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"Technology Transfer Network:
Office of Air Quality Planning and Standards (OAQPS)"

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OFFICE OF AIR QUALITY PLANNING

AND STANDARDS (OAQPS)

TECHNOLOGY TRANSFER NETWORK (TTN)

USER'S MANUAL

(copied only through page 11)

$F R o n$ S. HANNA

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TABLE OF CONTENTS

SECTION 1

INTRODUCTION

The Office of Air Quality Planning and Standards (OAQPS) has been charged by Congress under the Clean Air Act to protect and enhance the quality of the Nation's air resources to promote public health and welfare. OAQPS is responsible for developing national programs, technical policies, regulations, guidelines and criteria for air pollution control. OAQPS supports activities by State and local governments for the prevention and control of air pollution.

The Office of Air Quality Planning and Standards (OAQPS) Technology Transfer Network (TTN) is an electronic bulletin board system that is used to facilitate communications and disseminate technical information among EPA staff, EPA Regional Offices, and State and local agencies. The TTN also provides communication and information services to private industry, environmental consultants, educational institutions and individuals engaged in environmental issues and projects.

This guide describes how to access the OAQPS TTN and explains the commands and features of the system. The most recent version of this manual is always available for downloading from the System Utilities Menu of the TTN under the menu item "TTN User's Manual". It is located in the file MANUAL.ZIP.

1.1. WHAT IS AN ELECTRONIC BULLETIN BOARD SYSTEM?

A Bulletin Board System (BBS) is a computer system comprised of hardware and software that receives telephone calls from other computers. The BBS concept began as a means for users to enter messages and read messages addressed to them by other users. Today's BBS performs a variety of services that include the exchange of programs, software, databases and files of all descriptions. The most important function of a BBS is to expedite and promote the exchange of information through easy and friendly access. Users are free to visit at their own convenience to scan messages, pick those that are of particular interest, and exchange information over long distances and at high speeds. The configuration of each BBS is unique because of the variety of computers, communications equipment and software available to develop a system.

1.2. WHAT IS THE OAQPS TTN?

The OAQPS Technology Transfer Network (TTN) is a multiple bulletin board system offering the caller access to several technically oriented bulletin boards by dialing only one phone number. The network is designed to facilitate communications and provide access to information and technology related to air pollution. The purpose of the network is to foster technology transfer among all parties interested in the solution of the nation's air pollution problems. The network is also designed to be user-friendly and readily accessible from anywhere in the country. It is a forum for technical interchange at the working level among EPA, State and local agencies and the private sector.

The OAQPS TTN runs on an AT class microcomputer. The computer runs at 66 megahertz clock speed and has over 6 gigabytes of disk storage provided by three hard disk drives. The hard disks are controlled by a Small Computer System Interface (SCSI) disk controller. The TTN runs the 64 line version of The Bread Board System (TBBS), by eSoft, Inc. The system can support 64 simultaneous users downloading the same software, sharing the same files and messages on the system. The system has the capability of executing online and sharing programs written and compiled using a subset of data base computer language code.

Presently, the Technology Transfer Network is comprised of the following bulletin boards:

OAQPS - Office of Air Quality Planning and Standards

EMTIC - Emission Measurement Technical Information Center

SCRAM - Support Center for Regulatory Air Models

CHIEF - Clearinghouse for Inventories and Emission Factors

CAAA   - Clean Air Act Amendments

APTI   - Air Pollution Training Institute

CTC   - Control Technology Center

AMTIC - Ambient Monitoring Technical Information Center

AIRS   - Aerometric Information Retrieval System

BLIS   - BACT/RACT/LAER Information System

COMPLI - Stationary Source Compliance Division

OMS   - US EPA Office of Mobile Sources

NSR   - New Source Review

NATICH - National Air Toxics Clearinghouse

ORIA   - Office of Radiation and Indoor Air

USC   - User Support Center BBS

See Appendix F, Bulletin Board Descriptions, for a more detailed description of each BBS presently in the TTN.

1.3. MAJOR FEATURES OF THE TTN

The TTN is a multi-board system that supports complete and separate BBS systems. The user has access to many BBS systems by simply dialing one telephone number. The TTN provides utility features that are applicable to all boards but each BBS within the TTN has certain features that are unique. The major features of the OAQPS TTN include:

o   File Transfer: Each BBS within the TTN has a variety of files, programs and databases that can be downloaded to a PC. You can transfer these files from the TTN by using an appropriate communications software program and a modem. You can also upload files to the TTN for use by others.

o   Electronic Messages: E-MAIL messages can be exchanged with any other TTN user. Private messages that can only be seen by the sender and receiver, can be exchanged between users. Most TTN boards also provide public messages that can be read by any user in order to promote open discussions for anyone interested in responding to technical questions and issues pertaining to a particular board. To facilitate the private exchange of files between users, files can be enclosed in e-mail messages.

o   Utilities: A number of utilities are provided that make life easier and fun for the TTN user. Such things as a user registry search, recent callers, user address changes, who else is on the system and many more items of interest are available.

o   Online Conferencing: Callers can communicate online with other callers who are currently logged on to the system. Public ar ivate online conferences are provided.

o   Data Base Online Applications: A number of applications are provided that can be executed and shared online by TTN users. These applications are data base programs that are written and compiled for real time execution on the TTN.

o   Subject Conferencing: On some bulletin boards, conferences are provided that are dedicated to a specific subject area. You ma; exchange messages of interest with other members of the conference.

1.4. WHAT YOU NEED TO ACCESS THE TTN

Most users access TTN through a personal computer and modem. However, there are alternate access methods, each with their own hardware and software requirements. If you are not planning to access via modem, please refer to **Appendix B: Alternate Access Methods**.

There are three basic components that you will need in order to access the TTN via modem. You will need the following:

o   **Personal Computer or Terminal:** Almost any computer or terminal will suffice, as long as it can connect via a modem to a telephone line. Using a computer is preferable to using a terminal since it will allow additional capabilities such as transferring files between your computer and the TTN. An AT compatible computer running DOS is recommended for the highest compatibility with the TTN.

o   **Modem:** A modem is used to connect your computer or terminal to the telephone line. Virtually any modem will work. Cables and telephone jacks are required to connect your modem to your computer or terminal and to the telephone system. TTN service is provided for all standard baud rates from 300 - 14,400 bps. TTN modems conform to the V.32, V.32bis, V.42 and V.42bis ITU standards.

o   **Communications Program:** Communications software is necessary when using a computer to connect to the TTN. Terminals have built-in communications programs. Make sure that the communications program you select is compatible with your computer and modem. For the highest compatibility with the TTN, choose a program that can support Xmodem, Kermit or Zmodem file transfer protocols, as well as a VT-100 or ANSI terminal emulation.

HOW TO USE THE OAQPS TTN

Before connecting to the OAQPS TTN, you must first set certain parameters in your terminal or communications program so that your system speaks the same language as the TTN. Most communications programs have a "setup" or "communication parameters" screen that allows you to make these settings.

2.1. CONFIGURING YOUR SYSTEM

You must set your system to operate at the highest speed that your modem can support. If you have a high-speed modem capable of communicating at greater than 9600 bps, read Section 4.3, **High Speed Modems**. High speed modems usually require special consideration.

Also, set your communications parameters to 8 data bits, 1 stop bit and no parity. These settings may be listed as "8/N/1" or "8-N-1" in your software. If you dial up the TTN and receive unintelligible character strings or cannot get further than the initial prompts for the name and location you are calling from, then it is very likely that one or more of these parameters have been set incorrectly in your system. If this happens, hang up, reset these parameters and dial again.

The following table lists the required and optional parameters for getting the fastest and most reliable connection to TTN:

1) Name	OAQPS TTN	Optional; name in your dialing directory.
2) Number	919-541-5742	Required; 300 - 14.4k bps. Use area codes, "9" or "8" prefix where appropriate.
3) Data Bits	8	Required
4) Parity	None	Required
5) Stop Bits	1	Required
6) Terminal Emulation	VT100 or ANSI	Required; displays PC graphics and colors.
7) Duplex	Full	Required
8) Flow Control	RTS/CTS or Hardware	Required with high-speed modems

There are often many other settings that can be made on a terminal or in a communications program. The other settings will most likely depend on your computer, modem or your own personal preferences.

Computer communications is often confusing and frustrating even for the experienced computer user. It is far beyond the scope of this document to cover the cryptic vocabulary, profusion of parameters and diversity of equipment possible in this field. If you are a novice or have trouble getting your equipment or software to work correctly, we suggest that you find someone in your office who can help you get through the first session.

2.2. MAKING A CONNECTION

Once you have made the settings as described in the above section, "Configuring Your System", you are ready to dial up the TTN. Be sure that your software is set to dial (919) 541-5742, including any dialing codes for your phone system, then issue the dial command.

If your modem has a speaker that allows you to monitor the call, you will hear the number being dialed, one or two rings, the phone being answered, several high-pitched tones and lastly a "swooshing" sound. If you cannot hear what is going on, then wait patiently; it can take as long as 45 seconds for a connection to be made.

As soon as a connection is made, your computer will usually notify you with a message like "CONNECT" or "CONNECT 2400". If nothing happens within a reasonable period of time, then hang up and return to the "Configuring Your System" section above to make sure your communications parameters are set correctly. You might also check to see if you are using the right type of cable to connect your modem to your computer or terminal and that the modem is properly connected to the telephone system.

If you get no answer and the phone continues ringing, first check to see that you are not calling during the Monday morning maintenance period. Maintenance and system backup are performed every Monday morning from 8:00 AM - 12:00 Noon Eastern Time.

If you get a busy signal, or your communication software relays a "BUSY" message, all modem lines are in use by other users. Generally, all lines are busy only for a few minutes each day. You can usually get a connection by waiting a few minutes and trying again.

2.3. LOGGING ON FOR THE FIRST TIME

Once you have successfully connected to the TTN you will see the TTN opening screen. The opening screen offers general information about accessing TTN, such as TTN modem number and modem speeds, TTN's TELNET address, and hours of operation. At the bottom of the opening screen you will see the prompt:

First Name?

Respond to this prompt with your real first name. Company or generic names are not permitted. Do not use made up names or "handles". Not following these guidelines could cause your registration to be rejected. Press return after you have entered your first name.

The next prompt you will see is:

Last Name?

Enter your real last name. It is important that you enter both your first and last names accurately and use exactly the same name every time you log on to the TTN. Otherwise, the TTN will not find you in the user log of authorized callers. For example, if you logon the first time as William Smith and the next time as Bill Smith, the TTN will take Bill Smith as a new and unregistered user.

The next prompt is:

Calling from (City,State)?

Enter the city and state you are calling from. This information is stored by the system and is presented for verification each time you log on.

The next prompt is:

Please Enter a 1-8 character Password to be used for future logons. This password may have any printable characters you wish and is NOT case sensitive. REMEMBER THIS PASSWORD. You will need it to log on again.

Your password?

After you have entered your password, a message appears stating that you are caller number "nnn" and that you are authorized 30 minutes for this call. Unregistered users are given 30 minutes per call until they register. After registering, users have unlimited call time. A welcome letter will now be displayed, followed by important policies and the TTN operating schedule.

2.4. NEW USER REGISTRATION

After having completed the events described in the above section "LOGGING ON FOR THE FIRST TIME", you will be in the Unregistered User's Main Menu. As an unregistered user, access is limited to viewing the descriptions of each TTN BBS. Registering a new user is actually a two-step process that involves input from the new user as well as review by the Systems Operator.

First, you must provide the system with some basic information that it keeps on all callers. Enter <R> from the Unregistered User's Main Menu and respond to the prompts for Company Name, Mailing Address, Country, Zip Code, Area Code, Phone Number, Board of Primary Interest, and Affiliation. Please specify only one board that you have a primary interest in for your specific needs. This gives the systems operators some idea of the interest that is generated for each BBS. Once registered you will immediately have full and unlimited access to all BBSs within the TTN. Please do not register more than one time. Company or generic names are not allowed and will not be approved.

Second, all registrations are reviewed by the TTN Systems Operator. Registrations are reviewed each working day. Any incomplete or inappropriate registrations are marked for deletion and removed from the system during the next Monday morning maintenance period.

2.5. LOGGING ON AS A REGISTERED USER

The sequence of events when logging on to the TTN as a registered user are much different than the first time as a new user. You will see the same opening screen discussed previously and then respond to the following prompts:

First Name?

Last Name?

Password?

The TTN will recognize you as a registered user and indicate the location from which you are calling. You will then be informed if you have any messages waiting and be given the opportunity to read the messages or wait until accessing a private E-MAIL area in one of the TTN bulletin boards. If there are any system bulletins that you have not read, you will be asked to read them. You will then be in the TTN Top Menu. This is the menu in the system that provides a gateway to all TTN Bulletin Boards, the Systems Utilities Menu, and other TTN services.

AIR QUALITY MODELS AND DOCUMENTS
from
NATIONAL TECHNICAL INFORMATION SERVICE (NTIS)

The Office of Air Quality Planning and Standards (OAQPS) Technology Transfer Network (TTN) User's Manual is available as follows:
Document Order Number: PB91-234583; Price: $19.00; (Paper Copy)

Models are available, individually, from NTIS on microcomputer disks. Regulatory and Air Quality models will also be available as a package. Most of the disks must be transported (uploaded) to IBM 3090 machines; however, some models do have PC executable code. Those that are operational on IBM compatible microcomputers are identified as executables in the following list:

EPA REGULATORY MODELS:

* BLP *
(Buoyant Line and Point Source Dispersion Model) is a gaussian plume dispersion model associated with aluminum reduction plants.
Order Number: PB90-500281; Price: $50; (1 transport disk; 1 document)
Document Order Number: PB84-164642

* CALINE3 *
(California Line Source Model) is a line-source dispersion model that can be used to predict carbon monoxide concentrations near highways and arterial streets given traffic emissions, site geometry, and meteorology.
Order Number: PB90-500299; Price: $75; (1 transport disk; 1 document)
Document Order Number: PB80-220841

* CDM2 *
(Climatological Dispersion Model) is a climatological dispersion model that determines long-term quasi-stable pollutant concentrations.
Order Number: PB90-500273; Price: $50; (1 transport disk; 1 document)
Order Number: PB90-500406; Price: $50; (1 executable disk; 1 document)
Document Order Number: PB86-136546

* COMPLEX I *
is a multiple point-source code with terrain adjustment representing a sequential modeling bridge between VALLEY and COMPLEX II.
Order Number: PB90-500414; Price: $50 (1 transport disk; no documentation)

* CRSTER *
estimates ground-level concentrations resulting from up to 19 co-located elevated stack emissions.
Order Number: PB90-500323; Price: $50 (1 transport disk; 1 document)
Document Order Number: PB-271360

* EKMA *
was developed for relating concentrations of photochemically formed ozone to levels of organic compounds and oxides of nitrogen.

1) Procedures For Applying City-specific EKMA. EPA-450/4-89-012
   Accession No. PB90-256777 Paper copy   Price code: Price: $ 23.00
                              Microfiche   Price code: Price: $ 8.00
2) User's Manual for OZIPM-4 (Ozone Isopleth Plotting With Optional
   Mechanisms) - Volume 1. EPA-450/4-89-009a
   Accession No. PB90-261488 Paper copy   Price code: Price: $ 23.00
                              Microfiche   Price code: Price: $ 11.00
3) User's Manual for OZIPM-4 (Ozone Isopleth Plotting With Optional
   Mechanisms) - Volume 2: Computer Code. EPA-450/4-89-009b
   Accession No. PB90-255399 Paper copy   Price code: Price: $ 23.00
                              Microfiche   Price code: Price: $ 8.00
4) Consideration of Transported Ozone and Precursors and Their Use in EKMA.
   EPA-450/4-88-016

Accession No. PB90-255415　Paper copy　　Price code:　　　　Price:　$ 23.00
　　　　　　　　　　　　Microfiche　　Price code:　　　　Price:　$ 8.00
5) A PC-Based System for Generating Ekma Input Files.　EPA-450/4-89-010
　Accession No. PB90-255407　Paper copy　　Price code:　　　　Price:　$ 17.00
　　　　　　　　　　　　Microfiche　　Price code:　　　　Price:　$ 8.00

* ISCLT *
(Industrial Source Complex Long-Term) is a steady-state gaussian plume model
which can be used to access pollutant concentrations from an industrial
source complex.
Order Number: PB90-500380; Price: $125 (1 transport disk; 3 documents)
Document Order Numbers: PB88-171475; PB88-171483; PB88-171491

* ISCST *
(Industrial Source Complex Short-Term) is a steady-state gaussian plume model
which can be used to access pollutant concentrations from an industrial
source complex.
Order Number: PB90-500398; Price: $125 (1 transport disk; 3 documents)
Order Number: PB90-500257; Price: $125 (1 executable disk; 3 documents)
Document Order Numbers: PB88-171475; PB88-171483; PB88-171491

* LONGZ-SHORTZ *
is designed to calculate the long and short-term pollutant concentrations
produced at a large number of receptors by emission from multiple stack,
building, and area sources.
Order Number: PB90-500265; Price: $125 (2 transport disks; 3 documents)
Document Order Numbers: PB83-146092; PB83-146100; PB86 244878

* MPRM 1.2 *
(Meteorological Processor for Regulatory Models) provides a general purpose
computer processor for organizing available meteorological data into a format
suitable for use by air quality dispersion models. Specifically, the
processor is designed to accommodate those dispersion models that have gained
EPA approval for use in regulatory decision making.
Order Number: PB90-500422; Price: $70 (1 transport disk; 1 document)
Order Number: PB90-500430; Price: $70 (1 executable disk; 1 document)
Document Order Number: PB89-127526

* MPTER *
is a multiple point-source gaussian model with optional terrain adjustments.
Order Number: PB90-500307; Price: $75 (1 transport disk; 3 documents)
Order Number: PB90-500356; Price: $75 (1 executable disk; 3 documents)
Document Order Numbers: PB83-114207; PB80-197361; PB86-217163

* PTPLU *
is a point-source dispersion gaussian screening model for estimating maximum
surface concentrations for one-hour concentrations.
Order Number: PB90-500331; Price: $50 (1 transport disk; 1 document)
Document Order Number: PB83-211235

* RAM *
is a short-term gaussian steady-state algorithm that estimates concentrations
of stable pollutants.
Order Number: PB90-500315; Price: $50 (1 transport disk; 1 document)
Document Order Number: PB88-113261

* RTDM *
(Rough Terrain Diffusion Model) is a sequential gaussian plume model designed
to estimate ground-level concentrations in rough (or flat) terrain in the
vicinity of one or more co-located point sources.
Order Number: PB90-500372; Price: $50 (1 transport disk; 1 document)
Document Order Number: PB88-171467

* Urban Airshed Model (UAM) *
is a three-dimensional grid based photochemical simualtion model for urban

scale domains.

1) User's Guide for the Urban Airshed Model, Volume I: User's Manual for
   UAM (CB-IV). EPA-450/4-91/002a
   Accession No. PB91-131227　Paper copy　Price code: A12　　Price:　$ 31.00
   　　　　　　　　　　　Microfiche　Price code: A12　　Price:　$ 31.00
2) User's Guide for the Urban Airshed Model, Volume II: User's Manual for
   UAM (CB-IV) Modeling System. EPA-450/4-91/002b
   Accession No. PB91-131235　Paper copy　Price code: A22　　Price:　$ 53.00
   　　　　　　　　　　　Microfiche　Price code: A22　　Price:　$ 53.00
3) User's Guide for the Urban Airshed Model, Volume III: User's Manual for
   the Diagnostic Wind Model. EPA-450/4-91/002c
   Accession No. PB91-131243　Paper copy　Price code: A04　　Price:　$ 17.00
   　　　　　　　　　　　Microfiche　Price code: A04　　Price:　$ 17.00
4) User's Guide for the Urban Airshed Model, Volume IV: User's Manual for
   the Emissions Preprocessor System. EPA-450/4-91/002d
   Accession No. PB91-131250　Paper copy　Price code: A13　　Price:　$ 31.00
   　　　　　　　　　　　Microfiche　Price code: A13　　Price:　$ 31.00
5) User's Guide for the Urban Airshed Model, Volume V: User's Manual for
   UAM (CB-IV) Modeling System. EPA-450/4-91/002e
   Accession No. PB91-131268　Paper copy　Price code: A11　　Price:　$ 31.00
   　　　　　　　　　　　Microfiche　Price code: A11　　Price:　$ 31.00
6) Urban Airshed Model - 5 computer Tapes and Manuals.
   Accession No. PB91-505578　　　　　Price code: T18　　Price: $1990.00
7) Gridded Model Information Support System (GMISS) User's Guide. Volume II:
   UAM Subsytem. EPA-450/4-91/009 (Note: Volume I is for EPA use only.)
   Accession No. PB91-206268　Paper copy　Price code: A06　　Price:　$ 23.00
   　　　　　　　　　　　Microfiche　Price code: A01　　Price:　$ 8.00

* VALLEY *
is a steady-state, univariate gaussian plume dispersion algorithm designed
for estimating either 24-hour or annual concentrations resulting from
emissions from up to 50 (total) point and area sources.
Order Number: PB90-500349; Price: $50 (1 transport disk; 1 document)
Document Order Number: PB-274054

AIR QUALITY MODELS from OFFICE OF RESEARCH and DEVELOPMENT:

* APRAC-3 *
contains the emission factor computation methodology and treats traffic link
in the primary network with low vehicle miles traveled as area sources.
Order Number: PB90-500851; Price: $50 (1 transport disk; 1 document)
Document Order Number: PB82-103763

* CTDMPLUS *
is a refined air quality model for use in all stability conditions for
complex terrain applications.

1) User's Guides to the Complex Terrain Dispersion Model (CTDMPLUS):
   3 user's Guides and Final Report (See 1a-d for titles):
   　Accession No.: PB90-243809　Paper copy　Price code: E99　Price:　$104.
   　　　　　　　　　　　　Microfiche　Price code: E99　Price:　$ 54.
   Individually:
   a.　User's Guide to the Complex Terrain Dispersion Model Plus Algorithms
   　　for Unstable Situations (CTDMPLUS): Volume 1 (EPA/600/8-89/041)
   　　　　Accession No.: PB89-181424　　　Paper copy　　　Price:　$ 31.
   b.　User's Guide to the CTDM Meteorological Preprocessor Program
   　　(EPA/600/8-88/004)
   　　　　Accession No.: PB88-162102　　　Paper copy　　　Price:　$ 23.
   c.　The Complex Terrain Dispersion Model Terrain Preprocessor System User
   　　Guide and Program Description (EPA/600/8-88/003)
   　　　　Accession No.: PB88-162094　　　Paper copy　　　Price:　$ 23.
   d.　EPA Complex Terrain Model Development: Final Report (EPA/600/3-88/00)
   　　　　Accession No.: PB88-162110　　　Paper copy　　　Price:　$ 45
2) Complex Terrain Dispersion Model (CTDMPLUS) for microcomputers.
   　　Accession No.: PB90-504119　Diskettes　Price code: D05　　Price:　$230

User's Guide to CTDMPLUS: Volume 2. The Screening Mode (CTSCREEN).
EPA/600/8-90/087
    Accession No.: PB91-136564   Paper copy   Price code: A04   Price: $ 17.00
                                 Microfiche   Price code: A04   Price: $ 17.00

* CTSCREEN *
; the screening mode of CTDMPLUS. Refer to CTDMPLUS above for all document
iformation for this model.

* HIWAY-ROADWAY *
:e two models which compute the hourly concentrations of non-reactive
illutants downwind of roadways and predict pollutant concentrations within
/o hundred meters of a highway respectively.
:der Number: PB90-500810; Price: $50 (1 transport disk; 1 document)
icument Order Number: PB80-227556

* INPUFF *
; a gaussian integrated puff model which is capable of addressing the
:cidental release of a substance over several minutes or of modeling the
ire typical continuous plume from a stack.
:der Number: PB90-500752; Price: $50 (1 transport disk; 2 documents)
icument Order Number: PB86-242468; PB86-242450

* MESOPUFF *
; a lagrangian model suitable for modeling the transport, diffusion and
imoval of air pollutants from multiple point and area sources at transport
istances beyond 10-50 KM.
:der Number: PB90-500794; Price: $50 (1 transport disk; 1 document)
icument Order Number: PB84-181775

* MPTDS *
; a modification of MPTER that explicitly accounts for gravitational
ittling and/or deposition loss of a pollutant.
:der Number: PB90-500836; Price: $50 (1 transport disk; 2 documents)
icument Order Numbers: PB82-215153; PB83-114207

* PAL *
?oint, Area and Line Source Algorithm Model) is a short-term gaussian steady
:ate algorithm that estimates concentrations of stable pollutants from
iint, area and line sources.
:der Number: PB90-500802; Price: $50 (1 transport disk; 1 document)
:der Number: PB90-500844; Price: $50 (1 executable disk; 1 document)
icument Order Number: PB87-168787

* PBM *
Photochemical Box Model) is a simple stationary single-cell model with a
ariable height lid designed to provide volume-integrated hour averages of
3 and other photochemical smog pollutants for an urban area for a single day
f simulation.
rder Number: PB90-500786; Price: $50 (1 transport disk; 1 document)
ocument Order Number: PB85-137164

* PEM *
Pollution Episodic Model) is an urban scale air pollution model capable of
redicting short-term average surface concentrations and deposition fluxes
f two gaseous or particulate pollutants.
rder Number: PB90-500760; Price: $75 (1 transport disk; 3 documents)
ocument Order Numbers: PB84-232537; PB84-164128; PB84-138742

* PLUVUE *
; a model that predicts the transport, atmospheric diffusion, chemical
onversion, optical effects and surface deposition of point-source emissions.
rder Number: PB90-500778; Price: $50 (1 transport disk; 1 document)
icument Order Number: PB84-158302

* SDM *

The Shoreline Dispersion Model (SDM) is a multipoint Gaussian dispersion
model that can be used to determine ground-level concentrations from tall
stationary point source emissions near a shoreline environment. SDM is used
in conjunction with MPTER algorithms to calculate concentrations when
fumigation conditions do ..vu exist.
1) User's Guide to SDM - A Shoreline Dispersion Model EPA-450/4-88-017
   Accession No. : PB89-164305
   Errata Sheets for the User's Guide to SDM

* TUPOS *
is a gaussian model that estimates dispersion directly from fluctuation
statistics at plume level.
Order Number: PB90-500877; Price: $75 (1 transport disk; 3 documents)
Document Order Numbers: PB86-181310; PB86-181328; PB86-241031

* UTIL-1 *
is a disk containing utility programs including CALMPRO, RUNAVG, UTMCON and
CHAVG.
Order Number: PB90-500828; Price: $50 (1 transport disk; 2 documents)
Document Order Numbers: PB84-229467 and PB83-107342

GUIDANCE DOCUMENTS:

1) Guidance on the Application of Refined Dispersion Models for Air Toxics
   Releases.   EPA-450/4-91-007
   Accession No. PB91-190983   Paper Copy Price code: A08   Price: $ 23.00
                               Microfiche Price code: A01   Price: $ 8.00

2) Evaluation of Dense Gas Simulation Models.   EPA-450/4-90-018
   Accession No. PB91-191072   Paper Copy Price code: A06   Price: $ 23.00
                               Microfiche Price code: A01   Price: $ 8.00

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If more information is needed for one or more of the models, please call the
FEDERAL COMPUTER PRODUCTS CENTER at (703) 487-4763. If you wish to order the
disks and/or documents, please call the NTIS Sales Desk at (703) 487-4650.

Correspondence can be addressed to:

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