Data Collections Statistics by Site
10/01/2010 - 10/31/2010
National Park Service Gaseous Pollutant Monitoring Program

National Park Unit	Site Name	Parameter Code													
		O3 % valid[1]	SO2 % valid[1]	SO2Add % valid[1]	PM2.5 % valid[1]	PM10 % valid[1]	VWD % valid[1]	SWS % valid[1]	TMP % valid[1]	RH % valid[1]	RNF % valid[1]	WET % valid[1]	DTP % valid[1]	SOL % valid[1]	FLOW % valid[1]
Acadia	McFarland Hill	—	—	—	—	—	—	—	—	—	—	99.7	—	—	99.6
Big Bend	K-Bar Ranch Road	99.2	—	—	—	—	100.0	100.0	100.0	100.0	99.6	99.3	100.0	100.0	100.0
Canyonlands	Island in the Sky	99.3	—	—	—	—	99.9	99.9	99.9	100.0	99.2	99.1	99.9	99.9	99.9
Chickamauga/Chatanooga	Lookout Mountain	99.5	—	—	—	—	—	96.5	100.0	100.0	—	—	—	—	—
Chiricahua	Entrance Station	98.9	—	—	—	—	99.7	99.7	99.7	99.7	99.5	98.9	99.7	99.7	100.0
Colorado	Maintenance Yard	99.1	—	—	—	—	—	99.1	99.1	99.1	99.1	—	—	99.1	—
Craters of the Moon	Visitor Center	95.4	—	—	—	—	98.1	98.1	98.3	98.3	—	—	—	98.3	—
Death Valley	Park Village	99.6	—	—	—	—	—	—	—	—	98.9	—	—	—	—
Denali	Headquarters	99.7	—	—	—	—	100.0	100.0	100.0	100.0	100.0	15.2	100.0	100.0	100.0
Dinosaur	West Entrance Housing	97.7	—	—	—	—	—	100.0	100.0	100.0	100.0	—	—	100.0	100.0
Everglades	Beard Center	—	—	—	—	—	99.5	99.5	99.7	100.0	42.6	99.3	99.7	100.0	99.6
Glacier	West Glacier Horse Stables	99.2	—	—	—	—	100.0	100.0	100.0	100.0	100.0	94.2	0.0	100.0	100.0
Grand Canyon	The Abyss	96.8	—	—	—	—	98.8	98.9	96.4	98.7	98.4	76.6	96.4	98.9	99.3
Great Basin	Maintenance Yard	99.3	—	—	—	—	99.2	99.2	99.2	0.0	99.2	99.1	99.2	99.2	100.0
Great Smoky Mountains	Cades Cove	—	—	—	—	—	98.8	98.8	98.8	98.7	54.7	—	—	98.8	—
Great Smoky Mountains	Clingmans Dome	87.8	—	—	—	—	99.1	99.1	99.1	99.1	98.9	—	—	99.1	—
Great Smoky Mountains	Cove Mountain	99.3	99.3	—	—	—	99.7	99.7	99.7	99.7	99.1	—	—	—	—
Great Smoky Mountains	Look Rock	98.7	—	—	—	—	99.5	99.5	99.5	99.5	98.9	81.0	99.5	99.5	99.6
Hawaii Volcanoes	Observatory	—	95.8	95.8	98.3	—	100.0	100.0	100.0	100.0	99.6	—	—	—	—
Hawaii Volcanoes	Visitor Center	—	95.7	95.7	—	—	100.0	100.0	100.0	100.0	99.3	—	—	100.0	—
Joshua Tree	Black Rock	98.9	—	—	—	—	99.7	99.7	99.2	95.4	98.8	75.4	99.2	99.7	99.9
Joshua Tree	Cottonwood Canyon	95.7	—	—	—	—	99.7	99.7	100.0	100.0	99.9	—	—	100.0	—
Joshua Tree	Pinto Wells	96.1	—	—	—	—	—	99.9	99.9	99.9	99.9	—	—	99.9	98.7
Lassen Volcanic	Manzanita Lake Fire Stn.	98.4	—	—	—	—	98.9	98.9	98.9	98.9	98.7	98.3	98.9	98.9	99.3
Mammoth Cave	Houchin Meadow	91.0	86.6	—	—	—	99.9	99.9	99.7	99.9	99.6	99.5	99.7	99.9	99.9
Meeker	Plant Science	95.2	—	—	99.9	—	99.9	99.9	99.9	99.9	99.9	—	—	99.9	99.9
Mesa Verde	Resource Mngment Area	99.9	—	—	—	—	100.0	100.0	100.0	100.0	98.9	99.5	100.0	100.0	99.9
Mount Rainier	Tahoma Woods	99.7	—	—	—	—	100.0	100.0	100.0	100.0	99.6	99.7	100.0	100.0	100.0
Petrified Forest	South Entrance	99.9	—	—	—	—	100.0	100.0	100.0	100.0	99.7	99.6	100.0	100.0	100.0
Pinnacles	SW of East Entrance Stn.	99.5	—	—	—	—	100.0	100.0	100.0	100.0	40.5	99.3	100.0	100.0	99.9
Rangely	Golf Course	91.9	—	—	99.3	—	100.0	100.0	100.0	100.0	99.7	—	—	100.0	100.0
Rocky Mountain	Long's Peak	99.5	—	—	—	—	97.6	97.7	100.0	100.0	100.0	99.7	100.0	100.0	100.0
Sequoia and Kings Canyon	Ash Mountain	99.5	—	—	99.5	—	99.5	99.5	100.0	99.7	99.6	99.2	100.0	100.0	99.9

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National Park Unit	Site Name	Parameter Code													
		O3 % valid[1]	SO2 % valid[1]	SO2Add % valid[1]	PM2.5 % valid[1]	PM10 % valid[1]	VWD % valid[1]	SWS % valid[1]	TMP % valid[1]	RH % valid[1]	RNF % valid[1]	WET % valid[1]	DTP % valid[1]	SOL % valid[1]	FLOW % valid[1]
Sequoia and Kings Canyon	Lower Kaweah	99.9	—	—	—	—	99.5	99.5	99.5	100.0	99.2	—	—	99.5	—
Shenandoah	Big Meadows	99.6	—	—	—	—	100.0	100.0	100.0	100.0	99.9	99.5	100.0	100.0	100.0
Stones River	Beasley Field	100.0	—	—	—	—	—	48.5	100.0	100.0	100.0	—	—	100.0	—
Theodore Roosevelt	Painted Cany. VC	—	—	—	—	—	99.6	99.6	99.1	99.1	84.9	99.6	99.1	100.0	98.9
Voyageurs	Sullivan Bay	96.6	—	—	—	—	57.8	57.8	99.6	100.0	99.7	99.9	99.6	100.0	99.9
Wind Cave	Visitor Center	—	—	—	—	—	99.3	99.3	99.3	99.3	99.3	80.8	99.3	100.0	100.0
Yellowstone	Old Faithful	—	—	—	100.0	—	98.8	98.8	100.0	100.0	—	—	—	—	—
Yellowstone	Water Tank	99.5	—	—	—	—	98.7	98.7	99.6	99.6	99.1	71.0	99.6	99.6	100.0
Yosemite	Turtleback Dome	89.0	—	—	—	—	89.4	89.4	89.4	89.4	89.0	88.8	89.4	89.4	89.7
Zion	Dalton's Wash	99.2	—	—	99.7	—	100.0	100.0	100.0	100.0	100.0	—	—	100.0	—
Average Network Data Collection		97.7	94.4	95.8	99.5		98.1	96.9	99.4	96.9	94.7	90.9	95.0	99.4	99.4

Key:

O3 = Ozone Analyzer
SO2 = Sulfur Dioxide Analyzer
SO2Add = Sulfur Dioxide Analyzer
VWD = Vector Wind Direction
SWS = Scalar Wind Speed
TMP = Ambient Temperature
RH = Relative Humidity
RNF = Precipitation
WET = Wetness Sensor
DTP = Delta Temperature
SOL = Solar Radition
FLOW = Filter Pack Flow Rate

Performance Goals:

Monthly Criteria:
100% of sites, >= 60% valid data capture
90% of sites, >= 75% valid data capture
80% of sites, >= 85% valid data capture

Quarterly Criteria:
100% of sites, >= 85% valid data capture
90% of sites, >= 90% valid data capture
80% of sites, >= 95% valid data capture

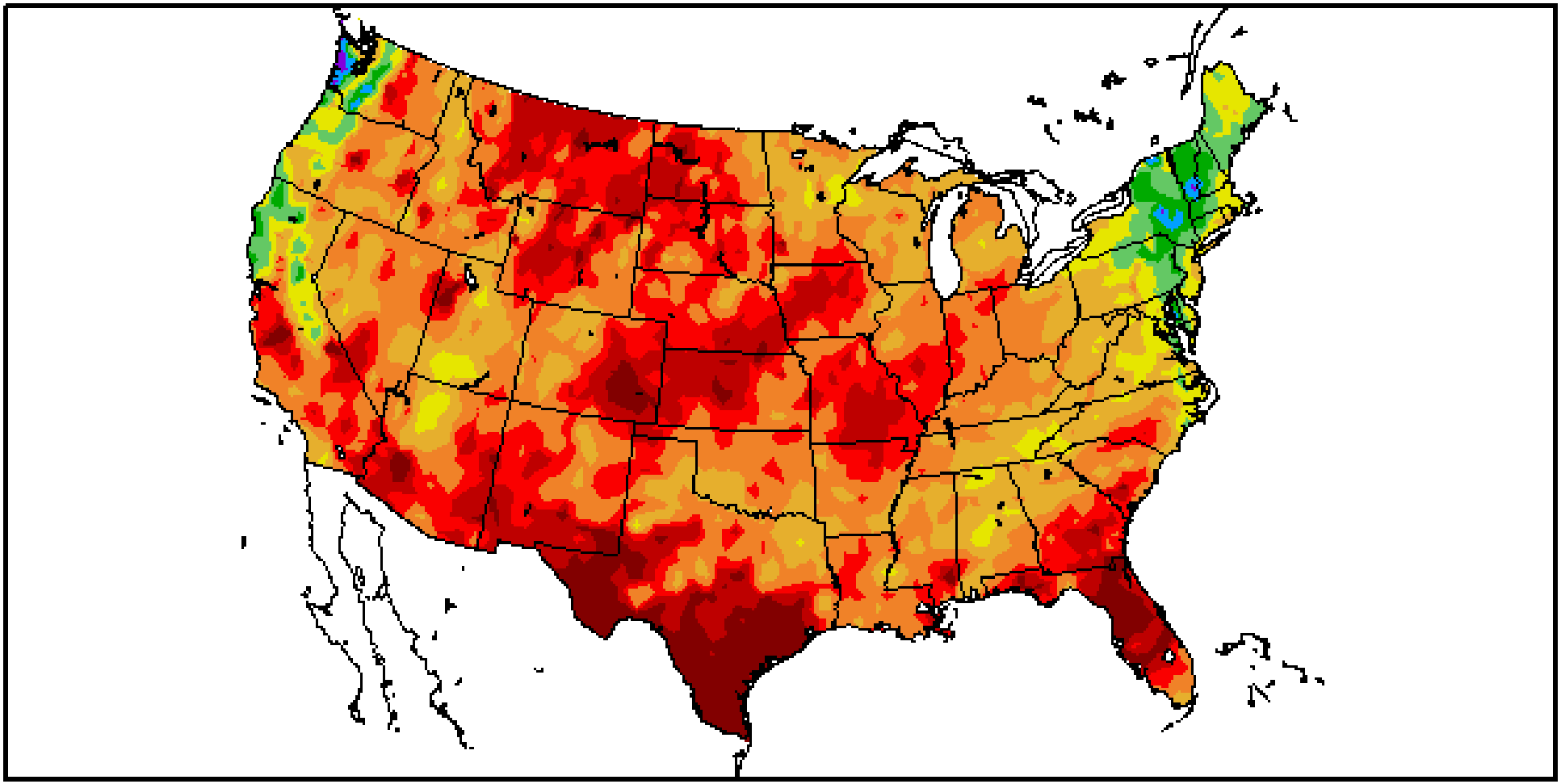
1. Percent valid can be less than 100% due to calibrations, routine maintenance, power failures, audits or other circumstances where the instrument was not available to collect data. For example, automatic zeros and spans are performed daily on most ambient gas analyzers; therefore, no ambient gas data can be collected during this time. As a result, the maximum percent valid for ambient gas data typically cannot be greater than 95.8. Percent valid can also be less than 100% due to influencing factors such as instrument error, operator error, timing problems, flow issues, and other factors that affect instrument operation.

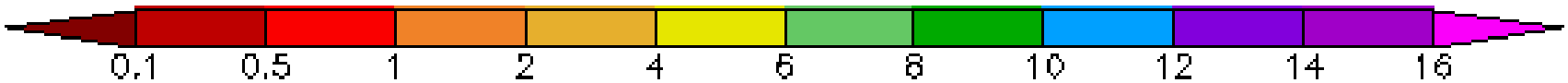
Color shading key:
- Acceptable: indicates data recovery of 85% - 100%
- Marginal: indicates data recovery of 75% - 84.9%
- Low: indicates data recovery of 60% - 74.9%
- Unacceptable: indicates data recovery of 0% - 59.9%

October 2010
Data Issues

Site	Parameter	Problem
DENA-HQ	WET	Beginning 10/5/10 the wetness sensor quits responding during wet conditions. Instead it's coming on during the dryest time of day. A new sensor was sent to the site on 11/4/10.
EVER-BC	RNF	The precipitation sensor quit reporting values on 9/11/10. ARS was on site for a SAM on 10/18/10 and replaced the met card in the logger.
GLAC-WG	DTP	DTP values have been extreme and abnormal compared to historical values from this station. The system was investigated during a SAM in early November. Although the aspirator fan sounded like it was running, we found that it wasn't functioning. A new aspirator fan was installed and values returned to normal.
GRCA-AS	WET	The wetness sensor was destroyed during a storm on 10/20/10. A new wetness sensor was sent to the site and installed on 10/27/10.
GRBA-MY	RH	The RH sensor quit responding in late July. The site operator has been unable to determine the problem. The issue will be addressed at the next ARS SAM.
GRSM-CC	RNF	On 10/25/10 the site operator discovered that the RNF sensor was overflowing rather than tipping. The last good precipitation check occurred on 10/18/10. Data were invalidated from that check until the precipitation sensor was fixed during a SAM on 11/2/10. The heater was on continuously and it warped the tipping mechanism.
GRSM-LR	WET	The wetness sensor quit responding on 10/26/10. A new wetness sensor was installed on 11/4/10.
JOTR-BR	WET	A power surge on 10/19/10 damaged the wetness sensor. A new sensor was installed on 11/2/10.
PINN-ES	RNF	On 10/19/10 the site operator discovered that the rain funnel was clogged. He cleaned it during this visit. Data were invalidated back to the last good precipitation check, which occurred on 9/21/10.
STRI-BF	WS/WD	Wind speed and wind direction values drop out each day in the late afternoon and then start to respond again the following morning. The site has been shut down for the season and the sensor was sent to ARS to investigate the problem.
THRO-VC	RNF	On 8/31/10 the site operator reported that the top of the rain gauge had blown off. The site operator reported on 9/22/10 that this occurred again. She found the funnel and replaced it during this visit. Data were invalidated back to the last good precipitation check, which occurred on 8/3/10. ARS rewired a new rain gauge funnel during a SAM on 10/5/10.
VOYA-SB	WS/WD	Wind speed and wind direction quit responding in June. New sensors were sent to the site and replaced by the site operator in July, but this did not fix the problem. ARS was on site during the week of October 11 and discovered a corroded connection. The connection was cleaned and this restored WS/WD function.
WICA-VC	WET	The wetness sensor quit responding correctly on 10/26/10. A new sensor was sent to the site and replaced by the site operator on 11/9/10.
YELL-WT	WET	The wetness sensor has been working intermittently over the past several months. The site operator replaced the sensor on 10/5/10.

Precipitation (in)
10/1/2010 – 10/31/2010

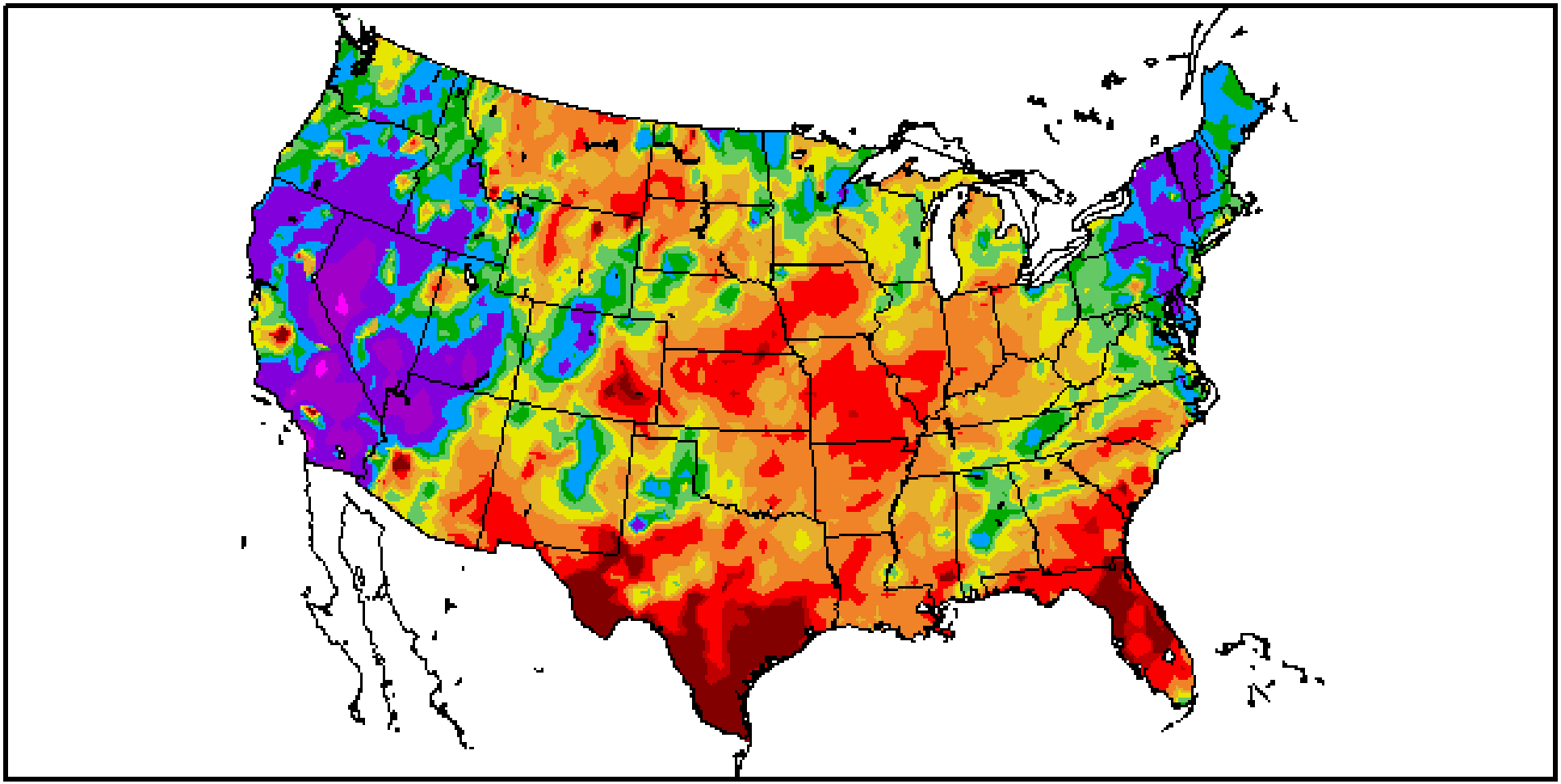


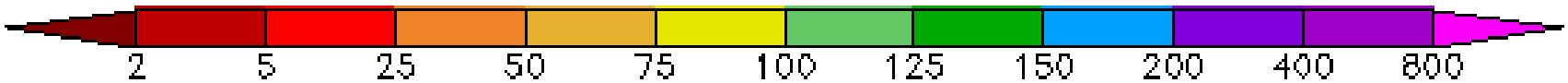


Generated 11/11/2010 at HPRCC using provisional data.

Regional Climate Centers

Percent of Normal Precipitation (%)
10/1/2010 – 10/31/2010

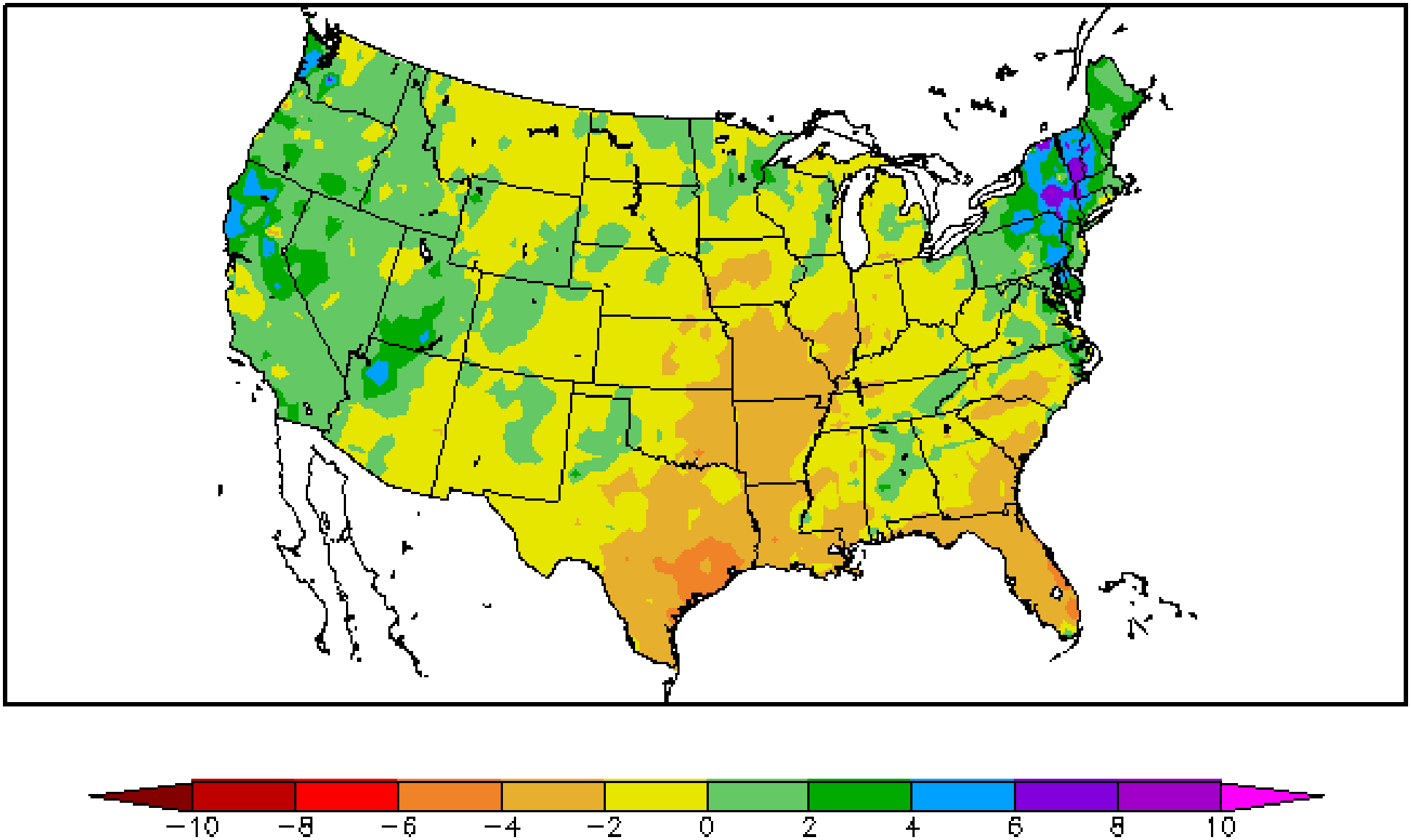




Generated 11/11/2010 at HPRCC using provisional data.

Regional Climate Centers

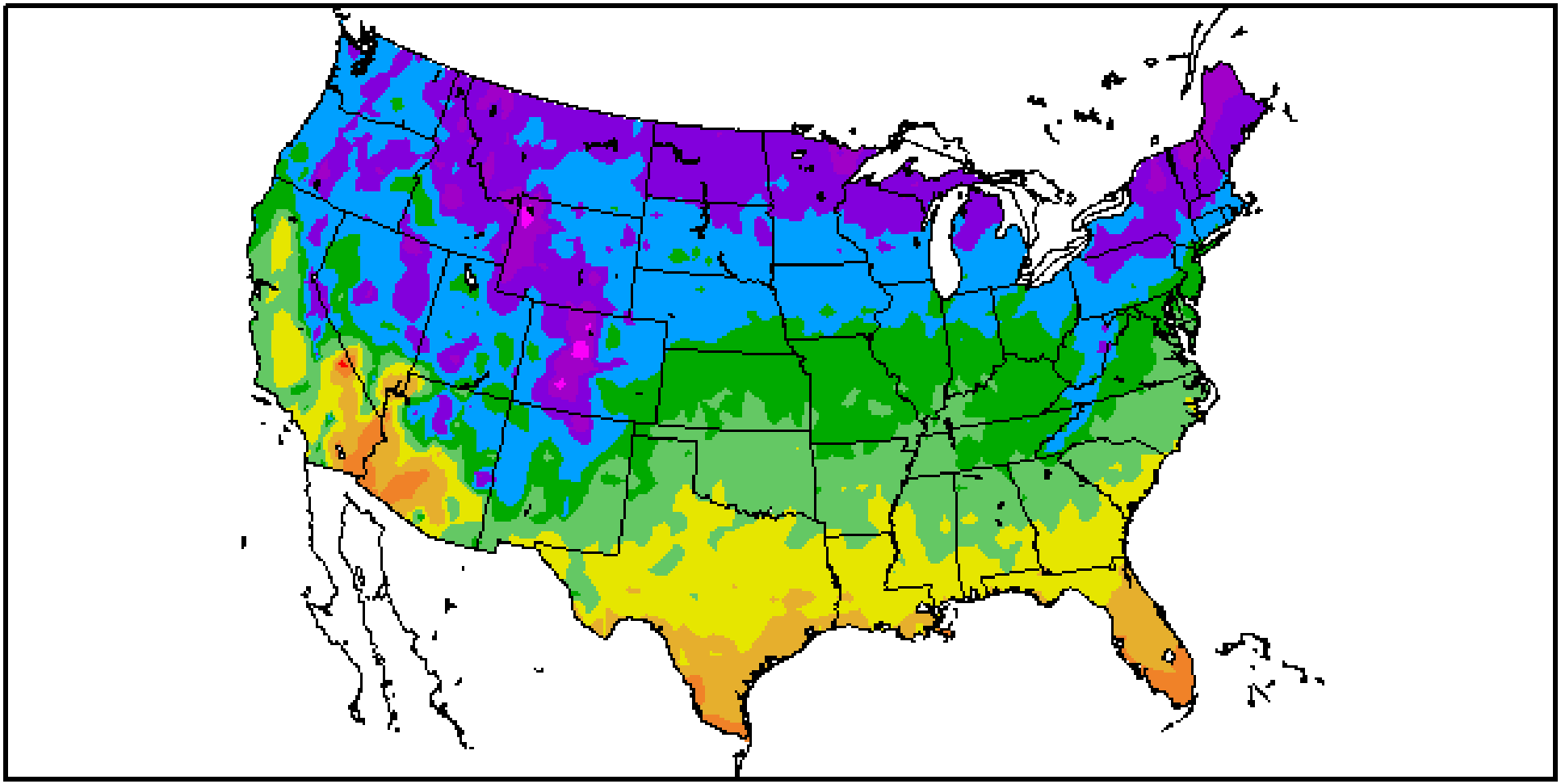
Departure from Normal Precipitation (in)
10/1/2010 – 10/31/2010

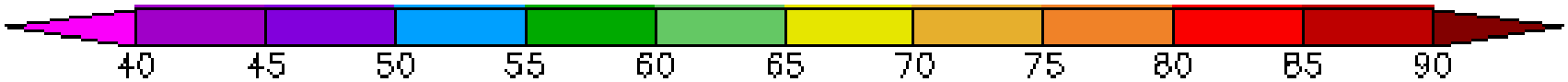


Generated 11/11/2010 at HPRCC using provisional data.

Regional Climate Centers

Temperature (F)
10/1/2010 – 10/31/2010

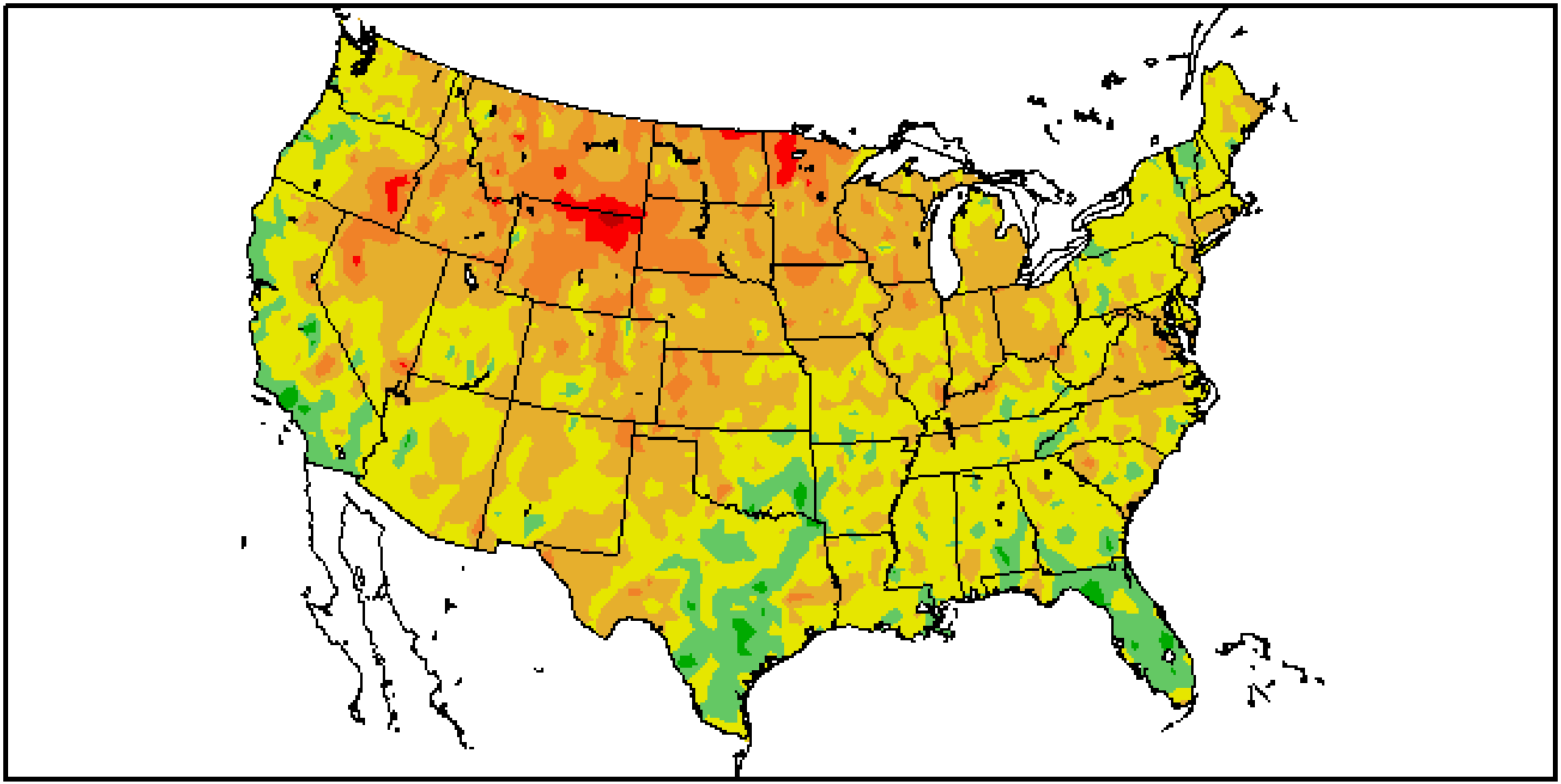


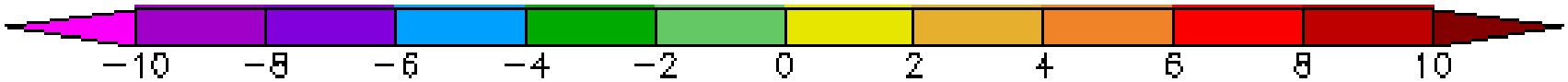


Generated 11/11/2010 at HPRCC using provisional data.

Regional Climate Centers

Departure from Normal Temperature (F)
10/1/2010 – 10/31/2010

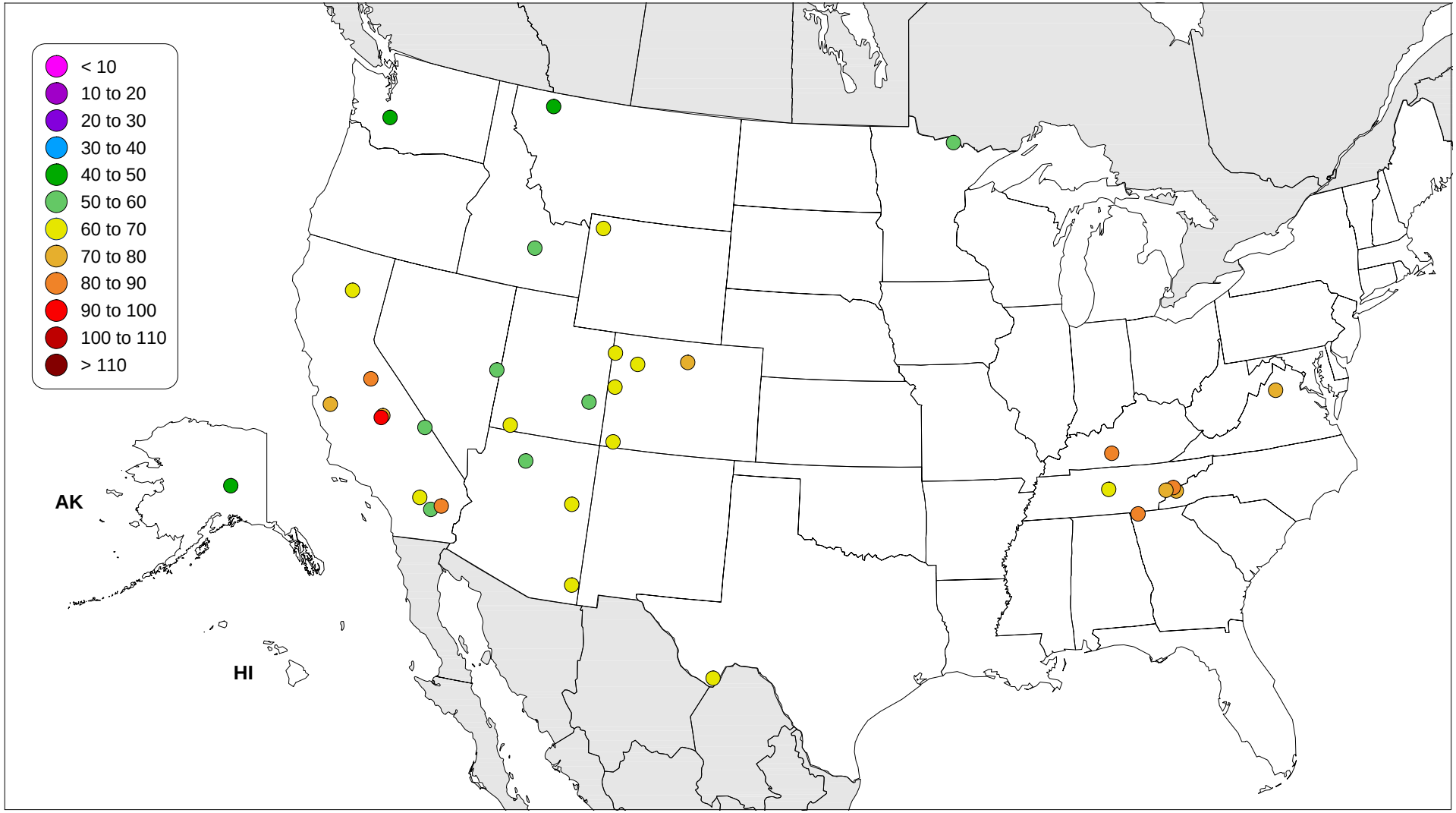




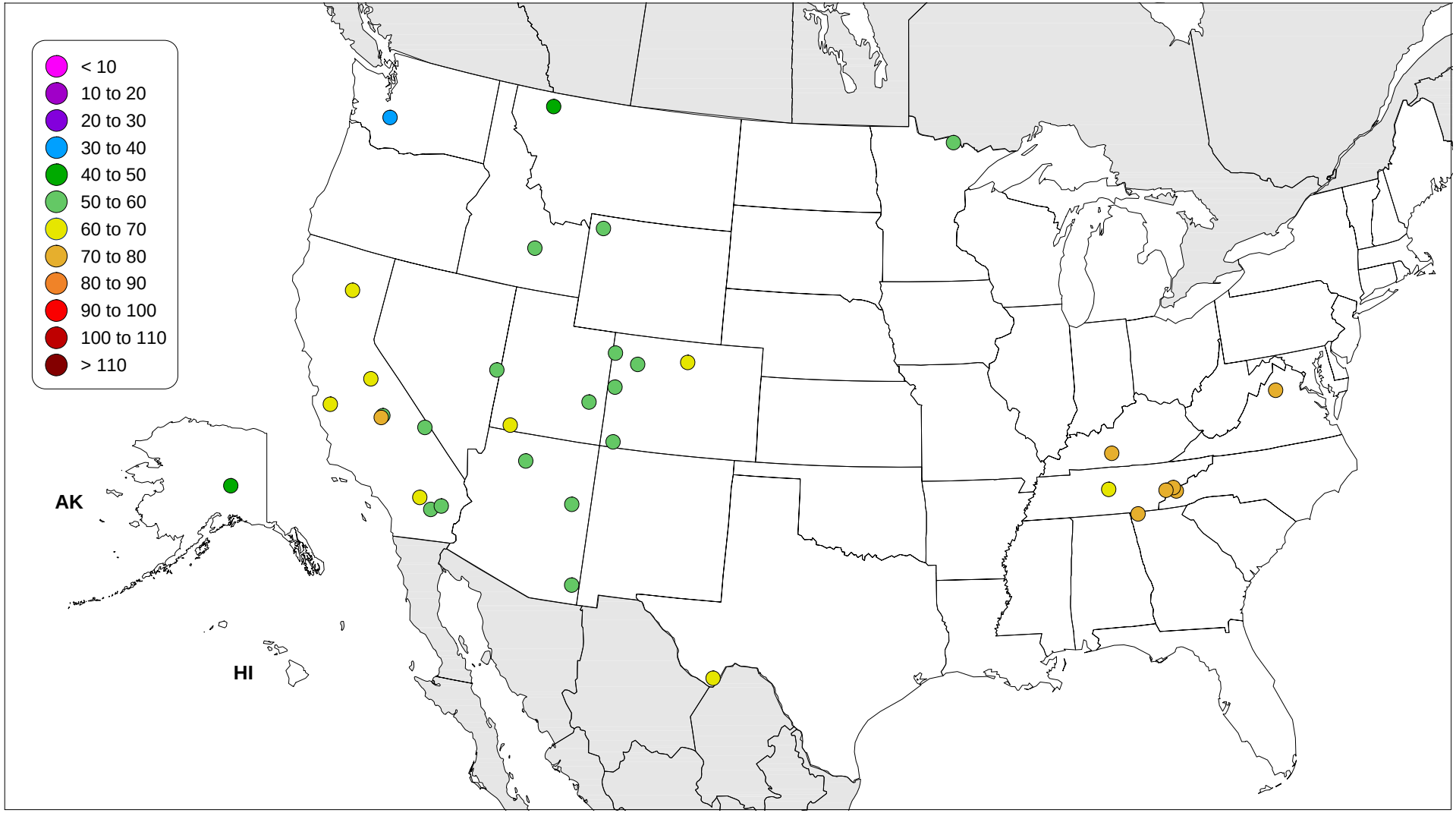
Generated 11/11/2010 at HPRCC using provisional data.

Regional Climate Centers

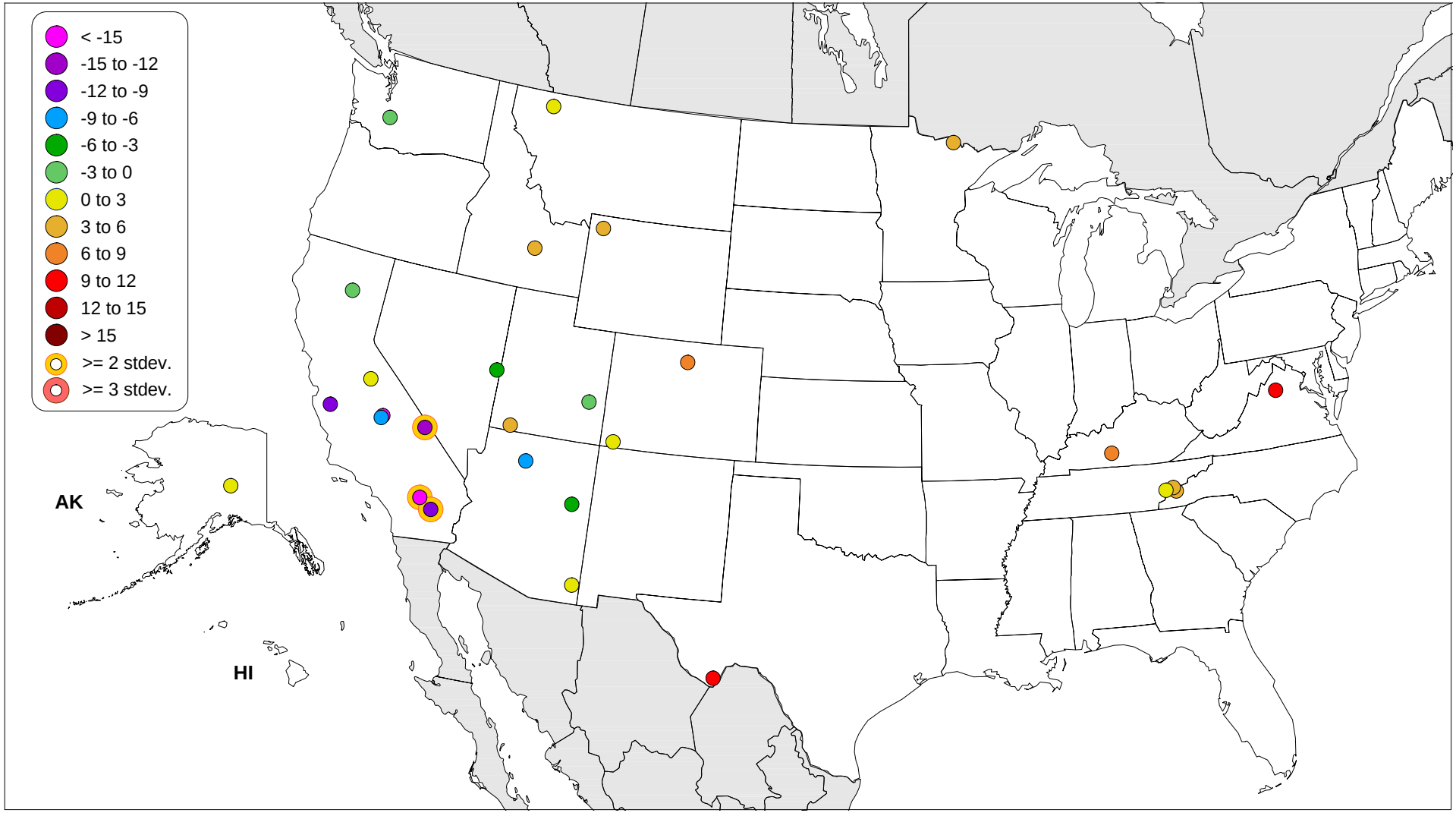
Highest 1-Hour Average Ozone (ppb)
10/1/2010 - 10/31/2010



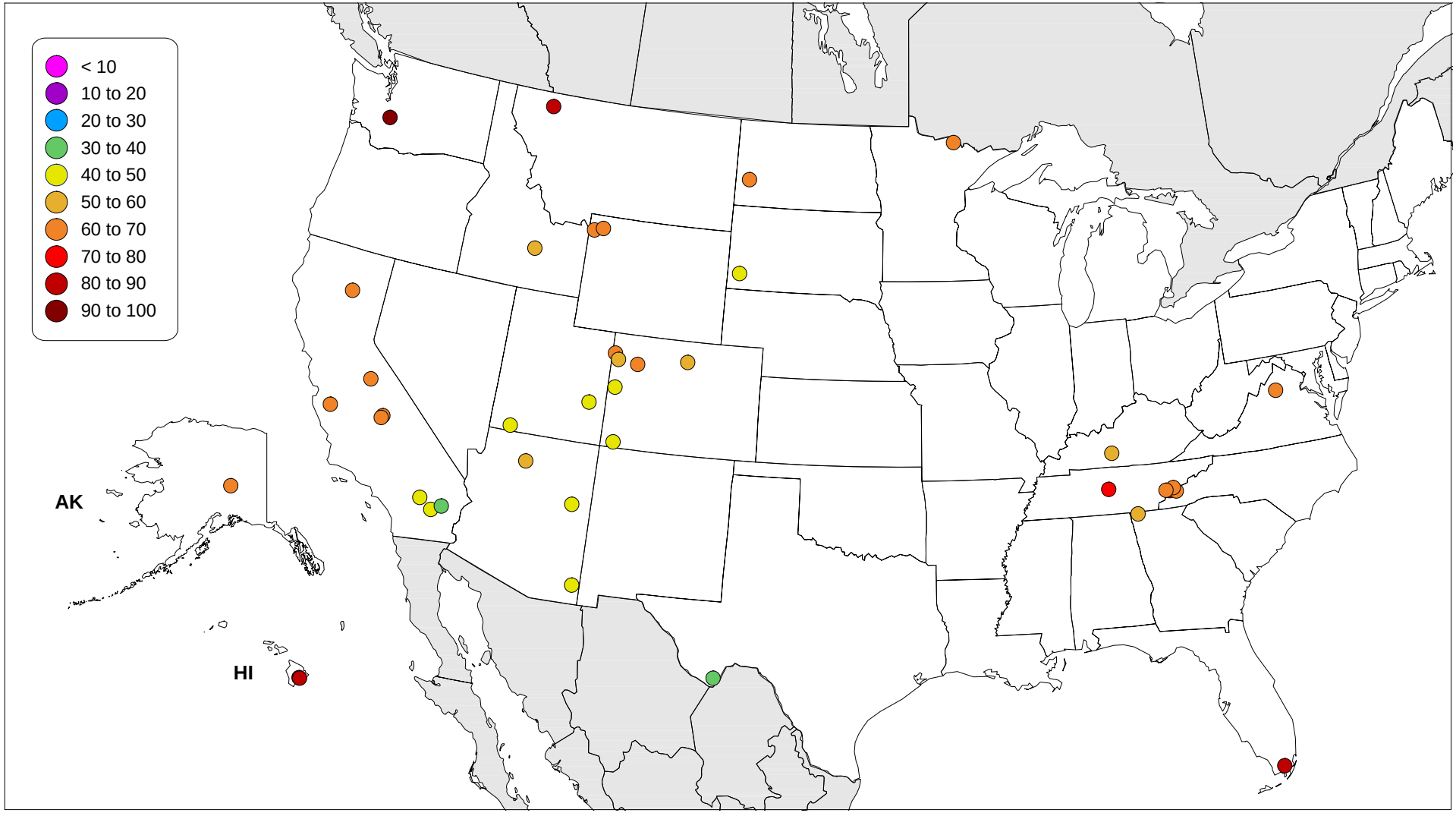
Highest 8-Hour Average Ozone (ppb)
10/1/2010 - 10/31/2010



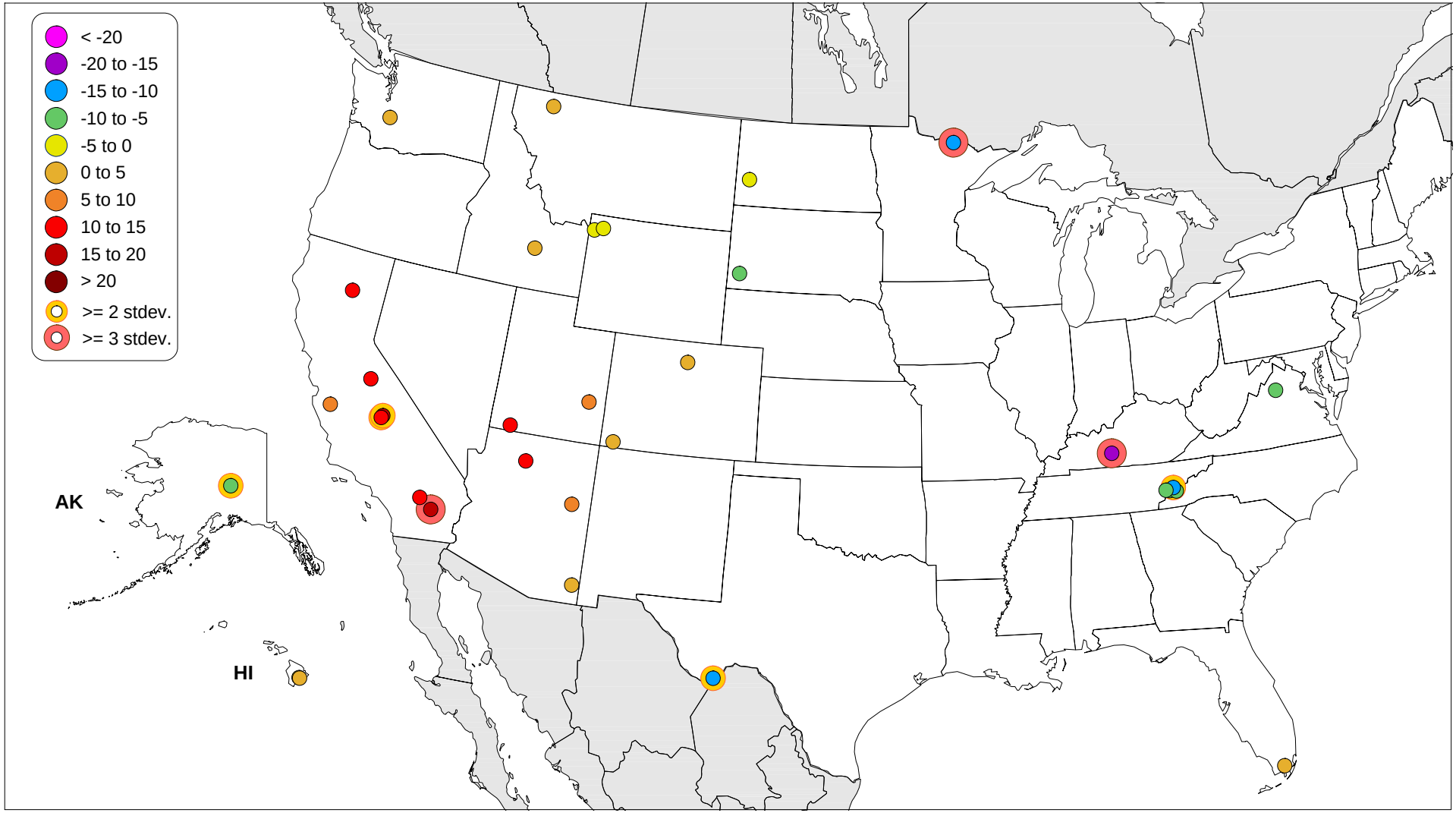
Departure from Historical Max. 1-HR Ozone Concentration (ppb)
10/1/2010 - 10/31/2010



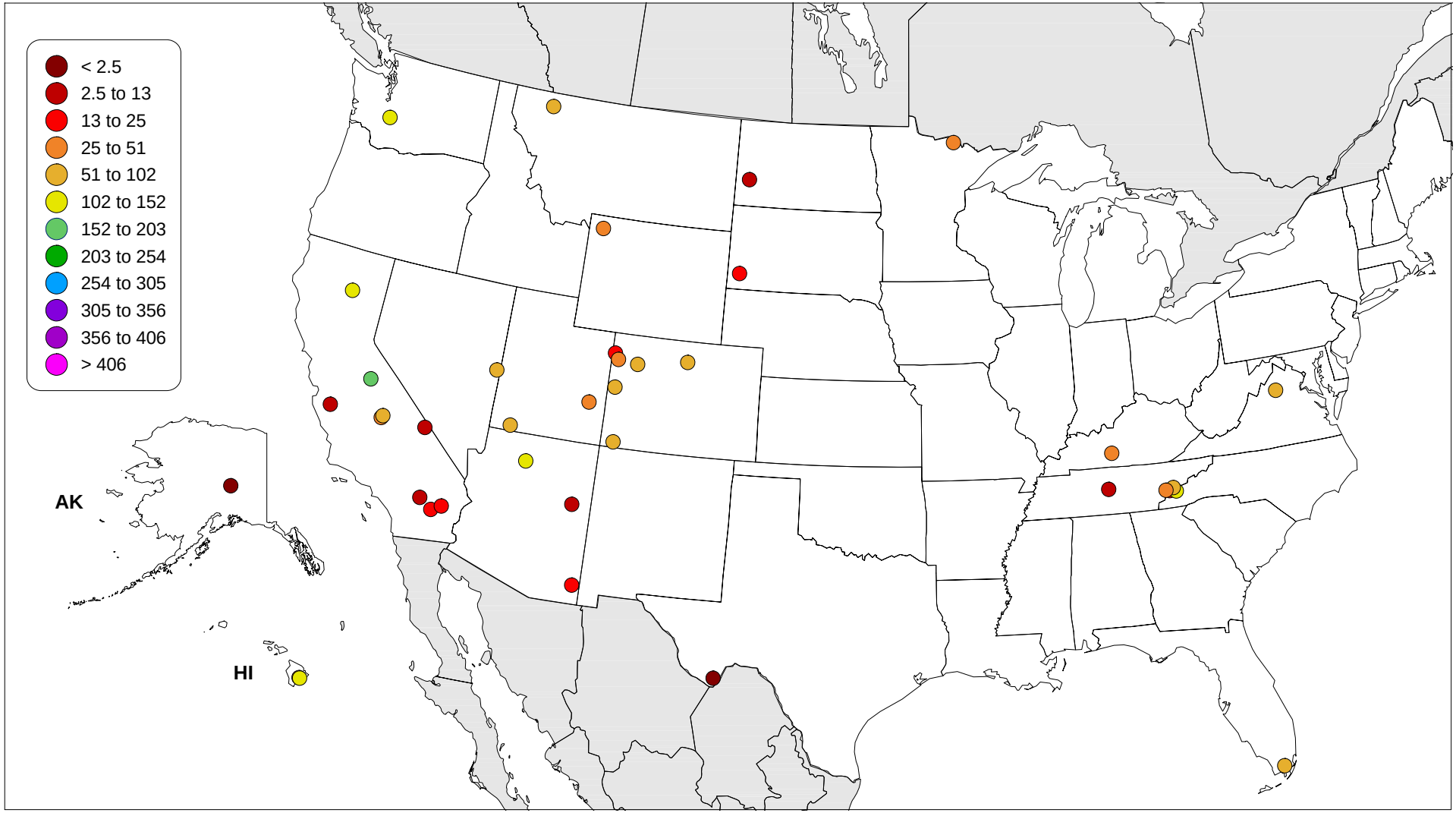
Average RH (%)
10/1/2010 - 10/31/2010



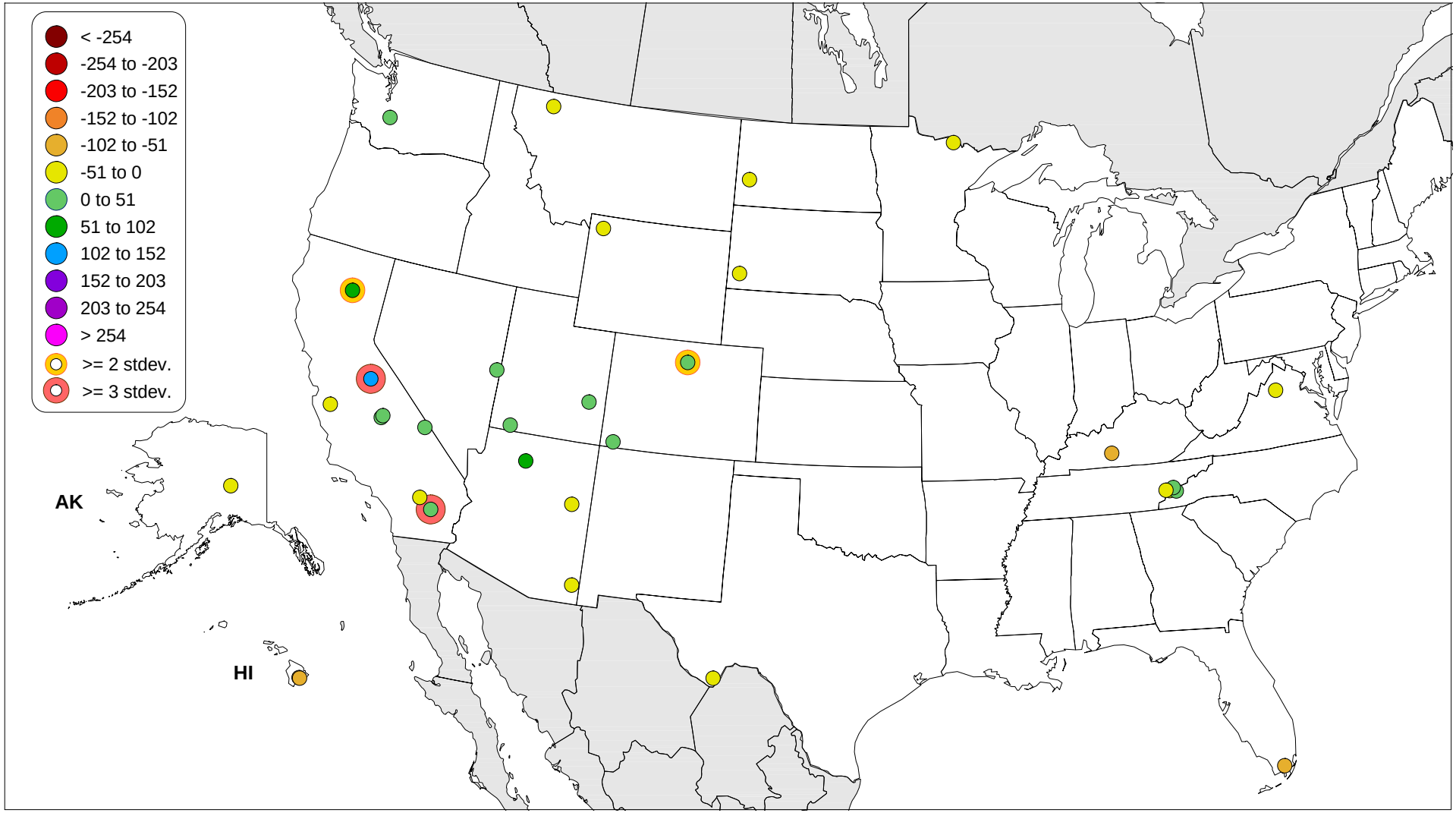
Departure from Historical Average RH (%)
10/1/2010 - 10/31/2010



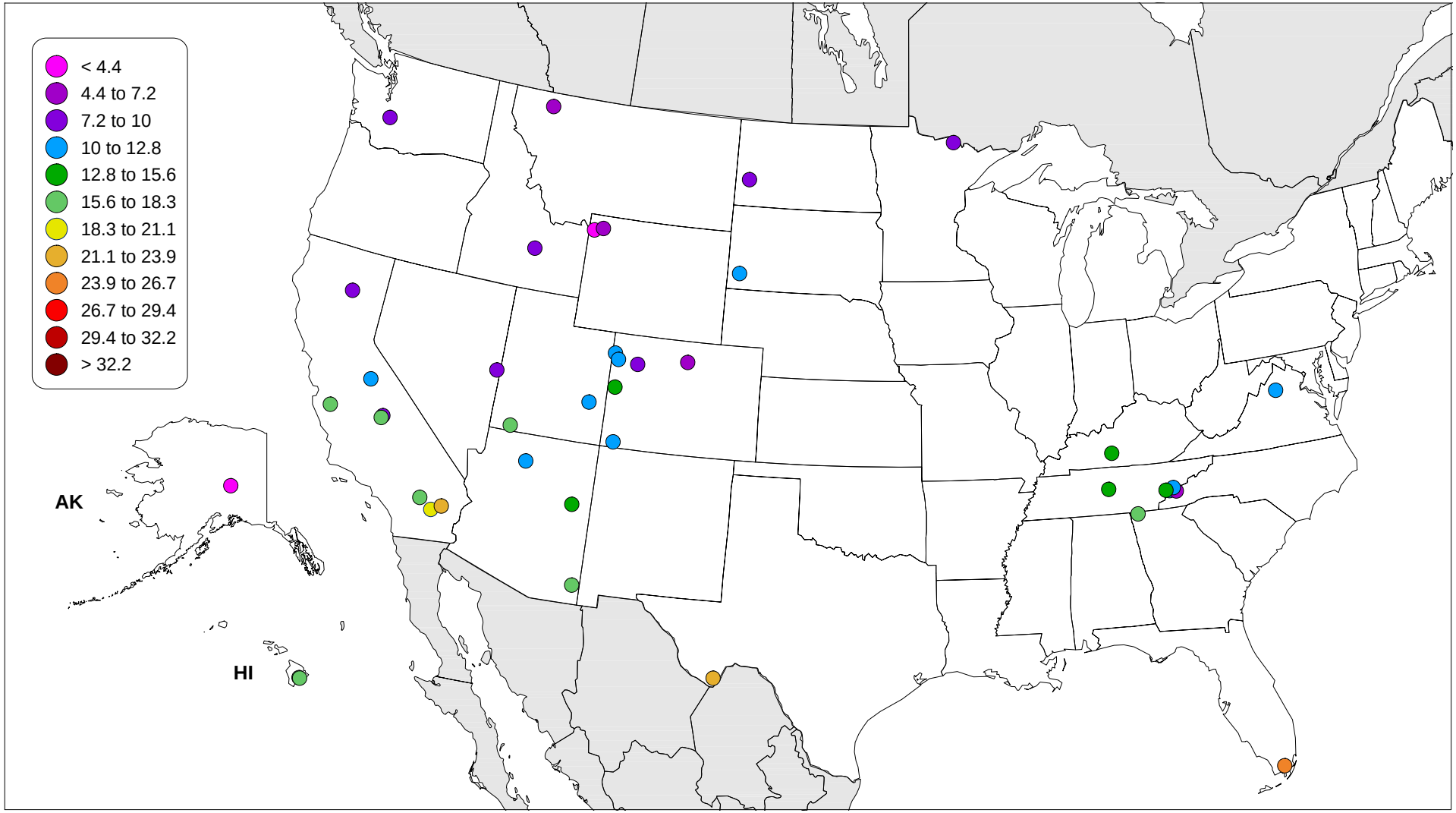
Accumulated Precipitation (mm)
10/1/2010 - 10/31/2010



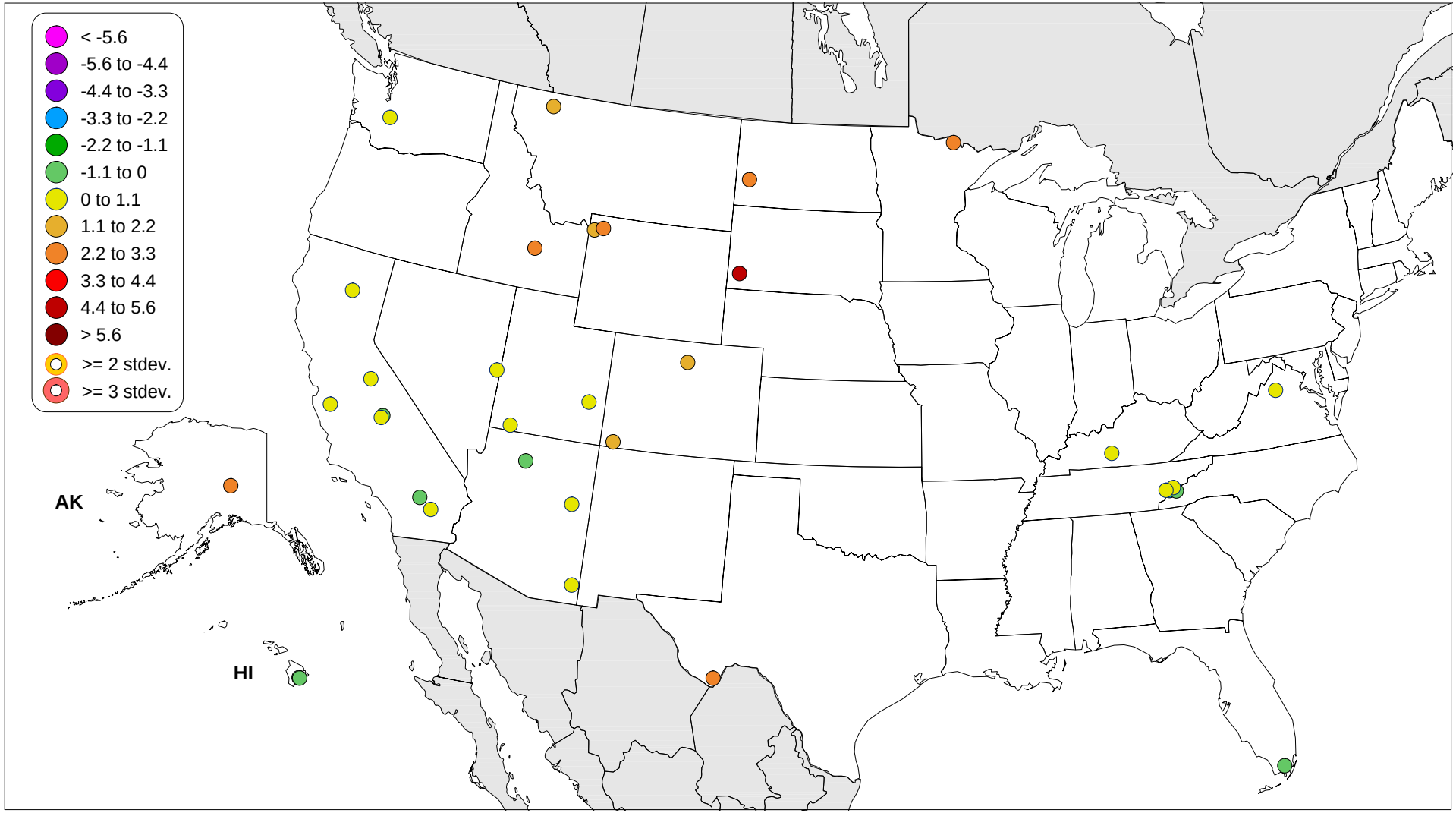
Departure From Historical Average Precipitation (mm)
10/1/2010 - 10/31/2010

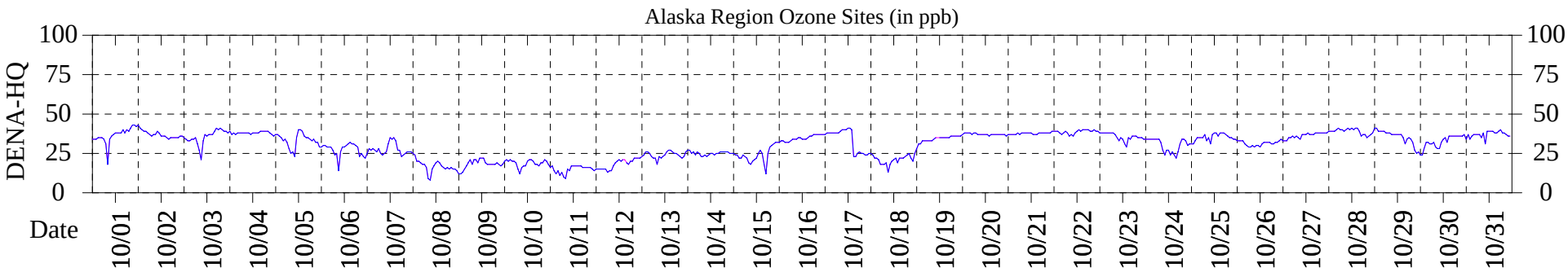


Average Temperature (°C)
10/1/2010 - 10/31/2010

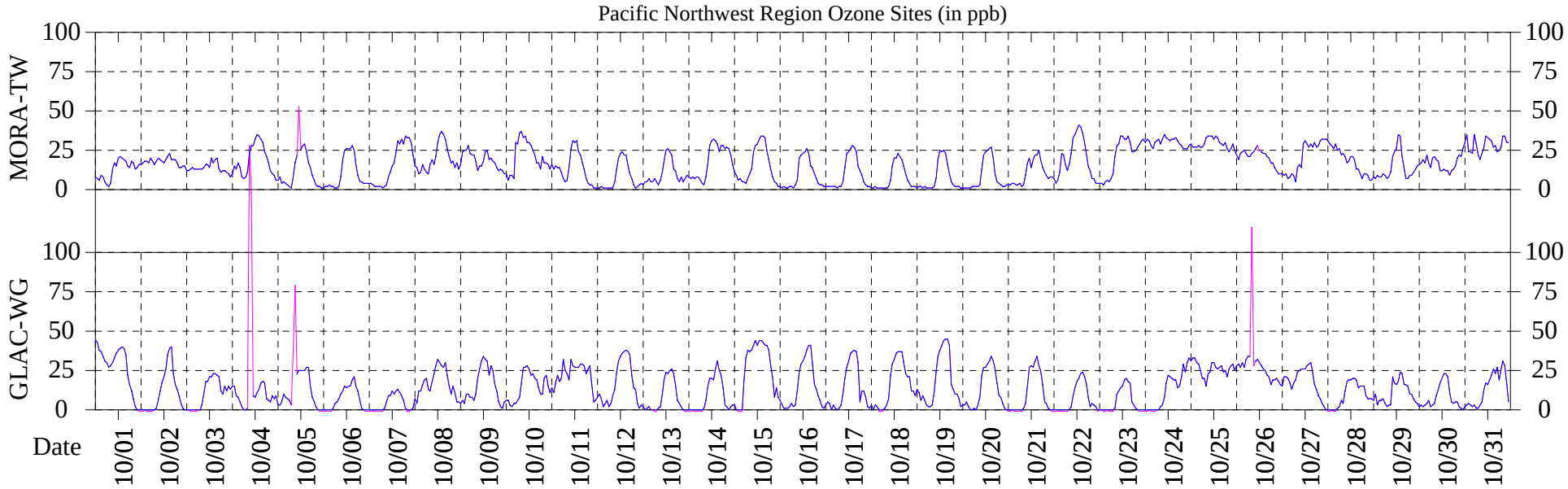


Departure from Historical Average Temperature (°C)
10/1/2010 - 10/31/2010





October 2010



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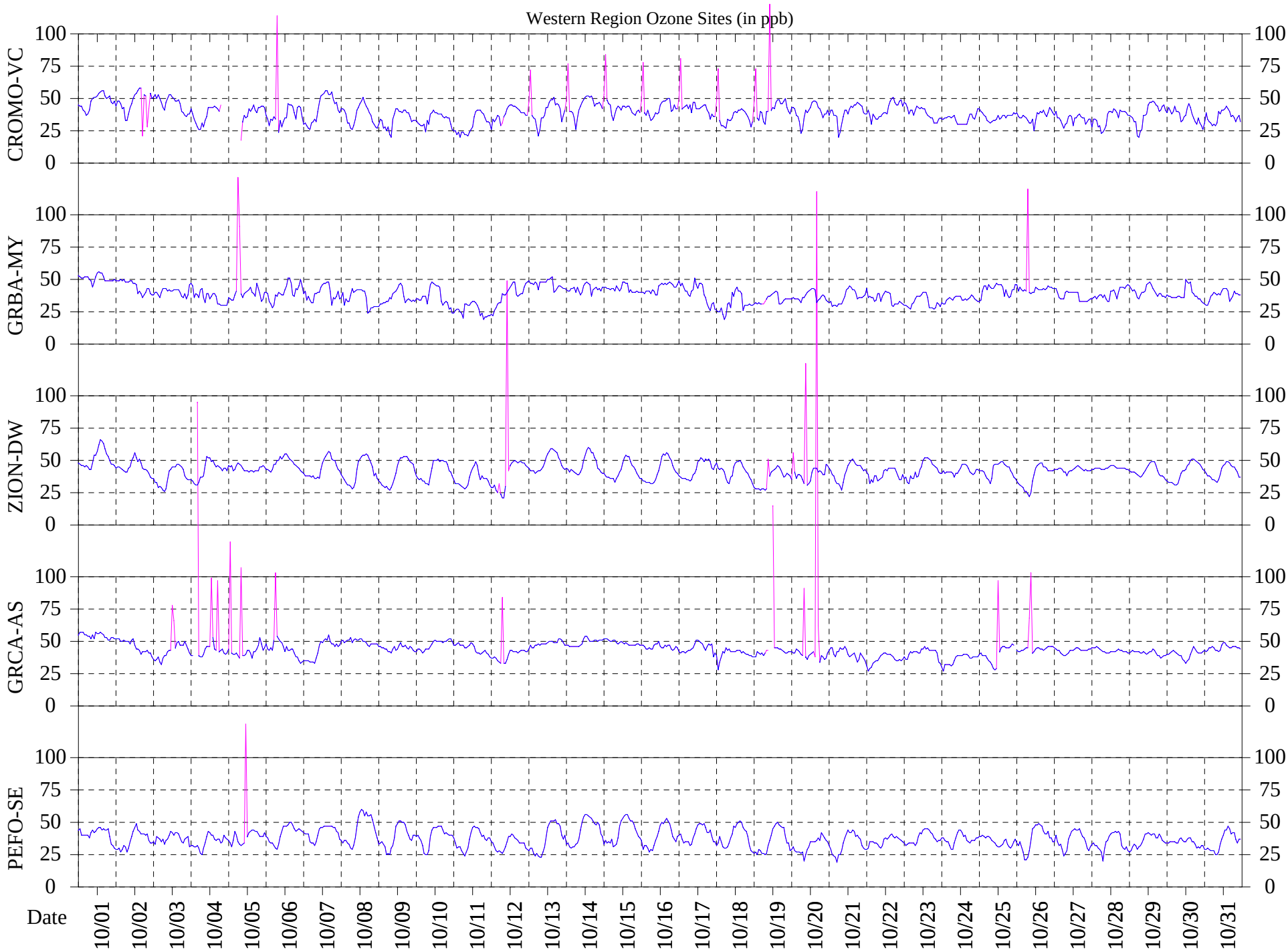

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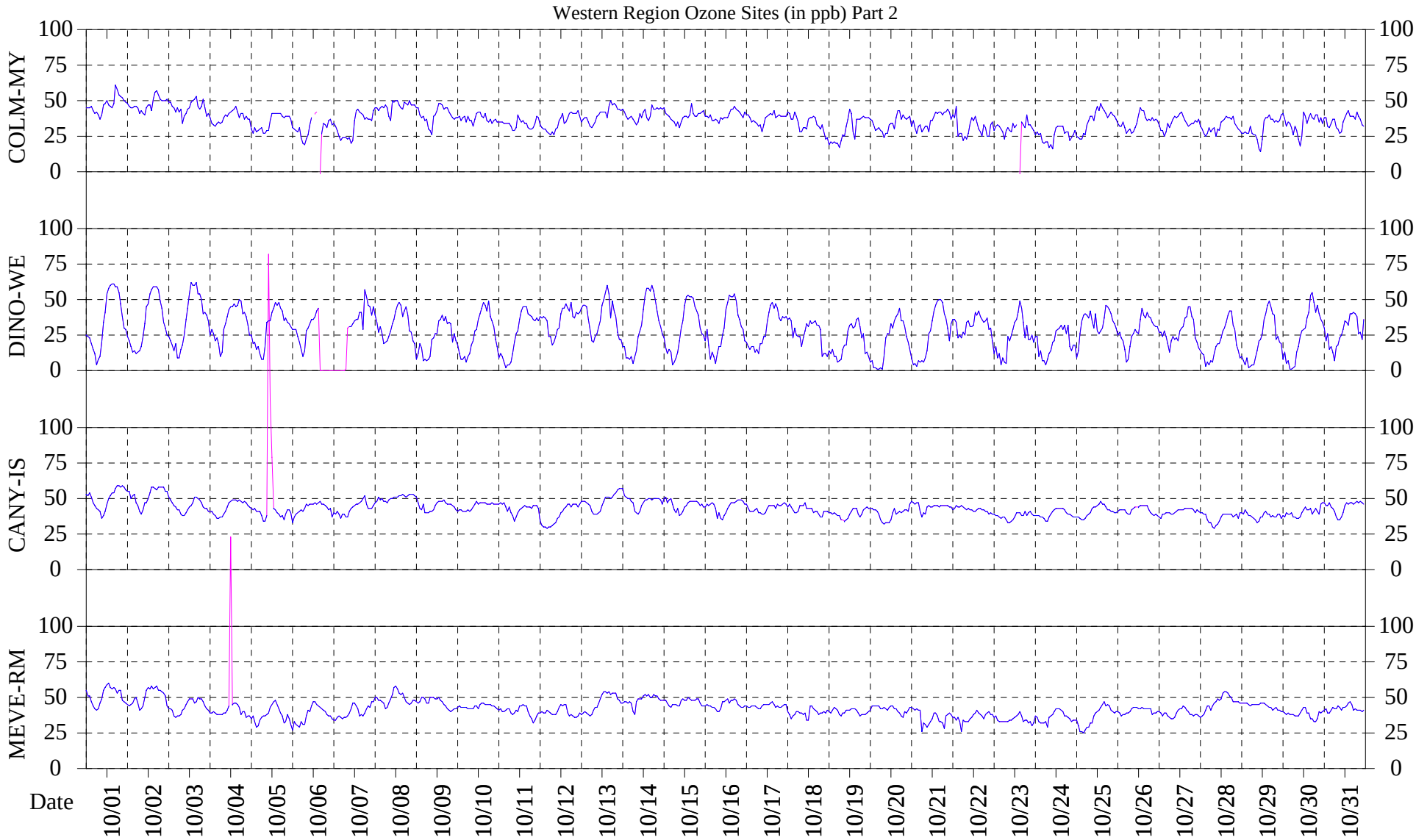

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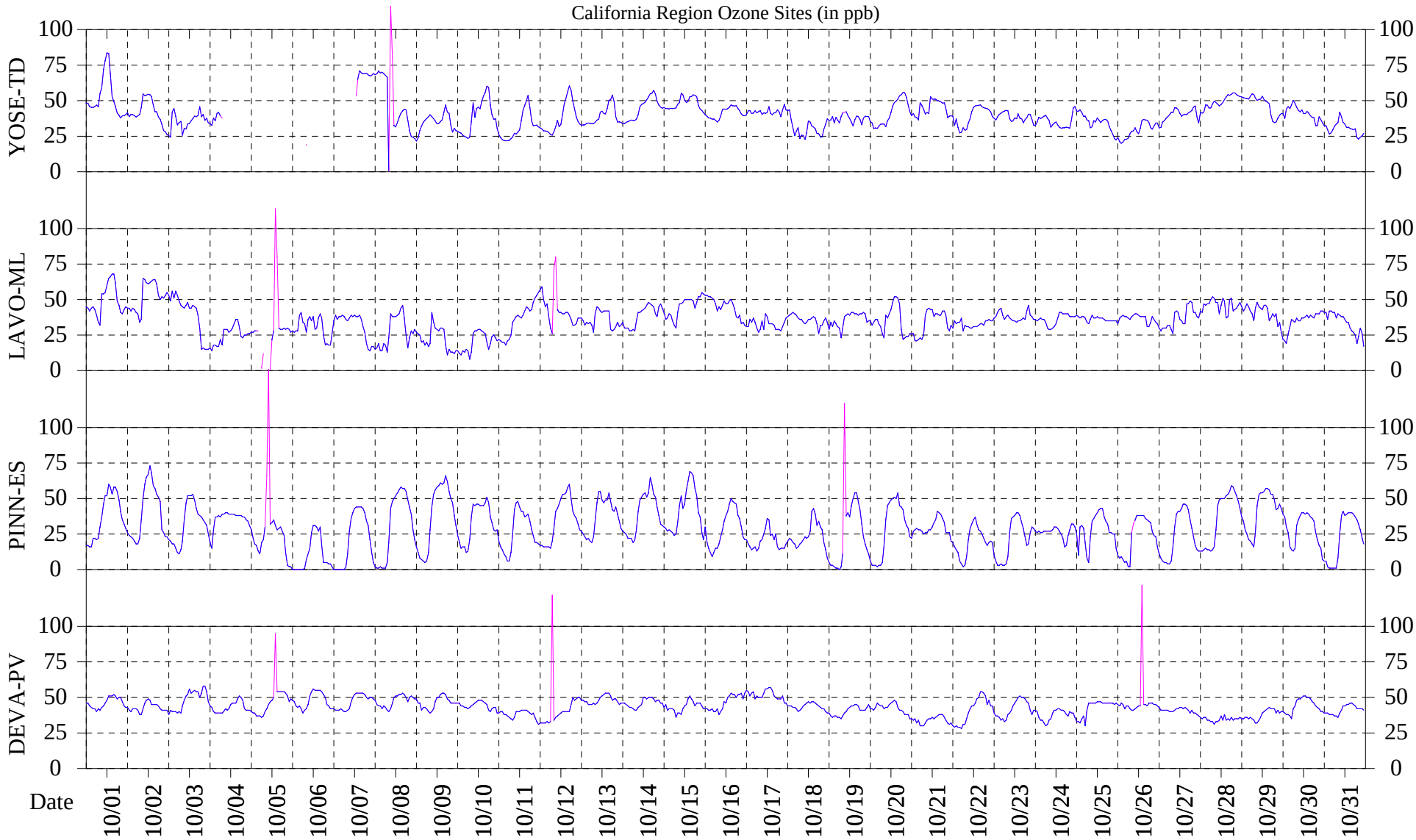

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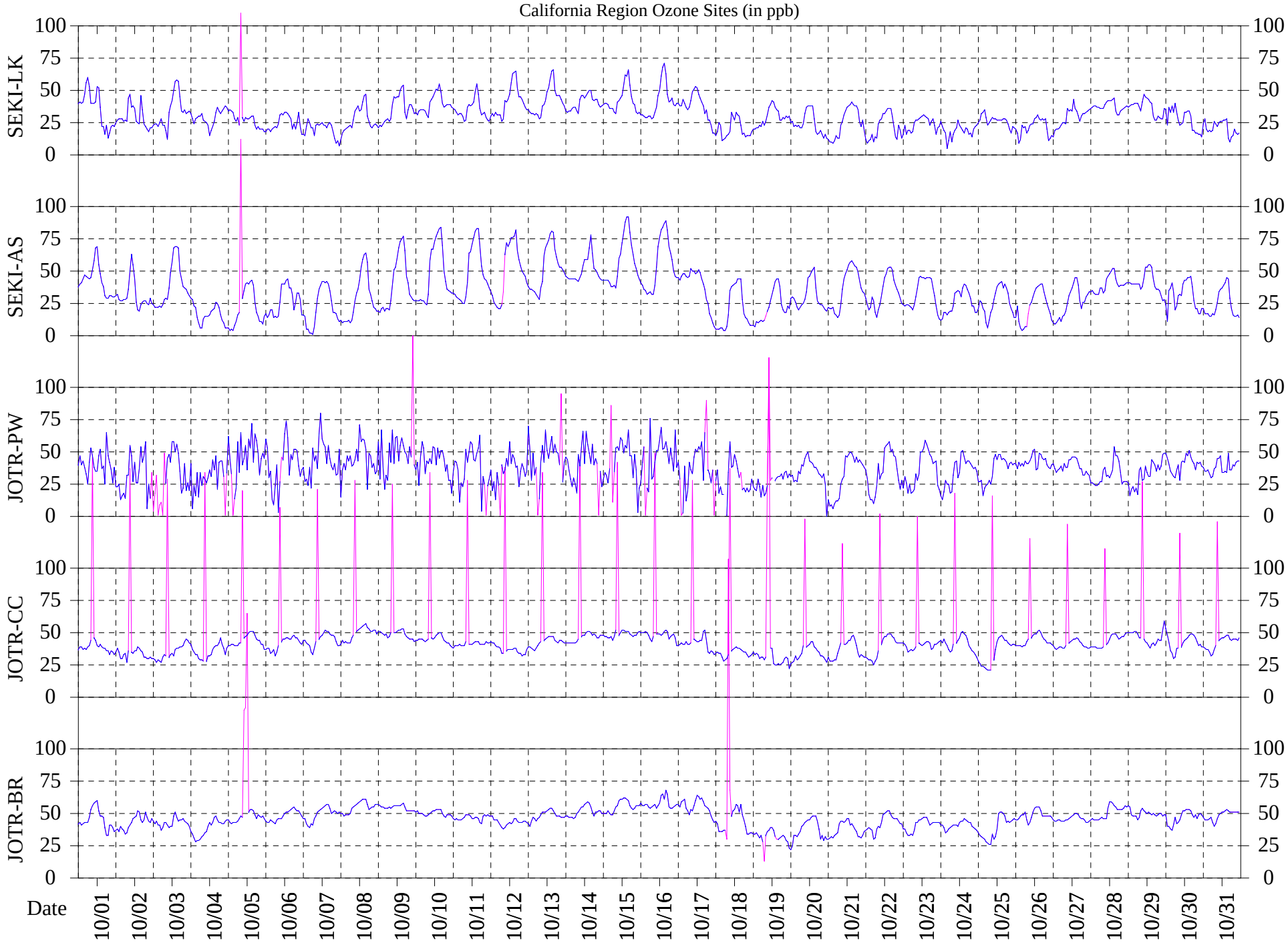

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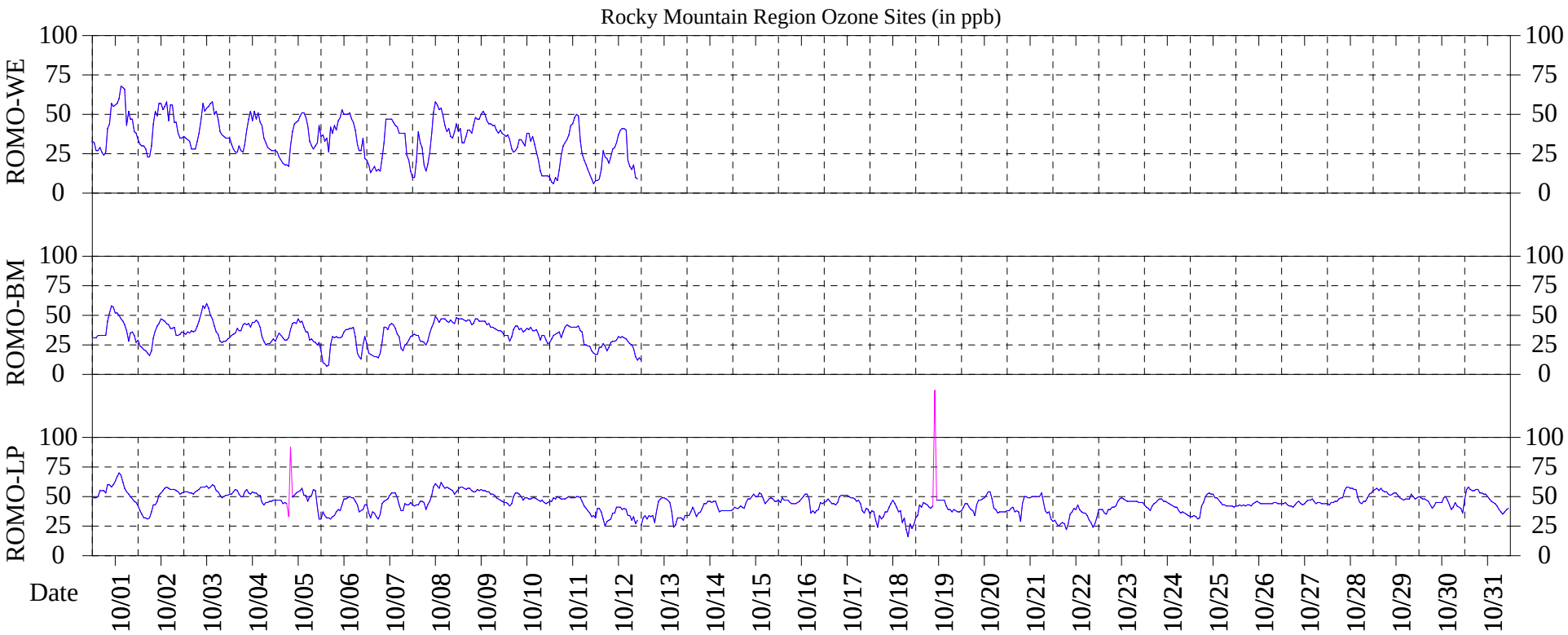

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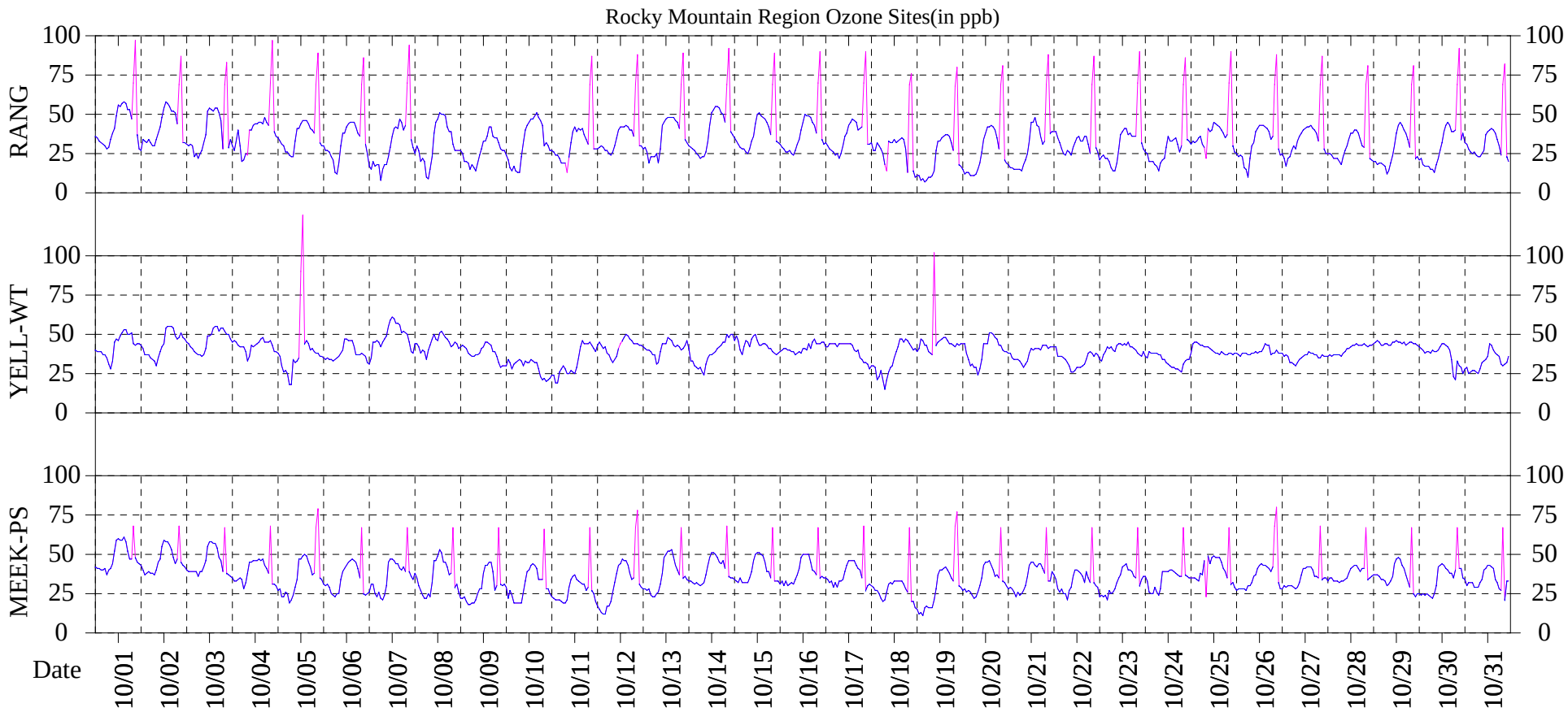

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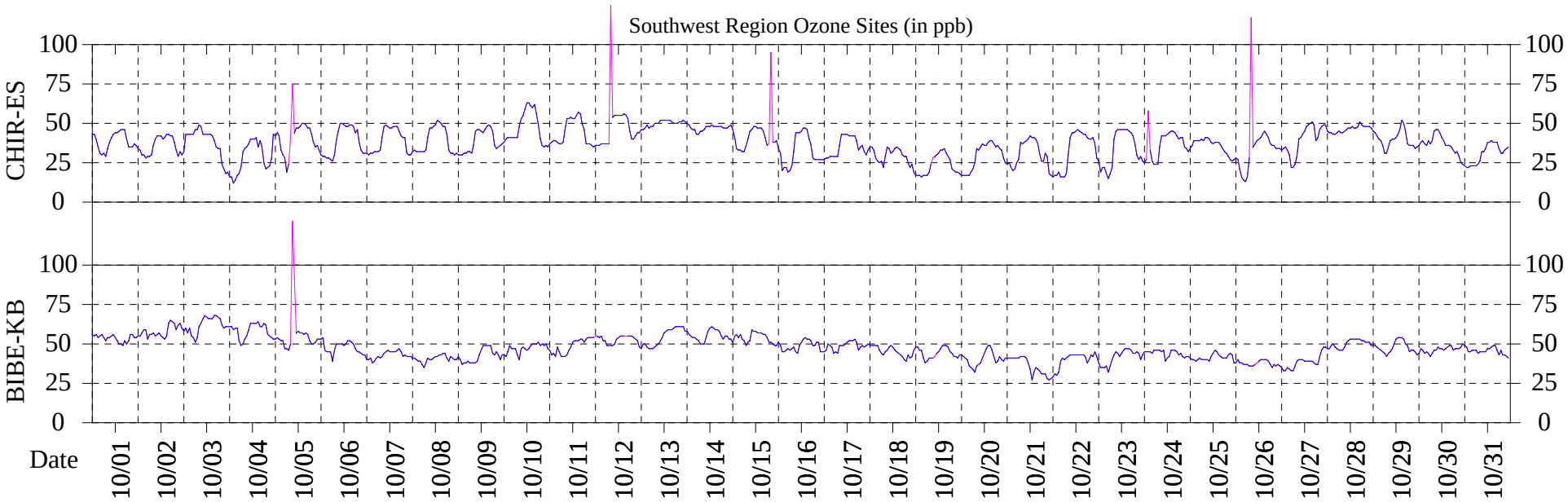

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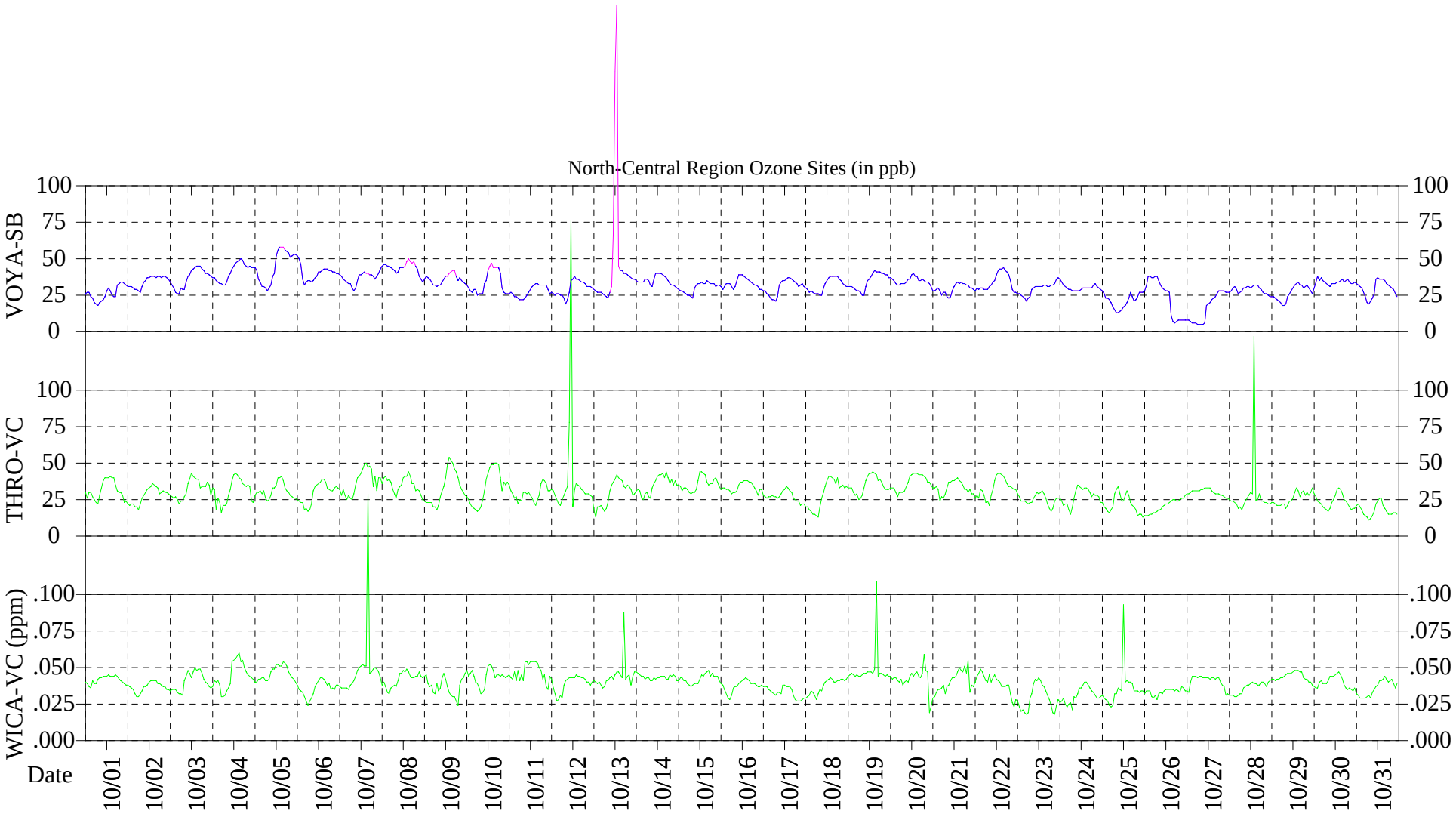

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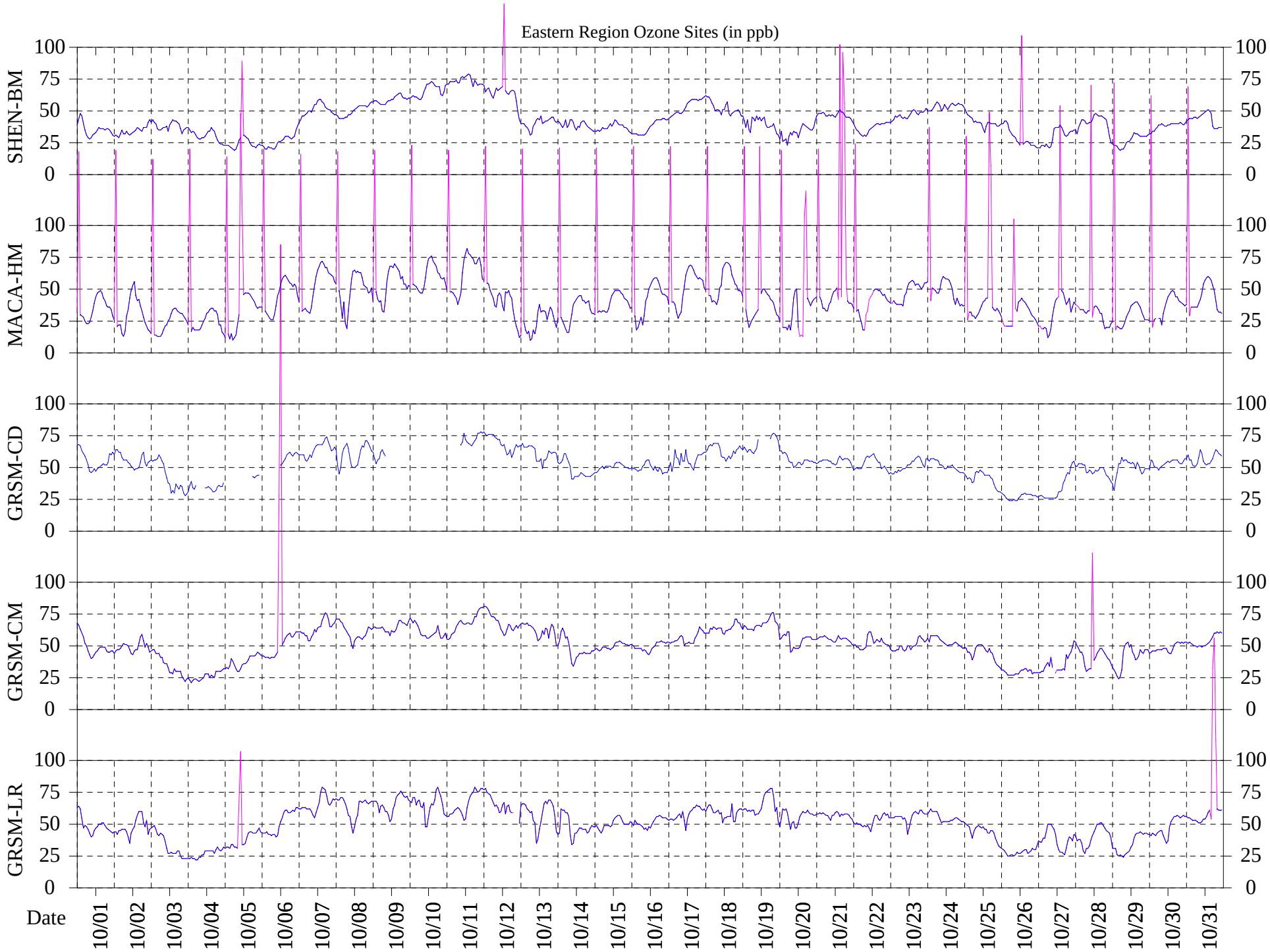
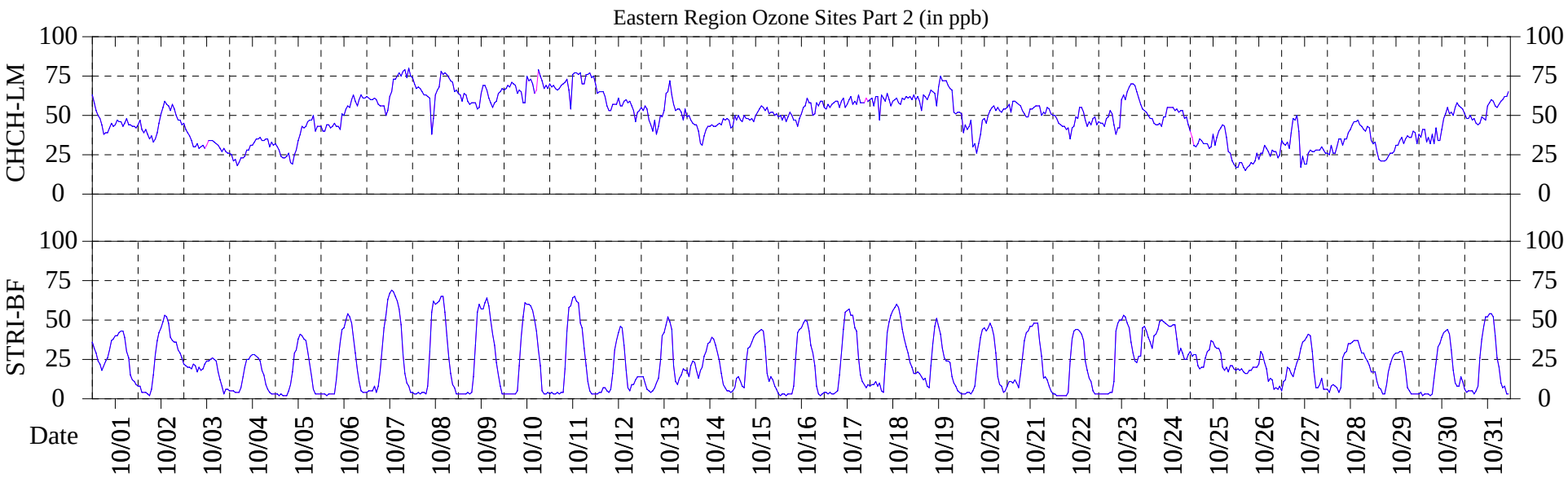


October 2010



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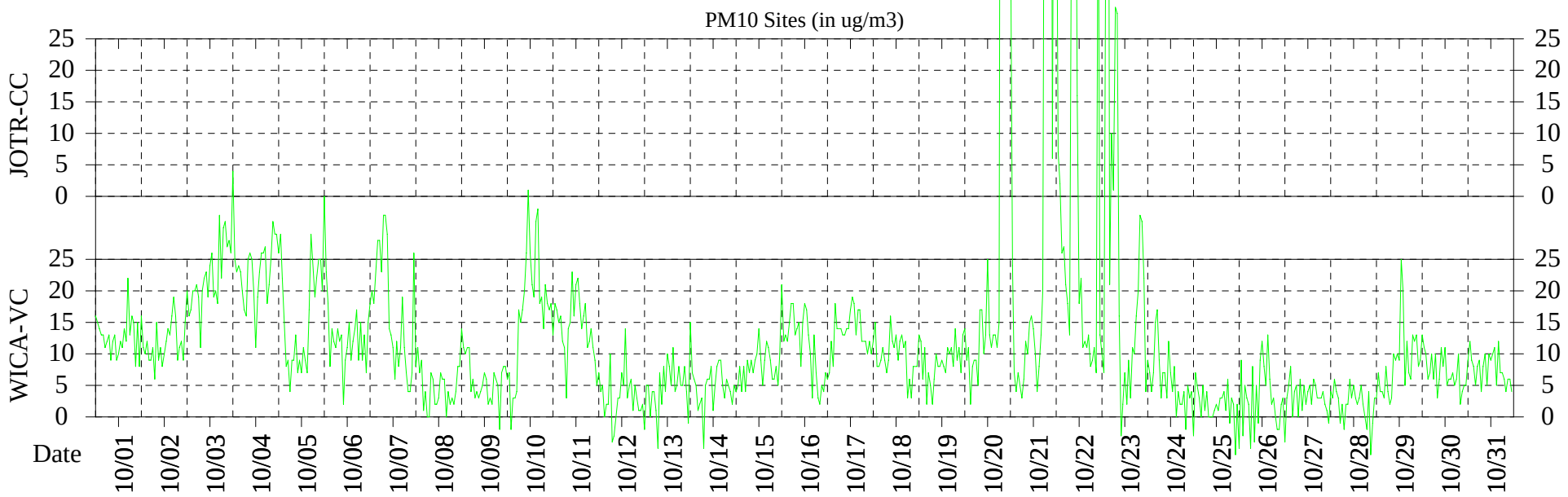

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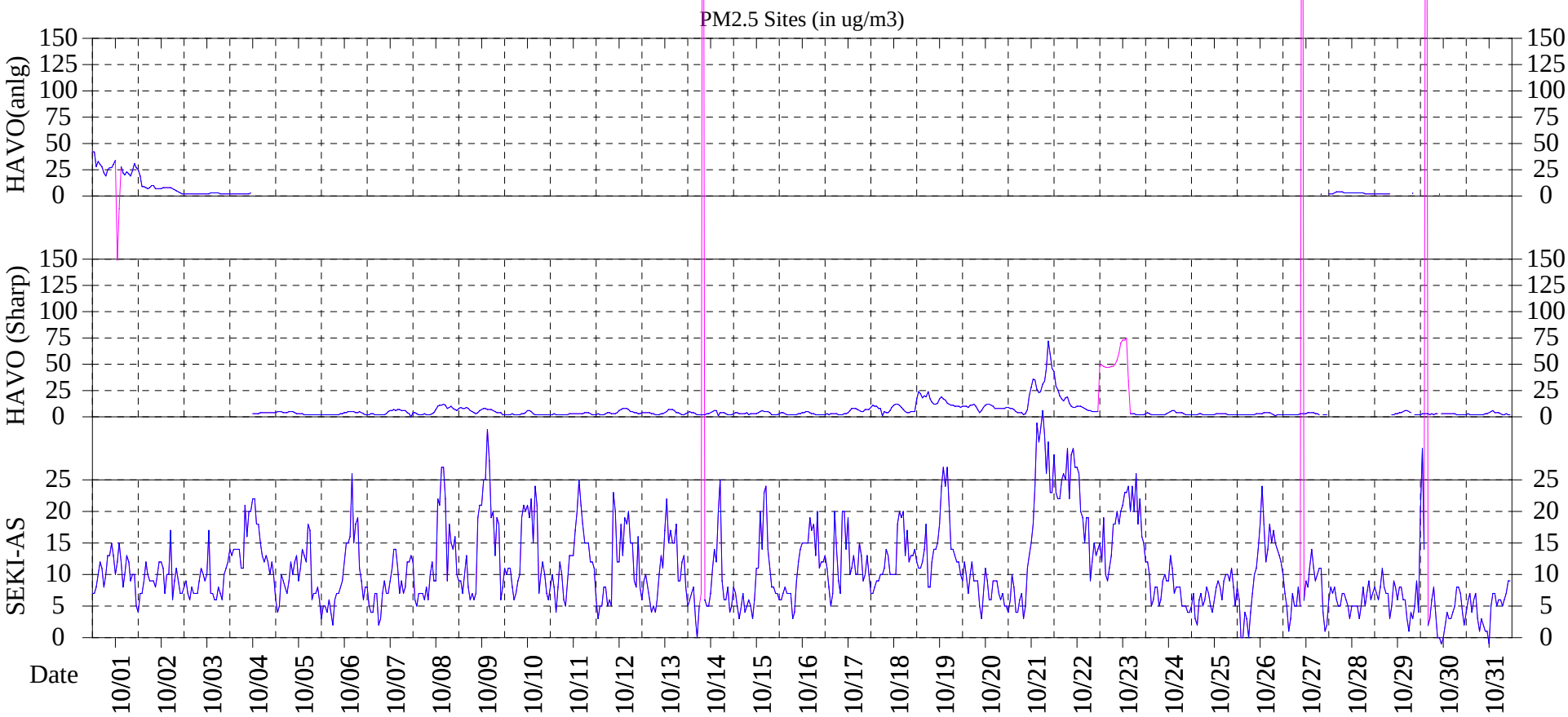

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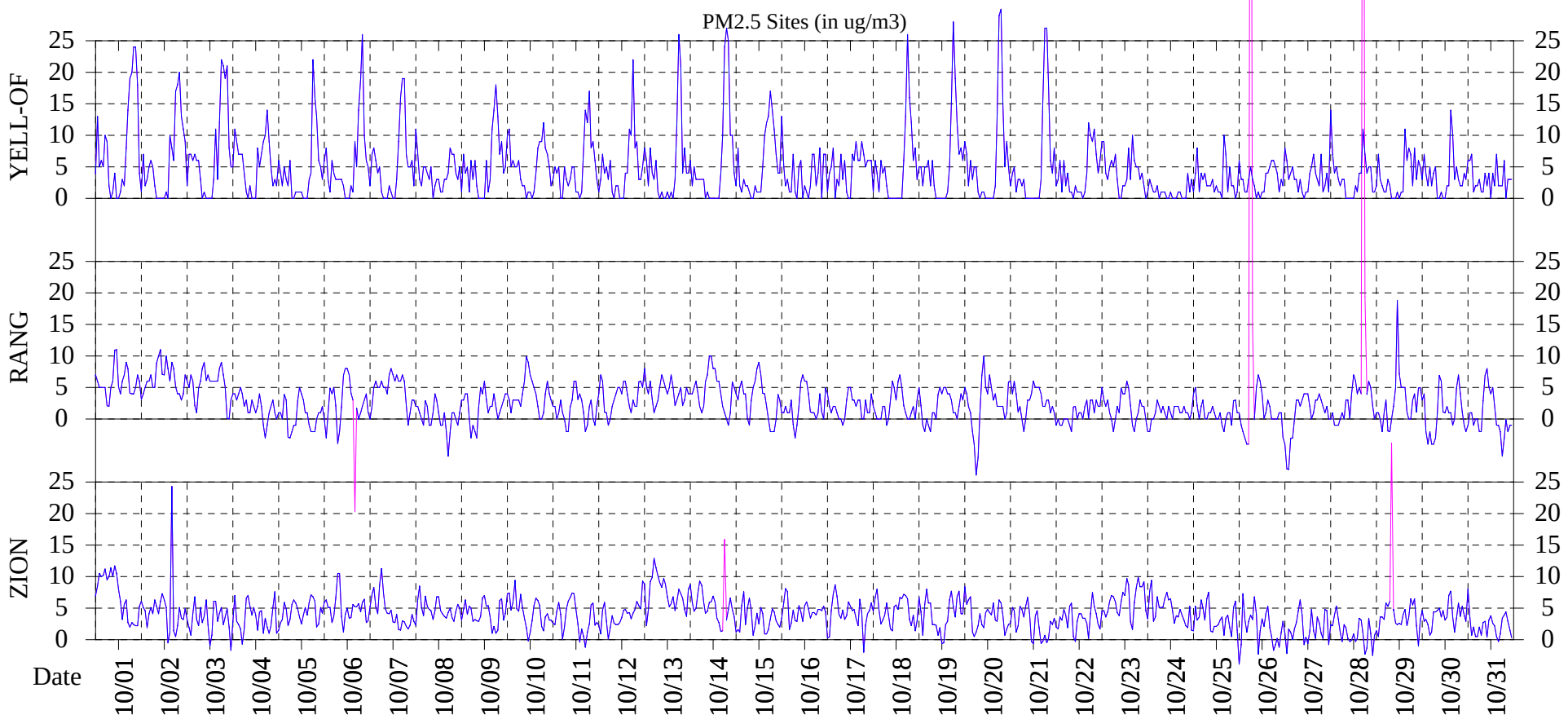

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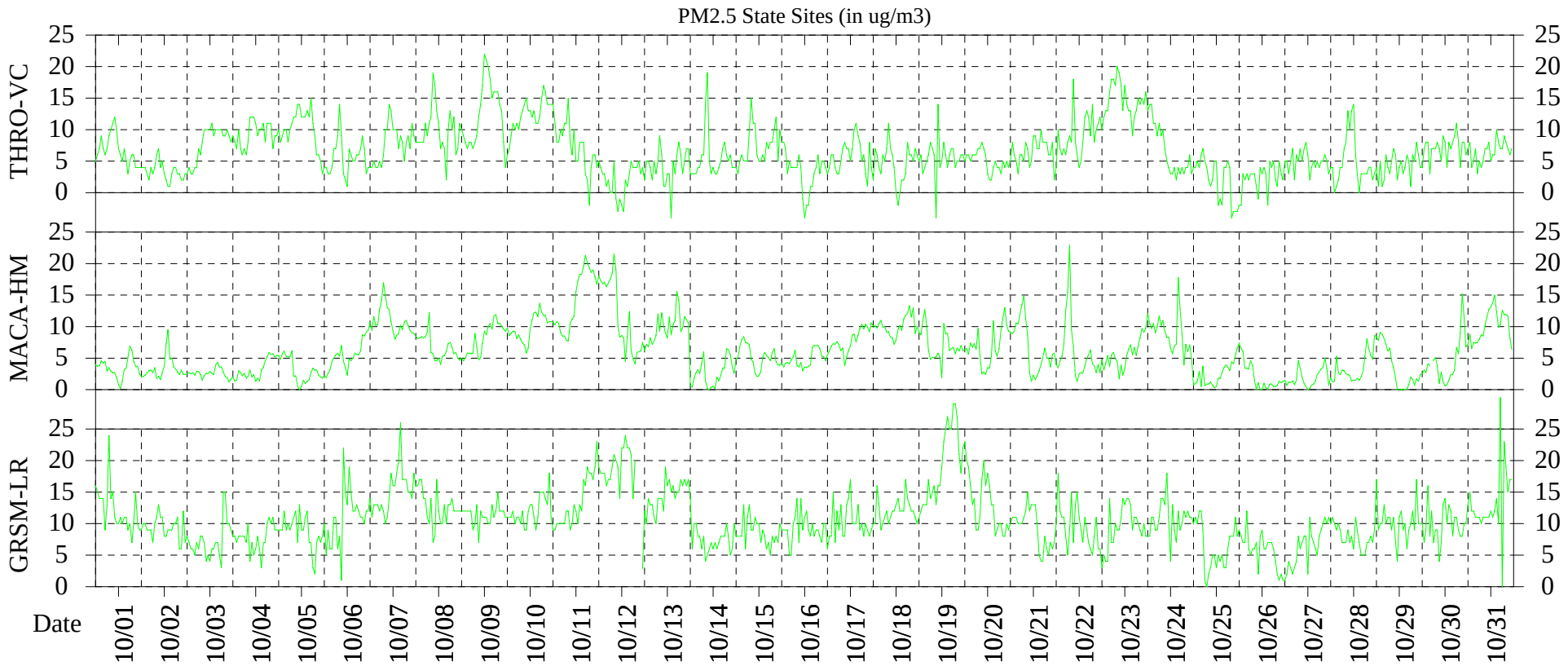

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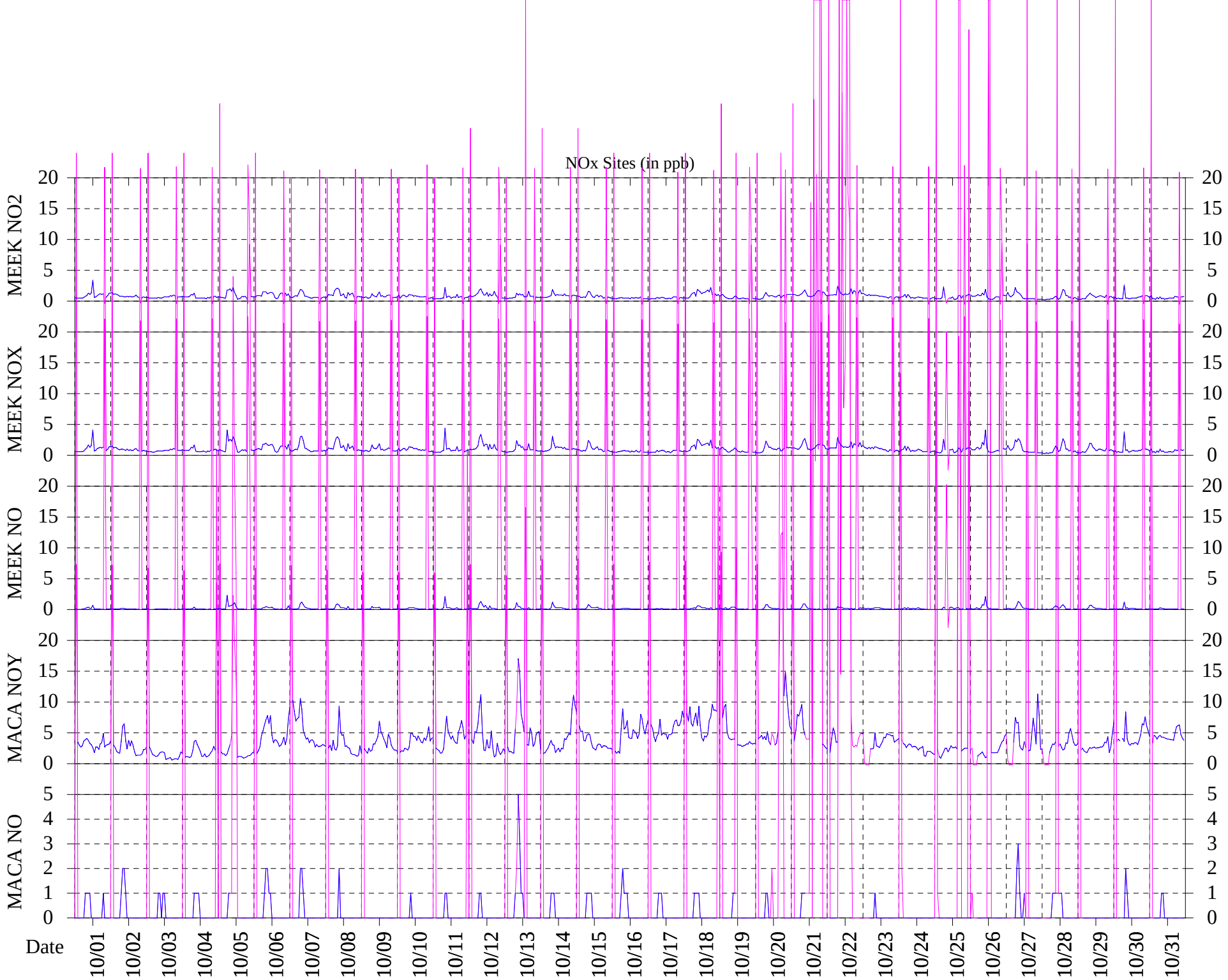

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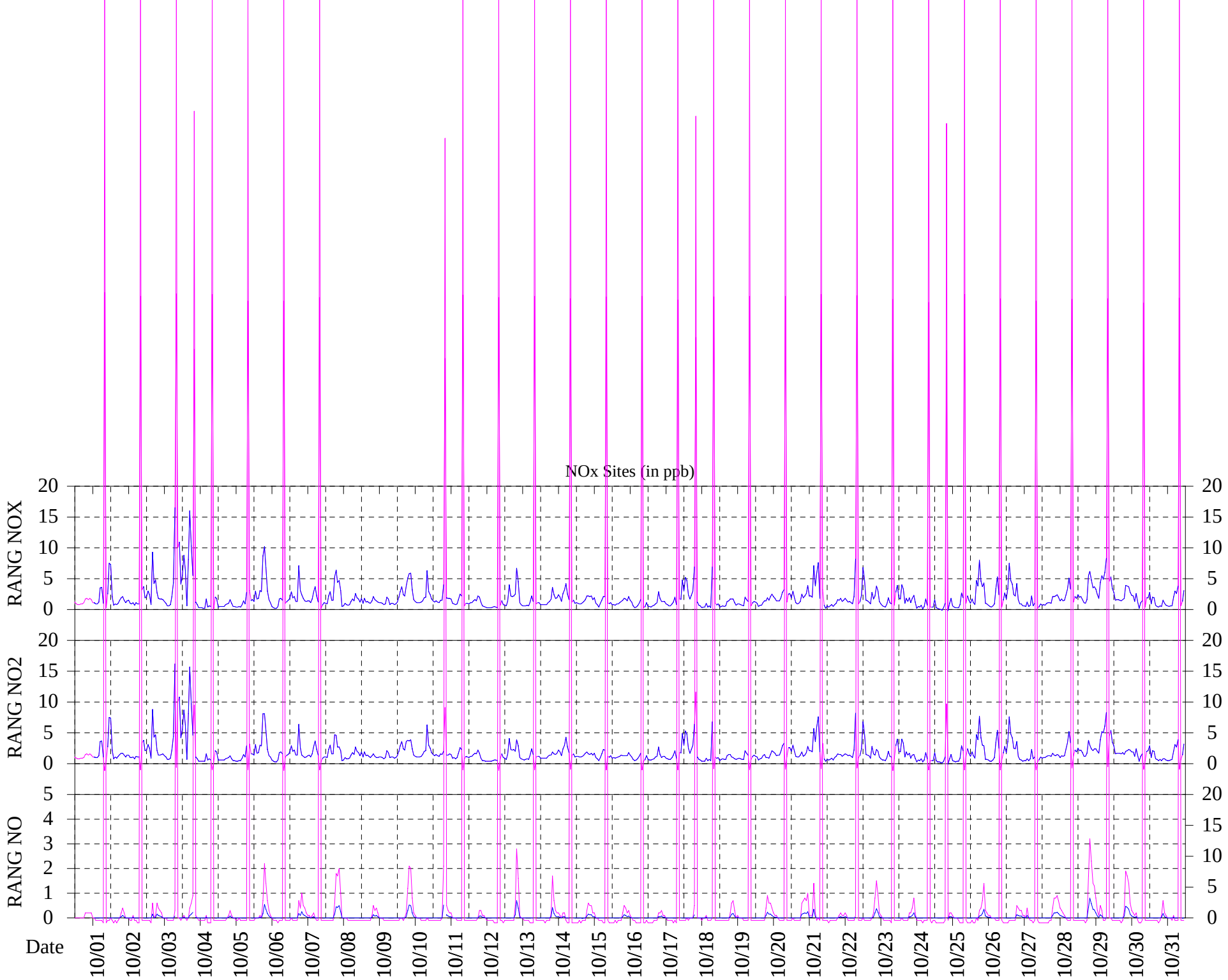

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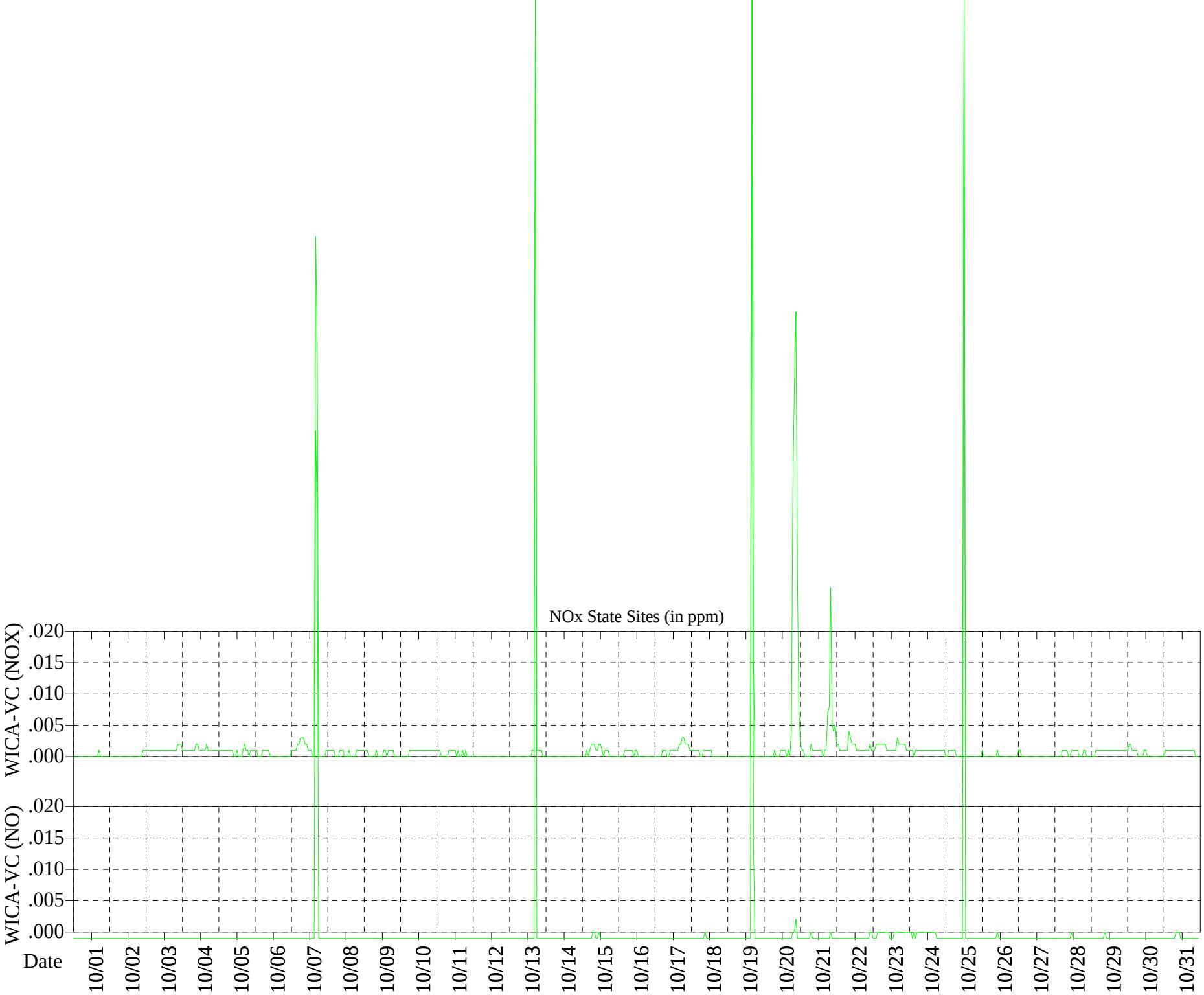

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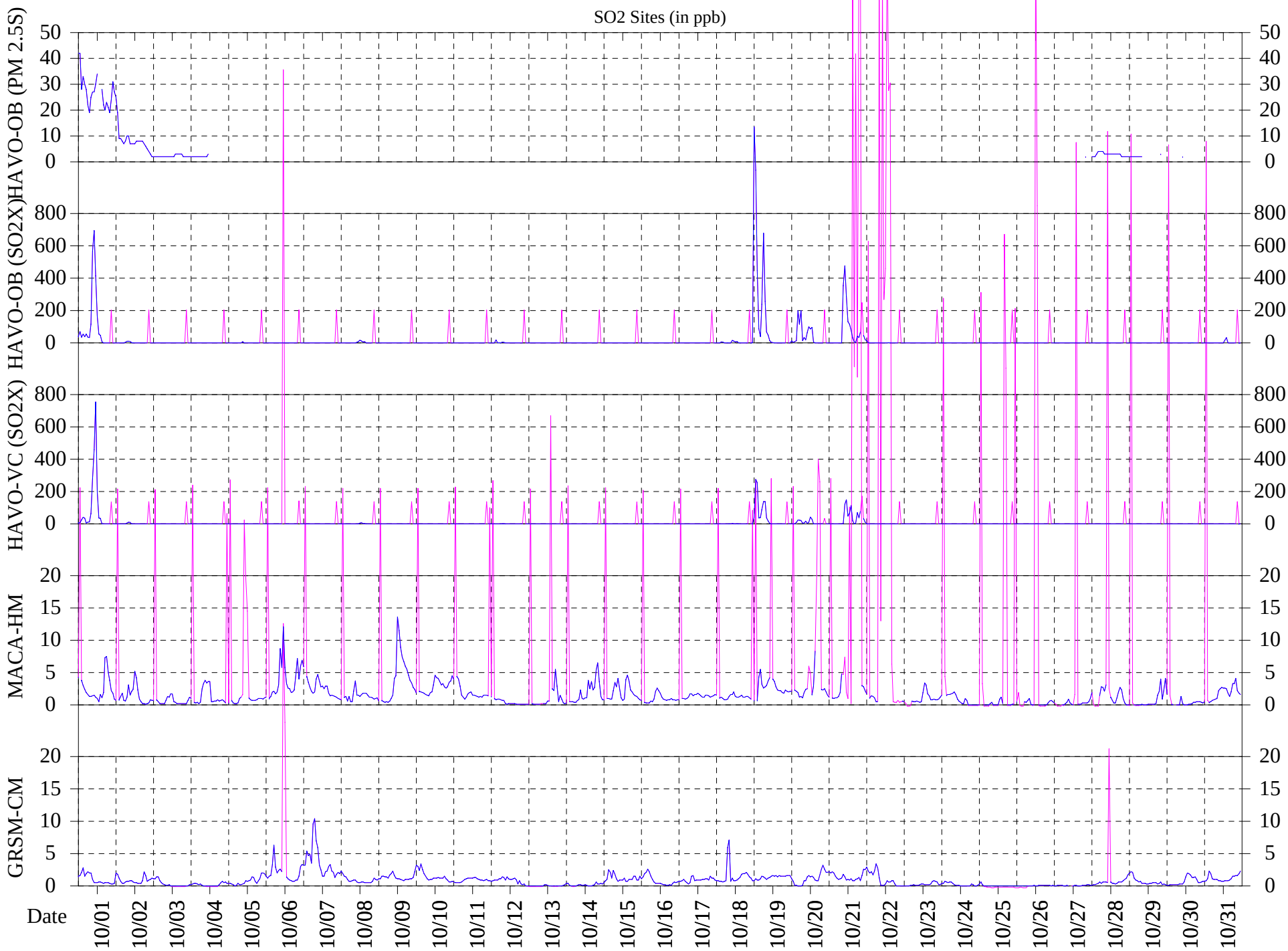

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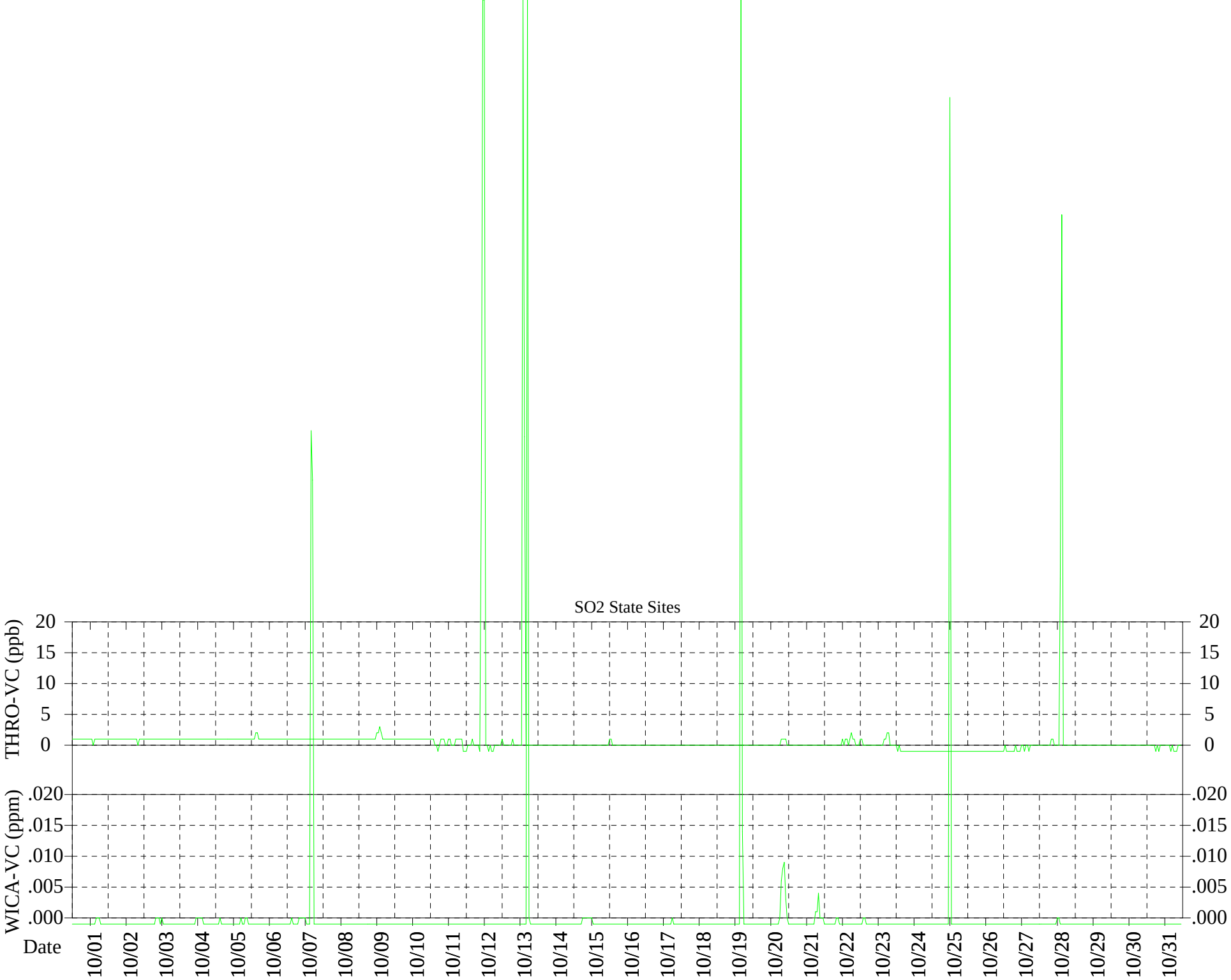

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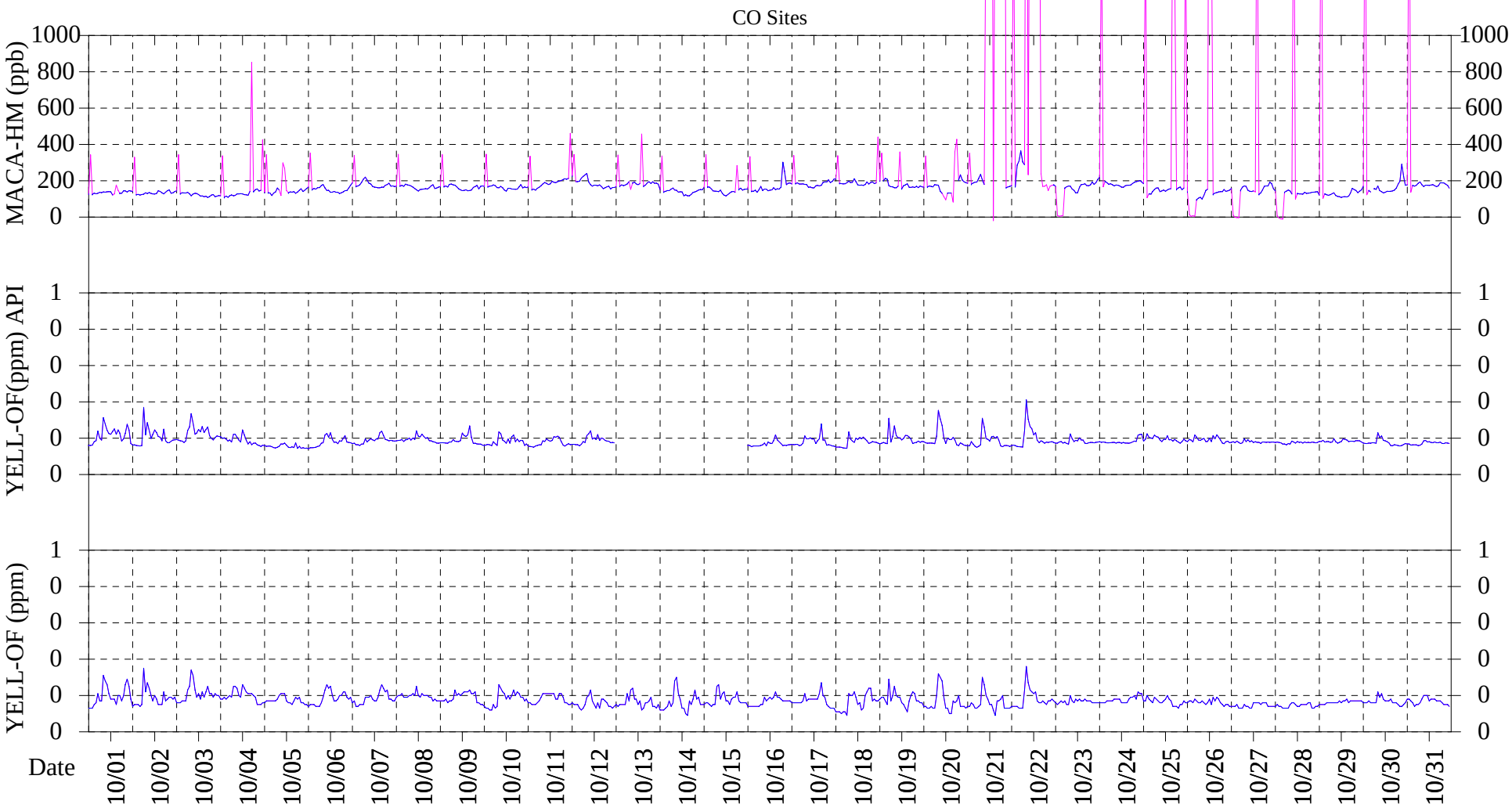

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