Chapter 4

INTRODUCTION

ReportMAP is a multi-applications software program designed to be used in conjunction with the PressureMAP software on the MAP computer. It consists of several software utilities, each directed toward increasing cable pressurization management efficiency. A complete ReportMAP library includes the following software programs: Dispatcher, Monthly Reports, Data Sorter (which includes Pin Selector), and OAU Calculator.

At this time, only two of these programs are available: Dispatcher and Pin Selector. Dispatcher is a utility which automatically issues Dispatch Reports to maintenance centers prior to making work assignments. Pin Selector is a specialized utility that facilitates the operation and maintenance of the System Studies 289H LSS and WECO E2A Remote Terminal equipment. The remaining programs are currently under development and will be available in upcoming versions of the MAP software.

DISPATCHER

Dispatcher is a MAP software utility that distributes PressureMAP dispatch reports directly to field maintenance offices or other specified locations called Report Centers. Each center receives a report detailing dispatch information for one or more offices monitored by PressureMAP. These reports are routinely distributed in the early morning hours. In addition, specific reports may be sent at any time during the day at the user's request.

The Dispatch Reports contain information in the standard PressureMAP format for Dispatch Priorities and Task Dispatching Information. As such they include:

- A prioritized list of pressurization problems
- Device readings for each problem device
- Information about all devices associated with each problem
- A probable cause for each leak accompanied by strategic leak locating procedures

The Device Status Report can also be sent to Report Centers via Dispatcher, effective with MAP Version 22. This report lists key information for devices in an office, including recent device readings and alarm status.

General Information

Dispatcher routes dispatch reports to Report Centers in the early hours of the morning after PressureMAP has compiled Dispatch Priorities for all offices. The reports are generally distributed via modem to Report Center computer terminals or printers, but if desired, the Dispatcher utility may be configured to send reports to a designated network printer, a FAX machine, or an e-mail address instead.

Report Centers are kept on a list referred to as the Dispatcher Database. Each item in the database identifies a center, its phone number and data communications parameters, as well as the offices associated with the center. This list may contain up to 72 Report Centers. Report Centers are

established and maintained with the ReportMAP Dispatcher Data Entry program. See the MAP System Data Entry Manual for specific details on adding, deleting, and modifying Report Centers.

Reports for each Report Center appear according to the order in which the offices are associated with the Report Center. If more than one type of report is scheduled for a center, the reports for each office appear in the order specified in Report Center Information. To temporarily disable a Report Center, the reports to be sent to that center can be designated as "none."
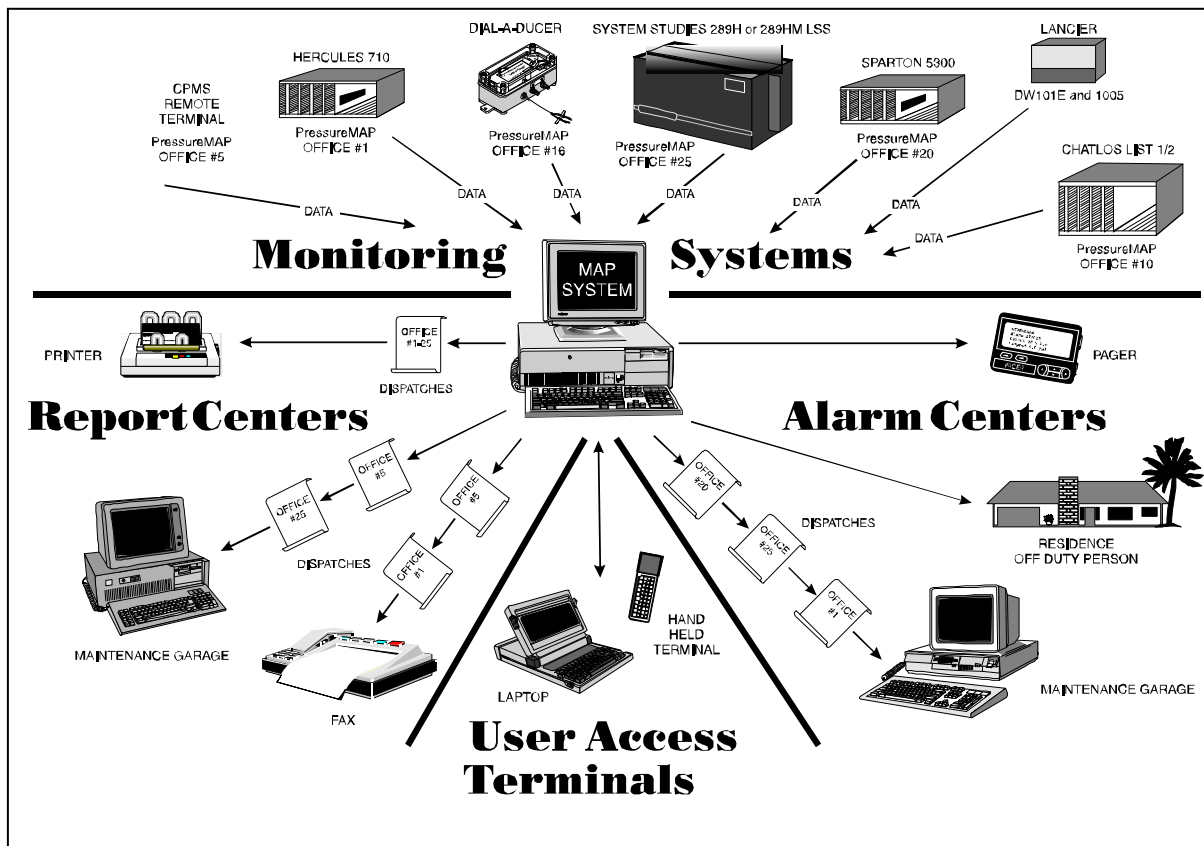

FIGURE 4-1: REPORT CENTERS

The Dispatch Report

Dispatcher creates Dispatch Reports by combining information from two PressureMAP functions, Dispatch Priorities and Task Dispatching Information. A unique report is composed for each Report Center. Each report begins with an identifying header and a section of information about the center. Dispatch Priorities for each office associated with the center follow the initial section. For each Dispatch Priority condition, the report may also include related Task Dispatching Information.

The Dispatch Report (see example REPORT 4-1) begins with a header identifying the name of the report, as well as the date and time of day. This header is followed by the name of the center, a list of offices associated with the center, and the Priority Level cutoff.

The Report Center is identified by both a unique name and a unique letter ranging from A to Y. This letter is assigned by the MAP System, and is not duplicated within the system. Likewise, each office in the list of associated offices has a unique name and a unique identifying number. This office number is also not duplicated within the MAP System. Consequently, the list of associated offices may not be numbered in sequence.

```
Dispatcher                                      ReportMAP XX.XX.XX
01/04/2010  12:00                               System Studies Incorporated
--------------------------------------------------------------------------------


A. EAST GARAGE
--------------

Associated Offices:

 3. FLAT RIVER                7. EAST OUTSTATE

Priority Level: R


Dispatch Priorities (Day 002)                   ReportMAP XX.XX.XX
01/02/05  12:00                                 System Studies Incorporated
--------------------------------------------------------------------------------

3. FLAT RIVER
-------------

Task #    Device #   Condition
Level
-------  ---------  ------------------------------------------------------ -----
0020001  P -022     UG Cable PSD lost  4.0 psi in 24 hr                    ****
                    ALRM                                                   ACKN


Task Dispatching Info for FLAT RIVER, P -022    ReportMAP XX.XX.XX
01/02/05  12:00                                 System Studies Incorporated
--------------------------------------------------------------------------------

Task #    Device #    Condition
Level
-------  ---------  ------------------------------------------------------- -----
0020001  P -022     UG Cable PTD lost  4.0 psi in 24 hr                     ****
                    Reading was  5.0 psi at 11:27 on 01/02/05   VALIDATED

Task Dispatch Procedure #1

Probable Cause:  Cable Leak, Bad/Stuck Device, Pair Trouble.
Procedure:  Use Worksheet D to Determine Area of Search / Locate
    Trouble.

Device #:  P -022                       Type:  UP
Address:   MH-25, CENTER AND MAIN       Loc:    4  Pipe:     A
Sheath(s): 123

Cable:       123   Prim Pair:    12   Sec Pair:     22   Sort Key:
Plat #:     1-89   Stickmap:    1-4   Module:       ST   Phone #:555-1212
TP:            U   CKT #:      A201   Priority:      3   Level:      5.0

Office 1 Loc:      3     Distance 1 (kft):   3.3   Field 1 Loc:      5
Office 2 Loc:            Distance 2 (kft):         Field 2 Loc:

Remarks:

 Readings     Curr Last Tdy  -1   -2   -3   -4   -5   -6  Wk-1 Wk-2 Wk-3 Wk-4
 ----------- ---- ---- --- ---- ---- ---- ---- ---- ---- ---- ---- ---- ----
 Calculated:  5.0  5.0  5.0  9.0  9.0  9.0  9.0  9.0  9.0  9.0  9.0  9.0  9.0
```

REPORT 4-1: DISPATCH REPORT

The Priority Level determines which Dispatch Priorities will be accompanied with Task Dispatching Information. It may have one of the following six values:

****	(four star level)	*	(one star level)
***	(three star level)	R	(routine level)
**	(two star level)	None	(no priority level)

This Priority Level value pertains to all offices in the report, and specifies the cutoff level for Task Dispatching Information. For example, if the Priority Level is "***", all Dispatch Priority conditions ranked with three *or more* stars—including an aged three-star (--*)—will be accompanied with Task Dispatching Information. A Priority Level of "None" specifies that no Task Dispatching Information will be sent. A Priority Level of "R" (the routine level) specifies that Dispatch Priority conditions ranked with "R" or with one or more stars will be accompanied by Task Dispatching Information. Note that "R" is the lowest cutoff level. If the Dispatch Report's Level is "R", Task Dispatching Information will accompany all dispatch conditions.

After the Report Center information, the report continues with a list of Dispatch Priorities for the first office. If any listed condition falls within the Priority Level cutoff, the related Task Dispatching Information is included after the list. The report continues listing the Dispatch Priorities for each associated office, interleaved with Task Dispatching Information as needed. To interpret and analyze this information, see the sections on *Dispatch Priorities* and *Task Dispatching Information* in Section 2 of this manual.

The Device Status Report

The Device Status Report distributed by Dispatcher is the same as the report accessed through the CPAMS Information option of the PressureMAP Master Menu (described in Section 2 of this manual). It lists information for all of the devices in the office, including device number, address, device type, pipe name, the three most recent readings (current, today, and one day prior), and alarm "status" if applicable. Devices in the report are ordered according to the same sorting criteria used for the Device Log. Please note that for Sparton monitors, the device listing is sorted first by Unit Number, then by Line Number, and then by Device Number.

```
Device Status for <OFFICE NAME> (page 1)              PressureMAP  XX.XX.XX
03/02/2010  12:46                                   System Studies Incorporated
-----------------------------------------------------------------------------

Device Information last edited on 11/26/04

Device #      Address                         TP  Pipe  Curr  Tdy  TD-1  Status
----------    -----------------------------   --  ----  ----  ----  ----  ------
  001-11      MH-42, Spruce St./Goose Ave.    UP   1A    4.5   7.5   7.5   ****
  001-12      MH-47, Linden & Moyer           UP   1A    3.0   6.5   6.5   ****
  002-13      MH-112, Richardson & Green      MF   2A   17.2  17.4  11.6   ****
002-A2-001A   MH-5, So. B-40 & Broadway       UP   4A    2.5   2.5         --**
002-A2-003A   MH-11, Broadway & Ocean, NE     UP   4A    3.6   3.6         --**
```

REPORT 4-2: DEVICE STATUS REPORT

The report can also be filtered by Priority Level, so that only dispatches of a certain level or above are indicated on the report. For example, when ******* is specified as the Device Status Report's Priority Level cutoff in Report Center Information, the only devices that will have a displayed status value

are those with an alarm status of ********, ******* or **-*****. A cutoff level of "none" means that all priority level flags will be displayed in the report (i.e., none are filtered). Note that a device may show a Routine Dispatch (R) under Status, but R cannot be used as a filter value for producing the report.

Sending Unscheduled Reports

Dispatcher is programmed to automatically distribute the reports once a day. However, reports can be manually sent to any center at any time during the day. This feature is useful for testing and recovering from errors. For example, a report can be manually sent to a new center to verify that the phone number and communications parameters are correct. Also, you may wish to send a report to a center whose computer terminal or printer was not on-line at the regularly scheduled delivery time.

The following procedures outline the steps required to manually access the MAP Program's Report Dispatcher option. However, before sending a Dispatch Report, you must first set the `Report Sent` field of the Dispatch Center information screen to NO. Follow the instructions titled "Modifying a Report Center " in Section 11 of the MAP Data Entry manual.

With the `Report Sent` field of the Dispatch Center information screen set to NO, you can begin the procedure that follows. This procedure begins at the System Options Menu. However, if your login takes you directly to the MAP Programs Menu (SCREEN 4-1), you begin at Step 2.

Procedure:

1. From the System Options Menu, choose Item *1*, Select MAP Program, and follow your selection with *<Return>*. You should see the MAP Programs Menu, SCREEN 4-1.

```
MAP Programs                                        MAP Series XX.XX.XX
06/04/2010  13:57                           System Studies Incorporated
-------------------------------------------------------------------------

MAP Programs
------------
1. PressureMAP
2. ReportMAP
3. CableMAP
4. AlarmMAP
5. DryerMAP
6. CPAMS Diagnostics
7. User Initiated Operations
Q. Quit

Choice?
```

SCREEN 4-1: MAP PROGRAMS MENU

2. From the MAP Programs Menu, select Item *2*, ReportMAP, and follow your choice with *<Return>*. The ReportMAP Master Menu will be displayed.

```
ReportMAP Master Menu                                    ReportMAP XX.XX.XX
06/04/2010  13:58                                 System Studies Incorporated
-------------------------------------------------------------------------------

ReportMAP Master Menu
--------------------
1. Dispatcher
2. Monthly Reports
3. Data Sorter
4. OAU Calculator
5. User Support
Q. Quit

Choice?
```

SCREEN 4-2: REPORTMAP MASTER MENU

3. At the ReportMAP Master Menu, shown in above, select Item **1**, Dispatcher, and follow your selection with **<Return>**. The program will respond with the prompt:

   Distribute Reports to which Report Center?

4. Enter the name or letter of the Report Center to which you would like to send dispatches.

   If you are unsure of the Report Centers available, enter a question mark (**?**) for a list of all Report Centers that have been entered in the Report Center database. You may enter a single Report Center, or a list of Report Centers separated with commas (e.g., **A, B, F**) to process several centers at once. You can also specify a range of Report Centers by entering the first and last letters (in alphabetical order), separated by a slash (**/**)—for example, **A/J** for the group of Report Centers A through J. The two methods, comma and slash, may also be combined (e.g., **A, F/M, Y**).

   Once a center or group of centers has been selected, Dispatcher immediately begins distributing Dispatch Reports. While reports are being distributed, Dispatcher displays the following status message for each center.

   Distributing Dispatch Priorities to <CENTER NAME> at <BAUDRATE> baud

   If Dispatcher is unable to contact the selected Report Center or deliver the report, an appropriate error message will be displayed. For a full explanation of any such errors, please refer to Appendix 3 in this manual.

5. After all Dispatch Reports have been delivered, the Dispatcher prompt will reappear:

   Distribute Reports to which Report Center?

   Enter the name or letter of another Report Center, or hit **<Return>** to return to the ReportMAP Master Menu.

6. From the ReportMAP Master Menu, select **Q**, Quit, to return to the MAP Programs Menu (SCREEN 4-1).

PIN SELECTOR

The 289H LSS and WECO E2A Remote Terminal are functionally different than most other monitoring systems. One of the main differences is that they contain very little on-board memory (RAM) and computing power. The E2A was designed to work in conjunction with a CPMS central terminal computer, and the 289H LSS was developed for use with PressureMAP. As a result, neither monitor generates reports nor tracks device information on its own. Each is dependent upon the MAP System to collect device readings and interpret them into reports.

Pin Selector is the MAP System component that monitors device access numbers for the 289H LSS and E2A Remote Terminal. It automates the process of tracking, assigning, and reserving access numbers. Please note that Pin Selector is currently available only for the 289H LSS and the E2A monitoring equipment.

General Information

Pin Selector keeps track of access numbers by using and manipulating the PressureMAP history file database. This database contains information about access numbers in use, devices that have the word "NONE" entered, those that have been dedicated (reserved) for future use, and those that are available for assignment. The history file database is also updated by PressureMAP Data Entry, which marks access numbers "used" or "available" as devices are added or removed from an office. An access number is considered "used" when it is assigned to an existing device. A dedicated (or reserved) access number is one allocated for future device placements or test devices unmonitored by the MAP System. A dedicated access number is not assigned to any existing device. All other access numbers are considered "available."

Pin Selector provides functions to print logs about the current status of access numbers in the database. Log functions can list all access numbers, those in use, those dedicated for future use, or those still available. Functions are also provided to dedicate numbers and to release dedicated numbers. Because device types differ between the 289H LSS and E2A monitors, each one has its own unique Pin Selector menu and instructions.

PIN SELECTOR FOR THE 289H LSS

Before you can use the 289H LSS Pin Selector utility, or understand how devices are mapped to the 289H chassis, you must understand the structure and significance of access numbers. An access number identifies a device pair's position (or address) relative to other devices wired to the 289H monitor. The first three digits of the access number designate the slot in the 289H chassis which contains the relay card to which the device pair is connected (slots 1-16 in chassis #1; slots 17-32 in chassis #2, etc). The last two digits of the hyphenated number represent the pins on the connector block where the device circuit is connected and the corresponding 289H pair select relay used to provide the device reading.

Because the 289H LSS has the capability of accessing data from System Studies or Chatlos Addressable Transducers, some additional information in the access number is required for these devices. For example, with addressables there are three groups of numbers: the first group represents the card slot location as explained above; the second group includes the alphabetical designation "A" (which identifies the device pair as an addressable transducer) and a numeric designation from 1 to 8 (which represents the actual number of the addressable monitoring card); the third group, which is four characters in length, identifies the device's address (0-127 addresses) and channel (A-J; there can be up to 10 devices per address).

A typical 289H access number for a non-addressable monitoring device would be 006-45. This number indicates that the device is wired to the sixth relay card, position 45. When PressureMAP calls the 289H to obtain device data for this access number, it checks the 45th relay on the sixth relay card. An addressable transducer could have the following access number: 007-A4-089B. In this example, PressureMAP checks the fourth pair/relay on the Addressable Monitoring Card installed in slot #7, determines which addresses are used for this addressable pair, and issues a request for data from the second device installed at address number 89.

Because access numbers represent locations where device pairs are connected to the 289H LSS equipment, care must be taken when assigning them. Pin Selector manages all access numbers associated with the 289H LSS monitor. It can be used to show which access numbers are currently in use in the history file, which numbers have been dedicated for later use, and which ones are currently available. It will also list all devices that have the keyword "NONE" as an access number.

With Pin Selector, addressable access numbers actually correspond to an addressable monitoring card (AMC) pair rather than to a specific device. This is consistent with the way PressureMAP handles Trunk/Toll contactors. Although it would helpful to dedicate numbers for individual addressable devices, the theoretical maximum of all possible numbers in a 289H LSS is very large (a single AMC could monitor up to 10160 devices, for example). Maintaining a database of this size would present some problems in allocating and updating the access inventory file. Furthermore, PressureMAP's access inventory structure is designed to correspond to a pair rather than to a device. For these reasons, addressable pairs can be dedicated or released by Pin Selector, but not the individual addresses or channels.

Accessing 289H LSS Pin Selector Functions

The Pin Selector functions are selected from the Pin Selector Menu (SCREEN 4-7). The following procedures outline how to access that menu, beginning from the Systems Options Menu. Your login may enter the MAP System at a different level. If you normally log in at the System Options Menu, begin with Step 1. If your normal entry level menu is the MAP Programs Menu, begin at Step 2. If you don't have access at the System Options or MAP Programs level, you cannot access this utility.

```
System Options                                        MAP Series XX.XX.XX
06/04/2010  10:32                              System Studies Incorporated
----------------------------------------------------------------------------

System Options
--------------
1. Select MAP Program
2. Select MAP Data Entry
3. System Administration
Q. Quit

Choice?
```

SCREEN 4-3: SYSTEM OPTIONS MENU

Procedure:
1.   From the System Options Menu (SCREEN 4-3), choose option **1**, Select MAP Program, followed by **<Return>**. You should see the MAP Programs Menu.

```
MAP Programs                                          MAP Series XX.XX.XX
06/04/2010  12:42                              System Studies Incorporated
--------------------------------------------------------------------------------

MAP Programs
------------
   1. PressureMAP
   2. ReportMAP
   3. CableMAP
   4. AlarmMAP
   5. DryerMAP
   6. MAP Diagnostics
   Q. Quit

Choice?
```

SCREEN 4-4: MAP PROGRAMS MENU

2. From the MAP Programs Menu (SCREEN 4-4), select option **2**, ReportMAP, followed by **<Return>**. You should see the ReportMAP Master Menu.

```
ReportMAP Master Menu                               ReportMAP XX.XX.XX
06/04/2010  10:33                              System Studies Incorporated
--------------------------------------------------------------------------------

ReportMAP Master Menu
---------------------
   1. Dispatcher
   2. Monthly Reports
   3. Data Sorter
   4. OAU Calculator
   5. User Support
   Q. Quit

  Choice?
```

SCREEN 4-5: REPORTMAP MASTER MENU

3. From the ReportMAP Master Menu (SCREEN 4-5), select option **3**, Data Sorter, followed by **<Return>**. The Data Sorter Master Menu, (SCREEN 4-6) will be displayed.

```
Data Sorter Master Menu                             ReportMAP XX.XX.XX
06/04/2010  10:33                              System Studies Incorporated
--------------------------------------------------------------------------------

Data Sorter Master Menu
-----------------------
 1. Pin Selector
 Q. Quit

 Choice?
```

SCREEN 4-6: DATA SORTER MASTER MENU

4. From the Data Sorter Master Menu, select option **1**, Pin Selector, followed by **<Return>**. The program will respond with the following prompt:

        Assignment and Configuration for which office?

5. At the prompt for an office, type in the number or name of the office you want to examine, followed by **<Return>**. If you are unsure of the office name or number, enter a question mark (**?**) to list all MAP System offices in spreadsheet selection mode (described in the Preface of this manual).

6. Now you will see:

    `PLEASE WAIT, Reading Data...`

    `Call <office name> for configuration information? Y[es], N[o]`

Note: Because the current system configuration is important when working with access numbers, it is suggested that you call the 289H monitor every time you dedicate or release access numbers for an office. When the LSS Office Configuration is received, Pin Selector will set subscriber card limits to 25 (or 26), instead of the default of 50 (or 51) that is used for dedicated cards. All user input will be compared against these card limits before it is allowed.

If you entered Y, the 289 office will be called. After the 289 office configuration is obtained, or if you answered N, (do not call the 289 office), you should see the Pin Selector Menu (SCREEN 4-7). This menu accesses the Pin Selector functions. Take note of Option 9, View Another Office. This can be used to run Pin Selector functions on another office, either 289 or E2A.

```
Pin Selector                                         ReportMAP XX.XX.XX
06/04/2010 11:32                                System Studies Incorporated
-----------------------------------------------------------------------------

Pin Selector for (LSS EXAMPLE OFFICE)
----------------------------------
  1. Log of Access Numbers
  2. Log of Access Numbers in Use
  3. Log of Access Numbers Available
  4. Log of Access Numbers Dedicated
  5. Log of Devices with NONE as the Access Number
  6. Dedicate Access Numbers
  7. Release Access Numbers
  8. LSS Configuration
  9. View Another Office
  Q. Quit

Choice?
```

SCREEN 4-7: 289H LSS PIN SELECTOR MENU

Printing Access Number Logs

The first five options of the Pin Selector Menu print Access Number Logs. Logs can be selected with: 1) all access numbers, 2) only used (assigned) numbers, 3) only available numbers, 4) only dedicated numbers, and 5) devices with NONE as the access number. The following procedure outlines how to access these five logs and begins at the Pin Selector Menu (SCREEN 4-7).

Procedure:

1. At the Pin Selector Menu, select 1, 2, 3, 4, or 5 followed by **<Return>**.

Select *1* to print a log of all access numbers; *2* to print only those numbers in use (assigned to a device); *3* to print only those numbers not in use and not dedicated; *4* to print only dedicated access numbers; or *5* to print all devices have NONE as an access number.

2. You will now be prompted with

    ```
    Log of access numbers for which card(s) (? for help):
    ```

    Enter a card number, or a list/range of cards followed by a *<Return>*. Cards separated by a comma (*,)* will form a list of cards. Cards separated by a forward slash (*/)* will form a range. Ranges can be specified in increasing or decreasing order. For example: Both "5/1" and "1/5" will select cards 1, 2, 3, 4, and 5. You may also enter *ALL* and press *<Return>* for a list of the maximum range of cards, 1 through 64.

3. Depending upon which option you have selected, the following prompt may appear:

    ```
    Align printer with top of page and hit <Return> when ready to list
    devices.
    ```

    Align the paper in your printer if necessary, and hit *<Return>* to print the report. Reports are printed to the system default printer using the format shown in , described in *Analyzing Access Number Logs*.

4. Enter another card number if you wish to generate another log (as in step 2). If you want to select another type of log, or another option, enter *<Return>* to go to the Pin Selector Menu.

Analyzing Access Number Logs

Each of the five Access Number Logs is printed using the same output format. Each line of the log contains an access number and any information associated with that number. The information on each line is dependent upon the status of the number (used, available, dedicated).

All Access Number Logs begin with a descriptive heading that gives a title to the log, a sequential page number, plus the date and time (see). The title corresponds to the type of log selected from the Pin Selector Menu. The following five titles are available: Access Number Log, Used Access Numbers (as shown in the screen below), Available Access Numbers, Dedicated Access Numbers, or NONE Access Numbers Log. The descriptive heading is repeated on each page of the report.

```
LSS Used Access Numbers (Page 1)                           ReportMAP XX.XX.XX
06/04/2010  13:39                                     System Studies Incorporated
--------------------------------------------------------------------------------

                              Prim  Sec
  Access #    Device #  Cable Pair  Pair  Loc. Type Address
---------- ---------- ----- ----- ----- ---- ---- -------
  001-01         1                             UP
  001-03         3                             UP
001-A1-001A     1A                             UP
001-A1-002a     2A                             MF


              (REPORT CONTINUES FOR EACH CARD SPECIFIED UP TO
        THE MAXIMUM ACCESS NUMBER FOR EACH CARD [50 FOR A DEDICATED CARD,
25 FOR SUBSCRIBER CARDS, OR 24 AND 8 FOR ADDRESSABLE CARD])
```

SCREEN 4-8: LSS EXAMPLE USED ACCESS NUMBER LOG

Used access numbers are displayed with an associated device number, and any cable, primary and secondary pairs attached to the device, the location code, device type, and address for the device. Available access numbers have no other associated information; the line is blank after the access number. Dedicated access numbers are displayed with the label DEDICATED in the position for Device Number, and followed by an extra line of remarks entered at the time the number was dedicated. This line can be used to identify the user who dedicated the number and explain why the number is dedicated. For devices with NONE as an access number, the word NONE is listed under the Access Number column.

Dedicating an Access Number

Access numbers are dedicated from the Pin Selector Menu. Typically, an access number is dedicated: 1) for a new device placement still being engineered but not yet entered into the office, or 2) for access numbers in use but not associated with any device in the office (i.e., for calibration "devices," or devices monitored by another system). The following procedure explains how to dedicate an access number.

Procedure:
1. From the Pin Selector Menu, select option **6**, Dedicate a Number, and hit **<Return>**.

2. You will now see:

   Dedicate access number? M[anually], A[utomatically]

   Enter either **M**, to manually select which access numbers get dedicated or **A**, to instruct Pin Selector to automatically select the next available access number.

   If you enter **A**, the 289H office will be called if configuration information has not already been obtained. You will then be prompted for the type of pair to dedicate:

   Type of pair to dedicate? A[ddressable], S[tandard]

   You must enter an "a" or an "s".

3. Enter the designation for the type of pair(s) you wish to dedicate, followed by **<Return>**.

   Once you make your section, Pin Selector prompts you for the quantity of access numbers that you wish to dedicated as shown below:

   ```
   Enter amount of access numbers to dedicate (? for help):
   ```

4. You simply enter the amount, enter a remark, then verify that the access numbers automatically selected are correct. Only access numbers that actually exist in the system (on cards in the system) can be automatically dedicated. By typing **?**, the following help screen will be displayed.

   ```
   Enter the number (amount) of access numbers you want to be automatically
   dedicated. The access numbers that will be dedicated are the first available
   access numbers that are found (starting from the lowest access number). If
   you automatically dedicate more than one access number, these groups of access
   numbers will always be in consecutive order. Thus, if you attempt to dedicated
   a group of access numbers that contains more numbers than the largest number of
   consecutive available access numbers, the dedication will not be allowed.
   For example: if you decide to automatically dedicate a group of 10 access
   numbers, there must exist 10 consecutive access number that are available in
   the database. The first set of 10 available access numbers will be chosen for
   the dedication. NOTE: For the System Studies LSS monitor only access numbers
   for cards that exists in the LSS can be automatically dedicated. If you want
   to dedicate access numbers for a card that hasn't been installed in the LSS
   yet, you must use manual dedication.
   ```

   SCREEN 4-9: AUTOMATIC DEDICATION HELP

5. If you answer **M**, for Manual Dedication, you will see:

   ```
   Enter access number(s) to dedicate (? for help)
   ```

6. Enter the access number or range of numbers you wish to reserve. By typing a **?**, the help screen shown in will be displayed.

   ```
   289H LSS access numbers are entered in card-pair format, where the card number
   is separated from the pair number with a dash ("-").  The card is a value
   from 1-64 and the pair is a value from 1-25 for subscriber cards, and 1-50
   for dedicated cards.

   Addressable devices accessed via the Addressable Monitoring Card (AMC)
   are entered in card-pair-address-channel format, where the card number,
   pair number, and address are each separated by a dash ("-").  The channel
   follows the address, with no separating dash (example: 001-A1-001A).  Cards
   range from 1-64, pairs from A1-A8, addresses from 1-127, and channels from
   A-J.

   To dedicate or release several access numbers, list the numbers separating
   each with a comma.  A range of access numbers can be entered in the list by
   specifying the first and last access numbers of the range separated with a
   slash ("/").
   ```

   SCREEN 4-10: LSS DEDICATE NUMBER HELP MENU

When manually dedicating addressable transducer pairs, you can enter either a complete addressable access number containing address and channel information (for example, 001-A2-001A, 1-2-1, or 1-A2-1A) or just the card and pair portion. In the former case, the address omponents will be automatically stripped off, producing the following: 001-A2. In the latter case, the pair component MUST be prefaced with an 'A' to be considered an addressable pair (e.g. 1-A2). If a range of pairs is entered, both elements must refer to either standard pairs (as explained in the help menu) or addressable pairs. Specifying both standard and addressable pairs in the same range is not permitted. For example, the program will not accept "2-1/2-A3" as a valid range..

After entering the access number(s) you will see:

```
Please enter a 59
character or less   |<---------59 characters --------->|
dedication remark:
```

7. Enter a remark terminated with a ***<Return>***. Typically this includes the name of the person dedicating the device and a comment about the use (or future use) of the device. After entering the remark, a screen similar to the one below will be displayed.

```
Access Numbers: 001-03
Remark: MH 345  PIPE ROUTE A-SUSAN BROOKS

Is this dedication information correct? Y[es], N[o]
```

8. If the information is correct, enter ***Y <Return>***. Entering ***N*** will throw away the entire entry and you will be prompted to enter an access number.

If you entered ***Y*** you will see:

```
Access number(s) dedicated.

Enter access number(s) to dedicate (? for help)
```

9. Dedicate another number or press ***<Return>*** to exit to the Pin Selector Menu.

Releasing an Access Number

The Release function of Pin Selector is used when an access number no longer needs to be dedicated. For example, a new device placement may be canceled in the engineering phase after a number is dedicated. Pin Selector offers the ability to release dedicated numbers for assignment or dedication at another time.

Procedure:

1. From the Pin Selector Menu, select option ***7***, Release a Number, followed by ***<Return>***. You will see:

```
Enter access number(s) to release (? for help)
```

2. Now you will see:

```
Access Numbers: XXX-XX

Is this release information correct? Y[es], N[o]
```

If the information is correct, press **Y <Return>** to complete the release process. If you answer **N <Return>**, the number will not be released.

LSS Configuration

The LSS Configuration option, option 8, is used when a printout of the current office configuration is needed. As an example, you want to dedicate access numbers, and need to know which slots in the 289H chassis contain dedicated, subscriber, and/or addressable monitoring cards (UAMC/AMC). Pin Selector offers the ability to call the 289H office and obtain the necessary configuration information, displaying this information in an easy to read format.

Procedure:
1. From the Pin Selector Menu, select option **8**, LSS Configuration, followed by **<Return>**. You will see:

       PLEASE WAIT, Acquiring system configuration...
       Calling (office name)(baudrate). Hit <Esc> to Quit.
       CONNECT (baudrate)
       System Configuration Acquired...

Note: The 289H office will not be called if the configuration information has already been acquired when Pin Selector was started up or if an Automatic Dedication has been performed.

2. You will now see the configuration screen, shown in SCREEN 4-11. When you have finished viewing the configuration screen, press **<Return>** to return to the Pin Selector menu.

```
LSS Configuration for (OFFICE)                              ReportMAP XX.XX.XX
02/05/2010  17:21                                     System Studies Incorporated
-------------------------------------------------------------------------------

Version:      A.02/A.02        Password:     Reset              System Reset: Yes
Exit Status:  Unknown State    Exit Status:  Unknown Status


Inventory:
   Slot   1   2   3   4   5   6   7   8   9  10  11  12  13  14  15  16
Chassis  --- --- --- --- --- --- --- --- --- --- --- --- --- --- --- ---
     1│  SUB DED SUB SUB SUB SUB SUB     DED DED
     2│                                                  DED DED DED DED
     3│      SUB SUB AMC AMC AMC DED
     4│

Hit <Return> to return to the Pin Selector main menu.
```

SCREEN 4-11: LSS CONFIGURATION

View Another Office

The View Another Office option, option 9, can be used to access another office without leaving the Pin Selector program. Without the inconvenience of returning to the Data Sorter or ReportMAP Master Menus, this feature allows you to maximize your time while using Pin Selector.

Procedure:
1. From the Pin Selector Menu, select option **9**, View Another Office, followed by **<Return>**. You will see:

           Currently viewing (OFFICE NAME)

```
        What is the name of the new office to view?
```

Enter the name or number of the office you wish to view. If you enter a question mark, *?*, a list of all offices in the PressureMAP database will be displayed in selection spreadsheet format, described in the Preface of this manual.

PIN SELECTOR FOR THE E2A REMOTE TERMINAL

Pin Selector replaces the old MAP Systems LARP Selector program, which was named for one of the circuit panels of the E2A Remote Terminal called the LARP, or Line Access Relay Panel. This panel contains many relays, each connected to a telephone pair which, in turn, is connected to a monitoring device. A unique access number called the LARP number is assigned to each relay and used to access the related device. As LARP Selector did, Pin Selector tracks and manages used and available LARP numbers.

While LARP numbers are the most common access numbers employed, Pin selector also manages all other access numbers associated with E2A Remote Terminals. These include Airflow Counter numbers, Status Indicator numbers, and Satellite LARP numbers. Airflow counter numbers are only used with volume counter devices, and are specified with two digits. Status indicator numbers are used with contact alarms and pressure contactors, and are specified with three digits. LARP numbers are typically used with pressure and flow transducers, but may be specified for pressure contactors as well. They are composed of 3 digits plus a letter. Likewise, Satellite LARP numbers are used with pressure and flow transducers, as well as contactors. Satellite numbers are 4 digits plus a letter. TABLE 4-1 further explains the coding scheme for each kind of access number. This scheme provides over 2000 access numbers, and is consistent with existing CPMS numbering standards.

```
     TYPES                NUMBER RANGES              CHARACTERS
_____

Airflow Counters         00 - 47               two digits
Status Indicators        000 - 159             three digits
LARP Devices             000A - 995B           three digits + (A or B)
Satellite LARPS          4000A - 7415B         two digits (40-44, 50-54,
                                               60-64, 70-74) + 2 digits
                                               (00-15) + (A or B)
```

TABLE 4-1: E2A ACCESS NUMBERS

Accessing Pin Selector Functions

The Pin Selector functions are selected from the Pin Selector Menu (SCREEN 4-13). The following procedures outline how to access that menu, beginning from the Systems Options Menu. Your login may enter the MAP System at a different level. If you normally log in at the System Options Menu, begin with Step 1. If your normal entry level menu is the MAP Programs Menu, begin at Step 2. If you don't have access at the System Options or MAP Programs level, you cannot access this utility.

Procedure:
1. From the System Options Menu, choose option ***1***, Select MAP Program, followed by ***<Return>***. You should see the MAP Programs Menu.

2. From the MAP Programs Menu, select option **2**, ReportMAP, followed by **<Return>**. You should see the ReportMAP Master Menu.

3. From the ReportMAP Master Menu, select option **3**, Data Sorter, followed by **<Return>**. The Data Sorter Master Menu will be displayed

```
Data Sorter Master Menu                              ReportMAP XX.XX.XX
06/04/2010  10:33                              System Studies Incorporated
-----------------------------------------------------------------------------

Data Sorter Master Menu
--------------------
1. Pin Selector
Q. Quit

Choice?
```

SCREEN 4-12: DATA SORTER MASTER MENU

4. From the Data Sorter Master Menu, select option **1**, Pin Selector, followed by **<Return>**. The program will respond with the following prompt:

> **Assignment and Configuration for which office?**

5. At the prompt for an office, type in the number or name of the office you want to examine, followed by **<Return>**. If you are unsure of the office name or number, enter a question mark (**?**) to list all MAP System offices in spreadsheet selection mode.

6. Now you will see:

> **PLEASE WAIT, Reading Data...**

You should next see the Pin Selector Menu (SCREEN 4-13). This menu accesses the Pin Selector functions. Take note of Option 8, View Another Office. This can be used to run Pin Selector functions on another office.

```
Pin Selector                                         ReportMAP XX.XX.XX
06/04/2010  11:32                              System Studies Incorporated
-----------------------------------------------------------------------------

Pin Selector for (E2A EXAMPLE OFFICE)
------------------------------------
   1. Log of Access Numbers
   2. Log of Access Numbers in Use
   3. Log of Access Numbers Available
   4. Log of Access Numbers Dedicated
   5. Log of Devices with NONE as the Access Number
   6. Dedicate Access Numbers
   7. Release Access Numbers
   8. View Another Office
   Q. Quit

Choice?
```

SCREEN 4-13: PIN SELECTOR MENU

Printing Access Number Logs

The first five options of the Pin Selector Menu print Access Number Logs. Logs can be selected with: 1) all access numbers, 2) only used (assigned) numbers, 3) only available numbers, 4) only dedicated numbers, and 5) devices with NONE as the access number. The following procedure outlines how to access these five logs and begins at the Pin Selector Menu (Screen 4-13).

Procedure:

1. At the Pin Selector Menu, select 1, 2, 3, 4, or 5 followed by *<Return>*.

    Select *1* to print a log of all access numbers; *2* to print only those numbers in use (assigned to a device); *3* to print only those numbers not in use and not dedicated; *4* to print only dedicated access numbers; or *5* to print all devices have NONE as an access number.

2. At the Access Number to View Menu (), select 1, 2, 3, 4, or 5 followed by *<Return>*.

```
Access Numbers to View
---------------------
  1. Airflow Access Numbers
  2. Status Indicator Access Numbers
  3. LARP Access Numbers
  4. Satellite Access Numbers
  5. All Access Number Types

Choice?
```

SCREEN 4-14: ACCESS NUMBERS TO VIEW MENU

Select *1*, Airflow Access Numbers, to display only airflow counter access numbers; *2*, Status Indicator Access Numbers, to display only status indicator numbers; *3*, LARP Access Numbers, to display only LARP numbers; *4*, Satellite Access Numbers, to display only satellite LARP numbers; or *5*, All Access Number Types, for a log of all types.

3. If you select option 3, LARP Access Numbers, or option 4, Satellite Access Numbers, you will be prompted to enter more information. Otherwise, skip to step 4.

    With option 3, LARP Access Numbers, you are prompted with:

    > `Log of access numbers for which panel(s) (? for help):`

    Enter a LARP Panel number, from 0 to 9 followed by *<Return>.* You may also enter ALL and press *<Return>* for a list of all access numbers.

    With option 4, Satellite Access Numbers, you are prompted:

    > `Log of access numbers for which satellite(s) (? for help):`

    Enter a Satellite number, 40-44, 50-54, 60-64, or 70-74 followed by *<Return>*.

4. Depending upon which option you have selected, the following prompt may appear:

    ```
    Align printer with top of page and hit <Return> when ready
    to list devices.
    ```

    Align the paper in your printer if necessary, and hit **<Return>** to print the report. Reports are printed in the formats shown in thru SCREEN 4-19 described below.

5. At the Access Number to View Menu (), select another type of device access number and generate another log (as in step 2), or enter **Q**, Quit, followed by **<Return>**, to exit back to the Pin Selector Menu (SCREEN 4-13).

Analyzing Access Number Logs

Each of the five Access Number Logs is printed using the same output format (see Screen 4-15). Each line of the log contains an access number and any information associated with that number. The information on each line is dependent upon the status of the number (used, available, dedicated) and upon the type of number displayed (Airflow, Status Indicator, LARP, Satellite).

```
EXAMPLE OFFICE Access Number Log (page 1)                    ReportMAP XX.XX.XX
06/04/2010 10:17                                      System Studies Incorporated
--------------------------------------------------------------------------------

                         Prim  Sec.
Access #  Device #  Cable  Pair  Pair  Loc.  Type  Address
--------  --------  -----  ----  ----  -----  ----  ---------
  000A
  000B
  001A      TD001A   1234   1234  1122    3    UP    300 MAIN ST
  001B    DEDICATED
       "DEDICATED BY LEON (EXAMPLE OF DEDICATED NUMBER) 11/27/04"
  002A

(REPORT CONTINUES UP TO MAXIMUM ACCESS NUMBER 995A)
```

SCREEN 4-15: LARP ACCESS NUMBER LOG

All Access Number Logs begin with a descriptive heading that gives a title to the log, a sequential page number, plus the date and time (see). The title corresponds to the type of log selected from the Pin Selector Menu, and is one of: Access Number Log, Used Access Numbers, Available Access Numbers, or Dedicated Access Numbers. The descriptive heading is repeated on each page of the report.

Used access numbers are displayed with an associated device number, and any cable, primary and secondary pairs attached to the device. Used Airflow counter numbers and Status Indicator numbers also include associated wiring information, which identifies the terminal pin assignments associated with the access number. Used LARP and Satellite access numbers include the location code, device type, and address for the device.

```
EXAMPLE OFFICE Access Number Log (page 1)                    ReportMAP XX.XX.XX
06/04/2010  12:16                                   System Studies Incorporated
--------------------------------------------------------------------------------

                           Prim  Sec
 Access #   Device #  Cable Pair  Pair  Loc. Type Wiring Information
---------- ---------- ----- ----- ----- ---- ---- -----------------
    00
    01        AF01                        1    UP   Terminal 2-3
    02        AF02                        1    UP   Terminal 4-5
    03     DEDICATED                                Terminal 0-1
       "MH 345 (04/04/05)"
    04


(REPORT CONTINUES UP TO MAXIMUM ACCESS NUMBER 47)
```

SCREEN 4-16: AIRFLOW ACCESS NUMBER LOG

Available access numbers have no other associated information; the line is blank after the access number. Dedicated access numbers are displayed with the label "DEDICATED" in the position for Device Number, and followed by an extra line of remarks entered at the time the number was dedicated. This line typically identifies the user who initially dedicated the number and a brief explanation why the number is dedicated.

```
EXAMPLE OFFICE Access Number Log (page 1)                    ReportMAP XX.XX.XX
06/06/2010  12:16                                   System Studies Incorporated
--------------------------------------------------------------------------------

                           Prim  Sec
 Access #   Device #  Cable Pair  Pair  Loc. Type Wiring Information
---------- ---------- ----- ----- ----- ---- ---- -----------------
   000     DEDICATED                                Terminal 0-1
       "DEDICATED BY LEON (EXAMPLE OF NUMBER DEDICATION) 02/14/04"
   001       SI001    1234  1234  1122             Terminal 0-1
   002       SI002    1234  1233  1221             Terminal 0-1
   003

(REPORT CONTINUES UP TO MAXIMUM ACCESS NUMBER 159)
```

SCREEN 4-17: STATUS INDICATOR ACCESS NUMBER LOG

```
EXAMPLE OFFICE Access Number Log (page 1)                    ReportMAP XX.XX.XX
06/06/2010  12:44                                   System Studies Incorporated
--------------------------------------------------------------------------------

                           Prim  Sec
 Access #   Device #  Cable Pair  Pair  Loc. Type  Address
---------- -------- ----- ----- ----- ---- ---- --------------
   4000A    DEDICATED
       "DEDICATED BY LEON (EXAMPLE OF NUMBER DEDICATION) 02/14/04"
   4000B
   4001A     ST001A    555  5555  5556   10  UP   3455 CENTRAL
   4001B

(REPORT CONTINUES UP TO MAXIMUM ACCESS NUMBER 7415B)
```

SCREEN 4-18: SATELLITE ACCESS NUMBER LOG

Dedicating an Access Number

Access numbers are dedicated from the Pin Selector Menu like all other Pin Selector functions. Typically, an access number is dedicated: 1) for a new device placement still being engineered but not yet entered into the office, or 2) for access numbers in use but not associated with any device in the office (i.e., for calibration "devices", or devices monitored by another system). The following procedure explains how to dedicate an access number. These instructions are general, and cover dedicating numbers for Airflow Counter, Status Indicator, LARP, and Satellite access numbers.

Procedure:

1. From the Pin Selector Menu (SCREEN 4-13), select option *6*, Dedicate a Number, and hit *<Return>*.

2. You will now see:

   Dedicate access number? M[anually], A[utomatically]

   Enter either *M*, meaning you wish to enter exactly which access numbers get dedicated, or *A*, to select the next available access numbers automatically.

   After selecting the dedication method, the Device Type To Dedicate Menu will be displayed.

```
Dedicate Access Numbers for (E2A Example Office)          ReportMAP XX.XX.XX
06/06/2010    09:16                              System Studies Incorporated
----------------------------------------------------------------------------

Access Number to be Dedicated
----------------------------

   1. Airflow Access Numbers
   2. Status Indicator Access Numbers
   3. LARP Access Numbers
   4. Satellite Access Numbers

Choice?
```

SCREEN 4-19: DEVICE TYPE TO BE DEDICATED MENU

3. At the Device Type To Be Dedicated Menu (SCREEN 4-19), enter 1, 2, 3, or 4 followed by a *<Return>*.

   Select *1*, Airflow Access Numbers, to dedicate an airflow counter access number; *2*, Status Indicator Access Numbers, to dedicate a Status Indicator access number; *3*, LARP Access Numbers, to dedicate a LARP number; or *4*, Satellite Access Numbers, to dedicate a Satellite number.

4. If you enter *A*, Automatic Dedication, after you select the device type to dedicate, you will be prompted for the number of access numbers you wish to dedicate. You simply enter the amount, enter a remark, then verify that the access numbers automatically selected are correct. If you wish, a help screen similar to will be displayed by entering a question mark (*?*).

```
Enter the number (amount) of access numbers you want to be automatically
dedicated. The access numbers that will be dedicated are the first available
access numbers that are found (starting from the lowest access number). If
you automatically dedicate more than one access number, these groups of access
numbers will always be in consecutive order. Thus, if you attempt to dedicated
a group of access numbers that contains more numbers than the largest number of
consecutive available access numbers, the dedication will not be allowed.
For example: if you decide to automatically dedicate a group of 10 access
numbers, there must exist 10 consecutive access number that are available in
the database. The first set of 10 available access numbers will be chosen for
the dedication. NOTE: For the System Studies LSS monitor only access numbers
for cards that exists in the LSS can be automatically dedicated. If you want
to dedicate access numbers for a card that hasn't been installed in the LSS
yet, you must use manual dedication.
```

SCREEN 4-20: AUTOMATIC DEDICATION HELP

If you entered **M**, Manual Dedication, you will see:

> **Enter access number(s) to dedicate (? for help)**

Enter the access number or range of numbers you wish to reserve. By typing a **?**, another help screen be displayed

5. After entering the access number(s) you will see:

> **Please enter a 59**
> **character or less |<---------59 characters --------->|**
> **dedication remark:**

Enter a remark terminated with a **<Return>**. Typically this includes the name of the person dedicating the device and a comment about the use (or future use) of the device. After entering the remark, you will see:

> **Access Numbers: 03, 38/42**
> **Remark: MH 345 PIPE ROUTE A-SUSAN BROOKS**
>
> **Is this dedication information correct? Y[es], N[o]**

If the information is correct, enter **Y <Return>**. Entering **N** will throw away the entire entry and you will be prompted to enter an access number.

6. If you entered **Y** you will see:

> **Access number(s) dedicated.**
>
> **Enter access number(s) to dedicate (? for help)**

7. At the Access Numbers to be Dedicated Menu, make another selection to dedicate another number (as in step 2) or hit **Q** followed by **<Return>** to exit back to the Pin Selector Menu.

Releasing an Access Number

The Release function of Pin Selector is used when an access number no longer needs to be dedicated. As an example, a new device placement may be canceled in the engineering phase after a number is dedicated. Pin Selector offers the ability to release dedicated numbers for assignment or dedication at another time. Releasing an access number is outlined in the following procedure. These instructions are general, and pertain to all access number types.

Procedure:

1. From the Pin Selector Menu, select option *7*, Release a Number, followed by *<Return>*. The Access Numbers To Be Released Menu will be displayed.

```
Access Numbers to be Released
-------------------------
  1. Airflow Access Numbers
  2. Status Indicator Access Numbers
  3. LARP Access Numbers
  4. Satellite Access Numbers
  Q. Quit

Choice?
```

SCREEN 4-21: ACCESS NUMBERS TO BE RELEASED MENU

2. From the Access Numbers To Be Released Menu (), enter 1, 2, 3, or 4 followed by a *<Return>*. Select *1*, Airflow Access Numbers, to release an airflow counter access number; *2*, Status Indicator Access Numbers, to release a Status Indicator access number; *3*, LARP Access Numbers, to release a LARP number; or *4*, Satellite, to release a Satellite number.

3. After you select a type, you will see:

> **Enter access number(s) to release (? for help)**

Enter the access number to be released followed by a *<Return>*.

4. Now you will see:

> **Access Numbers: XXX**
>
> **Is this release information correct? Y[es], N[o]**

If the information is correct, press *Y <Return>* to complete the release process. If you answer *N <Return>*, the number will not be released.

5. At the Access Numbers To Be Released Menu (), make another selection to release another number (as in step 2), or enter *Q* followed by *<Return>* to exit back to the Pin Selector Menu.

View Another Office

The View Another Office option, option 8, can be used to access another office without leaving the Pin Selector program. Without the inconvenience of returning to the Data Sorter or ReportMAP Master Menus, this feature allows you to maximize your time while using Pin Selector.

Procedure:

1. From the Pin Selector Menu, select option *8*, View Another Office, followed by *<Return>*. You will see:

    ```
    Currently viewing (OFFICE NAME)

    What is the name of the new office to view?
    ```

    Enter the name or number of the office you wish to view. If you enter a question mark, *?*, a list of all offices in the PressureMAP database will be displayed in selection spreadsheet format.