



MeteoStar, the Weather  
Symbol of Excellence

# IPS MeteoStar LEADS

## The MeteoStar LEADS System: An Easy To Use, Cost Effective Air & Water Quality Monitoring & Reporting System



Area Map Overall site view Street level Map

Current Measurements at Galveston Airport, CMLC109-C162

- Real time monitoring since Wednesday, April 16, 1997
- Current status: Active
- Parameters currently being monitored:
  - Pollution parameters
    - NO<sub>x</sub>
    - Nitric Oxide
    - Nitrogen Dioxide
    - Oxides of Nitrogen
    - Ozone
    - PM 2.5 (Local Conditions)
  - Meteorological parameters
    - Wind Speed
    - Resultant Wind Speed
    - Resultant Wind Direction
    - Maximum Wind Gust
    - Standard Deviation of Horizontal Wind Direction
    - Outdoor Temperature
    - Dew Point Temperature
    - Relative Humidity



**Clifton Water**

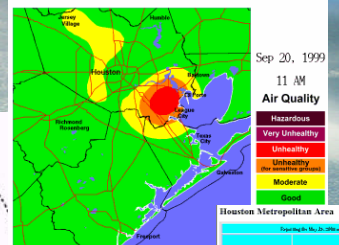
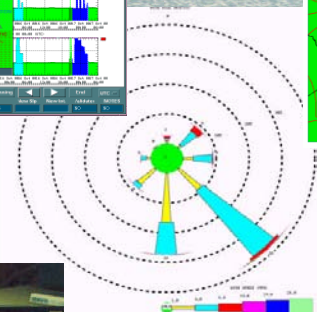
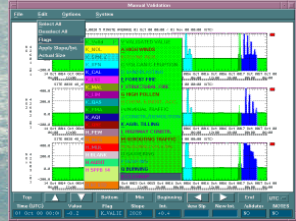
- Address: Clifton
- City: Clifton
- County: Bergen
- Site coordinates:
  - Latitude: 31° 47' 45" North
  - Longitude: 97° 34' 45" West
- Maintained by: THRCO Waico Regional Office



Area Map Overall site view

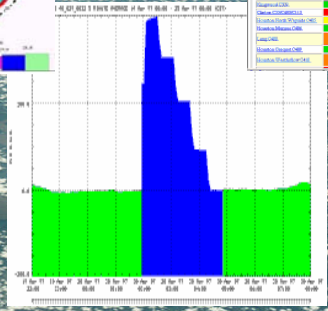
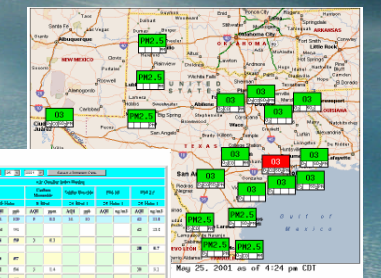
Current Measurements at Clifton Water Site C702

- Real time monitoring since Wednesday, August 13, 2003
- Current status: Active
- Parameters currently being monitored:
  - Water parameters
    - Water Temperature
    - Specific Conductance
    - Chlorophyll-a
    - Turbidity
    - Dissolved Oxygen



Houston Metropolitan Area

Monitoring Station	PM10	PM2.5	Ozone	NOx	SO2	CO	Lead	Water
Bayou Center	145	145	145	145	145	145	145	145
Bayou Vista	145	145	145	145	145	145	145	145
Bayou West	145	145	145	145	145	145	145	145
Bayou North	145	145	145	145	145	145	145	145
Bayou East	145	145	145	145	145	145	145	145
Bayou South	145	145	145	145	145	145	145	145
Bayou Central	145	145	145	145	145	145	145	145
Bayou West	145	145	145	145	145	145	145	145
Bayou North	145	145	145	145	145	145	145	145
Bayou East	145	145	145	145	145	145	145	145
Bayou South	145	145	145	145	145	145	145	145
Bayou Central	145	145	145	145	145	145	145	145
Bayou West	145	145	145	145	145	145	145	145
Bayou North	145	145	145	145	145	145	145	145
Bayou East	145	145	145	145	145	145	145	145
Bayou South	145	145	145	145	145	145	145	145
Bayou Central	145	145	145	145	145	145	145	145





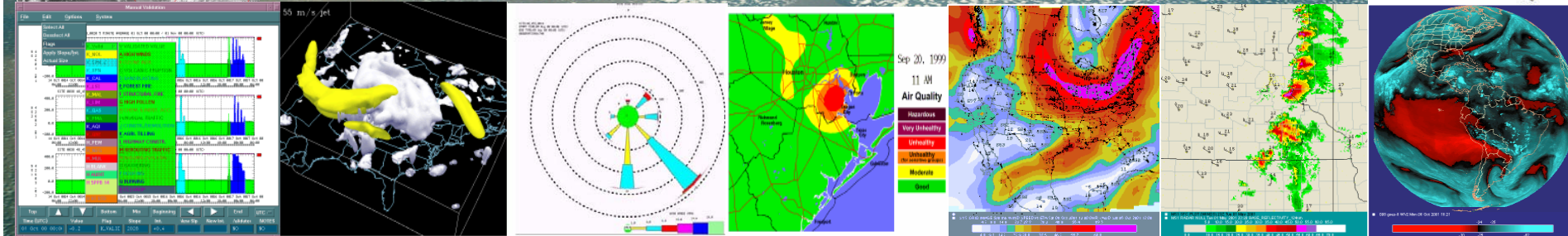
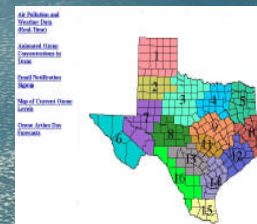
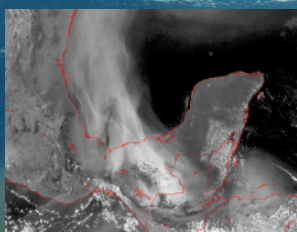
MeteoStar, the Weather  
Symbol of Excellence

# IPS MeteoStar TCEQ's



# Air & Water Monitoring System

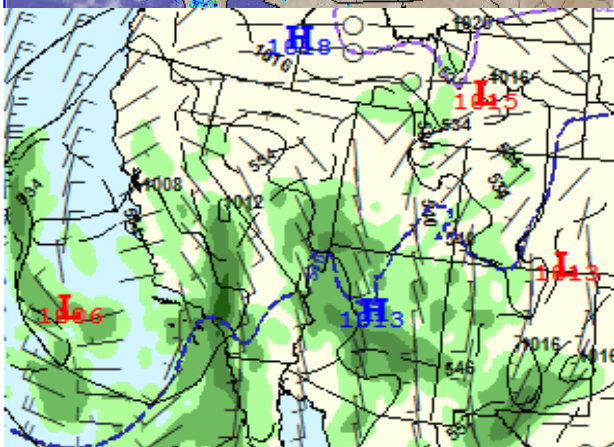
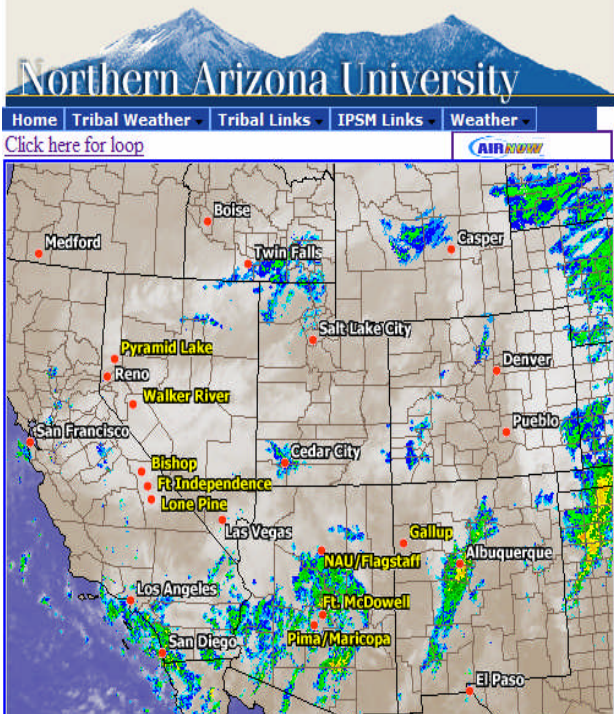
- ✓ Over 180 Near Real-Time Air & Water Quality Monitoring Stations.
- ✓ Integration Of Satellite Imagery & Observations
- ✓ Automated Email Forecasts, Warnings, And Alerts



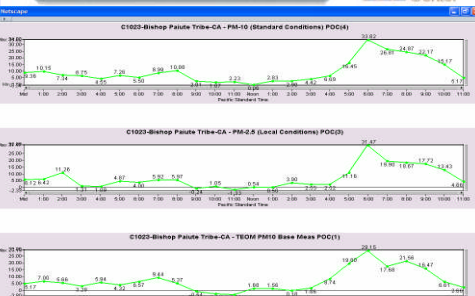


MeteoStar, the Weather Symbol of Excellence

# TREX Network TRibal Environmental eXchange Network



**Pyramid Lake Paiute Tribe**  
Tribal Air MONITORING SUPPORT Center



Forecast For: Lone Pine, California

Current	THU	TONIGHT	FRI	SAT	SUN	MON	TUE	WED
☀️	☁️	☁️	☁️	☀️	☀️	☀️	☀️	☀️
81°	93°	52°	93°	93°	96°	93°	93°	93°
			52°	52°	52°	52°	51°	51°

Comments: Lone Pine Paiute Shoshone Tribe, Lone Pine CA  
 Precipitation: 0.00 inches Humidity: 24.6%  
 Temperature: 81 °F Wind: ESE 6 Gusting to 14 mph  
 PM 10: 38.65  
 Dew Point: 41.2 °F

IPS MeteoStar Current Weather & PM 2.5 Levels  
**Walker River Paiute Tribe, Schurz NV**  
 Temperature: **70°** Dew Point: **23°**  
 Relative Humidity: 16.7%  
 Wind: N 6.6 mph  
 Wind Gust: 11.4 mph  
 Precipitation: 0.00 inches  
 Particulate Matter PM 2.5: 0.07  
 AQI PM 2.5 Quality: **Good** Time: 08 AM PST

**AIR PROGRAM NEWS**  
July 2014

The Tribal Air Program began uploading PM 2.5 data to EPA's AirNow web site. The web site provides a daily reporting of our quality pollution that affects your health. This reporting displays the Air Quality Index, which can also be found on our web site. The Walker River Paiute Tribe joins Washoe County (Humboldt), Clark County (Las Vegas), and Great Basin National Park as the only four Nevada air programs reporting to AirNow. Click AirNow below to visit site.

March 2014

The Walker River Paiute Tribe pleased to announce that the Tribal Air Monitoring Support (TAMSS) Center, Las Vegas, Nevada, which is a satellite component of the Institute for Tribal Environmental Professionals (ITEP), Northern Arizona State University will be implementing a US EPA grant to further develop a proposed pilot project tentatively named the National Tribal Environmental Monitoring System or TEMS.

Click here to visit the Walker River Paiute Tribe LEADS System Measurement

These tribes will join the Walker River Paiute Tribe and the Lone Pine Paiute-Shoshone Tribe in the pilot project. In addition to the Pyramid Lake Paiute Tribe, Bishop Paiute Tribe, and the Salt River Pima-Maricopa Indian Community, the TAMSS Center will also participate. The contractor, IPS MeteoStar will work with the tribes and the TAMSS Center on a web-based data management system using the LEADS software to manage continuous meteorological and air monitoring data. For more information on this pilot project, please contact Annabelle Alberry, Technical Manager, ITEP.

**C1018-Lone Pine Paiute/Shoshone Tribe-CA Data by Site**

Use this form to retrieve hourly data collected at C1018-Lone Pine Paiute Shoshone Tribe-CA. Although this is our site, this page provides the most current hourly averaged data available. Our convention for time-tagging data is the 1:00 p.m. The noon average will be available on our external server after 1:30 p.m. This results in an apparent one-hour time lag in the data during Daylight Saving Time, this introduces another apparent one-hour time lag in the data.

Use the controls below to select a different date or time format. Click on the Generate Report button once you have set the date and time.

Month: June Day: 16 Year: 2004 Time Format: 12 Hour (AM/PM) Generate Report

The table below contains hourly averages for all the pollutants and meteorological conditions measured at C1018-Lone Pine Paiute Shoshone Tribe-CA.

Parameter Measured	Morning												Afternoon												Parameter Measured
	Mid	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00	1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00	11:00		
Wind Speed	4.6	3.0	3.3	4.4	4.6	4.9	3.3	7.7	7.8	5.3	5.4	10.9	10.8	16.7	16.4	6.7	9.4	9.2	4.1	3.1	3.3	2.3	3.3	4.8	Wind Speed
Relative Wind Speed	4.5	0.9	2.8	3.9	4.0	4.7	3.1	7.3	7.4	4.7	3.2	10.2	10.0	15.6	15.6	4.5	6.6	6.4	2.3	3.4	0.8	2.2	3.1	4.7	Relative Wind Speed
Relative Wind Direction	237	166	322	322	334	327	337	342	336	335	137	132	144	132	139	139	151	304	345	311	261	345	323	351	Relative Wind Direction
Maximum Wind Gust	6.7	6.9	7.1	8.0	8.4	10.5	11.4	12.5	18.6	11.0	18.7	21.6	23.5	32.0	35.2	34.7	26.6	23.5	12.2	5.5	6.0	9.6	10.7	8.3	Maximum Wind Gust
Std. Dev. Wind Direction	13	67	31	28	31	16	17	18	19	28	31	20	22	21	18	46	74	24	56	39	11	65	48	13	Std. Dev. Wind Direction
Outdoor Temperature	77.0	72.7	72.1	69.2	67.4	65.8	66.8	75.4	79.0	83.0	86.9	89.5	89.4	88.9	88.5	87.4	85.9	82.8	82.5	78.6	71.2	73.0	70.5	64.3	Outdoor Temperature
Dew Point Temperature	40.4	41.0	42.1	42.1	37.9	36.5	37.0	33.8	31.9	30.9	30.3	34.5	35.0	38.7	38.6	32.9	37.4	41.1	41.9	42.1	41.8	40.9	44.2	44.2	Dew Point Temperature
Relative Humidity	26.9	32.0	34.5	37.8	34.4	36.6	33.2	22.1	17.9	12.1	13.2	14.0	14.5	17.1	17.4	14.3	18.1	22.8	24.0	27.3	28.7	32.7	34.9	48.4	Relative Humidity
Solar Radiation	0.000	0.000	0.000	0.000	0.004	0.127	0.424	0.703	0.953	1.159	1.294	1.356	0.602	0.697	0.475	0.167	0.194	0.160	0.149	0.000	0.000	0.000	0.000	0.000	Solar Radiation
Barometric Pressure	884.9	883.0	884.9	883.0	883.3	883.7	886.0	886.2	886.1	883.5	883.5	884.9	884.5	884.2	883.9	884.2	884.2	884.2	884.1	884.1	884.1	884.1	884.1	884.1	Barometric Pressure
Precipitation	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Precipitation
PM-10 (Standard Conditions)	27.07	56.91	53.73	50.07	15.33	69.13	15.45	10.64	11.39	15.99	19.41	19.11	19.43	56.36	44.37	18.13	14.94	20.25	26.17	41.94	29.13	26.16	27.25	17.36	PM-10 (Standard Conditions)

**C1018-Lone Pine Paiute/Shoshone Tribe-CA**

DATE: 10/18 C1018-Lone Pine Paiute/Shoshone Tribe-CA

EPA site number: 06-021-1013  
 State: California  
 County: Toiyabe  
 City: Lone Pine  
 Address: 1101 E. 1st Lane  
 Site coordinates:  
 Latitude: 36° 33' 44" North (+36.562555°)  
 Longitude: 118° 02' 37" West (-118.043617°)  
 Elevation: 1128 m (3718 ft)  
 Maintained by: Lone Pine Paiute Shoshone Tribe

Area Map not available  
 Web aerial photo not available  
 Download site view  
 Cleanup aerial photo not available  
 Select level: 10m

Current Measurements at C1018-Lone Pine Paiute Shoshone Tribe-CA  
 Month Summary Report for Parameters at C1018-Lone Pine Paiute Shoshone Tribe-CA

Real-time monitoring since: Thursday, May 22, 2003  
 Current status: Active  
 Parameters currently being monitored:  
 Meteorological parameters:  
 Wind Speed  
 Relative Wind Speed  
 Relative Wind Direction  
 Maximum Wind Gust  
 Standard Deviation of Horizontal Wind Direction  
 Outdoor Temperature  
 Dew Point Temperature  
 Relative Humidity



MeteoStar, the Weather  
Symbol of Excellence

# IPSM Existing Heavy Use Continuous Air & Water Monitoring Network With Over 180 Stations Sampling Over 1,700 Monitors Every Second

## Air Monitoring Sites in the Houston Area



In Harris, Galveston, Montgomery, and Brazoria counties, monitors at 38 stations check air quality throughout the day. Seven of those sites are operated by private industry; the remainder are run by the TCEQ, Harris County, the city of Houston, and the University of Houston. Regardless of ownership, all the monitors share data through the same network. The area's monitoring resources include: 37 ozone sites, 7 sulfur dioxide sites, 1 hydrogen sulfide site, 35 sites taking wind speed and direction, and 11 sites for highly reactive volatile organic compounds.

## TCEQ Continuous Water Quality Monitoring



The TCEQ operates eight continuous water quality monitors: two on Caddo Lake, four in the Bosque/Leon watersheds, and two on Lake Austin (summer only). A ninth monitor (not shown) is stationed on Walnut Creek next to the TCEQ Austin headquarters. It is used to test equipment. Two more monitors will be deployed on the Pecos River this summer.



The San Jacinto Monument serves as an impressive backdrop to a TCEQ air monitoring station on Houston's east side. The monitor collects hourly data on ozone. Illustration by Tommy Hultgren.



MeteoStar, the Weather  
Symbol of Excellence

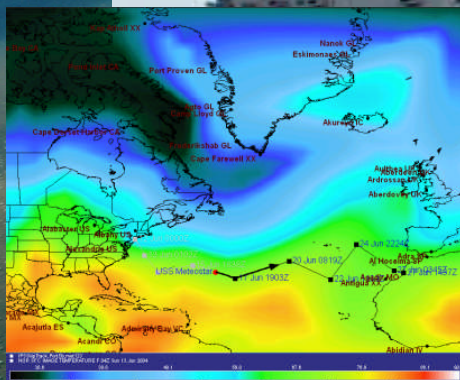
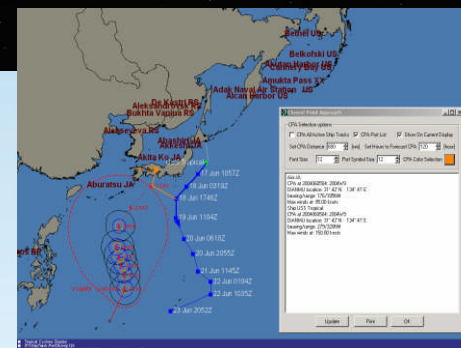
# *US Air Force/IPS MeteoStar LEADS Software Used For Forecasts & Flight Operations.*





MeteoStar, the Weather  
Symbol of Excellence

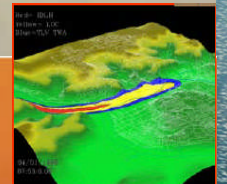
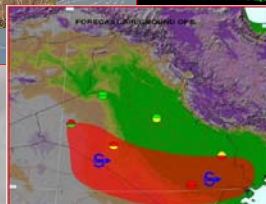
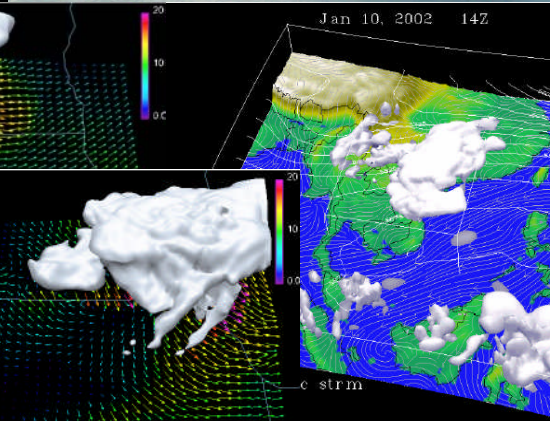
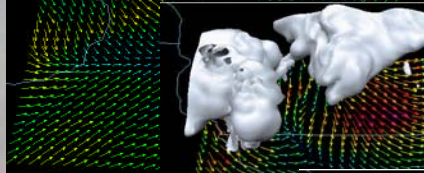
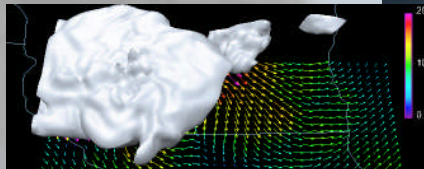
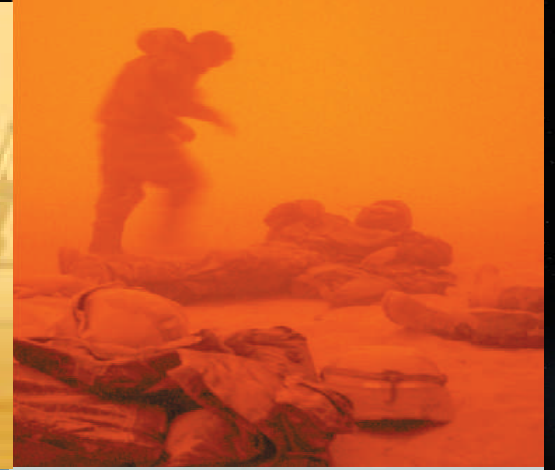
# US Navy/Marines Select IPS MeteoStar Software For Fleet Weather Forecast & Ship Tracking In October 2003





MeteoStar, the Weather  
Symbol of Excellence

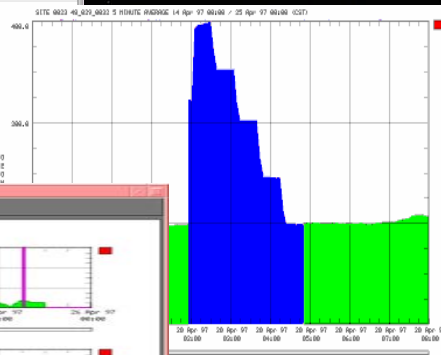
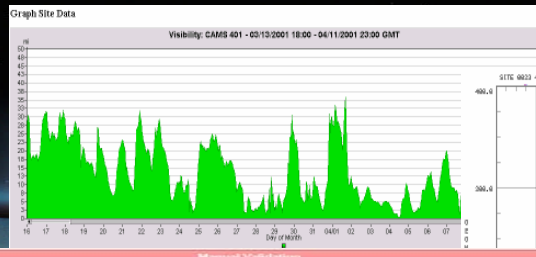
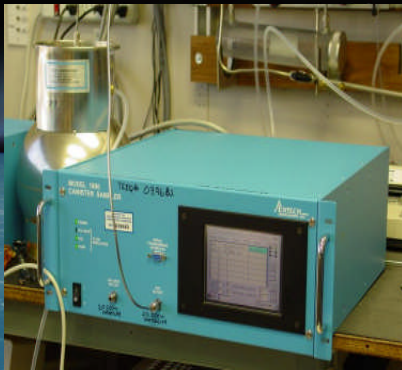
# IPS MeteoStar Wins US ARMY Future Combat Systems (FCS) Weather Information Systems Contract June 2004





MeteoStar, the Weather  
Symbol of Excellence

✓ Ability To Automatically Calibrate And QA/QC  
Complex Instrumentation On The Fly  
✓ Ability To Trigger Emergency Grab Samples On Alerts



The table below contains hourly averages for Thursday, May 24, 2001. All times shown are in Local Standard Time.

Parameter	Mid	Morning					Afternoon					Odor	Heat				
		1:00	2:00	3:00	4:00	5:00	6:00	7:00	8:00	9:00	10:00			11:00	Noon	1:00	2:00
Acetylene	0.54	0.55	5.00	BLN	0.70	1.65	1.24	1.19	0.56	0.53	0.50	0.52	0.35	0.34	NA	NA	2500
Benzene	0.14	0.16	5.00	BLN	0.18	0.42	0.42	0.28	0.18	0.15	0.14	0.13	0.10	0.09	NA	NA	25
1,3-Butadiene	0.04	0.05	5.00	BLN	0.10	0.30	0.26	0.14	0.07	0.06	0.05	0.05	0.05	0.04	NA	NA	50
n-Butane	1.63	1.36	5.00	BLN	0.91	1.00	0.81	0.69	0.74	0.76	0.98	0.88	0.57	0.44	NA	NA	8000
1-Butene	0.06	0.06	5.00	BLN	0.06	0.18	0.17	0.10	0.06	0.05	0.05	0.04	0.04	0.04	NA	NA	69
c-2-Butene	0.08	0.05	5.00	BLN	0.04	0.10	0.09	0.06	0.06	0.03	0.03	0.02	0.03	0.02	NA	NA	600
t-2-Butene	0.08	0.05	5.00	BLN	0.04	0.11	0.10	0.06	0.06	0.03	0.04	0.03	0.04	0.03	NA	NA	600
Cyclohexane	0.24	0.26	5.00	BLN	0.07	0.11	0.08	0.05	0.05	0.06	0.04	0.03	0.00	0.02	NA	NA	415
Cyclopentane	0.07	0.06	5.00	BLN	0.07	0.10	0.08	0.06	0.05	0.05	0.05	0.05	0.04	0.03	NA	NA	119
Cyclopentene	0.07	0.06	5.00	BLN	0.07	0.10	0.08	0.06	0.05	0.05	0.05	0.05	0.04	0.03	NA	NA	293
n-Decane	0.04	0.05	5.00	BLN	0.05	0.05	0.05	0.04	0.04	0.04	0.04	0.04	0.00	0.00	NA	NA	175
m-Diethylbenzene	0.01	0.01	5.00	BLN	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00	NA	NA	455
p-Diethylbenzene	0.01	0.01	5.00	BLN	0.01	0.03	0.03	0.02	0.01	0.01	0.00	0.01	0.00	0.00	NA	NA	455
2,2-Dimethylbutane	0.03	0.02	5.00	BLN	0.03	0.04	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01	NA	NA	100
2,3-Dimethylbutane	0.07	0.06	5.00	BLN	0.08	0.12	0.12	0.08	0.06	0.05	0.05	0.04	0.05	0.02	NA	NA	100
2,3-Dimethylpentane	0.00	0.05	5.00	BLN	0.05	0.13	0.13	0.08	0.00	0.00	0.06	0.00	0.00	0.00	NA	NA	910
2,4-Dimethylpentane	0.00	0.00	5.00	BLN	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	NA	NA	910
Ethane	8.00	9.11	5.00	BLN	5.87	6.69	4.76	3.88	3.59	3.86	4.15	3.67	2.97	3.00	NA	NA	1000
Ethylbenzene	17	13	16	94	7	11	11	11	10	11	10	11	10	11	NA	NA	100







MeteoStar, the Weather  
Symbol of Excellence

# *IPS MeteoStar LEADS TCEQ Mobile Monitoring System*

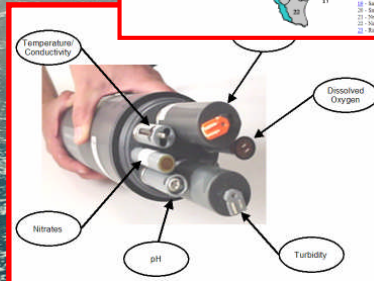
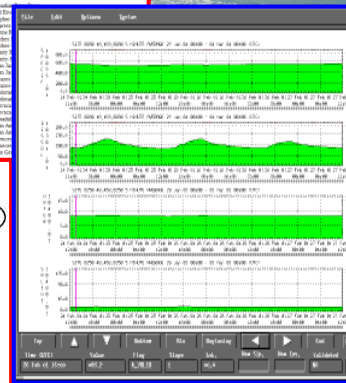
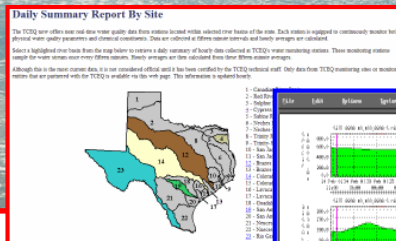
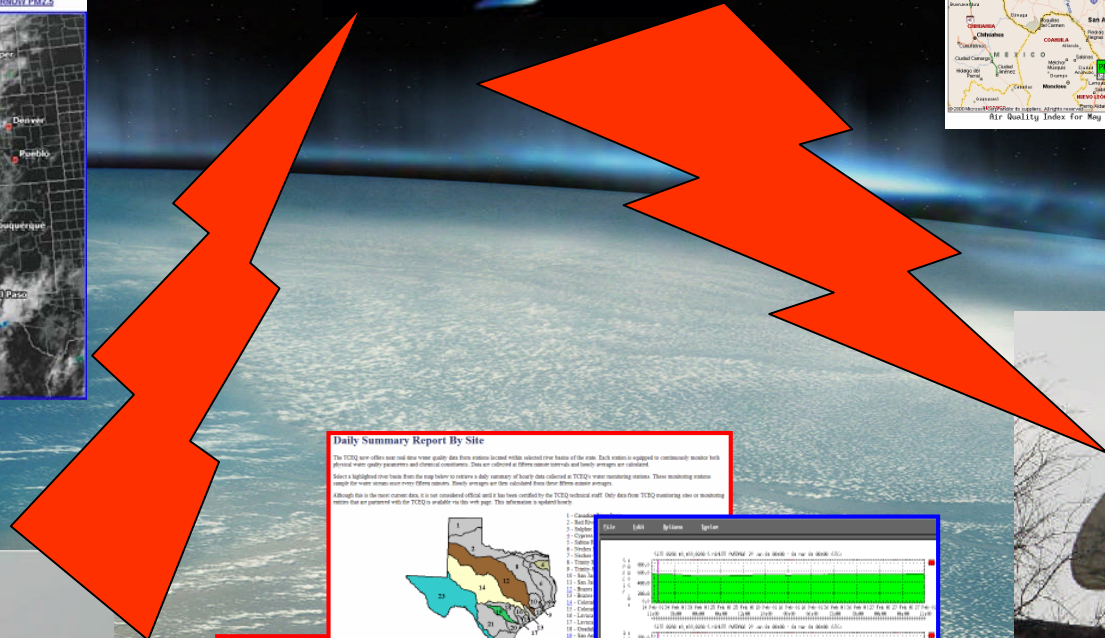
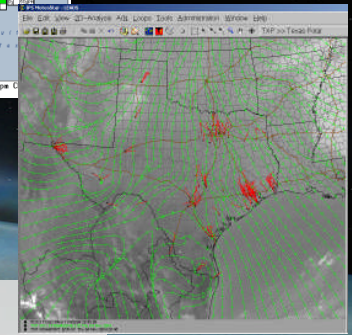
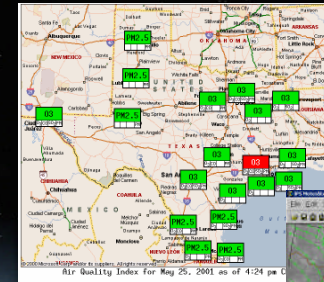
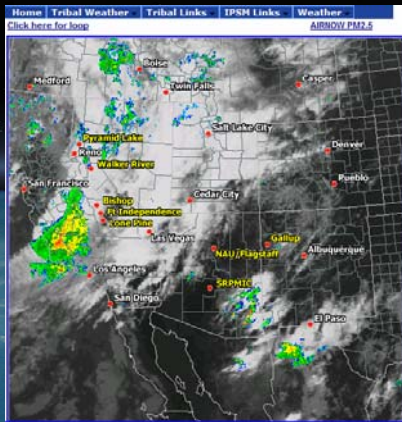




MeteoStar, the Weather  
Symbol of Excellence

**GOES DCS Operates On 12 volt Solar Power Where Air & Water  
Quality Data/Alerts Are Quickly Transmitted With No Re-Occurring  
Charges To An IPSM NOAA Port Satellite Receiver. Data Is Then Fused  
With Weather GIS Data For Display, Analysis And Reporting**

## GOES DCP/DCS Satellite





MeteoStar, the Weather  
Symbol of Excellence

## IPS MeteoStar LEADS Overlay's TCEQ Wind Barbs, NWS Streamline & Satellite Imagery

