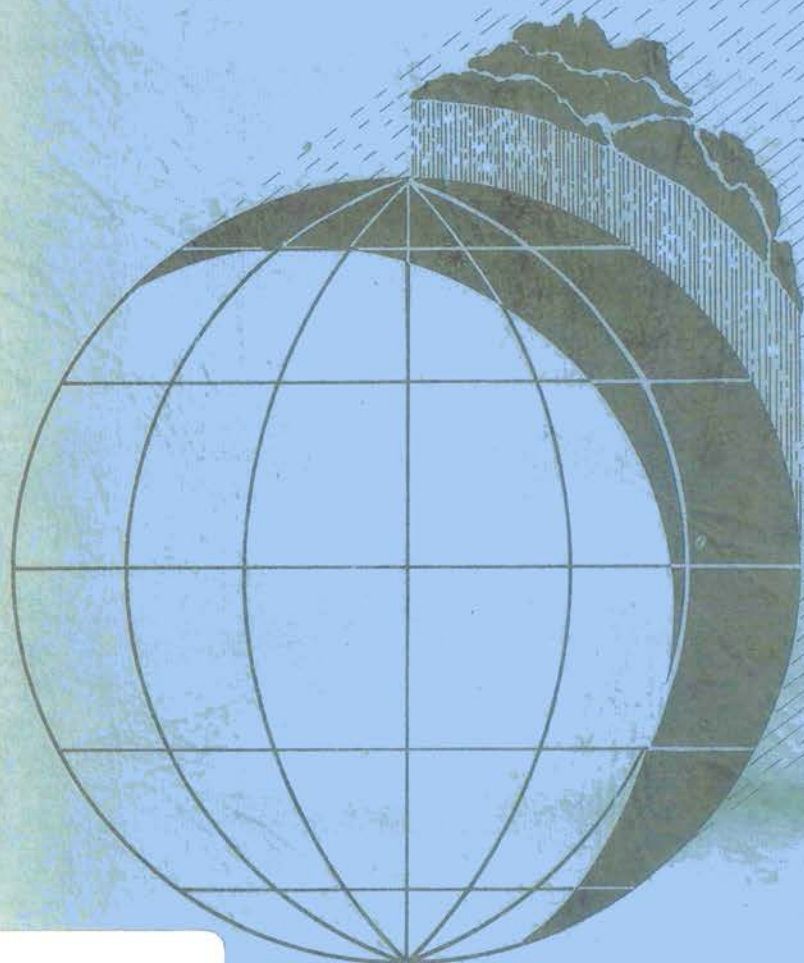


GLOBAL ATMOSPHERIC BACKGROUND MONITORING FOR SELECTED ENVIRONMENTAL PARAMETERS BAPMON DATA FOR 1981



VOLUME I
Atmospheric Aerosol
Optical Depth

GLOBAL ATMOSPHERIC BACKGROUND MONITORING
for SELECTED ENVIRONMENTAL PARAMETERS
BAPMoN DATA for 1981

VOLUME I

**Atmospheric Aerosol
Optical Depth**

Prepared by

**NATIONAL ENVIRONMENTAL SATELLITE, DATA,
AND INFORMATION SERVICE**

**National Climatic Data Center
Federal Building
Asheville, N.C. 28801
MARCH 1984**



**A JOINT PUBLICATION OF THE WORLD METEOROLOGICAL ORGANIZATION,
THE ENVIRONMENTAL PROTECTION AGENCY AND THE U.S. DEPARTMENT
OF COMMERCE//NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION,
IN COOPERATION WITH THE UNITED NATIONS ENVIRONMENT PROGRAMME
(GLOBAL ENVIRONMENTAL MONITORING SYSTEM)**

INTRODUCTION

Global Atmospheric Background Monitoring for Selected Environmental Parameters-BAPMoN Data for 1981 - is sponsored by the World Meteorological Organization (WMO) and the Global Environmental Monitoring System (GEMS) in cooperation with the U. S. National Oceanic and Atmospheric Administration (NOAA) and the U. S. Environmental Protection Agency (EPA). The publication presents data produced from observational records submitted from stations in the WMO Background Air Pollution Monitoring Network (BAPMoN), and includes data from additional cooperative stations. The BAPMoN stations operate according to several resolutions of the WMO Executive Committee. The WMO network includes the following three categories of stations:

1. Baseline Air Pollution Stations. These stations are located in areas where no significant changes in land use are anticipated for at least 50 years within several 100 km in all directions from each station - and carry out a rather sophisticated program.
2. Regional Air Pollution Stations perform a simple observation program. The siting of these stations follows in principle the same requirements as needed for baseline stations but is less critical than that of the baseline stations. Regional stations should be located away from major urban centers. An additional criterion is that the stations be expected to have sufficient longevity as to provide representative trends in regional values of aerosol optical depth and precipitation chemistry.
3. Regional Stations with Extended Programs. These regional stations carry out more than the minimum program. In addition to meeting or exceeding the criteria for a regional station, they should be located in a remote area (preferably mountainous) and not be influenced by any pollution sources within a 100-km radius.

Initially, only turbidity data were processed and published; the annual publication began in 1971, known as Atmospheric Turbidity Data for the World. As precipitation chemistry data were added, the 1972 publication name was changed to Atmospheric Turbidity and Precipitation Chemistry Data for the World. In 1975, with the addition of flask sample carbon dioxide data, the title became Global Monitoring of the Environment for Selected Atmospheric Constituents. In 1978, when continuous carbon dioxide data and suspended particulate data were added, the publication title was changed to its current name. Beginning with the 1979 publication, turbidity values are presented in natural logarithms and called aerosol optical depth. Prior to 1979, turbidity values were given in common logarithms. Beginning with the 1981 data year, BAPMoN data are published in two volumes; one containing turbidity data and the other containing the remaining BAPMoN measurements.

The aim of the WMO, through its air monitoring program, is to determine current levels of atmospheric pollution and, more importantly, to identify long-term trends in the concentration of significant constituents which may affect the environment sufficiently to induce climatic changes. This publication presents the results of the air monitoring program as reported by participating member countries. Data for publication are submitted as follows:

1. Member countries send atmospheric aerosol optical depth observations to the National Climatic Data Center (NCDC), and the edited data serve as input to the tabulations given in volume I published by the WMO.
2. Each country submitting precipitation chemistry, continuous (or grab sample) carbon dioxide, or suspended particulate data is responsible for the collection and analysis of the data and their transmission to the NCDC. The data are then passed on to the EPA where they are processed prior to publication in volume II by the WMO.
3. Geophysical Monitoring for Climatic Change (GMCC) stations submit atmospheric flask sample carbon dioxide data to NOAA in Boulder, Colorado, for analysis. Data tables are prepared and sent to the WMO for inclusion in volume II.

For additional information, refer to the 1978 WMO publication, International Operations Handbook for Measurement of Background Atmospheric Pollution.

Sunphotometer Aerosol Optical Depth Measurements

The atmospheric aerosol optical depth, $\tau_{A\lambda}$, derived from sunphotometer measurements is the monochromatic extinction coefficient at wavelength λ , considering vertical transmission, for aerosols with radii of about .1 to 1.0 micron. It is defined in equation (1):

$$I_{\lambda} S = I_{O\lambda} \text{EXP} \left[- (\tau_{r\lambda} + \tau_{3\lambda} + \tau_{A\lambda}) M_h \right] \quad (1)$$

where:

- I_{λ} is the irradiance at wavelength λ at the observing point.
- $I_{O\lambda}$ is the extraterrestrial irradiance at wavelength λ at the mean sun-earth distance.
- S is the correction factor for the mean solar distance.
- $\tau_{r\lambda}$ is the scattering coefficient for air molecules (Rayleigh scattering).
- $\tau_{3\lambda}$ is the absorption coefficient for ozone.
- $\tau_{A\lambda}$ is the aerosol optical depth.
- M_h is the relative optical air mass.

The sunphotometer does not measure the spectral irradiance but rather provides a meter deflection (J_{λ}) which is proportional to I_{λ} . Similarly, the instrument calibration factor, $J_{O\lambda}$, is the meter reading when the irradiance is $I_{O\lambda}$. Values of the relative optical air mass read from the diopter scale on the sunphotometer are used on station to determine turbidity values. For this report, air mass values are recomputed using latitude, longitude, elevation, and the time of observation. The extinction coefficients $\tau_{r\lambda}$ and $\tau_{3\lambda}$ are adjusted for the elevation of the observation site. Calculations of $\tau_{A\lambda}$, Angstrom's turbidity coefficient β , and wavelength exponent α are given in this publication. The relationship among these variables is:

$$\tau_{A\lambda} = \beta \lambda^{-\alpha} \quad (2)$$

λ = wavelength in microns.

When measurements are made with the single wavelength Volz instrument, α is assumed to be 1.3. For the dual-wavelength sunphotometer, α is calculated from aerosol optical depth measurements at the two wavelengths, λ_1 and λ_2 (generally 500 and 380 nanometers (nm) respectively) as follows:

$$\alpha = \frac{\ln (\tau_{A\lambda 2} / \tau_{A\lambda 1})}{\ln (\lambda_1 / \lambda_2)} \quad (3)$$

Angstrom's turbidity coefficient β is computed from

$$\beta = \tau_{A\lambda} \lambda^\alpha \quad (4)$$

which is derived from (2).

The following discussion is designed to help the reader interpret the data in this report. More detailed information can be gained from the list of references provided at the end of the text.

α (ALPHA), the wavelength exponent, is related to the size distribution of the particles constituting the aerosol. Its average value is about 1.3. Large values of α indicate a relatively higher ratio of small particles to large particles (large particles have radii $> .5$ microns).

The particle size distribution for aerosols approximately follows the relationship:

$$\frac{dn}{dr} = -k r^{-(\alpha+3)} \quad (5)$$

$\frac{dn}{dr}$ is the particle density with respect to particle radius.

k is a constant for a given calculation.

r is the particle radius.

For the purposes of this report, α is independent of wavelength. α has a range of about 0 to 4 but generally it is within the range of 0.5 to 2.5. Negative alpha values may appear in this report. These are thought to be associated with anomalous particle distributions but may occasionally be noise introduced by limits in instrumental accuracy when $\tau_{A\lambda 1} \approx \tau_{A\lambda 2}$.

β (BETA), the turbidity coefficient defined in equation (4) above, is computed using wavelength, but is actually independent of λ because of the "cancelling" effect of $\tau_{A\lambda}$ which is wavelength dependent. $\beta < .1$ may be interpreted as relatively clear and $>.2$ as relatively hazy for near sea level readings.

Data Tables Description

Data in this edition are presented in a new form which conserves space and allows for the publication of aerosol optical depth in one to four wavelength regions. Data are presented for stations listed by ascending NCDC number. Delayed data are presented under the station heading beginning with the earliest date. The station headings give information pertaining to geographical location, elevation, WMO and NCDC number, the instrument wavelengths, and attenuation coefficients (tau equals the sum of the Rayleigh scattering and ozone absorption for each wavelength). The attenuation coefficients are calculated for the station elevation using Elterman's tables. When changes occur during the year, the table headings are changed to reflect current information.

The data tabulated in this publication are the daily mean $\tau_{A\lambda}$ values, α (alpha), and the number of observations. The alpha value given for each day is calculated from the mean aerosol optical depth for the first two wavelengths. For single-wavelength instruments alpha is assumed to be 1.3. The sunphotometer monthly mean α and β values are computed from the monthly mean of all observed $\tau_{A\lambda 1}$ and $\tau_{A\lambda 2}$ values.

Although data which result in negative daily mean alpha values for consecutive days are regarded as questionable, the daily mean $\tau_{A\lambda}$ and α values are printed. Observed aerosol optical depth data which produces values of $\alpha < -0.8$ and >3.5 are retained on magnetic tape but are not included in the published data.

The data have been calculated, listed by computer, and checked for errors. Because of apparent cloud obstruction or instrument malfunction, some observations have been eliminated. Any errors noted in listings should be brought to the attention of the National Climatic Data Center.

REFERENCES

- Angstrom, Anders (1961): Techniques of Determining the Turbidity of the Atmosphere, Tellus XIII, 1961.
- Angstrom, Anders (1963): The Parameters of Atmospheric Turbidity, Tellus XVI, 1964.
- Bullrich, Kurt (1964): Scattered Radiation in the Atmosphere and the Natural Aerosol. Advances in Geophysics, Vol. 10, pp. 99-260.
- CSAGI (Comite Special de L'Annee Geophysique International), (1958): Radiation Instruments and Measurements. Annals of the International Geophysical Year, Vol. 5, Part VI, London, Pergamon Press, pp. 398-410.
- Elterman, L. (1968): UV, Visible and IR Attenuation for Altitudes to 50 Km, Air Force Cambridge Research Laboratories.
- Mason, J. E. (1965): Aerosols (Section 5.5), Handbook of Geophysics and Space Environments, Air Force Cambridge Research Laboratories.
- McCormick, R. A.: Atmospheric Turbidity. Paper presented at the 60th Annual Meeting of the Air Pollution Control Association, June 11-16, 1967, Cleveland, Ohio.
- WMO - No. 299, (1974): WMO Operations Manual for Sampling and Analysis Techniques for Chemical Constituents in Air and Precipitation, Geneva, Switzerland.
- WMO - No. 491, (1978): WMO International Operations Handbook for Measurement of Background Atmospheric Pollution, Geneva, Switzerland.

ATMOSPHERIC AEROSOL OPTICAL DEPTH NETWORK INDEX
JANUARY-DECEMBER 1981

NCDC NO.	WMO NO.	STATION NAME	(LAT) DEG MIN	(LONG) DEG MIN	(ALT) M	PAGE NO.
IRELAND						
* 22100	03953	Valentia	51 56N	010 15W	9	99 - 101
SPAIN						
* 02233		Barcelona	41 23N	002 07E	94	15 - 16
FEDERAL REPUBLIC OF GERMANY (F.R.G.)						
*% 02725		Brotjacklriegel	48 49N	013 12E	1030	19 - 21
* 04220	10615	Deuselbach	41 46N	007 03E	480	26
* 19425		Schauinsland	47 55N	007 55E	1206	85 - 86
22950		Wank Observatory	47 31N	011 09E	1780	114 - 115
HUNGARY						
* 11635		Komlosi	46 58N	019 35E	125	43 - 44
ITALY						
+ 13315	16134	Monte Cimone, Italy	44 12N	010 42E	2165	60 - 62
* 19420	16360	Santa Maria Di Leuca	39 49N	018 21E	104	81 - 85
* 20700	16429	Trapani/Birgi	37 56N	012 31E	7	94 - 99
* 22175	16090	Verona	45 23N	010 52E	67	101 - 105
* 22370	16216	Viterbo	42 26N	012 04E	300	110 - 114
TURKEY						
01350	17130	Ankara	39 57N	032 53E	894	8 - 10
INDIA						
* 13310	42314	Mohanbari	27 29N	095 01E	111	56 - 60
* 01235	42475	Allahabad	25 27N	081 44E	98	2 - 6
* 10615	42339	Jodhpur	26 18N	073 01E	227	36 - 41
* 11430	43339	Kodaikanal	10 14N	077 28E	2343	43
* 13287	43369	Minicoy	08 18N	073 00E	2	53 - 55
* 14010	42867	Nagpur	21 06N	079 03E	310	62 - 65
* 16655	43333	Port Blair	11 40N	092 43E	79	70 - 71
* 19443	42027	Srinagar	34 05N	074 50E	1587	86 - 89
* 22300	43149	Visakhapatnam	17 43N	083 18E	72	107 - 110
JORDON						
19435	43300	Shoubak	30 32N	033 35E	1365	86
THAILAND						
* 02225	48455	Bangkok	13 44N	100 34E	2	13 - 15
% 11675	48550	Ko Samui	09 28N	100 03E	7	44
TUNISIA						
* 20050	60738	Thala	35 33N	008 41E	1091	89 - 91
SUDAN						
* 22700	62751	Wad Medana	14 23N	033 29E	409	114

ATMOSPHERIC AEROSOL OPTICAL DEPTH NETWORK INDEX
JANUARY-DECEMBER 1981

NCDC NO.	WMO NO.	STATION NAME	(LAT) DEG MIN	(LONG) DEG MIN	(ALT) M	PAGE NO.
		ZAMBIA				
13260	67585	Mfuwe	13 16S	031 56E	570	52
		ETHIOPIA				
* 03265	63332	Bahar-Dar	11 36N	037 25E	1802	24 - 26
		CANADA				
* 05040	71881	Edson	53 35N	116 27W	925	26 - 29
* 11200		Kelowna A	49 58N	119 23W	430	41 - 43
* 13040	71722	Maniwaki	46 23N	075 58W	170	47 - 49
* 16275	71845	Pickle Lake	51 28N	090 12W	369	67 - 70
+ 19010	71600	Sable Island	43 56N	060 01W	4	74 - 76
* 23960	71865	Wynyard	51 46N	104 12W	561	115 - 119
		UNITED STATES				
		ALASKA				
+ 02235		Barrow	71 19N	156 36W	3	16
		ARKANSAS				
12200	72340	North Little Rock	34 50N	092 15W	172	45 - 47
		CALIFORNIA				
* 02350	72480	Bishop	37 22N	118 22W	1252	17 - 19
		COLORADO				
* 01150	72462	Alamosa	37 27N	105 52W	2297	1 - 2
		FLORIDA				
13275		Miami	25 44N	080 10W	17	52 - 53
20075	72214	Tallahassee	30 23N	084 22W	21	91 - 94
		HAWAII				
13150		Mauna Loa Obs.	19 32N	155 35W	3397	49
		ILLINOIS				
* 19200	72433	Salem	38 39N	088 58W	177	79 - 81
		MAINE				
*% 03100	72712	Caribou	46 52N	068 01W	191	22 - 24
		MARYLAND				
% 02200		Baltimore	39 17N	076 37W	21	10 - 13
		MINNESOTA				
19100	72655	Saint Cloud	45 33N	094 04W	314	76 - 79
		MISSISSIPPI				
* 13250	72234	Meridian	32 20N	088 45W	94	50 - 52

ATMOSPHERIC AEROSOL OPTICAL DEPTH NETWORK INDEX
JANUARY-DECEMBER 1981

NCDC NO.	WMO NO.	STATION NAME	(LAT) DEG MIN	(LONG) DEG MIN	(ALT) M	PAGE NO.
13300	72773	MONTANA Missoula	46 55N	114 05W	980	55 - 56
18100	72306	NORTH CAROLINA Raleigh AP	35 52N	078 47W	134	71 - 74
02360	72764	NORTH DAKOTA Bismarck	46 46N	100 45W	506	19
25200	72525	OHIO Youngstown	41 16N	080 40W	361	119 - 121
* 16150	72688	OREGON Pendleton	45 41N	118 51W	456	67
* 08150	72654	SOUTH DAKOTA Huron	44 23N	098 13W	393	32 - 34
15100		TENNESSEE Oak Ridge	36 06N	084 11W	276	65 - 67
07150		TEXAS Grand Prairie	32 43N	096 59W	160	29 - 32
* 22200	72255	Victoria	28 51N	096 55W	36	105 - 107
+ 01250	89009	ANTARCTICA Amundsen-Scott	90 00S	180 00E	2800	7
+ 03085		PACIFIC ISLANDS Cape Matatula, American Samoa	14 15S	170 34W	82	21 - 22
* 10100		INDONESIA Jakarta	06 10S	106 50E	6	34 - 36

* Regional Station

+ Baseline Station

% Includes data tables for previous year(s)

ATMOSPHERIC AEROSOL OPTICAL DEPTH NETWORK INDEX
JANUARY-DECEMBER 1981

NCDC NO.	WMO NO.	STATION NAME	(LAT)	(LONG)	(ALT)	PAGE NO.	
			DEG MIN	DEG MIN	M		
*	01150	72462	Alamosa, Colorado	37 27N	105 52W	2297	1 - 2
*	01235	42475	Allahabad, India	25 27N	081 44E	98	2 - 6
+	01250	89009	Amundsen-Scott, Antarctica	90 00S	180 00E	2800	7
	01350	17130	Ankara, Turkey	39 57N	032 53E	894	8 - 10
%	02200		Baltimore, Maryland	39 17N	076 37W	21	10 - 13
* %	02225	48455	Bangkok, Thailand	13 44N	100 34E	2	13 - 15
*	02233		Barcelona, Spain	41 23N	002 07E	94	15 - 16
+	02235		Barrow, Alaska	71 19N	156 36W	3	16
*	02350	72480	Bishop, California	37 22N	118 22W	1252	17 - 19
	02360	72764	Bismarck, North Dakota	46 46N	100 45W	506	19
* %	02725		Brotjacklriegel, F.R.G.	48 49N	013 12E	1030	19 - 21
+	03085		Cape Matatula, American Samoa	14 15S	170 34W	82	21 - 22
* %	03100	72712	Caribou, Maine	46 52N	068 01W	191	22 - 24
*	03265	63332	Bahar-Dar, Ethiopia	11 36N	037 25E	1802	24 - 26
*	04220	10615	Deuselbach, F.R.G.	41 46N	007 03E	480	26
* %	05040	71881	Edson, Canada	53 35N	116 27W	925	26 - 29
	07150		Grand Prairie, Texas	32 43N	096 59W	160	29 - 32
*	08150	72654	Huron, South Dakota	44 23N	098 13W	393	32 - 34
*	10100		Jakarta, Indonesia	06 10S	106 50E	6	34 - 36
*	10615	42339	Jodhpur, India	26 18N	073 01E	227	36 - 41
* %	11200		Kelowna A, Canada	49 58N	119 23W	430	41 - 43
*	11430	43339	Kodaikanal, India	10 14N	077 28E	2343	43
*	11635		Komlosi, Hungary	46 58N	019 35E	125	43 - 44
%	11675	48550	Ko Samui, Thailand	09 28N	100 03E	7	44
	12200	72340	North Little Rock, Arkansas	34 50N	092 15W	172	45 - 47
* %	13040	71722	Maniwaki, Canada	46 23N	075 58W	170	47 - 49
	13150		Mauna Loa Obs., Hawaii	19 32N	155 35W	3397	49 - 50
*	13250	72234	Meridian, Mississippi	32 20N	088 45W	94	50 - 52
	13260	67585	Mfuwe, Zambia	13 16S	031 56E	570	52
	13275		Miami, Florida	25 44N	080 10W	17	52 - 53
* %	13287	43369	Minicoy, India	08 18N	073 00E	2	53 - 55
	13300	72773	Missoula, Montana	46 55N	114 05W	980	55 - 56
*	13310	42314	Mohanbari, India	27 29N	095 01E	111	56 - 60
+	13315	16134	Monte Cimone, Italy	44 12N	010 42E	2165	60 - 62
*	14010	42867	Nagpur, India	21 06N	079 03E	310	62 - 65
	15100		Oak Ridge, Tennessee	36 06N	084 11W	276	65 - 67
*	16150	72688	Pendleton, Oregon	45 41N	118 51W	456	67
*	16275	71845	Pickle Lake, Canada	51 28N	090 12W	369	67 - 70
*	16655	43333	Port Blair, India	11 40N	092 43E	79	70 - 71
	18100	72306	Raleigh, North Carolina - AP	35 52N	078 47W	134	71 - 74

ATMOSPHERIC AEROSOL OPTICAL DEPTH NETWORK INDEX
JANUARY-DECEMBER 1980

	NCDC NO.	WMO NO.	STATION NAME	(LAT) DEG MIN	(LONG) DEG MIN	(ALT) M	PAGE NO.
+	19010	71600	Sable Island, Canada	43 56N	060 01W	4	74 - 76
	19100	72655	Saint Cloud, Minnesota	45 33N	094 04W	314	76 - 79
*	19200	72433	Salem, Illinois	38 39N	088 58W	177	79 - 81
*	19420	16360	Santa Maria Di Leuca, Italy	39 49N	018 21E	104	81 - 85
*	19425		Schauinsland, F.R.G.	47 55N	007 55E	1206	85 - 86
	19435	43300	Shoubak, Jordan	30 32N	033 35E	1365	86
*	19443	42027	Srinagar, India	34 05N	074 50E	1587	86 - 89
*	20050	60738	Thala, Tunisia	35 33N	008 41E	1091	89 - 91
	20075	72214	Tallahassee, Florida	30 23N	084 22W	21	91 - 94
*	20700	16429	Trapani/Birgi, Italy	37 56N	012 31E	7	94 - 99
*	22100	03953	Valentia, Ireland	51 56N	010 15W	9	99 - 101
*	22175	16090	Verona, Italy	45 23N	010 52E	67	101 - 105
*	22200	72255	Victoria, Texas	28 51N	096 55W	36	105 - 107
*	22300	43149	Visakhapatnam, India	17 43N	083 18E	72	107 - 110
*	22370	16216	Viterbo, Italy	42 26N	012 04E	300	110 - 114
*	22700	62751	Wad Medana, Sudan	14 23N	033 29E	409	114
	22950		Wank Observatory, F.R.G.	47 31N	011 09E	1780	114 - 115
*	23960	71865	Wynyard, Canada	51 46N	104 12W	561	115 - 119
	25200	72525	Youngstown, Ohio	41 16N	080 40W	361	119 - 121

* Regional Station

+ Baseline Station

% Includes Data Tables for Previous Year(s)

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 1150
WMO 72462

ALAMOSA, COLORADO
37 27N 105 52W

TAU: 500=.1209

ALTITUDE 2297 M YEAR 1981
380=.3408

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
1	1	.045	2	.099	2	2.890	1	1
1	6	.049	1	.101	1	2.621	6	1
1	13	.037	1	.070	1	2.273	13	1
1	14	.063	2	.115	2	2.219	14	1
1	19	.057	1	.119	1	2.667	19	1
1	22	.061	1	.118	1	2.410	22	1
1	26	.044	1	.081	1	2.194	26	1
MONTHLY MEAN		.051	9	.102	9	2.483	BETA	.009
2	12	.064	1	.071	1	.379	12	2
2	24	.074	1	.145	1	2.453	24	2
2	26	.077	1	.129	1	1.888	26	2
2	28	.110	2	.198	2	2.133	28	2
MONTHLY MEAN		.087	5	.148	5	1.938	BETA	.023
3	23	.119	1	.172	1	1.330	23	3
MONTHLY MEAN		.119	1	.172	1	1.330	BETA	.047
4	5	.092	1	.087	1	.224	5	4
4	9	.097	2	.139	2	1.317	9	4
4	10	.078	2	.121	2	1.601	10	4
4	17	.114	1	.185	1	1.777	17	4
4	22	.097	1	.156	1	1.718	22	4
4	23	.088	1	.138	1	1.624	23	4
4	24	.091	2	.133	2	1.388	24	4
MONTHLY MEAN		.092	10	.135	10	1.390	BETA	.035
5	4	.136	1	.182	1	1.068	4	5
5	7	.232	1	.310	1	1.062	7	5
5	13	.126	1	.154	1	.732	13	5
5	21	.130	1	.206	1	1.693	21	5
MONTHLY MEAN		.156	4	.213	4	1.142	BETA	.071
6	2	.213	1	.277	1	.952	2	6
6	13	.115	2	.196	2	1.939	13	6
6	14	.161	2	.232	2	1.326	14	6
6	15	.170	1	.252	1	1.421	15	6
6	23	.116	1	.173	1	1.457	23	6
6	24	.163	1	.285	1	2.023	24	6
MONTHLY MEAN		.152	8	.230	8	1.514	BETA	.053

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 1150 ALAMOSA, COLORADO ALTITUDE 2297 M YEAR 1981
WMO 72462 37 27N 105 52W TAU: 500=.1209 380=.3408

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
7	4	.142	1	.239	1	1.887	4	7
7	5	.122	1	.188	1	1.571	5	7
7	25	.132	1	.215	1	1.794	25	7
7	28	.165	1	.251	1	1.536	28	7
MONTHLY MEAN		.140	4	.223	4	1.696	BETA .043	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
8	25	.117	2	.177	2	1.524	25	8
8	26	.141	1	.235	1	1.866	26	8
MONTHLY MEAN		.125	3	.197	3	1.657	BETA .040	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
9	16	.154	1	.276	1	2.120	16	9
9	19	.066	1	.117	1	2.079	19	9
9	20	.118	1	.202	1	1.944	20	9
9	21	.150	1	.321	1	2.774	21	9
MONTHLY MEAN		.122	4	.229	4	2.288	BETA .025	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
10	17	.098	1	.176	1	2.129	17	10
10	19	.086	2	.136	2	1.687	19	10
10	21	.065	1	.121	1	2.247	21	10
10	22	.106	1	.190	1	2.123	22	10
10	31	.104	1	.143	1	1.164	31	10
MONTHLY MEAN		.091	6	.150	6	1.838	BETA .025	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
11	1	.077	1	.182	1	3.140	1	11
11	3	.075	1	.109	1	1.350	3	11
11	12	.059	2	.102	2	2.040	12	11
11	16	.028	1	.053	1	2.411	16	11
MONTHLY MEAN		.059	5	.110	5	2.245	BETA .013	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
12	3	.025	2	.052	2	2.735	3	12
12	8	.033	2	.072	2	2.898	8	12
12	9	.038	2	.070	2	2.193	9	12
12	15	.026	1	.055	1	2.766	15	12
MONTHLY MEAN		.031	7	.063	7	2.608	BETA .005	

NCDC 1235 ALLAHABAD, INDIA ALTITUDE 98 M YEAR 1981
WMO 42475 25 27N 81 44E TAU: 500=.1554

MONTH	DAY	500	N	ALPHA	DAY	MONTH
1	1	.201	4		1	1
1	2	.175	4		2	1
1	3	.181	3		3	1
1	4	.251	3		4	1
1	6	.803	1		6	1

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 1235
WMO 42475

ALLAHABAD, INDIA
25 27N 81 44E

TAU: 500=.1554

ALTITUDE 98 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
1	7	.547	1		7	1	
1	8	.293	3		8	1	
1	9	.249	4		9	1	
1	10	.414	3		10	1	
1	11	.312	4		11	1	
1	13	.294	4		13	1	
1	14	.164	4		14	1	
1	15	.236	4		15	1	
1	16	.388	3		16	1	
1	17	.448	2		17	1	
1	19	.559	4		19	1	
1	20	.423	4		20	1	
1	21	.304	2		21	1	
1	22	.404	4		22	1	
1	24	.191	2		24	1	
1	28	.232	5		28	1	
1	29	.297	5		29	1	
1	30	.412	2		30	1	
MONTHLY MEAN		.311	75	1.300	BETA		.126

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
2	1	.201	1		1	2	
2	2	.133	5		2	2	
2	3	.154	5		3	2	
2	4	.165	5		4	2	
2	5	.338	3		5	2	
2	7	.137	1		7	2	
2	8	.127	3		8	2	
2	9	.214	5		9	2	
2	10	.308	4		10	2	
2	11	.259	5		11	2	
2	13	.200	5		13	2	
2	14	.277	5		14	2	
2	15	.259	5		15	2	
2	16	.332	3		16	2	
2	19	.115	5		19	2	
2	20	.198	3		20	2	
2	21	.159	5		21	2	
2	22	.168	5		22	2	
2	23	.162	5		23	2	
2	24	.173	4		24	2	
2	25	.463	5		25	2	
2	28	.281	4		28	2	
MONTHLY MEAN		.220	91	1.300	BETA		.089

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
3	1	.215	2		1	3	
3	2	.204	5		2	3	
3	3	.156	5		3	3	
3	4	.253	5		4	3	
3	5	.246	5		5	3	
3	8	.310	4		8	3	
3	9	.224	3		9	3	
3	10	.289	1		10	3	
3	11	.299	3		11	3	
3	16	.206	1		16	3	
3	17	.171	3		17	3	
3	18	.301	1		18	3	
3	21	.429	1		21	3	
3	22	.289	3		22	3	
3	23	.259	4		23	3	
3	24	.205	5		24	3	
3	25	.288	4		25	3	
3	26	.310	4		26	3	
3	27	.211	4		27	3	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 1235
WMO 42475

ALLAHABAD, INDIA
25 27N

INDIA
81 44E

TAU: 500=.1554

ALTITUDE 98 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
3	28	.323	4		28	3	
3	29	.434	4		29	3	
3	31	.673	5		31	3	
MONTHLY MEAN		.287	76	1.300	BETA		.117

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
4	1	.313	5		1	4	
4	2	.223	5		2	4	
4	3	.283	4		3	4	
4	4	.328	5		4	4	
4	5	.436	5		5	4	
4	6	.281	5		6	4	
4	7	.283	5		7	4	
4	8	.466	5		8	4	
4	9	.388	5		9	4	
4	10	.343	5		10	4	
4	11	.378	4		11	4	
4	12	.411	4		12	4	
4	13	.381	5		13	4	
4	14	.372	5		14	4	
4	15	.412	3		15	4	
4	16	.431	5		16	4	
4	17	.624	5		17	4	
4	18	.377	5		18	4	
4	19	.378	5		19	4	
4	20	.223	6		20	4	
4	21	.269	3		21	4	
4	22	.492	2		22	4	
4	24	.476	3		24	4	
4	26	.369	5		26	4	
4	27	.446	2		27	4	
4	28	.405	1		28	4	
MONTHLY MEAN		.369	112	1.300	BETA		.150

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
5	1	.393	4		1	5	
5	2	.481	3		2	5	
5	4	.491	3		4	5	
5	5	.481	2		5	5	
5	6	.411	2		6	5	
5	8	.302	3		8	5	
5	9	.305	2		9	5	
5	12	.179	5		12	5	
5	13	.269	6		13	5	
5	14	.694	4		14	5	
5	15	.599	4		15	5	
5	16	.595	6		16	5	
5	17	.439	6		17	5	
5	18	.345	6		18	5	
5	19	.446	6		19	5	
5	20	.801	1		20	5	
5	22	.406	4		22	5	
5	23	.497	5		23	5	
5	24	.536	5		24	5	
5	25	.939	1		25	5	
5	26	1.024	5		26	5	
5	27	.743	5		27	5	
5	28	.554	6		28	5	
5	29	.276	3		29	5	
5	30	.395	6		30	5	
5	31	.798	5		31	5	
MONTHLY MEAN		.503	108	1.300	BETA		.204
6	1	.582	6		1	6	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 1235
WMO 42475

ALLAHABAD, INDIA
25 27N 81 44E

TAU: 500=.1554

ALTITUDE 98 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
6	2	.620	4		2	6	
6	3	.581	1		3	6	
6	4	.421	1		4	6	
6	5	.444	2		5	6	
6	6	.231	6		6	6	
6	7	.342	6		7	6	
6	8	1.387	4		8	6	
6	9	1.225	3		9	6	
6	10	.760	6		10	6	
6	11	.744	4		11	6	
6	12	.601	5		12	6	
6	13	.558	5		13	6	
6	14	.416	5		14	6	
6	16	.367	3		16	6	
6	18	.315	2		18	6	
6	20	.305	1		20	6	
MONTHLY MEAN		.593	64	1.300			BETA .241
MONTH	DAY	500	N	ALPHA	DAY	MONTH	
8	28	.177	5		28	8	
8	29	.224	4		29	8	
MONTHLY MEAN		.198	9	1.300			BETA .080
MONTH	DAY	500	N	ALPHA	DAY	MONTH	
9	2	.295	2		2	9	
9	3	.332	1		3	9	
9	5	.436	1		5	9	
9	9	.213	1		9	9	
9	10	.168	2		10	9	
9	13	.262	4		13	9	
9	14	.187	3		14	9	
9	15	.184	3		15	9	
9	17	.239	3		17	9	
9	18	.368	1		18	9	
9	19	.082	3		19	9	
9	23	.094	1		23	9	
9	24	.067	3		24	9	
9	25	.183	1		25	9	
MONTHLY MEAN		.203	29	1.300			BETA .082
MONTH	DAY	500	N	ALPHA	DAY	MONTH	
10	1	.155	4		1	10	
10	2	.237	3		2	10	
10	3	.184	4		3	10	
10	4	.195	5		4	10	
10	5	.217	2		5	10	
10	6	.267	2		6	10	
10	7	.205	5		7	10	
10	8	.199	5		8	10	
10	9	.208	4		9	10	
10	10	.198	4		10	10	
10	11	.182	5		11	10	
10	12	.245	4		12	10	
10	13	.237	4		13	10	
10	14	.229	4		14	10	
10	15	.199	5		15	10	
10	16	.209	5		16	10	
10	17	.214	5		17	10	
10	18	.225	5		18	10	
10	19	.218	5		19	10	
10	20	.188	5		20	10	
10	21	.212	5		21	10	
10	22	.266	5		22	10	
10	23	.223	4		23	10	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 1235
WMO 42475

ALLAHABAD, INDIA
25 27N 81 44E

TAU: 500=.1554

ALTITUDE 98 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
10	24	.256	5		24	10	
10	28	.118	2		28	10	
10	30	.297	1		30	10	
MONTHLY MEAN		.213	107	1.300	BETA		.086

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
11	2	.318	2		2	11	
11	4	.056	1		4	11	
11	5	.221	5		5	11	
11	6	.224	5		6	11	
11	7	.191	4		7	11	
11	8	.166	5		8	11	
11	9	.227	4		9	11	
11	10	.287	4		10	11	
11	11	.287	4		11	11	
11	12	.314	1		12	11	
11	13	.293	4		13	11	
11	14	.282	4		14	11	
11	15	.201	4		15	11	
11	16	.263	4		16	11	
11	17	.324	4		17	11	
11	18	.323	4		18	11	
11	19	.381	4		19	11	
11	20	.279	4		20	11	
11	21	.273	4		21	11	
11	22	.322	4		22	11	
11	23	.328	4		23	11	
11	24	.346	4		24	11	
11	25	.372	4		25	11	
11	26	.289	4		26	11	
11	27	.492	4		27	11	
11	28	.288	4		28	11	
MONTHLY MEAN		.285	99	1.300	BETA		.116

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
12	1	.311	4		1	12	
12	2	.334	4		2	12	
12	3	.405	4		3	12	
12	4	.245	4		4	12	
12	5	.336	4		5	12	
12	6	.408	4		6	12	
12	7	.301	2		7	12	
12	8	.312	4		8	12	
12	9	.245	2		9	12	
12	10	.212	3		10	12	
12	11	.291	4		11	12	
12	12	.245	4		12	12	
12	13	.282	4		13	12	
12	14	.433	2		14	12	
12	15	.444	1		15	12	
12	16	.346	3		16	12	
12	17	.386	2		17	12	
12	19	.355	2		19	12	
12	21	.382	3		21	12	
12	23	.439	4		23	12	
12	24	.362	4		24	12	
12	25	.426	3		25	12	
12	26	.462	4		26	12	
12	27	.467	4		27	12	
12	28	.362	2		28	12	
12	29	.338	4		29	12	
12	30	.312	4		30	12	
MONTHLY MEAN		.347	89	1.300	BETA		.141

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 1250
WMO 89009

AMUNDSEN-SCOTT, ANTARCTICA
90 05 180 OE TAU: 521=.1080

ALTITUDE 2800 M YEAR 1981
381=.3171

MONTH	DAY	521	N	381	N	ALPHA	DAY	MONTH
1	2	.017	1	.050	1	3.459	2	1
1	5	.013	1	.032	1	2.874	5	1
1	14	.017	2	.033	2	2.109	14	1
1	23	.014	2	.035	2	2.853	23	1
1	24	.012	1	.028	1	2.806	24	1
1	25	.012	1	.026	1	2.340	25	1
1	27	.016	2	.039	2	2.864	27	1
MONTHLY MEAN		.015	10	.035	10	2.736	BETA .002	

MONTH	DAY	521	N	381	N	ALPHA	DAY	MONTH
2	2	.018	1	.031	1	1.740	2	2
2	3	.010	1	.019	1	1.973	3	2
MONTHLY MEAN		.014	2	.025	2	1.827	BETA .004	

NCDC 1350
WMO 17130

ANKARA, TURKEY
39 57N 32 53E TAU: 501=.1423

ALTITUDE 894 M YEAR 1981
383=.3928

MONTH	DAY	501	N	383	N	ALPHA	DAY	MONTH
2	10	.313	2	.727	2	3.144	10	2
2	11	.573	1	1.131	1	2.533	11	2
2	22	.514	2	1.008	2	2.503	22	2
MONTHLY MEAN		.445	5	.920	5	2.702	BETA .069	

MONTH	DAY	501	N	383	N	ALPHA	DAY	MONTH
3	3	.354	1	.781	1	2.949	3	3
3	7	.461	1	1.123	1	3.313	7	3
3	8	.557	1	1.215	1	2.904	8	3
3	9	.570	2	1.126	2	2.537	9	3
3	16	.669	1	1.511	1	3.032	16	3
3	22	.516	1	1.002	1	2.474	22	3
3	27	.442	2	1.056	2	3.244	27	3
3	28	.589	2	1.232	2	2.750	28	3
3	30	.418	2	1.050	2	3.431	30	3
MONTHLY MEAN		.507	13	1.120	13	2.950	BETA .066	

MONTH	DAY	501	N	383	N	ALPHA	DAY	MONTH
4	7	.491	1	1.125	1	3.085	7	4
4	9	.534	2	1.255	2	3.181	9	4
4	10	.542	1	1.194	1	2.940	10	4
4	11	.596	1	1.233	1	2.705	11	4
4	12	.583	2	1.272	2	2.905	12	4
4	13	.393	2	.951	2	3.288	13	4
4	14	.408	1	1.018	1	3.403	14	4
4	15	.542	1	1.357	1	3.417	15	4
4	16	.497	1	1.096	1	2.942	16	4
4	20	.469	2	1.058	2	3.027	20	4
4	21	.464	1	1.079	1	3.140	21	4
4	22	.395	2	.987	2	3.411	22	4
4	23	.536	2	1.246	2	3.139	23	4
4	25	.526	2	1.144	2	2.891	25	4
MONTHLY MEAN		.496	21	1.139	21	3.097	BETA .058	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 1350
WMO 17130

ANKARA,
39 57N

TURKEY
32 53E

TAU: 501=.1423

ALTITUDE 894 M
383=.3928

YEAR 1981

MONTH	DAY	501	N	383	N	ALPHA	DAY	MONTH
5	5	.395	1	.949	1	3.263	5	5
5	10	.521	1	1.202	1	3.113	10	5
5	16	.610	2	1.403	2	3.102	16	5
5	23	.471	1	1.127	1	3.250	23	5
5	24	.554	1	1.247	1	3.018	24	5
5	26	.687	2	1.518	2	2.955	26	5
5	27	.612	3	1.267	3	2.708	27	5
5	28	.520	2	1.297	2	3.399	28	5
5	29	.508	2	1.179	2	3.138	29	5
5	30	.479	1	1.176	1	3.343	30	5
MONTHLY MEAN		.557	16	1.269	16	3.067	BETA .067	

MONTH	DAY	501	N	383	N	ALPHA	DAY	MONTH
6	1	.540	1	1.258	1	3.147	1	6
6	3	.552	1	1.287	1	3.154	3	6
6	4	.590	1	1.335	1	3.040	4	6
6	5	.557	2	1.373	2	3.361	5	6
6	6	.591	1	1.440	1	3.319	6	6
6	8	.597	2	1.274	2	2.820	8	6
6	9	.654	3	1.422	3	2.894	9	6
6	10	.783	1	1.521	1	2.471	10	6
6	12	.504	3	1.249	3	3.377	12	6
6	13	.545	1	1.290	1	3.210	13	6
6	17	.541	2	1.228	2	3.056	17	6
6	18	.573	2	1.339	2	3.160	18	6
6	19	.469	1	1.147	1	3.330	19	6
6	20	.520	3	1.274	3	3.338	20	6
6	21	.462	1	1.166	1	3.450	21	6
6	22	.526	2	1.213	2	3.110	22	6
6	23	.553	2	1.229	2	2.973	23	6
6	24	.569	2	1.260	2	2.956	24	6
6	25	.616	3	1.380	3	3.005	25	6
6	26	.606	2	1.352	2	2.988	26	6
6	27	.485	2	1.163	2	3.256	27	6
6	28	.541	3	1.256	3	3.133	28	6
6	29	.561	3	1.318	3	3.178	29	6
6	30	.750	1	1.514	1	2.615	30	6
MONTHLY MEAN		.566	45	1.300	45	3.095	BETA .067	

MONTH	DAY	501	N	383	N	ALPHA	DAY	MONTH
7	1	.661	1	1.420	1	2.845	1	7
7	2	.445	1	1.077	1	3.287	2	7
7	3	.637	2	1.433	2	3.018	3	7
7	5	.566	3	1.291	3	3.068	5	7
7	6	.682	1	1.386	1	2.638	6	7
7	11	.550	1	1.247	1	3.043	11	7
7	12	.538	1	1.223	1	3.061	12	7
7	13	.570	1	1.420	1	3.396	13	7
7	14	.664	3	1.324	3	2.569	14	7
7	15	.558	1	1.376	1	3.357	15	7
7	16	.540	2	1.282	2	3.218	16	7
7	17	.440	1	1.123	1	3.489	17	7
7	18	.474	2	1.010	2	2.818	18	7
7	19	.401	1	1.011	1	3.444	19	7
7	20	.407	1	1.028	1	3.453	20	7
7	21	.507	3	1.225	3	3.286	21	7
7	22	.555	3	1.279	3	3.111	22	7
7	23	.523	2	1.263	2	3.282	23	7
7	24	.481	2	1.138	2	3.208	24	7
7	27	.536	3	1.226	3	3.079	27	7
7	29	.543	2	1.126	2	2.717	29	7
7	30	.522	2	1.256	2	3.270	30	7
7	31	.511	2	1.211	2	3.216	31	7

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 1350
WMO 17130

ANKARA, TURKEY
39 57N 32 53E

TAU: 501=.1423

ALTITUDE 894 M
383=.3928

YEAR 1981

MONTHLY MEAN .541 41 1.239 41 3.081 BETA .064

MONTH	DAY	501	N	383	N	ALPHA	DAY	MONTH
8	1	.580	2	1.305	2	3.021	1	8
8	2	.477	1	1.132	1	3.215	2	8
8	3	.437	1	1.074	1	3.349	3	8
8	6	.495	1	1.141	1	3.110	6	8
8	7	.460	1	1.120	1	3.315	7	8
8	8	.446	2	1.081	2	3.299	8	8
8	9	.538	3	1.240	3	3.112	9	8
8	10	.487	2	1.079	2	2.962	10	8
8	11	.727	1	1.234	1	1.967	11	8
8	12	.598	2	1.297	2	2.884	12	8
8	13	.593	3	1.336	3	3.025	13	8
8	14	.580	2	1.346	2	3.134	14	8
8	15	.797	1	1.619	1	2.639	15	8
8	16	.625	2	1.329	2	2.810	16	8
8	17	.660	1	1.447	1	2.921	17	8
8	18	.728	1	1.559	1	2.836	18	8
8	19	.736	2	1.385	2	2.357	19	8
8	20	.450	1	1.115	1	3.380	20	8
8	21	.520	2	1.212	2	3.152	21	8
8	22	.517	3	1.188	3	3.097	22	8
8	23	.505	3	1.165	3	3.115	23	8
8	24	.689	2	1.369	2	2.557	24	8
8	25	.605	3	1.250	3	2.702	25	8
8	28	.390	1	.922	1	3.208	28	8
8	29	.563	1	1.160	1	2.690	29	8

MONTHLY MEAN .568 44 1.247 44 2.930 BETA .075

MONTH	DAY	501	N	383	N	ALPHA	DAY	MONTH
9	3	.583	2	1.272	2	2.905	3	9
9	4	.429	2	1.084	2	3.448	4	9
9	5	.468	2	1.085	2	3.128	5	9
9	6	.506	3	1.217	3	3.264	6	9
9	7	.474	2	1.179	2	3.396	7	9
9	8	.551	3	1.155	3	2.757	8	9
9	9	.490	3	1.121	3	3.078	9	9
9	11	.500	1	1.037	1	2.719	11	9
9	12	.476	3	1.067	3	3.004	12	9
9	14	.548	2	1.103	2	2.606	14	9
9	15	.432	2	1.020	2	3.201	15	9
9	17	.403	3	.908	3	3.025	17	9
9	18	.507	2	1.136	2	3.001	18	9
9	19	.458	2	.901	2	2.519	19	9
9	20	.319	2	.773	2	3.298	20	9
9	21	.397	2	.836	2	2.770	21	9
9	22	.292	2	.736	2	3.444	22	9
9	23	.246	1	.613	1	3.394	23	9
9	24	.285	1	.654	1	3.090	24	9
9	25	.523	3	.995	3	2.393	25	9
9	26	.431	3	.935	3	2.881	26	9
9	29	.471	1	.502	1	.237	29	9
9	30	.387	3	.425	3	.346	30	9

MONTHLY MEAN .452 50 .970 50 2.841 BETA .063

MONTH	DAY	501	N	383	N	ALPHA	DAY	MONTH
10	1	.370	3	.871	3	3.183	1	10
10	2	.427	3	.898	3	2.767	2	10
10	3	.539	1	1.179	1	2.913	3	10
10	4	.359	2	.738	2	2.686	4	10
10	6	.345	1	.821	1	3.230	6	10
10	7	.309	2	.684	2	2.964	7	10
10	8	.341	3	.791	3	3.139	8	10
10	9	.440	3	.891	3	2.625	9	10
10	10	.307	2	.659	2	2.836	10	10
10	11	.348	3	.780	3	3.008	11	10
10	12	.361	1	.787	1	2.896	12	10

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 1350 WMO 17130	ANKARA, TURKEY 39 57N 32 53E				TAU: 501=.1423	ALTITUDE 894 M	YEAR 1981
MONTH DAY	501	N	383	N	ALPHA	DAY MONTH	
10 15	.282	1	.716	1	3.468	15	10
10 16	.296	3	.691	3	3.154	16	10
10 17	.547	2	1.041	2	2.393	17	10
10 18	.249	1	.413	1	1.890	18	10
10 19	.361	2	.769	2	2.818	19	10
10 20	.322	3	.749	3	3.145	20	10
10 22	.298	2	.661	2	2.969	22	10
10 23	.430	1	1.035	1	3.267	23	10
10 24	.357	3	.804	3	3.020	24	10
10 26	.472	1	1.069	1	3.043	26	10
10 27	.312	3	.752	3	3.276	27	10
10 28	.419	1	.982	1	3.173	28	10
10 29	.341	1	.771	1	3.035	29	10
MONTHLY MEAN	.363	48	.803	48	2.954	BETA	.047

MONTH DAY	501	N	383	N	ALPHA	DAY MONTH	
11 5	.233	1	.592	1	3.467	5	11
11 13	.333	3	.716	3	2.851	13	11
11 17	.308	1	.571	1	2.300	17	11
11 25	.335	1	.466	1	1.227	25	11
MONTHLY MEAN	.313	6	.630	6	2.607	BETA	.052

MONTH DAY	501	N	383	N	ALPHA	DAY MONTH	
12 14	.172	1	.389	1	3.033	14	12
12 31	.315	1	.742	1	3.191	31	12
MONTHLY MEAN	.244	2	.566	2	3.136	BETA	.028

NCDC 2200 WMO	BALTIMORE, MARYLAND 39 17N 76 37W				TAU: 500=.1566	ALTITUDE 21 M	YEAR 1980
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH	
9 2	.609	1	1.152	1	2.321	2	9
9 3	.263	1	.608	1	3.050	3	9
9 8	.239	1	.543	1	2.992	8	9
9 9	.577	1	1.176	1	2.595	9	9
9 12	.250	1	.619	1	3.297	12	9
9 15	.372	1	.764	1	2.629	15	9
9 19	.477	1	.958	1	2.542	19	9
9 22	.594	1	1.019	1	1.964	22	9
9 24	.170	1	.411	1	3.217	24	9
9 29	.279	1	.687	1	3.280	29	9
MONTHLY MEAN	.383	10	.794	10	2.655	BETA	.061

NCDC 2200 WMO	BALTIMORE, MARYLAND 39 17N 76 37W				TAU: 500=.1566	ALTITUDE 21 M	YEAR 1981
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH	
1 5	.243	1	.519	1	2.767	5	1
1 6	.413	1	.658	1	1.699	6	1
1 7	.449	1	.661	1	1.405	7	1
1 8	.332	1	.488	1	1.403	8	1
1 12	.368	1	.562	1	1.541	12	1
1 19	.331	1	.608	1	2.213	19	1
1 20	.438	1	.798	1	2.184	20	1

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC WMO	2200	BALTIMORE, MARYLAND				TAU: 500=.1566	ALTITUDE	21 M	YEAR 1981
		39 17N		76 37W		380=.4490			
	MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
	1 23	.375	1	.715	1	2.350		23 1	
	1 28	.786	1	1.020	1	.948		28 1	
	1 29	.419	1	.657	1	1.636		29 1	
	MONTHLY MEAN	.416	10	.669	10	1.733		BETA .125	
	MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
	2 3	.190	1	.383	1	2.566		3 2	
	2 5	.195	1	.438	1	2.954		5 2	
	2 6	.245	1	.540	1	2.884		6 2	
	2 9	.159	1	.307	1	2.391		9 2	
	2 12	.212	1	.441	1	2.660		12 2	
	2 17	.796	1	1.116	1	1.229		17 2	
	2 18	.228	1	.438	1	2.372		18 2	
	2 25	.280	1	.579	1	2.647		25 2	
	2 26	.198	1	.369	1	2.262		26 2	
	2 27	.130	1	.338	1	3.483		27 2	
	MONTHLY MEAN	.263	10	.495	10	2.298		BETA .054	
	MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
	3 4	.903	1	1.294	1	1.310		4 3	
	3 11	.284	1	.528	1	2.258		11 3	
	3 13	.260	1	.638	1	3.273		13 3	
	3 17	.738	1	1.088	1	1.415		17 3	
	3 24	.225	1	.553	1	3.283		24 3	
	3 26	.351	1	.718	1	2.609		26 3	
	3 27	.486	1	1.047	1	2.798		27 3	
	3 31	.199	1	.476	1	3.177		31 3	
	MONTHLY MEAN	.431	8	.793	8	2.224		BETA .092	
	MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
	4 3	.239	1	.507	1	2.740		3 4	
	4 6	.213	1	.475	1	2.919		6 4	
	4 10	1.045	1	1.386	1	1.026		10 4	
	4 16	.211	1	.535	1	3.382		16 4	
	4 20	.358	1	.716	1	2.524		20 4	
	4 21	.227	1	.478	1	2.705		21 4	
	4 22	.347	1	.693	1	2.520		22 4	
	4 23	.517	1	1.060	1	2.615		23 4	
	4 27	.263	1	.631	1	3.185		27 4	
	MONTHLY MEAN	.380	9	.720	9	2.327		BETA .076	
	MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
	5 5	.335	1	.699	1	2.683		5 5	
	5 7	.235	1	.553	1	3.117		7 5	
	5 8	.268	1	.653	1	3.237		8 5	
	5 13	.496	1	1.040	1	2.699		13 5	
	5 14	.737	1	1.310	1	2.096		14 5	
	5 20	.306	1	.618	1	2.559		20 5	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC WMO	2200	BALTIMORE, MARYLAND				TAU: 500=.1566	ALTITUDE	21 M	YEAR 1981
		39 17N		76 37W		380=.4490			
	MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
	5 21	.262	1	.546	1	2.684		21 5	
	5 22	.544	1	1.055	1	2.411		22 5	
	5 25	.747	1	1.571	1	2.711		25 5	
	5 27	1.162	1	1.894	1	1.782		27 5	
	MONTHLY MEAN	.509	10	.994	10	2.438		BETA .094	
	MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
	6 5	.352	1	.720	1	2.608		5 6	
	6 8	.418	1	.851	1	2.589		8 6	
	6 12	.418	1	.852	1	2.595		12 6	
	6 15	.420	1	1.072	1	3.415		15 6	
	6 16	.548	1	1.247	1	2.995		16 6	
	6 17	.504	1	1.072	1	2.753		17 6	
	6 18	.381	1	.924	1	3.231		18 6	
	6 25	.937	1	1.590	1	1.924		25 6	
	6 29	.379	1	.793	1	2.690		29 6	
	6 30	.378	1	.854	1	2.969		30 6	
	MONTHLY MEAN	.474	10	.997	10	2.715		BETA .072	
	MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
	7 1	1.167	1	1.734	1	1.444		1 7	
	7 7	.590	1	1.064	1	2.146		7 7	
	7 8	.691	1	1.146	1	1.845		8 7	
	7 9	1.078	1	1.725	1	1.713		9 7	
	7 10	.689	1	1.336	1	2.410		10 7	
	7 13	1.157	1	1.719	1	1.441		13 7	
	7 14	.636	1	1.331	1	2.690		14 7	
	7 29	.624	1	1.203	1	2.392		29 7	
	7 31	.260	1	.649	1	3.338		31 7	
	MONTHLY MEAN	.766	9	1.323	9	1.992		BETA .193	
	MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
	8 10	1.402	1	2.009	1	1.311		10 8	
	8 11	1.398	1	2.003	1	1.310		11 8	
	8 21	.803	1	1.327	1	1.833		21 8	
	8 24	.586	1	1.208	1	2.635		24 8	
	8 25	.682	1	1.307	1	2.368		25 8	
	8 26	1.061	1	1.713	1	1.745		26 8	
	8 27	.981	1	1.706	1	2.016		27 8	
	8 28	1.582	1	2.145	1	1.109		28 8	
	MONTHLY MEAN	1.062	8	1.677	8	1.665		BETA .335	
	MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
	9 11	.739	1	1.312	1	2.093		11 9	
	9 14	.843	1	1.413	1	1.882		14 9	
	9 21	.601	1	1.351	1	2.952		21 9	
	9 22	.598	1	1.222	1	2.606		22 9	
	9 25	.290	1	.664	1	3.013		25 9	
	9 29	.282	1	.640	1	2.984		29 9	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 2200 BALTIMORE, MARYLAND ALTITUDE 21 M YEAR 1981
WMO 39 17N 76 37W TAU: 500=.1566 380=.4490

MONTHLY MEAN .559 6 1.100 6 2.469 BETA .101

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
10	5	.161	1	.382	1	3.145	5	10
10	8	.352	1	.895	1	3.406	8	10
10	9	.287	1	.628	1	2.852	9	10
10	14	.593	1	.923	1	1.612	14	10
10	16	.215	1	.530	1	3.285	16	10
10	20	.377	1	.791	1	2.701	20	10
10	21	.283	1	.545	1	2.387	21	10
10	22	.370	1	.706	1	2.356	22	10
10	28	.188	1	.369	1	2.463	28	10

MONTHLY MEAN .314 9 .641 9 2.601 BETA .052

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
11	2	.740	1	1.157	1	1.631	2	11
11	5	.781	1	1.122	1	1.320	5	11
11	11	.249	1	.498	1	2.519	11	11
11	19	.143	1	.362	1	3.393	19	11
11	25	.173	1	.416	1	3.210	25	11
11	30	.145	1	.352	1	3.234	30	11

MONTHLY MEAN .372 6 .651 6 2.043 BETA .090

NCDC 2225 BANGKOK, THAILAND ALTITUDE 2 M YEAR 1981
WMO 48455 13 44N 100 34E TAU: 500=.1566 380=.4485 940=.0115

MONTH	DAY	500	N	380	N	ALPHA	940	N	DAY	MONTH
1	1	.210	3	.195	3	-.272	.555	3	1	1
1	2	.174	1	.159	1	-.320	.583	1	2	1
1	3	.367	1	.353	1	-.142	.682	1	3	1
1	4	.244	3	.237	3	-.107	.550	3	4	1
1	5	.419	3	.407	3	-.109	.633	3	5	1
1	9	.262	2	.271	2	-.122	.421	2	9	1
1	10	.176	3	.157	3	-.412	.389	3	10	1
1	11	.125	1	.108	1	-.540	.366	1	11	1
1	12	.302	3	.281	3	-.260	.431	3	12	1
1	13	.370	2	.324	2	-.488	.449	2	13	1
1	14	.321	3	.292	3	-.348	.345	3	14	1
1	15	.297	3	.280	3	-.208	.407	3	15	1
1	16	.395	3	.348	3	-.463	.359	3	16	1
1	17	.259	1	.212	1	-.722	.341	1	17	1
1	18	.334	3	.284	3	-.586	.280	3	18	1
1	19	.439	2	.434	2	-.036	.409	2	19	1
1	21	.552	2	.564	2	.082	.579	2	21	1
1	22	.580	1	.563	1	-.110	.699	1	22	1
1	23	.524	1	.509	1	-.107	.752	1	23	1
1	27	.279	1	.257	1	-.296	.472	1	27	1
1	28	.279	2	.245	2	-.479	.645	2	28	1
1	29	.498	2	.565	2	-.458	.703	2	29	1
1	30	.740	1	.858	1	.540	.850	1	30	1
1	31	.355	1	.391	1	.345	.608	1	31	1

MONTHLY MEAN .340 48 .326 48 -.145 .492 48 BETA .376

MONTH	DAY	500	N	380	N	ALPHA	940	N	DAY	MONTH
2	9	.832	1	1.006	1	.693	.819	1	9	2
2	10	.577	3	.656	3	.469	.641	3	10	2
2	11	.747	3	.842	3	.435	.753	3	11	2
2	13	.499	2	.508	2	.064	.680	2	13	2

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 2225
WMO 48455

BANGKOK, THAILAND
13 44N 100 34E

TAU: 500=.1566

ALTITUDE 2 M YEAR 1981
380=.4485 940=.0115

MONTH	DAY	500	N	380	N	ALPHA	940	N	DAY	MONTH
2	14	.320	3	.337	3	.186	.445	3	14	2
2	15	.289	2	.263	2	-.348	.150	1	15	2
2	16	.211	1	.179	1	-.596	.202	1	16	2
2	17	.474	3	.495	3	.162	.287	3	17	2
2	18	.437	5	.434	5	-.027	.425	5	18	2
2	19	.697	3	.736	3	.198	.506	3	19	2
2	21	.411	1	.420	1	.079	.694	1	21	2
2	22	.611	1	.562	1	-.301	.795	1	22	2
2	23	.508	3	.517	3	.060	.715	3	23	2
2	24	.752	1	.873	1	.543	.838	1	24	2
2	25	.900	1	1.007	1	.407	.948	1	25	2
2	27	.649	1	.688	1	.211	.907	1	27	2
MONTHLY MEAN		.532	34	.564	34	.214	.572	33	BETA	.459

MONTH	DAY	500	N	380	N	ALPHA	940	N	DAY	MONTH
3	1	.529	2	.530	2	.004	.914	2	1	3
3	2	.502	2	.537	2	.240	.807	2	2	3
3	3	.506	2	.524	2	.132	.806	2	3	3
3	4	.453	1	.502	1	.371	.766	1	4	3
3	8	.577	1	.621	1	.264	.825	1	8	3
3	9	.870	1	.938	1	.273	.899	1	9	3
3	10	.632	1	.660	1	.158	.855	1	10	3
3	11	.654	1	.710	1	.296	.862	1	11	3
3	12	.525	1	.586	1	.395	.785	1	12	3
3	13	.584	1	.647	1	.377	.850	1	13	3
3	14	.399	1	.444	1	.383	.698	1	14	3
3	15	.495	1	.554	1	.409	.686	1	15	3
3	16	.496	1	.472	1	-.182	.735	1	16	3
3	17	.437	2	.490	2	.413	.671	2	17	3
3	18	.539	2	.550	2	.077	.698	2	18	3
3	19	.379	3	.377	3	-.020	.466	3	19	3
3	20	.398	3	.389	3	-.082	.473	3	20	3
3	21	.470	2	.467	2	-.021	.474	2	21	3
3	22	.445	2	.459	2	.113	.551	2	22	3
3	23	.275	1	.230	1	-.644	.416	1	23	3
3	24	.456	2	.475	2	.148	.501	2	24	3
3	25	.446	3	.458	3	.104	.560	3	25	3
3	26	.574	2	.577	2	.019	.688	2	26	3
3	27	.555	3	.588	3	.208	.644	3	27	3
3	30	.650	1	.706	1	.303	.713	1	30	3
MONTHLY MEAN		.497	42	.517	42	.148	.660	42	BETA	.448

MONTH	DAY	500	N	380	N	ALPHA	940	N	DAY	MONTH
4	1	.453	1	.427	1	-.215	.789	1	1	4
4	2	.689	1	.767	1	.388	.946	1	2	4
4	3	.732	2	.735	2	.014	.921	2	3	4
4	4	.623	2	.639	2	.095	.898	2	4	4
4	5	.610	3	.570	3	-.246	.933	3	5	4
4	6	.399	1	.400	1	.005	.779	1	6	4
4	7	.570	2	.574	2	.026	.854	2	7	4
4	8	.594	2	.595	2	.004	.817	2	8	4
4	10	.627	2	.601	2	-.155	.907	2	10	4
4	11	.677	1	.636	1	-.226	.897	1	11	4
4	16	.304	1	.296	1	-.101	.730	1	16	4
4	25	.650	1	.555	1	-.576	.907	1	25	4
MONTHLY MEAN		.595	19	.583	19	-.070	.876	19	BETA	.624

MONTH	DAY	500	N	380	N	ALPHA	940	N	DAY	MONTH
5	1	.838	3	.779	3	-.265	.997	3	1	5
5	2	.584	2	.498	2	-.580	.920	2	2	5
5	3	.834	1	.674	1	-.775	1.054	1	3	5
5	12	.641	1	.544	1	-.596	1.004	1	12	5

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 2225 BANGKOK, THAILAND ALTITUDE 2 M YEAR 1981
WMO 48455 13 44N 100 34E TAU: 500=.1566 380=.4485 940=.0115

MONTHLY MEAN .737 7 .650 7 -.454 .984 7 BETA 1.009

NCDC 2233 BARCELONA, SPAIN ALTITUDE 94 M YEAR 1981
WMO 41 23N 2 7E TAU: 500=.1554 380=.4453

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
1 8	.183	1	.192	1	.177	8 1
1 26	.451	2	.445	2	-.044	26 1
1 28	.524	2	.671	2	.900	28 1
1 30	.620	1	.896	1	1.340	30 1
1 31	.162	1	.182	1	.407	31 1

MONTHLY MEAN .416 7 .500 7 .668 BETA .262

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
2 3	.342	2	.448	2	.979	3 2
2 6	.249	1	.348	1	1.219	6 2
2 21	.360	1	.443	1	.752	21 2

MONTHLY MEAN .323 4 .422 4 .965 BETA .166

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
3 9	.623	1	.752	1	.688	9 3
3 18	.123	1	.113	1	-.324	18 3
3 24	.194	1	.176	1	-.359	24 3
3 27	.228	1	.278	1	.723	27 3

MONTHLY MEAN .292 4 .330 4 .442 BETA .215

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
4 28	.144	1	.149	1	.127	28 4

MONTHLY MEAN .144 1 .149 1 .127 BETA .132

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
5 15	.319	1	.366	1	.503	15 5
5 18	.269	1	.312	1	.551	18 5
5 27	.194	1	.208	1	.239	27 5

MONTHLY MEAN .261 3 .295 3 .456 BETA .190

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
6 1	.289	2	.317	2	.340	1 6
6 9	.369	2	.429	2	.548	9 6
6 10	.348	2	.414	2	.631	10 6
6 11	.315	2	.401	2	.871	11 6
6 12	.300	1	.350	1	.560	12 6
6 15	.292	1	.350	1	.664	15 6
6 30	.295	1	.309	1	.173	30 6

MONTHLY MEAN .321 11 .375 11 .573 BETA .216

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC WMO	2233	BARCELONA, SPAIN				TAU: 500=.1554	ALTITUDE 380=.4453	94 M	YEAR 1981	
		41 23N	2	7E						
MONTH	DAY	500	N	380	N	ALPHA		DAY MONTH		
7	1	.611	3	.761	3	.800		1 7		
7	2	.626	1	.668	1	.233		2 7		
7	6	.351	1	.419	1	.649		6 7		
7	7	.328	1	.403	1	.749		7 7		
7	9	.429	1	.546	1	.879		9 7		
7	13	.352	1	.434	1	.765		13 7		
7	14	.623	1	.863	1	1.189		14 7		
7	15	.237	1	.270	1	.472		15 7		
7	16	.488	2	.605	2	.781		16 7		
MONTHLY MEAN		.480	12	.591	12	.763		BETA .283		
MONTH	DAY	500	N	380	N	ALPHA		DAY MONTH		
10	28	.137	1	.123	1	-.390		28 10		
MONTHLY MEAN		.137	1	.123	1	-.390		BETA .180		
MONTH	DAY	500	N	380	N	ALPHA		DAY MONTH		
11	3	.670	2	.874	2	.970		3 11		
11	5	.582	1	.736	1	.858		5 11		
11	12	.281	2	.327	2	.555		12 11		
11	18	.479	1	.573	1	.653		18 11		
11	19	.295	2	.330	2	.415		19 11		
11	27	.171	1	.166	1	-.093		27 11		
11	30	.178	1	.177	1	-.035		30 11		
MONTHLY MEAN		.390	10	.471	10	.691		BETA .242		
MONTH	DAY	500	N	380	N	ALPHA		DAY MONTH		
12	2	.157	1	.137	1	-.486		2 12		
12	8	.198	2	.251	2	.855		8 12		
12	14	.128	2	.177	2	1.177		14 12		
12	19	.104	1	.096	1	-.317		19 12		
12	24	.122	1	.128	1	.166		24 12		
MONTHLY MEAN		.148	7	.174	7	.583		BETA .099		
NCDC WMO	2235	BARROW, ALASKA				GMCC	TAU: 500=.1570	ALTITUDE 380=.4499	3 M	YEAR 1981
		71 19N	156	36W						
MONTH	DAY	500	N	380	N	ALPHA		DAY MONTH		
7	15	.131	1	.181	1	1.171		15 7		
7	20	.148	3	.199	3	1.075		20 7		
7	21	.151	1	.202	1	1.066		21 7		
7	24	.150	3	.160	3	.238		24 7		
MONTHLY MEAN		.147	8	.183	8	.787		BETA .085		
MONTH	DAY	500	N	380	N	ALPHA		DAY MONTH		
8	15	.142	1	.153	1	.287		15 8		
MONTHLY MEAN		.142	1	.153	1	.287		BETA .116		

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 2350
WMO 72480

BISHOP, CALIFORNIA
37 22N 118 22W

TAU: 500=.1370

ALTITUDE 1252 M YEAR 1981
380=.3873

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
1 1	.147	2	.195	2	1.037	1 1
MONTHLY MEAN	.147	2	.195	2	1.037	BETA .072
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
2 22	.167	1	.221	1	1.021	22 2
MONTHLY MEAN	.167	1	.221	1	1.021	BETA .082
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
3 16	.177	1	.412	1	3.085	16 3
MONTHLY MEAN	.177	1	.412	1	3.085	BETA .021
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
4 3	.179	1	.324	1	2.153	3 4
4 4	.277	1	.405	1	1.389	4 4
4 5	.350	1	.419	1	.651	5 4
4 7	.402	1	.448	1	.393	7 4
4 9	.246	1	.532	1	2.819	9 4
4 14	.243	3	.445	3	2.205	14 4
4 15	.316	1	.580	1	2.216	15 4
MONTHLY MEAN	.278	9	.449	9	1.753	BETA .082
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
5 1	.272	1	.561	1	2.637	1 5
5 4	.342	1	.588	1	1.970	4 5
5 11	.453	1	.501	1	.365	11 5
MONTHLY MEAN	.356	3	.550	3	1.586	BETA .118
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
6 5	.371	2	.567	2	1.542	5 6
6 11	.333	1	.597	1	2.134	11 6
6 12	.353	2	.625	2	2.085	12 6
6 13	.222	1	.414	1	2.266	13 6
6 15	.267	1	.526	1	2.472	15 6
6 19	.251	1	.373	1	1.455	19 6
6 20	.301	2	.465	2	1.588	20 6
6 21	.269	1	.589	1	2.859	21 6
6 22	.359	2	.693	2	2.400	22 6
6 23	.256	1	.480	1	2.284	23 6
6 24	.233	1	.448	1	2.381	24 6
MONTHLY MEAN	.306	15	.542	15	2.076	BETA .073
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
7 13	.216	1	.351	1	1.772	13 7
7 14	.250	1	.481	1	2.387	14 7
7 16	.509	1	.797	1	1.634	16 7
7 17	.436	2	.860	2	2.472	17 7
7 18	.352	1	.603	1	1.963	18 7
7 19	.416	2	.722	2	2.010	19 7
7 20	.320	2	.600	2	2.291	20 7
7 21	.286	1	.568	1	2.494	21 7
7 23	.438	1	.596	1	1.118	23 7

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 2350
WMO 72480

BISHOP, CALIFORNIA
37 22N 118 22W

TAU: 500=.1370

ALTITUDE 1252 M YEAR 1981
380=.3873

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
7	24	.422	2	.677	2	1.726	24	7
7	25	.393	1	.635	1	1.745	25	7
7	27	.408	1	.616	1	1.500	27	7
7	28	.459	2	.714	2	1.607	28	7
7	29	.461	3	.637	3	1.177	29	7
7	31	.432	3	.606	3	1.233	31	7
MONTHLY MEAN		.402	24	.647	24	1.736	BETA .121	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
8	1	.412	2	.540	2	.991	1	8
8	2	.453	3	.670	3	1.424	2	8
8	3	.408	2	.605	2	1.435	3	8
8	4	.408	1	.568	1	1.206	4	8
8	6	.323	1	.483	1	1.462	6	8
8	7	.363	1	.458	1	.847	7	8
8	11	.530	1	.563	1	.221	11	8
8	12	.467	2	.691	2	1.428	12	8
8	13	.509	1	.612	1	.672	13	8
8	14	.461	1	.648	1	1.236	14	8
8	16	.449	1	.642	1	1.298	16	8
8	19	.545	1	.817	1	1.472	19	8
8	20	.384	2	.576	2	1.478	20	8
8	21	.332	1	.514	1	1.587	21	8
8	23	.373	1	.433	1	.543	23	8
8	24	.441	1	.431	1	-.085	24	8
8	26	.544	2	.752	2	1.180	26	8
8	27	.419	1	.668	1	1.698	27	8
8	28	.458	1	.726	1	1.675	28	8
8	30	.390	2	.554	2	1.279	30	8
8	31	.406	2	.607	2	1.465	31	8
MONTHLY MEAN		.433	30	.607	30	1.232	BETA .184	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
9	1	.405	2	.635	2	1.637	1	9
9	2	.445	1	.647	1	1.365	2	9
9	4	.308	1	.469	1	1.533	4	9
9	5	.311	2	.441	2	1.267	5	9
9	6	.306	1	.478	1	1.632	6	9
9	7	.361	1	.513	1	1.275	7	9
9	9	.322	2	.487	2	1.499	9	9
9	13	.513	1	.669	1	.968	13	9
9	18	.411	1	.475	1	.529	18	9
9	19	.260	1	.316	1	.707	19	9
9	20	.462	1	.695	1	1.487	20	9
9	21	.429	3	.528	3	.752	21	9
9	22	.678	1	.702	1	.128	22	9
9	23	.362	1	.474	1	.982	23	9
9	24	.451	2	.534	2	.619	24	9
9	25	.664	1	.853	1	.911	25	9
9	26	.353	3	.421	3	.641	26	9
9	27	.382	3	.487	3	.886	27	9
MONTHLY MEAN		.402	28	.528	28	1.000	BETA .201	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
10	5	.429	1	.408	1	-.178	5	10
10	9	.530	1	.959	1	2.159	9	10
10	16	.693	1	1.448	1	2.685	16	10

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 2350 WMO 72480		BISHOP, CALIFORNIA 37 22N 118 22W				TAU: 500=.1370	ALTITUDE 1252 M 380=.3873	YEAR 1981
MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
10	17	.425	2	.723	2	1.939	17	10
10	18	.201	1	.300	1	1.469	18	10
10	19	.277	3	.334	3	.675	19	10
10	20	.283	3	.464	3	1.804	20	10
10	21	.158	1	.311	1	2.468	21	10
10	22	.316	1	.352	1	.393	22	10
10	23	.201	1	.256	1	.885	23	10
10	29	.151	1	.175	1	.544	29	10
10	30	.318	1	.392	1	.769	30	10
MONTHLY MEAN		.325	17	.496	17	1.544	BETA .111	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
11	1	.238	2	.308	2	.938	1	11
11	2	.185	2	.290	2	1.652	2	11
11	3	.270	1	.443	1	1.805	3	11
11	7	.239	1	.405	1	1.928	7	11
11	11	.192	2	.301	2	1.638	11	11
11	15	.290	1	.339	1	.573	15	11
MONTHLY MEAN		.225	9	.332	9	1.410	BETA .085	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
12	8	.169	2	.281	2	1.860	8	12
12	10	.066	1	.148	1	2.928	10	12
12	11	.137	3	.271	3	2.503	11	12
12	22	.252	2	.298	2	.608	22	12
MONTHLY MEAN		.165	8	.265	8	1.733	BETA .050	

NCDC 2360 WMO 72764		BISMARCK, NORTH DAKOTA 46 46N 100 45W				TAU: 506=.1460	ALTITUDE 506 M 381=.4202	YEAR 1981
MONTH	DAY	506	N	381	N	ALPHA	DAY	MONTH
2	3	.150	2	.129	2	-.529	3	2
2	11	.415	3	.395	3	-.178	11	2
2	12	.525	3	.487	3	-.262	12	2
2	13	.542	2	.507	2	-.238	13	2
2	20	.180	1	.165	1	-.302	20	2
2	23	.263	1	.270	1	.090	23	2
MONTHLY MEAN		.387	12	.363	12	-.231	BETA .453	

NCDC 2725 WMO		BROTJACKLRIEGEL, FRG 48 49N 13 12E				TAU: 500=.1405	ALTITUDE 1030 M 380=.3977	YEAR 1980
MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
3	5	.140	4	.274	4	2.444	5	3
3	17	.290	2	.500	2	1.986	17	3
3	18	.196	3	.359	3	2.208	18	3
MONTHLY MEAN		.192	9	.352	9	2.215	BETA .041	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
4	13	.138	3	.327	3	3.136	13	4
4	14	.147	4	.339	4	3.050	14	4
4	15	.188	3	.417	3	2.913	15	4
4	16	.223	3	.478	3	2.784	16	4
4	17	.357	2	.629	2	2.064	17	4
4	30	.507	3	.863	3	1.939	30	4

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 2725 BROTJACKLRIEGEL, FRG ALTITUDE 1030 M YEAR 1980
WMO 48 49N 13 12E TAU: 500=.1405 380=.3977

MONTHLY MEAN .248 18 .493 18 2.499 BETA .044

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
5	6	.411	2	.679	2	1.828	6	5
5	8	.473	3	.749	3	1.678	8	5
5	11	.150	2	.365	2	3.250	11	5
5	12	.151	3	.358	3	3.136	12	5
5	13	.142	2	.317	2	2.932	13	5
5	14	.149	1	.375	1	3.367	14	5
5	23	.299	4	.579	4	2.409	23	5

MONTHLY MEAN .272 17 .514 17 2.319 BETA .054

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
6	6	.208	2	.439	2	2.714	6	6
6	7	.417	4	.821	4	2.471	7	6
6	12	.227	2	.540	2	3.161	12	6
6	14	.284	4	.557	4	2.459	14	6

MONTHLY MEAN .306 12 .623 12 2.588 BETA .051

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
7	17	.439	3	.846	3	2.392	17	7
7	20	.387	2	.683	2	2.066	20	7
7	23	.226	1	.527	1	3.079	23	7
7	25	.530	2	1.003	2	2.322	25	7
7	26	.190	2	.486	2	3.434	26	7
7	31	.426	3	.782	3	2.211	31	7

MONTHLY MEAN .387 13 .751 13 2.409 BETA .073

NCDC 2725 BROTJACKLRIEGEL, FRG ALTITUDE 1030 M YEAR 1981
WMO 48 49N 13 12E TAU: 500=.1405 380=.3977

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
2	1	.067	1	.170	1	3.421	1	2
2	2	.100	3	.239	3	3.179	2	2
2	14	.270	1	.541	1	2.537	14	2
2	16	.135	1	.350	1	3.486	16	2
2	17	.179	2	.373	2	2.683	17	2
2	27	.132	1	.344	1	3.489	27	2
2	28	.227	3	.456	3	2.552	28	2

MONTHLY MEAN .162 12 .353 12 2.848 BETA .022

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
3	22	.167	3	.309	3	2.242	22	3

MONTHLY MEAN .167 3 .309 3 2.242 BETA .035

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
4	10	.232	2	.445	2	2.368	10	4
4	11	.333	3	.721	3	2.808	11	4
4	13	.358	3	.807	3	2.960	13	4
4	25	.496	3	.961	3	2.408	25	4

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC WMO	2725	BROTJACKLRIEGEL, FRG 48 49N 13 12E				TAU: 500=.1405	ALTITUDE 1030 M 380=.3977	YEAR 1981
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH		
4 26	.374	3	.773	3	2.646	26 4		
MONTHLY MEAN	.368	14	.762	14	2.656	BETA	.058	
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH		
5 9	.290	1	.711	1	3.262	9 5		
5 11	.389	2	.861	2	2.899	11 5		
5 12	.464	1	.940	1	2.569	12 5		
5 20	.436	2	.936	2	2.786	20 5		
5 21	.448	2	.948	2	2.736	21 5		
MONTHLY MEAN	.412	8	.893	8	2.815	BETA	.059	
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH		
6 1	.449	4	1.058	4	3.119	1 6		
MONTHLY MEAN	.449	4	1.058	4	3.119	BETA	.052	
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH		
7 17	.440	3	.848	3	2.392	17 7		
7 20	.388	2	.685	2	2.071	20 7		
7 23	.227	1	.529	1	3.081	23 7		
7 25	.532	2	1.007	2	2.323	25 7		
7 26	.190	2	.488	2	3.442	26 7		
7 31	.428	3	.786	3	2.216	31 7		
MONTHLY MEAN	.388	13	.753	13	2.412	BETA	.073	
NCDC WMO	3085	CAPE MATATULA, AM. SAMOA 14 15S 170 34W			TAU: 500=.1559	ALTITUDE 82 M 380=.4458	YEAR 1981	
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH		
3 4	.361	1	.290	1	-.792	4 3		
3 11	.345	2	.295	2	-.567	11 3		
3 12	.232	1	.199	1	-.561	12 3		
MONTHLY MEAN	.321	4	.270	4	-.628	BETA	.495	
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH		
4 15	.138	1	.226	1	1.807	15 4		
MONTHLY MEAN	.138	1	.226	1	1.807	BETA	.039	
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH		
6 29	.168	1	.139	1	-.701	29 6		
MONTHLY MEAN	.168	1	.139	1	-.701	BETA	.273	
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH		
8 6	.277	1	.223	1	-.795	6 8		
8 7	.250	1	.203	1	-.766	7 8		
8 12	.261	1	.218	1	-.661	12 8		
MONTHLY MEAN	.263	3	.214	3	-.741	BETA	.439	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 3085 WMO		CAPE MATATULA, AM. SAMOA 14 15S 170 34W				TAU: 500=.1559	ALTITUDE 380=.4458	82 M	YEAR 1981
MONTH	DAY	500	N	380	N	ALPHA		DAY	MONTH
9	2	.272	1	.219	1	-.788		2	9
9	4	.228	1	.230	1	.027		4	9
9	5	.235	3	.200	3	-.578		5	9
9	11	.276	2	.226	2	-.734		11	9
9	15	.279	1	.231	1	-.697		15	9
9	16	.249	1	.208	1	-.644		16	9
9	17	.316	1	.263	1	-.674		17	9
9	24	.326	1	.302	1	-.286		24	9
9	26	.295	3	.256	3	-.520		26	9
9	28	.302	2	.257	2	-.591		28	9
9	29	.195	1	.157	1	-.791		29	9
MONTHLY MEAN		.271	17	.232	17	-.570		BETA	.403
MONTH	DAY	500	N	380	N	ALPHA		DAY	MONTH
10	1	.217	1	.259	1	.642		1	10
10	3	.273	2	.232	2	-.589		3	10
MONTHLY MEAN		.254	3	.241	3	-.194		BETA	.291
NCDC 3100 WMO 72712		CARIBOU, MAINE 46 52N 68 1W				TAU: 500=.1540	ALTITUDE 380=.4403	191 M	YEAR 1980
MONTH	DAY	500	N	380	N	ALPHA		DAY	MONTH
12	10	.087	2	.110	2	.865		10	12
12	12	.133	2	.218	2	1.796		12	12
12	15	.111	1	.138	1	.796		15	12
MONTHLY MEAN		.110	5	.159	5	1.333		BETA	.044
NCDC 3100 WMO 72712		CARIBOU, MAINE 46 52N 68 1W				TAU: 500=.1540	ALTITUDE 380=.4403	191 M	YEAR 1981
MONTH	DAY	500	N	380	N	ALPHA		DAY	MONTH
1	4	.160	1	.198	1	.765		4	1
1	12	.147	1	.245	1	1.871		12	1
1	15	.139	1	.247	1	2.094		15	1
1	18	.111	1	.186	1	1.869		18	1
1	20	.089	2	.153	2	1.963		20	1
1	21	.078	3	.127	3	1.776		21	1
1	25	.109	1	.187	1	1.974		25	1
1	28	.089	2	.171	2	2.386		28	1
1	30	.102	1	.185	1	2.162		30	1
1	31	.069	2	.128	2	2.251		31	1
MONTHLY MEAN		.100	15	.169	15	1.917		BETA	.026
MONTH	DAY	500	N	380	N	ALPHA		DAY	MONTH
2	4	.142	1	.243	1	1.970		4	2
2	7	.501	1	.874	1	2.027		7	2
2	10	.143	1	.262	1	2.218		10	2
2	13	.317	1	.684	1	2.797		13	2

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 3100
WMO 72712

CARIBOU, MAINE
46 52N 68

1W TAU: 500=.1540

ALTITUDE 191 M YEAR 1981
380=.4403

MONTHLY MEAN .276 4 .516 4 2.282 BETA .057

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
4	7	.102	3	.188	3	2.215	7	4
4	13	.169	1	.252	1	1.453	13	4
4	15	.130	2	.237	2	2.182	15	4
4	19	.148	1	.261	1	2.077	19	4
4	21	.224	2	.382	2	1.945	21	4
4	22	.133	1	.237	1	2.095	22	4
4	23	.109	2	.204	2	2.304	23	4
4	28	.178	1	.302	1	1.926	28	4

MONTHLY MEAN .143 13 .251 13 2.046 BETA .035

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
5	1	.157	1	.306	1	2.433	1	5
5	5	.142	1	.281	1	2.492	5	5
5	8	.305	2	.469	2	1.567	8	5
5	18	.330	1	.524	1	1.692	18	5
5	21	.360	1	.522	1	1.352	21	5
5	24	.186	1	.286	1	1.574	24	5
5	25	.520	1	.776	1	1.457	25	5

MONTHLY MEAN .288 8 .454 8 1.659 BETA .091

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
6	5	.314	1	.447	1	1.285	5	6
6	8	.174	1	.285	1	1.803	8	6
6	18	.182	2	.312	2	1.963	18	6
6	29	.216	1	.366	1	1.914	29	6
6	30	.250	1	.414	1	1.844	30	6

MONTHLY MEAN .220 6 .356 6 1.759 BETA .065

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
7	16	.197	3	.306	3	1.596	16	7
7	18	.347	1	.561	1	1.751	18	7
7	25	.435	1	.682	1	1.640	25	7
7	28	.123	2	.237	2	2.380	28	7
7	29	.164	1	.188	1	.495	29	7
7	31	.188	2	.328	2	2.034	31	7

MONTHLY MEAN .216 10 .348 10 1.736 BETA .065

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
8	19	.203	1	.322	1	1.679	19	8
8	21	.179	1	.336	1	2.304	21	8
8	22	.229	1	.369	1	1.736	22	8
8	25	.172	1	.299	1	2.019	25	8
8	29	.210	1	.357	1	1.938	29	8

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 3100 WMO 72712	CARIBOU, MAINE 46 52N 68 1W				TAU: 500=.1540	ALTITUDE 191 M 380=.4403	YEAR 1981
MONTHLY MEAN	.198	5	.337	5	1.925	BETA	.052
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH	
9 25	.181	2	.320	2	2.074	25 9	
9 26	.096	1	.216	1	2.950	26 9	
MONTHLY MEAN	.153	3	.285	3	2.277	BETA	.032
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH	
10 12	.068	1	.134	1	2.477	12 10	
10 13	.147	1	.249	1	1.913	13 10	
10 17	.085	2	.159	2	2.307	17 10	
10 31	.063	2	.130	2	2.648	31 10	
MONTHLY MEAN	.085	6	.160	6	2.311	BETA	.017
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH	
11 14	.086	1	.158	1	2.212	14 11	
MONTHLY MEAN	.086	1	.158	1	2.212	BETA	.019
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH	
12 21	.084	1	.148	1	2.071	21 12	
MONTHLY MEAN	.084	1	.148	1	2.071	BETA	.020

NCDC 3265 WMO 63332	BAHAR-DAR, ETHIOPIA 11 36N 37 25E				TAU: 500=.1280	ALTITUDE 1802 M 380=.3622	YEAR 1981
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH	
4 1	.300	1	.693	1	3.053	1 4	
4 9	.475	1	.789	1	1.847	9 4	
4 10	.440	1	.792	1	2.138	10 4	
4 11	.455	2	.852	2	2.285	11 4	
4 12	.505	1	.864	1	1.959	12 4	
4 14	.256	1	.652	1	3.409	14 4	
4 15	.325	1	.733	1	2.962	15 4	
MONTHLY MEAN	.401	8	.778	8	2.413	BETA	.075
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH	
5 1	.477	1	1.176	1	3.284	1 5	
5 18	.424	1	.702	1	1.839	18 5	
5 19	.444	2	1.039	2	3.100	19 5	
5 21	.608	1	1.136	1	2.275	21 5	
5 22	.601	2	1.134	2	2.313	22 5	
5 23	.511	3	1.065	3	2.676	23 5	
5 24	.571	2	1.073	2	2.303	24 5	
5 25	.471	2	.988	2	2.698	25 5	
5 26	.469	3	.975	3	2.669	26 5	
5 27	.377	1	.751	1	2.507	27 5	
5 28	.405	1	.844	1	2.676	28 5	
5 30	.443	2	.975	2	2.874	30 5	
5 31	.361	1	.746	1	2.645	31 5	
MONTHLY MEAN	.484	22	.995	22	2.625	BETA	.078
7 9	.691	2	1.338	2	2.408	9 7	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 3265
HMO 63332

BAHAR-DAR, ETHIOPIA
11 36N 37 25E

TAU: 500=.1280

ALTITUDE 1802 M YEAR 1981
380=.3622

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
7	12	.301	1	.698	1	3.066	12	7
7	15	.464	2	.899	2	2.406	15	7
7	16	.557	1	1.286	1	3.051	16	7
7	18	.390	1	.818	1	2.697	18	7
7	20	.539	1	1.333	1	3.297	20	7
7	21	.525	2	1.158	2	2.880	21	7
7	22	.526	1	1.250	1	3.155	22	7
7	23	.419	1	.889	1	2.745	23	7
7	24	.540	1	1.015	1	2.301	24	7
7	27	.581	1	1.339	1	3.044	27	7
7	28	.564	2	1.156	2	2.614	28	7
7	30	.513	1	.971	1	2.325	30	7
7	31	.583	1	1.390	1	3.163	31	7
MONTHLY MEAN		.524	18	1.116	18	2.753	BETA	.078

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
8	3	.557	2	1.183	2	2.741	3	8
8	5	.484	2	1.121	2	3.059	5	8
8	7	.557	2	1.124	2	2.557	7	8
8	9	.613	2	1.392	2	2.989	9	8
8	10	.730	3	1.376	3	2.309	10	8
8	11	.568	2	1.213	2	2.766	11	8
8	12	.591	1	1.452	1	3.274	12	8
8	13	.591	1	1.075	1	2.180	13	8
8	14	.470	1	.981	1	2.680	14	8
8	17	.488	1	.942	1	2.398	17	8
8	18	.556	1	1.364	1	3.269	18	8
8	19	.413	1	.832	1	2.551	19	8
8	20	.459	1	.988	1	2.797	20	8
8	21	.466	1	1.054	1	2.977	21	8
8	23	.680	1	1.513	1	2.912	23	8
8	24	.923	1	1.683	1	2.189	24	8
8	25	.640	2	1.254	2	2.450	25	8
8	26	.641	2	1.205	2	2.301	26	8
8	27	.563	1	.996	1	2.078	27	8
8	28	.631	2	1.279	2	2.574	28	8
8	29	.547	1	1.094	1	2.526	29	8
8	30	.327	1	.780	1	3.162	30	8
MONTHLY MEAN		.583	32	1.201	32	2.634	BETA	.094

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
9	2	.507	2	1.166	2	3.034	2	9
9	3	.468	1	.922	1	2.470	3	9
9	4	.534	1	1.006	1	2.308	4	9
9	6	.545	1	1.362	1	3.339	6	9
9	7	.603	1	1.371	1	2.993	7	9
9	8	.570	2	1.182	2	2.658	8	9
9	10	.453	2	1.113	2	3.271	10	9
9	11	.414	1	.930	1	2.951	11	9
9	12	.406	1	1.045	1	3.449	12	9
9	14	.415	1	.932	1	2.950	14	9
9	15	.475	1	.974	1	2.613	15	9
9	20	.412	1	1.001	1	3.235	20	9
9	21	.368	1	.913	1	3.309	21	9
9	23	.409	1	1.007	1	3.289	23	9
9	27	.510	1	1.065	1	2.681	27	9
9	28	.405	1	.935	1	3.049	28	9
9	29	.365	1	.935	1	3.426	29	9
9	30	.478	1	1.063	1	2.911	30	9

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 3265 WMO 63332	BAHAR-DAR, ETHIOPIA 11 36N 37 25E					TAU: 500=.1280	ALTITUDE 1802 M 380=.3622	YEAR 1981
MONTHLY MEAN	.470	21	1.066	21	2.984		BETA .059	
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
11 4	.376	1	.967	1	3.440		4 11	
11 22	.412	2	.943	2	3.015		22 11	
11 23	.405	1	1.009	1	3.331		23 11	
MONTHLY MEAN	.401	4	.966	4	3.199		BETA .044	
NCDC 4220 WMO 10615	DEUSELBACH, FRG 41 46N 7 3E					TAU: 500=.1492	ALTITUDE 480 M 380=.4255	YEAR 1981
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
2 13	.320	2	.789	2	3.294		13 2	
2 16	.445	3	.965	3	2.823		16 2	
MONTHLY MEAN	.395	5	.895	5	2.983		BETA .050	
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
4 7	.550	3	1.222	3	2.908		7 4	
4 10	.517	3	1.157	3	2.933		10 4	
4 16	.460	1	1.171	1	3.407		16 4	
4 24	.286	1	.742	1	3.476		24 4	
MONTHLY MEAN	.494	8	1.131	8	3.023		BETA .061	
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
5 15	.546	3	1.261	3	3.051		15 5	
MONTHLY MEAN	.546	3	1.261	3	3.051		BETA .066	
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
6 3	.491	2	1.212	2	3.296		3 6	
MONTHLY MEAN	.491	2	1.212	2	3.296		BETA .050	
NCDC 5040 WMO 71881	EDSON, CANADA 53 35N 116 27W					TAU: 500=.1423	ALTITUDE 925 M 382=.3951	YEAR 1981
MONTH DAY	500	N	382	N	ALPHA		DAY MONTH	
1 1	.042	2	.056	2	1.102		1 1	
1 2	.057	1	.083	1	1.378		2 1	
1 3	.045	3	.072	3	1.712		3 1	
1 4	.053	1	.081	1	1.608		4 1	
1 5	.052	3	.088	3	1.943		5 1	
1 10	.057	2	.083	2	1.374		10 1	
1 11	.071	1	.106	1	1.499		11 1	
1 12	.057	3	.083	3	1.387		12 1	
1 14	.097	1	.115	1	.644		14 1	
1 15	.057	1	.082	1	1.371		15 1	
1 16	.084	2	.121	2	1.348		16 1	
1 17	.056	1	.102	1	2.194		17 1	
1 20	.055	2	.076	2	1.243		20 1	
1 24	.064	1	.092	1	1.345		24 1	
1 26	.075	1	.107	1	1.328		26 1	
MONTHLY MEAN	.059	25	.087	25	1.449		BETA .022	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 5040
WMO 71881

EDSON, CANADA
53 35N 116 27W

TAU: 500=.1423

ALTITUDE
925 M 382=.3951

YEAR 1981

MONTH	DAY	500	N	382	N	ALPHA	DAY	MONTH
2	1	.059	1	.078	1	1.054	1	2
2	2	.069	2	.088	2	.893	2	2
2	4	.071	3	.105	3	1.431	4	2
2	9	.123	3	.166	3	1.117	9	2
2	27	.119	3	.159	3	1.066	27	2
2	28	.098	3	.135	3	1.197	28	2
MONTHLY MEAN		.095	15	.130	15	1.146	BETA .043	
3	1	.100	2	.125	2	.852	1	3
3	6	.113	3	.160	3	1.284	6	3
3	8	.100	3	.137	3	1.169	8	3
3	9	.088	2	.122	2	1.201	9	3
3	10	.094	3	.126	3	1.070	10	3
3	13	.098	3	.142	3	1.392	13	3
3	18	.135	1	.176	1	.989	18	3
3	24	.138	1	.176	1	.896	24	3
3	30	.144	1	.190	1	1.019	30	3
MONTHLY MEAN		.106	19	.144	19	1.141	BETA .048	
4	1	.145	1	.165	1	.476	1	4
4	2	.105	1	.129	1	.779	2	4
4	8	.152	1	.214	1	1.276	8	4
4	13	.195	1	.275	1	1.278	13	4
4	14	.141	1	.193	1	1.166	14	4
4	18	.169	1	.228	1	1.125	18	4
4	25	.125	1	.152	1	.748	25	4
MONTHLY MEAN		.147	7	.194	7	1.020	BETA .073	
5	1	.196	1	.289	1	1.448	1	5
5	3	.176	1	.221	1	.861	3	5
5	11	.243	1	.371	1	1.563	11	5
5	18	.302	2	.449	2	1.479	18	5
5	20	.358	1	.570	1	1.725	20	5
5	21	.487	2	.664	2	1.156	21	5
5	24	.297	2	.425	2	1.328	24	5
5	25	.280	1	.530	1	2.374	25	5
5	26	.317	1	.635	1	2.581	26	5
5	27	.330	1	.462	1	1.250	27	5
5	28	.411	1	.474	1	.532	28	5
5	29	.423	2	.603	2	1.316	29	5
MONTHLY MEAN		.333	16	.490	16	1.433	BETA .123	
6	6	.145	1	.331	1	3.067	6	6
6	7	.153	1	.235	1	1.602	7	6
6	8	.102	1	.242	1	3.202	8	6
6	9	.136	1	.271	1	2.568	9	6

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 5040
WMO 71881

EDSON, CANADA
53 35N 116 27W

TAU: 500=.1423

ALTITUDE
925 M 382=.3951

YEAR 1981

MONTH	DAY	500	N	382	N	ALPHA	DAY	MONTH
6	10	.167	1	.343	1	2.665	10	6
6	12	.156	1	.271	1	2.058	12	6
6	14	.145	1	.317	1	2.923	14	6
6	15	.148	1	.294	1	2.535	15	6
6	18	.151	1	.271	1	2.189	18	6
6	21	.089	2	.211	2	3.183	21	6
6	22	.076	1	.181	1	3.216	22	6
6	23	.088	1	.210	1	3.224	23	6
6	24	.113	2	.223	2	2.534	24	6
6	26	.110	1	.249	1	3.044	26	6
6	28	.114	1	.259	1	3.061	28	6
6	29	.108	1	.200	1	2.273	29	6
MONTHLY MEAN		.122	18	.252	18	2.688	BETA	.019

MONTH	DAY	500	N	382	N	ALPHA	DAY	MONTH
7	1	.111	2	.245	2	2.941	1	7
7	4	.232	1	.313	1	1.108	4	7
7	6	.244	2	.324	2	1.058	6	7
7	9	.232	1	.322	1	1.211	9	7
7	11	.371	3	.509	3	1.172	11	7
7	12	.411	2	.531	2	.950	12	7
7	17	.341	2	.442	2	.963	17	7
7	18	.344	3	.459	3	1.078	18	7
7	19	.463	2	.647	2	1.244	19	7
7	25	.214	1	.313	1	1.419	25	7
7	26	.187	1	.260	1	1.231	26	7
7	27	.232	2	.317	2	1.151	27	7
7	28	.226	2	.287	2	.891	28	7
7	30	.256	1	.370	1	1.357	30	7
MONTHLY MEAN		.293	25	.403	25	1.183	BETA	.129

MONTH	DAY	500	N	382	N	ALPHA	DAY	MONTH
8	3	.184	2	.255	2	1.205	3	8
8	4	.291	1	.397	1	1.154	4	8
8	5	.193	1	.332	1	2.006	5	8
8	6	.234	3	.310	3	1.048	6	8
8	7	.178	1	.260	1	1.394	7	8
8	8	.231	2	.321	2	1.226	8	8
8	9	.216	3	.313	3	1.377	9	8
8	10	.271	3	.395	3	1.403	10	8
8	11	.389	2	.596	2	1.586	11	8
8	12	.295	3	.436	3	1.455	12	8
8	13	.358	2	.536	2	1.502	13	8
8	14	.355	3	.518	3	1.407	14	8
8	16	.186	3	.266	3	1.331	16	8
8	17	.244	2	.361	2	1.455	17	8
8	21	.317	1	.440	1	1.216	21	8
8	22	.304	2	.481	2	1.710	22	8
8	24	.233	2	.283	2	.724	24	8
8	25	.319	1	.477	1	1.491	25	8
8	26	.331	2	.471	2	1.310	26	8
8	27	.267	2	.308	2	.522	27	8
MONTHLY MEAN		.269	41	.386	41	1.339	BETA	.107

9	7	.110	2	.149	2	1.113	7	9
---	---	------	---	------	---	-------	---	---

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 5040 WMO 71881		EDSON, CANADA 53 35N 116 27W				TAU: 500=.1423	ALTITUDE 382=.3951	925 M	YEAR 1981
MONTH	DAY	500	N	382	N	ALPHA		DAY	MONTH
9	8	.144	1	.194	1	1.099		8	9
9	10	.111	3	.160	3	1.341		10	9
9	11	.151	1	.237	1	1.667		11	9
9	14	.200	2	.286	2	1.328		14	9
9	15	.170	3	.224	3	1.019		15	9
9	16	.155	3	.239	3	1.606		16	9
9	17	.257	1	.381	1	1.461		17	9
9	20	.165	1	.219	1	1.051		20	9
9	26	.142	1	.208	1	1.427		26	9
MONTHLY MEAN		.155	18	.221	18	1.317		BETA	.062
MONTH	DAY	500	N	382	N	ALPHA		DAY	MONTH
10	5	.120	2	.176	2	1.407		5	10
10	12	.118	3	.170	3	1.355		12	10
10	14	.087	2	.128	2	1.404		14	10
10	16	.167	1	.267	1	1.737		16	10
10	17	.120	2	.163	2	1.137		17	10
10	19	.085	1	.110	1	.973		19	10
10	20	.130	1	.231	1	2.140		20	10
10	26	.090	1	.145	1	1.768		26	10
MONTHLY MEAN		.114	13	.169	13	1.461		BETA	.041
MONTH	DAY	500	N	382	N	ALPHA		DAY	MONTH
12	1	.022	2	.026	2	.590		1	12
12	4	.117	1	.208	1	2.114		4	12
12	5	.066	1	.105	1	1.725		5	12
12	6	.055	1	.074	1	1.101		6	12
12	7	.057	2	.096	2	1.908		7	12
12	8	.114	2	.137	2	.678		8	12
12	11	.086	1	.130	1	1.539		11	12
12	12	.096	1	.126	1	1.000		12	12
12	13	.069	2	.101	2	1.441		13	12
12	16	.045	1	.074	1	1.811		16	12
12	20	.052	1	.059	1	.450		20	12
12	21	.125	1	.255	1	2.658		21	12
MONTHLY MEAN		.073	16	.109	16	1.504		BETA	.026
NCDC 7150 WMO		GRAND PRAIRIE, TEXAS 32 43N 96 59W				TAU: 506=.1512	ALTITUDE 384=.4250	160 M	YEAR 1981
MONTH	DAY	506	N	384	N	ALPHA		DAY	MONTH
1	7	.306	2	.284	2	-.259		7	1
1	12	.432	2	.440	2	.066		12	1
1	13	.427	1	.419	1	-.069		13	1
1	14	.266	1	.243	1	-.322		14	1
1	15	.290	2	.268	2	-.274		15	1
1	22	.406	2	.421	2	.129		22	1
1	27	.401	1	.418	1	.155		27	1
1	28	.384	3	.393	3	.086		28	1
1	29	.597	1	.635	1	.220		29	1
MONTHLY MEAN		.381	15	.381	15	.008		BETA	.378

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC WMO	7150	GRAND PRAIRIE, TEXAS				TAU: 506=.1512	ALTITUDE 384=.4250	160 M	YEAR 1981
		32 43N	96 59W						
MONTH	DAY	506	N	384	N	ALPHA		DAY MONTH	
2	2	.365	3	.350	3	-.149		2 2	
2	3	.440	2	.426	2	-.113		3 2	
2	11	.342	2	.319	2	-.248		11 2	
2	17	.539	1	.548	1	.063		17 2	
2	19	.494	3	.486	3	-.060		19 2	
2	20	.710	1	.703	1	-.037		20 2	
2	23	.400	3	.380	3	-.182		23 2	
MONTHLY MEAN		.439	15	.426	15	-.110		BETA .473	
MONTH	DAY	506	N	384	N	ALPHA		DAY MONTH	
3	10	.921	1	1.063	1	.519		10 3	
3	17	.468	2	.462	2	-.042		17 3	
3	23	.698	2	.811	2	.548		23 3	
3	24	.623	3	.681	3	.321		24 3	
3	26	.631	1	.730	1	.530		26 3	
3	30	.493	3	.472	3	-.156		30 3	
3	31	.574	2	.586	2	.073		31 3	
MONTHLY MEAN		.599	14	.641	14	.247		BETA .506	
MONTH	DAY	506	N	384	N	ALPHA		DAY MONTH	
4	1	.628	2	.630	2	.009		1 4	
4	2	.619	2	.672	2	.295		2 4	
4	7	.700	2	.755	2	.271		7 4	
4	20	.636	2	.624	2	-.071		20 4	
MONTHLY MEAN		.646	8	.670	8	.132		BETA .590	
MONTH	DAY	506	N	384	N	ALPHA		DAY MONTH	
5	9	.847	1	.977	1	.520		9 5	
5	11	.697	2	.678	2	-.101		11 5	
5	12	.800	2	.824	2	.106		12 5	
5	13	.942	1	1.007	1	.244		13 5	
5	18	.659	3	.632	3	-.151		18 5	
5	19	.742	2	.746	2	.021		19 5	
5	20	.803	3	.820	3	.076		20 5	
5	26	.819	3	.881	3	.264		26 5	
5	27	.942	2	1.068	2	.457		27 5	
5	28	.871	3	.990	3	.465		28 5	
MONTHLY MEAN		.800	22	.845	22	.196		BETA .700	
MONTH	DAY	506	N	384	N	ALPHA		DAY MONTH	
6	1	.964	1	1.070	1	.377		1 6	
6	18	.679	1	.727	1	.248		18 6	
6	19	.764	2	.772	2	.039		19 6	
6	22	.957	2	.966	2	.036		22 6	
6	23	.786	1	.791	1	.025		23 6	
6	29	.714	2	.658	2	-.293		29 6	
6	30	.871	3	.930	3	.240		30 6	
MONTHLY MEAN		.826	12	.848	12	.095		BETA .774	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 7150
HMO

GRAND PRAIRIE, TEXAS
32 43N 96 59W

TAU: 506=.1512

ALTITUDE 160 M
384=.4250

YEAR 1981

MONTH	DAY	506	N	384	N	ALPHA	DAY	MONTH
7	13	1.191	2	1.280	2	.260	13	7
7	14	.786	2	.763	2	-.110	14	7
7	15	.675	3	.644	3	-.167	15	7
7	16	.818	3	.770	3	-.219	16	7
7	17	.754	3	.692	3	-.308	17	7
7	20	.637	3	.652	3	.081	20	7
7	21	.693	3	.708	3	.079	21	7
7	22	.678	3	.730	3	.267	22	7
7	23	.650	2	.690	2	.218	23	7
7	24	.677	1	.746	1	.352	24	7
7	29	.650	3	.633	3	-.098	29	7
7	30	.615	3	.615	3	.000	30	7
7	31	.670	2	.691	2	.109	31	7

MONTHLY MEAN .722 33 .725 33 .014 BETA .715

MONTH	DAY	506	N	384	N	ALPHA	DAY	MONTH
8	3	.739	1	.778	1	.185	3	8
8	4	.637	2	.674	2	.206	4	8
8	5	.794	1	.801	1	.033	5	8
8	6	.658	2	.717	2	.313	6	8
8	7	.681	1	.713	1	.171	7	8
8	10	.805	3	.949	3	.598	10	8
8	11	.932	2	1.159	2	.792	11	8
8	13	.859	2	.989	2	.510	13	8
8	14	.554	1	.568	1	.092	14	8
8	20	.904	2	1.096	2	.699	20	8
8	21	1.337	2	1.808	2	1.093	21	8
8	24	1.052	2	1.328	2	.845	24	8
8	25	.881	2	1.095	2	.788	25	8
8	26	.836	2	1.030	2	.755	26	8
8	27	.791	1	.955	1	.683	27	8
8	28	.699	1	.834	1	.639	28	8

MONTHLY MEAN .847 27 1.011 27 .641 BETA .547

MONTH	DAY	506	N	384	N	ALPHA	DAY	MONTH
9	15	.739	2	.828	2	.412	15	9
9	16	.670	1	.773	1	.520	16	9
9	17	.804	1	.872	1	.295	17	9
9	22	.726	2	.832	2	.495	22	9
9	24	.794	3	.983	3	.775	24	9
9	25	.566	2	.580	2	.086	25	9
9	28	.875	2	.988	2	.442	28	9
9	29	.689	1	.842	1	.728	29	9
9	30	.705	3	.816	3	.527	30	9

MONTHLY MEAN .734 17 .843 17 .506 BETA .520

MONTH	DAY	506	N	384	N	ALPHA	DAY	MONTH
10	1	.808	1	.910	1	.429	1	10
10	2	.730	2	.831	2	.470	2	10
10	5	.533	3	.528	3	-.035	5	10
10	15	.534	2	.522	2	-.084	15	10
10	26	.420	1	.424	1	.043	26	10
10	27	.382	3	.387	3	.040	27	10
10	28	.474	1	.460	1	-.104	28	10
10	29	.632	2	.697	2	.355	29	10

MONTHLY MEAN .549 15 .576 15 .171 BETA .489

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC WMO	7150	GRAND PRAIRIE, TEXAS				TAU: 506=.1512	ALTITUDE 384=.4250	160 M	YEAR 1981
MONTH	DAY	506	N	384	N	ALPHA	DAY	MONTH	
11	2	.435	2	.452	2	.139	2	11	
11	5	.421	3	.439	3	.156	5	11	
11	10	.459	2	.462	2	.026	10	11	
11	11	.265	1	.258	1	-.097	11	11	
11	13	.528	2	.631	2	.647	13	11	
11	18	.489	2	.527	2	.272	18	11	
11	19	.308	1	.294	1	-.172	19	11	
11	20	.348	2	.318	2	-.329	20	11	
11	24	.295	2	.312	2	.200	24	11	
MONTHLY MEAN		.408	17	.428	17	.168	BETA .364		

MONTH	DAY	506	N	384	N	ALPHA	DAY	MONTH
12	18	.231	1	.238	1	.099	18	12
12	21	.244	2	.214	2	-.472	21	12
12	22	.433	1	.431	1	-.020	22	12
MONTHLY MEAN		.288	4	.274	4	-.179	BETA .326	

NCDC WMO	8150 72654	HURON, SOUTH DAKOTA				TAU: 500=.1507	ALTITUDE 380=.4299	393 M	YEAR 1981
MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH	
1	9	.111	1	.152	1	1.143	9	1	
1	15	.100	2	.121	2	.698	15	1	
1	17	.088	2	.105	2	.648	17	1	
1	19	.101	1	.125	1	.775	19	1	
1	20	.125	1	.219	1	2.037	20	1	
1	21	.081	1	.104	1	.947	21	1	
1	22	.100	1	.121	1	.703	22	1	
1	24	.091	1	.105	1	.502	24	1	
MONTHLY MEAN		.099	10	.128	10	.951	BETA .051		

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
2	2	.148	1	.201	1	1.131	2	2
2	25	.190	1	.275	1	1.334	25	2
MONTHLY MEAN		.169	2	.238	2	1.247	BETA .071	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
3	2	.169	1	.215	1	.876	2	3
3	4	.157	2	.189	2	.674	4	3
3	5	.155	3	.202	3	.950	5	3
3	9	.182	1	.243	1	1.057	9	3
3	11	.159	1	.210	1	1.026	11	3
3	12	.102	1	.118	1	.522	12	3
3	13	.120	3	.148	3	.772	13	3
3	14	.130	1	.164	1	.849	14	3
3	15	.123	1	.146	1	.625	15	3
3	16	.169	2	.253	2	1.464	16	3
3	23	.245	1	.481	1	2.464	23	3
3	25	.161	2	.204	2	.865	25	3
MONTHLY MEAN		.153	19	.206	19	1.085	BETA .072	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 8150
HMO 72654

HURON, SOUTH DAKOTA
44 23N 98 13W

TAU: 500=.1507

ALTITUDE 393 M
380=.4299

YEAR 1981

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
4 14	.222	1	.283	1	.891	14 4
MONTHLY MEAN	.222	1	.283	1	.891	BETA .120
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
5 1	.210	1	.282	1	1.079	1 5
5 5	.374	1	.467	1	.812	5 5
5 18	.368	1	.528	1	1.315	18 5
5 19	.336	2	.454	2	1.099	19 5
5 20	.237	1	.322	1	1.117	20 5
MONTHLY MEAN	.310	6	.418	6	1.088	BETA .146
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
6 3	.328	2	.506	2	1.582	3 6
6 10	.227	2	.319	2	1.241	10 6
6 16	.329	1	.452	1	1.156	16 6
6 25	.215	1	.297	1	1.186	25 6
6 30	.299	2	.433	2	1.351	30 6
MONTHLY MEAN	.281	8	.408	8	1.356	BETA .110
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
7 1	.279	3	.381	3	1.135	1 7
7 5	.236	2	.292	2	.786	5 7
MONTHLY MEAN	.262	5	.346	5	1.014	BETA .130
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
8 18	.332	1	.449	1	1.098	18 8
MONTHLY MEAN	.332	1	.449	1	1.098	BETA .155
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
9 2	.380	2	.546	2	1.318	2 9
9 4	.311	1	.488	1	1.639	4 9
9 7	.313	1	.507	1	1.758	7 9
9 14	.209	1	.267	1	.890	14 9
9 19	.439	2	.661	2	1.492	19 9
9 27	.181	1	.229	1	.854	27 9
MONTHLY MEAN	.331	8	.488	8	1.409	BETA .125
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
10 6	.130	1	.175	1	1.087	6 10
10 31	.161	2	.329	2	2.605	31 10
MONTHLY MEAN	.150	3	.277	3	2.229	BETA .032

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 8150 WMO 72654		HURON, SOUTH DAKOTA 44 23N 98 13W				TAU: 500=.1507	ALTITUDE 380=.4299	393 M	YEAR 1981
MONTH DAY	500 N	380 N	ALPHA	DAY MONTH					
11 6	.098 2	.123 2	.842	6 11					
11 11	.144 2	.178 2	.778	11 11					
MONTHLY MEAN	.121 4	.151 4	.804	BETA	.069				
MONTH DAY	500 N	380 N	ALPHA	DAY MONTH					
12 4	.166 2	.191 2	.520	4 12					
12 17	.143 2	.185 2	.937	17 12					
MONTHLY MEAN	.154 4	.188 4	.719	BETA	.094				
NCDC 10100 WMO		JAKARTA, INDONESIA 6 10S 106 50E				TAU: 380=.4497	ALTITUDE 500=.1569	6 M	YEAR 1981
MONTH DAY	380 N	500 N	ALPHA	DAY MONTH					
1 3	.562 6	.439 6	.902	3 1					
1 9	.631 5	.526 5	.663	9 1					
1 22	.529 6	.345 6	1.555	22 1					
MONTHLY MEAN	.570 17	.431 17	1.019	BETA	.213				
MONTH DAY	380 N	500 N	ALPHA	DAY MONTH					
2 4	.339 7	.239 7	1.280	4 2					
2 10	.335 10	.196 10	1.954	10 2					
2 11	.520 15	.337 15	1.587	11 2					
2 12	.545 5	.357 5	1.541	12 2					
2 13	.657 6	.563 6	.566	13 2					
2 16	.588 6	.412 6	1.298	16 2					
2 17	.650 6	.433 6	1.483	17 2					
2 19	1.429 3	1.143 3	.812	19 2					
2 20	.574 6	.444 6	.942	20 2					
2 21	.460 12	.328 12	1.237	21 2					
2 23	.544 3	.368 3	1.428	23 2					
2 25	.536 9	.335 9	1.712	25 2					
MONTHLY MEAN	.538 88	.376 88	1.309	BETA	.152				
MONTH DAY	380 N	500 N	ALPHA	DAY MONTH					
3 4	.625 2	.470 2	1.037	4 3					
3 5	.534 6	.380 6	1.236	5 3					
3 6	.746 3	.678 3	.349	6 3					
3 7	.441 6	.392 6	.427	7 3					
3 13	.288 6	.211 6	1.130	13 3					
3 14	.326 9	.327 9	-.017	14 3					
3 17	.529 18	.385 18	1.159	17 3					
3 18	.118 16	.101 16	.589	18 3					
3 20	.514 9	.360 9	1.299	20 3					
3 23	.148 6	.144 6	.093	23 3					
3 24	.222 2	.258 2	-.555	24 3					
3 25	.268 6	.277 6	-.117	25 3					
3 26	.099 1	.114 1	-.500	26 3					
3 27	.127 4	.125 4	.048	27 3					
3 30	.216 9	.191 9	.458	30 3					
3 31	.484 2	.497 2	-.094	31 3					
MONTHLY MEAN	.348 105	.285 105	.719	BETA	.173				

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 10100
WMO

JAKARTA, INDONESIA
6 10S 106 50E

TAU: 380=.4497

ALTITUDE
500=.1569

6 M YEAR 1981

MONTH	DAY	380	N	500	N	ALPHA	DAY	MONTH
4	2	.390	3	.399	3	-.081	2	4
4	8	.149	3	.127	3	.578	8	4
4	11	.413	3	.330	3	.820	11	4
4	14	.070	5	.058	5	.655	14	4
4	15	.454	3	.392	3	.534	15	4
4	16	.428	6	.313	6	1.137	16	4
4	18	.087	5	.067	5	.993	18	4
4	20	.409	6	.316	6	.941	20	4
4	22	.145	3	.126	3	.504	22	4
4	23	.521	6	.534	6	-.092	23	4
4	24	.264	8	.249	8	.219	24	4
4	25	.513	6	.489	6	.177	25	4
4	28	.091	3	.088	3	.110	28	4
4	29	.194	3	.150	3	.938	29	4
MONTHLY MEAN		.312	63	.276	63	.448	BETA	.202
5	5	.188	3	.168	3	.412	5	5
5	6	.088	6	.074	6	.638	6	5
5	9	.256	3	.215	3	.647	9	5
5	13	.075	3	.064	3	.577	13	5
5	14	.140	2	.149	2	-.234	14	5
5	18	.263	2	.201	2	.983	18	5
5	19	.057	1	.069	1	-.718	19	5
5	20	.262	9	.235	9	.398	20	5
5	22	.181	7	.148	7	.744	22	5
5	25	.178	6	.188	6	-.212	25	5
5	27	.175	3	.110	3	1.699	27	5
MONTHLY MEAN		.182	45	.159	45	.479	BETA	.114
6	1	.522	6	.430	6	.703	1	6
6	2	.523	6	.368	6	1.282	2	6
6	4	.238	6	.179	6	1.031	4	6
6	5	.348	6	.261	6	1.048	5	6
6	6	.431	3	.330	3	.976	6	6
6	8	.232	3	.158	3	1.387	8	6
6	9	.471	6	.382	6	.765	9	6
6	10	.163	6	.123	6	1.021	10	6
6	12	.107	6	.089	6	.656	12	6
6	13	.365	3	.276	3	1.021	13	6
6	16	.336	3	.331	3	.047	16	6
6	17	.103	2	.108	2	-.161	17	6
6	18	.143	6	.122	6	.570	18	6
MONTHLY MEAN		.313	62	.246	62	.879	BETA	.134
7	2	.228	9	.186	9	.738	2	7
7	9	.221	4	.163	4	1.096	9	7
7	11	.202	3	.154	3	.989	11	7
7	18	.617	2	.526	2	.583	18	7
7	20	.332	2	.308	2	.274	20	7

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 10100 WMO		JAKARTA, INDONESIA 6 10S 106 50E				TAU: 380=.4497	ALTITUDE 500=.1569	6 M	YEAR 1981
MONTH	DAY	380	N	500	N	ALPHA		DAY	MONTH
7	21	.599	3	.518	3	.531		21	7
7	24	.245	2	.216	2	.471		24	7
7	25	.281	3	.220	3	.892		25	7
7	27	.568	1	.535	1	.217		27	7
7	28	.245	4	.183	4	1.058		28	7
7	29	.307	7	.231	7	1.027		29	7
MONTHLY MEAN		.307	40	.250	40	.747		BETA	.149

MONTH	DAY	380	N	500	N	ALPHA		DAY	MONTH
8	7	.328	3	.241	3	1.110		7	8
8	8	.324	6	.215	6	1.492		8	8
8	11	.171	3	.142	3	.655		11	8
8	12	.216	6	.148	6	1.377		12	8
8	13	.216	3	.163	3	1.025		13	8
8	14	.477	9	.335	9	1.285		14	8
8	15	.418	3	.311	3	1.071		15	8
8	19	.273	6	.200	6	1.138		19	8
8	21	.209	3	.136	3	1.571		21	8
8	22	.193	3	.135	3	1.305		22	8
8	24	.342	3	.190	3	2.138		24	8
8	25	.425	6	.316	6	1.079		25	8
8	26	.208	6	.154	6	1.097		26	8
8	27	.287	6	.208	6	1.173		27	8
8	28	.746	3	.560	3	1.045		28	8
8	29	.341	3	.268	3	.878		29	8
8	31	.332	3	.239	3	1.194		31	8
MONTHLY MEAN		.328	75	.235	75	1.212		BETA	.101

MONTH	DAY	380	N	500	N	ALPHA		DAY	MONTH
9	1	.724	3	.526	3	1.163		1	9
9	4	.553	3	.386	3	1.312		4	9
9	7	.268	6	.168	6	1.703		7	9
9	9	.758	3	.594	3	.888		9	9
9	11	.402	6	.290	6	1.185		11	9
9	14	.442	3	.306	3	1.344		14	9
9	15	.928	3	.692	3	1.069		15	9
9	16	.348	9	.232	9	1.473		16	9
9	22	.599	6	.501	6	.655		22	9
9	23	.385	3	.266	3	1.348		23	9
9	29	.274	2	.314	2	-.503		29	9
MONTHLY MEAN		.482	47	.357	47	1.095		BETA	.167

NCDC 10615 WMO 42339		JODHPUR, INDIA 26 18N 73 1E				TAU: 500=.1534	ALTITUDE 227 M	YEAR 1981	
MONTH	DAY	500	N			ALPHA		DAY	MONTH
1	1	.090	5					1	1
1	2	.140	6					2	1
1	4	.371	2					4	1
1	5	.345	2					5	1
1	7	.103	4					7	1
1	8	.067	5					8	1
1	9	.120	5					9	1
1	10	.004	1					10	1
1	11	.163	6					11	1
1	12	.236	6					12	1
1	13	.222	6					13	1

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 10615
WMO 42339

JODHPUR, INDIA
26 18N

73 1E TAU: 500=.1534

ALTITUDE 227 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH
1	14	.130	5		14	1
1	15	.154	5		15	1
1	17	.010	1		17	1
1	18	.133	6		18	1
1	19	.104	6		19	1
1	20	.231	4		20	1
1	21	.217	5		21	1
1	23	.169	1		23	1
1	24	.329	4		24	1
1	25	.333	5		25	1
1	26	.160	5		26	1
1	27	.197	6		27	1
1	28	.307	5		28	1
1	29	.303	5		29	1
1	30	.147	5		30	1
1	31	.070	5		31	1
MONTHLY MEAN		.181	121	1.300	BETA .074	

MONTH	DAY	500	N	ALPHA	DAY	MONTH
2	1	.110	5		1	2
2	2	.077	6		2	2
2	3	.174	4		3	2
2	5	.077	3		5	2
2	6	.103	6		6	2
2	7	.146	4		7	2
2	8	.096	6		8	2
2	9	.069	6		9	2
2	10	.057	4		10	2
2	12	.083	6		12	2
2	13	.104	7		13	2
2	14	.162	3		14	2
2	16	.189	6		16	2
2	17	.180	4		17	2
2	18	.066	4		18	2
2	19	.106	6		19	2
2	20	.075	4		20	2
2	21	.089	7		21	2
2	22	.072	6		22	2
2	23	.189	1		23	2
2	24	.138	2		24	2
2	25	.144	6		25	2
2	27	.254	2		27	2
2	28	.359	4		28	2
MONTHLY MEAN		.120	112	1.300	BETA .049	

MONTH	DAY	500	N	ALPHA	DAY	MONTH
3	1	.182	2		1	3
3	2	.289	6		2	3
3	3	.287	5		3	3
3	7	.062	3		7	3
3	8	.110	4		8	3
3	9	.165	5		9	3
3	10	.183	4		10	3
3	16	.096	2		16	3
3	17	.098	6		17	3
3	19	.083	5		19	3
3	20	.132	3		20	3
3	21	.234	5		21	3
3	22	.159	5		22	3
3	23	.092	7		23	3
3	24	.111	7		24	3
3	25	.119	5		25	3
3	26	.166	4		26	3
3	27	.082	6		27	3
3	28	.222	3		28	3
3	29	.165	4		29	3
3	30	.269	4		30	3

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 10615
WMO 42339

JODHPUR, INDIA
26 18N 73 1E TAU: 500=.1534

ALTITUDE 227 M YEAR 1981

MONTH DAY	500	N	ALPHA	DAY MONTH
3 31	.229	3		31 3
MONTHLY MEAN	.159	98	1.300	BETA .064

MONTH DAY	500	N	ALPHA	DAY MONTH
4 1	.182	6		1 4
4 2	.222	4		2 4
4 3	.345	3		3 4
4 5	.208	7		5 4
4 6	.197	7		6 4
4 7	.221	7		7 4
4 8	.250	7		8 4
4 9	.243	7		9 4
4 10	.359	7		10 4
4 11	.203	6		11 4
4 12	.163	2		12 4
4 13	.198	7		13 4
4 14	.237	3		14 4
4 15	.305	1		15 4
4 16	.230	1		16 4
4 17	.346	6		17 4
4 18	.202	7		18 4
4 19	.246	7		19 4
4 21	.316	1		21 4
4 22	.313	6		22 4
4 23	.255	7		23 4
4 24	.242	7		24 4
4 25	.201	7		25 4
4 27	.307	2		27 4
4 28	.244	3		28 4
4 29	.111	6		29 4
4 30	.324	5		30 4
MONTHLY MEAN	.241	139	1.300	BETA .098

MONTH DAY	500	N	ALPHA	DAY MONTH
5 1	.272	4		1 5
5 2	.238	4		2 5
5 3	.189	7		3 5
5 4	.127	7		4 5
5 5	.142	4		5 5
5 6	.472	1		6 5
5 7	.365	4		7 5
5 9	.122	3		9 5
5 10	.292	1		10 5
5 11	.312	4		11 5
5 12	.183	7		12 5
5 13	.500	4		13 5
5 14	.332	5		14 5
5 15	.319	4		15 5
5 16	.360	4		16 5
5 17	.444	3		17 5
5 18	.343	6		18 5
5 19	.412	5		19 5
5 20	.532	6		20 5
5 21	.645	5		21 5
5 22	.449	6		22 5
5 23	.421	7		23 5
5 24	.750	1		24 5
5 25	.363	5		25 5
5 26	.326	6		26 5
5 27	.411	4		27 5
5 28	.316	5		28 5
5 29	.376	3		29 5
5 30	.349	5		30 5
5 31	.330	6		31 5
MONTHLY MEAN	.341	136	1.300	BETA .139

6 1	.418	7		1 6
-----	------	---	--	-----

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 10615
WMO 42339

JODHPUR, INDIA
26 18N

73 1E TAU: 500=.1534

ALTITUDE 227 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA		
6	2	.326	5	1.300	2	6	.140		
6	3	.379	5		3	6			
6	4	.617	1		4	6			
6	5	.376	7		5	6			
6	6	.342	7		6	6			
6	10	.363	2		10	6			
6	14	.354	4		14	6			
6	15	.273	5		15	6			
6	16	.241	2		16	6			
6	17	.330	5		17	6			
6	18	.274	7		18	6			
6	19	.317	6		19	6			
6	27	.389	4		27	6			
MONTHLY MEAN		.345	67						
7	6	.414	3		1.300	6		7	.131
7	7	.397	4			7		7	
7	8	.483	3			8		7	
7	11	.126	3			11		7	
7	12	.238	1			12		7	
7	13	.258	2			13		7	
7	26	.054	1	26		7			
MONTHLY MEAN		.321	17						
8	2	.708	1	1.300		2	8	.168	
8	8	.517	3			8	8		
8	10	.211	2		10	8			
8	21	.305	1		21	8			
8	26	.160	1		26	8			
8	31	.569	1		31	8			
MONTHLY MEAN		.413	9						
9	2	.136	2	1.300	2	9	.168		
9	4	.326	1		4	9			
9	5	.340	4		5	9			
9	7	.291	1		7	9			
9	8	.368	2		8	9			
9	9	.172	2		9	9			
9	10	.369	3		10	9			
9	12	.341	4		12	9			
9	13	.301	4		13	9			
9	14	.338	3		14	9			
9	15	.450	3		15	9			
9	16	.296	2		16	9			
9	17	.324	6		17	9			
9	18	.393	2		18	9			
9	19	.385	4		19	9			
9	20	.347	7		20	9			
9	21	.415	4		21	9			
9	22	.291	4		22	9			
9	28	.370	4		28	9			
9	29	.346	4		29	9			
9	30	.331	5	30	9				

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 10615
HMO 42339

JODHPUR, INDIA
26 18N

73 1E TAU: 500=.1534

ALTITUDE 227 M YEAR 1981

MONTHLY MEAN .338 71

1.300

BETA .137

MONTH	DAY	500	N
10	1	.309	7
10	2	.588	5
10	3	.346	5
10	4	.383	5
10	5	.346	4
10	6	.331	6
10	7	.331	6
10	8	.306	6
10	9	.309	5
10	10	.272	5
10	11	.290	6
10	12	.296	5
10	13	.305	6
10	14	.363	6
10	15	.344	6
10	16	.388	5
10	17	.374	6
10	18	.347	6
10	19	.392	4
10	20	.312	5
10	21	.218	2
10	22	.256	6
10	23	.343	5
10	24	.367	4
10	26	.415	6
10	27	.534	4
10	28	.325	5
10	29	.414	4
10	30	.500	1

ALPHA

DAY MONTH

DAY	MONTH
1	10
2	10
3	10
4	10
5	10
6	10
7	10
8	10
9	10
10	10
11	10
12	10
13	10
14	10
15	10
16	10
17	10
18	10
19	10
20	10
21	10
22	10
23	10
24	10
26	10
27	10
28	10
29	10
30	10

MONTHLY MEAN .350 146

1.300

BETA .142

MONTH	DAY	500	N
11	4	.292	5
11	5	.207	6
11	6	.194	6
11	7	.203	6
11	8	.215	6
11	9	.231	6
11	10	.230	6
11	11	.219	5
11	12	.304	6
11	13	.329	6
11	14	.246	6
11	15	.249	6
11	16	.225	6
11	17	.248	6
11	18	.247	6
11	19	.302	6
11	20	.266	6
11	21	.279	6
11	22	.269	6
11	23	.223	6
11	24	.209	6
11	25	.298	5
11	26	.597	1
11	27	.399	4
11	28	.266	6
11	29	.243	6
11	30	.214	6

ALPHA

DAY MONTH

DAY	MONTH
4	11
5	11
6	11
7	11
8	11
9	11
10	11
11	11
12	11
13	11
14	11
15	11
16	11
17	11
18	11
19	11
20	11
21	11
22	11
23	11
24	11
25	11
26	11
27	11
28	11
29	11
30	11

MONTHLY MEAN .254 152

1.300

BETA .103

MONTH	DAY	500	N
12	1	.251	6
12	2	.276	6
12	3	.301	6
12	4	.384	6
12	5	.293	3
12	6	.381	4
12	7	.257	6
12	8	.246	6
12	9	.231	6

ALPHA

DAY MONTH

DAY	MONTH
1	12
2	12
3	12
4	12
5	12
6	12
7	12
8	12
9	12

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 10615
WMO 42339

JODHPUR, INDIA
26 18N 73 1E

TAU: 500=.1534

ALTITUDE 227 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH
12	10	.244	6		10	12
12	11	.242	6		11	12
12	12	.223	6		12	12
12	13	.236	6		13	12
12	14	.213	6		14	12
12	16	.249	1		16	12
12	17	.282	6		17	12
12	18	.392	3		18	12
12	19	.388	2		19	12
12	20	.312	6		20	12
12	21	.279	6		21	12
12	22	.206	4		22	12
12	23	.205	6		23	12
12	24	.164	6		24	12
12	25	.506	2		25	12
12	26	.199	6		26	12
12	27	.223	6		27	12
12	28	.271	5		28	12
12	29	.243	4		29	12
12	30	.287	6		30	12
12	31	.293	3		31	12

MONTHLY MEAN .265 151 1.300 BETA .107

NCDC 11200
WMO

KELOWNA A, CANADA
49 58N 119 23W

TAU: 500=.1501

ALTITUDE 430 M YEAR 1981
381=.4239

MONTH	DAY	500	N	381	N	ALPHA	DAY	MONTH
1	31	.109	3	.138	3	.865	31	1

MONTHLY MEAN .109 3 .138 3 .865 BETA .060

MONTH	DAY	500	N	381	N	ALPHA	DAY	MONTH
2	1	.138	1	.180	1	.967	1	2
2	9	.138	1	.168	1	.718	9	2

MONTHLY MEAN .138 2 .174 2 .845 BETA .077

MONTH	DAY	500	N	381	N	ALPHA	DAY	MONTH
3	5	.171	2	.229	2	1.088	5	3
3	6	.186	1	.240	1	.938	6	3
3	8	.159	1	.204	1	.923	8	3
3	10	.177	3	.247	3	1.227	10	3
3	11	.204	1	.296	1	1.375	11	3
3	12	.283	1	.404	1	1.304	12	3
3	13	.286	1	.396	1	1.193	13	3
3	17	.144	1	.174	1	.705	17	3
3	18	.175	2	.221	2	.869	18	3
3	19	.167	2	.211	2	.861	19	3
3	20	.166	1	.219	1	1.014	20	3
3	27	.198	1	.246	1	.794	27	3

MONTHLY MEAN .187 17 .250 17 1.059 BETA .090

MONTH	DAY	500	N	381	N	ALPHA	DAY	MONTH
4	7	.230	1	.285	1	.781	7	4
4	18	.214	3	.260	3	.727	18	4
4	25	.212	1	.254	1	.675	25	4
4	30	.244	2	.305	2	.827	30	4

MONTHLY MEAN .224 7 .276 7 .759 BETA .133

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 11200 WMO	KELOHNA A, CANADA				TAU: 500=.1501	ALTITUDE 381=.4239	430 M	YEAR 1981
MONTH DAY	500	N	381	N	ALPHA	DAY	MONTH	
5 1	.435	1	.555	1	.902	1	5	
5 8	.232	1	.298	1	.925	8	5	
5 22	.366	1	.461	1	.848	22	5	
5 26	.317	3	.394	3	.801	26	5	
5 27	.502	2	.640	2	.895	27	5	
5 28	.317	2	.383	2	.690	28	5	
MONTHLY MEAN	.362	10	.454	10	.833	BETA	.203	
MONTH DAY	500	N	381	N	ALPHA	DAY	MONTH	
6 4	.318	1	.391	1	.763	4	6	
6 6	.343	1	.424	1	.784	6	6	
6 10	.403	1	.502	1	.814	10	6	
6 16	.367	1	.402	1	.337	16	6	
6 24	.291	2	.350	2	.681	24	6	
6 25	.253	3	.322	3	.888	25	6	
6 26	.299	1	.379	1	.869	26	6	
6 27	.374	1	.452	1	.696	27	6	
6 28	.286	1	.348	1	.731	28	6	
MONTHLY MEAN	.311	12	.381	12	.744	BETA	.186	
MONTH DAY	500	N	381	N	ALPHA	DAY	MONTH	
7 3	.254	1	.294	1	.534	3	7	
7 8	.332	3	.403	3	.713	8	7	
7 12	.353	1	.446	1	.859	12	7	
7 16	.374	1	.472	1	.861	16	7	
7 17	.340	1	.439	1	.935	17	7	
7 25	.283	2	.338	2	.650	25	7	
7 26	.259	2	.314	2	.714	26	7	
7 27	.290	1	.354	1	.733	27	7	
7 28	.255	1	.312	1	.739	28	7	
7 31	.325	1	.400	1	.761	31	7	
MONTHLY MEAN	.305	14	.374	14	.745	BETA	.182	
MONTH DAY	500	N	381	N	ALPHA	DAY	MONTH	
8 1	.274	3	.324	3	.627	1	8	
8 2	.267	2	.318	2	.648	2	8	
8 4	.338	3	.408	3	.701	4	8	
8 5	.342	2	.444	2	.962	5	8	
8 6	.273	3	.359	3	1.005	6	8	
8 7	.328	3	.430	3	.999	7	8	
8 8	.367	3	.481	3	.992	8	8	
8 9	.331	3	.439	3	1.043	9	8	
8 10	.326	3	.414	3	.885	10	8	
8 11	.364	3	.495	3	1.126	11	8	
8 12	.325	2	.461	2	1.292	12	8	
8 13	.343	2	.465	2	1.113	13	8	
8 17	.301	3	.403	3	1.067	17	8	
8 18	.341	1	.438	1	.921	18	8	
8 19	.413	1	.551	1	1.060	19	8	
8 20	.346	1	.432	1	.817	20	8	
8 21	.320	3	.410	3	.913	21	8	
8 23	.270	3	.350	3	.951	23	8	
8 25	.321	2	.407	2	.873	25	8	
8 26	.322	3	.418	3	.964	26	8	
8 27	.350	1	.462	1	1.027	27	8	
8 28	.251	1	.317	1	.859	28	8	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 11200 WMO	KELOWNA A. CANADA 49 58N 119 23W				TAU: 500=.1501	ALTITUDE 430 M 381=.4239	YEAR 1981
MONTHLY MEAN	.320	51	.415	51	.956	BETA	.165
MONTH DAY	500	N	381	N	ALPHA	DAY MONTH	
9 6	.195	3	.235	3	.685	6 9	
9 7	.181	3	.226	3	.812	7 9	
9 8	.215	3	.271	3	.850	8 9	
9 10	.202	2	.241	2	.645	10 9	
9 12	.174	1	.206	1	.627	12 9	
9 15	.213	2	.258	2	.698	15 9	
9 16	.279	3	.375	3	1.081	16 9	
9 17	.271	2	.367	2	1.117	17 9	
9 24	.263	2	.334	2	.874	24 9	
9 26	.300	1	.377	1	.833	26 9	
MONTHLY MEAN	.227	22	.286	22	.862	BETA	.125
MONTH DAY	500	N	381	N	ALPHA	DAY MONTH	
10 3	.214	1	.259	1	.711	3 10	
10 14	.212	3	.298	3	1.255	14 10	
10 18	.194	1	.279	1	1.329	18 10	
10 20	.214	2	.310	2	1.354	20 10	
10 21	.225	3	.330	3	1.407	21 10	
10 22	.286	1	.474	1	1.862	22 10	
MONTHLY MEAN	.221	11	.320	11	1.353	BETA	.087
MONTH DAY	500	N	381	N	ALPHA	DAY MONTH	
12 6	.120	1	.154	1	.918	6 12	
12 19	.110	1	.124	1	.429	19 12	
MONTHLY MEAN	.115	2	.139	2	.692	BETA	.071
NCDC 11430 WMO 43339	KODAIKANAL, INDIA 10 14N 77 28E				TAU: 500=.1202	ALTITUDE 2343 M	YEAR 1981
MONTH DAY	500	N			ALPHA	DAY MONTH	
1 5	.566	3				5 1	
1 11	.337	1				11 1	
1 18	.382	2				18 1	
1 22	.514	4				22 1	
1 23	.662	1				23 1	
1 30	.587	4				30 1	
MONTHLY MEAN	.524	15			1.300	BETA	.213
NCDC 11635 WMO	KOMLOSI, HUNGARY 46 58N 19 35E				TAU: 500=.1550	ALTITUDE 125 M 380=.4437	YEAR 1981
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH	
9 13	.339	1	.471	1	1.206	13 9	
9 17	.204	3	.395	3	2.415	17 9	
9 21	.306	1	.559	1	2.199	21 9	
9 22	.136	2	.303	2	2.917	22 9	
9 24	.297	2	.539	2	2.169	24 9	
9 26	.124	1	.299	1	3.198	26 9	
9 27	.263	1	.334	1	.869	27 9	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 11635 WMO		KOMLOSI, HUNGARY 46 58N 19 35E				TAU: 500=.1550		ALTITUDE 125 M 380=.4437		YEAR 1981	
MONTH	DAY	500	N	380	N	ALPHA			DAY	MONTH	
9	28	.311	2	.510	2	1.805			28	9	
9	30	.250	2	.422	2	1.906			30	9	
MONTHLY MEAN		.242	15	.427	15	2.063			BETA	.058	

MONTH	DAY	500	N	380	N	ALPHA			DAY	MONTH
10	3	.162	1	.316	1	2.439			3	10
10	5	.091	1	.168	1	2.238			5	10
10	6	.118	2	.232	2	2.460			6	10
10	7	.133	2	.243	2	2.194			7	10
10	10	.147	1	.219	1	1.458			10	10
10	12	.177	1	.285	1	1.738			12	10
10	13	.018	1	.025	1	1.157			13	10
10	18	.163	3	.239	3	1.411			18	10
10	20	.154	3	.243	3	1.677			20	10
10	21	.223	2	.329	2	1.410			21	10
10	22	.112	2	.223	2	2.500			22	10
10	25	.190	1	.272	1	1.312			25	10
10	26	.120	1	.178	1	1.420			26	10
10	29	.065	1	.170	1	3.473			29	10
10	30	.147	1	.270	1	2.223			30	10
MONTHLY MEAN		.141	23	.235	23	1.866			BETA	.039

MONTH	DAY	500	N	380	N	ALPHA			DAY	MONTH
11	5	.187	1	.246	1	.998			5	11
11	7	.168	2	.281	2	1.872			7	11
11	8	.149	2	.256	2	1.975			8	11
11	9	.297	2	.446	2	1.485			9	11
11	11	.375	1	.637	1	1.930			11	11
11	16	.335	1	.495	1	1.425			16	11
11	17	.137	2	.204	2	1.446			17	11
11	18	.141	2	.255	2	2.178			18	11
11	23	.171	2	.267	2	1.621			23	11
11	24	.204	1	.248	1	.718			24	11
11	26	.074	2	.142	2	2.381			26	11
11	30	.541	1	.682	1	.845			30	11
MONTHLY MEAN		.206	19	.317	19	1.563			BETA	.070

MONTH	DAY	500	N	380	N	ALPHA			DAY	MONTH
12	6	.160	1	.322	1	2.544			6	12
12	8	.183	1	.204	1	.381			8	12
12	21	.219	1	.307	1	1.229			21	12
MONTHLY MEAN		.188	3	.278	3	1.428			BETA	.070

NCDC 11675 WMO 48550		KO SAMUI, THAILAND 9 28N 100 3E				TAU: 500=.1569		ALTITUDE 7 M 380=.4496		YEAR 1980 800=.0640 940=.0115	
MONTH	DAY	500	N	380	N	ALPHA	800	N	940	N	DAY MONTH
5	20	1.911	1	1.581	1	-.689	.473	0	.000	0	20 5
MONTHLY MEAN		1.911	1	1.581	1	-.689	.984	0	.000	0	BETA 3.081

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 12200
WMO 72340

NORTH LITTLE ROCK, ARKANSAS
34 50N 92 15W TAU: 500=.1543

ALTITUDE 172 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
1	1	.241	2		1	1	
1	2	.239	3		2	1	
1	3	.369	2		3	1	
1	4	.258	1		4	1	
1	5	.216	1		5	1	
1	9	.250	2		9	1	
1	10	.206	2		10	1	
1	12	.191	3		12	1	
1	13	.269	2		13	1	
1	14	.245	3		14	1	
1	17	.149	1		17	1	
1	28	.280	2		28	1	
MONTHLY MEAN		.245	24	1.300	BETA		.099
2	2	.273	3		2	2	
2	3	.304	3		3	2	
2	6	.280	2		6	2	
2	8	1.411	1		8	2	
2	11	.285	3		11	2	
2	13	.336	2		13	2	
2	14	.350	2		14	2	
2	19	.416	2		19	2	
2	24	.331	2		24	2	
2	25	.363	2		25	2	
2	27	.356	1		27	2	
MONTHLY MEAN		.370	23	1.300	BETA		.150
3	2	.394	1		2	3	
3	11	.408	3		11	3	
3	12	.587	1		12	3	
3	14	.457	1		14	3	
3	16	.345	3		16	3	
3	19	.381	3		19	3	
3	20	.466	1		20	3	
3	24	.468	1		24	3	
3	26	.520	1		26	3	
3	30	.444	2		30	3	
3	31	.441	1		31	3	
MONTHLY MEAN		.424	18	1.300	BETA		.172
4	1	.469	3		1	4	
4	5	.386	2		5	4	
4	24	.418	2		24	4	
4	25	.503	2		25	4	
4	26	.734	2		26	4	
4	27	.650	2		27	4	
4	29	.400	3		29	4	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 12200
WMO 72340

NORTH LITTLE ROCK, ARKANSAS
34 50N 92 15W TAU: 500=.1543

ALTITUDE 172 M YEAR 1981

MONTHLY MEAN .499 16 1.300 BETA .203

MONTH DAY	500	N	ALPHA	DAY MONTH
5 11	.473	2		11 5
5 12	.605	1		12 5
5 20	.525	1		20 5
5 21	.497	1		21 5
5 28	.446	1		28 5

MONTHLY MEAN .503 6 1.300 BETA .204

MONTH DAY	500	N	ALPHA	DAY MONTH
6 8	.661	3		8 6
6 17	.417	3		17 6
6 21	.420	2		21 6
6 25	.442	1		25 6
6 26	.447	3		26 6
6 28	.511	2		28 6

MONTHLY MEAN .491 14 1.300 BETA .200

MONTH DAY	500	N	ALPHA	DAY MONTH
7 20	.468	1		20 7
7 23	.423	1		23 7
7 24	.530	3		24 7
7 26	.751	2		26 7
7 27	.474	1		27 7
7 31	.494	2		31 7

MONTHLY MEAN .545 10 1.300 BETA .221

MONTH DAY	500	N	ALPHA	DAY MONTH
9 8	.390	1		8 9
9 9	.445	2		9 9
9 10	.461	3		10 9
9 16	.423	1		16 9
9 17	.358	1		17 9
9 18	.282	2		18 9
9 19	.658	3		19 9
9 20	.317	3		20 9
9 21	.358	3		21 9
9 22	.352	3		22 9
9 29	.478	1		29 9
9 30	.363	1		30 9

MONTHLY MEAN .413 24 1.300 BETA .168

MONTH DAY	500	N	ALPHA	DAY MONTH
11 7	.148	1		7 11
11 10	.145	3		10 11
11 11	.163	3		11 11
11 13	.179	2		13 11
11 17	.167	3		17 11
11 20	.130	1		20 11

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 12200
WMO 72340

NORTH LITTLE ROCK, ARKANSAS
34 50N 92 15W TAU: 500=.1543

ALTITUDE 172 M YEAR 1981

MONTHLY MEAN	.158	13			1.300		BETA	.064
MONTH DAY	500	N			ALPHA		DAY MONTH	
12 1	.128	2					1 12	
12 3	.057	3					3 12	
12 4	.091	3					4 12	
MONTHLY MEAN	.087	8			1.300		BETA	.036

NCDC 13040
WMO 71722

MANIWAKI, CANADA
46 23N 75 58W TAU: 497=.1582

ALTITUDE 170 M YEAR 1981
379=.4469

MONTH DAY	497	N	379	N	ALPHA		DAY MONTH	
1 3	.148	1	.191	1	.959		3 1	
1 5	.087	1	.096	1	.369		5 1	
1 8	.109	1	.157	1	1.353		8 1	
1 10	.170	2	.245	2	1.360		10 1	
1 13	.170	2	.238	2	1.236		13 1	
1 14	.271	1	.366	1	1.112		14 1	
1 17	.119	2	.154	2	.924		17 1	
1 20	.128	2	.149	2	.564		20 1	
1 24	.103	1	.107	1	.137		24 1	
1 28	.177	1	.239	1	1.112		28 1	
1 30	.136	3	.181	3	1.060		30 1	
1 31	.110	3	.148	3	1.099		31 1	
MONTHLY MEAN	.140	20	.186	20	1.036		BETA	.068

MONTH DAY	497	N	379	N	ALPHA		DAY MONTH	
2 3	.210	1	.262	1	.825		3 2	
2 12	.282	1	.342	1	.713		12 2	
2 27	.248	1	.329	1	1.049		27 2	
MONTHLY MEAN	.247	3	.311	3	.860		BETA	.135

MONTH DAY	497	N	379	N	ALPHA		DAY MONTH	
3 5	.158	3	.213	3	1.107		5 3	
3 13	.187	1	.226	1	.704		13 3	
3 14	.189	1	.245	1	.962		14 3	
3 16	.223	2	.285	2	.903		16 3	
3 22	.295	1	.407	1	1.191		22 3	
3 25	.230	2	.308	2	1.081		25 3	
3 26	.242	2	.328	2	1.119		26 3	
3 27	.254	3	.363	3	1.317		27 3	
MONTHLY MEAN	.220	15	.297	15	1.106		BETA	.101

MONTH DAY	497	N	379	N	ALPHA		DAY MONTH	
4 3	.415	1	.527	1	.876		3 4	
4 6	.309	2	.412	2	1.063		6 4	
4 7	.234	1	.299	1	.898		7 4	
4 10	.266	1	.350	1	1.021		10 4	
4 12	.268	3	.352	3	1.011		12 4	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 13040
WMO 71722

MANIWAKI, CANADA
46 23N 75 58W

TAU: 497=.1582

ALTITUDE 170 M YEAR 1981
379=.4469

MONTH	DAY	497	N	379	N	ALPHA	DAY	MONTH
4	13	.223	1	.300	1	1.097	13	4
4	15	.291	1	.514	1	2.095	15	4
4	19	.299	2	.408	2	1.153	19	4
4	21	.273	3	.360	3	1.014	21	4
4	22	.308	1	.359	1	.561	22	4
4	23	.263	1	.343	1	.976	23	4
4	26	.297	1	.394	1	1.045	26	4
MONTHLY MEAN		.285	18	.381	18	1.069	BETA .135	
MONTH	DAY	497	N	379	N	ALPHA	DAY	MONTH
5	2	.260	3	.387	3	1.460	2	5
5	3	.352	1	.375	1	.230	3	5
5	4	.323	1	.434	1	1.091	4	5
5	6	.273	3	.376	3	1.179	6	5
5	7	.407	1	.618	1	1.538	7	5
5	17	.326	2	.476	2	1.398	17	5
5	18	.319	2	.451	2	1.276	18	5
5	19	.403	3	.559	3	1.206	19	5
5	22	.359	3	.528	3	1.419	22	5
5	23	.384	2	.490	2	.906	23	5
5	31	.308	2	.424	2	1.180	31	5
MONTHLY MEAN		.332	23	.463	23	1.227	BETA .141	
MONTH	DAY	497	N	379	N	ALPHA	DAY	MONTH
6	1	.324	1	.459	1	1.290	1	6
6	5	.377	1	.518	1	1.168	5	6
6	6	.405	1	.556	1	1.173	6	6
6	7	.298	3	.406	3	1.138	7	6
6	13	.317	1	.454	1	1.325	13	6
6	23	.342	2	.460	2	1.096	23	6
6	27	.398	2	.530	2	1.055	27	6
6	28	.306	1	.440	1	1.341	28	6
MONTHLY MEAN		.342	12	.469	12	1.164	BETA .152	
MONTH	DAY	497	N	379	N	ALPHA	DAY	MONTH
7	2	.398	1	.561	1	1.264	2	7
7	8	.510	1	.827	1	1.778	8	7
7	9	.360	2	.445	2	.787	9	7
7	10	.373	1	.471	1	.857	10	7
7	11	.413	3	.604	3	1.400	11	7
7	15	.288	2	.380	2	1.025	15	7
7	16	.353	2	.443	2	.832	16	7
7	17	.408	2	.536	2	1.007	17	7
7	19	.538	2	.711	2	1.032	19	7
7	22	.307	3	.392	3	.905	22	7
7	23	.276	2	.357	2	.959	23	7
7	24	.292	1	.402	1	1.184	24	7
7	27	.265	2	.341	2	.931	27	7
7	30	.294	3	.380	3	.949	30	7
7	31	.393	2	.541	2	1.176	31	7
MONTHLY MEAN		.358	29	.479	29	1.078	BETA .168	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 13040
WMO 71722

MANIWAKI, CANADA
46 23N 75 58W

TAU: 497=.1582

ALTITUDE 170 M YEAR 1981
379=.4469

MONTH	DAY	497	N	379	N	ALPHA	DAY	MONTH
8	1	.436	1	.645	1	1.446	1	8
8	5	.286	1	.369	1	.944	5	8
8	12	.318	1	.423	1	1.051	12	8
8	13	.284	1	.363	1	.908	13	8
8	17	.267	2	.351	2	1.019	17	8
8	18	.267	3	.328	3	.759	18	8
8	19	.343	1	.480	1	1.232	19	8
8	20	.308	3	.457	3	1.457	20	8
8	21	.465	2	.654	2	1.259	21	8
8	25	.174	3	.252	3	1.363	25	8
8	27	.343	2	.476	2	1.209	27	8
8	28	.208	2	.256	2	.773	28	8
MONTHLY MEAN		.294	22	.403	22	1.158	BETA .131	
MONTH	DAY	497	N	379	N	ALPHA	DAY	MONTH
9	7	.273	2	.360	2	1.018	7	9
9	14	.310	1	.446	1	1.341	14	9
9	18	.234	2	.330	2	1.268	18	9
9	23	.259	1	.350	1	1.104	23	9
9	25	.217	2	.303	2	1.224	25	9
9	30	.172	2	.239	2	1.221	30	9
MONTHLY MEAN		.236	10	.326	10	1.188	BETA .103	
MONTH	DAY	497	N	379	N	ALPHA	DAY	MONTH
10	4	.148	2	.207	2	1.235	4	10
10	5	.125	1	.181	1	1.350	5	10
10	10	.116	1	.151	1	.973	10	10
10	11	.134	3	.172	3	.925	11	10
10	12	.152	3	.217	3	1.307	12	10
10	13	.160	1	.236	1	1.429	13	10
10	17	.146	3	.195	3	1.065	17	10
10	28	.118	1	.156	1	1.014	28	10
10	29	.164	1	.194	1	.617	29	10
10	30	.177	2	.235	2	1.049	30	10
MONTHLY MEAN		.146	18	.198	18	1.110	BETA .067	
MONTH	DAY	497	N	379	N	ALPHA	DAY	MONTH
12	17	.240	1	.327	1	1.137	17	12
MONTHLY MEAN		.240	1	.327	1	1.137	BETA .108	

NCDC 13150
WMO

MAUNA LOA OBS., HAWAII
19 32N 155 35W

TAU: 500=.1061

ALTITUDE 3397 M YEAR 1981
380=.2968

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
2	2	.084	1	.215	1	3.416	2	2
MONTHLY MEAN		.084	1	.215	1	3.416	BETA .008	
MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
3	31	.083	1	.152	1	2.212	31	3

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 13150 MAUNA LOA OBS., HAWAII ALTITUDE 3397 M YEAR 1981
WMO 19 32N 155 35W TAU: 500=.1061 380=.2968

MONTHLY MEAN .083 1 .152 1 2.212 BETA .018

MONTH DAY 500 N 380 N ALPHA DAY MONTH
7 2 .115 1 .265 1 3.029 2 7

MONTHLY MEAN .115 1 .265 1 3.029 BETA .014

MONTH DAY 500 N 380 N ALPHA DAY MONTH
9 24 .075 1 .109 1 1.372 24 9
9 25 .087 1 .108 1 .790 25 9

MONTHLY MEAN .081 2 .109 2 1.071 BETA .039

NCDC 13250 MERIDIAN, MISSISSIPPI ALTITUDE 94 M YEAR 1981
WMO 72234 32 20N 88 45W TAU: 500=.1554 380=.4453

MONTH DAY 500 N 380 N ALPHA DAY MONTH
2 3 .076 3 .089 3 .555 3 2

2 20 .081 2 .077 2 .143 20 2

2 23 .107 3 .124 3 .533 23 2

2 24 .085 2 .108 2 .870 24 2

2 26 .209 2 .305 2 1.387 26 2

2 27 .320 2 .472 2 1.411 27 2

MONTHLY MEAN .138 14 .183 14 1.017 BETA .068

MONTH DAY 500 N 380 N ALPHA DAY MONTH
3 2 .138 1 .170 1 .773 2 3

3 9 .118 1 .202 1 1.972 9 3

3 10 .409 1 .543 1 1.034 10 3

3 11 .246 1 .360 1 1.382 11 3

3 14 .149 3 .207 3 1.194 14 3

3 16 .066 2 .089 2 1.096 16 3

3 19 .153 3 .204 3 1.055 19 3

3 24 .210 3 .310 3 1.415 24 3

3 26 .230 2 .296 2 .927 26 3

3 30 .109 2 .135 2 .777 30 3

MONTHLY MEAN .171 19 .236 19 1.162 BETA .077

MONTH DAY 500 N 380 N ALPHA DAY MONTH
4 2 .101 2 .126 2 .806 2 4

4 6 .108 2 .153 2 1.269 6 4

4 15 .262 3 .380 3 1.360 15 4

4 21 .454 1 .609 1 1.070 21 4

4 26 .129 2 .210 2 1.792 26 4

4 27 .187 1 .289 1 1.592 27 4

MONTHLY MEAN .191 11 .274 11 1.318 BETA .077

MONTH DAY 500 N 380 N ALPHA DAY MONTH
5 2 .122 1 .275 1 2.960 2 5

5 13 .347 1 .513 1 1.429 13 5

5 21 .169 1 .246 1 1.370 21 5

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 13250
WMO 72234

MERIDIAN, MISSISSIPPI
32 20N 88 45W

TAU: 500=.1554

ALTITUDE
380=.4453

94 M YEAR 1981

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH	BETA
5	22	.223	1	.328	1	1.401	22	5	
5	28	.364	1	.514	1	1.257	28	5	
MONTHLY MEAN		.245	5	.375	5	1.553	BETA		.083
6	18	.219	1	.298	1	1.116	18	6	
6	28	.506	2	.774	2	1.551	28	6	
MONTHLY MEAN		.410	3	.616	3	1.477	BETA		.147
7	16	.358	1	.501	1	1.229	16	7	
7	18	.438	1	.611	1	1.211	18	7	
7	25	.415	1	.548	1	1.016	25	7	
7	29	.275	1	.376	1	1.138	29	7	
MONTHLY MEAN		.371	4	.509	4	1.148	BETA		.168
8	13	.700	1	1.025	1	1.388	13	8	
MONTHLY MEAN		.700	1	1.025	1	1.388	BETA		.268
9	5	.480	2	.639	2	1.046	5	9	
9	9	.151	2	.229	2	1.523	9	9	
9	17	.369	1	.516	1	1.226	17	9	
9	18	.161	2	.229	2	1.283	18	9	
9	19	.582	2	.972	2	1.870	19	9	
9	28	.560	1	.738	1	1.005	28	9	
9	29	.377	1	.412	1	.322	29	9	
MONTHLY MEAN		.369	11	.528	11	1.309	BETA		.149
10	2	.116	3	.166	3	1.309	2	10	
10	4	.153	3	.231	3	1.516	4	10	
10	5	.207	2	.271	2	.988	5	10	
10	13	.341	2	.452	2	1.033	13	10	
10	16	.327	1	.431	1	1.007	16	10	
10	17	.429	1	.487	1	.467	17	10	
10	18	.110	2	.156	2	1.282	18	10	
10	20	.081	3	.102	3	.827	20	10	
10	28	.259	1	.336	1	.938	28	10	
10	29	.176	3	.233	3	1.022	29	10	
10	31	.231	2	.267	2	.531	31	10	
MONTHLY MEAN		.190	23	.250	23	.998	BETA		.095
11	6	.158	1	.164	1	.149	6	11	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 13250 WMO 72234	MERIDIAN, MISSISSIPPI 32 20N 88 45W				TAU: 500=.1554	ALTITUDE 380=.4453	94 M	YEAR 1981
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
11 7	.076	2	.092	2	.664		7 11	
11 8	.104	2	.128	2	.780		8 11	
11 10	.243	3	.361	3	1.439		10 11	
11 11	.101	1	.120	1	.630		11 11	
11 14	.205	3	.290	3	1.258		14 11	
11 18	.196	2	.263	2	1.059		18 11	
MONTHLY MEAN	.168	14	.229	14	1.117		BETA	.078
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
12 3	.093	2	.107	2	.498		3 12	
12 4	.089	2	.091	2	.069		4 12	
12 7	.094	2	.112	2	.631		7 12	
12 8	.084	3	.117	3	1.225		8 12	
12 9	.062	2	.076	2	.741		9 12	
12 15	.166	2	.193	2	.542		15 12	
12 16	.130	2	.175	2	1.078		16 12	
12 18	.052	1	.061	1	.600		18 12	
12 29	.202	2	.217	2	.259		29 12	
MONTHLY MEAN	.110	18	.131	18	.635		BETA	.071
NCDC 13260 WMO 67585	MFUWE, ZAMBIA 13 16S 31 56E				TAU: 500=.1479	ALTITUDE 380=.4209	570 M	YEAR 1981
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
2 27	.304	1	.568	1	2.273		27 2	
MONTHLY MEAN	.304	1	.568	1	2.273		BETA	.063
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
8 11	.744	1	.634	1	-.584		11 8	
MONTHLY MEAN	.744	1	.634	1	-.584		BETA	1.115
NCDC 13275 WMO	MIAMI, FLORIDA 25 44N 80 10W				TAU: 500=.1568	ALTITUDE 380=.4492	17 M	YEAR 1981
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
1 12	.310	3	.297	3	-.157		12 1	
1 22	.297	2	.280	2	-.217		22 1	
1 29	.338	3	.293	3	-.528		29 1	
1 30	.324	3	.298	3	-.311		30 1	
MONTHLY MEAN	.319	11	.293	11	-.314		BETA	.397
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
2 5	.349	3	.313	3	-.397		5 2	
2 19	.354	1	.289	1	-.740		19 2	
2 23	.278	1	.253	1	-.336		23 2	
2 24	.381	3	.352	3	-.282		24 2	
2 25	.496	3	.545	3	.342		25 2	
2 26	.394	2	.342	2	-.521		26 2	
2 27	.459	3	.472	3	.103		27 2	
MONTHLY MEAN	.405	16	.392	16	-.115		BETA	.438

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 13275 MIAMI, FLORIDA ALTITUDE 17 M YEAR 1981
HMO 25 44N 80 10W TAU: 500=.1568 380=.4492

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
3	2	.344	2	.289	2	-.635	2	3
3	3	.298	1	.295	1	-.044	3	3
3	6	.442	2	.379	2	-.568	6	3
3	20	.410	2	.363	2	-.441	20	3
3	24	.437	3	.387	3	-.439	24	3
3	25	.501	1	.459	1	-.322	25	3
3	27	.465	1	.418	1	-.389	27	3
3	31	.500	1	.441	1	-.457	31	3
MONTHLY MEAN		.420	13	.372	13	-.448	BETA .573	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
4	9	.403	1	.362	1	-.389	9	4
4	10	.528	1	.468	1	-.441	10	4
4	13	.445	1	.367	1	-.706	13	4
4	14	.430	2	.375	2	-.498	14	4
4	15	.592	1	.501	1	-.607	15	4
4	21	.639	2	.631	2	-.042	21	4
4	22	.621	1	.660	1	.223	22	4
4	28	.603	1	.518	1	-.559	28	4
4	29	.651	2	.601	2	-.294	29	4
MONTHLY MEAN		.553	12	.507	12	-.311	BETA .685	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
5	1	1.822	1	2.195	1	.680	1	5
5	4	.502	1	.445	1	-.439	4	5
5	5	.562	1	.475	1	-.607	5	5
5	6	.542	1	.507	1	-.241	6	5
5	12	.805	2	.864	2	.258	12	5
5	13	.721	1	.830	1	.510	13	5
5	14	.735	3	.733	3	-.009	14	5
5	15	.684	2	.690	2	.033	15	5
5	20	.562	1	.468	1	-.664	20	5
5	28	.689	1	.634	1	-.306	28	5
MONTHLY MEAN		.756	14	.776	14	.095	BETA .708	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
6	15	.583	1	.487	1	-.655	15	6
6	17	1.024	1	1.039	1	.054	17	6
6	25	.482	2	.405	2	-.634	25	6
MONTHLY MEAN		.643	4	.584	4	-.348	BETA .818	

NCDC 13287 MINICOY, INDIA ALTITUDE 2 M YEAR 1981
HMO 8 18N 73 OE TAU: 500=.1570

MONTH	DAY	500	N	ALPHA	DAY	MONTH
1	6	.210	1		6	1
1	7	.205	3		7	1
1	8	.203	5		8	1
1	9	.346	1		9	1
1	10	.181	5		10	1
1	11	.140	6		11	1
1	12	.224	2		12	1
1	13	.128	4		13	1
1	14	.145	3		14	1
1	15	.129	4		15	1

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 13287
WMO 43369

MINICOY, INDIA
8 18N

73 OE TAU: 500=.1570

ALTITUDE 2 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
1	16	.254	3		16	1	
1	18	.284	2		18	1	
1	19	.073	1		19	1	
1	22	.021	1		22	1	
1	23	.117	1		23	1	
1	28	.131	1		28	1	
1	30	.253	2		30	1	
1	31	.122	3		31	1	
MONTHLY MEAN		.175	48	1.300	BETA		.071

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
2	2	.160	2		2	2	
2	7	.174	1		7	2	
2	8	.357	2		8	2	
2	9	.320	2		9	2	
2	10	.181	4		10	2	
2	12	.219	4		12	2	
2	13	.173	1		13	2	
2	14	.157	4		14	2	
2	15	.195	4		15	2	
2	16	.256	2		16	2	
2	17	.295	1		17	2	
2	18	.121	3		18	2	
2	19	.214	5		19	2	
2	20	.182	5		20	2	
2	21	.279	3		21	2	
2	22	.157	4		22	2	
2	23	.229	2		23	2	
2	25	.133	2		25	2	
2	26	.200	3		26	2	
2	27	.145	1		27	2	
2	28	.262	4		28	2	
MONTHLY MEAN		.206	59	1.300	BETA		.084

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
3	1	.326	6		1	3	
3	2	.304	4		2	3	
3	3	.206	3		3	3	
3	4	.226	7		4	3	
3	5	.231	6		5	3	
3	6	.159	5		6	3	
3	7	.269	6		7	3	
3	8	.166	5		8	3	
3	10	.273	6		10	3	
3	11	.283	7		11	3	
3	12	.187	2		12	3	
3	13	.239	6		13	3	
3	14	.239	7		14	3	
3	15	.160	5		15	3	
3	16	.267	5		16	3	
3	17	.172	2		17	3	
3	18	.272	2		18	3	
3	19	.207	6		19	3	
3	20	.169	6		20	3	
3	21	.260	3		21	3	
3	22	.278	4		22	3	
3	23	.306	1		23	3	
3	24	.223	6		24	3	
3	25	.185	7		25	3	
3	26	.210	4		26	3	
3	27	.256	5		27	3	
3	28	.230	7		28	3	
3	29	.243	6		29	3	
3	30	.306	5		30	3	
MONTHLY MEAN		.236	144	1.300	BETA		.096

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 13287
WMO 43369

MINICOY, INDIA
8 18N

73 OE TAU: 500=.1570

ALTITUDE 2 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH
4	1	.292	2		1	4
4	4	.372	1		4	4
4	5	.326	2		5	4
4	6	.344	3		6	4
4	9	.629	2		9	4
4	11	.380	1		11	4
4	12	.324	1		12	4
4	15	.143	6		15	4
4	16	.229	5		16	4
4	18	.181	3		18	4
4	19	.277	4		19	4
4	20	.270	4		20	4
4	21	.283	3		21	4
4	22	.275	6		22	4
4	23	.205	2		23	4
4	24	.245	4		24	4
4	25	.177	3		25	4
4	26	.205	7		26	4
4	27	.254	5		27	4
4	28	.316	2		28	4
4	30	.148	5		30	4
MONTHLY MEAN		.251	71	1.300	BETA	.102

NCDC 13300
WMO 72773

MISSOULA, MONTANA
46 55N 114 5W

TAU: 500=.1414

ALTITUDE 980 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH
2	10	.094	1		10	2
MONTHLY MEAN		.094	1	1.300	BETA	.038
4	18	.156	2		18	4
MONTHLY MEAN		.156	2	1.300	BETA	.063
6	26	.182	3		26	6
MONTHLY MEAN		.182	3	1.300	BETA	.074
7	9	.140	4		9	7
MONTHLY MEAN		.140	4	1.300	BETA	.057
8	1	.150	2		1	8
8	6	.136	3		6	8
8	7	.146	3		7	8
8	10	.094	1		10	8
8	11	.161	1		11	8
8	12	.352	5		12	8
8	13	.328	2		13	8
8	20	.148	1		20	8
8	23	.308	3		23	8
8	26	1.698	1		26	8
8	28	1.034	3		28	8

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 13300
WMO 72773

MISSOULA, MONTANA
46 55N 114 5W

TAU: 500=.1414

ALTITUDE 980 M YEAR 1981

MONTHLY MEAN	.387	25		1.300		BETA	.157
MONTH DAY	500	N		ALPHA		DAY MONTH	
9 7	.355	1				7 9	
9 8	.441	2				8 9	
9 11	.389	1				11 9	
9 12	.457	2				12 9	
9 14	.431	2				14 9	
9 15	.451	1				15 9	
9 17	.510	2				17 9	
9 18	.526	1				18 9	

MONTHLY MEAN	.450	12		1.300		BETA	.183
MONTH DAY	500	N		ALPHA		DAY MONTH	
10 1	.484	1				1 10	
10 18	.132	2				18 10	
10 19	.122	3				19 10	
10 20	.122	2				20 10	
10 21	.133	1				21 10	
10 22	1.346	1				22 10	
10 24	.191	2				24 10	
10 27	.143	3				27 10	
10 28	.035	1				28 10	
10 29	.110	3				29 10	
10 30	.175	2				30 10	

MONTHLY MEAN	.208	21		1.300		BETA	.084
MONTH DAY	500	N		ALPHA		DAY MONTH	
11 2	1.110	2				2 11	

MONTHLY MEAN	1.110	2		1.300		BETA	.451
--------------	-------	---	--	-------	--	------	------

NCDC 13310
WMO 42314

MOHANBARI, INDIA
27 29N 95 1E

TAU: 500=.1552

ALTITUDE 111 M YEAR 1981

MONTHLY MEAN	.314	65		1.300		BETA	.128
MONTH DAY	500	N		ALPHA		DAY MONTH	
1 1	.383	4				1 1	
1 2	.387	4				2 1	
1 5	.524	2				5 1	
1 9	.212	4				9 1	
1 10	.189	4				10 1	
1 11	.185	4				11 1	
1 15	.210	4				15 1	
1 16	.200	4				16 1	
1 17	.244	4				17 1	
1 18	.337	4				18 1	
1 19	.296	4				19 1	
1 20	.397	2				20 1	
1 21	.419	4				21 1	
1 22	.497	1				22 1	
1 24	.453	4				24 1	
1 27	.321	4				27 1	
1 28	.357	4				28 1	
1 29	.331	4				29 1	
2 3	.313	4				3 2	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 13310
HMO 42314

MOHANBARI, INDIA
27 29N 95 1E TAU: 500=.1552

ALTITUDE 111 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
2	4	.326	4		4	2	
2	5	.389	4		5	2	
2	6	.372	4		6	2	
2	8	.432	1		8	2	
2	9	.613	1		9	2	
2	12	.338	1		12	2	
2	13	.269	4		13	2	
2	14	.922	1		14	2	
2	15	.418	2		15	2	
2	16	.703	1		16	2	
2	17	.677	1		17	2	
2	19	.517	4		19	2	
2	20	.487	4		20	2	
2	23	.693	2		23	2	
2	24	.930	3		24	2	
2	25	1.710	1		25	2	
2	26	1.595	1		26	2	
2	27	.586	4		27	2	
2	28	.332	1		28	2	
MONTHLY MEAN		.529	48	1.300	BETA		.215

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
3	2	.593	1		2	3	
3	3	.342	1		3	3	
3	4	.390	4		4	3	
3	5	.416	4		5	3	
3	6	.461	4		6	3	
3	7	.750	1		7	3	
3	9	.370	2		9	3	
3	10	.297	1		10	3	
3	11	.547	1		11	3	
3	14	.907	1		14	3	
3	15	.416	4		15	3	
3	19	.336	4		19	3	
3	24	.264	1		24	3	
3	25	.808	1		25	3	
3	30	.288	5		30	3	
MONTHLY MEAN		.422	35	1.300	BETA		.171

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
4	8	.737	2		8	4	
4	11	.738	3		11	4	
4	13	.434	3		13	4	
4	14	.541	3		14	4	
4	20	.359	1		20	4	
4	21	.237	4		21	4	
4	22	.358	4		22	4	
4	23	.518	2		23	4	
4	26	.413	4		26	4	
4	27	.474	3		27	4	
4	28	.353	1		28	4	
4	29	.270	1		29	4	
4	30	.524	1		30	4	
MONTHLY MEAN		.457	32	1.300	BETA		.185

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
5	4	.323	4		4	5	
5	5	.432	5		5	5	
5	6	.502	2		6	5	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 13310
WMO 42314

MOHANBARI, INDIA
27 29N

95 1E TAU: 500=.1552

ALTITUDE 111 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
5	7	.157	2		7	5	
5	8	.287	4		8	5	
5	10	.428	1		10	5	
5	12	.081	1		12	5	
5	13	.250	1		13	5	
5	14	.342	3		14	5	
5	19	.367	3		19	5	
5	20	.302	5		20	5	
5	21	.354	4		21	5	
5	26	.087	1		26	5	
5	31	.342	3		31	5	
MONTHLY MEAN		.329	39	1.300	BETA		.134
6	1	.277	5		1	6	
6	2	.257	5		2	6	
6	5	.182	1		5	6	
6	9	.330	1		9	6	
6	10	.266	1		10	6	
6	12	.276	2		12	6	
6	13	.332	1		13	6	
6	16	.267	4		16	6	
6	17	.191	2		17	6	
6	18	.049	1		18	6	
6	19	.272	5		19	6	
6	20	.325	5		20	6	
6	22	.101	2		22	6	
MONTHLY MEAN		.258	35	1.300	BETA		.105
7	6	.567	3		6	7	
7	8	.526	3		8	7	
7	18	.081	1		18	7	
7	19	.515	2		19	7	
7	22	.422	1		22	7	
7	31	.235	1		31	7	
MONTHLY MEAN		.459	11	1.300	BETA		.186
8	2	.220	1		2	8	
8	3	.057	1		3	8	
8	4	.262	1		4	8	
8	5	.808	2		5	8	
8	6	.261	1		6	8	
8	8	.396	2		8	8	
8	14	.251	1		14	8	
8	21	.498	1		21	8	
MONTHLY MEAN		.395	10	1.300	BETA		.161
9	4	.326	1		4	9	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 13310
WMO 42314

MOHANBARI, INDIA
27 29N

95 1E TAU: 500=.1552

ALTITUDE 111 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
9	16	.415	1		16	9	
9	17	.526	1		17	9	
9	18	.490	2		18	9	
9	19	.409	3		19	9	
9	21	.125	1		21	9	
9	22	.122	1		22	9	
9	23	.244	2		23	9	
9	24	.324	4		24	9	
9	25	.374	4		25	9	
9	26	.435	4		26	9	
MONTHLY MEAN		.364	24	1.300			.148

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
10	3	.178	1		3	10	
10	4	.389	3		4	10	
10	5	.320	3		5	10	
10	7	.165	1		7	10	
10	8	.571	1		8	10	
10	9	.469	3		9	10	
10	10	.155	1		10	10	
10	12	.290	3		12	10	
10	13	.324	4		13	10	
10	14	.405	2		14	10	
10	17	.432	3		17	10	
10	18	.407	4		18	10	
10	19	.256	4		19	10	
10	20	.374	4		20	10	
10	21	.458	4		21	10	
10	22	.490	2		22	10	
10	23	.448	3		23	10	
10	24	.259	1		24	10	
10	25	.460	2		25	10	
10	29	.427	4		29	10	
10	30	.410	3		30	10	
MONTHLY MEAN		.380	56	1.300			.154

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
11	1	.363	4		1	11	
11	2	.390	4		2	11	
11	3	.544	2		3	11	
11	6	.379	3		6	11	
11	7	.436	4		7	11	
11	8	.379	4		8	11	
11	9	.292	4		9	11	
11	10	.307	4		10	11	
11	11	.308	4		11	11	
11	12	.236	4		12	11	
11	13	.197	3		13	11	
11	15	.238	4		15	11	
11	16	.277	4		16	11	
11	17	.264	4		17	11	
11	18	.380	1		18	11	
11	22	.120	1		22	11	
11	23	.319	1		23	11	
11	24	.288	3		24	11	
11	25	.266	4		25	11	
11	26	.175	1		26	11	
11	27	.277	4		27	11	
11	28	.351	3		28	11	
11	29	.278	4		29	11	
11	30	.263	4		30	11	
MONTHLY MEAN		.308	78	1.300			.125

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 13310
WMO 42314

MOHANBARI, INDIA
27 29N

95 1E TAU: 500=.1552

ALTITUDE 111 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH
12	2	.282	4		2	12
12	3	.292	4		3	12
12	4	.429	4		4	12
12	5	.372	4		5	12
12	6	.957	4		6	12
12	18	1.784	1		18	12
12	19	.275	4		19	12
12	20	.378	2		20	12
12	21	.452	2		21	12
12	22	.367	4		22	12
12	23	.126	1		23	12
12	24	.559	2		24	12
12	25	.356	4		25	12
12	26	.270	4		26	12
12	27	.354	4		27	12
12	28	.328	4		28	12
12	29	.439	4		29	12
12	30	.370	2		30	12
12	31	.540	2		31	12

MONTHLY MEAN .423 60 1.300 BETA .172

NCDC 13315
WMO 16134

MONTE CIMONE, ITALY
44 12N

10 42E TAU: 500=.1243

ALTITUDE 2165 M YEAR 1981
380=.3507

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
1	10	.024	1	.041	1	1.945	10	1
1	11	.038	3	.072	3	2.313	11	1
1	16	.030	1	.063	1	2.757	16	1
1	21	.099	1	.159	1	1.749	21	1
1	22	.068	3	.108	3	1.661	22	1
1	24	.033	1	.044	1	1.059	24	1
1	25	.055	1	.123	1	2.956	25	1
1	26	.030	1	.043	1	1.361	26	1
1	27	.075	3	.168	3	2.927	27	1
1	30	.038	1	.067	1	2.058	30	1
1	31	.027	2	.048	2	2.148	31	1

MONTHLY MEAN .050 18 .093 18 2.250 BETA .011

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
2	2	.032	3	.060	3	2.316	2	2
2	3	.033	5	.056	5	1.980	3	2
2	14	.046	2	.091	2	2.434	14	2
2	15	.032	1	.053	1	1.857	15	2
2	17	.060	1	.126	1	2.728	17	2
2	22	.071	2	.104	2	1.398	22	2
2	24	.068	4	.110	4	1.721	24	2
2	26	.092	1	.167	1	2.165	26	2
2	27	.036	3	.054	3	1.456	27	2

MONTHLY MEAN .048 22 .082 22 1.927 BETA .013

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
3	10	.056	1	.074	1	1.020	10	3
3	13	.050	1	.068	1	1.092	13	3
3	22	.033	1	.039	1	.598	22	3
3	23	.096	1	.155	1	1.742	23	3
3	24	.025	1	.056	1	2.934	24	3

MONTHLY MEAN .052 5 .078 5 1.488 BETA .019

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 13315
WMO 16134

MONTE CIMONE, ITALY
44 12N 10 42E

TAU: 500=.1243

ALTITUDE 2165 M YEAR 1981
380=.3507

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
4	9	.301	1	.334	1	.371	9	4
4	10	.151	1	.240	1	1.686	10	4
4	12	.088	4	.152	4	1.977	12	4
4	13	.104	3	.189	3	2.183	13	4
4	14	.102	2	.166	2	1.771	14	4
4	19	.111	2	.189	2	1.949	19	4
4	30	.089	1	.157	1	2.082	30	4
MONTHLY MEAN		.116	14	.187	14	1.720	BETA .035	
MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
5	1	.149	3	.206	3	1.188	1	5
5	5	.091	2	.130	2	1.293	5	5
5	21	.183	1	.271	1	1.429	21	5
5	29	.127	1	.202	1	1.683	29	5
MONTHLY MEAN		.134	7	.193	7	1.326	BETA .054	
MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
6	1	.336	1	.486	1	1.348	1	6
6	2	.176	1	.234	1	1.040	2	6
6	3	.176	1	.234	1	1.047	3	6
6	9	.131	3	.219	3	1.865	9	6
6	11	.249	1	.393	1	1.662	11	6
6	12	.152	3	.226	3	1.450	12	6
6	13	.254	1	.396	1	1.617	13	6
6	15	.091	1	.157	1	1.994	15	6
6	16	.095	1	.188	1	2.501	16	6
6	29	.099	6	.150	6	1.525	29	6
6	30	.107	5	.173	5	1.767	30	6
MONTHLY MEAN		.140	24	.216	24	1.594	BETA .046	
MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
7	2	.207	6	.269	6	.956	2	7
7	4	.079	5	.135	5	1.961	4	7
7	5	.130	2	.251	2	2.397	5	7
7	7	.289	1	.546	1	2.320	7	7
7	10	.378	1	.590	1	1.622	10	7
7	12	.236	1	.354	1	1.485	12	7
7	21	.094	4	.166	4	2.055	21	7
7	22	.091	2	.139	2	1.551	22	7
7	23	.161	4	.279	4	2.006	23	7
7	24	.255	1	.406	1	1.693	24	7
7	25	.116	1	.192	1	1.846	25	7
7	26	.231	1	.366	1	1.668	26	7
7	28	.104	1	.183	1	2.044	28	7
7	29	.180	1	.308	1	1.953	29	7
7	30	.074	1	.124	1	1.866	30	7
MONTHLY MEAN		.155	32	.247	32	1.702	BETA .048	
MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
8	2	.214	1	.310	1	1.352	2	8
8	3	.250	2	.356	2	1.287	3	8
8	15	.158	1	.323	1	2.611	15	8

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 13315
WMO 16134

MONTE CIMONE, ITALY
44 12N 10 42E

TAU: 500=.1243

ALTITUDE 2165 M YEAR 1981
380=.3507

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
8	16	.091	1	.174	1	2.348	16	8
8	19	.167	1	.245	1	1.382	19	8
8	22	.159	1	.258	1	1.757	22	8
8	23	.099	1	.160	1	1.735	23	8
8	26	.254	1	.492	1	2.407	26	8
8	27	.089	1	.179	1	2.544	27	8
MONTHLY MEAN							BETA	.049

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
9	8	.111	2	.185	2	1.874	8	9
9	12	.145	2	.138	2	.188	12	9
9	15	.058	1	.127	1	2.878	15	9
9	30	.085	1	.168	1	2.476	30	9
MONTHLY MEAN							BETA	.044

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
10	13	.050	7	.106	7	2.759	13	10
10	16	.038	3	.087	3	3.012	16	10
10	17	.110	3	.171	3	1.615	17	10
10	18	.077	3	.134	3	2.018	18	10
10	22	.060	1	.103	1	1.981	22	10
10	31	.034	2	.063	2	2.244	31	10
MONTHLY MEAN							BETA	.013

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
11	1	.036	8	.071	8	2.496	1	11
11	2	.040	3	.065	3	1.766	2	11
11	3	.034	10	.065	10	2.346	3	11
11	4	.030	1	.060	1	2.562	4	11
11	5	.036	3	.075	3	2.706	5	11
11	6	.034	4	.069	4	2.538	6	11
11	7	.056	3	.113	3	2.534	7	11
11	9	.051	3	.108	3	2.720	9	11
11	10	.116	5	.198	5	1.954	10	11
11	11	.038	1	.083	1	2.895	11	11
11	12	.050	1	.097	1	2.448	12	11
11	14	.198	2	.190	2	.155	14	11
MONTHLY MEAN							BETA	.014

NCDC 14010
WMO 42867

NAGPUR, INDIA
21 6N 79 3E

TAU: 500=.1520

ALTITUDE 310 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH
1	1	.210	2		1	1
1	2	.230	3		2	1
1	3	.307	3		3	1
1	4	.247	3		4	1
1	5	.277	1		5	1
1	6	.235	3		6	1
1	7	.176	4		7	1
1	8	.168	4		8	1
1	9	.195	4		9	1
1	13	.243	3		13	1
1	14	.212	3		14	1
1	15	.184	3		15	1
1	16	.184	3		16	1
1	19	.227	1		19	1

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 14010
HMO 42867

NAGPUR, INDIA
21 6N 79 3E

TAU: 500=.1520

ALTITUDE 310 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH
1	20	.181	3		20	1
1	21	.220	3		21	1
1	22	.256	3		22	1
1	23	.225	1		23	1
1	24	.161	1		24	1
1	25	.149	1		25	1
1	26	.288	2		26	1
1	28	.337	3		28	1
1	29	.239	4		29	1
1	30	.247	3		30	1
1	31	.247	2		31	1
MONTHLY MEAN		.226	66	1.300	BETA .092	

MONTH	DAY	500	N	ALPHA	DAY	MONTH
2	1	.231	3		1	2
2	2	.243	4		2	2
2	3	.243	4		3	2
2	4	.268	6		4	2
2	5	.256	3		5	2
2	6	.230	3		6	2
2	7	.255	3		7	2
2	9	.265	4		9	2
2	10	.267	4		10	2
2	11	.229	2		11	2
2	12	.224	3		12	2
2	13	.229	3		13	2
2	14	.223	2		14	2
2	15	.274	3		15	2
2	17	.295	1		17	2
2	18	.300	2		18	2
2	19	.313	4		19	2
2	20	.311	4		20	2
2	22	.276	2		22	2
2	23	.335	4		23	2
2	24	.285	3		24	2
2	25	.385	2		25	2
2	26	.241	4		26	2
2	27	.265	3		27	2
2	28	.364	2		28	2
MONTHLY MEAN		.270	78	1.300	BETA .110	

MONTH	DAY	500	N	ALPHA	DAY	MONTH
3	1	.244	3		1	3
3	2	.256	4		2	3
3	3	.270	4		3	3
3	5	.285	3		5	3
3	6	.320	1		6	3
3	9	.314	2		9	3
3	10	.230	1		10	3
3	11	.246	2		11	3
3	13	.232	2		13	3
3	17	.288	1		17	3
3	23	.309	1		23	3
3	24	.259	3		24	3
3	25	.215	4		25	3
3	26	.267	2		26	3
3	27	.293	2		27	3
3	28	.274	3		28	3
3	29	.279	3		29	3
3	30	.236	1		30	3
MONTHLY MEAN		.264	42	1.300	BETA .107	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 14010
WMO 42867

NAGPUR, INDIA
21 6N 79 3E TAU: 500=.1520

ALTITUDE 310 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH
4	1	.275	3		1	4
4	2	.258	3		2	4
4	3	.267	4		3	4
4	4	.264	2		4	4
4	5	.230	1		5	4
4	6	.351	4		6	4
4	7	.276	5		7	4
4	8	.310	4		8	4
4	9	.288	4		9	4
4	10	.315	4		10	4
4	11	.321	4		11	4
4	12	.361	3		12	4
4	13	.280	4		13	4
4	14	.352	4		14	4
4	15	.297	4		15	4
4	16	.242	4		16	4
4	17	.255	4		17	4
4	18	.319	3		18	4
4	19	.338	3		19	4
4	21	.347	2		21	4
4	24	.324	2		24	4
4	26	.358	2		26	4
4	27	.230	1		27	4
4	28	.349	1		28	4

MONTHLY MEAN .300 75 1.300 BETA .122

MONTH	DAY	500	N	ALPHA	DAY	MONTH
5	1	.312	2		1	5
5	2	.295	2		2	5
5	3	.325	1		3	5
5	4	.281	1		4	5
5	5	.266	2		5	5
5	6	.256	3		6	5
5	11	.310	2		11	5
5	12	.324	1		12	5
5	13	.259	2		13	5
5	14	.355	2		14	5
5	15	.290	3		15	5
5	17	.341	2		17	5
5	20	.369	1		20	5
5	21	.369	1		21	5
5	22	.368	1		22	5
5	25	.468	1		25	5
5	26	.367	1		26	5
5	27	.351	2		27	5
5	28	.222	1		28	5

MONTHLY MEAN .313 31 1.300 BETA .127

MONTH	DAY	500	N	ALPHA	DAY	MONTH
6	3	.317	2		3	6
6	9	.290	2		9	6

MONTHLY MEAN .303 4 1.300 BETA .123

MONTH	DAY	500	N	ALPHA	DAY	MONTH
10	12	.223	3		12	10
10	13	.215	4		13	10
10	14	.177	1		14	10
10	15	.263	3		15	10
10	16	.131	1		16	10
10	18	.278	3		18	10
10	20	.288	3		20	10
10	21	.241	4		21	10

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 14010 NAGPUR, INDIA ALTITUDE 310 M YEAR 1981
WMO 42867 21 6N 79 3E TAU: 500=.1520

MONTH	DAY	500	N	ALPHA	DAY	MONTH
10	22	.179	1		22	10
10	23	.284	4		23	10
10	24	.402	1		24	10
10	26	.248	2		26	10
MONTHLY MEAN		.250	30	1.300	BETA .102	

MONTH	DAY	500	N	ALPHA	DAY	MONTH
11	1	.346	1		1	11
11	3	.210	1		3	11
11	5	.244	2		5	11
11	6	.158	4		6	11
11	8	.082	1		8	11
11	9	.190	4		9	11
11	10	.140	1		10	11
11	15	.169	1		15	11
11	16	.189	4		16	11
11	17	.198	4		17	11
11	18	.203	4		18	11
11	19	.225	4		19	11
11	20	.229	4		20	11
11	21	.246	4		21	11
11	22	.251	3		22	11
11	23	.168	4		23	11
11	24	.172	4		24	11
11	25	.197	4		25	11
11	26	.212	4		26	11
11	27	.184	3		27	11
11	28	.221	4		28	11
11	29	.225	3		29	11
11	30	.261	3		30	11
MONTHLY MEAN		.206	71	1.300	BETA .084	

MONTH	DAY	500	N	ALPHA	DAY	MONTH
12	2	.376	1		2	12
12	4	.139	1		4	12
12	10	.180	4		10	12
12	11	.173	4		11	12
12	12	.231	4		12	12
12	13	.175	4		13	12
12	14	.253	4		14	12
MONTHLY MEAN		.208	22	1.300	BETA .084	

NCDC 15100 OAK RIDGE, TENNESSEE ALTITUDE 276 M YEAR 1980
WMO 36 6N 84 11W TAU: 500=.1526 380=.4359

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
11	6	.202	1	.280	1	1.199	6	11
11	12	.285	1	.498	1	2.040	12	11
MONTHLY MEAN		.243	2	.389	2	1.715	BETA .074	

NCDC 15100 OAK RIDGE, TENNESSEE ALTITUDE 276 M YEAR 1981
WMO 36 6N 84 11W TAU: 500=.1526 380=.4359

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
1	2	.108	1	.200	1	2.248	2	1
1	8	.126	1	.246	1	2.438	8	1
1	12	.104	1	.223	1	2.783	12	1
1	28	.155	1	.280	1	2.164	28	1

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 15100 OAK RIDGE, TENNESSEE ALTITUDE 276 M YEAR 1981
WMO 36 6N 84 11W TAU: 500=.1526 380=.4359

MONTHLY MEAN .123 4 .237 4 2.391 BETA .023

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
2	3	.129	1	.224	1	2.018	3	2
2	4	.203	1	.313	1	1.578	4	2
2	5	.140	1	.216	1	1.577	5	2
2	9	.196	1	.371	1	2.325	9	2
2	13	.107	1	.249	1	3.094	13	2
2	20	.232	1	.404	1	2.013	20	2
2	24	.176	1	.340	1	2.400	24	2
2	25	.179	1	.312	1	2.024	25	2
2	26	.274	1	.490	1	2.122	26	2
2	27	.329	1	.462	1	1.241	27	2

MONTHLY MEAN .196 10 .338 10 1.979 BETA .050

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
3	3	.172	1	.292	1	1.925	3	3
3	9	.185	1	.357	1	2.394	9	3
3	10	.326	1	.581	1	2.100	10	3
3	11	.207	1	.404	1	2.444	11	3
3	12	.150	1	.316	1	2.712	12	3
3	17	.149	1	.328	1	2.872	17	3
3	25	.229	1	.458	1	2.530	25	3
3	31	.189	1	.377	1	2.506	31	3

MONTHLY MEAN .201 8 .389 8 2.408 BETA .038

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
4	2	.160	1	.348	1	2.819	2	4
4	16	.437	1	.686	1	1.645	16	4
4	24	.202	1	.439	1	2.826	24	4
4	27	.184	1	.399	1	2.816	27	4
4	28	.185	1	.374	1	2.565	28	4

MONTHLY MEAN .234 5 .449 5 2.380 BETA .045

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
5	5	.456	1	.751	1	1.814	5	5
5	15	.418	1	.653	1	1.620	15	5
5	21	.259	1	.511	1	2.471	21	5
5	22	.217	1	.543	1	3.333	22	5
5	29	.321	1	.581	1	2.162	29	5

MONTHLY MEAN .334 5 .608 5 2.175 BETA .074

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
6	16	.386	1	.654	1	1.920	16	6
6	18	.470	1	.786	1	1.877	18	6
6	19	.533	1	.964	1	2.156	19	6
6	23	.341	1	.596	1	2.035	23	6
6	24	.301	1	.713	1	3.140	24	6
6	25	.466	1	.847	1	2.183	25	6
6	29	.831	1	1.332	1	1.719	29	6

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 15100 WMO	OAK RIDGE, TENNESSEE					TAU: 500=.1526	ALTITUDE 380=.4359	276 M	YEAR 1981
	36	6N	84	11W					
MONTHLY MEAN	.475	7	.842	7	2.082		BETA	.112	
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH		
7 9	.505	1	.863	1	1.951		9 7		
7 13	1.036	1	1.778	1	1.968		13 7		
7 15	1.127	1	1.645	1	1.376		15 7		
7 20	.814	1	1.227	1	1.496		20 7		
7 23	.513	1	.886	1	1.994		23 7		
MONTHLY MEAN	.799	5	1.280	5	1.716		BETA	.243	
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH		
8 5	1.270	1	1.678	1	1.015		5 8		
8 10	.590	1	1.041	1	2.065		10 8		
8 24	.885	1	1.428	1	1.744		24 8		
MONTHLY MEAN	.915	3	1.382	3	1.503		BETA	.323	
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH		
9 17	.340	1	.668	1	2.461		17 9		
9 22	.415	1	.854	1	2.633		22 9		
9 23	.467	1	.742	1	1.691		23 9		
9 24	.183	1	.458	1	3.350		24 9		
MONTHLY MEAN	.351	4	.680	4	2.413		BETA	.066	
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH		
12 8	.129	1	.292	1	2.971		8 12		
12 11	.193	1	.418	1	2.820		11 12		
MONTHLY MEAN	.161	2	.355	2	2.881		BETA	.022	
NCDC 16150 WMO 72688	PENDLETON, OREGON					TAU: 500=.1497	ALTITUDE 380=.4267	456 M	YEAR 1981
	45	41N	118	51W					
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH		
2 28	.127	2	.132	2	.154		28 2		
MONTHLY MEAN	.127	2	.132	2	.154		BETA	.114	
NCDC 16275 WMO 71845	PICKLE LAKE, CANADA					TAU: 494=.1589	ALTITUDE 381=.4271	369 M	YEAR 1981
	51	28N	90	12W					
MONTH DAY	494	N	381	N	ALPHA		DAY MONTH		
2 16	.145	2	.231	2	1.775		16 2		
MONTHLY MEAN	.145	2	.231	2	1.775		BETA	.042	
MONTH DAY	494	N	381	N	ALPHA		DAY MONTH		
3 2	.197	2	.303	2	1.663		2 3		
3 3	.227	3	.331	3	1.453		3 3		
3 4	.281	1	.389	1	1.247		4 3		
3 15	.205	2	.319	2	1.703		15 3		
3 23	.293	3	.460	3	1.739		23 3		
3 24	.189	1	.292	1	1.669		24 3		
3 26	.244	1	.482	1	2.617		26 3		

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 16275
WMO 71845

PICKLE LAKE, CANADA
51 28N 90 12W

TAU: 494=.1589

ALTITUDE 369 M YEAR 1981
381=.4271

MONTH DAY	494	N	381	N	ALPHA	DAY MONTH
3 27	.264	1	.385	1	1.453	27 3
3 31	.262	1	.354	1	1.153	31 3
MONTHLY MEAN	.240	15	.368	15	1.641	BETA .076
MONTH DAY	494	N	381	N	ALPHA	DAY MONTH
4 6	.267	2	.420	2	1.743	6 4
4 8	.234	1	.372	1	1.777	8 4
4 9	.327	2	.488	2	1.543	9 4
4 14	.342	3	.529	3	1.682	14 4
4 18	.474	1	.704	1	1.523	18 4
4 19	.359	1	.588	1	1.903	19 4
4 20	.325	3	.516	3	1.784	20 4
4 28	.422	2	.639	2	1.598	28 4
4 30	.417	2	.621	2	1.530	30 4
MONTHLY MEAN	.349	17	.537	17	1.661	BETA .108
MONTH DAY	494	N	381	N	ALPHA	DAY MONTH
5 6	.437	1	.605	1	1.248	6 5
5 7	.426	1	.601	1	1.323	7 5
5 9	.433	3	.638	3	1.492	9 5
5 10	.426	2	.631	2	1.511	10 5
5 11	.375	3	.579	3	1.665	11 5
5 12	.461	2	.710	2	1.667	12 5
5 13	.483	3	.710	3	1.483	13 5
5 14	.454	2	.667	2	1.485	14 5
5 16	.434	3	.697	3	1.827	16 5
5 17	.502	1	.782	1	1.704	17 5
5 18	.501	3	.734	3	1.473	18 5
5 19	.493	2	.749	2	1.607	19 5
5 20	.596	1	.898	1	1.576	20 5
5 26	.465	3	.702	3	1.591	26 5
5 27	.601	2	.913	2	1.611	27 5
5 31	.518	2	.797	2	1.659	31 5
MONTHLY MEAN	.469	34	.706	34	1.576	BETA .154
MONTH DAY	494	N	381	N	ALPHA	DAY MONTH
6 1	.448	2	.686	2	1.637	1 6
6 2	.491	2	.746	2	1.608	2 6
6 3	.537	2	.775	2	1.411	3 6
6 4	.564	3	.802	3	1.354	4 6
6 9	.427	1	.612	1	1.388	9 6
6 10	.514	1	.761	1	1.511	10 6
6 19	.517	2	.718	2	1.265	19 6
6 21	.467	2	.703	2	1.577	21 6
6 22	.430	1	.610	1	1.344	22 6
6 23	.486	2	.719	2	1.511	23 6
6 26	.526	1	.742	1	1.324	26 6
6 27	.428	1	.582	1	1.181	27 6
6 30	.458	1	.623	1	1.190	30 6
MONTHLY MEAN	.494	21	.716	21	1.430	BETA .180
7 1	.449	2	.678	2	1.584	1 7

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 16275
WMO 71845

PICKLE LAKE, CANADA
51 29N 90 12W

TAU: 494=.1589

ALTITUDE 369 M YEAR 1981
381=.4271

MONTH	DAY	494	N	381	N	ALPHA	DAY	MONTH
7	2	.392	1	.589	1	1.570	2	7
7	4	.490	3	.747	3	1.618	4	7
7	7	.529	2	.831	2	1.741	7	7
7	9	.427	3	.646	3	1.596	9	7
7	10	.345	1	.519	1	1.571	10	7
7	12	.548	2	.835	2	1.627	12	7
7	13	.415	2	.635	2	1.634	13	7
7	14	.397	3	.598	3	1.572	14	7
7	18	.579	1	.806	1	1.274	18	7
7	19	.606	1	.914	1	1.582	19	7
7	20	.489	3	.777	3	1.789	20	7
7	21	.453	2	.680	2	1.563	21	7
7	22	.515	2	.810	2	1.742	22	7
7	23	.433	3	.666	3	1.654	23	7
7	27	.449	3	.672	3	1.550	27	7
7	28	.354	1	.530	1	1.556	28	7
7	30	.477	1	.721	1	1.590	30	7
MONTHLY MEAN		.462	36	.704	36	1.621	BETA	.147

MONTH	DAY	494	N	381	N	ALPHA	DAY	MONTH
8	1	.411	2	.630	2	1.647	1	8
8	3	.454	2	.687	2	1.594	3	8
8	4	.457	2	.692	2	1.594	4	8
8	11	.555	1	.811	1	1.465	11	8
8	14	.423	1	.668	1	1.760	14	8
8	16	.311	2	.477	2	1.645	16	8
8	18	.514	2	.775	2	1.581	18	8
8	21	.465	3	.753	3	1.854	21	8
8	22	.361	1	.587	1	1.871	22	8
8	23	.441	1	.651	1	1.504	23	8
8	24	.467	1	.705	1	1.583	24	8
8	25	.515	2	.764	2	1.519	25	8
8	26	.703	1	1.004	1	1.369	26	8
8	27	.574	3	.831	3	1.420	27	8
8	28	.667	1	.904	1	1.174	28	8
8	29	.557	1	.850	1	1.629	29	8
8	30	.532	1	.785	1	1.498	30	8
MONTHLY MEAN		.487	27	.732	27	1.570	BETA	.161

MONTH	DAY	494	N	381	N	ALPHA	DAY	MONTH
9	2	.349	2	.557	2	1.802	2	9
9	4	.332	2	.512	2	1.666	4	9
9	5	.240	1	.389	1	1.857	5	9
9	8	.299	1	.498	1	1.969	8	9
9	9	.410	1	.664	1	1.854	9	9
9	10	.336	2	.548	2	1.885	10	9
9	12	.453	1	.577	1	.931	12	9
9	21	.299	2	.443	2	1.508	21	9
9	22	.444	1	.685	1	1.669	22	9
9	25	.330	1	.487	1	1.501	25	9
9	29	.348	1	.547	1	1.750	29	9
MONTHLY MEAN		.344	15	.531	15	1.676	BETA	.105

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 16275 PICKLE LAKE, CANADA ALTITUDE 369 M YEAR 1981
WMO 71845 51 28N 90 12W TAU: 494=.1589 381=.4271

MONTH DAY	494	N	381	N	ALPHA	DAY MONTH
10 14	.136	1	.221	1	1.886	14 10
10 21	.144	1	.233	1	1.862	21 10
MONTHLY MEAN	.140	2	.227	2	1.874	BETA .037

NCDC 16655 PORT BLAIR, INDIA ALTITUDE 79 M YEAR 1981
WMO 43333 11 40N 92 43E TAU: 500=.1557

MONTH DAY	500	N	ALPHA	DAY MONTH
2 6	.107	1		6 2
2 7	.343	2		7 2
2 8	.273	4		8 2
2 9	.532	2		9 2
2 12	.170	3		12 2
2 13	.117	3		13 2
2 14	.047	2		14 2
2 15	.060	3		15 2
2 17	.096	1		17 2
2 18	.109	4		18 2
2 19	.084	4		19 2
2 20	.086	3		20 2
2 21	.104	3		21 2
2 22	.135	3		22 2
2 24	.049	3		24 2
2 25	.073	3		25 2
2 26	.039	1		26 2
2 27	.169	3		27 2
MONTHLY MEAN	.142	48	1.300	BETA .058

MONTH DAY	500	N	ALPHA	DAY MONTH
3 1	.004	1		1 3
3 2	.062	4		2 3
3 3	.089	4		3 3
3 4	.151	3		4 3
3 7	.083	4		7 3
3 8	.155	1		8 3
3 9	.123	4		9 3
3 10	.162	1		10 3
3 11	.084	3		11 3
3 12	.127	2		12 3
3 13	.134	2		13 3
3 14	.136	2		14 3
3 15	.061	3		15 3
3 16	.108	3		16 3
3 17	.086	1		17 3
3 18	.068	4		18 3
3 20	.073	1		20 3
3 21	.022	2		21 3
3 22	.054	1		22 3
3 24	.072	2		24 3
3 25	.033	3		25 3
3 26	.080	2		26 3
3 27	.093	3		27 3
3 28	.054	2		28 3
3 29	.082	1		29 3
3 30	.043	2		30 3
3 31	.206	5		31 3

MONTHLY MEAN .095 66 1.300 BETA .039

MONTH DAY	500	N	ALPHA	DAY MONTH
4 1	.200	4		1 4
4 2	.154	1		2 4
4 3	.262	1		3 4
4 23	.036	2		23 4
4 24	.002	1		24 4
4 25	.051	3		25 4

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 16655 WMO 43333		PORT BLAIR, INDIA 11 40N 92 43E				TAU: 500=.1557	ALTITUDE 79 M	YEAR 1981
MONTH	DAY	500	N			ALPHA	DAY	MONTH
4	27	.024	1				27	4
4	28	.102	3				28	4
4	29	.077	3				29	4
4	30	.169	1				30	4
MONTHLY MEAN		.108	20			1.300	BETA	.044
MONTH	DAY	500	N			ALPHA	DAY	MONTH
5	1	.149	1				1	5
5	2	.311	2				2	5
MONTHLY MEAN		.257	3			1.300	BETA	.104
MONTH	DAY	500	N			ALPHA	DAY	MONTH
10	21	.036	2				21	10
10	22	.013	1				22	10
MONTHLY MEAN		.029	3			1.300	BETA	.012
MONTH	DAY	500	N			ALPHA	DAY	MONTH
12	16	.178	1				16	12
12	21	.055	1				21	12
12	22	.208	2				22	12
12	24	.014	1				24	12
12	25	.082	1				25	12
12	27	.098	3				27	12
12	28	.238	1				28	12
MONTHLY MEAN		.128	10			1.300	BETA	.052

NCDC 18100 WMO 72306		RALEIGH, N.C. - AIRPORT 35 52N 78 47W				TAU: 500=.1549	ALTITUDE 134 M	YEAR 1981
MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
1	1	.223	1	.393	1	2.061	1	1
1	2	.108	1	.193	1	2.120	2	1
1	4	.120	1	.207	1	1.983	4	1
1	5	.085	3	.176	3	2.663	5	1
1	7	.139	1	.249	1	2.112	7	1
1	11	.063	1	.066	1	.170	11	1
1	22	.119	2	.148	2	.799	22	1
1	23	.142	1	.185	1	.960	23	1
1	24	.101	2	.117	2	.543	24	1
1	25	.063	2	.088	2	1.242	25	1
1	29	.173	2	.318	2	2.215	29	1
1	31	.110	3	.230	3	2.707	31	1
MONTHLY MEAN		.114	20	.193	20	1.897	BETA	.031
MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
2	12	.084	1	.189	1	2.940	12	2
2	13	.126	2	.251	2	2.503	13	2
2	14	.182	2	.338	2	2.249	14	2
2	15	.140	3	.262	3	2.293	15	2
2	20	.226	1	.409	1	2.162	20	2
2	21	.160	1	.287	1	2.126	21	2
2	23	.108	1	.193	1	2.123	23	2
2	25	.152	2	.281	2	2.232	25	2

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 18100
WMO 72306

RALEIGH, N.C. - AIRPORT
35 52N 78 47W TAU: 500=.1549

ALTITUDE 134 M YEAR 1981
380=.4432

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
2	27	.158	1	.268	1	1.922	27	2
MONTHLY MEAN							BETA	.031
3	8	.179	3	.298	3	1.849	8	3
3	9	.212	2	.442	2	2.666	9	3
3	10	.308	3	.521	3	1.917	10	3
3	11	.378	1	.360	1	.177	11	3
3	12	.197	3	.352	3	2.117	12	3
3	13	.187	1	.378	1	2.568	13	3
3	14	.155	3	.319	3	2.642	14	3
3	15	.165	2	.325	2	2.480	15	3
3	17	.142	2	.290	2	2.590	17	3
3	31	.133	1	.269	1	2.565	31	3
MONTHLY MEAN							BETA	.047
4	2	.215	1	.427	1	2.510	2	4
4	6	.211	2	.418	2	2.484	6	4
4	7	.145	1	.317	1	2.846	7	4
4	8	.234	2	.475	2	2.571	8	4
4	10	.368	3	.639	3	2.004	10	4
4	11	.695	1	1.080	1	1.604	11	4
4	24	.286	1	.475	1	1.853	24	4
4	26	.261	1	.475	1	2.191	26	4
4	28	.426	1	.759	1	2.108	28	4
MONTHLY MEAN							BETA	.070
5	2	.236	3	.451	3	2.367	2	5
5	3	.189	2	.438	2	3.069	3	5
5	12	.320	3	.504	3	1.657	12	5
5	13	.522	1	.810	1	1.599	13	5
5	14	.374	3	.700	3	2.288	14	5
5	17	.453	1	.722	1	1.701	17	5
5	21	.225	1	.509	1	2.974	21	5
5	22	.236	2	.446	2	2.319	22	5
5	23	.398	1	.745	1	2.288	23	5
5	24	.560	2	1.016	2	2.174	24	5
5	25	.577	2	1.009	2	2.034	25	5
5	29	.261	1	.469	1	2.132	29	5
MONTHLY MEAN							BETA	.079
6	15	.560	2	1.075	2	2.378	15	6
6	16	.426	2	.754	2	2.079	16	6
6	17	.583	4	.957	4	1.807	17	6
6	21	.499	2	.857	2	1.969	21	6
6	24	.807	2	1.278	2	1.674	24	6
6	27	.349	6	.642	6	2.224	27	6
6	28	.254	6	.548	6	2.801	28	6
6	29	.413	4	.841	4	2.592	29	6

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 18100
MMO 72306

RALEIGH, N.C. - AIRPORT
35 52N 78 47W TAU: 500=.1549

ALTITUDE 134 M YEAR 1981
380=.4432

MONTHLY MEAN .435 28 .795 28 2.196 BETA .095

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
7	7	.822	1	.979	1	.636	7	7
7	10	1.001	1	1.648	1	1.817	10	7
7	11	1.500	1	2.081	1	1.194	11	7
7	12	1.242	1	1.730	1	1.209	12	7
7	13	1.501	1	1.900	1	.859	13	7
7	22	.688	1	1.143	1	1.852	22	7
7	23	.937	1	1.293	1	1.171	23	7
7	26	.904	1	1.211	1	1.063	26	7
7	27	.990	1	1.564	1	1.668	27	7
7	28	.753	1	1.114	1	1.427	28	7
7	30	.622	1	.948	1	1.537	30	7

MONTHLY MEAN .996 11 1.419 11 1.289 BETA .408

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
8	2	.360	1	.686	1	2.349	2	8
8	13	1.070	1	1.462	1	1.138	13	8
8	14	1.042	1	1.509	1	1.351	14	8
8	25	.978	2	1.497	2	1.552	25	8
8	26	.476	1	.850	1	2.113	26	8
8	27	.463	2	.768	2	1.839	27	8
8	28	.381	2	.681	2	2.117	28	8

MONTHLY MEAN .659 10 1.040 10 1.661 BETA .208

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
9	9	.267	2	.483	2	2.162	9	9
9	11	.449	2	.698	2	1.610	11	9
9	13	.489	2	.808	2	1.828	13	9
9	14	.750	2	1.076	2	1.316	14	9
9	18	.883	1	1.172	1	1.032	18	9
9	19	.328	2	.611	2	2.274	19	9
9	20	.274	2	.558	2	2.588	20	9
9	21	.905	3	1.312	3	1.353	21	9
9	22	.577	1	.947	1	1.807	22	9
9	24	.217	1	.400	1	2.229	24	9
9	25	.202	1	.356	1	2.056	25	9
9	28	.171	3	.356	3	2.678	28	9
9	29	.333	2	.579	2	2.018	29	9

MONTHLY MEAN .454 24 .729 24 1.731 BETA .137

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
10	2	.212	2	.428	2	2.562	2	10
10	3	.108	1	.194	1	2.131	3	10
10	13	.201	1	.380	1	2.321	13	10
10	14	.230	2	.378	2	1.812	14	10
10	16	.191	1	.362	1	2.332	16	10
10	17	.175	1	.382	1	2.841	17	10
10	19	.145	1	.331	1	3.005	19	10
10	21	.123	1	.303	1	3.282	21	10
10	28	.154	2	.333	2	2.809	28	10

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 18100
WMO 72306

RALEIGH, N.C. - AIRPORT
35 52N 78 47W TAU: 500=.1549

ALTITUDE 134 M YEAR 1981
380=.4432

MONTHLY MEAN .178 12 .352 12 2.491 BETA .032

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
11	7	.130	2	.293	2	2.969	7	11
11	8	.124	1	.282	1	3.004	8	11
11	13	.141	1	.276	1	2.436	13	11
11	14	.120	1	.273	1	2.983	14	11
11	15	.126	1	.236	1	2.281	15	11
11	18	.144	3	.283	3	2.466	18	11
11	19	.123	1	.267	1	2.809	19	11
11	20	.177	1	.276	1	1.624	20	11
11	21	.146	1	.207	1	1.271	21	11
11	22	.169	3	.230	3	1.121	22	11
11	23	.092	2	.163	2	2.082	23	11
11	25	.241	3	.431	3	2.125	25	11
11	26	.214	3	.390	3	2.191	26	11
11	28	.138	1	.246	1	2.103	28	11

MONTHLY MEAN .160 24 .291 24 2.175 BETA .035

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
12	3	.144	1	.316	1	2.864	3	12
12	6	.107	1	.215	1	2.526	6	12
12	8	.145	3	.303	3	2.691	8	12
12	9	.154	2	.327	2	2.739	9	12
12	10	.151	2	.302	2	2.538	10	12
12	11	.104	1	.208	1	2.545	11	12
12	13	.154	3	.287	3	2.279	13	12
12	16	.158	3	.273	3	1.982	16	12
12	19	.110	1	.281	1	3.408	19	12
12	20	.154	1	.338	1	2.858	20	12

MONTHLY MEAN .144 18 .289 18 2.530 BETA .025

NCDC 19010
WMO 71600

SABLE ISLAND, CANADA
43 56N 60 1W TAU: 498=.1593

ALTITUDE 4 M YEAR 1981
381=.4456

MONTH	DAY	498	N	381	N	ALPHA	DAY	MONTH
1	7	.289	1	.356	1	.775	7	1
1	9	.181	3	.226	3	.814	9	1
1	22	.110	1	.143	1	.976	22	1

MONTHLY MEAN .189 5 .235 5 .821 BETA .106

MONTH	DAY	498	N	381	N	ALPHA	DAY	MONTH
2	1	.109	3	.129	3	.630	1	2
2	4	.198	1	.247	1	.831	4	2
2	7	.212	2	.293	2	1.206	7	2
2	10	.236	2	.302	2	.918	10	2
2	14	.147	1	.188	1	.929	14	2
2	17	.191	1	.238	1	.827	17	2
2	19	.277	2	.345	2	.829	19	2

MONTHLY MEAN .193 12 .245 12 .898 BETA .103

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 19010
WMO 71600

SABLE ISLAND, CANADA
43 56N 60 1W

TAU: 498=.1593

ALTITUDE
381=.4456

4 M YEAR 1981

MONTH	DAY	498	N	381	N	ALPHA	DAY	MONTH
3	13	.279	1	.380	1	1.160	13	3
3	16	.384	1	.468	1	.741	16	3
3	18	.335	2	.378	2	.449	18	3
3	23	.194	3	.218	3	.431	23	3
3	24	.182	3	.209	3	.518	24	3
3	26	.148	3	.164	3	.362	26	3
3	27	.175	1	.204	1	.586	27	3
MONTHLY MEAN		.220	14	.256	14	.560	BETA .149	
4	1	.166	3	.179	3	.288	1	4
4	3	.219	2	.237	2	.297	3	4
4	8	.260	3	.313	3	.688	8	4
4	9	.380	1	.558	1	1.436	9	4
4	14	.234	2	.270	2	.528	14	4
4	17	.315	1	.393	1	.831	17	4
4	28	.282	1	.317	1	.426	28	4
MONTHLY MEAN		.243	13	.289	13	.645	BETA .155	
5	8	.270	4	.307	4	.481	8	5
5	9	.307	3	.365	3	.647	9	5
5	10	.285	3	.313	3	.340	10	5
5	19	.310	3	.364	3	.598	19	5
5	20	.308	1	.360	1	.578	20	5
5	21	.308	1	.356	1	.549	21	5
MONTHLY MEAN		.293	15	.338	15	.526	BETA .203	
6	1	.327	3	.331	3	.048	1	6
6	2	.295	1	.369	1	.832	2	6
6	12	.519	1	.597	1	.527	12	6
6	14	.345	2	.382	2	.375	14	6
6	18	.335	3	.374	3	.403	18	6
6	19	.221	3	.278	3	.855	19	6
6	25	.356	2	.421	2	.625	25	6
MONTHLY MEAN		.325	15	.368	15	.470	BETA .234	
7	2	.465	2	.533	2	.505	2	7
7	9	.310	1	.346	1	.410	9	7
7	25	.335	1	.363	1	.290	25	7
7	26	.291	1	.305	1	.173	26	7
MONTHLY MEAN		.373	5	.416	5	.401	BETA .282	
8	1	.291	1	.300	1	.121	1	8
8	2	.316	1	.367	1	.563	2	8

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 19010
WMO 71600

SABLE ISLAND, CANADA
43 56N 60 1W

TAU: 498=.1593

ALTITUDE
381=.4456

4 M YEAR 1981

MONTH	DAY	498	N	381	N	ALPHA	DAY	MONTH
8	3	.321	3	.349	3	.308	3	8
8	10	.297	2	.291	2	-.081	10	8
8	20	.234	2	.228	2	-.098	20	8
8	26	.322	1	.338	1	.176	26	8
8	27	.329	1	.351	1	.243	27	8
8	28	.301	3	.311	3	.120	28	8
8	31	.201	1	.183	1	-.333	31	8
MONTHLY MEAN		.293	15	.304	15	.141	BETA	.265

MONTH	DAY	498	N	381	N	ALPHA	DAY	MONTH
9	1	.272	1	.264	1	-.107	1	9
9	11	.307	2	.304	2	-.042	11	9
9	12	.420	1	.476	1	.474	12	9
9	14	.457	2	.519	2	.477	14	9
9	20	.563	2	.666	2	.628	20	9
9	21	.405	3	.506	3	.830	21	9
9	22	.413	2	.457	2	.378	22	9
9	26	.229	2	.218	2	-.180	26	9
9	27	.179	1	.166	1	-.281	27	9
MONTHLY MEAN		.377	16	.422	16	.427	BETA	.280

MONTH	DAY	498	N	381	N	ALPHA	DAY	MONTH
10	4	.337	3	.383	3	.475	4	10
10	6	.228	3	.202	3	-.457	6	10
10	8	.290	1	.298	1	.100	8	10
10	14	.264	1	.283	1	.258	14	10
10	15	.268	1	.265	1	-.045	15	10
10	21	.256	2	.262	2	.089	21	10
10	22	.241	1	.271	1	.423	22	10
MONTHLY MEAN		.273	12	.283	12	.138	BETA	.247

MONTH	DAY	498	N	381	N	ALPHA	DAY	MONTH
12	26	.166	2	.170	2	.104	26	12
MONTHLY MEAN		.166	2	.170	2	.104	BETA	.154

NCDC 19100
WMO 72655

SAINT CLOUD, MINNESOTA
45 33N 94 4W

TAU: 500=.1520

ALTITUDE
380=.4340

314 M YEAR 1981

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
1	1	.102	1	.166	1	1.779	1	1
1	9	.125	2	.202	2	1.742	9	1
1	11	.103	3	.177	3	1.950	11	1
1	13	.137	2	.192	2	1.236	13	1
1	15	.155	1	.264	1	1.932	15	1
1	16	.152	1	.202	1	1.023	16	1
1	17	.101	1	.178	1	2.048	17	1
1	18	.109	2	.192	2	2.063	18	1
1	19	.145	1	.241	1	1.845	19	1
1	20	.162	1	.274	1	1.921	20	1
1	21	.100	1	.167	1	1.872	21	1
1	22	.105	1	.171	1	1.780	22	1
1	24	.122	1	.168	1	1.150	24	1

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 19100
WMO 72655

SAINT CLOUD, MINNESOTA
45 33N 94 4W TAU: 500=.1520

ALTITUDE 314 M YEAR 1981
380=.4340

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
1	29	.121	2	.214	2	2.075	29	1
1	30	.143	1	.227	1	1.682	30	1
MONTHLY MEAN		.123	21	.199	21	1.761	BETA .036	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
2	4	.201	1	.259	1	.937	4	2
2	9	.174	1	.297	1	1.945	9	2
2	11	.191	1	.308	1	1.728	11	2
2	18	.141	2	.219	2	1.606	18	2
2	24	.139	1	.272	1	2.442	24	2
MONTHLY MEAN		.165	6	.262	6	1.700	BETA .051	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
3	5	.153	1	.257	1	1.885	5	3
3	6	.166	1	.306	1	2.240	6	3
3	7	.149	1	.277	1	2.262	7	3
3	11	.216	1	.359	1	1.858	11	3
3	15	.167	1	.324	1	2.419	15	3
3	16	.211	1	.318	1	1.503	16	3
3	20	.171	2	.331	2	2.414	20	3
3	22	.258	2	.444	2	1.988	22	3
MONTHLY MEAN		.192	10	.339	10	2.079	BETA .045	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
4	5	.185	2	.339	2	2.211	5	4
4	12	.332	2	.571	2	1.980	12	4
4	14	.213	2	.376	2	2.065	14	4
4	15	.261	1	.430	1	1.826	15	4
4	19	.258	1	.442	1	1.963	19	4
MONTHLY MEAN		.247	8	.431	8	2.021	BETA .061	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
5	1	.235	1	.486	1	2.648	1	5
5	5	.316	2	.529	2	1.881	5	5
5	10	.248	2	.459	2	2.249	10	5
5	11	.342	1	.496	1	1.355	11	5
5	13	.312	1	.541	1	1.999	13	5
5	14	.374	1	.678	1	2.172	14	5
5	18	.341	1	.603	1	2.085	18	5
5	19	.329	3	.566	3	1.973	19	5
5	20	.377	3	.613	3	1.767	20	5
5	30	.383	1	.639	1	1.865	30	5
MONTHLY MEAN		.327	16	.560	16	1.958	BETA .084	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
6	4	.383	1	.637	1	1.858	4	6
6	5	.226	2	.416	2	2.217	5	6

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 19100
WMO 72655

SAINT CLOUD, MINNESOTA
45 33N 94 4W TAU: 500=.1520

ALTITUDE 314 M YEAR 1981
380=.4340

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
6	10	.284	2	.530	2	2.269	10	6
6	16	.342	1	.582	1	1.942	16	6
6	24	.216	1	.426	1	2.478	24	6
6	25	.283	2	.498	2	2.053	25	6
6	26	.302	1	.548	1	2.174	26	6
6	29	.247	1	.461	1	2.271	29	6
6	30	.240	2	.439	2	2.207	30	6
MONTHLY MEAN		.274	13	.494	13	2.152	BETA .062	
7	1	.224	1	.449	1	2.542	1	7
7	4	.315	1	.594	1	2.311	4	7
7	5	.522	2	.820	2	1.644	5	7
7	6	.439	2	.651	2	1.437	6	7
7	7	.958	1	1.454	1	1.521	7	7
7	9	.453	2	.678	2	1.470	9	7
7	10	.427	1	.778	1	2.186	10	7
7	25	.087	1	.207	1	3.139	25	7
MONTHLY MEAN		.440	11	.707	11	1.730	BETA .133	
8	15	.527	1	.815	1	1.590	15	8
8	18	.316	1	.566	1	2.127	18	8
8	19	.320	1	.574	1	2.130	19	8
MONTHLY MEAN		.387	3	.652	3	1.894	BETA .104	
10	2	.194	1	.347	1	2.116	2	10
10	15	.200	2	.356	2	2.092	15	10
10	16	.204	2	.350	2	1.960	16	10
10	27	.165	2	.289	2	2.041	27	10
10	31	.170	2	.260	2	1.560	31	10
MONTHLY MEAN		.186	9	.317	9	1.950	BETA .048	
11	1	.185	1	.317	1	1.968	1	11
11	2	.145	1	.253	1	2.032	2	11
11	6	.154	2	.258	2	1.873	6	11
11	7	.131	1	.228	1	2.036	7	11
11	8	.137	1	.238	1	2.014	8	11
11	9	.148	1	.241	1	1.770	9	11
11	11	.142	2	.243	2	1.971	11	11
11	12	.189	2	.302	2	1.705	12	11
11	13	.245	1	.419	1	1.959	13	11
11	14	.318	1	.527	1	1.842	14	11
11	16	.123	1	.208	1	1.920	16	11
MONTHLY MEAN		.172	14	.288	14	1.894	BETA .046	
12	14	.130	2	.189	2	1.364	14	12

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 19100
WMO 72655

SAINT CLOUD, MINNESOTA
45 33N 94 4W

ALTITUDE
314 M

YEAR 1981

TAU: 500=.1520 380=.4340

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
12	15	.139	2	.232	2	1.851	15	12
12	17	.144	1	.232	1	1.730	17	12
12	18	.184	1	.312	1	1.912	18	12
12	21	.093	1	.148	1	1.696	21	12
12	24	.157	1	.244	1	1.598	24	12
MONTHLY MEAN		.140	8	.222	8	1.689	BETA .043	

NCDC 19200
WMO 72433

SALEM, ILLINOIS
38 39N 88 58W

ALTITUDE
177 M

YEAR 1981

TAU: 500=.1543 380=.4409

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
2	8	.157	1	.172	1	.328	8	2
2	12	.145	1	.281	1	2.420	12	2
2	13	.131	1	.199	1	1.534	13	2
2	14	.122	1	.191	1	1.634	14	2
2	15	.317	1	.441	1	1.197	15	2
2	20	.097	1	.151	1	1.630	20	2
2	24	.122	2	.185	2	1.521	24	2
2	25	.185	1	.290	1	1.633	25	2
2	26	.239	1	.378	1	1.660	26	2
MONTHLY MEAN		.164	10	.247	10	1.503	BETA .058	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
3	2	.188	1	.264	1	1.241	2	3
3	7	.197	2	.298	2	1.513	7	3
3	8	.240	1	.345	1	1.319	8	3
3	10	.296	1	.447	1	1.502	10	3
3	12	.170	1	.249	1	1.390	12	3
3	13	.219	1	.308	1	1.237	13	3
3	14	.191	1	.290	1	1.522	14	3
3	16	.156	1	.226	1	1.356	16	3
3	17	.193	1	.291	1	1.499	17	3
3	18	.142	1	.195	1	1.175	18	3
3	24	.313	1	.479	1	1.556	24	3
MONTHLY MEAN		.208	12	.307	12	1.418	BETA .078	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
5	2	.366	1	.541	1	1.420	2	5
5	3	.395	1	.661	1	1.872	3	5
5	15	.342	1	.492	1	1.328	15	5
5	16	.505	1	.817	1	1.752	16	5
5	20	.325	1	.483	1	1.448	20	5
5	21	.314	1	.459	1	1.389	21	5
5	22	.346	1	.536	1	1.601	22	5
5	25	.342	1	.482	1	1.255	25	5
5	28	.670	1	.964	1	1.330	28	5
MONTHLY MEAN		.400	9	.604	9	1.498	BETA .142	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
6	7	.221	1	.240	1	.296	7	6
6	15	.555	1	.840	1	1.513	15	6
6	17	.217	1	.308	1	1.274	17	6

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 19200
WMO 72433

SALEM, ILLINOIS
38 39N 88 58W

TAU: 500=.1543

ALTITUDE 177 M YEAR 1981
380=.4409

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
6	18	.156	1	.169	1	.283	18	6
6	23	.240	1	.371	1	1.587	23	6
6	26	.269	2	.405	2	1.493	26	6
6	27	.352	1	.528	1	1.485	27	6
MONTHLY MEAN		.285	8	.408	8	1.313	BETA .115	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
7	8	.319	1	.446	1	1.217	8	7
7	10	.389	1	.543	1	1.214	10	7
7	21	.325	1	.459	1	1.262	21	7
7	22	.538	1	.752	1	1.220	22	7
7	30	.268	2	.382	2	1.290	30	7
7	31	.374	1	.587	1	1.646	31	7
MONTHLY MEAN		.354	7	.507	7	1.307	BETA .143	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
8	6	.319	1	.473	1	1.438	6	8
8	9	.486	1	.725	1	1.459	9	8
8	11	.441	1	.691	1	1.633	11	8
8	18	.692	1	.793	1	.496	18	8
8	21	.651	1	1.091	1	1.879	21	8
8	24	.687	1	.948	1	1.175	24	8
MONTHLY MEAN		.546	6	.787	6	1.331	BETA .217	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
9	8	.290	1	.396	1	1.143	8	9
9	9	.235	2	.280	2	.626	9	9
9	10	.257	1	.392	1	1.538	10	9
9	12	.885	1	1.476	1	1.862	12	9
9	18	.308	1	.433	1	1.232	18	9
9	19	.556	1	.878	1	1.668	19	9
9	21	.347	2	.539	2	1.609	21	9
9	22	.410	2	.613	2	1.464	22	9
9	23	.291	2	.441	2	1.519	23	9
9	27	.206	2	.327	2	1.681	27	9
9	28	.192	2	.259	2	1.088	28	9
9	30	.625	1	.929	1	1.445	30	9
MONTHLY MEAN		.349	18	.523	18	1.476	BETA .126	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
10	2	.237	2	.322	2	1.114	2	10
10	3	.398	1	.709	1	2.102	3	10
10	8	.243	1	.310	1	.887	8	10
10	19	.217	2	.391	2	2.141	19	10
10	20	.231	2	.368	2	1.702	20	10
10	21	.281	1	.514	1	2.198	21	10
10	23	.222	1	.329	1	1.431	23	10
10	24	.277	2	.413	2	1.459	24	10
10	29	.334	1	.708	1	2.738	29	10

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 19200
WMO 72433

SALEM, ILLINOIS
38 39N 88 58W

TAU: 500=.1543

ALTITUDE 380=.4409

177 M YEAR 1981

MONTHLY MEAN .262 13 .428 13 1.788 BETA .076

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
11 6	.230	2	.433	2	2.302	6 11
11 7	.197	1	.335	1	1.937	7 11
11 11	.237	1	.461	1	2.421	11 11
11 13	.381	2	.537	2	1.253	13 11
11 14	.340	2	.705	2	2.658	14 11

MONTHLY MEAN .292 8 .518 8 2.091 BETA .069

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
12 6	.262	1	.449	1	1.972	6 12
12 7	.280	1	.429	1	1.551	7 12
12 11	.182	1	.259	1	1.286	11 12
12 18	.150	2	.186	2	.786	18 12
12 19	.230	1	.364	1	1.671	19 12
12 23	.179	2	.242	2	1.088	23 12

MONTHLY MEAN .202 8 .295 8 1.383 BETA .077

NCDC 19420
WMO 16360

SANTA MARIA DI LEUCA, ITALY
39 49N 18 21E

TAU: 500=.1554

ALTITUDE 380=.4446

104 M YEAR 1981

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
1 1	.227	2	.307	2	1.105	1 1
1 3	.061	2	.106	2	2.037	3 1
1 4	.140	2	.196	2	1.217	4 1
1 5	.200	2	.274	2	1.147	5 1
1 6	.122	1	.147	1	.696	6 1
1 9	.213	2	.277	2	.958	9 1
1 14	.114	3	.155	3	1.121	14 1
1 15	.218	2	.306	2	1.229	15 1
1 17	.102	3	.183	3	2.105	17 1
1 24	.144	3	.241	3	1.878	24 1
1 25	.240	1	.314	1	.982	25 1
1 26	.164	2	.266	2	1.766	26 1
1 28	.281	2	.377	2	1.064	28 1
1 31	.112	1	.146	1	.955	31 1

MONTHLY MEAN .163 28 .234 28 1.323 BETA .065

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
2 1	.132	2	.197	2	1.462	1 2
2 3	.420	3	.549	3	.976	3 2
2 4	.194	6	.294	6	1.514	4 2
2 7	.201	4	.268	4	1.043	7 2
2 8	.132	1	.248	1	2.298	8 2
2 9	.141	6	.206	6	1.395	9 2
2 10	.107	4	.186	4	2.007	10 2
2 16	.245	2	.351	2	1.313	16 2
2 18	.324	2	.487	2	1.487	18 2
2 19	.344	3	.509	3	1.429	19 2
2 20	.264	4	.399	4	1.501	20 2
2 22	.137	1	.228	1	1.862	22 2
2 25	.367	1	.517	1	1.254	25 2

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 19420
WMO 16360

SANTA MARIA DI LEUCA, ITALY
39 49N 18 21E TAU: 500=.1554

ALTITUDE 104 M YEAR 1981
380=.4446

MONTHLY MEAN .221 39 .324 39 1.395 BETA .084

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
3	2	.209	1	.347	1	1.847	2	3
3	6	.294	2	.431	2	1.387	6	3
3	9	.267	5	.390	5	1.382	9	3
3	10	.321	5	.463	5	1.329	10	3
3	11	.167	3	.255	3	1.531	11	3
3	13	.275	3	.439	3	1.707	13	3
3	14	.182	3	.257	3	1.270	14	3
3	16	.256	1	.354	1	1.177	16	3
3	19	.225	1	.346	1	1.564	19	3
3	23	.482	2	.723	2	1.473	23	3
3	25	.276	5	.454	5	1.810	25	3
3	26	.513	5	.664	5	.938	26	3
3	28	.288	1	.503	1	2.034	28	3
3	29	.234	1	.470	1	2.537	29	3
3	30	.253	6	.357	6	1.258	30	3
3	31	.253	4	.431	4	1.936	31	3

MONTHLY MEAN .293 48 .435 48 1.445 BETA .107

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
4	5	.359	1	.530	1	1.415	5	4
4	6	.449	8	.634	8	1.259	6	4
4	7	.596	4	.842	4	1.254	7	4
4	8	.495	6	.661	6	1.059	8	4
4	10	.432	3	.613	3	1.275	10	4
4	11	.686	1	.906	1	1.011	11	4
4	12	.342	2	.532	2	1.615	12	4
4	13	.293	5	.463	5	1.674	13	4
4	14	.301	5	.468	5	1.606	14	4
4	15	.521	5	.778	5	1.464	15	4
4	16	.371	3	.558	3	1.491	16	4
4	21	.438	4	.650	4	1.440	21	4
4	22	.358	2	.422	2	.600	22	4
4	23	.167	2	.390	2	3.100	23	4
4	24	.619	1	.672	1	.298	24	4
4	25	.135	3	.326	3	3.211	25	4
4	27	.165	4	.298	4	2.147	27	4
4	28	.180	1	.325	1	2.158	28	4
4	29	.191	5	.273	5	1.290	29	4
4	30	.304	2	.489	2	1.726	30	4

MONTHLY MEAN .371 67 .548 67 1.415 BETA .139

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
5	1	.242	6	.334	6	1.179	1	5
5	5	.369	1	.542	1	1.405	5	5
5	6	.190	4	.332	4	2.042	6	5
5	8	.241	4	.413	4	1.960	8	5
5	9	.193	2	.297	2	1.572	9	5
5	10	.270	3	.482	3	2.115	10	5
5	12	.215	6	.358	6	1.867	12	5
5	13	.315	2	.517	2	1.802	13	5
5	14	.356	4	.574	4	1.742	14	5
5	17	.389	6	.601	6	1.580	17	5
5	18	.240	8	.404	8	1.890	18	5
5	19	.278	7	.430	7	1.591	19	5
5	20	.290	8	.477	8	1.808	20	5
5	21	.329	5	.581	5	2.069	21	5
5	22	.447	3	.672	3	1.482	22	5

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 19420
WMO 16360

SANTA MARIA DI LEUCA, ITALY
39 49N 18 21E TAU: 500=.1554

ALTITUDE 104 M YEAR 1981
380=.4446

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
5 26	.391	1	.586	1	1.475	26 5
5 28	.434	3	.662	3	1.539	28 5
5 29	.201	7	.338	7	1.894	29 5
5 30	.172	5	.306	5	2.102	30 5
5 31	.229	6	.393	6	1.973	31 5
MONTHLY MEAN	.274	91	.445	91	1.765	BETA .081
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
6 1	.304	4	.461	4	1.515	1 6
6 2	.373	3	.501	3	1.073	2 6
6 3	.301	7	.456	7	1.513	3 6
6 4	.447	6	.626	6	1.230	4 6
6 6	.306	3	.456	3	1.455	6 6
6 7	.324	3	.499	3	1.572	7 6
6 8	.252	7	.421	7	1.871	8 6
6 9	.324	5	.515	5	1.682	9 6
6 10	.229	6	.368	6	1.733	10 6
6 11	.342	5	.493	5	1.340	11 6
6 12	.469	4	.661	4	1.247	12 6
6 13	.409	3	.617	3	1.501	13 6
6 15	.313	2	.546	2	2.023	15 6
6 16	.279	8	.460	8	1.821	16 6
6 19	.283	1	.446	1	1.659	19 6
6 20	.176	3	.301	3	1.964	20 6
6 21	.334	3	.542	3	1.764	21 6
6 22	.366	7	.591	7	1.747	22 6
6 23	.520	2	.753	2	1.350	23 6
6 25	.461	1	.699	1	1.517	25 6
6 27	.420	4	.556	4	1.021	27 6
6 28	.297	7	.433	7	1.378	28 6
6 29	.597	5	.699	5	.577	29 6
6 30	.483	6	.609	6	.843	30 6
MONTHLY MEAN	.352	105	.518	105	1.405	BETA .133
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
7 1	.267	7	.435	7	1.780	1 7
7 2	.266	6	.449	6	1.901	2 7
7 3	.454	4	.549	4	.692	3 7
7 4	.641	1	.845	1	1.007	4 7
7 5	.369	5	.533	5	1.341	5 7
7 6	.364	4	.577	4	1.676	6 7
7 7	.428	6	.647	6	1.508	7 7
7 8	.518	3	.699	3	1.091	8 7
7 9	.701	4	.996	4	1.282	9 7
7 10	.570	4	.799	4	1.228	10 7
7 11	.466	4	.678	4	1.364	11 7
7 14	.716	3	1.001	3	1.220	14 7
7 15	.431	1	.583	1	1.097	15 7
7 16	.455	4	.644	4	1.268	16 7
7 17	.399	5	.582	5	1.374	17 7
7 18	.425	7	.659	7	1.599	18 7
7 21	.137	5	.276	5	2.558	21 7
7 22	.179	5	.323	5	2.144	22 7
7 23	.153	4	.260	4	1.929	23 7
7 24	.308	5	.458	5	1.450	24 7
7 25	.419	3	.577	3	1.166	25 7
7 26	.258	4	.419	4	1.772	26 7
7 28	.506	2	.744	2	1.402	28 7
7 29	.430	3	.647	3	1.491	29 7
7 30	.411	3	.594	3	1.342	30 7
7 31	.344	5	.538	5	1.631	31 7
MONTHLY MEAN	.383	107	.570	107	1.450	BETA .140

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 19420
WMO 16360

SANTA MARIA DI LEUCA, ITALY
39 49N 18 21E TAU: 500=.1554

ALTITUDE 104 M YEAR 1981
380=.4446

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
8	1	.315	6	.516	6	1.793	1	8
8	2	.312	5	.483	5	1.594	2	8
8	3	.272	6	.427	6	1.648	3	8
8	4	.323	5	.467	5	1.339	4	8
8	5	.553	4	.781	4	1.260	5	8
8	6	.758	4	1.007	4	1.033	6	8
8	7	.579	3	.761	3	.993	7	8
8	8	.488	4	.679	4	1.203	8	8
8	9	.527	5	.775	5	1.407	9	8
8	10	.476	5	.707	5	1.441	10	8
8	11	.555	3	.778	3	1.230	11	8
8	12	.440	5	.622	5	1.260	12	8
8	13	.563	1	.734	1	.969	13	8
8	14	.453	1	.596	1	1.001	14	8
8	16	.303	5	.470	5	1.602	16	8
8	17	.504	5	.706	5	1.228	17	8
8	18	.526	6	.770	6	1.386	18	8
8	19	.439	5	.638	5	1.358	19	8
8	20	.510	4	.710	4	1.207	20	8
8	22	.484	4	.672	4	1.193	22	8
8	23	.472	2	.625	2	1.023	23	8
8	25	.216	3	.390	3	2.155	25	8
8	26	.320	4	.464	4	1.354	26	8
8	27	.280	2	.457	2	1.784	27	8
8	28	.365	4	.572	4	1.641	28	8
8	29	.454	3	.655	3	1.341	29	8
8	30	.256	3	.436	3	1.947	30	8
8	31	.376	2	.580	2	1.581	31	8
MONTHLY MEAN		.428	109	.623	109	1.365	BETA	.166

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
9	2	.477	5	.659	5	1.180	2	9
9	3	.436	4	.648	4	1.444	3	9
9	4	.509	2	.694	2	1.129	4	9
9	5	.481	1	.598	1	.789	5	9
9	7	.257	4	.421	4	1.790	7	9
9	8	.634	3	.853	3	1.080	8	9
9	9	.349	3	.488	3	1.228	9	9
9	10	.428	5	.574	5	1.075	10	9
9	13	.293	3	.465	3	1.683	13	9
9	14	.413	3	.529	3	.902	14	9
9	15	.242	2	.478	2	2.477	15	9
9	16	.216	4	.376	4	2.013	16	9
9	17	.264	7	.423	7	1.716	17	9
9	18	.303	4	.474	4	1.624	18	9
9	20	.414	2	.646	2	1.618	20	9
9	21	.352	1	.606	1	1.980	21	9
9	22	.265	6	.422	6	1.700	22	9
9	24	.494	4	.656	4	1.032	24	9
9	25	.346	6	.492	6	1.285	25	9
9	26	.259	6	.401	6	1.595	26	9
9	27	.266	5	.397	5	1.453	27	9
9	29	.145	3	.243	3	1.867	29	9
9	30	.140	4	.253	4	2.165	30	9
MONTHLY MEAN		.333	87	.493	87	1.429	BETA	.124

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
10	1	.263	1	.459	1	2.033	1	10
10	3	.170	4	.248	4	1.372	3	10
10	4	.150	3	.270	3	2.134	4	10
10	5	.137	3	.201	3	1.402	5	10
10	6	.151	3	.299	3	2.485	6	10
10	7	.335	5	.411	5	.743	7	10
10	8	.349	4	.398	4	.478	8	10
10	9	.319	4	.387	4	.701	9	10
10	10	.379	1	.354	1	-.244	10	10
10	12	.242	1	.319	1	1.005	12	10

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 19420
HMO 16360

SANTA MARIA DI LEUCA, ITALY
39 49N 18 21E TAU: 500=.1554

ALTITUDE 104 M YEAR 1981
380=.4446

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
10	13	.149	2	.270	2	2.164	13	10
10	15	.172	2	.252	2	1.387	15	10
10	16	.142	4	.196	4	1.174	16	10
10	17	.158	1	.288	1	2.200	17	10
10	18	.218	3	.326	3	1.467	18	10
10	19	.187	2	.319	2	1.940	19	10
10	20	.258	3	.432	3	1.877	20	10
10	21	.364	2	.544	2	1.467	21	10
10	22	.361	1	.537	1	1.450	22	10
10	24	.102	2	.190	2	2.261	24	10
10	25	.104	4	.211	4	2.577	25	10
10	28	.133	1	.157	1	.627	28	10
10	29	.152	4	.260	4	1.941	29	10
10	30	.111	4	.206	4	2.254	30	10
MONTHLY MEAN		.208	64	.305	64	1.401	BETA	.079

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
11	1	.254	1	.360	1	1.269	1	11
11	2	.262	4	.391	4	1.449	2	11
11	3	.355	3	.435	3	.741	3	11
11	4	.158	5	.206	5	.968	4	11
11	5	.157	5	.268	5	1.953	5	11
11	9	.184	1	.296	1	1.738	9	11
11	10	.110	1	.189	1	1.987	10	11
11	11	.190	3	.278	3	1.396	11	11
11	13	.195	3	.296	3	1.515	13	11
11	14	.176	2	.295	2	1.888	14	11
11	17	.158	4	.248	4	1.634	17	11
11	18	.176	2	.289	2	1.801	18	11
11	19	.211	3	.315	3	1.455	19	11
11	20	.202	6	.312	6	1.593	20	11
11	21	.206	3	.355	3	1.988	21	11
11	22	.359	2	.456	2	.869	22	11
11	25	.265	4	.356	4	1.080	25	11
11	27	.157	2	.260	2	1.844	27	11
11	28	.135	1	.175	1	.938	28	11
MONTHLY MEAN		.208	55	.307	55	1.425	BETA	.077

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
12	1	.078	2	.129	2	1.844	1	12
12	5	.202	1	.326	1	1.758	5	12
12	6	.156	3	.213	3	1.144	6	12
12	10	.125	3	.202	3	1.749	10	12
12	17	.189	3	.223	3	.605	17	12
12	21	.060	2	.126	2	2.724	21	12
12	24	.099	3	.190	3	2.362	24	12
12	25	.116	4	.166	4	1.306	25	12
12	27	.208	1	.312	1	1.471	27	12
MONTHLY MEAN		.130	22	.195	22	1.489	BETA	.046

NCDC 19425
HMO

SCHAUINSLAND, FRG
47 55N 7 55E

ALTITUDE 1206 M YEAR 1981
TAU: 500=.1377 380=.3896

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
1	22	.047	4	.091	4	2.446	22	1
1	23	.041	1	.083	1	2.548	23	1

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 19425 SCHAUISLAND, FRG ALTITUDE 1206 M YEAR 1981
WMO 47 55N 7 55E TAU: 500=.1377 380=.3896

MONTHLY MEAN .046 5 .090 5 2.464 BETA .008

NCDC 19435 SHOUBAK, JORDAN ALTITUDE 1365 M YEAR 1981
WMO 43300 30 32N 33 35E TAU: 500=.1355 380=.3822 850=.0163

MONTH DAY 500 N 380 N ALPHA 850 N DAY MONTH
2 8 .088 1 .164 1 2.298 .254 1 8 2

MONTHLY MEAN .088 1 .164 1 2.298 .254 1 BETA .018

NCDC 19443 SRINAGAR, INDIA ALTITUDE 1587 M YEAR 1981
WMO 42027 34 5N 74 50E TAU: 500=.1315

MONTH DAY 500 N ALPHA DAY MONTH
1 1 .381 2 1 1

1 7 .529 1 7 1

1 8 .334 3 8 1

1 9 .149 3 9 1

1 10 .217 3 10 1

1 11 .157 2 11 1

1 12 .143 3 12 1

1 13 .393 2 13 1

1 19 .247 2 19 1

MONTHLY MEAN .258 21 1.300 BETA .105

MONTH DAY 500 N ALPHA DAY MONTH
2 20 .796 1 20 2
2 21 .247 1 21 2

MONTHLY MEAN .522 2 1.300 BETA .212

MONTH DAY 500 N ALPHA DAY MONTH
3 23 .323 2 23 3

MONTHLY MEAN .323 2 1.300 BETA .131

MONTH DAY 500 N ALPHA DAY MONTH
4 6 .067 1 6 4

4 8 .127 4 8 4

4 10 .096 4 10 4

4 11 .101 4 11 4

4 17 .018 1 17 4

4 18 .075 2 18 4

4 19 .112 2 19 4

4 23 .031 4 23 4

4 24 .024 3 24 4

4 25 .088 5 25 4

MONTHLY MEAN .080 30 1.300 BETA .032

MONTH DAY 500 N ALPHA DAY MONTH
5 1 .082 5 1 5

5 2 .077 5 2 5

5 3 .141 5 3 5

5 12 .032 2 12 5

5 13 .074 2 13 5

5 16 .073 2 16 5

5 17 .074 2 17 5

5 18 .104 3 18 5

5 19 .104 1 19 5

5 22 .161 4 22 5

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 19443
HMO 42027

SRINAGAR, INDIA
34 5N

74 50E TAU: 500=.1315

ALTITUDE 1587 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH
5	23	.039	4		23	5
5	24	.135	6		24	5
5	25	.144	6		25	5
5	27	.039	5		27	5
5	28	.126	5		28	5
5	29	.119	5		29	5
MONTHLY MEAN		.102	62	1.300	BETA .041	
MONTH	DAY	500	N	ALPHA	DAY	MONTH
6	4	.076	2		4	6
6	5	.086	3		5	6
6	6	.072	4		6	6
6	11	.074	1		11	6
6	13	.085	6		13	6
6	14	.196	2		14	6
6	15	.154	6		15	6
6	16	.150	5		16	6
6	17	.108	6		17	6
6	18	.103	4		18	6
6	19	.112	4		19	6
6	20	.140	4		20	6
6	22	.206	3		22	6
6	23	.157	6		23	6
6	24	.186	4		24	6
6	25	.197	5		25	6
6	26	.196	5		26	6
6	27	.238	3		27	6
6	29	.172	6		29	6
MONTHLY MEAN		.145	79	1.300	BETA .059	
MONTH	DAY	500	N	ALPHA	DAY	MONTH
7	7	.074	5		7	7
7	8	.107	5		8	7
7	11	.014	2		11	7
7	12	.108	3		12	7
7	13	.098	4		13	7
7	17	.058	3		17	7
7	18	.176	1		18	7
7	19	.138	3		19	7
7	20	.117	4		20	7
MONTHLY MEAN		.096	30	1.300	BETA .039	
MONTH	DAY	500	N	ALPHA	DAY	MONTH
8	10	.288	1		10	8
8	12	.102	4		12	8
8	13	.025	2		13	8
8	16	.270	1		16	8
8	17	.115	2		17	8
8	18	.044	3		18	8
8	19	.070	4		19	8
8	20	.105	3		20	8
8	23	.035	3		23	8
8	24	.068	4		24	8
8	25	.060	3		25	8
8	26	.140	4		26	8
8	28	.199	2		28	8
8	30	.032	3		30	8
8	31	.095	5		31	8

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 19443
WMO 42027

SRINAGAR, INDIA
34 5N

74 50E TAU: 500=.1315

ALTITUDE 1587 M YEAR 1981

MONTHLY MEAN		.092	44	1.300	BETA	.037
MONTH	DAY	500	N	ALPHA	DAY	MONTH
9	1	.104	4		1	9
9	2	.211	2		2	9
9	4	.100	4		4	9
9	5	.072	3		5	9
9	11	.176	1		11	9
9	12	.080	5		12	9
9	13	.060	5		13	9
9	14	.074	5		14	9
9	15	.096	4		15	9
9	16	.121	4		16	9
9	17	.229	3		17	9
9	20	.085	4		20	9
9	21	.089	3		21	9
9	22	.065	4		22	9
9	23	.073	5		23	9
9	24	.128	5		24	9
9	25	.121	4		25	9
9	26	.099	3		26	9
9	27	.218	1		27	9
9	28	.084	3		28	9

MONTHLY MEAN		.102	72	1.300	BETA	.042
MONTH	DAY	500	N	ALPHA	DAY	MONTH
10	3	.058	2		3	10
10	4	.043	3		4	10
10	5	.163	3		5	10
10	6	.117	4		6	10
10	7	.063	5		7	10
10	8	.058	4		8	10
10	9	.090	5		9	10
10	10	.189	4		10	10
10	11	.108	4		11	10
10	12	.145	2		12	10
10	13	.337	3		13	10
10	14	.185	3		14	10
10	17	.096	3		17	10
10	18	.264	3		18	10
10	20	.185	3		20	10
10	21	.259	4		21	10
10	22	.142	4		22	10
10	23	.205	3		23	10
10	24	.069	5		24	10
10	25	.099	4		25	10
10	26	.153	3		26	10
10	27	.083	1		27	10
10	29	.137	1		29	10
10	30	.097	2		30	10
10	31	.211	3		31	10

MONTHLY MEAN		.140	81	1.300	BETA	.057
MONTH	DAY	500	N	ALPHA	DAY	MONTH
11	1	.110	3		1	11
11	2	.146	4		2	11
11	5	.113	2		5	11
11	6	.091	4		6	11
11	7	.081	4		7	11
11	8	.136	5		8	11
11	9	.175	3		9	11
11	13	.255	2		13	11
11	14	.235	4		14	11
11	15	.220	1		15	11
11	16	.303	1		16	11
11	18	.082	4		18	11

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 19443
WMO 42027

SRINAGAR, INDIA
34 5N 74 50E

TAU: 500=.1315

ALTITUDE 1587 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH
11	19	.157	3		19	11
11	20	.138	4		20	11
11	28	.184	4		28	11
MONTHLY MEAN		.148	48	1.300	BETA .060	

MONTH	DAY	500	N	ALPHA	DAY	MONTH
12	8	.491	1		8	12
12	9	.321	2		9	12
12	10	.456	3		10	12
12	11	.159	1		11	12
12	13	.366	1		13	12
12	14	.818	3		14	12
12	16	.777	2		16	12
12	17	.681	2		17	12
12	18	.687	3		18	12
12	20	.549	3		20	12
12	21	.748	1		21	12
12	22	.741	3		22	12
12	24	.950	1		24	12
12	30	1.277	1		30	12
MONTHLY MEAN		.641	27	1.300	BETA .260	

NCDC 20050
WMO 60738

THALA, TUNISIA
35 33N 8 41E

TAU: 500=.1395

ALTITUDE 1091 M YEAR 1981
380=.3949 850=.0120

MONTH	DAY	500	N	380	N	ALPHA	850	N	DAY	MONTH
1	4	.350	2	.701	2	2.531	.205	2	4	1
1	6	.156	1	.390	1	3.350	.124	1	6	1
1	11	.315	1	.420	1	1.038	.221	1	11	1
1	12	.360	1	.847	1	3.117	.429	1	12	1
MONTHLY MEAN		.306	5	.612	5	2.522	.237	5	BETA .053	

MONTH	DAY	500	N	380	N	ALPHA	850	N	DAY	MONTH
2	4	.232	1	.596	1	3.437	.263	1	4	2
2	28	.481	1	1.030	1	2.773	.418	1	28	2
MONTHLY MEAN		.357	2	.813	2	3.003	.340	2	BETA .044	

MONTH	DAY	500	N	380	N	ALPHA	850	N	DAY	MONTH
3	1	.659	2	1.172	2	2.098	.577	2	1	3
3	2	.282	1	.634	1	2.949	.311	1	2	3
3	4	.382	1	.971	1	3.404	.356	1	4	3
3	6	.279	1	.726	1	3.488	.406	1	6	3
3	9	.495	1	.898	1	2.170	.444	1	9	3
3	21	.778	1	1.101	1	1.267	1.234	1	21	3
MONTHLY MEAN		.505	7	.954	7	2.318	.558	7	BETA .101	

MONTH	DAY	500	N	380	N	ALPHA	850	N	DAY	MONTH
4	2	.756	1	1.553	1	2.625	.777	1	2	4
4	3	.451	1	1.046	1	3.063	.354	1	3	4
4	7	.429	1	1.033	1	3.204	.344	1	7	4
4	9	.452	1	1.064	1	3.118	.401	1	9	4

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 20050
WMO 60738

THALA, TUNISIA
35 33N

TAU: 500=.1395

ALTITUDE 1091 M YEAR 1981
380=.3949 850=.0120

MONTH	DAY	500	N	380	N	ALPHA	850	N	DAY	MONTH
4	11	.494	1	1.000	1	2.566	.585	1	11	4
4	19	.242	1	.617	1	3.406	.203	1	19	4
4	20	.386	1	.951	1	3.281	.318	1	20	4
4	21	.531	2	1.154	2	2.831	.430	2	21	4
4	22	.553	1	1.158	1	2.695	.451	1	22	4
4	23	.493	1	1.124	1	3.004	.388	1	23	4
4	28	.309	1	.797	1	3.454	.116	1	28	4
MONTHLY MEAN		.469	12	1.054	12	2.952	.400	12	BETA .061	

MONTH	DAY	500	N	380	N	ALPHA	850	N	DAY	MONTH
5	1	.370	2	.844	2	3.002	.290	2	1	5
5	8	.523	1	1.178	1	2.960	.328	1	8	5
5	9	.476	1	1.045	1	2.864	.455	1	9	5
5	14	.557	2	1.284	2	3.042	.396	2	14	5
5	17	.818	1	1.148	1	1.234	.666	1	17	5
5	19	.551	1	1.154	1	2.695	.241	1	19	5
5	20	.424	1	1.060	1	3.336	.280	1	20	5
5	21	.450	1	1.088	1	3.216	.319	1	21	5
5	22	.526	2	1.308	2	3.319	.390	2	22	5
5	25	.461	1	1.070	1	3.072	.258	1	25	5
5	26	.460	1	1.048	1	3.002	.307	1	26	5
5	28	.292	1	.718	1	3.278	.241	1	28	5
5	29	.526	3	1.205	3	3.020	.492	3	29	5
MONTHLY MEAN		.497	18	1.111	18	2.933	.374	18	BETA .065	

MONTH	DAY	500	N	380	N	ALPHA	850	N	DAY	MONTH
6	1	.645	3	1.320	3	2.610	.651	3	1	6
6	9	.433	1	1.078	1	3.329	.319	1	9	6
6	10	.574	1	1.141	1	2.503	.538	1	10	6
6	14	.629	1	1.589	1	3.375	.343	1	14	6
6	15	.448	1	1.098	1	3.263	.252	1	15	6
6	16	.564	1	1.375	1	3.252	.433	1	16	6
6	17	.562	2	1.318	2	3.107	.366	2	17	6
6	18	.470	1	1.193	1	3.396	.233	1	18	6
6	19	.559	2	1.338	2	3.182	.437	2	19	6
6	20	.552	1	1.309	1	3.150	.400	1	20	6
6	21	.519	1	1.217	1	3.109	.319	1	21	6
6	22	.566	1	1.145	1	2.570	.410	1	22	6
6	27	.797	2	1.777	2	2.919	.668	2	27	6
6	29	.914	2	1.793	2	2.455	.951	2	29	6
6	30	.788	1	1.529	1	2.416	.686	1	30	6
MONTHLY MEAN		.626	21	1.385	21	2.895	.511	21	BETA .084	

MONTH	DAY	500	N	380	N	ALPHA	850	N	DAY	MONTH
7	2	.490	1	1.216	1	3.312	.379	1	2	7
7	3	.738	1	1.791	1	3.232	.543	1	3	7
7	4	.686	1	1.496	1	2.842	.521	1	4	7
7	5	.751	3	1.545	3	2.626	.573	3	5	7
7	7	.514	1	1.276	1	3.315	.506	1	7	7
7	8	.687	1	1.342	1	2.438	.591	1	8	7
7	9	1.188	1	1.858	1	1.629	1.016	1	9	7
7	13	.520	2	1.208	2	3.073	.277	2	13	7
7	19	.629	1	1.588	1	3.376	.305	1	19	7
7	20	.705	1	1.346	1	2.355	.245	1	20	7
7	23	.634	1	1.638	1	3.458	.328	1	23	7

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 20050 THALA, TUNISIA ALTITUDE 1091 M YEAR 1981
WMO 60738 35 33N 8 41E TAU: 500=.1395 380=.3949 850=.0120

MONTH DAY	500	N	380	N	ALPHA	850	N	DAY MONTH
7 25	.741	2	1.490	2	2.545	.410	2	25 7
MONTHLY MEAN	.690	16	1.474	16	2.763	.470	16	BETA .102

MONTH DAY	500	N	380	N	ALPHA	850	N	DAY MONTH
8 1	.502	1	1.307	1	3.488	.423	1	1 8
8 2	.546	2	1.257	2	3.039	.302	2	2 8
8 5	.495	2	1.040	2	2.705	.336	2	5 8
8 6	.642	2	1.404	2	2.853	.452	2	6 8
8 8	.619	2	1.463	2	3.138	.301	2	8 8
8 9	.523	3	1.272	3	3.238	.347	3	9 8
8 10	.760	2	1.594	2	2.701	.545	2	10 8
8 11	.570	1	1.318	1	3.056	.310	1	11 8
8 14	.653	1	1.098	1	1.897	.347	1	14 8
8 15	.516	1	1.213	1	3.119	.208	1	15 8
8 17	.552	1	1.230	1	2.918	.254	1	17 8
8 18	.699	2	1.390	2	2.504	.323	2	18 8
8 23	.611	1	1.410	1	3.048	.366	1	23 8
8 26	.625	1	1.628	1	3.490	.473	1	26 8
8 29	.556	1	1.233	1	2.903	.186	1	29 8
8 31	.604	2	1.245	2	2.637	.420	2	31 8
MONTHLY MEAN	.595	25	1.322	25	2.907	.359	25	BETA .079

MONTH DAY	500	N	380	N	ALPHA	850	N	DAY MONTH
9 1	.550	2	1.160	2	2.720	.468	2	1 9
9 3	.592	2	1.154	2	2.433	.422	2	3 9
9 6	.419	1	1.029	1	3.276	.391	1	6 9
9 8	.354	2	.848	2	3.185	.250	2	8 9
9 9	.329	1	.807	1	3.269	.218	1	9 9
9 10	.508	1	1.099	1	2.814	.364	1	10 9
9 11	.603	2	1.050	2	2.021	.266	2	11 9
9 12	.550	3	1.042	3	2.332	.253	3	12 9
9 14	.407	1	.831	1	2.603	.182	1	14 9
9 15	.431	3	.956	3	2.906	.257	3	15 9
9 16	.335	1	.801	1	3.175	.183	1	16 9
9 17	.306	1	.784	1	3.434	.217	1	17 9
9 18	.309	1	.804	1	3.487	.179	1	18 9
9 19	.490	1	1.230	1	3.351	.221	1	19 9
9 20	.372	2	.890	2	3.175	.166	2	20 9
9 21	.383	1	.890	1	3.068	.160	1	21 9
9 22	.353	1	.865	1	3.265	.220	1	22 9
9 23	.658	1	1.064	1	1.750	.325	1	23 9
9 25	.435	1	1.106	1	3.398	.380	1	25 9
MONTHLY MEAN	.458	28	.983	28	2.784	.276	28	BETA .066

MONTH DAY	500	N	380	N	ALPHA	850	N	DAY MONTH
11 13	.351	1	.794	1	2.975	.260	1	13 11
MONTHLY MEAN	.351	1	.794	1	2.975	.260	1	BETA .045

NCDC 20075 TALLAHASSEE, FLORIDA ALTITUDE 21 M YEAR 1981
WMO 72214 30 23N 84 22W TAU: 500=.1566 380=.4490

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
1 1	.196	3	.316	3	1.734	1 1
1 2	.175	3	.281	3	1.722	2 1
1 3	.153	3	.296	3	2.415	3 1

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 20075
WMO 72214

TALLAHASSEE, FLORIDA
30 23N 84 22W

TAU: 500=.1566

ALTITUDE
380=.4490

21 M YEAR 1981

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
1	4	.280	3	.447	3	1.707	4	1
1	10	.146	3	.240	3	1.814	10	1
1	11	.215	3	.307	3	1.299	11	1
1	12	.182	3	.223	3	.737	12	1
1	13	.202	2	.248	2	.757	13	1
1	15	.263	2	.375	2	1.298	15	1
1	17	.179	3	.253	3	1.269	17	1
1	18	.164	3	.214	3	.964	18	1
1	19	.179	2	.314	2	2.041	19	1
1	23	.325	1	.485	1	1.454	23	1
1	24	.300	3	.442	3	1.403	24	1
1	25	.320	3	.476	3	1.446	25	1
1	26	.239	1	.355	1	1.449	26	1
1	29	.113	1	.170	1	1.481	29	1
MONTHLY MEAN		.212	42	.318	42	1.484	BETA	.076
2	2	.292	1	.593	1	2.581	2	2
2	3	.144	3	.227	3	1.662	3	2
2	5	.279	2	.392	2	1.236	5	2
2	11	.195	2	.287	2	1.408	11	2
2	12	.225	3	.313	3	1.204	12	2
2	19	.338	1	.455	1	1.082	19	2
2	20	.216	2	.303	2	1.232	20	2
2	21	.185	3	.237	3	.905	21	2
2	22	.286	2	.396	2	1.187	22	2
2	23	.186	3	.247	3	1.039	23	2
2	24	.183	3	.247	3	1.105	24	2
2	25	.251	1	.341	1	1.118	25	2
2	26	.323	1	.495	1	1.553	26	2
2	28	.437	2	.569	2	.964	28	2
MONTHLY MEAN		.234	29	.331	29	1.255	BETA	.098
3	5	.266	3	.311	3	.560	5	3
3	6	.268	3	.446	3	1.860	6	3
3	7	.241	1	.406	1	1.895	7	3
3	14	.314	3	.514	3	1.791	14	3
3	15	.345	2	.504	2	1.380	15	3
3	19	.266	3	.430	3	1.754	19	3
3	20	.213	2	.336	2	1.662	20	3
3	22	.294	1	.454	1	1.576	22	3
3	24	.344	1	.533	1	1.598	24	3
3	25	.568	2	.802	2	1.254	25	3
3	26	.429	2	.720	2	1.886	26	3
3	27	.412	1	.689	1	1.868	27	3
MONTHLY MEAN		.323	24	.496	24	1.567	BETA	.109
4	2	.202	2	.332	2	1.804	2	4
4	6	.183	2	.297	2	1.774	6	4
4	7	.473	2	.671	2	1.278	7	4
4	8	.316	1	.497	1	1.650	8	4
4	10	.471	2	.735	2	1.620	10	4
4	12	.474	1	.733	1	1.593	12	4
4	13	.424	3	.641	3	1.506	13	4

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 20075
WMO 72214

TALLAHASSEE, FLORIDA
30 23N 84 22W

TAU: 500=.1566

ALTITUDE
21 M 380=.4490

YEAR 1981

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
4	14	.473	2	.732	2	1.595	14	4
4	15	.504	2	.788	2	1.630	15	4
4	18	.321	1	.470	1	1.385	18	4
4	19	.391	1	.568	1	1.359	19	4
4	20	.278	1	.430	1	1.588	20	4
4	21	.473	1	.640	1	1.105	21	4
MONTHLY MEAN		.387	21	.589	21	1.528	BETA .134	
MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
5	1	.300	2	.464	2	1.593	1	5
5	2	.260	3	.389	3	1.475	2	5
5	4	.484	1	.700	1	1.344	4	5
5	9	.273	1	.434	1	1.695	9	5
5	11	.275	3	.434	3	1.665	11	5
5	12	.374	2	.554	2	1.431	12	5
5	13	.339	2	.503	2	1.436	13	5
5	15	.327	3	.499	3	1.546	15	5
5	17	.355	3	.546	3	1.565	17	5
5	18	.641	2	.951	2	1.435	18	5
5	28	.576	1	.892	1	1.592	28	5
5	29	.840	1	1.211	1	1.333	29	5
MONTHLY MEAN		.380	24	.574	24	1.501	BETA .134	
MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
6	3	.492	1	.725	1	1.411	3	6
6	14	.493	1	.625	1	.867	14	6
6	15	.488	1	.689	1	1.256	15	6
6	16	.570	2	.769	2	1.091	16	6
6	18	.584	1	.909	1	1.610	18	6
6	19	.618	1	.960	1	1.601	19	6
6	20	.560	1	.898	1	1.718	20	6
6	25	.551	1	.756	1	1.153	25	6
6	26	.509	1	.775	1	1.534	26	6
6	28	.814	1	1.117	1	1.156	28	6
6	29	.218	1	.361	1	1.827	29	6
6	30	.315	2	.540	2	1.963	30	6
MONTHLY MEAN		.507	14	.745	14	1.403	BETA .192	
MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
7	7	.274	1	.419	1	1.549	7	7
7	13	.711	1	.937	1	1.005	13	7
7	27	.479	1	.621	1	.941	27	7
7	28	.373	1	.513	1	1.162	28	7
MONTHLY MEAN		.459	4	.622	4	1.107	BETA .213	
MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
8	4	.244	1	.388	1	1.687	4	8
8	10	.280	1	.358	1	.903	10	8
8	17	.771	1	1.087	1	1.252	17	8
8	25	.517	1	.765	1	1.429	25	8

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 20075
WMO 72214

TALLAHASSEE, FLORIDA
30 23N 84 22W

TAU: 500=.1566

ALTITUDE
380=.4490

21 M YEAR 1981

MONTHLY MEAN .453 4 .649 4 1.314 BETA .182

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
9	7	.294	1	.448	1	1.528	7	9
9	13	.744	1	1.038	1	1.213	13	9
9	14	.639	1	.923	1	1.340	14	9
9	19	.323	1	.539	1	1.858	19	9
9	20	.795	2	1.190	2	1.471	20	9
9	23	.496	2	.703	2	1.276	23	9
9	25	.346	2	.537	2	1.607	25	9
9	27	.468	1	.621	1	1.031	27	9
9	29	.461	2	.718	2	1.613	29	9

MONTHLY MEAN .513 13 .759 13 1.430 BETA .190

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
10	3	.203	3	.335	3	1.831	3	10
10	13	.328	1	.523	1	1.703	13	10
10	15	.190	3	.313	3	1.816	15	10
10	16	.263	2	.413	2	1.649	16	10
10	27	.177	1	.279	1	1.653	27	10
10	28	.227	2	.362	2	1.699	28	10

MONTHLY MEAN .222 12 .358 12 1.743 BETA .066

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
11	6	.168	1	.302	1	2.129	6	11
11	7	.125	3	.236	3	2.311	7	11
11	8	.116	1	.211	1	2.175	8	11
11	14	.178	2	.265	2	1.463	14	11
11	18	.211	2	.278	2	.993	18	11
11	21	.247	1	.348	1	1.244	21	11
11	22	.241	1	.408	1	1.923	22	11
11	23	.241	1	.371	1	1.572	23	11
11	25	.348	1	.391	1	.432	25	11
11	26	.161	1	.238	1	1.405	26	11
11	27	.303	1	.443	1	1.388	27	11

MONTHLY MEAN .199 15 .300 15 1.508 BETA .070

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
12	4	.139	3	.249	3	2.125	4	12
12	5	.118	2	.202	2	1.970	5	12
12	9	.118	2	.200	2	1.920	9	12
12	10	.173	2	.272	2	1.655	10	12
12	20	.152	3	.241	3	1.667	20	12

MONTHLY MEAN .141 12 .235 12 1.860 BETA .039

NCDC 20700
WMO 16429

TRAPANI/BIRGI, ITALY
37 56N 12 31E

TAU: 500=.1568

ALTITUDE
380=.4499

7 M YEAR 1981

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
1	11	.157	2	.220	2	1.237	11	1
1	12	.147	1	.275	1	2.286	12	1
1	19	.121	2	.189	2	1.619	19	1

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 20700
WMO 16429

TRAPANI/BIRGI, ITALY
37 56N 12 31E

TAU: 500=.1568

ALTITUDE
380=.4499

7 M YEAR 1981

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
1	21	.254	1	.366	1	1.336	21	1
1	22	.346	2	.499	2	1.333	22	1
1	24	.313	1	.440	1	1.240	24	1
1	26	.306	2	.407	2	1.035	26	1
1	27	.105	2	.177	2	1.880	27	1
1	30	.322	2	.423	2	1.002	30	1
MONTHLY MEAN		.229	15	.327	15	1.310	BETA	.092

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
2	1	.328	2	.483	2	1.410	1	2
2	2	.214	2	.388	2	2.167	2	2
2	3	.168	1	.307	1	2.189	3	2
2	6	.177	1	.303	1	1.954	6	2
2	7	.108	2	.200	2	2.241	7	2
2	8	.120	3	.206	3	1.974	8	2
2	9	.137	2	.238	2	2.009	9	2
2	10	.116	3	.193	3	1.844	10	2
2	11	.200	2	.283	2	1.266	11	2
2	15	.214	2	.313	2	1.377	15	2
2	16	.275	1	.413	1	1.488	16	2
2	18	.375	1	.673	1	2.134	18	2
2	23	.326	1	.603	1	2.241	23	2
2	24	.171	1	.329	1	2.380	24	2
2	27	.154	2	.315	2	2.620	27	2
MONTHLY MEAN		.189	26	.318	26	1.897	BETA	.051

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
3	1	.193	2	.360	2	2.271	1	3
3	3	.211	1	.349	1	1.835	3	3
3	5	.162	2	.347	2	2.783	5	3
3	6	.375	1	.510	1	1.117	6	3
3	8	.141	1	.325	1	3.032	8	3
3	9	.283	1	.539	1	2.344	9	3
3	10	.246	2	.510	2	2.658	10	3
3	11	.311	1	.582	1	2.285	11	3
3	12	.389	2	.588	2	1.508	12	3
3	14	.231	2	.414	2	2.124	14	3
3	16	.282	2	.515	2	2.192	16	3
3	19	.330	1	.667	1	2.559	19	3
3	20	.225	1	.395	1	2.048	20	3
3	21	.211	1	.525	1	3.324	21	3
3	24	.206	2	.449	2	2.831	24	3
3	26	.164	1	.351	1	2.773	26	3
3	28	.197	2	.366	2	2.265	28	3
3	29	.136	1	.313	1	3.037	29	3
3	30	.143	1	.306	1	2.777	30	3
MONTHLY MEAN		.235	27	.443	27	2.311	BETA	.047

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
4	2	.230	1	.491	1	2.755	2	4
4	3	.265	3	.477	3	2.146	3	4
4	4	.392	3	.566	3	1.340	4	4
4	6	.630	1	.874	1	1.193	6	4

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 20700
WMO 16429

TRAPANI/BIRGI, ITALY
37 56N 12 31E

TAU: 500=.1568

ALTITUDE
380=.4499

7 M YEAR 1981

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
4	7	.390	2	.598	2	1.558	7	4
4	8	.496	2	.669	2	1.094	8	4
4	10	.373	1	.552	1	1.429	10	4
4	11	.521	1	.704	1	1.101	11	4
4	12	.544	2	.792	2	1.368	12	4
4	13	.277	3	.510	3	2.223	13	4
4	14	.385	2	.625	2	1.759	14	4
4	15	.278	3	.495	3	2.096	15	4
4	19	.463	3	.712	3	1.570	19	4
4	23	.516	3	.704	3	1.132	23	4
4	25	.497	1	.596	1	.659	25	4
4	26	.368	1	.561	1	1.532	26	4
4	27	.232	3	.455	3	2.450	27	4
4	28	.370	3	.574	3	1.597	28	4
4	29	.352	1	.503	1	1.305	29	4
4	30	.251	3	.426	3	1.934	30	4
MONTHLY MEAN		.375	42	.581	42	1.600	BETA .124	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
5	2	.526	2	.768	2	1.383	2	5
5	3	.266	2	.513	2	2.395	3	5
5	4	.304	3	.503	3	1.841	4	5
5	5	.232	2	.359	2	1.589	5	5
5	6	.195	3	.345	3	2.086	6	5
5	7	.262	2	.392	2	1.474	7	5
5	9	.223	3	.387	3	2.002	9	5
5	10	.256	1	.386	1	1.499	10	5
5	11	.217	3	.420	3	2.397	11	5
5	13	.204	3	.408	3	2.513	13	5
5	14	.290	1	.495	1	1.954	14	5
5	16	.239	3	.380	3	1.693	16	5
5	17	.336	2	.638	2	2.332	17	5
5	18	.202	3	.429	3	2.752	18	5
5	19	.233	3	.462	3	2.488	19	5
5	20	.210	2	.439	2	2.677	20	5
5	21	.343	3	.554	3	1.750	21	5
5	22	.271	1	.460	1	1.935	22	5
5	24	.272	2	.519	2	2.354	24	5
5	25	.276	3	.460	3	1.865	25	5
5	26	.309	3	.519	3	1.889	26	5
5	27	.542	1	.703	1	.944	27	5
5	29	.286	2	.523	2	2.202	29	5
5	30	.441	1	.757	1	1.969	30	5
5	31	.347	2	.522	2	1.484	31	5
MONTHLY MEAN		.277	56	.478	56	1.986	BETA .070	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
6	1	.386	1	.569	1	1.411	1	6
6	2	.397	2	.692	2	2.021	2	6
6	3	.353	3	.562	3	1.697	3	6
6	5	.236	2	.477	2	2.568	5	6
6	6	.267	2	.536	2	2.538	6	6
6	7	.214	3	.467	3	2.835	7	6
6	8	.279	3	.607	3	2.841	8	6
6	9	.292	3	.609	3	2.676	9	6
6	10	.223	3	.499	3	2.926	10	6
6	11	.307	3	.623	3	2.576	11	6
6	12	.357	3	.667	3	2.273	12	6
6	13	.432	2	.841	2	2.431	13	6
6	14	.619	2	1.046	2	1.910	14	6
6	15	.281	3	.603	3	2.784	15	6
6	16	.254	3	.563	3	2.905	16	6
6	17	.419	2	.757	2	2.154	17	6
6	18	.517	3	.840	3	1.770	18	6
6	19	.184	2	.411	2	2.924	19	6
6	20	.375	3	.624	3	1.861	20	6

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 20700
WMO 16429

TRAPANI/BIRGI, ITALY
37 56N 12 31E

TAU: 500=.1568

ALTITUDE
380=.4499

7 M YEAR 1981

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
6	21	.344	3	.745	3	2.812	21	6
6	22	.419	2	.719	2	1.966	22	6
6	23	.437	3	.775	3	2.083	23	6
6	24	.525	1	.767	1	1.380	24	6
6	26	.383	1	.641	1	1.877	26	6
6	27	.379	3	.712	3	2.301	27	6
MONTHLY MEAN		.346	61	.650	61	2.300	BETA	.070

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
7	1	.718	3	.929	3	.936	1	7
7	2	.742	3	.959	3	.937	2	7
7	3	.664	2	.850	2	.898	3	7
7	4	.386	3	.639	3	1.834	4	7
7	5	.181	2	.413	2	3.010	5	7
7	6	.326	3	.642	3	2.469	6	7
7	7	.334	3	.668	3	2.528	7	7
7	8	.468	2	.835	2	2.112	8	7
7	10	.468	2	.933	2	2.511	10	7
7	11	.746	2	1.118	2	1.478	11	7
7	12	.796	3	1.075	3	1.096	12	7
7	13	.713	2	1.065	2	1.463	13	7
7	15	.507	3	.838	3	1.832	15	7
7	16	.596	2	.928	2	1.615	16	7
7	17	.360	3	.677	3	2.302	17	7
7	18	.372	3	.682	3	2.203	18	7
7	19	.214	2	.450	2	2.711	19	7
7	20	.333	3	.596	3	2.116	20	7
7	21	.202	2	.426	2	2.717	21	7
7	22	.228	2	.517	2	2.985	22	7
7	23	.359	3	.634	3	2.073	23	7
7	24	.410	3	.720	3	2.054	24	7
7	25	.475	2	.734	2	1.584	25	7
7	26	.280	2	.577	2	2.633	26	7
7	27	.279	2	.621	2	2.914	27	7
7	28	.288	3	.594	3	2.637	28	7
7	29	.229	3	.522	3	3.003	29	7
7	30	.190	1	.473	1	3.327	30	7
7	31	.256	2	.584	2	3.010	31	7
MONTHLY MEAN		.426	71	.720	71	1.915	BETA	.113

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
8	1	.340	3	.702	3	2.644	1	8
8	2	.342	3	.654	3	2.361	2	8
8	3	.297	3	.645	3	2.831	3	8
8	4	.346	3	.733	3	2.742	4	8
8	5	.410	3	.768	3	2.283	5	8
8	6	.456	3	.753	3	1.824	6	8
8	7	.311	3	.632	3	2.586	7	8
8	8	.402	3	.767	3	2.355	8	8
8	9	.498	3	.722	3	1.349	9	8
8	10	.560	3	.972	3	2.013	10	8
8	11	.408	3	.773	3	2.331	11	8
8	12	.447	3	.830	3	2.252	12	8
8	14	.379	1	.809	1	2.763	14	8
8	15	.325	2	.680	2	2.691	15	8
8	16	.617	3	1.157	3	2.293	16	8
8	17	.414	2	.858	2	2.657	17	8
8	18	.617	2	.981	2	1.689	18	8
8	19	.736	3	1.245	3	1.914	19	8
8	20	.540	3	.952	3	2.068	20	8
8	21	.591	1	.900	1	1.532	21	8
8	25	.226	2	.489	2	2.814	25	8
8	26	.366	2	.752	2	2.630	26	8
8	27	.333	2	.772	2	3.065	27	8
8	28	.284	1	.635	1	2.938	28	8
8	29	.195	1	.462	1	3.133	29	8
8	31	.472	1	.971	1	2.630	31	8

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 20700
HMO 16429

TRAPANI/BIRGI, ITALY
37 56N 12 31E

TAU: 500=.1568

ALTITUDE
380=.4499

7 M YEAR 1981

MONTHLY MEAN .429 62 .803 62 2.281 BETA .088

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
9	1	.377	3	.751	3	2.506	1	9
9	2	.520	3	.903	3	2.015	2	9
9	4	.637	2	.920	2	1.338	4	9
9	5	.950	1	1.441	1	1.516	5	9
9	6	.393	3	.785	3	2.517	6	9
9	7	.387	2	.761	2	2.464	7	9
9	8	.559	2	.943	2	1.906	8	9
9	9	.329	3	.739	3	2.950	9	9
9	10	.343	3	.694	3	2.568	10	9
9	11	.499	1	1.029	1	2.634	11	9
9	12	.218	1	.552	1	3.382	12	9
9	13	.241	2	.571	2	3.146	13	9
9	14	.313	3	.661	3	2.728	14	9
9	15	.271	1	.537	1	2.491	15	9
9	16	.285	3	.626	3	2.862	16	9
9	17	.349	3	.778	3	2.917	17	9
9	18	.354	3	.762	3	2.792	18	9
9	20	.403	2	.816	2	2.572	20	9
9	23	.429	1	.740	1	1.986	23	9
9	25	.358	2	.699	2	2.443	25	9
9	26	.235	2	.402	2	1.958	26	9
9	28	.210	1	.436	1	2.666	28	9
9	30	.245	1	.578	1	3.129	30	9

MONTHLY MEAN .380 48 .742 48 2.438 BETA .070

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
10	1	.259	1	.320	1	.774	1	10
10	2	.302	1	.737	1	3.247	2	10
10	3	.184	1	.462	1	3.355	3	10
10	4	.207	2	.511	2	3.283	4	10
10	5	.205	1	.436	1	2.745	5	10
10	7	.163	1	.277	1	1.927	7	10
10	8	.224	3	.480	3	2.779	8	10
10	9	.231	2	.487	2	2.720	9	10
10	10	.414	2	.745	2	2.139	10	10
10	12	.380	1	.609	1	1.716	12	10
10	15	.172	1	.428	1	3.327	15	10
10	16	.168	2	.392	2	3.092	16	10
10	17	.194	2	.494	2	3.405	17	10
10	18	.280	2	.633	2	2.972	18	10
10	19	.194	1	.431	1	2.906	19	10
10	20	.140	1	.348	1	3.321	20	10
10	21	.248	2	.500	2	2.554	21	10
10	24	.170	1	.258	1	1.515	24	10
10	26	.184	1	.403	1	2.861	26	10
10	28	.196	2	.421	2	2.784	28	10

MONTHLY MEAN .230 30 .484 30 2.708 BETA .035

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
11	1	.193	1	.307	1	1.681	1	11
11	3	.075	1	.138	1	2.240	3	11
11	4	.085	1	.122	1	1.314	4	11
11	5	.320	1	.502	1	1.638	5	11
11	6	.248	3	.548	3	2.882	6	11
11	7	.322	1	.650	1	2.558	7	11
11	9	.201	1	.508	1	3.381	9	11
11	11	.317	2	.499	2	1.653	11	11

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 20700
WMO 16429

TRAPANI/BIRGI, ITALY
37 56N 12 31E

TAU: 500=.1568

ALTITUDE
380=.4499

7 M YEAR 1981

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
11	14	.314	2	.588	2	2.284	14	11
11	17	.342	1	.459	1	1.073	17	11
11	18	.206	3	.454	3	2.883	18	11
11	19	.294	3	.623	3	2.733	19	11
11	20	.212	3	.440	3	2.656	20	11
11	21	.404	2	.622	2	1.571	21	11
11	22	.404	3	.575	3	1.281	22	11
11	23	.209	3	.393	3	2.309	23	11
11	24	.254	3	.462	3	2.173	24	11
11	25	.332	1	.440	1	1.027	25	11
11	26	.211	3	.400	3	2.325	26	11
11	29	.155	1	.375	1	3.225	29	11
11	30	.236	2	.462	2	2.444	30	11
MONTHLY MEAN		.261	41	.476	41	2.196	BETA	.057

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
12	1	.279	1	.387	1	1.185	1	12
12	2	.298	1	.378	1	.865	2	12
12	4	.277	1	.575	1	2.666	4	12
12	6	.225	3	.386	3	1.965	6	12
12	7	.188	3	.352	3	2.292	7	12
12	9	.256	1	.391	1	1.537	9	12
12	15	.246	3	.331	3	1.072	15	12
12	17	.166	2	.312	2	2.288	17	12
12	20	.262	1	.538	1	2.620	20	12
12	25	.203	2	.383	2	2.316	25	12
12	28	.150	2	.273	2	2.193	28	12
12	30	.146	1	.229	1	1.645	30	12
12	31	.087	2	.203	2	3.085	31	12
MONTHLY MEAN		.205	23	.350	23	1.953	BETA	.053

NCDC 22100
WMO 03953

VALENTIA, IRELAND
51 56N 10 15W

TAU: 500=.1568

ALTITUDE
440=.2519

9 M YEAR 1981

MONTH	DAY	500	N	440	N	ALPHA	DAY	MONTH
2	9	.203	1	.249	1	1.622	9	2
2	10	.075	1	.071	1	-.406	10	2
2	21	.131	1	.124	1	-.453	21	2
2	23	.246	2	.283	2	1.105	23	2
MONTHLY MEAN		.180	5	.202	5	.902	BETA	.096

MONTH	DAY	500	N	440	N	ALPHA	DAY	MONTH
4	3	.287	3	.329	3	1.070	3	4
4	18	.167	1	.198	1	1.324	18	4
4	19	.451	6	.539	6	1.395	19	4
4	20	.181	6	.193	6	.468	20	4
4	24	.189	2	.224	2	1.340	24	4
4	25	.166	3	.184	3	.823	25	4
4	26	.175	1	.176	1	.049	26	4
4	27	.194	1	.220	1	.995	27	4
MONTHLY MEAN		.264	23	.303	23	1.088	BETA	.124

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 22100 HMO 03953		VALENTIA, IRELAND 51 56N 10 15W				TAU: 500=.1568 440=.2519	ALTITUDE 9 M	YEAR 1981
MONTH	DAY	500	N	440	N	ALPHA	DAY	MONTH
5	2	.165	3	.187	3	.971	2	5
5	26	.275	1	.346	1	1.799	26	5
MONTHLY MEAN		.193	4	.227	4	1.277	BETA	.079
MONTH	DAY	500	N	440	N	ALPHA	DAY	MONTH
6	16	.304	1	.393	1	2.004	16	6
6	18	.176	3	.237	3	2.309	18	6
6	19	.285	1	.376	1	2.168	19	6
6	20	.164	2	.222	2	2.354	20	6
6	24	.183	1	.240	1	2.127	24	6
6	26	.263	7	.326	7	1.674	26	6
MONTHLY MEAN		.232	15	.296	15	1.934	BETA	.061
MONTH	DAY	500	N	440	N	ALPHA	DAY	MONTH
7	8	.190	2	.257	2	2.354	8	7
7	9	.228	1	.302	1	2.178	9	7
7	17	.151	1	.191	1	1.848	17	7
7	29	.228	6	.284	6	1.729	29	7
7	30	.399	6	.450	6	.942	30	7
MONTHLY MEAN		.282	16	.338	16	1.408	BETA	.106
MONTH	DAY	500	N	440	N	ALPHA	DAY	MONTH
8	1	.273	3	.332	3	1.529	1	8
8	4	.200	2	.252	2	1.810	4	8
8	14	.123	1	.170	1	2.544	14	8
8	15	.336	4	.387	4	1.109	15	8
8	17	.270	1	.292	1	.611	17	8
8	26	.199	5	.227	5	1.035	26	8
8	27	.516	2	.622	2	1.457	27	8
MONTHLY MEAN		.277	18	.327	18	1.308	BETA	.112
MONTH	DAY	500	N	440	N	ALPHA	DAY	MONTH
9	6	.477	1	.540	1	.970	6	9
9	11	.206	1	.260	1	1.816	11	9
9	12	.190	1	.215	1	.994	12	9
9	21	.167	1	.220	1	2.155	21	9
9	22	.269	2	.301	2	.859	22	9
9	28	.189	1	.212	1	.902	28	9
MONTHLY MEAN		.253	7	.293	7	1.155	BETA	.113
MONTH	DAY	500	N	440	N	ALPHA	DAY	MONTH
10	6	.151	1	.164	1	.648	6	10
10	15	.117	4	.130	4	.857	15	10
10	16	.112	2	.122	2	.668	16	10
10	17	.199	1	.240	1	1.471	17	10
MONTHLY MEAN		.130	8	.146	8	.909	BETA	.069

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 22100 WMO 03953		VALENTIA, IRELAND 51 56N 10 15W				TAU: 500=.1568	ALTITUDE 440=.2519	9 M	YEAR 1981
MONTH DAY	500	N	440	N	ALPHA		DAY MONTH		
11 18	.060	1	.054	1	-.779		18 11		
11 23	.127	2	.127	2	-.049		23 11		
MONTHLY MEAN	.105	3	.103	3	-.183		BETA	.119	

MONTH DAY	500	N	440	N	ALPHA		DAY MONTH	
12 17	.143	1	.154	1	.571		17 12	
12 22	.158	2	.186	2	1.286		22 12	
MONTHLY MEAN	.153	3	.175	3	1.070		BETA	.073

NCDC 22175 WMO 16090		VERONA, ITALY 45 23N 10 52E				TAU: 500=.1559	ALTITUDE 380=.4465	67 M	YEAR 1981
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH		
1 2	.281	2	.442	2	1.646		2 1		
1 3	.608	1	.861	1	1.267		3 1		
1 5	.188	2	.327	2	2.018		5 1		
1 7	.467	1	.688	1	1.414		7 1		
1 8	.183	2	.330	2	2.153		8 1		
1 9	.177	2	.335	2	2.325		9 1		
1 10	.546	1	.792	1	1.351		10 1		
1 11	.231	1	.412	1	2.109		11 1		
1 12	.308	1	.594	1	2.392		12 1		
1 17	.147	3	.244	3	1.851		17 1		
1 18	.183	2	.319	2	2.030		18 1		
1 19	.803	1	.993	1	.775		19 1		
1 21	.180	2	.377	2	2.688		21 1		
1 22	.305	2	.525	2	1.977		22 1		
1 23	.271	2	.473	2	2.032		23 1		
1 24	.269	2	.529	2	2.466		24 1		
1 26	.295	2	.477	2	1.748		26 1		
1 27	.207	2	.389	2	2.302		27 1		
1 28	.370	1	.624	1	1.901		28 1		
1 29	.394	2	.538	2	1.128		29 1		
1 30	.214	3	.346	3	1.753		30 1		
1 31	.185	2	.286	2	1.588		31 1		
MONTHLY MEAN	.273	39	.447	39	1.794		BETA	.079	

MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
2 1	.313	2	.518	2	1.833		1 2	
2 2	.313	1	.483	1	1.581		2 2	
2 3	.448	1	.732	1	1.791		3 2	
2 5	.278	2	.474	2	1.948		5 2	
2 6	.133	3	.253	3	2.345		6 2	
2 7	.727	1	1.055	1	1.358		7 2	
2 8	.544	1	.866	1	1.694		8 2	
2 9	.654	1	1.032	1	1.664		9 2	
2 12	.834	1	1.092	1	.983		12 2	
2 13	.349	2	.568	2	1.773		13 2	
2 14	.581	1	1.016	1	2.037		14 2	
2 15	.997	1	1.409	1	1.261		15 2	
2 16	.994	1	1.405	1	1.260		16 2	
2 17	.544	2	.868	2	1.705		17 2	
2 18	.881	1	1.165	1	1.020		18 2	
2 19	1.111	1	1.458	1	.991		19 2	
2 22	.626	2	.863	2	1.167		22 2	
2 25	.498	3	.714	3	1.310		25 2	
2 26	.505	3	.741	3	1.392		26 2	
2 27	.432	2	.710	2	1.815		27 2	
MONTHLY MEAN	.518	32	.776	32	1.474		BETA	.187

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 22175
WMO 16090

VERONA, ITALY
45 23N

10 52E

TAU: 500=.1559

ALTITUDE
380=.4465

67 M YEAR 1981

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
3	5	.557	3	.818	3	1.403	5	3
3	14	.538	1	.688	1	.893	14	3
3	15	.741	1	.938	1	.861	15	3
3	16	.533	2	.793	2	1.446	16	3
3	19	.173	3	.316	3	2.201	19	3
3	20	.491	3	.739	3	1.494	20	3
3	21	.638	1	1.064	1	1.864	21	3
3	24	.566	2	.918	2	1.761	24	3
3	25	1.401	1	2.068	1	1.418	25	3
3	28	.886	2	1.319	2	1.449	28	3
3	29	.828	1	1.165	1	1.242	29	3
MONTHLY MEAN		.589	20	.880	20	1.464	BETA .213	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
4	2	1.288	1	1.808	1	1.235	2	4
4	4	1.041	2	1.396	2	1.068	4	4
4	6	1.290	2	1.608	2	.803	6	4
4	7	.808	3	1.193	3	1.420	7	4
4	8	.976	2	1.256	2	.920	8	4
4	9	1.085	3	1.447	3	1.050	9	4
4	10	1.551	1	2.087	1	1.080	10	4
4	12	.743	3	1.046	3	1.244	12	4
4	13	.467	3	.718	3	1.567	13	4
4	14	.526	3	.780	3	1.438	14	4
4	15	.944	3	1.360	3	1.331	15	4
4	16	1.118	2	1.609	2	1.328	16	4
4	18	.897	1	1.494	1	1.859	18	4
4	19	.503	1	.781	1	1.601	19	4
4	21	.911	1	1.298	1	1.289	21	4
4	22	.885	3	1.281	3	1.350	22	4
4	25	.639	1	.997	1	1.620	25	4
4	26	.962	1	1.479	1	1.567	26	4
4	27	.704	2	1.147	2	1.776	27	4
4	28	.569	3	1.002	3	2.058	28	4
4	29	.686	3	1.122	3	1.793	29	4
4	30	.992	3	1.515	3	1.541	30	4
MONTHLY MEAN		.854	47	1.242	47	1.366	BETA .331	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
5	1	.945	3	1.398	3	1.425	1	5
5	4	1.093	1	1.781	1	1.780	4	5
5	6	.195	3	.388	3	2.506	6	5
5	7	.688	3	1.007	3	1.390	7	5
5	8	.965	2	1.244	2	.925	8	5
5	9	.454	3	.827	3	2.184	9	5
5	10	.296	1	.530	1	2.123	10	5
5	11	.332	2	.668	2	2.548	11	5
5	12	1.019	2	1.389	2	1.127	12	5
5	14	1.208	1	1.853	1	1.560	14	5
5	16	.868	3	1.310	3	1.499	16	5
5	17	.744	2	1.016	2	1.138	17	5
5	18	.848	3	1.286	3	1.518	18	5
5	19	.943	3	1.450	3	1.566	19	5
5	20	.699	2	1.160	2	1.847	20	5
5	21	.977	3	1.443	3	1.422	21	5
5	22	.938	1	1.349	1	1.322	22	5
5	23	.433	3	.679	3	1.636	23	5
5	25	1.293	2	1.653	2	.897	25	5
5	28	.261	3	.525	3	2.548	28	5
5	29	.606	3	1.024	3	1.909	29	5

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 22175 VERONA, ITALY ALTITUDE 67 M YEAR 1981
MMO 16090 45 23N 10 52E TAU: 500=.1559 380=.4465

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
5 31	.864	3	1.353	3	1.635	31 5
MONTHLY MEAN	.729	52	1.112	52	1.542	BETA .250

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
6 1	.877	2	1.343	2	1.554	1 6
6 2	.936	3	1.407	3	1.486	2 6
6 3	1.028	2	1.606	2	1.624	3 6
6 4	.698	2	1.119	2	1.716	4 6
6 5	.851	1	1.135	1	1.049	5 6
6 7	1.050	3	1.426	3	1.117	7 6
6 8	1.576	1	2.269	1	1.327	8 6
6 11	.850	3	1.264	3	1.444	11 6
6 12	1.182	3	1.697	3	1.317	12 6
6 13	.710	3	1.164	3	1.803	13 6
6 14	.921	2	1.334	2	1.351	14 6
6 15	.600	3	.991	3	1.830	15 6
6 17	1.002	1	1.513	1	1.501	17 6
6 19	.331	3	.597	3	2.146	19 6
6 20	1.126	3	1.571	3	1.215	20 6
6 24	.776	3	1.149	3	1.430	24 6
6 25	1.215	1	1.695	1	1.213	25 6
6 27	.965	2	1.301	2	1.086	27 6
6 28	1.328	1	1.765	1	1.037	28 6
6 29	.297	3	.523	3	2.055	29 6
6 30	.758	3	1.153	3	1.529	30 6
MONTHLY MEAN	.850	48	1.263	48	1.442	BETA .313

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
7 1	1.093	2	1.677	2	1.561	1 7
7 2	.988	4	1.479	4	1.471	2 7
7 3	1.073	1	1.574	1	1.397	3 7
7 4	.370	2	.570	2	1.578	4 7
7 5	.652	3	1.056	3	1.757	5 7
7 6	.825	3	1.135	3	1.164	6 7
7 7	.703	1	1.190	1	1.918	7 7
7 8	1.047	2	1.355	2	.937	8 7
7 9	.986	2	1.553	2	1.656	9 7
7 13	.961	2	1.329	2	1.183	13 7
7 14	.416	3	.683	3	1.805	14 7
7 15	1.156	2	1.534	2	1.029	15 7
7 16	1.063	2	1.525	2	1.315	16 7
7 19	.459	1	.619	1	1.089	19 7
7 20	.178	2	.389	2	2.856	20 7
7 21	.307	2	.529	2	1.981	21 7
7 22	.631	2	1.088	2	1.987	22 7
7 23	.544	1	.894	1	1.812	23 7
7 25	.209	3	.406	3	2.415	25 7
7 26	.275	2	.483	2	2.049	26 7
7 27	.248	3	.468	3	2.311	27 7
7 28	.277	3	.550	3	2.501	28 7
7 29	.442	2	.774	2	2.045	29 7
7 30	1.043	2	1.575	2	1.503	30 7
MONTHLY MEAN	.648	52	.997	52	1.568	BETA .219

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
8 2	.947	2	1.327	2	1.230	2 8
8 3	.820	3	1.188	3	1.348	3 8
8 4	.693	2	1.016	2	1.395	4 8
8 5	.994	2	1.362	2	1.147	5 8
8 6	1.321	3	1.670	3	.854	6 8
8 7	1.021	3	1.400	3	1.148	7 8
8 9	.928	1	1.248	1	1.079	9 8

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 22175
WMO 16090

VERONA, ITALY
45 23N 10 52E

TAU: 500=.1559

ALTITUDE
380=.4465

67 M YEAR 1981

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
8	10	.541	3	.750	3	1.188	10	8
8	12	.801	1	1.381	1	1.984	12	8
8	13	1.261	3	1.619	3	.909	13	8
8	14	.794	3	1.148	3	1.342	14	8
8	15	.589	2	.890	2	1.506	15	8
8	16	.580	3	.859	3	1.431	16	8
8	18	.570	3	.869	3	1.539	18	8
8	19	.639	3	.923	3	1.338	19	8
8	21	.301	2	.486	2	1.745	21	8
8	22	.335	3	.603	3	2.138	22	8
8	23	.478	3	.752	3	1.650	23	8
8	24	.380	3	.549	3	1.337	24	8
8	25	.508	3	.823	3	1.758	25	8
8	26	.473	2	.757	2	1.711	26	8
8	27	.536	3	.847	3	1.671	27	8
8	28	.756	3	1.055	3	1.216	28	8
MONTHLY MEAN		.701	59	1.008	59	1.324	BETA	.280

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
9	2	.539	2	.729	2	1.105	2	9
9	6	.641	3	.905	3	1.252	6	9
9	7	.824	3	1.128	3	1.146	7	9
9	8	.861	1	1.146	1	1.043	8	9
9	11	.920	2	1.177	2	.899	11	9
9	12	1.051	2	1.359	2	.936	12	9
9	13	1.453	1	1.779	1	.738	13	9
9	14	.493	2	.685	2	1.194	14	9
9	15	.187	2	.339	2	2.157	15	9
9	16	.783	2	1.240	2	1.675	16	9
9	17	.958	2	1.412	2	1.414	17	9
9	21	.824	3	1.151	3	1.216	21	9
9	22	.671	2	.979	2	1.377	22	9
9	23	.830	2	1.060	2	.892	23	9
9	25	.564	3	.806	3	1.304	25	9
9	26	.598	2	.841	2	1.244	26	9
MONTHLY MEAN		.733	34	1.016	34	1.187	BETA	.322

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
10	1	.424	3	.683	3	1.739	1	10
10	3	.581	2	.708	2	.717	3	10
10	7	1.453	2	1.664	2	.495	7	10
10	8	.811	3	1.055	3	.956	8	10
10	9	1.364	1	1.597	1	.575	9	10
10	11	.554	2	.764	2	1.174	11	10
10	13	.242	3	.388	3	1.721	13	10
10	14	.469	2	.616	2	.995	14	10
10	16	.949	3	1.210	3	.888	16	10
10	17	1.196	3	1.475	3	.765	17	10
10	18	.976	2	1.219	2	.810	18	10
10	22	1.041	1	1.102	1	.208	22	10
10	23	.202	1	.323	1	1.716	23	10
10	24	.195	3	.350	3	2.141	24	10
10	28	.275	3	.411	3	1.463	28	10
10	29	.667	2	.963	2	1.338	29	10
10	31	.661	2	.888	2	1.079	31	10
MONTHLY MEAN		.674	38	.879	38	.967	BETA	.345

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 22175
WMO 16090

VERONA, ITALY
45 23N

10 52E TAU: 500=.1559

ALTITUDE
380=.4465

67 M YEAR 1981

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
11	1	.856	3	1.006	3	.589	1	11
11	2	.708	1	.886	1	.820	2	11
11	6	.861	2	.938	2	.309	6	11
11	7	.609	2	.823	2	1.101	7	11
11	8	.136	3	.249	3	2.205	8	11
11	9	.207	3	.331	3	1.714	9	11
11	10	.228	1	.367	1	1.732	10	11
11	11	.310	2	.379	2	.732	11	11
11	12	.359	3	.587	3	1.795	12	11
11	13	.600	3	.787	3	.987	13	11
11	14	.341	2	.498	2	1.384	14	11
11	15	.082	3	.151	3	2.237	15	11
11	16	.149	2	.260	2	2.043	16	11
11	17	.166	3	.301	3	2.170	17	11
11	18	.410	3	.543	3	1.026	18	11
11	19	.844	1	1.231	1	1.375	19	11
11	20	.619	1	.924	1	1.456	20	11
11	21	.774	2	1.062	2	1.153	21	11
11	22	1.280	1	1.481	1	.531	22	11
11	25	.833	1	1.062	1	.882	25	11
11	26	.221	3	.373	3	1.906	26	11
11	27	.476	3	.577	3	.701	27	11
11	30	.152	1	.245	1	1.738	30	11
MONTHLY MEAN		.434	49	.588	49	1.105	BETA	.202

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
12	1	.147	2	.240	2	1.793	1	12
12	2	.166	2	.298	2	2.134	2	12
12	3	.282	1	.487	1	1.984	3	12
12	4	.366	1	.577	1	1.665	4	12
12	10	.400	1	.498	1	.794	10	12
12	13	.212	1	.339	1	1.707	13	12
12	14	.211	1	.336	1	1.702	14	12
12	15	.645	1	.841	1	.967	15	12
12	16	.220	1	.273	1	.772	16	12
12	17	.364	1	.527	1	1.349	17	12
12	20	.474	1	.645	1	1.119	20	12
12	23	.508	1	.724	1	1.292	23	12
12	26	.181	2	.299	2	1.828	26	12
MONTHLY MEAN		.292	16	.433	16	1.433	BETA	.108

NCDC 22200
WMO 72255

VICTORIA, TEXAS
28 51N

96 55W TAU: 500=.1563

ALTITUDE
380=.4481

36 M YEAR 1981

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
1	1	.163	1	.217	1	1.038	1	1
1	2	.198	3	.311	3	1.644	2	1
1	23	.222	3	.335	3	1.503	23	1
1	24	.173	3	.264	3	1.538	24	1
MONTHLY MEAN		.194	10	.295	10	1.520	BETA	.068

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
2	1	.186	1	.282	1	1.517	1	2
2	2	.132	1	.197	1	1.461	2	2
2	8	.334	1	.490	1	1.399	8	2
2	10	.265	2	.368	2	1.194	10	2
2	11	.219	3	.318	3	1.364	11	2
2	15	.339	1	.530	1	1.627	15	2
2	17	.466	1	.702	1	1.489	17	2
2	23	.360	1	.435	1	.688	23	2

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 22200
WMO 72255

VICTORIA, TEXAS
28 51N 96 55W

TAU: 500=.1563

ALTITUDE
380=.4481

36 M YEAR 1981

MONTHLY MEAN	.273	11	.393	11	1.329		BETA	.109
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
3 5	.198	1	.339	1	1.956		5 3	
3 30	.286	3	.427	3	1.454		30 3	
MONTHLY MEAN	.264	4	.405	4	1.553		BETA	.090
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
5 10	.400	1	.616	1	1.568		10 5	
5 20	.349	1	.514	1	1.416		20 5	
5 26	.427	2	.661	2	1.590		26 5	
MONTHLY MEAN	.401	4	.613	4	1.547		BETA	.137
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
6 6	.604	1	.982	1	1.768		6 6	
6 9	.424	1	.657	1	1.595		9 6	
MONTHLY MEAN	.514	2	.819	2	1.698		BETA	.159
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
7 17	.365	1	.562	1	1.565		17 7	
7 23	.467	1	.612	1	.983		23 7	
7 24	.716	2	1.139	2	1.692		24 7	
7 30	.315	2	.495	2	1.644		30 7	
MONTHLY MEAN	.482	6	.740	6	1.560		BETA	.164
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
8 9	.433	1	.680	1	1.647		9 8	
8 21	1.208	1	1.489	1	.762		21 8	
8 22	1.172	1	1.697	1	1.350		22 8	
8 23	1.344	1	1.081	1	-.791		23 8	
8 26	.357	1	.563	1	1.655		26 8	
MONTHLY MEAN	.903	5	1.102	5	.727		BETA	.545
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
9 9	.369	1	.565	1	1.555		9 9	
9 10	.394	3	.632	3	1.718		10 9	
9 11	.386	2	.635	2	1.812		11 9	
9 17	.408	2	.632	2	1.593		17 9	
9 18	.316	1	.503	1	1.696		18 9	
9 19	.298	2	.460	2	1.582		19 9	
9 26	.455	1	.662	1	1.363		26 9	
MONTHLY MEAN	.376	12	.590	12	1.645		BETA	.120
MONTH DAY	500	N	380	N	ALPHA		DAY MONTH	
10 1	.350	1	.516	1	1.414		1 10	
10 12	.312	1	.542	1	2.010		12 10	
10 20	.171	1	.267	1	1.635		20 10	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 22200
WMO 72255

VICTORIA, TEXAS
28 51N 96 55W

TAU: 500=.1563

ALTITUDE
380=.4481

36 M YEAR 1981

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
10	26	.234	2	.358	2	1.546	26	10
MONTHLY MEAN		.260	5	.408	5	1.641	BETA .083	
MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
11	1	.233	3	.379	3	1.783	1	11
11	2	.231	3	.369	3	1.705	2	11
11	3	.286	1	.463	1	1.753	3	11
11	4	.323	1	.537	1	1.850	4	11
11	6	.290	2	.436	2	1.487	6	11
11	10	.349	3	.558	3	1.714	10	11
11	11	.330	2	.558	2	1.915	11	11
11	14	.444	2	.713	2	1.722	14	11
11	20	.188	2	.317	2	1.897	20	11
11	21	.234	1	.386	1	1.824	21	11
11	22	.332	1	.532	1	1.719	22	11
11	24	.328	1	.497	1	1.510	24	11
MONTHLY MEAN		.293	22	.472	22	1.737	BETA .088	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
12	1	.209	3	.333	3	1.685	1	12
12	2	.207	3	.331	3	1.715	2	12
12	3	.231	2	.360	2	1.622	3	12
12	15	.272	3	.396	3	1.374	15	12
12	16	.365	1	.553	1	1.520	16	12
12	18	.190	3	.311	3	1.794	18	12
12	22	.283	1	.446	1	1.660	22	12
12	23	.210	2	.329	2	1.629	23	12
12	26	.318	1	.511	1	1.722	26	12
MONTHLY MEAN		.236	19	.368	19	1.625	BETA .076	

NCDC 22300
WMO 43149

VISAKHAPATNAM, INDIA
17 43N 83 18E

TAU: 500=.1559

ALTITUDE

72 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH
1	1	.220	5		1	1
1	2	.236	3		2	1
1	3	.252	5		3	1
1	4	.185	3		4	1
1	5	.225	3		5	1
1	6	.259	4		6	1
1	7	.224	5		7	1
1	8	.315	2		8	1
1	13	.175	5		13	1
1	14	.157	5		14	1
1	15	.168	5		15	1
1	16	.143	5		16	1
1	17	.212	4		17	1
1	18	.215	1		18	1
1	19	.288	1		19	1
1	20	.269	3		20	1
1	21	.232	2		21	1
1	23	.272	4		23	1
1	24	.334	4		24	1
1	25	.357	2		25	1
1	27	.179	4		27	1
1	28	.205	5		28	1
1	29	.297	5		29	1
1	30	.251	5		30	1
1	31	.235	4		31	1

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 22300
WMO 43149

VISAKHAPATNAM, INDIA
17 43N 83 18E TAU: 500=.1559

ALTITUDE 72 M YEAR 1981

MONTHLY MEAN .228 94 1.300 BETA .093

MONTH	DAY	500	N	ALPHA	DAY	MONTH
2	1	.215	4		1	2
2	4	.286	2		4	2
2	5	.202	2		5	2
2	6	.172	2		6	2
2	7	.212	3		7	2
2	8	.329	5		8	2
2	9	.162	5		9	2
2	10	.219	2		10	2
2	11	.297	3		11	2
2	12	.266	3		12	2
2	13	.171	3		13	2
2	14	.237	5		14	2
2	15	.249	5		15	2
2	16	.215	5		16	2
2	17	.193	5		17	2
2	18	.284	4		18	2
2	19	.310	2		19	2
2	20	.277	5		20	2
2	21	.388	2		21	2
2	22	.260	4		22	2
2	23	.170	5		23	2
2	24	.211	5		24	2
2	25	.217	5		25	2
2	26	.222	3		26	2
2	27	.307	3		27	2
2	28	.297	5		28	2

MONTHLY MEAN .241 97 1.300 BETA .098

MONTH	DAY	500	N	ALPHA	DAY	MONTH
3	1	.274	4		1	3
3	2	.273	4		2	3
3	3	.333	5		3	3
3	4	.312	4		4	3
3	5	.382	1		5	3
3	6	.409	4		6	3
3	7	.247	4		7	3
3	8	.300	5		8	3
3	9	.312	2		9	3
3	10	.333	1		10	3
3	11	.369	1		11	3
3	13	.168	3		13	3
3	15	.279	2		15	3
3	16	.379	3		16	3
3	18	.291	3		18	3
3	19	.250	1		19	3
3	21	.270	2		21	3
3	23	.169	1		23	3
3	24	.231	4		24	3
3	26	.406	2		26	3
3	27	.279	1		27	3
3	28	.281	3		28	3
3	29	.283	3		29	3
3	30	.231	5		30	3

MONTHLY MEAN .292 68 1.300 BETA .118

MONTH	DAY	500	N	ALPHA	DAY	MONTH
4	1	.276	3		1	4
4	2	.289	3		2	4
4	3	.317	4		3	4
4	7	.447	3		7	4
4	9	.361	5		9	4
4	10	.377	5		10	4
4	11	.442	5		11	4

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 22300
WMO 43149

VISAKHAPATNAM, INDIA
17 43N 83 18E

TAU: 500 = .1559

ALTITUDE 72 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH	BETA
4	12	.359	4		12	4	
4	13	.251	4		13	4	
4	14	.404	4		14	4	
4	15	.410	2		15	4	
4	16	.445	1		16	4	
4	17	.405	1		17	4	
4	18	.322	1		18	4	
4	19	.336	2		19	4	
4	25	.406	3		25	4	
MONTHLY MEAN		.363	50	1.300	BETA		.147
5	2	.322	2		2	5	
5	4	.361	1		4	5	
5	5	.344	2		5	5	
5	9	.272	3		9	5	
5	10	.296	1		10	5	
5	11	.233	2		11	5	
5	13	.276	3		13	5	
5	14	.341	4		14	5	
5	15	.380	4		15	5	
5	17	.426	2		17	5	
5	18	.466	1		18	5	
5	24	.469	2		24	5	
5	28	.473	1		28	5	
5	29	.425	2		29	5	
5	30	.292	3		30	5	
MONTHLY MEAN		.347	33	1.300	BETA		.141
8	23	.315	1		23	8	
8	26	.356	2		26	8	
MONTHLY MEAN		.342	3	1.300	BETA		.139
9	9	.342	1		9	9	
9	11	.238	1		11	9	
9	12	.208	2		12	9	
9	14	.341	1		14	9	
9	29	.274	1		29	9	
9	30	.334	1		30	9	
MONTHLY MEAN		.278	7	1.300	BETA		.113
10	2	.302	2		2	10	
10	4	.300	2		4	10	
10	5	.349	1		5	10	
10	6	.322	3		6	10	
10	8	.321	3		8	10	
10	9	.260	3		9	10	
10	10	.287	3		10	10	
10	11	.221	4		11	10	
10	12	.253	2		12	10	
10	14	.294	2		14	10	

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 22300
WMO 43149

VISAKHAPATNAM, INDIA
17 43N 83 18E

TAU: 500=.1559

ALTITUDE 72 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH
10	16	.289	1		16	10
10	17	.320	1		17	10
10	18	.314	1		18	10
10	19	.201	5		19	10
10	20	.276	3		20	10
10	21	.295	3		21	10
10	22	.271	4		22	10
10	23	.272	3		23	10
10	25	.236	2		25	10
10	29	.248	2		29	10
10	30	.222	1		30	10
10	31	.371	4		31	10

MONTHLY MEAN .279 55 1.300 BETA .113

MONTH	DAY	500	N	ALPHA	DAY	MONTH
11	2	.276	1		2	11
11	3	.243	3		3	11
11	10	.263	4		10	11
11	11	.218	4		11	11
11	12	.289	1		12	11
11	13	.246	4		13	11
11	14	.277	1		14	11
11	15	.297	2		15	11
11	16	.350	1		16	11
11	20	.264	2		20	11
11	21	.241	3		21	11
11	22	.220	4		22	11
11	23	.205	4		23	11
11	24	.238	4		24	11
11	25	.237	4		25	11
11	26	.218	4		26	11
11	28	.280	1		28	11
11	29	.278	1		29	11

MONTHLY MEAN .244 48 1.300 BETA .099

MONTH	DAY	500	N	ALPHA	DAY	MONTH
12	2	.278	3		2	12
12	3	.254	4		3	12
12	11	.199	2		11	12
12	13	.178	3		13	12
12	16	.276	3		16	12
12	17	.277	1		17	12
12	19	.220	2		19	12
12	20	.324	3		20	12
12	25	.003	1		25	12
12	26	.287	4		26	12
12	27	.264	4		27	12
12	28	.293	4		28	12
12	29	.306	4		29	12
12	30	.403	4		30	12
12	31	.112	2		31	12

MONTHLY MEAN .267 44 1.300 BETA .108

NCDC 22370
WMO 16216

VITERBO, ITALY
42 26N 12 4E

TAU: 500=.1522

ALTITUDE 300 M YEAR 1981
380=.4347

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
1	1	.133	1	.200	1	1.496	1	1
1	5	.058	3	.101	3	2.019	5	1
1	7	.097	3	.192	3	2.486	7	1

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 22370
WMO 16216

VITERBO, ITALY
42 26N 12 4E

TAU: 500=.1522

ALTITUDE
380=.4347

300 M YEAR 1981

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
1	9	.249	1	.395	1	1.689	9	1
1	10	.139	2	.240	2	1.995	10	1
1	11	.184	1	.279	1	1.510	11	1
1	12	.263	1	.503	1	2.360	12	1
1	16	.087	2	.137	2	1.638	16	1
1	19	.055	1	.083	1	1.555	19	1
1	21	.258	1	.426	1	1.828	21	1
1	23	.203	1	.275	1	1.103	23	1
1	25	.039	1	.075	1	2.368	25	1
1	26	.158	2	.266	2	1.896	26	1
1	27	.092	2	.173	2	2.310	27	1
1	28	.075	2	.122	2	1.791	28	1
1	30	.285	2	.376	2	1.012	30	1
1	31	.082	3	.142	3	1.988	31	1
MONTHLY MEAN		.130	29	.213	29	1.798	BETA	.037

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
2	2	.123	2	.177	2	1.328	2	2
2	3	.330	1	.480	1	1.359	3	2
2	6	.125	3	.219	3	2.030	6	2
2	8	.102	3	.178	3	2.026	8	2
2	14	.153	2	.271	2	2.086	14	2
2	15	.167	4	.281	4	1.890	15	2
2	17	.254	2	.393	2	1.589	17	2
2	18	.395	2	.567	2	1.320	18	2
2	23	.461	1	.653	1	1.268	23	2
2	24	.171	1	.274	1	1.710	24	2
2	26	.213	1	.358	1	1.886	26	2
2	27	.396	1	.574	1	1.351	27	2
MONTHLY MEAN		.208	23	.325	23	1.632	BETA	.067

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
3	5	.146	2	.277	2	2.337	5	3
3	7	.260	1	.444	1	1.952	7	3
3	14	.141	3	.252	3	2.118	14	3
3	16	.085	1	.177	1	2.669	16	3
3	20	.057	1	.137	1	3.183	20	3
3	23	.242	1	.385	1	1.687	23	3
3	25	.416	2	.625	2	1.483	25	3
MONTHLY MEAN		.199	11	.337	11	1.912	BETA	.053

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
4	10	.383	2	.570	2	1.445	10	4
4	12	.239	2	.391	2	1.788	12	4
4	13	.261	3	.443	3	1.925	13	4
4	14	.312	2	.515	2	1.826	14	4
4	15	.214	2	.361	2	1.901	15	4
4	21	.608	2	.937	2	1.574	21	4

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 22370
WMO 16216

VITERBO, ITALY
42 26N 12 4E

TAU: 500=.1522

ALTITUDE 300 M YEAR 1981
380=.4347

MONTHLY MEAN .331 13 .529 13 1.712 BETA .101

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
5	1	.160	1	.280	1	2.041	1	5
5	2	.194	1	.353	1	2.179	2	5
5	5	.139	1	.259	1	2.261	5	5
5	6	.137	2	.261	2	2.352	6	5
5	7	.111	1	.225	1	2.578	7	5
5	9	.157	2	.309	2	2.478	9	5
5	10	.259	1	.405	1	1.621	10	5
5	15	.334	1	.542	1	1.770	15	5
5	19	.264	2	.470	2	2.095	19	5
5	20	.273	2	.512	2	2.291	20	5
5	21	.446	1	.669	1	1.481	21	5
5	25	.161	3	.328	3	2.588	25	5
5	28	.151	1	.297	1	2.452	28	5
5	29	.164	2	.305	2	2.248	29	5
5	30	.271	1	.496	1	2.205	30	5
5	31	.088	1	.212	1	3.196	31	5

MONTHLY MEAN .201 23 .367 23 2.188 BETA .044

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
6	2	.415	2	.667	2	1.730	2	6
6	3	.350	2	.559	2	1.706	3	6
6	7	.328	2	.592	2	2.149	7	6
6	9	.208	2	.427	2	2.619	9	6
6	10	.237	1	.413	1	2.025	10	6
6	11	.287	3	.540	3	2.309	11	6
6	12	.187	3	.378	3	2.562	12	6
6	14	.182	2	.364	2	2.524	14	6
6	15	.273	2	.504	2	2.238	15	6
6	16	.523	2	.823	2	1.654	16	6
6	18	.224	1	.451	1	2.546	18	6
6	25	.244	1	.469	1	2.382	25	6
6	30	.217	2	.393	2	2.158	30	6

MONTHLY MEAN .285 25 .510 25 2.122 BETA .065

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
7	5	.225	2	.431	2	2.373	5	7
7	6	.268	2	.497	2	2.255	6	7
7	7	.296	2	.567	2	2.364	7	7
7	9	.508	2	.876	2	1.986	9	7
7	10	.701	1	1.117	1	1.696	10	7
7	15	.481	1	.737	1	1.553	15	7
7	18	.376	1	.671	1	2.109	18	7
7	20	.390	1	.684	1	2.048	20	7
7	21	.234	1	.460	1	2.468	21	7
7	24	.237	1	.465	1	2.461	24	7
7	26	.212	1	.384	1	2.159	26	7
7	28	.217	2	.435	2	2.527	28	7
7	30	.178	3	.378	3	2.743	30	7

MONTHLY MEAN .310 20 .563 20 2.179 BETA .068

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 22370
MMO 16216

VITERBO, ITALY
42 26N 12 4E

TAU: 500=.1522

ALTITUDE 300 M YEAR 1981
380=.4347

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
8	1	.309	1	.546	1	2.072	1	8
8	2	.430	2	.709	2	1.826	2	8
8	3	.407	3	.706	3	2.005	3	8
8	4	.286	3	.523	3	2.193	4	8
8	5	.438	2	.698	2	1.698	5	8
8	6	.460	2	.723	2	1.650	6	8
8	7	.528	2	.894	2	1.918	7	8
8	8	.423	3	.693	3	1.801	8	8
8	9	.675	1	.915	1	1.106	9	8
8	12	.472	3	.733	3	1.606	12	8
8	13	.478	1	.805	1	1.900	13	8
8	14	.556	2	.839	2	1.503	14	8
8	15	.425	2	.727	2	1.962	15	8
8	16	.300	2	.522	2	2.017	16	8
8	17	.692	1	1.160	1	1.883	17	8
8	18	.732	1	1.086	1	1.439	18	8
8	19	.288	3	.502	3	2.021	19	8
8	20	.446	2	.717	2	1.725	20	8
8	26	.240	2	.467	2	2.426	26	8
8	27	.173	2	.375	2	2.810	27	8
8	28	.392	2	.696	2	2.089	28	8
MONTHLY MEAN		.412	42	.684	42	1.849	BETA .114	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
9	2	.700	1	1.038	1	1.436	2	9
9	6	.336	2	.539	2	1.718	6	9
9	7	.411	2	.712	2	2.002	7	9
9	8	.283	2	.471	2	1.860	8	9
9	9	.477	2	.751	2	1.655	9	9
9	12	.189	2	.358	2	2.330	12	9
9	15	.135	2	.274	2	2.581	15	9
9	16	.141	1	.290	1	2.614	16	9
9	17	.375	1	.619	1	1.823	17	9
9	22	.310	3	.507	3	1.794	22	9
9	26	.243	2	.490	2	2.561	26	9
9	30	.217	1	.378	1	2.018	30	9
MONTHLY MEAN		.310	21	.526	21	1.923	BETA .082	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
10	1	.233	3	.473	3	2.576	1	10
10	8	.168	3	.325	3	2.403	8	10
10	17	.162	2	.312	2	2.386	17	10
10	24	.200	2	.364	2	2.191	24	10
10	28	.129	3	.269	3	2.669	28	10
10	29	.125	1	.271	1	2.812	29	10
MONTHLY MEAN		.174	14	.345	14	2.483	BETA .031	

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
11	1	.120	1	.244	1	2.597	1	11
11	2	.142	1	.259	1	2.187	2	11
11	9	.130	2	.272	2	2.692	9	11
11	10	.174	2	.361	2	2.667	10	11
11	11	.180	2	.329	2	2.188	11	11
11	13	.211	2	.347	2	1.809	13	11
11	16	.129	2	.266	2	2.647	16	11
11	17	.164	1	.352	1	2.788	17	11
11	18	.113	2	.220	2	2.422	18	11

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 22370 WMO 16216		VITERBO, ITALY 42 26N 12 4E				TAU: 500=.1522	ALTITUDE 300 M		YEAR 1981	
MONTH	DAY	500	N	380	N	ALPHA			DAY	MONTH
11	19	.296	1	.493	1	1.860			19	11
11	26	.109	1	.282	1	3.457			26	11
11	30	.059	1	.123	1	2.664			30	11
MONTHLY MEAN		.154	18	.297	18	2.402			BETA	.029

NCDC 22700 WMO 62751		HAD MEDANA, SUDAN 14 23N 33 29E				TAU: 500=.1505	ALTITUDE 409 M		YEAR 1981		
MONTH	DAY	500	N	380	N	ALPHA	875	N	946	DAY	MONTH
12	1	.296	3	.623	3	2.710	.176	3	.000	0	1
12	2	.360	2	.771	2	2.771	.138	2	.000	0	2
12	3	.424	3	.780	3	2.224	.187	3	.000	0	3
12	4	.359	3	.698	3	2.424	.170	3	.000	0	4
12	5	.396	3	.681	3	1.970	.107	3	.000	0	5
12	6	.403	3	.750	3	2.266	.131	3	.000	0	6
12	7	.415	3	.734	3	2.076	.184	3	.000	0	7
12	8	.321	3	.632	3	2.466	.102	3	.000	0	8
12	9	.372	2	.677	2	2.182	.228	2	.000	0	9
12	10	.390	2	.753	2	2.394	.200	2	.000	0	10
12	11	.484	3	.761	3	1.653	.217	3	.000	0	11
12	12	.426	3	.638	3	1.472	.229	3	.000	0	12
12	13	.498	3	.791	3	1.685	.170	3	.000	0	13
12	14	.472	3	.857	3	2.172	.248	3	.000	0	14
12	15	.403	3	.675	3	1.882	.111	3	.000	0	15
12	16	.387	3	.647	3	1.877	.120	3	.000	0	16
12	17	.294	4	.580	4	2.476	.155	4	.000	0	17
12	18	.402	2	.692	2	1.973	.175	2	.000	0	18
12	19	.339	3	.564	3	1.852	.103	3	.000	0	19
12	20	.407	3	.727	3	2.119	.142	3	.000	0	20
12	21	.373	3	.660	3	2.075	.167	3	.000	0	21
12	22	.289	3	.597	3	2.645	.088	3	.000	0	22
12	23	.332	3	.572	3	1.978	.085	3	.000	0	23
12	24	.364	2	.794	2	2.844	.150	2	.000	0	24
12	25	.326	3	.623	3	2.362	.139	3	.000	0	25
12	26	.541	3	.834	3	1.580	.282	3	.000	0	26
12	27	.381	3	.685	3	2.137	.143	3	.000	0	27
12	28	.356	3	.696	3	2.445	.122	3	.000	0	28
12	29	.462	3	.763	3	1.832	.163	3	.000	0	29
12	30	.305	3	.541	3	2.087	.107	3	.000	0	30
12	31	.333	3	.614	3	2.224	.060	3	.000	0	31
MONTHLY MEAN		.384	89	.687	89	2.123	.154	89	.000	0	BETA .088

NCDC 22950 WMO		HANK OBSERVATORY, FRG 47 31N 11 9E				TAU: 500=.1283	ALTITUDE 1780 M		YEAR 1981	
MONTH	DAY	500	N			ALPHA			DAY	MONTH
9	13	.164	3						13	9
9	21	.152	3						21	9
9	25	.135	2						25	9
9	26	.141	1						26	9
MONTHLY MEAN		.151	9			1.300			BETA	.061

MONTH		500	N			ALPHA			DAY	MONTH
10	1	.120	3						1	10
10	6	.169	1						6	10
10	8	.100	3						8	10
10	9	.150	2						9	10
10	20	.070	3						20	10
10	23	.110	2						23	10
MONTHLY MEAN		.111	14			1.300			BETA	.045

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 22950
WMO

WANK OBSERVATORY, FRG
47 31N 11 9E TAU: 500=.1283

ALTITUDE 1780 M YEAR 1981

MONTH	DAY	500	N	ALPHA	DAY	MONTH
11	3	.041	2		3	11
11	4	.050	3		4	11
11	16	.059	3		16	11
11	17	.033	2		17	11
11	21	.142	1		21	11
11	23	.088	3		23	11
11	25	.074	1		25	11
11	27	.030	1		27	11
MONTHLY MEAN		.062	16	1.300	BETA	.025

MONTH	DAY	500	N	ALPHA	DAY	MONTH
12	24	.031	1		24	12
12	28	.050	1		28	12
12	30	.045	1		30	12
MONTHLY MEAN		.042	3	1.300	BETA	.017

NCDC 23960
WMO 71865

WYNYARD, CANADA
51 46N 104 12W TAU: 512=.1421

ALTITUDE 561 M YEAR 1981
383=.4093

MONTH	DAY	512	N	383	N	ALPHA	DAY	MONTH
1	1	.133	2	.170	2	.841	1	1
1	2	.170	1	.213	1	.776	2	1
1	4	.159	1	.213	1	1.016	4	1
1	6	.119	2	.136	2	.480	6	1
1	7	.146	1	.177	1	.667	7	1
1	8	.105	1	.136	1	.894	8	1
1	10	.182	1	.218	1	.615	10	1
1	11	.107	1	.126	1	.573	11	1
1	13	.099	3	.122	3	.723	13	1
1	17	.113	2	.175	2	1.497	17	1
1	18	.119	3	.154	3	.894	18	1
1	20	.129	2	.165	2	.835	20	1
1	21	.111	3	.145	3	.916	21	1
1	22	.176	1	.218	1	.734	22	1
1	26	.158	2	.188	2	.603	26	1
1	28	.157	1	.204	1	.900	28	1
1	29	.147	3	.189	3	.871	29	1
MONTHLY MEAN		.131	30	.167	30	.829	BETA	.075

MONTH	DAY	512	N	383	N	ALPHA	DAY	MONTH
2	1	.179	3	.241	3	1.012	1	2
2	3	.170	3	.218	3	.862	3	2
2	4	.287	1	.369	1	.861	4	2
2	5	.180	1	.212	1	.559	5	2
2	7	.162	1	.178	1	.312	7	2
2	8	.185	1	.193	1	.149	8	2
2	10	.193	1	.246	1	.836	10	2
2	12	.207	2	.232	2	.393	12	2
2	13	.214	2	.244	2	.463	13	2
2	14	.249	1	.267	1	.246	14	2
2	15	.194	2	.220	2	.435	15	2
2	16	.153	3	.160	3	.145	16	2
2	17	.152	3	.165	3	.275	17	2
2	21	.176	2	.203	2	.490	21	2

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 23960
WMO 71865

WYNYARD, CANADA
51 46N 104 12W

TAU: 512=.1421

ALTITUDE 561 M YEAR 1981
383=.4093

MONTH	DAY	512	N	383	N	ALPHA	DAY	MONTH
2	22	.189	2	.217	2	.465	22	2
2	23	.190	2	.207	2	.293	23	2
2	26	.351	1	.437	1	.751	26	2
2	28	.319	2	.381	2	.611	28	2
MONTHLY MEAN		.198	33	.232	33	.539	BETA .138	

MONTH	DAY	512	N	383	N	ALPHA	DAY	MONTH
3	1	.181	3	.213	3	.549	1	3
3	2	.163	2	.191	2	.543	2	3
3	3	.201	2	.249	2	.730	3	3
3	5	.217	2	.274	2	.807	5	3
3	10	.196	3	.241	3	.706	10	3
3	11	.177	3	.213	3	.636	11	3
3	12	.188	3	.208	3	.352	12	3
3	13	.203	3	.226	3	.364	13	3
3	14	.241	3	.297	3	.715	14	3
3	15	.193	2	.219	2	.433	15	3
3	16	.244	3	.300	3	.714	16	3
3	19	.211	2	.250	2	.584	19	3
3	21	.311	1	.354	1	.451	21	3
3	22	.256	3	.309	3	.647	22	3
3	23	.321	1	.414	1	.882	23	3
3	25	.251	3	.305	3	.674	25	3
3	28	.305	2	.368	2	.648	28	3
3	31	.327	1	.373	1	.455	31	3
MONTHLY MEAN		.223	42	.266	42	.614	BETA .148	

MONTH	DAY	512	N	383	N	ALPHA	DAY	MONTH
4	4	.400	1	.525	1	.941	4	4
4	5	.177	1	.210	1	.588	5	4
4	7	.399	1	.436	1	.310	7	4
4	8	.296	3	.354	3	.611	8	4
4	10	.374	1	.459	1	.707	10	4
4	11	.330	2	.373	2	.425	11	4
4	13	.448	2	.606	2	1.039	13	4
4	14	.320	3	.379	3	.577	14	4
4	15	.346	3	.400	3	.502	15	4
4	17	.340	1	.397	1	.536	17	4
4	18	.338	1	.401	1	.592	18	4
4	19	.301	3	.369	3	.705	19	4
4	22	.349	1	.416	1	.610	22	4
4	23	.385	2	.438	2	.443	23	4
4	26	.366	2	.434	2	.588	26	4
4	27	.297	1	.328	1	.345	27	4
MONTHLY MEAN		.340	28	.406	28	.615	BETA .225	

MONTH	DAY	512	N	383	N	ALPHA	DAY	MONTH
5	2	.484	2	.634	2	.932	2	5
5	4	.467	3	.577	3	.731	4	5
5	5	.450	3	.547	3	.671	5	5
5	6	.590	3	.743	3	.792	6	5
5	7	.529	1	.594	1	.396	7	5
5	8	.527	3	.693	3	.942	8	5
5	9	.373	1	.479	1	.867	9	5
5	11	.438	3	.607	3	1.123	11	5

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 23960
WMO 71865

WYNYARD, CANADA
51 46N 104 12W

TAU: 512=.1421

ALTITUDE 561 M YEAR 1981
383=.4093

MONTH	DAY	512	N	383	N	ALPHA	DAY	MONTH
5	12	.449	2	.544	2	.663	12	5
5	13	.472	2	.605	2	.858	13	5
5	17	.446	3	.560	3	.789	17	5
5	18	.540	2	.722	2	1.000	18	5
5	19	.504	3	.606	3	.635	19	5
5	20	.486	3	.568	3	.534	20	5
5	22	.434	1	.560	1	.872	22	5
5	23	.530	2	.689	2	.905	23	5
5	25	.514	3	.650	3	.808	25	5
5	26	.682	1	.855	1	.778	26	5
5	27	.562	1	.658	1	.543	27	5
5	28	.627	2	.823	2	.941	28	5
5	29	.466	1	.587	1	.792	29	5
5	30	.471	3	.576	3	.692	30	5
5	31	.520	2	.635	2	.691	31	5
MONTHLY MEAN		.499	50	.628	50	.792	BETA	.294

MONTH	DAY	512	N	383	N	ALPHA	DAY	MONTH
6	1	.644	3	.742	3	.490	1	6
6	2	.750	2	.915	2	.682	2	6
6	3	.543	2	.677	2	.761	3	6
6	4	.512	2	.661	2	.878	4	6
6	5	.496	3	.570	3	.479	5	6
6	7	.505	1	.597	1	.579	7	6
6	9	.434	2	.529	2	.685	9	6
6	11	.682	2	.853	2	.770	11	6
6	15	.653	2	.751	2	.481	15	6
6	18	.491	3	.582	3	.582	18	6
6	19	.440	2	.548	2	.754	19	6
6	22	.477	1	.579	1	.663	22	6
6	23	.391	1	.490	1	.777	23	6
6	24	.479	2	.597	2	.753	24	6
6	25	.434	3	.516	3	.596	25	6
6	26	.406	3	.484	3	.600	26	6
6	27	.531	3	.623	3	.553	27	6
6	28	.487	2	.593	2	.681	28	6
6	29	.448	3	.534	3	.605	29	6
6	30	.319	3	.390	3	.694	30	6
MONTHLY MEAN		.503	45	.605	45	.636	BETA	.329

MONTH	DAY	512	N	383	N	ALPHA	DAY	MONTH
7	1	.328	1	.388	1	.583	1	7
7	2	.563	1	.699	1	.747	2	7
7	3	.413	3	.480	3	.521	3	7
7	4	.461	3	.577	3	.770	4	7
7	5	.543	2	.665	2	.702	5	7
7	7	.456	2	.548	2	.632	7	7
7	8	.507	2	.595	2	.550	8	7
7	9	.439	3	.501	3	.450	9	7
7	10	.481	1	.573	1	.602	10	7
7	11	.464	2	.566	2	.684	11	7
7	12	.506	3	.617	3	.686	12	7
7	14	.608	1	.679	1	.384	14	7
7	17	.769	2	1.004	2	.921	17	7
7	18	.572	3	.726	3	.818	18	7
7	19	.484	3	.579	3	.618	19	7
7	20	.633	1	.785	1	.740	20	7
7	21	.545	2	.678	2	.748	21	7
7	22	.537	3	.663	3	.727	22	7
7	25	.444	2	.521	2	.556	25	7
7	26	.505	3	.602	3	.602	26	7
7	27	.443	3	.517	3	.529	27	7
7	28	.470	3	.562	3	.618	28	7

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 23960
WMO 71865

WYNYARD, CANADA
51 46N 104 12W

TAU: 512=.1421

ALTITUDE 561 M YEAR 1981
383=.4093

MONTH	DAY	512	N	383	N	ALPHA	DAY	MONTH				
7	29	.573	2	.700	2	.687	29	7				
MONTHLY MEAN						.504	51	.611	51	.661	BETA	.324

MONTH	DAY	512	N	383	N	ALPHA	DAY	MONTH				
8	1	.483	2	.596	2	.726	1	8				
8	2	.470	3	.540	3	.479	2	8				
8	3	.526	1	.619	1	.564	3	8				
8	6	.730	2	.963	2	.953	6	8				
8	10	.578	1	.716	1	.735	10	8				
8	11	.552	2	.770	2	1.148	11	8				
8	13	.390	3	.492	3	.796	13	8				
8	15	.574	2	.807	2	1.173	15	8				
8	16	.409	2	.546	2	.996	16	8				
8	18	.523	1	.663	1	.814	18	8				
8	19	.643	3	.838	3	.915	19	8				
8	21	.414	1	.476	1	.481	21	8				
8	23	.583	1	.701	1	.639	23	8				
8	26	.568	2	.727	2	.847	26	8				
8	27	.469	3	.619	3	.960	27	8				
8	28	.583	3	.741	3	.827	28	8				
8	31	.364	2	.454	2	.759	31	8				
MONTHLY MEAN						.519	34	.664	34	.851	BETA	.294

MONTH	DAY	512	N	383	N	ALPHA	DAY	MONTH				
9	3	.354	3	.463	3	.929	3	9				
9	6	.388	1	.501	1	.878	6	9				
9	7	.231	2	.278	2	.643	7	9				
9	8	.247	3	.275	3	.376	8	9				
9	9	.238	3	.273	3	.471	9	9				
9	10	.397	3	.510	3	.864	10	9				
9	11	.242	3	.292	3	.638	11	9				
9	12	.271	1	.360	1	.972	12	9				
9	13	.300	3	.391	3	.918	13	9				
9	14	.445	1	.632	1	1.207	14	9				
9	15	.508	2	.664	2	.922	15	9				
9	16	.251	3	.318	3	.825	16	9				
9	17	.470	3	.600	3	.841	17	9				
9	18	.317	1	.472	1	1.368	18	9				
9	19	.417	3	.552	3	.968	19	9				
9	21	.258	1	.309	1	.615	21	9				
9	22	.201	1	.264	1	.949	22	9				
9	23	.258	1	.364	1	1.181	23	9				
9	24	.344	3	.426	3	.734	24	9				
MONTHLY MEAN						.327	41	.417	41	.839	BETA	.186

MONTH	DAY	512	N	383	N	ALPHA	DAY	MONTH
10	2	.190	3	.234	3	.714	2	10
10	4	.262	1	.311	1	.583	4	10
10	5	.222	2	.287	2	.880	5	10
10	9	.328	1	.409	1	.754	9	10
10	10	.203	2	.258	2	.828	10	10
10	15	.257	2	.320	2	.750	15	10
10	16	.220	1	.264	1	.638	16	10
10	27	.245	2	.348	2	1.206	27	10
10	28	.230	3	.310	3	1.028	28	10
10	29	.208	2	.283	2	1.060	29	10
10	31	.087	1	.128	1	1.334	31	10

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 23960
WMO 71865

WYNYARD, CANADA
51 46N 104 12W

TAU: 512=.1421

ALTITUDE 561 M
383=.4093

YEAR 1981

MONTHLY MEAN .222 20 .287 20 .890 BETA .122

MONTH DAY	512	N	383	N	ALPHA	DAY MONTH
12 1	.155	1	.187	1	.640	1 12
12 2	.062	1	.060	1	-.147	2 12
12 4	.096	3	.119	3	.752	4 12
12 6	.183	1	.236	1	.870	6 12
12 7	.103	2	.144	2	1.142	7 12
12 10	.096	1	.121	1	.800	10 12
12 11	.145	2	.181	2	.766	11 12
12 12	.182	1	.251	1	1.108	12 12
12 18	.129	1	.177	1	1.073	18 12
12 19	.098	1	.109	1	.383	19 12
12 20	.107	2	.128	2	.598	20 12
12 25	.177	1	.245	1	1.114	25 12
12 28	.162	1	.201	1	.741	28 12
12 29	.132	2	.164	2	.756	29 12

MONTHLY MEAN .125 20 .159 20 .816 BETA .073

NCDC 25200
WMO 72525

YOUNGSTOWN, OHIO
41 16N 80 40W

TAU: 500=.1510

ALTITUDE 361 M
380=.4313

YEAR 1981

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
1 26	.312	1	.344	1	.356	26 1
1 31	.367	1	.446	1	.708	31 1

MONTHLY MEAN .339 2 .395 2 .551 BETA .232

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
2 5	.274	1	.295	1	.266	5 2
2 12	.347	1	.397	1	.491	12 2
2 13	.261	2	.296	2	.457	13 2
2 14	.301	3	.361	3	.664	14 2
2 15	.260	1	.298	1	.500	15 2

MONTHLY MEAN .288 8 .333 8 .528 BETA .200

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
3 12	.450	2	.524	2	.556	12 3
3 21	.497	2	.561	2	.443	21 3
3 24	.466	1	.540	1	.535	24 3

MONTHLY MEAN .472 5 .542 5 .504 BETA .333

MONTH DAY	500	N	380	N	ALPHA	DAY MONTH
4 1	.264	1	.259	1	-.066	1 4
4 2	.279	2	.301	2	.275	2 4
4 6	.396	2	.411	2	.130	6 4
4 7	.485	1	.703	1	1.355	7 4
4 9	.384	1	.462	1	.668	9 4
4 10	.242	1	.259	1	.256	10 4
4 15	.413	2	.507	2	.749	15 4
4 16	.495	1	.594	1	.659	16 4

MONTHLY MEAN .368 11 .429 11 .557 BETA .250

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 25200
WMO 72525

YOUNGSTOWN, OHIO
41 16N 80 40W

TAU: 500=.1510

ALTITUDE 361 M YEAR 1981
380=.4313

MONTH	DAY	500	N	380	N	ALPHA	DAY	MONTH
5	1	.542	1	.643	1	.623	1	5
5	3	.511	3	.571	3	.403	3	5
5	4	.520	4	.632	4	.714	4	5
5	7	.482	2	.560	2	.543	7	5
5	8	.453	1	.523	1	.524	8	5
5	20	.508	3	.545	3	.255	20	5
5	21	.664	3	.751	3	.446	21	5
5	22	.765	2	.809	2	.203	22	5
5	23	.858	1	.926	1	.279	23	5
5	31	.590	1	.552	1	-.243	31	5
MONTHLY MEAN		.575	21	.643	21	.412	BETA .432	
6	7	.625	1	.575	1	-.307	7	6
6	18	.690	2	.776	2	.430	18	6
6	27	.469	1	.473	1	.027	27	6
6	28	.544	2	.564	2	.133	28	6
6	30	1.701	1	2.046	1	.673	30	6
MONTHLY MEAN		.752	7	.825	7	.338	BETA .595	
7	1	.581	2	.542	2	-.257	1	7
7	2	.773	1	.810	1	.172	2	7
7	6	1.040	1	1.107	1	.226	6	7
7	7	.631	1	.732	1	.543	7	7
7	8	1.437	1	1.760	1	.738	8	7
7	23	.501	1	.496	1	-.034	23	7
7	30	.425	1	.404	1	-.178	30	7
7	31	.897	1	1.061	1	.612	31	7
MONTHLY MEAN		.763	9	.828	9	.300	BETA .620	
8	1	.885	2	.972	2	.340	1	8
MONTHLY MEAN		.885	2	.972	2	.340	BETA .699	
9	9	.225	1	.189	1	-.641	9	9
MONTHLY MEAN		.225	1	.189	1	-.641	BETA .351	
10	12	.451	1	.440	1	-.091	12	10
10	13	.271	2	.259	2	-.157	13	10
10	28	.397	1	.321	1	-.778	28	10
MONTHLY MEAN		.348	4	.320	4	-.301	BETA .428	
11	10	.333	1	.274	1	-.709	10	11
11	30	.226	1	.243	1	.261	30	11

AEROSOL OPTICAL DEPTH
DAILY AND MONTHLY MEANS

(NATURAL LOGARITHMS)

NCDC 25200
WMO 72525

YOUNGSTOWN, OHIO
41 16N 80 40W

TAU: 500=.1510

ALTITUDE 361 M YEAR 1981
380=.4313

MONTHLY MEAN	.280	2	.259	2	-.285	BETA	.341
MONTH DAY	500	N	380	N	ALPHA	DAY MONTH	
12 18	.220	1	.205	1	-.253	18 12	
MONTHLY MEAN	.220	1	.205	1	-.253	BETA	.263