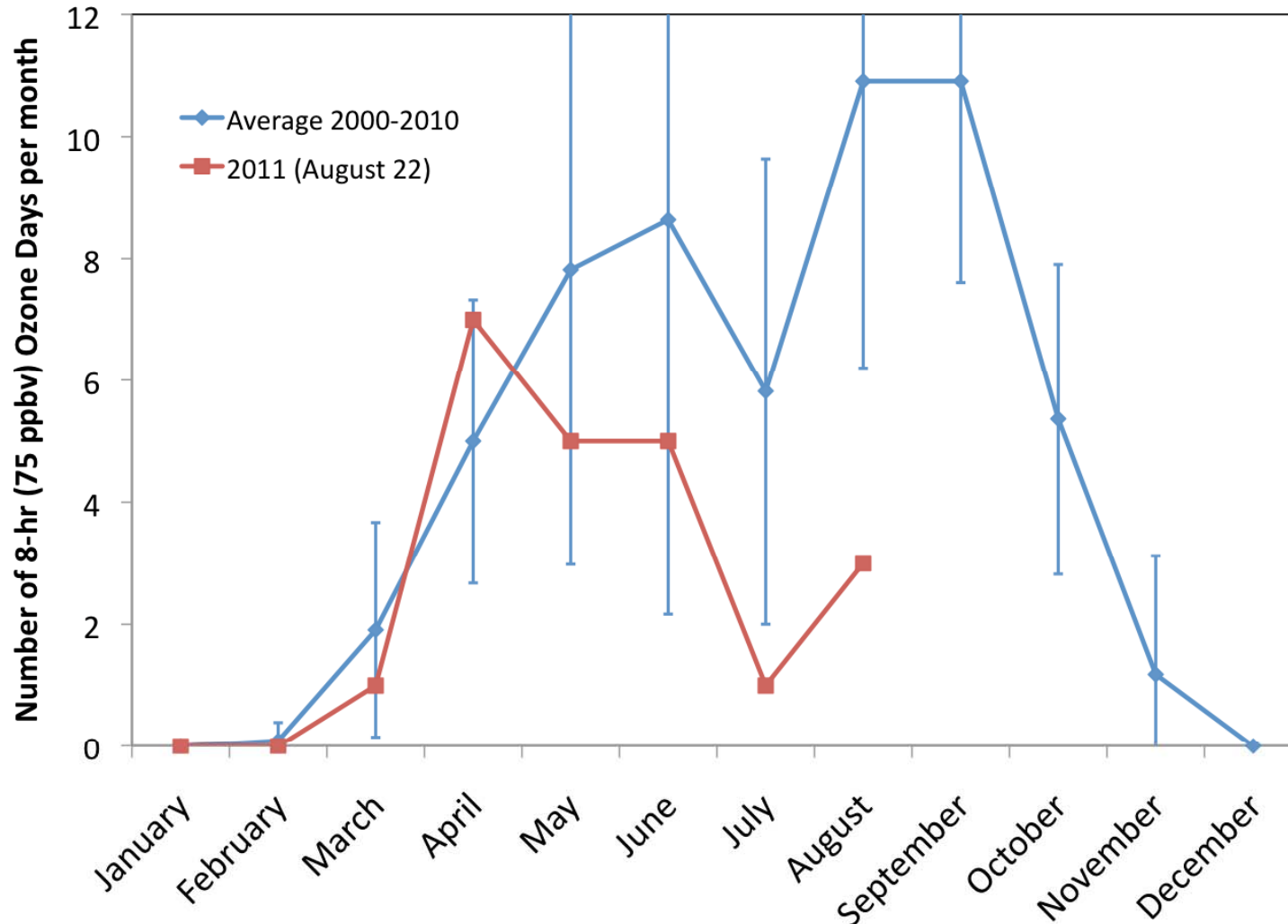


Released Thursday, August 18, 2011

Laura Edwards, Western Regional Climate Center

<http://drought.unl.edu/dm>

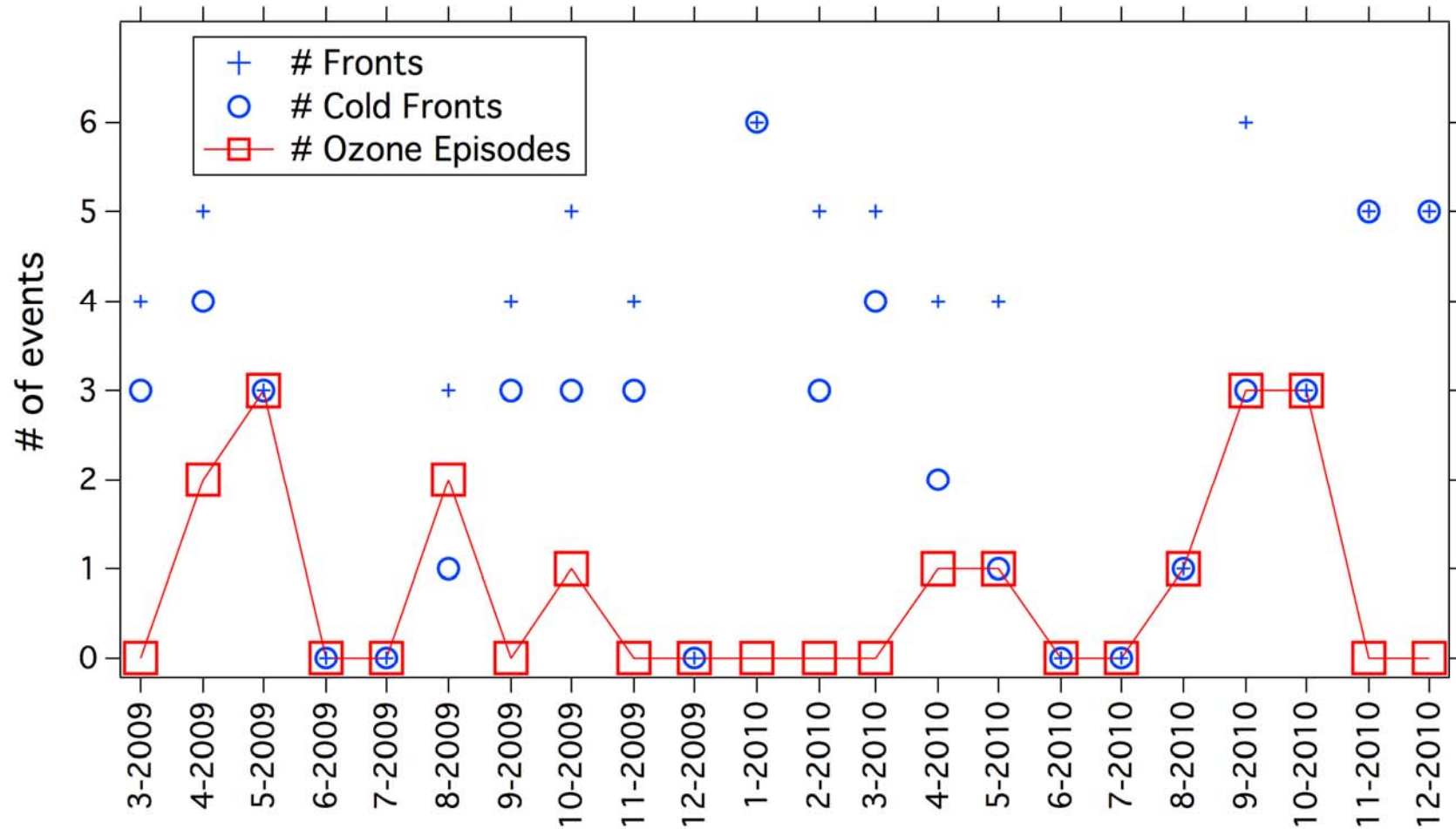
Monthly 8-hr Ozone Event Distribution



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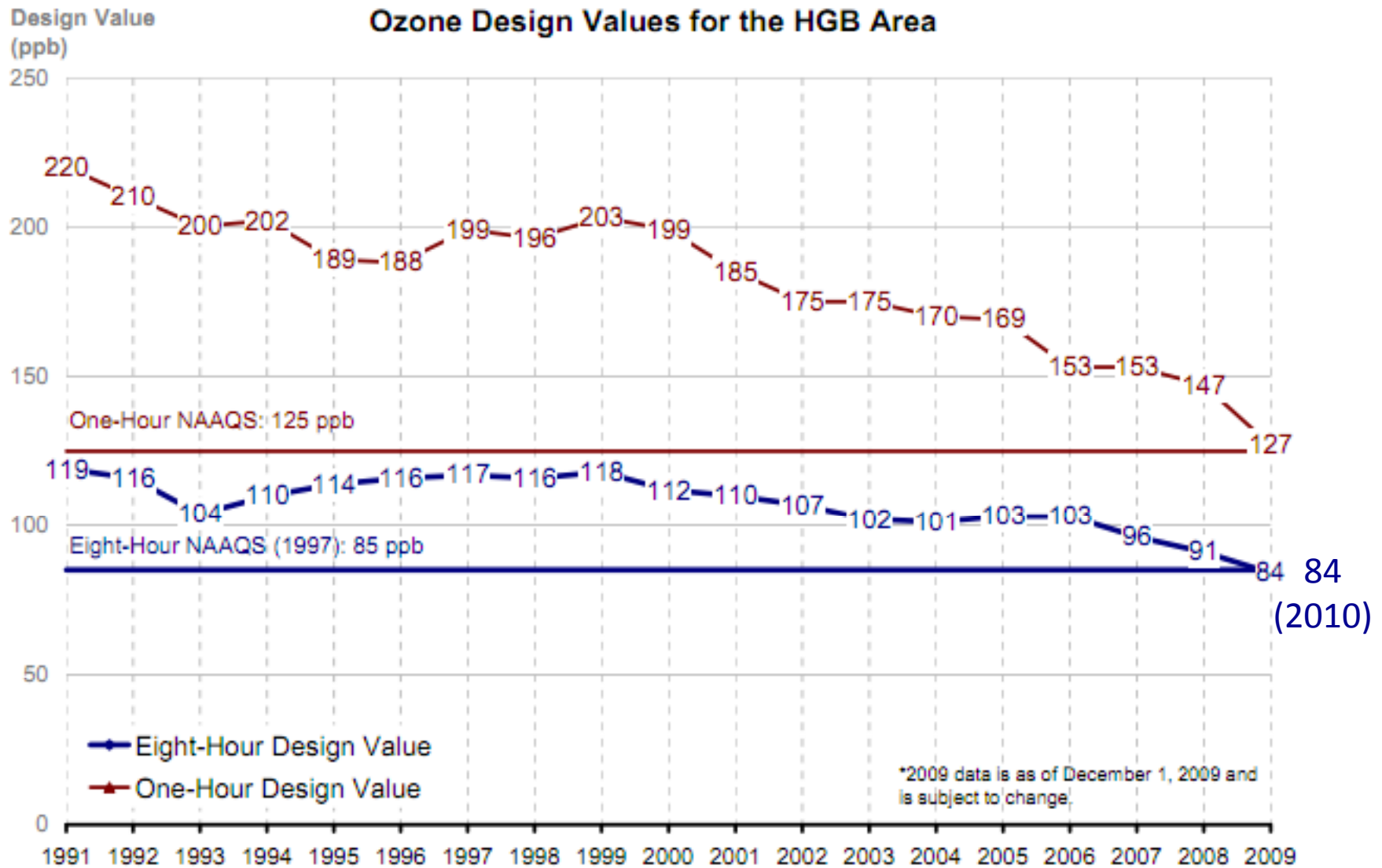
http://www.tceq.state.tx.us/cgi-bin/compliance/monops/8hr_monthly.pl

Frontal Passages and Ozone Events at MT (2009-2010)



Christine Haman (2011)

HGB Ozone Design Value Trend



http://www.tceq.state.tx.us/assets/public/implementation/air/sip/hgb/hgb_sip_2009/09017SIP_Ch5_ado.pdf

HGB Ozone Design Values 2011

Area	Monitoring Site	POC	Fourth Highest Average			Current Three-Year Average
			2009	2010	2011 as of 8:12 pm CDT 8/22/2011	
Houston-Galveston-Brazoria						
	Seabrook Friendship Park C45	1	79	77	74	76
	Houston Westhollow C410	1	71	72	70	71
	Hou.DeerPrk2 C35/235/1001/AFH139FP239	1	82	85	72	79
	Houston North Wayside C405	1	69	76	68	71
	Houston Monroe C406	1	71	75	66	70
	Conroe Relocated C78/A321	1	65	77	80	74
	Houston East C1/G316	2	79	76	75	76
	Channelview C15/AH115	3	80	79	68	75
	Lake Jackson C1016	1	76	72	69	72
	Park Place C416	1	73	84	65	74
	Houston Croquet C409	2	80	77	74	77
	Houston Aldine C8/AF108/X150	2	80	87	76	81
	Houston Texas Avenue C411	1	79	75	68	74
	Houston Regional Office C81	1	80	71	68	73
	Houston Bayland Park C53/A146	1	86	78	78	80
	Clinton C403/C304/AH113	3	78	79	67	74
	Northwest Harris Co. C26/A110/X154	2	86	82	80	82
	Manvel Croix Park C84	1	91	88	81	86
	Lang C408	2	81	77	68	75
	Galveston 99th St. C1034/A320/X183	1	76	80	73	76
	Lynchburg Ferry C1015/A165	1	73	83	65	73

http://www.tceq.state.tx.us/cgi-bin/compliance/monops/8hr_attainment.pl

Fall 2011 H-NET Projects

1. Calibrated Trace Level Enhanced Carbon Monoxide at all 5 H-NET Sites (Moody Tower, West Liberty, Coastal Center, Sugar Land, Jones Forest)
2. Ozone, CO, NO, NO₂ at two levels (5m and 70m) at UH campus. To examine titration, dilution, conversion, and deposition
September – October 2011.
3. Add Trace Level SO₂ monitor to Moody Tower.
4. Real-time Ozone Mapping project (with 5-min TCEQ data) accessed via Google Maps (web) and iPhone app.

Thank you.



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