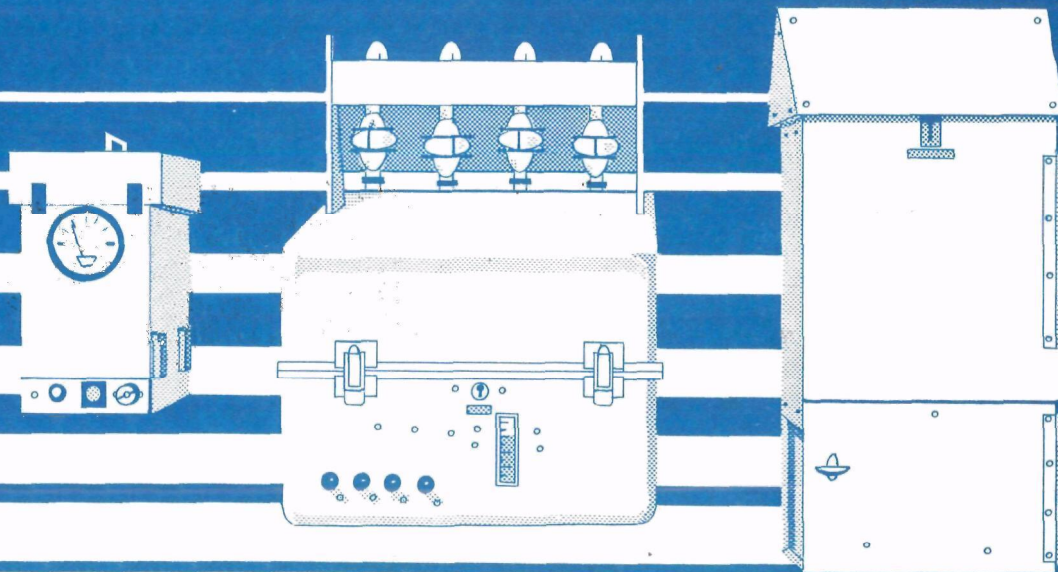


Air



SAROAD

Storage and Retrieval of Aerometric Data Information



EPA-450/4-79-005

SAROAD

Storage and Retrieval of Aerometric Data Information

**National Air Data Branch
Monitoring and Data Analysis Division**

**U.S. ENVIRONMENTAL PROTECTION AGENCY
Office of Air, Noise, and Radiation
Office of Air Quality Planning and Standards
Research Triangle Park, North Carolina 27711**

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Introduction

Storage and Retrieval of Aerometric Data (SAROAD) is an automated data processing system utilized by the U.S. Environmental Protection Agency for storage of data concerning concentrations of air pollutants in the atmosphere. SAROAD is a part of the comprehensive Aerometric and Emissions Reporting System (AEROS), described in detail in a booklet "Aerometric and Emissions Reporting System", which is available upon request.

Air quality data are collected by monitoring networks operated by various State and local air pollution control agencies. Collection and reporting of these data are required by the Clean Air Act and U.S. EPA regulations for State Implementation Plans (SIPS).¹ After passing edit and validation checks, which are performed by the Regional Office, the data are forwarded to National Air Data Branch (NADB), Monitoring and Data Analysis Division, Office of Air Quality Planning and Standards, Research Triangle Park, North Carolina, where they are stored on the UNIVAC 1110 Computer. After storage on the computer, the data are available for analysis through annual publications and computerized reports.

This booklet is designed for people who are unfamiliar with SAROAD to provide an explanation of the system and an example of the computerized reports that are available upon request. To meet these objectives, this booklet includes: (1) an overview of data contained in SAROAD, (2) an explanation of air quality publications, (3) a description of procedures for requesting SAROAD data, and (4) a description and example of SAROAD computerized reports. A list of additional references is provided for background information, and a glossary of terms is provided to help familiarize the user with terms used in data processing and air quality data.

¹ *Federal Register*, Volume 38, No. 149, Friday, August 3, 1973, pp. 20834 and 20835.

Overview of the Storage and Retrieval of Aerometric Data System

General Description

Storage and Retrieval of Aerometric Data (SAROAD) is a computerized data handling system that accepts, stores, and reports information on concentrations of pollutants in the ambient air. The system contains data for most substances that have been routinely measured in the ambient air, but the largest volume of data is for the "criteria" pollutants (particulate, sulfur dioxide, carbon monoxide, nitrogen dioxide, hydrocarbons, and ozone).

SAROAD contains two major classes of data: sampling site information and ambient air quality data. These two classes of data are stored separately but are retrievable by site code, a number that is a unique identifier for each site. In addition to the site code, the air quality data have additional codes that indicate the specific pollutant sampled and the method utilized to analyze for the pollutant.

SAROAD Site File

The SAROAD site file contains descriptive information on the sampling site and its environment. These data are collected by the control agency when the sampling site is established or when the information changes and are reported to the Regional Office on the form in Figure 1. The resulting data cards are forwarded to NADB and are stored in the site file.

As indicated by the site identification form, the site file contains information such as the site's address, city name, county name, city population, geographical coordinates (both latitude-longitude and UTM coordinates), supporting agency, station type, sampler elevation above sea level and above ground level, EPA Region, AQCR code, state code, area code, county code, site code, agency code, and project code. The identifier for each site includes the codes for state, area, site, agency, and project. The identifier is determined from the following criteria:

1. State code — state in which the site is located.

2. Area code — city code in which the site is located, or the county code if not located in a city.
3. Site code — code from 001 to 999, which is uniquely assigned for each site within an area.
4. Agency code — alphabetic code for the type (state, county, city) of agency that performs the laboratory analysis.
5. Project code — code to indicate the type (population oriented, source oriented, etc.) of sampling.

The site file currently contains data for approximately 12,000 sites; roughly 4000 are currently operational. The sites that are not operational are retained to maintain as large a data base as possible for establishing trends in ambient air quality around the nation. The site file is utilized (1) to ensure that the site has been registered before any data can be stored for the site and (2) to provide a description of the site with the air quality data to help in correlation of the air quality data with the surrounding site environment.

Ambient Air Quality Data

The air quality data files contain data on concentrations of pollutants for some sites as early as 1957 and for most state sites since 1970. All state agencies are required to submit quarterly reports for all air quality data gathered from air quality surveillance networks required under State Implementation Plans.

All data are submitted in standardized formats as shown in Figures 2 and 3. These forms contain space for two categories of information: identifier and data. The identifier includes the site code as registered on the site file, the parameter code, the method code, the units in which the data are reported, the sampling interval, and the date on which the sample was taken. The parameter code represents the unique code assigned to each pollutant, and the method code defines the procedure utilized to collect the sample and analyze it for the specific pollutant. The sampling time interval identifies the time period which the data value represents and varies from 1-hour averages obtained from continuous monitoring instruments to samples collected for a day, week, month, or quarter. The data are the actual average concentration of the pollutant for the specific hour, day, week, etc.

Figure 2. SAROAD Daily Data Form.

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Data reported to EPA Regional Offices by state agencies are edited by computer to ensure that the identifiers are valid assigned codes and to ensure that the data values are within reasonable bounds. The data are forwarded to NADB for storage in the raw data files of the computer. The computer is utilized to create a summary file of quarterly and annual information which includes the maximum value, minimum value, arithmetic mean, geometric mean, arithmetic standard deviation, geometric standard deviation, frequency distribution, and counts of violations of National Ambient Air Quality Standards for each quarter and year for each site-pollutant-method combination from the raw data files.

The computerized reports described in this booklet are created from the data stored on the site file, raw data files, and summary file.

Air Quality Data Publications

Air quality data publications are compiled quarterly and annually from SAROAD for efficient distribution of commonly utilized data. The publications include Air Quality Data — 19XX-XXX Quarter Statistics, Air Quality Data — 19XX Annual Statistics, Directory of Air Quality Monitoring Sites Active in 197X, and Air Quality Data For Non-Criteria Pollutants 19XX through 19XX. Persons interested in obtaining air quality data should first determine whether existing publications provide the information desired. The existing publications have the advantage of being readily available at little or no cost to the user, but have the disadvantage of being representative of a given time period and may not reflect the current status of the data files. If the publications do not satisfy the specific need, the client should evaluate the SAROAD computerized reports and request the useful ones utilizing the procedures in the following section. Copies of these publications are available from:

Library Services Office (MD-35)
Office of Administration
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711

FTS: 629-2777
Commercial: (919) 541-2777

or

National Technical Information Service
5285 Port Royal Road
Springfield, VA 22161
FTS: 557-4650
Commercial: (703) 557-4650

Air Quality Data — Quarterly Statistics

Published quarterly by EPA, this report contains quarterly summary statistics for the air quality data generated by State and local agencies as required by EPA Regulations for State Implementation Plans. This publication makes particulate, carbon monoxide, sulfur dioxide, nitrogen dioxide, hydrocarbons, and oxidant data available to all agencies and the public. It provides a one-line summary for each site-pollutant combination and is sorted by pollutant, method of collection and analysis, State, Air Quality Control Region, area, and site. Figure 4 is an example of the report format.

**PARTICULATE, micrograms per cubic meter (25 C)
HI-VOL GRAVIMETRIC, 24 hours**

1977 Third Quarter

Site location	Site No	Aggr	No obs	Min obs	Percentiles							Max obs	Arithmetic		Geometric	
					10	30	50	70	90	95	99		Mean	Std dev	Mean	Std dev
ALABAMA																
001 Choctaw Co	001	F01	12	18	18	20	24	26	33	58	58	58	27	10.88	25.22	1.38
001 Demopolis	002	F01	9	25	25	36	38	66	116	116	116	54	30.05	47.95	1.66	
001 Evergreen	001	F01	7	15	15	34	36	37	45	45	45	32	11.38	29.68	1.54	
001 Selma	002	F01	5	23	23	35	43	51	59	59	59	43	14.03	40.50	1.45	
002 Montgomery	007	F01	11	24	26	33	39	42	47	63	63	38	11.09	36.80	1.33	
008 Opelika	008	F01	14	13	23	30	35	42	53	139	139	139	42	29.87	35.92	1.69
002 Phenix City	001	F01	14	25	26	32	43	47	64	234	234	234	54	52.90	44.37	1.74
002 Troy	002	F01	12	25	36	50	51	64	73	95	95	95	57	17.92	53.82	1.41
002 Troy	002	F01	12	8	18	19	28	34	60	60	60	60	33	16.71	26.34	1.78
003 Alexander City	001	F01	12	10	18	22	27	40	44	492	492	492	67	134.19	33.64	2.58
003 Anniston	001	F01	14	28	34	51	53	72	94	110	110	110	63	22.94	58.83	1.47
002 Anniston	002	F01	10	8	8	33	46	54	67	94	94	94	47	24.27	39.24	2.00
003 Childersburg	001	F01	11	13	22	27	31	41	58	67	67	67	36	16.93	32.79	1.62
003 Gadsden	002	F01	24	21	31	37	46	54	72	85	282	282	57	30.23	48.75	1.64
003 Gadsden	003	F02	23	34	43	51	67	94	111	119	352	352	81	64.20	69.79	1.66
004 Bessemer	001	G01	48	37	48	69	85	110	151	176	210	96	39.94	88.10	1.51	
004 Birmingham	005	G02	80	31	72	95	119	148	208	229	293	293	130	53.96	119.70	1.51
010 Birmingham	010	G01	15	24	47	54	67	74	86	94	94	94	63	17.61	59.86	1.39
011 Birmingham	011	G01	15	35	45	56	64	79	115	198	198	198	77	39.41	69.98	1.52
012 Birmingham	012	G01	74	25	46	58	75	96	122	148	154	154	80	31.19	74.49	1.49
019 Birmingham	019	G01	1	159	159	159	159	159	159	159	159	159				
021 Birmingham	021	G02	1	77	77	77	77	77	77	77	77	77				
004 Center Point	002	G01	13	33	35	41	50	56	68	74	74	74	50	13.24	48.49	1.30
004 Clanton	002	F03	15	19	23	30	37	40	51	71	71	71	38	12.81	36.34	1.39
004 Fairfield	003	G02	72	36	42	63	79	91	116	129	147	147	79	26.52	74.63	1.42
004 Hueytown	002	G02	10	24	24	33	38	42	59	106	106	106	46	23.43	41.64	1.52
004 Jasper	001	F01	3	66	66	66	66	122	122	122	122	122				
004 Leeds	003	G01	71	43	79	110	125	144	197	209	326	326	132	46.85	124.30	1.44
004 Pell City	001	F01	13	27	33	35	48	53	80	85	85	85	49	18.14	46.48	1.43
004 Tarrant City	001	G01	62	52	75	101	131	174	233	242	401	401	145	67.65	130.95	1.56
004 Tuscaloosa	003	F01	9	22	22	38	42	67	106	106	106	106	54	29.57	47.23	1.73
005 Baldwin Co	002	F03	2	72	72	72	72	147	147	147	147	147				
003 Baldwin Co	003	F01	2	59	59	59	59	77	77	77	77	77				
005 Brewton	001	F01	13	18	18	27	34	44	46	48	48	48	34	10.79	31.77	1.43
005 Chickasaw	002	G01	15	24	36	42	46	52	70	71	71	71	50	14.28	47.76	1.35
005 Mobile	001	G01	6	43	43	55	55	62	94	94	94	94	61	17.33	59.24	1.79
005 Mobile	002	G01	63	23	31	39	46	56	78	86	95	95	51	17.65	47.93	1.39
006 Mobile	006	G01	13	27	32	54	63	96	151	163	163	163	77	43.46	66.83	1.75
008 Mobile	008	G01	86	28	42	51	68	84	141	148	227	227	78	42.67	69.94	1.59
009 Mobile	009	G01	15	15	19	23	32	50	71	76	76	76	37	19.08	37.99	1.64
005 Mobile Co	013	G01	13	14	20	20	24	34	38	145	145	145	35	33.89	78.00	1.76
021 Mobile Co	021	G01	12	26	26	29	38	58	67	98	98	98	46	21.84	41.83	1.56

Figure 4. Quarterly Reports.

Air Quality Data — Annual Statistics

Published annually by EPA, this report contains the same information as the quarterly statistics but for a calendar year. Beginning with the 1975 Annual Statistics, another report was combined with the original format. The report is also by pollutant for particulate, carbon monoxide, sulfur dioxide, nitrogen dioxide, and oxidants and summarizes violations of the National Ambient Air Quality Standards. Figure 5 is an example of this report format.

Directory of Active Air Monitoring Sites

Published annually by EPA, this publication contains the complete site description for any site that has reported data to SAROAD for the specific year. In addition to the site description, the pollutants, method of collection and analysis, time interval, units, and number of observations are also listed for each site. The sites are listed in alphabetical order by state and alphabetically within each state. Figure 6 is an example of this report format.

Air Quality Data for Non-Criteria Pollutants

This publication contains several years of data and is not published on a fixed schedule. Designed to be an inventory of the individual pollutants analyzed from the particulates collected on high-volume filters, this publication is also organized by pollutant, state, site, and year. Figure 7 is an example of this report format.

Beginning in March 1979 the "Air Quality Data - Annual Statistics", will be the only routine air quality data publication published by the National Air Data Branch. Computerized reports are available to replace these publications.

SUSPENDED PARTICULATE MATTER 11101

METHOD: GRAVIMETRIC, 24-HOUR HI-VOLUME FILTER SAMPLE-91

AIR QUALITY CONTROL REGION	YEAR	NO. OF VALID VALUES	NO. OF DAILY VALUES EXC'D'G 24-HR STDS. SEC.	NO. OF DAILY VALUES EXC'D'G 24-HR STDS. PRI.	HIGHEST 24-HR VALUES		ANNUAL RATIOS TO GENM.			
					UG/CU.M. 1ST	2ND	ANN. STDS SEC.	PRI.	UG/CU.M.	

007 TENNESSEE RIVER VALLEY-CUMBERLAND MOUNTAINS		CONTINUED								
ALABAMA	01	1740	001	601	HARTSELLE	75	41	89	84	417
ALABAMA	01	1860	001	601	HUNTSVILLE	75	21	103	82	547
ALABAMA	01	1860	002	601	HUNTSVILLE	75	45	85	77	367
ALABAMA	01	1860	003	601	HUNTSVILLE	75	47	177	146	597
ALABAMA	01	1860	004	601	HUNTSVILLE	75	42	89	84	377
ALABAMA	01	1860	006	601	HUNTSVILLE	75	44	96	92	327
ALABAMA	01	1860	007	601	HUNTSVILLE	75	46	99	82	387
ALABAMA	01	1860	008	601	HUNTSVILLE	75	41	112	103	407
ALABAMA	01	1860	009	601	HUNTSVILLE	75	8	69	47	
ALABAMA	01	1860	010	601	HUNTSVILLE	75	45	89	86	377
ALABAMA	01	1860	011	601	HUNTSVILLE	75	48	116	111	437
ALABAMA	01	1860	014	601	HUNTSVILLE	75	191	145	145	.81 .65 49
ALABAMA	01	1920	002	602	JACKSON CO	75	43	4	1	336 237 507
ALABAMA	01	1920	012	603	JACKSON CO	75	42	135	93	377
ALABAMA	01	1920	019	602	JACKSON CO	75	43	8	2	459 329 717
ALABAMA	01	1920	020	602	JACKSON CO	75	40	4	2	281 273 577
ALABAMA	01	1920	023	602	JACKSON CO	75	33	4	3	388 357 597
ALABAMA	01	1920	024	602	JACKSON CO	75	45	4		234 273 837
ALABAMA	01	1920	025	602	JACKSON CO	75	10	97	95	
ALABAMA	01	2080	001	602	LAUDERDALE CO	75	44	142	95	367
ALABAMA	01	2080	004	602	LAUDERDALE CO	75	44	128	126	517
ALABAMA	01	2100	001	603	LAWRENCE CO	75	29	126	110	477
ALABAMA	01	2540	001	601	MUSCLE SHOALS	75	43	1		168 129 587
ALABAMA	01	2940	001	601	RUSSELLVILLE	75	16	128	78	
ALABAMA	01	3000	002	601	SCOTTSBORO	75	8	150	96	
ALABAMA	01	3000	003	601	SCOTTSBORO	75	7	82	77	
TENNESSEE	44	0600	001	601	COOKEVILLE	75	60	115	98	.77 .61 46
TENNESSEE	44	0600	002	601	COOKEVILLE	75	62	93	87	.51 .41 31
TENNESSEE	44	0640	001	601	CROSSVILLE	75	59	95	76	.38 .30 23
TENNESSEE	44	0680	001	603	CUMBERLAND CO	75	30	127	117	.63 .50 38
TENNESSEE	44	2100	001	601	MC MINNIEVILLE	75	51	89	77	.64 .51 39
TENNESSEE	44	2220	001	601	MARTIN CO	75	48	1		214 126 .60 .48 37

Figure 5. Annual Statistics.

ALABAMA

SITE CODE: 0100000101	LATITUDEID=N-S-11 31 22 25 N	SP4 REGION: 04	UTM ZONE: 16
SITE ADDRESS: U S HIGHWAY 431	LONGITUDEID=W-E-11 86 15 24 W	ELEV ABOVE GROUND: 0010	UTM NORTHING: 3447130
CITY OR AREA: ARDEVILLE	CITY POPULATION: 2,976	ELEV ABOVE MSL: 0010	UTM EASTING: 0006730
COUNTY/STATE: HENRY CO	ARC POPULATION: 236,164	TIME ZONE/REF LAT/LT WEST 04 HOURS	
STATION TYPE: RURAL - COMMERCIAL	ARC CODE: SOUTHWEST ALABAMA		
AGENCY TYPE: STATE	SMATCODE: 0 NOT IN A STANDARD METROPOLITAN STATIST		
SUPP. AGENCY: ALABAMA AIR POLLUTION CONTROL COMMISSION			
STOP NAME: CO HOSPITAL			
PARTICULATE	11-HOUR GRAVIMETRIC	24-HOUR	UG/CM METER 125 C1 71 005
SITE CODE: 0100000101	LATITUDEID=N-S-11 32 55 48 N	SP4 REGION: 04	UTM ZONE: 16
SITE ADDRESS: ALEX CITY JR COLLEGE	LONGITUDEID=W-E-11 85 54 26 W	ELEV ABOVE GROUND: 0010	UTM NORTHING: 3643600
CITY OR AREA: ALEXANDER CITY	CITY POPULATION: 12,356	ELEV ABOVE MSL: 0010	UTM EASTING: 0059900
COUNTY/STATE: TALLAPOOSA CO	ARC POPULATION: 400,993	TIME ZONE/REF LAT/LT WEST 04 HOURS	
STATION TYPE: SUBURBAN - RESIDENTIAL	ARC CODE: EAST ALABAMA		
AGENCY TYPE: STATE	SMATCODE: 0 NOT IN A STANDARD METROPOLITAN STATIST		
SUPP. AGENCY: ALABAMA AIR POLLUTION CONTROL COMMISSION			
STOP NAME: ALEX CITY JR COLLEGE			
PARTICULATE	11-HOUR GRAVIMETRIC	24-HOUR	UG/CM METER 125 C1 26 005
SITE CODE: 0100000101	LATITUDEID=N-S-11 31 18 20 N	SP4 REGION: 04	UTM ZONE: 16
SITE ADDRESS: 3RD WEST WATSON ST	LONGITUDEID=W-E-11 86 27 19 W	ELEV ABOVE GROUND: 0010	UTM NORTHING: 3662420
CITY OR AREA: MOBILE	CITY POPULATION: 10,072	ELEV ABOVE MSL: 0010	UTM EASTING: 0064860
COUNTY/STATE: COVINGTON CO	ARC POPULATION: 226,164	TIME ZONE/REF LAT/LT WEST 04 HOURS	
STATION TYPE: SUBURBAN - RESIDENTIAL	ARC CODE: SOUTHWEST ALABAMA		
AGENCY TYPE: STATE	SMATCODE: 0 NOT IN A STANDARD METROPOLITAN STATIST		
SUPP. AGENCY: ALABAMA STATE HEALTH DEPT DIV OF AIR POLLUTION CONTROL			
PARTICULATE	11-HOUR GRAVIMETRIC	24-HOUR	UG/CM METER 125 C1 19 005
SITE CODE: 0100000101	LATITUDEID=N-S-11 33 37 23 N	SP4 REGION: 04	UTM ZONE: 16
SITE ADDRESS: 3RD E 8TH ST	LONGITUDEID=W-E-11 85 47 24 W	ELEV ABOVE GROUND: 0030	UTM NORTHING: 3729812
CITY OR AREA: ANNISTON	CITY POPULATION: 31,533	ELEV ABOVE MSL: 0030	UTM EASTING: 0066908
COUNTY/STATE: CALHOUN CO	ARC POPULATION: 402,993	TIME ZONE/REF LAT/LT WEST 04 HOURS	
STATION TYPE: CENTER CITY - COMMERCIAL	ARC CODE: EAST ALABAMA		
AGENCY TYPE: STATE	SMATCODE: 0 NOT IN A STANDARD METROPOLITAN STATIST		
SUPP. AGENCY: ALABAMA STATE HEALTH DEPT DIV OF AIR POLLUTION CONTROL			
PARTICULATE	11-HOUR GRAVIMETRIC	24-HOUR	UG/CM METER 125 C1 18 005
SULFUR DIOXIDE	665 RUBBER PARADISANILINE-SULFAMIC ACID	24-HOUR	PARTS PER MILLION 2 005
SITE CODE: 0100000101	LATITUDEID=N-S-11 34 47 10 N	SP4 REGION: 04	UTM ZONE: 16
SITE ADDRESS: ELN STREET	LONGITUDEID=W-E-11 86 50 20 W	ELEV ABOVE GROUND: 0030	UTM NORTHING: 3863600
CITY OR AREA: AGENS	CITY POPULATION: 14,040	ELEV ABOVE MSL: 0030	UTM EASTING: 0066213
COUNTY/STATE: LIMESTONE CO	ARC POPULATION: 471,493	TIME ZONE/REF LAT/LT WEST 04 HOURS	
STATION TYPE: CENTER CITY - COMMERCIAL	ARC CODE: TENNESSEE RIVER VALLEY-CUMBERLAND MOUNTAINS		
AGENCY TYPE: COUNTY	SMATCODE: 0 NOT IN A STANDARD METROPOLITAN STATIST		
SUPP. AGENCY: PRE-COUNTY DISTRICT HEALTH SERVICE			
LOCATED ACROSS THE STREET IN FRONT OF LIMESTONE COUNTY HEALTH CENTER			
PARTICULATE	11-HOUR GRAVIMETRIC	24-HOUR	UG/CM METER 125 C1 55 005
SULFUR DIOXIDE	665 RUBBER PARADISANILINE-SULFAMIC ACID	24-HOUR	PARTS PER MILLION 57 005
NITROGEN DIOXIDE	UNACCEPTABLE METHOD	24-HOUR	PARTS PER MILLION 16 005
NITROGEN MONOXIDE	665 RUBBER PARADISANILINE-SULFAMIC ACID	24-HOUR	PARTS PER MILLION 43 005
SITE CODE: 0100000101	LATITUDEID=N-S-11 34 47 45 N	SP4 REGION: 04	UTM ZONE: 16
SITE ADDRESS: SOUTH JEFFERSON ST	LONGITUDEID=W-E-11 86 56 14 W	ELEV ABOVE GROUND: 0030	UTM NORTHING: 3863600

Figure 6. Site Directory.

NON-CRITERIA POLLUTANT REPORT
 POLLUTANT: BENZENE SOLUBLE ORGANIC FRACTION
 METHOD: HI-VOL BENZENE EXTRACTION-SIXHLET
 1971 TO 1975
 UNITS: MICROGRAMS PER LITER (25 °C)

STATE SITE CODE	AREA	SITE ADDRESS	ANALY- PROJ	COMPLING INTERVAL	NO. OF YR	NO. OF ANAL.	MAXIMUM VALUE	ARITHMETIC MEAN
ALABAMA								
010100001	ANDALUSIA	100 WEST WATSON ST.	FDI	24 MONTH	22	30	9.3	4.0
010120001	ANNISTON	309 EAST 8TH STREET	FDI	24 MONTH	22	37	10.0	
010240002	BALOWIN CO	COR PENNSYLVANIA & CHICAGO	FDI	24 MONTH	22	7	9.8	
010340001	BESSIE	1800 FIRST AVENUE	FDI	24 MONTH	22	11	6.3	3.7
010440001	BREXTON	204 SHELLEY STREET	FDI	24 MONTH	22	51	6.5	
010420001	CHICKASAW	44 W GRANT ST	FDI	24 MONTH	22	10	6.1	
010420002	CHICKASAW	YOUNG HARBOR	FDI	24 MONTH	22	24	23.0	8.3
					22	60	25.0	
					22	40	25.0	
010700001	CLANTON	112 AUGUSTA STREET	FDI	24 MONTH	22	50	6.9	2.3
010720001	CLARKE CO	CLARKE STREET (GONVILLI)	FDI	24 MONTH	22	23	11.0	
010720001	CULLMAN	305 N 4TH AVE E	FDI	24 MONTH	22	15	5.1	
011040001	DECATUR	CORNER OF OAK & DAVIS STS	FDI	24 MONTH	22	25	10.3	3.9
011040002	DECATUR	AUSTINVILLE RD & 1ST AVE	FDI	24 MONTH	22	19	7.3	
011040003	DECATUR	RETLIFF & WHEELER HWY	FDI	24 MONTH	22	42	8.4	
011040001	DEMOBOLIS	FIRE DEPT	FDI	24 MONTH	22	26	7.4	2.6
011080001	DOTHAN	804 WEST WASHINGTON ST	FDI	24 MONTH	22	10	28.1	
011240001	EVERGREEN	COUNTY HEALTH DEPT	FDI	24 MONTH	22	25	11.0	
011300001	FLORENCE	200 WEST TENNESSEE ST	FDI	24 MONTH	22	20	8.6	8.7
011300001	FLORENCE	BURRILL STATE VOCATIONAL	FDI	24 MONTH	22	54	8.4	
011440001	FORT PAYNE	500 GRAND AVE	FDI	24 MONTH	22	24	11.2	
011440002	GADSDEN	FIRE DEPT GOLDENHORN AVE	FDI	24 MONTH	22	46	5.1	3.1
					22	21	7.2	
					22	55	25.0	
011440003	GADSDEN	WALNUT PARK FIVE STS	FDI	24 MONTH	22	17	7.0	2.0
					22	1	8.0	
					22	58	25.0	

Figure 7. Air Quality Data Report Format.

Procedures for Requesting Computerized Reports

The computerized reports described in the next section may be requested from EPA Regional Offices or the National Air Data Branch. If the data are for states within the area of one EPA Regional Office, the request should be directed to that Regional Office. Regional Office addresses and the States in each region are given in Table I. If the data are for states in more than one EPA Region, the request should be directed to:

Requests and Information Section (MD-14)
National Air Data Branch
U.S. Environmental Protection Agency
Research Triangle Park, NC 27711

FTS: 629-5491
Commercial: (919) 541-5491

All requests except those received from within EPA or from other Federal agencies will be processed in accordance with the Freedom of Information Act. In order for a request to be evaluated and processed, the request must be made in a letter; however, before submitting the letter, a telephone call to the Regional

Office or NADB may be appropriate to discuss availability of data and possible new computerized reports.

When requesting data by letter, the following items must be specified:

1. Computerized report name, or if none specifically applies, the data items required.
2. Geographical area required for retrieval as well as other retrieval options such as pollutants, methods, intervals, and years. Whenever it is possible, the actual codes for the retrievals (state, AQCR, site, pollutant, and method) should be specified. These are included in AEROS Manual Series Volume V: AEROS Manual of Codes.
3. Specific sorts desired.
4. Name of person to contact and telephone number in case questions arise.
5. Any time constraints involved.

6. Authorization to assume cost of providing the data.

Requests utilizing computerized reports are often filled within 2 weeks. If a request requires more than 2 weeks, the requestor is notified.

Some requests, because of the large volume of data created, are best supplied on magnetic tape. The section on computerized reports specifies which reports may be obtained on magnetic tape. In all requests requiring magnetic tapes, the requestor must supply the magnetic tapes and specify the characteristics of the desired tapes. Since the magnetic tapes are created on a UNIVAC 1110 computer, the characteristics of the desired tapes include the following recording options: (1) character code — ASCII or EBCDIC, (2) tracks — 7 or 9, (3) density — 800 or 1600, and (4) unlabeled. The record length and blocksize vary based on the specific report produced.

As a Federal agency, EPA normally makes no charge for reports requested by other Federal agencies; however, if a request is of major impact on NADB's computer budget, NADB may request that user and account codes be established by way of interagency agreements.

Many SAROAD data users are non-Federal and typically include state and local air pollution control agencies, universities, contractors, private industry, consultants, and private citizens. For non-Federal users, except state and local air pollution control agencies, a charge may be necessary to cover the costs of retrieving and printing the requested data; if so, the requestor will be notified before any cost is incurred. This booklet will not give specific costs for individual reports since the retrieval and sort options are so numerous for each individual report.

Table 1. LIST OF REGIONAL OFFICES^a

Regional location	Commercial telephone	FTS telephone
EPA Region I 60 Westview St. Lexington, MA 02173	(617)861-6700	861-6700
EPA Region II 26 Federal Plaza New York, NY 10007	(212)264-9802	264-9800
EPA Region III 6th and Walnut St. Philadelphia, PA 19106	(215)597-9860	597-8133
EPA Region IV 345 Courtland St. Atlanta, GA 30308	(404)881-2864	257-2864
EPA Region V 230 S. Dearborn Chicago, IL 60604	(312)353-1447	353-2303
EPA Region VI 1201 Elm St. Dallas, TX 75270	(214)749-3761	729-2724
EPA Region VII 324 E. 11th St. Kansas City, MO 64106	(816)374-3791	758-3791
EPA Region VIII 1860 Lincoln St. Denver, CO 80295	(303)837-2226	327-2226
EPA Region IX 215 Fremont St. San Francisco, CA 94105	(415)556-2270	556-2326
EPA Region X 1200 6th Ave. (M/S 413) Seattle, WA 98101	(206)442-1580	399-1580
National Air Data Branch Chief, Requests & Information Section Research Triangle Park, NC 27711	(919)541-5395	629-5395

^aStates in each region are listed in Table 1 (continued).

Table 1 (continued). LIST OF STATES IN EACH REGION

EPA Region I	Connecticut Maine	Massachusetts New Hampshire	Rhode Island Vermont
EPA Region II	New Jersey Virgin Islands	New York	Puerto Rico
EPA Region III	Delaware District of Columbia	Maryland Pennsylvania	Virginia West Virginia
EPA Region IV	Alabama Florida South Carolina	Georgia Kentucky Tennessee	Mississippi North Carolina
EPA Region V	Illinois Indiana	Minnesota Michigan	Ohio Wisconsin
EPA Region VI	Arkansas Oklahoma	Louisiana Texas	New Mexico
EPA Region VII	Iowa Nebraska	Kansas	Missouri
EPA Region VIII	Colorado Montana	North Dakota South Dakota	Utah Wyoming
EPA Region IX	American Samoa Arizona	California Guam	Hawaii Nevada
EPA Region X	Alaska Washington	Idaho	Oregon

SAROAD Computerized Reports

Both raw data and summary reports can be obtained from the computer. Options for retrieving data vary slightly because of variations in the computer programs.

Raw data reports list the actual stored data on pollutant concentrations in the ambient atmosphere. They give the geographic location of the site, as specified by the Site Code; the times and averaging periods of the data; and the method of data collection and analysis. Raw data reports include the following:

1. Raw data for less than 24-hour averaging periods.
2. Raw data for sampling periods equal to or greater than 24 hours.
3. Standards-violations reports.
4. Site description inventory.
5. Raw data in SAROAD format.

6. Meteorological raw data report.

Summary reports list quarterly and annual summary statistics for individual sites and provide summaries of available data on a state or national basis. Summary reports include the following:

1. Yearly frequency distribution.
2. Quarterly frequency distribution.
3. Yearly report by quarters.
4. Inventory reports.
5. Summary report of valid data.
6. Summary of monitoring activities.
7. Active site report.

The remaining portion of this section describes the individual reports giving the retrieval options, sort options, and sample reports.

Raw Data Less Than 24 Hours

GENERAL DESCRIPTION

This report lists the hourly observations of pollutant concentrations in 24 columns, 1 line per day, 1 month per page. The report may also be used, with suitable modifications in format, for data recorded for 2-, 3-, 4-, 6-, 8-, and 12-hour intervals. The heading of the report contains: the name of the pollutant; the pollutant/method code; the units used; the method of collection and analysis; the name of the state; the area; the site name and address; the complete site, agency, and project code; the month and year; and an identifier giving the averaging period of the observational data (for example, "1-hour data listing"). To the left of the 24-column body of the report is a column giving the days of the month; to the right are columns for the daily mean values and the number of observations made each day. Below the row for the last day of the month are rows, for the average values for each hour, the number of observations made at each hour throughout the month, and the maximum value occurring at each hour. In the lower right-hand corner are the average value for the entire month, the total number of observations for the month, and the maximum value that oc-

curred in the month. Running averages from 1-hour data can also be provided for periods of 3, 8, 12, and 24 hours.

RETRIEVAL OPTIONS

This report may be retrieved by the following selection criteria: nation, state, area, site, agency, project, pollutant, method, interval, begin date, and end date.

Most combinations of the above selection criteria are valid, but the following combinations are invalid: (1) area without state, (2) site without state/area, (3) project without agency, and (4) method without pollutant.

SORT OPTIONS

There are no optional sorts available. Data are printed in the same order as the select cards are submitted.

SAMPLE REPORT

Figure 8 shows a sample of this report for ozone measurements at a site in Honolulu, Hawaii.

SEP 12, 1978
SEP 8, 1978 DATA BASE VERSION

NATIONAL AEROMETRIC DATA BANK
ENVIRONMENTAL PROTECTION AGENCY

PAGE 1
SELECT CARD 1

OZONE
442C111
CONCENTRATION IN PARTS PER MILLION
INSTRUMENTAL CHEMILUMINESCENCE

HAWAII
HONOLULU
STATE HEALTH DEPT BLDG 1250 PU
11201200G1F01

JAN 1976

01-HOUR DATA LISTING										TEMPERATURE										WIND SPEED/DIRECTION										RAIN										DAILY	
DAY	12	1	2	3	4	AM	5	6	7	8	9	10	11	12	1	2	3	4	5	PM	6	7	8	9	10	11	MEAN	NO.													
C1	.012	.003	.000	.000	.000					.003	.017	.020	.020	.023	.020	.020	.020	.017	.014	.012			.012	.012	.012	.017	.013	20													
C2	.017	.020	.017	.020	.017	.017	.017	.017		.012		.014	.014	.017	.014	.014	.014	.014	.014	.012			.014	.014	.014	.014	.015	20													
C3	.017	.017	.017	.020	.020	.020	.020	.017		.014	.017	.017	.017	.017	.017	.017	.014	.014	.014	.012			.017	.020	.020	.017	.017	22													
C4	.015	.020	.020	.023	.020	.017	.014			.010	.017	.020	.023	.023	.023	.020	.017	.014	.012	.006			.003	.006	.006		.015	21													
C5		.012	.006	.006							.009	.012		.009	.012	.026	.026	.023	.014	.012			.003		.003			15													
C6												.023	.035	.032	.026	.026	.023	.020	.014	.012							9														
C7			.004	.014	.020	.006	.000			.003	.009	.012		.009	.020	.020	.020	.012	.017				.029	.020	.026	.029	.015	18													
C8	.023	.026	.023	.029	.023	.014	.009			.014	.014	.020	.017	.012	.026	.014	.014	.017	.014	.014			.012	.017	.023	.029	.018	22													
C9	.020	.032	.032	.034	.034	.029	.019			.007							.018	.018	.015	.010			.010	.010	.015	.012		16													
C10	.010	.015	.012	.015						.015	.018	.021	.023	.023	.023	.021	.015	.010	.007	.004			.007	.004	.007	.007	.014	19													
C11	.015	.015	.015	.015	.015	.013	.010			.010	.021	.015	.015	.015	.016	.012	.010	.010	.010	.010			.010	.012	.012	.012	.013	22													
C12	.012	.015	.012	.012	.015	.015				.010	.015	.018	.018	.021	.018	.015	.015	.010	.007			.007	.012	.007	.007	.013	21														
C13	.010	.010	.015	.012	.015	.007	.001			.007	.010	.015	.018	.018	.015	.012	.010	.007	.007	.004			.007	.010	.010	.010	.010	22													
C14	.012	.012	.004	.012						.007	.015	.018	.018	.018	.015	.015	.012	.010	.007	.004							15														
C15										.001	.004	.010	.015	.012	.012	.007	.004		.001	.004			.004	.007	.010	.012		14													
C16	.018	.023	.021	.024	.026	.016	.015			.012	.012		.010	.010	.012	.015	.018	.015	.012	.007			.018	.023	.021	.023	.018	20													
C17	.027	.023	.024	.025	.026	.023	.012			.012	.012	.010	.010	.012	.015	.018	.015	.015	.012	.007			.015	.010			.016	20													
C18	.010	.007	.010	.007	.007	.010				.015	.029	.034	.032	.032	.029	.026	.018	.015	.018	.010							17														
C19										.004	.010	.004	.012	.012	.012	.012	.012	.007	.007	.004			.001	.001	.001			14													
C20	.004	.004	.004	.012	.007					.001	.007	.012	.015	.007	.001								.007	.010	.015	.018		15													
C21	.012	.021	.012	.027	.034	.072	.010			.018	.029	.026	.026	.021	.002	.018	.015		.010	.007			.007	.007	.007	.017	20														
C22	.024									.018	.024	.029	.023	.023	.021	.018	.015	.012	.004				.004	.004	.009			14													
C23	.001									.004	.019	.021	.021	.021	.015	.012	.012	.010	.004				.007		.012			13													
C24										.004	.012	.015	.018	.018	.015	.015	.012	.007					.012					10													
C25										.015	.027	.026	.023	.026	.023	.021	.018	.012	.007									10													
C26	.001	.004								.012	.019	.021	.018	.021	.021	.015	.012	.010	.004									12													
C27	.001	.001								.004	.010	.012	.015	.015	.012	.010	.007	.007	.001				.001	.001	.001			16													
C28	.001	.001	.001							.008						.011	.008	.001	.001				.001	.001	.001			11													
C29	.001									.011	.018	.021	.024	.024	.014	.005	.001		.001				.001	.001	.001			13													
C30	.006	.006	.011	.014	.011	.011	.001			.001	.001	.001	.001	.001	.008	.018	.024	.011	.001				.001	.001	.001	.007	20														

Figure 8. Raw Data Less Than 24 Hours Report.

Raw Data Listing Greater Than or Equal To 24 Hours

GENERAL DESCRIPTION

This report lists raw data observations for intervals of 24 hours, 1 week, 1 month, 3 months, 1 year, or composite data. The data report format varies with the sampling interval, but all intervals have the following items in common: (1) sampling interval in the heading, (2) a complete site description following the heading, and (3) the pollutant name, sample collection and analysis names, data reporting units, and the minimum detectable value for the sampling method. The report begins a new page with a change in interval, site, or pollutant.

For 24-hour data, 1 year of data appears per page in 13 columns, the first containing the days of the month and the next 12 containing data for each month of the year. For each month and the year, the number of observations, the maximum value, and the mean are listed. A monthly mean is computed only if at least two observations are present, and the yearly mean is calculated only if the yearly summary criterion is met. The geometric mean is printed for

particulates, and the arithmetic mean is printed for all other pollutants.

For the other reporting intervals, multiple years can be listed per page. For these intervals, the items listed include: the year; the month, week, or sampling period, which is dependent on the interval; the data value; and for composite data, the number of samples in the composite.

RETRIEVAL OPTIONS

This report may be retrieved by the following selection criteria: nation, state, area, site, agency, project, pollutant, method, interval, begin date, end date, AQCR, and county.

Most combinations of the above selection criteria are valid, but the following combinations are invalid: (1) area or county without state, (2) site without state/area, (3) project without agency, and (4) method without pollutant.

The difference between a state/area and state/county retrieval is important--a state/area selection will give the sites in that area (city) while a state/county selection will give all state/area combinations located in that county.

SORT OPTIONS

No optional sorts are available. The standard sort option for the selected data is by interval and by site ID.

SAMPLE REPORTS

Figures 9 and 10 show a report retrieval for 24-hour data and a quarterly composite report, respectively.

RUN DATE: 10/12/78

NATIONAL AEROMETRIC DATA BANK
RAW DATA LISTING - 24 HOUR
STATE 01: ALABAMA
YEAR 1978

SITCODE: 010120002F01
AGENCY/PROJECT: F01
AGENCY TYPE: STATE
CITY POPULATION: 31,513
AQCR POPULATION: 400,943
EPA-REGION: 4
SUPPORTING AGENCY: ALABAMA SIP POLLUTION CONTROL COM
COMMENT: LOCATED ON ROOF OF BLUE MOUNTAIN POST OFFICE

LOCATION: ANNISTON
COUNTY: CALHOUN CO
SITE ADDR: BLUE MTN POST OFFICE
STATION TYPE (23): SUBURBAN - COMMERCIAL
AQCR (0031): EAST ALABAMA
SMSA (0000): IS NOT IN A STANDARD METROPOLITAN STATIS
POLLUTION CONTROL COM

LATITUDE: 33 24 41 N 88 54 51 W
LONGITUDE: 88 54 51 W 33 24 41 N
TIME ZONE: 14
UTM NORTHING: 3727730
UTM EASTING: 6047770
ELEVATION ABOVE GROUND: 018 FT
ELEVATION ABOVE MSL: 0210 FT
DIFF. GMT: WEST 04 HOUR

POLLUTANT: SUSPENDED PART.
COLLECTION & ANALYSIS METHOD: IMPLOVE GRAVIMETRIC

UNITS: US/CU METER (24 C)
MINIMUM DETECTABLE: 1

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-	-	-	-	-	-
D 5	-	51	-	70	40	76	34	43	43	46	-	-
6	-	-	10	-	-	-	-	-	-	-	-	-
A 7	-	-	-	-	-	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-	-	-	-	-	-
Y 9	-	-	-	-	-	-	-	60	-	33	41	38
10	-	-	-	-	-	47	47	-	-	-	-	-
11	-	-	-	60	62	-	-	-	-	-	-	-
D 12	1A	-	78	-	-	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-	-	-	-	-	-
F 14	-	-	-	-	-	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-	-	-	-	21	21
16	-	-	-	-	-	-	-	-	-	-	-	-
27	-	-	-	-	0	-	-	-	34	33	21	10
28	-	-	-	-	0	46	49	50	-	-	-	-
29	-	102	-	-	42	-	-	-	-	-	-	-
30	-	-	37	-	0	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-	-	-	-	-	-
* NBR OBS:	2	4	5	4	5	5	5	5	4	4	5	5
MAX VALUE:	24	102	48	70	42	47	49	102	60	46	41	40
QED MEAN:	20	58	30	63	44	40	52	57	46	38	36	30
NBR OBS:	53	-	-	-	-	-	-	-	-	-	-	-

Figure 9. Data for 24-Hour Report.

NATIONAL AERONAUTICS DATA DIV
R&D DATA LISTING COMPRISE
STATE OF: ALABAMA

[illegible]

QUALITATIVE COMPARISON OF 24-HOUR CALORIES

YEAR	SWR DEGREE	SWR	SWR C.P.
1960	1	1.00	7
	2	1.04	4
	3	1.04	7
	4	1.08	4
1961	1	1.07	7
	2	1.08	4
	3	1.09	7
	4	1.14	4
1962	1	1.08	7
	2	1.07	4
	3	1.06	7
	4	1.07	4
1963	1	1.04	
	2	1.08	
	3	1.05	
	4	1.07	

28

Standards Violations Reports

GENERAL DESCRIPTION

These reports show, for each pollutant-site combination within the geographical region specified, the number of occasions within the period of time specified when the National Ambient Air Quality Standards (NAAQSs) were violated. Violations for pollutants having both primary and secondary standards are shown separately for each type of standard. The standard format site description information appears at the top of the sheet with the designation of pollutant-interval combination above it, along with the State Code and date of the data. Below the site description data, the body of the report consists of columns of data containing the individual hourly or daily observations for the pollutant in question. Every time that the appropriate standard was exceeded, a symbol (* or +) is placed beside the observation to identify the time and date of the violation. For the monthly reports, the number of observations and the mean value are tabulated for each day at the right-hand side of the paper; and the number of observations, maximum value, and arithmetic mean are listed for each hour of the day at the bottom of each

column. For yearly reports, the same data are provided, but on a monthly basis. Below these figures are given the total number of observations for the month (or year), the percentage of possible observations, the number of times that the respective standards were exceeded, the arithmetic or geometric mean and standard deviation, as appropriate, with accompanying statements as to whether the primary and secondary standards were met or exceeded (for those pollutants having standards based on those parameters). Along the bottom of the page, identifications by name of the methods of collection and analysis are given, together with a statement defining the time used (whether standard or daylight saving).

The following reports are available:

1. Particulate (total suspended particulates).
2. Sulfur dioxide, daily values.
3. Sulfur dioxide, 24-hour averages.
4. Sulfur dioxide, 3-hour averages.
5. Sulfur dioxide, 1-hour averages.

6. Carbon monoxide, hourly averages.
7. Carbon monoxide, 8-hour averages.
8. Total oxidants.
9. Ozone.
10. Nitrogen dioxide, daily values.
11. Nitrogen dioxide, hourly values.

RETRIEVAL OPTIONS

Once the basic selections of pollutant type and averaging interval have been made, the standards reports may be retrieved by state, area, site, begin date, end date, county, and AQCR.

SORT OPTIONS

There are no optional sorts available.

SAMPLE REPORT

Figure 11 shows a sample yearly report for particulate, and Figure 12 gives a sample monthly report for 3-hour running averages for sulfur dioxide.

AS OF SEPTEMBER 15, 1976

P A R T I C U L A T E S

PAGE 1

DAILY VALUES

ALABAMA

NATIONAL AEROPHETIC DATA PART STANDARDS REPORT FROM JAN 1976 TO DEC 1976

STATE OF

SITE CODE: C1214003

LOCATION: LEEBS

LATITUDE: N 33 D. 32 P. 38 S.

AGENCY/PROJECT: C1

COUNTY (1947): JEFFERSON CO

LONGITUDE: W 86 D. 32 P. 32 S.

AGENCY TYPE: COUNTY AGENCY

SITE ADDR: 122 8TH STREET NE

UTM ZONE: 18

CITY POPULATION: 6,991

STATION TYPE (117): CENTER-CITY-INDUSTRIAL

UTM NORTHING: 3711500 P.

AOCF POPULATION: 1,643,529

AOCF (C04): METROPOLITAN BIRMINGHAM

UTM EASTING: 542500 P.

EPA-REGION: 4

SMSA (1000): BIRMINGHAM, ALABAMA

ELEVATION ABOVE GROUND: 6 FT.

SUPPORTING AGENCY: JEFFERSON COUNTY HEALTH DEPARTMENT

TIME ZONE: WEST OF HOURS

COMMENTS:

	JAN 1976	FEB 1976	MAR 1976	APR 1976	MAY 1976	JUN 1976	JUL 1976	AUG 1976	SEP 1976	OCT 1976	NOV 1976	DEC 1976
1	T	S	72+ P	101 T	77 S	349+ T	98 T	S	113 W	125 F	94 P	160+ W
2	F	P	460+ T	217+ F	S	217+ W	120 F	P: M	75 T	S	178+ T	346+ T
3	172 S	141 T	325+ W	219+ S	126 W	271+ T	218+ S	115 T	P1 F	S	168+ W	227+ F
4	S	292+ W	178 T	S	114 T	104 F	S	132 W	124+ S	93 M	448+ T	248+ S
5	224+ T	345+ F	174 P	121 W	120 S	M	117 T	S	143 T	204+ F	S	S
6	158+ T	120 F	174+ S	131 T	219+ T	S	114 T	157+ F	M	120 W	211+ S	128 W
7	98 W	77 S	S	162+ W	118+ F	72 M	111 W	303+ S	61 T	83 T	S	50 T
8	42 T	S	105 W	181+ T	110 S	134 T	159+ T	S	97 W	95 F	P	42 W
9	63 F	127 M	177+ T	167+ F	S	203+ W	207+ F	89 M	50 T	40 S	244+ T	107 T
10	222+ T	271+ T	43 W	219+ F	160 M	136 T	290+ S	111 T	111 F	S	310+ W	148 F
11	S	365+ W	267+ T	S	149 T	182+ F	S	146 W	128 S	207+ P	261+ T	170+ S
12	77 P	P7 T	722+ F	166+ M	247+ W	223+ S	184+ M	174+ T	S	T	145 F	S
13	143 T	187+ F	74 S	131 T	233+ T	215+ S	160+ T	292+ F	61 M	226+ W	72 S	27 W
14	123 W	274+ S	S	12 W	191+ F	115 M	113 W	325+ S	105 T	571+ T	S	154+ T
15	163+ T	S	48 P	101 T	112 S	160+ T	140 T	S	177+ W	193+ F	13 P	149 W
16	256+ F	145 M	35 T	194+ F	S	204+ W	122 F	154+ M	T	593+ S	56 T	75 T
17	125 S	405+ T	50 W	S	111 P	317+ T	193 S	165+ T	F	S	121 W	224+ F
18	S	145 W	117 T	S	255+ T	167+ F	S	115 W	S	M	317+ T	511+ F
19	96 W	252+ T	126 F	97 M	132 W	167+ S	77 M	131 T	S	106 T	290+ F	S
20	328+ T	317+ F	155 S	154+ T	176+ T	S	170 T	145 F	127 M	199 W	S	477+ M
21	176 W	155+ S	S	100+ W	146+ F	110 M	193+ W	264+ S	T	50 T	S	64 T
22	178+ T	S	12 P	231+ T	115+ S	176+ T	218+ T	S	95 W	250+ F	74 P	99 W
23	478+ F	74 W	162 T	151+ F	S	167+ W	234+ F	204+ M	113 T	440+ S	315+ T	271+ T
24	443+ S	140 T	112 W	234+ S	63 M	123 T	315+ F	197+ T	140 F	S	244+ W	F
25	215+ S	114+ W	111 T	S	172 T	151+ F	S	121 W	165+ S	116 M	T	S
26	44 W	139 T	62 F	P	142 W	215+ S	229+ P	P: T	S	243+ T	F	S
27	54 T	215+ F	54 S	6+ T	148 T	S	209+ T	124 F	P	81 W	S	121 M
28	118 W	175+ S	S	111 W	116 F	P7 M	171+ W	157+ S	T	127 T	S	176+ T
29	90 T	S	74 M	101 T	312+ S	151+ T	238+ T	S	W	156+ F	74 P	W
30	248+ F	S	112 T	107 F	P	194+ W	416+ F	194+ M	T	110 S	63 T	200+ T
31	S	S	44 W	S	P	S	112 T	S	S	S	S	F
P	25	21	27	24	11	27	25	20	17	73	71	23
MAX	478	475	410	214	171	345	410	321	177	583	440	579
1% PEAK	171	181	179	147	147	168	171	147	108	143	152	151

TOTAL SAMPLES = 76 44 STARRED (*) ITEMS EXCEEDED THE PRIMARY STANDARD OF 124 MICROGRAMS PER CUBIC METER
124 PLUSSED (+) ITEMS EXCEEDED THE SECONDARY STANDARD OF 100 MICROGRAMS PER CUBIC METER

CELPHETIC MEAN = 140 PRIMARY STANDARD OF 75 MICROGRAMS PER CUBIC METER WAS EXCEEDED
SECONDARY STANDARD OF 100 MICROGRAMS PER CUBIC METER WAS EXCEEDED

COLLECTION METHOD: HI-VOL

ANALYSIS METHOD: GRAVIMETRIC

ALL TIMES ARE STANDARD TIME

Figure 11. Standards Report - Particulate Sampling.

AS OF SEPTEMBER 1st, 1976

S U L F U R D I O X I D E

PAGE 1

3 HOUR RUNNING AVERAGE

ARIZONA

NATIONAL AIRPOLLUTION DATA BANK STANDARDS REPORT FOR JANUARY, 1976

STATE 01

SITECODE: 030380001
 AGENCY/PROJECT: PC2
 AGENCY TYPE: STATE AGENCY
 CITY POPULATION:
 ACR POPULATION: 127,282
 EPA-REGION: 9
 SUPPORTING AGENCY: ARIZONA STATE DEPARTMENT OF HEALTH
 COMMENTS: 1.5 PILTS NW OF SHELTER TA HOUSE ON US 160

LOCATION: GREENLEE CO
 COUNTY/STATE: GREENLEE CO
 SITE ADDR: STARGO
 STATION TYPE (34): RURAL-INDUSTRIAL
 ACR (L127): ARIZONA-NEW MEXICO-SOUTHERN BORDER
 SMSA (L0000): C NOT IN A STANDARD METROPOLITAN STATIST

LATITUDE: N 33 C. W. 17 S.
 LONGITUDE: W 109 D. 29 P. 57 S.
 UTM ZONE: 12
 UTM NORTHING: 3651427 P.
 UTM EASTING: 657840 W.
 ELEVATION ABOVE GROUND: 10 FT.
 ELEVATION ABOVE MSL: 4636 FT.
 TIME ZONE: WEST U.T. HOURS

PONT	1	2	3	4	5	6	7	8	9	10	11	NOON	1	2	3	4	5	6	7	8	9	10	11	P MAX
C1 1																								
C2 2																								
C3 3																								
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C97 97																								
C98 98																								
C99 99																								
C100 100																								

TOTAL SAMPLES: 8

74

2 OF POSSIBLE OBSERVATIONS: 8

54.2

15 PLUSSED END ITEM: EXCEEDED THE SECONDARY STANDARD OF 1.25 MICROGRAMS PER CUBIC METR

14 SECONDARY NON-OVERLAPPING VIOLATIONS

COL

Site Description Inventory

GENERAL DESCRIPTION

This report lists, in a standard site description format, information concerning the environment and operating characteristics of the given sampling site or sites. The site description information is arranged in three blocks across the page, each block containing six to eight lines of information. The various codes, as set forth in AEROS Manual of Codes, are provided for the various station parameters, and each is defined by name. These codes include those for the state, area, agency/project, EPA Region, county, station type, AQCR, SMSA, and UTM zone. The actual numerical values are also provided for the city and AQCR populations, as well as for various geographic parameters including the latitude and longitude of the sampling site, its UTM grid coordinates, the elevation of the sampling probe above the ground and above MSL, and the time differential between local standard time and GMT. In addition, the name of the location is given, along with the name of the supporting agency and any appropriate comments.

RETRIEVAL OPTIONS

The site description data can be retrieved by state, area, site, agency, project, AQCR, county, and any appropriate combination of the above.

SORT OPTIONS

This report can be sorted by state, area, site, agency, project, county, and AQCR.

SAMPLE REPORT

A Site Description Inventory for four sites in Rhode Island is shown in Figure 13.

RUN DATE:091278

NATIONAL AEROMETRIC DATA BANK
SITE FILE LISTING
STATE (41) RHODE ISLAND

PAGE:41- 1

SITE CODE: 410040001F01
AGENCY/PROJECT: F01
AGENCY TYPE: STATE
CITY POPULATION: 17,860
AOCR POPULATION: 1,645,380
EPA REGION: 1
SUPPORT AGENCY: RHODE ISLAND DEPARTMENT OF HEALTH
COMMENTS:

LOCATION: BRISTOL
COUNTY (0060): BRISTOL CO
SITE ADDR: REYNOLDS ELEMENTARY SCHOOL
STATION TYPE (22): SUBURBAN - RESIDENTIAL
AOCR (12C): METROPOLITAN PROVIDENCE
SMSA (6480): PROVIDENCE-PANTUCKET-WARWICK, R.I.-PASS.

LATITUDE: 41 D. 40 M. 26 S. N
LONGITUDE: 71 D. 16 M. 18 S. W
UTM ZONE: 19
UTM NORTHING: 4615800 METERS
UTM EASTING: 310900 METERS
ELEVATION ABOVE GROUND: 40 FT.
ELEVATION ABOVE MSL : 90 FT.
DIFF.GMT: WEST 05 HOURS
RECORD LAST UPDATED: / /

SITE CODE: 410065001F01
AGENCY/PROJECT: F01
AGENCY TYPE: STATE
CITY POPULATION: 10,087
AOCR POPULATION: 1,645,380
EPA REGION: 1
SUPPORT AGENCY: RHODE ISLAND DEPARTMENT OF HEALTH
COMMENTS:

LOCATION: BURRILLVILLE
COUNTY (0320): PROVIDENCE CO
SITE ADDR: BURRILLVILLE HIGH SCHOOL
STATION TYPE (22): SUBURBAN - RESIDENTIAL
AOCR (12C): METROPOLITAN PROVIDENCE
SMSA (6480): PROVIDENCE-PANTUCKET-WARWICK, R.I.-PASS.

LATITUDE: 41 D. 58 M. 9 S. N
LONGITUDE: 71 D. 39 M. 48 S. W
UTM ZONE: 19
UTM NORTHING: 4649500 METERS
UTM EASTING: 279300 METERS
ELEVATION ABOVE GROUND: 20 FT.
ELEVATION ABOVE MSL : 370 FT.
DIFF.GMT: WEST 05 HOURS
RECORD LAST UPDATED: / /

SITE CODE: 410090001F01
AGENCY/PROJECT: F01
AGENCY TYPE: STATE
CITY POPULATION: 2,863
AOCR POPULATION: 1,645,380
EPA REGION: 1
SUPPORT AGENCY: RHODE ISLAND DEPARTMENT OF HEALTH
COMMENTS: DISCONTINUED, 4/28/73

LOCATION: CHARLESTOWN
COUNTY (0380): WASHINGTON CO
SITE ADDR: NAVAL AIR STATION
STATION TYPE (22): SUBURBAN - RESIDENTIAL
AOCR (12C): METROPOLITAN PROVIDENCE
SMSA (0000): 0 NOT IN A STANDARD METROPOLITAN STATIST

LATITUDE: 41 D. 22 M. 7 S. N
LONGITUDE: 71 D. 39 M. 37 S. W
UTM ZONE: 19
UTM NORTHING: 4582700 METERS
UTM EASTING: 277500 METERS
ELEVATION ABOVE GROUND: 60 FT.
ELEVATION ABOVE MSL : 70 FT.
DIFF.GMT: WEST 05 HOURS
RECORD LAST UPDATED: / /

SITE CODE: 410090002F02
AGENCY/PROJECT: F02
AGENCY TYPE: STATE
CITY POPULATION: 2,863
AOCR POPULATION: 1,645,380
EPA REGION: 1
SUPPORT AGENCY: R.I. STATE DEPT OF HEALTH, DIV. OF AIR POLLUTION CONTROL
COMMENTS:

LOCATION: CHARLESTOWN
COUNTY (0380): WASHINGTON CO
SITE ADDR: UNITED NUCLEAR
STATION TYPE (34): RURAL - INDUSTRIAL
AOCR (12C): METROPOLITAN PROVIDENCE
SMSA (0000): 0 NOT IN A STANDARD METROPOLITAN STATIST

LATITUDE: 41 D. 25 M. 59 S. N
LONGITUDE: 071 D. 40 M. 47 S. W
UTM ZONE: 19
UTM NORTHING: 4590100 METERS
UTM EASTING: 276100 METERS
ELEVATION ABOVE GROUND: FT.
ELEVATION ABOVE MSL : 65 FT.
DIFF.GMT: WEST 05 HOURS
RECORD LAST UPDATED: 05/15/78

Figure 13. Site Description Inventory Report.

Raw Data in SAROAD Format

GENERAL DESCRIPTION

The report creates a magnetic tape of the raw data in the same form as it was originally entered into the SAROAD data base.

RETRIEVAL OPTIONS

There are several key items upon which retrieval may be made by using the SAROAD Standard Format Selection procedure, including: state, area, site, agency type, AQCR, project classification, pollutant, method of collection and analysis, sampling interval, and starting and ending dates. Certain combinations of selections keys are prohibited. For example, a site key may be entered only if an area key is also entered, and an area key may be entered only if a state key is also entered. Similarly, a project classification code may be included only if an agency type is also specified, and a method of collection and analysis may be specified only if a pollutant type is

also specified. All other combinations may be considered as valid retrieval requests. The period of interest is specified by year and month for the starting and ending dates.

SORT OPTIONS

There are no sort options available.

SAMPLE REPORT

Figures 14 to 16 give the type and sequencing of data contained in the report. The output is available on magnetic tape.

ENVIRONMENTAL PROTECTION AGENCY
National Aerometric Data Bank
Research Triangle Park, N. C. 27711

SAROAD Daily Data Form

THE REPORT IS REQUIRED BY LAW
42 USC 1857; 40 CFR 51

OMB No. 158-R0012

Approval expires 2/77.

24-hour or greater sampling interval

2
1 _____
Agency

City Name

Site Address

Project _____ Time Interval _____

State _____ Area _____ Site _____
2 3 4 5 6 7 8 9 10
Agency _____ Project _____ Time _____ Year _____ Month _____
11 12 13 14 15 16 17 18

Name PARAMETER Code		Name PARAMETER Code		Name PARAMETER Code		Name PARAMETER Code	
Method	Units	Method	Units	Method	Units	Method	Units
DP		DP		DP		DP	
0 1	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 100

Figure 14. SAROAD Daily Data Form.

Meteorological Raw Data Reports

GENERAL DESCRIPTION

SAROAD has the capability to store, retrieve, and display meteorological data in report and plotted form; however, regional or national SAROAD contacts should be consulted to determine whether the desired data are available.

Report capabilities provide for printing the site description at the top of the page, then the parameter-method-unit names, and the raw data values for one month. Each line contains up to 24 raw data values, the mean, and the number of observations for each day. This line is repeated for each day in the month. At the bottom of the page, the minimum, maximum, average, and number of observations are given for each hour of the day for that month. A second report provides for the site description and the parameter-method-unit names at the top and lists the minimum, the hour of the minimum, the maximum, the hour of the maximum, the mean, and the number of observations for each day of the month.

A plot of the data can be generated on either a CALCOMP plotter or a TEXTRONIX terminal. A separate plot is created for each month of data. The daily minimums, maximums, and means for a specific parameter for each day of the month are plotted with descriptive information on the site and parameter. The plot is a separate report and may be omitted if only the raw data listing is required.

RETRIEVAL OPTIONS

The meteorological raw data reports and plots may be retrieved by state, area, site, agency, project, pollutant (only 6XXXX), method units, start and end date, and any appropriate combination of the above.

For the plots, the minimum scale value and a delta value may be specified by the user, or, if omitted, they are calculated by the program. The user can also specify what values (daily minimum, maximum, and/or mean) are plotted.

SORT OPTIONS

No optional sorts are available for this report. The report is printed according to the order on file, i.e., state/area/site/agency/project/pollutant/year/month.

SAMPLE REPORT

Figures 17 to 19 show examples for wind speed for a site in Birmingham, Alabama, for January 1975.

RUN DATE: SEP 28, 1978

NATIONAL AERONAUTIC DATA BANK
MONTHLY METEOROLOGICAL DATA REPORT
FOR JAN 1978

PAGE: 5

SITCODE: 01010005
AGENCY/PROJECT: GO2
AGENCY TYPE: COUNTY
CITY POPULATION: 100,910
ACCR POPULATION: 1,041,529
EPA-REGION: 4
SUPPORTING AGENCY: JEFFERSON COUNTY HEALTH DEPARTMENT
COMMENTS:

LOCATION: BIRMINGHAM
COUNTY (FIPS): JEFFERSON CO
SITE ADDR: 2817 30TH AVENUE NORTH
STATION TYPE (111): CENTER CITY - INDUSTRIAL
ACCR (FIPS): METROPOLITAN BIRMINGHAM
EPA (FIPS): BIRMINGHAM, ALABAMA

LATITUDE: 33.4 21 44 01 S.
LONGITUDE: 86.4 01 41 55 W
UTM ZONE: 18
UTM NORTHING: 8321240
UTM EASTING: 400000
ELEVATION ABOVE GROUND: 706 FT.
ELEVATION ABOVE MSL: 740 FT.
TIME GMT: WEST 04 HOUR

PARAMETER: WIND						SPEED						METHOD: INSTRUMENTAL						UNITS: KNOTS								
-----						-----						-----						-----								
												TIME														

DAY	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	TIME	NUM
00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00	00
01	4.0	9.0	9.0	8.0	10.0	10.0	8.0	8.0	10.0	10.0	11.0	10.0	10.0	11.0	9.0	10.0	9.0	8.0	7.0	8.0	9.0	9.0	10.0	8.0	8.0	24
02	7.0	7.0	6.0	6.0	7.0	8.0	8.0	8.0	9.0	12.0	11.0	10.0	10.0	10.0	10.0	8.0	7.0	8.0	11.0	11.0	13.0	12.0	12.0	8.0	8.0	24
03	11.0	10.0	10.0	11.0	8.0	9.0	8.0	7.0	8.0	8.0	8.0	5.0	5.0	8.0	8.0	7.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	24
04	4.0	9.0	7.0	7.0	7.0	7.0	5.0	6.0	7.0	8.0	9.0	9.0	9.0	10.0	9.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	24
05	3.0	3.0	4.0	5.0	4.0	8.0	3.0	3.0	4.0	9.0	9.0	8.0	8.0	5.0	9.0	8.0	8.0	8.0	7.0	10.0	7.0	8.0	10.0	8.0	8.0	24
06	9.0	10.0	8.0	3.0	4.0	5.0	5.0	6.0	7.0	10.0	9.0	10.0	10.0	8.0	7.0	5.0	3.0	7.0	2.0	2.0	1.0	3.0	3.0	8.0	8.0	24
07	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	7.0	8.0	8.0	8.0	9.0	9.0	11.0	9.0	10.0	8.0	8.0	8.0	10.0	8.0	8.0	8.0	24
08	12.0	12.0	11.0	8.0	9.0	8.0	7.0	10.0	10.0	10.0	11.0	11.0	12.0	11.0	8.0	7.0	7.0	6.0	5.0	9.0	8.0	8.0	8.0	8.0	8.0	24
09	10.0	10.0	10.0	10.0	12.0	10.0	8.0	9.0	9.0	10.0	10.0	10.0	10.0	11.0	10.0	10.0	8.0	7.0	4.0	4.0	5.0	6.0	4.0	4.0	8.0	24
10	5.0	5.0	4.0	3.0	3.0	3.0	3.0	4.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
11	3.0	3.0	3.0	3.0	3.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
12	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
13	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
14	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
15	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
16	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
17	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
18	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
19	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
20	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
21	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
22	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
23	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
24	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
25	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
26	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
27	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
28	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
29	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
30	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
31	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	24
MIN	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	24
MAX	12.0	12.0	11.0	13.0	14.0	13.0	14.0	15.0	13.0	17.0	15.0	15.0	15.0	16.0	15.0	13.0	12.0	12.0	11.0	13.0	11.0	12.0	14.0	14.0	14.0	24
AVG	7.1	6.9	6.9	6.7	7.1	7.1	6.8	6.9	7.7	8.5	8.5	8.3	8.4	8.9	9.0	8.7	7.4	6.4	6.7	6.4	6.4	6.4	6.7	7.0	7.0	24
DBS	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	24

Figure 17. Meteorological Raw Data Format.

RUN DATE: SEP 28, 1979

NATIONAL AERONAUTIC DATA BANK
MONTHLY METEOROLOGICAL DATA REPORT
FOR JAN 1975

SITECODE: BIR10005
AGENCY/PROJECT: G02
AGENCY TYPE: COUNTY
CITY POPULATION: 300,910
ACCR POPULATION: 1,043,529
EPA-REGION: 4
SUPPORTING AGENCY: JEFFERSON COUNTY HEALTH DEPARTMENT
COMMENTS:

LOCATION: BIRMINGHAM
COUNTY: JEFFERSON CO
SITE ADDR: 2817 30TH AVENUE NORTH
STATION TYPE (111): CENTER CITY - INDUSTRIAL
ACCR (004): METROPOLITAN BIRMINGHAM
ANCA (1000): BIRMINGHAM, ALABAMA

LATITUDE: 33 04 21 N - 01 S 4
LONGITUDE: 86 04 01 W - 55 54 W
UTM ZONE: 1A
UTM NORTHING: 0371740
UTM EASTING: 00051720
ELEVATION ABOVE GROUND: 004 FT.
ELEVATION ABOVE MSL: 0400 FT.
OFF. GMT: WEST 04 HOURS

PARAMETER: WIND SPEED

METHOD: INSTRUMENTAL
----- SPOT READING

UNITS: KNOTS

DAY	MW. OF		MW. OF		KNOTS	
	MIN	MAX	MIN	MAX	MEAN	DIR
1	4.0	00	11.0	10	9.0	24
2	4.0	02	11.0	21	9.0	24
3	4.0	13	11.0	00	6.5	24
4	2.0	20	10.0	13	6.1	24
5	1.0	00	10.0	20	6.2	24
6	2.0	19	10.0	01	6.1	24
7	1.0	00	11.0	15	6.5	24
8	4.0	20	14.0	08	8.6	24
9	4.0	00	9.0	14	6.5	19
10						0
11						0
12	10.0	21	11.0	19	11.4	9
13	6.0	20	12.0	04	8.7	24
14	1.0	03	8.0	13	4.7	24
15	1.0	00	9.0	09	5.2	24
16	4.0	00	9.0	11	6.7	24
17	4.0	02	12.0	23	7.3	24
18	6.0	02	14.0	00	8.3	24
19	1.0	18	14.0	03	7.0	24
20	6.0	23	13.0	04	9.5	24
21	4.0	08	11.0	12	6.1	24
22	4.0	11	2.0	02	6.0	24
23	3.0	01	8.0	06	6.3	24
24	4.0	00	10.0	03	7.7	24
25	4.0	18	16.0	00	11.8	24
26	1.0	18	9.0	09	6.1	24

Figure 18. Meteorological Raw Data Report.

SITECODE: 010380005G02
 YEAR/MONTH: 7501
 PARAMETER: 61101 - WIND SPEED
 UNITS: KNOTS
 SAMPLING INTERVAL: 1-HOUR
 METHOD: INSTRUMENTAL
 SPOT READING

○ DAILY MEAN

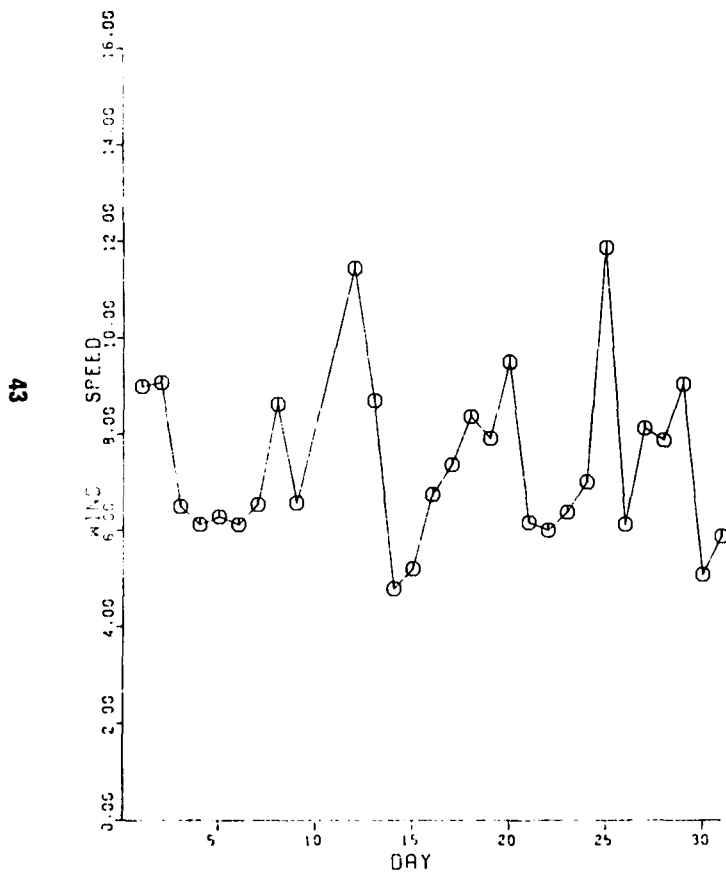


Figure 19. Meteorological Raw Data Plot.

Yearly Frequency Distribution

GENERAL DESCRIPTION

This report lists the site description and annual summary information for all data that satisfy the retrieval criteria. The site description is repeated at the top of each page, followed by the data. The site description gives the geographical information necessary to locate the site and is separated from the data by a data heading. Below the data heading, the codes and names are given for the pollutant, the sampling and analysis methods, the sampling interval, and the standard units in which the data are printed. The data items include: the year of the data; the percent of observations for continuous data; the number of observations; the number of primary and secondary violations of the NAAQSS; the minimum detectable for the sampling method; the minimum, maximum, and second maximum observations; the 10, 30, 50, 70, 90, 95, and 99 percentiles; the arithmetic mean; the geometric mean; and the geometric standard deviation. The number of violations of the NAAQSS represents the number of violations of the short-term standards. For the running averages, the number of violations are for nonoverlapping running averages.

The retrieval and print options, which are based on summary criteria, are: (1) print all data that meet other selection criteria but do not print the means and standard deviation when summary criteria are not met (default), (2) print all data that meet other selection criteria and flag the statistics when summary criteria are not met, (3) print only data that meet summary criteria, or (4) print only data that fail the summary criteria.

RETRIEVAL OPTIONS

The report is generated from data that satisfy the following selection criteria: nation, state, area, site, agency, project, pollutant, method, interval, begin year, end year, AQCR, and county.

Most combinations of the above selection criteria are valid, but the following combinations are invalid: (1) area or county without state, (2) site without state/area, (3) project without agency, and (4) method without pollutant.

The difference between a state/area and a state/county retrieval is important—a state/area selection

will only give the sites in that area (city) while a state/county selection will give all state/area combinations located in that county.

SORT OPTIONS

This report may be sorted in ascending (default) or descending order by the following options: state, area, site, agency, project, AQCR, pollutant, method, units, interval, year, pollutant value, and county code. For this report, the pollutant value sort is on the yearly maximum observed value. Any number of sorts can be specified in any desired order, but certain sort combinations may produce a confusing report.

SAMPLE REPORT

Figure 20 shows a Yearly Frequency Distribution Report for particulate, carbon monoxide, and sulfur dioxide for a site in Providence, Rhode Island.

NATIONAL AEROMETRIC DATA BANK
 YEARLY FREQUENCY DISTRIBUTION
 STATE (41): RHODE ISLAND

SITE CODE: 41030005101

AGENCY/PROJECT: F01

AGENCY TYPE: STATE

CITY POPULATION: 179,213

AOCR POPULATION: 1,645,380

EPA-REGION: 1

SUPPORTING AGENCY: RHODE ISLAND

COMMENTS: PROVIDENCE STATION B

LOCATION: PROVIDENCE

COUNTY (C37C): PROVIDENCE CO

SITE ADDR: STATE OFFICE BUILDING

STATION TYPE (11): CENTER CITY - INDUSTRIAL

AOCR (12C): METROPOLITAN PROVIDENCE

SMSA (64SC): PROVIDENCE-PANTUCKET-WARWICK, R.I.-PASS

DEPARTMENT OF HEALTH

LATITUDE: 41 D. 49 N. 54 S. N

LONGITUDE: 71 D. 24 W. 50 S. W

UTM ZONE: 19

UTM NORTHING: 4633700

UTM EASTING: 60299400

ELEVATION ABOVE GROUND: 650 FT.

ELEVATION ABOVE MSL: 610 FT.

DIFF. GMT: WEST 05 HOURS

POLLUTANT NAME										METHOD OF COLLECTION AND ANALYSIS										INTERVAL		STANDARD UNITS				
POLLUTANT-METHOD-INTERVAL-UNITS CDBF																										
YEAR	PCT OBS	NBR OBS	REXCURS PPT	SEC	DETEC	MIN OBS		10	30	PERCENTILES				90	95	99	MAX OPS	2ND MAX	ARIT MEAN	GEOM MEAN	GEOM STD DEV					
PARTICULATE										HI-VOL GRAVIMETRIC										24-HOUR		UG/CU METER (25 C)				
42101-01-7-01																										
73		51	0	0	1	21		31	40	46	64	107	130	138		170	177	50	52	1.6						
74		41	0	2	1	21		37	51	61	82	103	141	157		157	115	70	63	1.6						
75		54	0	0	1	22		35	43	57	67	97	102	121		121	114	60	57	1.4						
CARBON MONOXIDE										INSTUMENTAL NONDISPERSIVE INFRA-RED										1-HOUR		PPM/CU METER (25 C)				
42101-11-1-05																										
72	93	8169	0	0	0.6	0.6		0.6	1.2	2.3	3.5	5.1	4.1	8.6		17.8	15.0	2.7	2.1	2.04						
73	47	4126	0	0	0.6	0.6		0.6	1.2	1.7	2.9	4.0	4.2	6.4		19.6	13.6	2.3	1.9	1.90						
CARBON MONOXIDE										INSTUMENTAL NONDISPERSIVE INFRA-RED										2-HR-AVG		PPM/CU METER (25 C)				
42101-11-2-05																										
72		8116	1	1	0.6	0.6		0.6	1.4	2.4	3.3	4.7	4.4	7.7		10.4	9.5									
73		4098	0	0	0.6	0.6		0.9	1.4	2.0	2.7	3.9	4.7	6.1		9.1	8.2									
SULFUR DIOXIDE										INSTUMENTAL WEST-GAEFF COLORIMETRIC										1-HOUR		UG/CU METER (25 C)				
42401-11-1-01																										
72	85	7471	0	0	26	13		11	39	60	119	216	280	524		956	656	98	56	2.9						
74	84	7349	0	0	26	11		11	13	19	74	170	242	466		968	639	68	38	2.9						
75	24	2134	0	0	26	13		11	45	70	106	166	212	311		417	390	86	64	2.3						
SULFUR DIOXIDE										INSTUMENTAL WEST-GAEFF COLORIMETRIC										24-HR-AVG		UG/CU METER (25 C)				
42401-11-2-01																										
72		6960	0	0	26	13		20	53	70	119	195	246	401		614	576									
74		7111	1	0	26	13		14	26	44	77	150	212	322		414	358									
75		2117	0	0	26	13		34	61	86	106	150	267	193		222	204									

Figure 20. Yearly Frequency Distribution Report Format.

Quarterly Frequency Distribution

GENERAL DESCRIPTION

This report lists the site description and quarterly summary information for all data that satisfy the retrieval criteria. The site description is repeated at the top of each page, followed by the data. The site description gives the geographical information necessary to locate the site and is separated from the data by a data heading. Below the data heading, the codes and names are given for the pollutant, the sampling and analysis methods, the sampling interval, and standard units in which the data are printed. The data items include: the year/quarter of the data; the percent of observations for continuous data; the number of observations; the number of primary and secondary violations of the NAAQSs; the minimum detectable for the sampling method; the minimum, maximum, and second maximum observations; the 10, 30, 50, 70, 90, 95, and 99 percentiles; the arithmetic mean; the geometric mean; and the geometric standard deviation. The number of violations of the NAAQSs represents the number of violations of the short-term standards, and for the running averages, the number of violations are for nonoverlapping running averages.

The retrieval and print options, which are based on summary criteria, are: (1) print all data that meet other selection criteria but do not print the means and standard deviation when summary criteria are not met (default), (2) print all data that meet other selection criteria and flag the statistics when summary criteria are not met, (3) print only data that meet summary criteria, or (4) print only data that fail the summary criteria.

RETRIEVAL OPTIONS

The report is generated from data that satisfy the following selection criteria: nation, state, area, site, agency, project, pollutant, method, interval, begin year-quarter, and end year-quarter, AQCR, and county.

Most combinations of the above selection criteria are valid, but the following combinations are invalid: (1) area or county without state, (2) site without state/area, (3) project without agency, and (4) method without pollutant.

The difference between a state/area and a state/county retrieval is important--a state/area selection will only give the sites in that area (city) while a state/county selection will give all state/area combinations located in that county.

SORT OPTIONS

This report may be sorted in ascending (default) or descending order by the following options: state, area, site, agency, project, AQCR, pollutant, method, units, interval, year, quarter, pollutant value, and county code. For this report, the pollutant value sort is on the quarterly maximum observed value. Any number of sorts can be specified in any desired order, but certain sort combinations would produce a confusing report.

SAMPLE REPORT

Figure 21 shows a Quarterly Frequency Distribution Report for particulate and carbon monoxide for a site in Providence, Rhode Island.

NATIONAL AEROMETRIC DATA BANK
QUARTERLY FREQUENCY DISTRIBUTION
STATE (41): RHODE ISLAND

SITECODE: 410300005F01

AGENCY/PROJECT: F01

AGENCY TYPE: STATE

CITY POPULATION: 179,213

AQCR POPULATION: 1,645,380

EPA-REGION: 1

SUPPORTING AGENCY: RHODE ISLAND DEPARTMENT OF HEALTH

COMMENTS: PROVIDENCE STATION B

LOCATION: PROVIDENCE

COUNTY (C320): PROVIDENCE CO

SITE ADDR: STATE OFFICE BUILDING

STATION TYPE (11): CENTER CITY - INDUSTRIAL

AQCR (120): METROPOLITAN PROVIDENCE

SMSA (6480): PROVIDENCE-PAWTUCKET-WARWICK, R.I.-PASS

DEPARTMENT OF HEALTH

LATITUDE: 41 D. 49 N. 54 S. N

LONGITUDE: 71 D. 24 W. 56 S. W

UTM ZONE: 19

UTM NORTHING: 4633700

UTM EASTING: C0299400

ELEVATION ABOVE GROUND: 050 FT.

ELEVATION ABOVE MSL: 0100 FT.

DIFF. GMT: WEST 05 HOURS

POLLUTANT NAME										METHOD OF COLLECTION AND ANALYSIS								INTERVAL		STANDARD UNITS				
POLLUTANT-METHOD-INTERVAL-UNITS CODE																								
PCT NBR #EXCURSIONS MIN MIN										PERCENTILES														
YR-QTR	OBS	OBS	PRI	SEC	DETEC	MIN	OBS	10	30	50	70	90	95	99	MAX	OBS	2ND	ARIT	GEOM	GEOM	STD	DEV		
PARTICULATE										MI-VOL GRAVIMETRIC								24-HOUR		UG/CU METER (25 C)				
11101-91-7-01																								
73-01	16	0	0	1	21	42	47	51	98	122	137	137	137	137	137	122	72	64	1.7					
73-02	14	0	0	1	28	32	37	43	46	69	107	107	107	107	107	69	48	45	1.4					
73-03	13	0	0	1	21	35	35	43	48	130	138	138	138	138	138	58	50	50	1.7					
73-04	8	0	0	1	32	32	37	38	59	71	71	71	71	71	71	64	47	46	1.4					
74-01	8	0	1	1	50	50	66	78	93	155	155	155	155	155	155	98	85	80	1.4					
74-02	9	0	0	1	37	37	45	61	88	141	141	141	141	141	141	103	72	66	1.6					
74-03	11	0	1	1	30	39	51	58	82	98	157	157	157	157	157	98	70	64	1.6					
74-04	13	0	0	1	23	33	39	51	76	96	108	108	108	108	108	96	58	51	1.6					
CARBON MONOXIDE										INSTRUMENTAL NONDISPERSIVE INFRA-RED								1-HOUR		MG/CU METER (25 C)				
42101-11-1-05																								
72-C1	90	1962	0	0	0.6	0.6	1.2	1.7	2.9	4.0	5.8	6.9	9.8	15.0	15.0	3.2	2.6	2.03						
72-C2	83	1806	0	0	0.6	0.6	0.6	1.2	1.7	2.3	4.6	5.2	6.9	13.8	11.5	2.0	1.5	2.11						
72-C3	99	2193	0	0	0.6	0.6	0.6	1.2	2.3	3.5	5.2	6.3	8.1	10.4	9.2	2.6	2.1	2.05						
72-C4	100	2206	0	0	0.6	0.6	1.2	1.7	2.3	3.5	4.6	5.8	10.4	17.8	15.0	2.7	2.3	1.80						
73-C1	93	1998	0	0	0.6	0.6	0.6	1.7	2.3	2.9	4.6	5.8	7.5	19.6	13.8	2.5	2.1	1.94						
73-C2	97	2128	0	0	0.6	0.3	0.6	1.2	1.7	2.3	3.5	4.6	5.8	10.4	9.2	2.0	1.7	1.83						
CARBON MONOXIDE										INSTRUMENTAL NONDISPERSIVE INFRA-RED								8-HR-AVG		MG/CU METER (25 C)				
42101-11-2-05																								
72-01	1935		1	1	0.6	0.6	1.2	2.1	3.7	3.6	5.5	6.3	8.5	10.4	9.5									
72-C2	1787		0	0	0.6	0.6	0.6	1.1	1.6	2.3	4.2	4.9	6.1	6.5	6.4									
72-03	2186		0	0	0.6	0.6	0.6	1.5	2.4	3.3	4.6	5.6	7.7	8.4	8.0									

Figure 21. Quarterly Frequency Distribution Report Format.

Yearly Report by Quarters

GENERAL DESCRIPTION

This report lists the site description and selected summary information for the year and for the individual quarters. The site description gives the geographical information necessary to locate the site. Below the data heading, the codes and names are given for the pollutant, the sampling and analysis methods, the sampling interval, and the standard units in which the data are printed. The data items include: the year of the data; the percent of observations for continuous data; the minimum detectable limit for the method; the arithmetic mean, arithmetic standard deviation, minimum observation, and maximum observation for the year; and the number of observations and arithmetic mean for each quarter.

The retrieval and print options, which are based on summary criteria, are: (1) print all data that meet other selection criteria but do not print quarterly and yearly statistics that do not meet the summary criteria, (2) print all data that meet other selection criteria and flag the statistics when summary criteria

are not met, or (3) print only data that fail the summary criteria, with flags on the data.

RETRIEVAL OPTIONS

The report may be retrieved based on the following selection criteria: nation, state, area, site, agency, project, pollutant, method, interval, begin year, end year, AQCR, and county.

Most combinations of the above selection criteria are valid, but the following selections are invalid: (1) area or county without state, (2) site without state/area, (3) project without agency, and (4) method without pollutant.

SORT OPTIONS

This report may be sorted in ascending (default) or descending order by the following options: state, area, site, agency, project, AQCR, pollutant, method, units, interval, year, pollutant value, and county code. For this report, the pollutant value sort is on the yearly maximum observed value. Any number of

sorts can be specified in any desired order, but certain sort combinations would produce a confusing report.

SAMPLE REPORT

A Yearly Report by Quarters for particulate, carbon monoxide, and sulfur dioxide for a site in Providence, Rhode Island, is shown in Figure 22.

NATIONAL AEROMETRIC DATA BANK
 YEARLY REPORT BY QUARTERS
 STATE (41): RHODE ISLAND

PAGE 41-0001

 SITECODE: 4103G0005
 AGENCY/PROJECT: F01
 AGENCY TYPE: STATE
 CITY POPULATION: 179,213
 ADGR POPULATION: 1,645,380
 EPA-REGION: 1
 SUPPORTING AGENCY: RHODE ISLAND
 COMMENTS: PROVIDENCE STATION B

 LOCATION: PROVIDENCE
 COUNTY (0320): PROVIDENCE CO
 SITE ADDR: STATE OFFICE BUILDING
 STATION TYPE (11): CENTER CITY - INDUSTRIAL
 ADGR (12): METROPOLITAN PROVIDENCE
 SSHA (1403): PROVIDENCE-PANTUCKET-WARWICK, R.I.-PASS
 DEPARTMENT OF HEALTH

 LATITUDE: 41 D. 49 N. 54 S. N
 LONGITUDE: 71 D. 24 W. 50 S. W
 UTM ZONE: 19
 UTM NORTHING: 4637700
 UTM EASTING: 60299400
 ELEVATION ABOVE GROUND: 65. FT.
 ELEVATION ABOVE MSL: 1100 FT.
 DIFF. GMT: WEST 05 HOURS

YEAR	POLLUTANT METHOD INTERVAL AND UNITS	PERCENT OPS	PIN DETEC LEVEL	YEARLY ARITHMETIC MEAN STD DEV	EXTREMES		1ST QUARTER		2ND QUARTER		3RD QUARTER		4TH QUARTER	
					PIN OBS	MAX OBS	NUM OBS	MEAN	NUM OBS	MEAN	NUM OBS	MEAN	NUM OBS	MEAN
73	PARTICULATE 1110101 HI-VOL GRAVIMETRIC 24-HOUR UG/CM METER (25 C)		1.	5.	10.	21.	110.	1.	72	14	40	13	18	47
74	PARTICULATE 1110101 HI-VOL GRAVIMETRIC 24-HOUR UG/CM METER (25 C)		1.	7.	10.	21.	157.	6	65	6	71	11	73	58
72	CARBON MONOXIDE 4110111 INSTRUMENTAL NONDISPERSIVE INFRA-RED 1-HOUR MG/CM METER (25 C)	61	0.0	2.	1.4	1.0	17.4	1402	3.	170.4	2.	214.2	1.	227.4
71	CARBON MONOXIDE 4110111 INSTRUMENTAL NONDISPERSIVE INFRA-RED 1-HOUR MG/CM METER (25 C)	67	0.0	2.4	1.44	1.3	10.4	1458	2.	210.8	2.			
72	SULFUR DIOXIDE 4140111 INSTRUMENTAL WFT-CALAT COLORIMETRIC 7-HOUR UG/CM METER (25 C)	50	0.0	71.	11.	744.	1480	82	1480	70	1074	16	1111	80
71	SULFUR DIOXIDE 4140111 INSTRUMENTAL WFT-CALAT COLORIMETRIC 1-HOUR UG/CM METER (25 C)	51	0.0	64	174.	11.	670.	1402	100	1407	65	1430	71	1477
72	SULFUR DIOXIDE 4140111 WAS DUDPLER PARACUMILINE-SULFAPIC ACID 24-HOUR UG/CM METER (25 C)	64	0.0	44	51.	1.	270.	14	11	14	54	15	44	20

Figure 22. Yearly Report by Quarters Report Format.

Inventory Reports

GENERAL DESCRIPTION

SAROAD provides for the reporting of data availability by site and pollutant. Information can be provided as follows:

1. Inventory by site.
2. Inventory by pollutant.
3. State inventory by pollutant.

The three reports vary only in the order of the first five columns of data and the sorted order. All the reports present the same data in the last six columns as follows:

1. Internal code.
2. Units code.
3. Year.
4. Number of observations.
5. Maximum observation.
6. Arithmetic mean.

The order of the first five columns depends on the report requested, as follows:

1. Inventory by site — site code, agency/project codes, location name, pollutant name, pollutant method codes.
2. Inventory by pollutant — pollutant method codes, pollutant name, site code, agency/project codes, and location name.
3. State inventory by pollutant — field order is the same as for the inventory by pollutant report. Note that only one state's data are contained in this report.

RETRIEVAL OPTIONS

Selections by nation, state, area, pollutant, and year or valid combinations are available.

SORT OPTIONS

Sorts for the reports are available as follows:

1. Inventory by site: by Site ID, then by pollutant within Site.

2. Inventory by pollutant: by pollutant, then by state and area.
3. State inventory by pollutant: by state, then by pollutant and area site.

SAMPLE REPORTS

Samples of these three types of reports are shown in Figures 23, 24, and 25.

SITE CODE	AG/ PSJ	LOCATION NAME	POLLUTANT NAME	POL-INT CODE	INT CODE	UNIT CODE	YEAR	ALM CFS	MAX CFS	ARITH MEAN
G1092001	F01	ABBEVILLE	PARTICULATE	1110191	7	01	1974	41	123.	42.
					7	01	1975	24	54.	27.
					7	01	1976	45	62.	30.
					7	01	1977	18	56.	33.
G1096001	F01	ALEXANDER CITY	PARTICULATE	1110191	7	01	1974	28	85.	38.
					7	01	1975	22	61.	31.
					7	01	1976	29	68.	38.
					7	01	1977	38	492.	47.
G1010001	F01	ANDALUSIA	PARTICULATE	1110191	7	01	1975	37	118.	56.
					7	01	1976	33	108.	57.
					7	01	1977	19	105.	49.
					7	01	1978	14	56.	51.
					7	01	1979	24	74.	42.
					7	01	1977	45	276.	49.
			BENZENE SOLUBLE ORGANIC FRACTION	1110391	7	01	1977	36	8.2	4.6
					7	01	1978	17	10.2	5.0
G1012001	F01	ANNISTON	PARTICULATE	1110191	7	01	1975	36	173.	61.
					7	01	1976	38	172.	62.
					7	01	1977	18	176.	67.
					7	01	1978	28	97.	45.
					7	01	1979	47	110.	53.
					7	01	1977	56	271.	69.
			BENZENE SOLUBLE ORGANIC FRACTION	1110391	7	01	1975	37	5.5	4.8
					7	01	1976	7	4.6	4.1
					7	01	1977	2	10.2	4.0
G1012002	F01	ANNISTON	SULFUR DIOXIDE	4260191	7	07	1974	2	10.2	36.
			PARTICULATE	1110191	7	01	1975	17	84.	49.
					7	01	1976	33	192.	49.
					7	01	1977	50	174.	52.
G1016001	C01	ATHENS	PARTICULATE	1110191	7	01	1977	42	173.	73.
					7	01	1978	45	157.	67.
					7	01	1979	42	178.	69.
					7	01	1980	55	188.	68.
					7	01	1977	54	173.	63.
			SULFUR DIOXIDE	4260191	7	07	1974	66	1005	1001
					7	07	1975	45	1018	1007
			NITROGEN DIOXIDE	4260294	7	07	1975	12	1014	1009
			NITROGEN TRIOXIDE	4260294	7	07	1975	2	1020	1010
					7	07	1976	42	1092	1041
					7	07	1977	74	1036	1014
G1016002	C01	ATHENS	PARTICULATE	1110191	7	01	1975	37	114.	71.
					7	01	1976	36	184.	73.
G1016003	C01	ATHENS	PARTICULATE	1110191	7	01	1975	7	174.	66.
					7	01	1976	55	175.	71.
					7	01	1977	40	124.	62.
					7	01	1978	52	173.	59.
					7	01	1977	59	124.	65.
			SOILING INDEX (TRANSMISSION)	1120101	7	09	1974	111	157	111
			SULFUR DIOXIDE	4260191	7	07	1974	44	1001	1001

**" DENOTES A VALUE DERIVED FROM DATA WHICH DO NOT MEET SAMPLING SUMMARY CRITERIA OF OACS GUIDELINE 1-7-77, VOL 3, SEC 2.3.3C

Figure 23. Inventory by Site Report.

NATIONAL AEROMETRIC DATA BANK
INVENTORY BY POLLUTANT
PARTICULATE

FOL-MTH CODE	POLLUTANT NAME	SITE CODE	AG/ PRJ	LOCATION NAME	INT CODE	UNIT CODE	YEAR	NUM OBS	MAX OPS	ARITH MEAN	
111C191	PARTICULATE	01C020001	FC1	ABBEVILLE	7	01	1974	41	123.	42.	
					7	01	1975	34	56.	27.	*
					7	01	1976	45	62.	30.	
					7	01	1977	18	58.	33.	*
		01C060001	FC1	ALEXANDER CITY	7	01	1974	38	85.	38.	
					7	01	1975	22	61.	31.	*
					7	01	1976	29	68.	38.	
					7	01	1977	38	492.	47.	
		01C100001	FC1	ANDALUSIA	7	01	1972	37	118.	58.	
					7	01	1973	33	188.	57.	
					7	01	1974	19	105.	49.	*
					7	01	1975	14	98.	31.	*
					7	01	1976	24	74.	42.	*
					7	01	1977	45	278.	49.	
		01C120001	FC1	ANNISTON	7	01	1972	39	133.	81.	*
					7	01	1973	38	103.	42.	*
					7	01	1974	18	106.	67.	*
					7	01	1975	26	97.	45.	*
					7	01	1976	47	110.	53.	
					7	01	1977	56	231.	69.	
		01C120002	FC1	ANNISTON	7	01	1975	17	44.	36.	*
					7	01	1976	53	192.	49.	
					7	01	1977	50	104.	52.	
		01C160001	GC1	ATHENS	7	01	1973	42	157.	73.	*
					7	01	1974	55	157.	87.	
					7	01	1975	42	158.	69.	*
					7	01	1976	55	148.	68.	
					7	01	1977	54	152.	63.	
		01C160002	GC1	ATHENS	7	01	1973	37	112.	71.	*
					7	01	1974	36	158.	73.	*
		01C160003	GC1	ATHENS	7	01	1973	7	104.	66.	*
					7	01	1974	55	139.	71.	
					7	01	1975	46	120.	65.	*
					7	01	1976	53	127.	59.	
					7	01	1977	58	224.	65.	
		01C260001	AC3	BALDWIN CO	7	01	1956	22	60.	30.	
		01C260002	FL3	BALDWIN CO	7	01	1974	28	116.	75.	*
					7	01	1975	24	128.	82.	*
					7	01	1976	40	99.	83.	
					7	01	1977	14	147.	89.	*

Figure 24. Inventory by Pollutant Report.

NATIONAL AEROMETRIC DATA BANK
STATE INVENTORY BY POLLUTANT
ALABAMA

POL-RTN CODE	POLLUTANT NAME	SITE CODE	AG/ PRJ	LOCATION NAME	INT CODE	UNIT CODE	YEAR	NUM OBS	MAX OBS	ARITH MEAN	
1110191	PARTICULATE	010020001	F01	ABBEVILLE	7	01	1974	41	123.	42.	
					7	01	1975	34	56.	27.	*
					7	01	1976	45	62.	30.	
					7	01	1977	18	58.	33.	*
		010060001	F01	ALEXANDER CITY	7	01	1974	38	85.	38.	
					7	01	1975	22	61.	31.	*
					7	01	1976	29	68.	38.	
					7	01	1977	38	492.	47.	
		01C100001	F01	ANDALUSIA	7	01	1972	37	118.	58.	
					7	01	1973	33	188.	57.	
					7	01	1974	19	105.	49.	*
					7	01	1975	14	58.	31.	*
					7	01	1976	24	74.	42.	*
					7	01	1977	45	278.	49.	
		01C120001	F01	ANNISTON	7	01	1972	39	133.	81.	*
					7	01	1973	38	103.	62.	*
					7	01	1974	18	106.	67.	*
					7	01	1975	28	97.	45.	*
					7	01	1976	47	110.	53.	
					7	01	1977	56	231.	69.	
		01C1200C2	F01	ANNISTON	7	01	1975	17	64.	36.	*
					7	01	1976	53	192.	49.	
					7	01	1977	50	104.	52.	
		01C160001	G01	ATHENS	7	01	1973	42	137.	73.	*
					7	01	1974	55	157.	87.	
					7	01	1975	42	158.	69.	*
					7	01	1976	55	148.	68.	
					7	01	1977	54	152.	63.	
		01C1600G2	G01	ATHENS	7	01	1973	37	112.	71.	*
					7	01	1974	36	188.	73.	*
		01C160003	G01	ATHENS	7	01	1973	7	104.	66.	*
					7	01	1974	55	139.	71.	
					7	01	1975	46	120.	60.	*
					7	01	1976	53	127.	59.	
					7	01	1977	58	224.	65.	
		01Q260001	A03	BALDWIN CO	7	01	1959	23	60.	30.	
		01C2600C2	F03	BALDWIN CO	7	01	1974	28	116.	75.	*
					7	01	1975	24	128.	62.	*
					7	01	1976	40	99.	63.	
					7	01	1977	14	147.	89.	*

Figure 25. State Inventory by Pollutant.

Summary Report of Valid Data

GENERAL DESCRIPTION

This report produces a tabulation, one line for each site-pollutant combination, indicating the quantity of data reported for a pollutant. The time period of interest, which is specified by the user, can be from 1 to 5 years. For each quarter of the year or years specified, a column of coded data appears. The codes, together with their meanings, are as follows:

1. "0" means "no data."
2. "1" means "data do not meet summary criteria."
3. "2" means "data do meet summary criteria."

The "Site" and "Pollutant" columns contain codes for agency type and project classification (under "Site") and for method of collection and analysis and time interval (or period of observation) (under "Pollutant"). The meanings of these codes are given in Volume V of the AEROS Manual.

RETRIEVAL OPTIONS

Retrieval may be by pollutant, by nation, by state, or by area, site, agency, or project classification, or any combination of these.

SORT OPTIONS

The standard sorting hierarchy is by state, AQCR, area, site number, agency type, project classification code, pollutant type, method code, and time interval, all in ascending numerical or alphabetical order. No options for alternative sorting sequences are available.

SAMPLE REPORT

Figure 26 shows a sample of the Summary Report of Valid Data for the State of Rhode Island.

```

!NO DATA
!1=DATA DO NOT MEET SUMMARY CRITERIA
!2=DATA DO MEET SUMMARY CRITERIA

```

SUMMARY REPORT OF VALID DATA
NATIONAL BIPOMETRIC DATA BANK
STATE 1411; PUHOE ISLAND

7
8
9
10
11

AQC#		AREA	SITE AG/PMO CODE	POLLUTANT W/TH/INT CONF	1973				1974				1975				1976				1977				TOTAL
					I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	I	II	III	IV	
120	BRISTOL		001/F01	TSP-91/7	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	10
120	BRISTOL		001/F01	SO2-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	BRISTOL		001/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	BURRILLVILLE		001/F01	TSP-91/7	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	9
120	BURRILLVILLE		001/F01	SO2-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	BURRILLVILLE		001/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	CHARLESTOWN		001/F01	TSP-91/7	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
120	CHARLESTOWN		001/F01	SO2-91/7	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
120	CRANSTON		001/F01	TSP-91/7	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	30
120	CRANSTON		001/F01	SO2-91/7	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	18
120	CRANSTON		001/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	CRANSTON		002/F01	TSP-91/7	0	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	11
120	CRANSTON		002/F01	SO2-91/7	0	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	10
120	CRANSTON		002/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		001/F01	TSP-91/7	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
120	EAST PROVIDENCE		001/F01	SO2-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		001/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	TSP-91/7	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	10
120	EAST PROVIDENCE		002/F01	SO2-91/7	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	10
120	EAST PROVIDENCE		002/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	TSP-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	SO2-91/7	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	11
120	EAST PROVIDENCE		002/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	TSP-91/7	0	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	10
120	EAST PROVIDENCE		002/F01	SO2-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	TSP-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	SO2-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	TSP-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	SO2-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	TSP-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	SO2-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	TSP-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	SO2-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	TSP-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	SO2-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	TSP-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	SO2-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	TSP-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	SO2-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	TSP-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	SO2-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	TSP-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	SO2-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	TSP-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	SO2-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	TSP-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	SO2-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	TSP-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	SO2-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	TSP-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	SO2-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	TSP-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	SO2-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	NO2-84/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	TSP-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVIDENCE		002/F01	SO2-91/7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
120	EAST PROVID																								

Figure 26. Summary Report of Valid Data.

Summary of Monitoring Activity

GENERAL DESCRIPTION

This report produces a tabulation by state and AQCR for the selected pollutants of the sites meeting the summary criteria for the quarter selected for study. The result is a nationwide report sorted by AQCR within states for all 55 "states." Each state has its own page in the report, with each AQCR within the state occupying one line of data. There is also a "Total" line at the bottom of each page, but no grand total; that is, only the totals for each state are given.

For each of the pollutant-sampling period combinations, three columns of data are given; these columns are headed "REQ," "PRO," and "RPT," meaning, respectively, "Required by EPA," "Proposed in the State Implementation Plan (SIP) for 1974," and "Reporting to the National Aerometric Data Bank — Based on Quarter X of 197X Data." The seven possible pollutant-averaging period combinations are: (1) TSP (total suspended particulates)-daily, (2) SO₂-daily, (3) SO₂-hourly, (4) NO₂-daily, (5) NO₂-hourly, (6) CO-hourly, (7) O_x-hourly.

RETRIEVAL OPTIONS

The report is available only on a nationwide basis. The data satisfying the summary criteria are tallied by monitoring site for a single quarter of the given calendar year. If data for more than one quarter are needed, a separate run must be made for each quarter.

SORT OPTIONS

The report is sorted by state and AQCR and no other sorts may be specified.

SAMPLE REPORT

A portion of this summary report for Alabama is shown in Figure 27.

09-13-78

SUMMARY OF MONITORING ACTIVITY
NATIONAL AEROMETRIC DATA BANK
STATE (01) : ALABAMA

PAGE 1

AQCR	TSP			SO2-DAILY			SO2-HOURLY			NO2-DAILY			NO2-HOURLY			CO-HOURLY			O3-HOURLY		
	REQ	PRD	RPT	REQ	PRD	RPT	REQ	PRD	RPT	REQ	PRD	RPT	REQ	PRD	RPT	REQ	PRD	RPT	REQ	PRD	RPT
001	3	3	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
002	5	5	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
003	6	6	9	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
004	10	10	20	3	3	2	1	1	0	0	0	1	0	0	0	3	1	2	1	1	2
005	3	4	16	2	3	10	1	1	2	0	0	0	0	0	0	0	0	0	1	1	1
006	3	3	4	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
007	7	7	24	5	5	10	1	2	1	0	0	2	0	0	1	0	0	0	0	0	1
TOTAL	37	38	80	14	15	26	3	4	3	0	0	10	0	0	1	3	3	2	4	4	4

REQ = REQUIRED BY FPA

PRD = PROPOSED IN STATE IMPLEMENTATION
PLAN FOR 1974

RPT = REPORTING TO NATIONAL AEROMETRIC

DATA BANK - BASED ON QUARTER 1 OF 1977

Figure 27. Summary of Monitoring Activity Report.

Active Site Report

GENERAL DESCRIPTION

This report consists of a sorted inventory of sites that have reported SAROAD data during a specified time interval. The report is made up of a series of subreports, one for each site. Each site report contains a description of the site and summaries of the pollutants measured, methods used, time intervals, units, and number of observations reported.

RETRIEVAL OPTIONS

There are 10 key items upon which retrieval may be made in this report: state, area, site, agency type, project classification, pollutant type, method of collection and analysis, sampling interval, AQCR, and starting and ending dates. Certain combinations of selection keys are prohibited. For example, a site key may be entered only if an area key is also entered, and an area key may be entered only if a state key is also entered. Similarly, a project classification code may be included only if an agency type is also specified only, and a method code may be included only if a pollutant type is also specified. All other combinations may be considered as valid retrievals.

SORT OPTIONS

The selected sites may be sorted in a variety of ways before the report is printed. The six possible codes available for use are:

1. Ascending key STATE.
2. Ascending key AREA.
3. Ascending key SITE.
4. Ascending key AGENCY.
5. Ascending key PROJECT.
6. Ascending key AQCR.

The sort codes may be entered in any order, and the order determines the sorting hierarchy; that is, the first code entered will determine the primary sort, the second one will determine the secondary sort, and so on. There are only two restrictions on the use of the sort codes: at least one sort code must be specified, and each sort code may appear only once for a given run.

SAMPLE REPORT

Figure 28 shows a portion of the inventory report for Rhode Island.

DATE: SEP 12, 1978

NATIONAL AEROMETRIC DATA BANK
INVENTORY OF SITES REPORTING DATA DURING 1ST REPORTED DATE THRU THE PRESENT DATE
STATE(47): RHODE ISLAND

PAGE: 0001

```

*****
SITECODE: 41009002F02          LATITUDE(D.M.S.): 41 25 59 N          EPA REGION: 01          UTM ZONE: 19
SITE ADDRESS: UNITED NUCLEAR          LONGITUDE(D.M.S.): 71 40 47 W          ELEV ABOVE GROUND: 000          UTM NORTHING: 4590100
CITY OR AREA: CHARLESTON          CITY POPULATION: 2,561          ELEV ABOVE MSL: 000          UTM EASTING: 0276100
COUNTY(C3NC): WASHINGTON CO          ADCH POPULATION: 1,245,700          TIME ZONE(REF GMT): WEST 05 HOURS
STATION TYPE: RURAL - INDUSTRIAL          ACHC(12C): METROPOLITAN PROVIDENCE
AGENCY TYPE: STATE          SMSA(10C): 0 NOT IN A STANDARD METROPOLITAN STATIST
SUPP. AGENCY: R.I. STATE DEPT OF HEALTH, DIV. OF AIR POLLUTION CONTROL
CURRENT:

```

FOL/PTH/INT	POLLUTANT NAME	METHOD OF COLLECTION AND ANALYSIS	INTERVAL	UNITS	# OBS
11201/91/7	ALPHA (6H055)	HI-VOL PROPORTIONAL COUNTER	24-HOUR	PICOCURIES/CU. METER	17

```

*****
SITECODE: 41010001F01          LATITUDE(D.M.S.): 41 47 22 N          EPA REGION: 01          UTM ZONE: 19
SITE ADDRESS: CRANSTON POLICE DEPT          LONGITUDE(D.M.S.): 71 28 22 W          ELEV ABOVE GROUND: 0030          UTM NORTHING: 4628400
CITY OR AREA: CRANSTON          CITY POPULATION: 77,717          ELEV ABOVE MSL: 0150          UTM EASTING: 0294500
COUNTY(C3NC): PROVIDENCE CO          AGCH POPULATION: 1,245,700          TIME ZONE(REF GMT): WEST 05 HOURS
STATION TYPE: SUBURBAN - RESIDENTIAL          ACHC(12C): METROPOLITAN PROVIDENCE
AGENCY TYPE: STATE          SMSA(10C): PROVIDENCE-PAWTUCKET-WARWICK, FALL-PAGE
SUPP. AGENCY: RHODE ISLAND DEPARTMENT OF HEALTH
CURRENT:

```

FOL/PTH/INT	POLLUTANT NAME	METHOD OF COLLECTION AND ANALYSIS	INTERVAL	UNITS	# OBS
11101/91/7	PARTICULATE	HI-VOL GRAVIMETRIC	24-HOUR	UG/CU METER (25 C)	59
42401/91/7	SULFUR DIOXIDE	GAS BUBBLER PARAFENAMINE-SULFAMIC ACID	24-HOUR	UG/CU METER (25 C)	49

Figure 28. Active Site Report.

Additional References

Other publications that describe and supplement this booklet for SAROAD as well as other AEROS data bases include:

1. AEROS Manual Series, Volume I: AEROS Overview, EPA-450/2-76-001. As the name implies, it presents an overview of the system.
2. AEROS Manual Series, Volume II: AEROS User's Manual, EPA-450/2-76-029. This manual describes data coding as well as the data flow procedures.
3. AEROS Manual Series, Volume III: Summary and Retrieval, EPA-450/2-76-009. This manual describes computerized reports as well as several examples of data analysis.
4. AEROS Manual Series, Volume V: AEROS Manual of Codes, EPA-450/2-76-005. This manual contains all necessary AEROS codes.

These manuals are available from the same sources as the SAROAD publications.

Glossary

Agency code — Alphabetic code assigned as part of the site identifier to designate the type of agency (USEPA, state, county, city, private) that performs the laboratory analysis for the sample.

Air Quality Control Region (AQCR) — One of 247 geographical areas in which the 55 “states” are divided based on jurisdictional boundaries, urban industrial concentrations, and other factors, including atmospheric areas necessary to provide adequate implementation of air quality standards.

Air quality data — Individual numeric values representing the concentration of a given pollutant in the air at a given site and time.

Area code — The numeric code assigned as part of the site identifier to indicate the city in which the site is located, or if it is not located in a city, it indicates the county in which the site is located.

Computerized report — A printed data display created by a computer program from a data file based on specific retrieval and sort options. The specific

format and amount of data vary with the program and the retrieval and sort options utilized.

Criteria pollutant — Any pollutant for which a National Ambient Air Quality Standard has been promulgated.

Data — Items of information concerning the environment surrounding a site or concentrations of air pollutants sampled at a site.

Edit checks — The standard data processing checks performed to ensure that data are correctly coded. In SAROAD, these checks include a check that all codes are valid, that all numeric fields contain numeric values with no embedded blanks, that the correct data formats are utilized, and that data values are within selected bounds.

Identifier — Unique set of characters that identify an individual data record. In SAROAD, the site identifier includes the codes for state, area, site, agency, and project. The data identifier includes the site identifier, the date, and the codes for pollutant, method, units, and interval.

Method code — Unique identifier for each pollutant that identifies the method utilized to collect the sample and analyze for the specific pollutant.

Monitoring network — Several sampling sites that are operated to collect air quality data.

Parameter code — In SAROAD, an individual five-digit code assigned to a specific pollutant. An hierarchical coding structure was developed to permit assignment of codes for thousands of individual pollutants.

Project code — Numeric code assigned as part of the site identifier to designate the type of sampling (population oriented, source oriented, background, etc.) that is performed at a site.

Publication — In SAROAD, one of several printed books compiled from site information and summary data and published to reflect air quality and site information for a given time period.

Retrieval option — Options available for the selection of a subset of records from a data file based on a partial or complete identifier. The selection based on a specific partial or complete identifier produces

a file of all records with identifiers that meet selection criteria.

SAROAD codes — Geographical identification codes assigned to states, counties, and cities. The state codes are two-digit codes from 1 to 55. The city and county codes are four-digit codes assigned after the city and county names were arranged in alphabetical order. A city code was assigned to each incorporated city with a 1970 population over 2500.

Sampling site — A location where one or more samplers are operated to collect air quality data.

Sampling time interval — The time period over which the sample was collected. Instruments operate continuously and the data are reported as 1-hour averages while integrated samplers operate 24 hours and a single 24-hour average concentration is reported.

Sort option — Order of reporting formatted data in a computerized report. Each computerized report creates a unique format, which is repeated for each retrieved record. The sort can be on the individual parts of the key or by specific data items in each record.

State — In SAROAD, one of the 50 states plus Washington, DC, and the territories of American Samoa, Guam, Puerto Rico, and the Virgin Islands.

Units — One of the identifiers for data that indicates the dimensional system utilized to express the concentration of the specific pollutant. Air pollutants are routinely reported in concentration units of micrograms pollutant per cubic meter of air ($\mu\text{g}/\text{m}^3$) or parts of pollutant per million parts of air (ppm).

UTM coordinates — Map coordinates based on the Universal Transverse Mercator System developed by the U.S. Army. The UTM system provides for the projection of uniform square grid zones with convenient measuring units. UTM coordinates of sites are normally reported in kilometers.

UTM zone — A north-south zone six degrees wide with a central transverse mercator as defined by the UTM coordinate system.

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4. TITLE AND SUBTITLE SAROAD Information		5. REPORT DATE February 1979
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7. AUTHOR(S) Jacob G. Summers		8. PERFORMING ORGANIZATION REPORT NO.
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		11. CONTRACT/GRANT NO.
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16. ABSTRACT This SAROAD Information Booklet describes the SAROAD System for an individual who is unfamiliar with SAROAD. The information booklet includes: (1) an overview of the data contained in SAROAD, (2) an explanation of available air quality publications, (3) a description of procedures for requesting data, and (4) a description and example of the most important computerized reports.		
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