Chapter 4

INTRODUCTION

This section contains a glossary of terms that pertains to the fields in many reports generated by the MAP System, followed by sample reports. These samples include the Detailed Task Report, the Specific Device Report, the CPAMS Configuration Report and the Device Histories Report. The newer AlarmMAP reports and Custom Reports are also shown.

The sample reports are presented in the order of the options on the MAP System master menus. (See the menu flowcharts in the first section of this guide.) Following the CableMAP screen samples are brief instructions for using the Hand-Held Terminal login to log, edit, view and close cable openings from the field.

A

    For Lancier devices, the one-character assignment designation is entered in this field.

Access #

    The Access Number field appears only if "User Defined Devices" are turned on. This field holds the actual access number as defined by the monitoring unit.

289H:	the relay card and pin number where the device is connected, and the address number and channel designator (if the device is an addressable transducer)
uM260:	same as device number; identifies type of device: 1-1 to 1-4 binary, 2-1 to 2-16 resistive or loop current transducer, special application contact alarm
E2A:	the LARP pin identification number to which a device is wired
Chatlos:	the pin numbers
Sparton:	the device number (the first three numbers in the location field)
TMACS:	the Index Number
Lancier:	the specific card type, slot number (for the Lancier 1005), two digit channel number, and unit number (for addressable transducers)
Nicotra:	the cable number and transducer number (for transducers), or contact number (for contact alarms)
TELSEC:	the universal input numbers

Address

    The device location (utility hole #, street address, central office panel location, etc.).

Addr #:
> This field is displayed only for addressable transducers. The represented value indicates the device's physical address on the addressable monitoring pair.

Aerial std, *Buried std*, *Undgnd std*
> These three fields determine the cable pressurization standards used by the office. PressureMAP automatically defaults to these minimum pressure standards:

> - Aerial cable—2 PSI or 10.0 KPA
> - Buried cable—3 PSI or 30.0 KPA
> - Underground cable—5 PSI or 30.0 KPA

> If your minimum cable pressure standards differ from the ones listed above, then you will need to enter the pressure standards appropriate to your area into these data fields.

Alarm Condition
> For TELSEC systems, this field contains the Alarm Condition setting for a digital device. Legal values are: CR (critical alarm), MJ (major alarm), and MN (minor alarm). PressureMAP does not use this field; it is for record keeping purposes only.

Alarm Type
> For TELSEC systems, a digital device's alarm type is entered into this field. Legal values are: ENV (environmental alarm), EQPTSA (service affecting equipment alarm), and EQPTNSA (non-service affecting equipment alarm). PressureMAP does not alarm on the input from this field; it is for record keeping purposes only.

Alrm Priority
> This field is used to identify one of three Sparton alarm classifications: "N" for none, "M" for minor, and "J" for major. This information is used for the automatic programming of Sparton 5300B and 5318 monitors.

Alert Sensitivity
> This field of the Office Information Screen holds the 289H alert sensitivity level, which is a number between 1 and 5. The number 1 is the least sensitive alert detection setting and 5 is the most sensitive. Since the higher sensitivity settings will cause the 289H monitor to send out a greater number of alert calls, it is recommended that 3 be used until you have a feel for which level will work best with your pressure system.

Alt
> This data field is used with Sparton CPAMS to represent an altitude offset for long-haul pressure transducers installed at different elevations. Depending on how the units of measure are set up during office data entry, the field information could pertain to either feet or kilofeet.

Averages
> The Averages section of the Device History Report has four columns that represent weekly averages for the past four weeks of readings.

Baudrate

The speed at which the monitoring unit communicates with another device, such as Pressure-MAP.

Cable

The "read" cable which contains the transducer conductor pairs.

Cable Readings

The cable readings screen is only accessible if the device has defined at least one sheath in the Sheath field of the primary device screen. When full, it can contain six sets of manually input cable readings, with each set of readings containing a date stamp and a manual flow reading for each sheath. The sheaths match the sheaths entered on the primary device screen and the single manually input Manifold/PSI reading applies to all of the cable readings.

Calculated

The "Calculated" row of data contains the device readings for the current day as well as the past 6 days. **Tdy** represents the reading taken during the daily poll of devices; "-1" lists yesterday's reading, "-2" the reading taken the day before, and so on through "-6." In addition, the last four columns of this section represent weekly averages for the past four weeks of readings.

Chg

This field appears only for single feed pressure device types GP, HP, and JP, along with the **THR** field. The **CHG** field is the amount of change that can be tolerated before the device goes into alarm. The default value for this field is 1 PSI (6.9 KPA).

Chng

This field is used in conjunction with the $F, $V,$P and $T devices, as well as the **STD** and **SAU** fields. The **CHNG**, or change, field is the amount of change (in pressure, flow or temperature, depending on the type of high priority device) that can be tolerated before the device goes into alarm. For pressure devices, the CHNG value is how many PSI can drop from the value indicated in the **STD** field before an alarm condition is acknowledged. For flow devices, the CHNG value indicates how many SCFH the device increases before an alarm is given. For temperature devices, the CHNG value is how many degrees the temperature can increase or decrease before an alarm is produced.

For a pressure monitoring device, this field will default to a value of 1.5 PSI, while a flow monitoring device will give a default value of 2.0 SCFH. The default value for a $T device is one third of the **STD** value (25.0).

CIRC

For Lancier systems, the circuit (cable designation) identity of the device is entered in this field. This cable designation **must** be entered for each device in both the Lancier monitor and PressureMAP to enable PressureMAP to obtain "realtime" readings.

CKT #

For Chatlos/Hercules and TMACS systems, the circuit number of the device is displayed in this position.

Contact Type

   This field appears only for Nicotra contact alarms. It designates either the value NC (normally closed) or NO (normally open).

Debounce

   For Nicotra systems, this field specifies the "debounce" time for contact alarms, entered in seconds using a decimal point. When the contact alarm relays are activated, there may be a momentary "chatter" (on/off). The debounce time is the period of time to wait while the relay settles to a final value. The default value for this field is 8.0 (seconds).

Delay

   For Sparton systems, this field works in conjunction with the `TRIGGER` field, and needs to be completed only if the device in question is a Contact Alarm. DELAY represents the delay time, in seconds, after which the Sparton CPAMS repeats its scan to confirm or deny the alarm condition reported by the device.

   For TELSEC systems, this field contains the alarm delay for a digital device. It specifies the amount of time (0-600 seconds) the TELSEC system will wait before generating an alarm. PressureMAP does not use this field; it is for record keeping purposes only.

Delivery std

   This field contains the source delivery pressure standard for the office. For an air pipe system, this value should be the desired delivery pressure at the end of the air pipe. However, this field is also used for the distribution panel delivery pressure standard for a single feed office (typically 10 PSI in this application). PressureMAP uses a default value of 7.5 Pounds per Square Inch (PSI). If you do change the default setting, the delivery pressure standard must be entered in tenths of a PSI, and the value must be between 0.0 and 10.0.

Device #

   This field lists the Device Number, indicating the actual monitoring device being represented in the report. For detailed information on the letter-coding method used on Chatlos/Hercules and Sparton systems, please consult Table 1-11, titled "CPAMS Letter Coding" in the Preface.

Device Comments

   This screen gives field craftsmen the ability to input device related remarks. These remarks, which can be entered from the PressureMAP Specific Device Information menu selection as well as from data entry, are date/time stamped when entered and can contain up to two lines of text, which equals 124 characters.

Distance 1

   The distance in kilofeet (thousands of feet) between the reporting device and Office 1 Location.

Distance 2

   The distance in kilofeet (thousands of feet) between the reporting device and Office 2 Location.

Enabled

   This Nicotra contact alarm field may be set to Y or N.

Escalation

This Chatlos/Hercules field indicates the number of times that the device has gone in and out of alarm before the monitor issues an escalation alarm. PressureMAP uses the entry, which is a number between 1 and 99, for its automatic Chatlos/Hercules programming utility.

Field 1 Loc (FLD)

The PressureMAP Location Number for the first device to the field side of the reporting device.

Field 2 Loc

The PressureMAP Location Number for the second device to the field side of the reporting device.

Flow std

This field holds the office air flow standard, measured in Standard Cubic Feet per Hour (SCFH). The program default setting is 1.25 SCFH. This standard is based on the OAU figure per sheath mile of cable. If the air flow standard used in your office differs from the default value, then the Flow standard is entered in units of hundredths of SCFH, and can be between 0.50 and 9.99 SCFH.

Input # (Inp #)

The designation number used in Sparton systems that designates the Frame Interconnect Block pin where the device pair terminates. Effective with Version 24, when PressureMAP calls a Sparton 5300B, 5318 or 5301A monitor, the `Input #` information in PressureMAP device data is automatically updated to match the Sparton device record.

Input Type

For TELSEC systems, this field contains the device's input type. Legal values are: TEMPF (Fahrenheit temperature), TEMPC (Centigrade temperature), RH (relative humidity), FC (foot candle), MV (milli-volt), PSI (0-100 PSI), HPSI (0-500 PSI), DIGITAL (digital input point for normally open points), INVDIG (digital input point for normally closed points), and SCALE (manually scaled). PressureMAP does not use this field; it is for record keeping purposes only.

Last backed up

Date of last successful manual or automatic CPAMS backup procedure.

Last restored

Date of the last successful manual or automatic CPAMS restoration procedure.

Latitude

This text field has the following format: ldd+mm.mmm, with l designating which hemisphere the latitude applies to (one of the single letters: N or S); dd is an integer between 00 and 90 that indicates the degrees of latitude; and mm.mmm is an integer between 0.0 and 59.999 that designates the minutes of latitude.

When adding new devices, the `Latitude` field is carried over to the new device, so the default value for this field will be derived from the last device added.

Level

This field holds the alarm level from the Chatlos or Hercules printout. For flow measuring devices, this value is the flow rate at which the device will go into alarm. For pressure measuring devices, the level value represents the minimum pressure level of the device. PressureMAP does not alarm on the input from this field. This field is used for record keeping purposes and for the automatic programming of the Chatlos L3 and Hercules 940 monitors.

Level 1, Level 2

These two fields hold the alarm levels from the Lancier printout's LVL1 and LVL2 columns. For flow measuring devices, these values are the flow rate at which the device will go into alarm. For pressure measuring devices, the level values represent the minimum pressure levels of the device. PressureMAP does not alarm on these input from these two fields; they are for record keeping purposes only.

Line # (Lin No.)

This device data form entry field indicates the line position on the Sparton printout where the device appears.

Loc (Location)

The unique PressureMAP location number for all devices at a particular location in the pressurization system. This number is designated during data entry and shall not be duplicated within an office.

Longitude

This text field has the following format: hfff+mm.mmm, with h designating which hemisphere the longitude applies to (one of the following single letters: E or W); fff is an integer between 000 and 180 that indicates the degrees of longitude; and mm.mmm is an integer between 0.0 and 59.999 that designates the minutes of longitude.

When adding new devices, the **Longitude** field is carried over to the new device, so the default value for this field will be derived from the last device added.

Loop

This field must be filled in for all contactors, to specify the loop resistance value for an alarm reading. This value is the total loop resistance in kilohms from the central office to an operated contactor (a contactor in an alarm state) and back to the office.

Manifold/PSI

This field in the Cable Readings Screen contains the single, manually input Manifold/PSI reading. This reading applies to all of the cable readings.

MAP Alert #

This field of the Office Information Screen is only used for 289H and 289H-M monitors. The phone number or IP address that the 289H will use to send out alerts to PressureMAP is recorded here.

MAP Alert Baudrate

This field of the Office Information Screen is only used for 289H and 289H-M monitors. This field designates the baudrate of the PressureMAP modem that receives 289H LSS alert information.

Modem Site

This field is only for offices using the Digi PortServer II serial port concentrator. The field must be filled out to select which PortServer the office will use for outgoing and incoming calls. The name must be eight characters or less.

Module

The designated module type to which the device is wired. Valid module types are as follows:

Chatlos/Hercules Monitors:

Chatlos L1:	DT (dedicated), ST (subscriber), SS (status alarm), VF (volume counter), RC (contactor)
Chatlos L2:	DT (dedicated), ST (subscriber), MA (status alarm), MF (volume counter), MC (contactor), TT (addressable)
Chatlos MPUZ:	DT (dedicated), ST (subscriber), MA (status alarm), MF (volume counter), MC (contactor)
Chatlos L3:	DT (dedicated), ST (subscriber), MA (status alarm), MF (volume counter), MC (contactor), TT (addressable)
Chatlos 600:	DT (dedicated), ST (subscriber), MA (status alarm), MF (volume counter), MC (contactor), TT (addressable), SA (high priority status alarm)
Hercules 740, 940:	DT (dedicated), ST (subscriber), MA (status alarm), MF (volume counter), MC (contactor), TT (addressable), SA (high priority status alarm)

Sparton Monitors:

Sparton (all):	DED (dedicated), SUB (subscriber), BIN (status alarm/volume counter), ADD (addressable), D (long haul)

Effective with Version 24, when PressureMAP calls a Sparton 5300B or 5318 monitor, the `Module` information in PressureMAP device data is automatically updated to match the Sparton device record.

Monitor Type

The make (or type) of CPAMS monitoring system in use.

Nicotra Type

This field contains the Nicotra identifier for the pressure transducer hardware. It may be a number from 0-128. The field is initialized to 8 (for a standard device type); it may also be 12 (long distance device type).

Norm

This field needs to be completed for all contactors and contact alarms. The value entered should reflect what the device reads in its normal, non-alarm state.

Number of Devices

The number of devices entered in the CPAMS database.

OFF

Office. The location code of the neighboring device location on the office side of a device. Also listed is the number of kilofeet (KF) between the two locations.
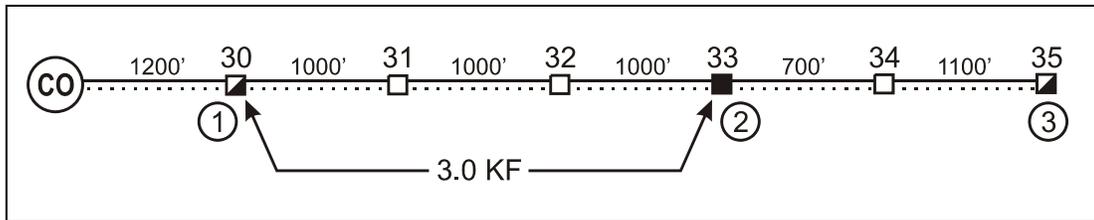
FIGURE 4-1: DEVICE LOCATIONS

In the preceding illustration Location 1 would be the Office 1 location compared to Location 2, and Location 3 would be the Field 1 location when compared to Location 2.

Office 1 Loc (OFF)

The PressureMAP Location Number for the first device to the office side of the reporting device. Also listed is the number of kilofeet (KF) between the two locations (Device Log Report only).

Office 2 Loc

The PressureMAP Location Number for the second device to the office side of the reporting device.

Offset

This field contains the adjustment factor that the TELSEC applies to analog readings. The value entered must be a whole number in the range of −127 to 127. PressureMAP does not use this field; it is for record keeping purposes only.

Optimum Air Usage (OAU, OAU/Shth)

1.25 SCFH (or 30 SCFD) per sheath mile of cable. Based on sheath mileage, the OAU figure represents the calculated air consumption a pressurized cable network should use under standard operating conditions. (OAU is also known as the "allowable leak rate.") This information is reported only for device types ending with the letters "F" or "V."

Password 1

This password allows a user access to the CPAMS monitor.

Phone #

The subscriber telephone number assigned to the pair on which the monitoring device is wired. If the device is connected to a dedicated or addressable module, no value will appear in this field.

Phone Number

> The telephone number used by PressureMAP to access information from the CPAMS computer. For 289H/H-M monitors using a network connection to PressureMAP, this field contains the IP address for the 289H.

Pipe

> The air pipe, central office sector, or remote dryer with which the device is associated. For sorting purposes, all PressureMAP devices must have a pipe designation.

Plat #

> Plat number. The reference number for the telco-generated record of pressure/flow transducer placement.

Prim Cable

> The primary "read" cable which contains the transducer conductor pairs.

Prim Pair

> The designation of the primary conductor pair to which the device is connected.

Priority (PR)

> Chatlos systems use this data field to provide one of eight possible priority numbers.

Program Flag

> Beginning with Version 24, it is possible for PressureMAP to program certain device data field information directly into Chatlos L3, Hercules 940, Sparton 5300B and 5318 monitors. When a device's **Program Flag** is set to "Y" during the PressureMAP data entry process for these types of CPAMS monitors, PressureMAP is authorized to program the office monitor with data from the device record. A "N" setting indicates that no auto programming of the device record is desired. Options for initiating the programming function are available from the CPAMS Information Menu.

PSI

> For contactors (all device types ending with a "C" in the device type code), this field displays the minimum air pressure standard for which the contactor is set. For a pressure device, this is an offset field that shifts the device reading by the value entered in the field. Note that in Dial-a-Ducer applications this field's value does not affect the pressure readings in PressureMAP.

Range (Ran)

> Flow transducers display a number that signifies the maximum reading capacity of the device. For example, a common flow range for a type "SF" ("source flow") transducer is 0-50 SCFH. The value that appears in the **Range** data field is "50.0."

Reading

> The two columns **Curr** and **Last** contain the current and last pressure or flow readings. If you are not using AlarmMAP (which acquires data every two hours), the **Last** column will remain blank and the **Curr** and **Tdy** readings will be the same.

Reading Times

Dates and times of the current, last, and today readings PressureMAP has gathered from the CPAMS unit.

Recognition

This field represents the number of seconds (between 1 and 999) that an alarm condition in a Chatlos or Hercules monitor must persist before it is recognized as an alarm by the monitor. PressureMAP does not use this information to process or generate alarms. The entry in the field is used only during the automatic programming of Chatlos L3 and Hercules 940 monitors.

Reference (Ref)

The calibrated air pressure of a flow transducer in a Positive Air Flow (PAF) system.

Relay

For Nicotra devices, this field designates the alarm relay number (0-3).

Remarks

In the Specific Device Information screen, this field consists of a two-line display (70 characters per line). It usually contains a message pertinent to the device, and can be edited using the data entry editor. If there is information in the second line, but the first line has been blanked, then the second line will not be displayed. The information in the second line will once again be displayed if data is entered into the first line.

In the Office Information screen the `Remarks` field provides one line (70 characters) for comments, which are input using the data entry editor.

SAU

The Standard Air Usage of high priority flow devices ($F and $V). The value in this field should be the normal, stable flow of the device.

Scan Option

One of five possible values that identifies the number of retries, the scan interval and average number of readings expected by a Sparton when polling for device readings. Information in this field is used for PressureMAP's automatic programming of Sparton 5300B and 5318 monitors.

Sec Pair

A pre-assigned backup pair of conductors available for use if the primary pair becomes defective.

Settled Readings

The Settled Readings section of the Device History Report has seven columns of data: one for each day of the week. `Tdy` represents the reading taken during the normal early morning calling cycle. The other six columns (labeled from -1 to -6) list the readings obtained over the past six days.

Sharp Sign Ratings

A sharp sign (#) displayed in the level column on a dispatch report indicates that more than one device at the same location is in alarm. When more than one dispatch condition is found at a

specific location, all dispatches will be grouped into one dispatch listing, and will be given a Sharp Sign Rating.

Sheath(s)

For a pressure device, the value(s) given identifies the cable being monitored. For a flow device, the number(s) indicates the cables being fed by the monitored air pipe manifold, Flow Finder Manifold or distribution panel.

S-M

The Sheath Mile (S-M) field only applies to devices that monitor air flow. If the device in question is a flow monitoring device, the calculated Sheath Miles are entered into this field.

The Sheath Miles for a Source FTD is equal to the sum of the manifold Sheath Miles. (This includes the distribution panel Sheath Miles if it is fed by the pipe panel.)

Although Sheath Miles for each flow device should be recorded on the respective stickmaps, this information is sometimes not present. Be sure to enter all calculated Sheath Miles on stickmaps which lack this information.

Sort Key

This field is for user-defined device sorting. Sort Key designations may hold a maximum of four alphanumeric characters. Option 10 of the Device Histories Menu uses this field to generate reports for all devices with the same Sort Key designation.

STD

For high priority pressure transducers ($P devices), this field contains the standard, normal PSI value of the transducer.

For high priority temperature transducers ($T), the field contains the standard temperature reading of the transducer. The default value is 75.0 degrees F.

Stickmap

The primary pressure record for an office. The stickmap is a graphic layout of a route showing all cables, utility holes transducers, air pipes, etc. The stickmap number is the reference number for pressure and flow transducer placement.

Summary Information

"Summary Information" is a one-line description of a problem. The daily dispatches describe the five worst problems for each office in a summary information section. That line includes a task number, a device number, a brief description of the nature of the problem, and the level of dispatch that PressureMAP has assigned to it. Additional information about the problem is available in Detailed Task Reports.

Threshold (Th)

A programmed setting in the CPAMS that determines when a device comes into alarm, (e.g., recordings that drop below the threshold generate an alarm as do flow readings above the programmed threshold). The name of a data entry field. For a Sparton device, it contains the programmed Sparton threshold for the specific monitoring device.

THR

This field appears only for single feed pressure device types GP, HP, and JP, along with the `CHG` field. If the pressure drops below the threshold value (THR) at any time, a four star dispatch alarm will be issued. The default value for this field is 1.5 PSI (10 KPA) for GP, and 4.4 PSI (30 KPA) for HP and JP.

Thr 1, Thr 2

These two fields hold the threshold values programmed into the Nicotra for pressure transducers. Each value is a number from 800-2000 (hertz). PressureMAP does not alarm on the input from these two fields; they are for record keeping purposes only.

Trigger +/-

This Sparton device field, for Contact Alarm device types only, describes the operational condition selected when the device is in an alarm state. Coding for this field is described in the Sparton Device Data section of the Data Entry manual.

Trunk/Toll Tolerance

This office information field specifies a give-or-take value (in ohms) for contactor readings. In the field, several contactors are normally wired to a single pair. Because of this, when a contactor goes into alarm, PressureMAP must have some way to determine which contactor on the pair is in an alarm state. To facilitate the searching procedure, PressureMAP keeps a table of values, listing the loop resistance value of each contactor if it should go into alarm. If a contactor does goes into alarm, PressureMAP is able to compare the current reading of the pair with the table of contactor resistance values. When PressureMAP finds a value in the table that equals the pair reading, then the contactor that is in alarm has been found.

However, the exact resistance value of an operated contactor cannot normally be predicted. Because of this, when PressureMAP reads a loop resistance value, it must allow for some give-or-take of the value read in order to match a value in the contactor table. The Trunk/Toll Tolerance data field specifies the give-or-take value that is allowed when attempting to match a loop resistance reading against the table of operated contactor values.

PressureMAP gives this data field a default value of 80 ohms. This means that a contactor is considered to be in an alarm state if the reading received by PressureMAP falls within 80 ohms, give-or-take, of the listed loop resistance value of the contactor.

Tube Miles (TUBE-M)

An alternative to calculating sheath miles when determining an air source's Optimum Air Usage (OAU). To calculate the Tube Miles for a flow device, the number of tubes that feed cables from the monitored air source need to be counted. Depending upon office type, either a value of 2 or 5 SCFH per tube mile is used in calculating OAUs. The Tube-M value (flow per tube) is entered in the Office Information Screen. PressureMAP then automatically generates an OAU based on the number of tubes entered for each monitored air source during device data entry.

TY-K

For Lancier systems, this four-character field contains the sensor type and kind, separated by a dash.

Type (T)

A two-letter device type identification denoting the type of device and its application in the pressurization system (see Table 1-3, "PressureMAP Device Types" in the Preface of the Operations Manual). Typically, the first letter pertains to the location or application of the device and the second letter represents the device type. For example, "UP" describes an underground pressure transducer.

Unit # (Un, Units)

This data entry field pertains only to Sparton monitoring systems. It represents the grouping or category of data which contains the device in question. For example, all flow transducers may be assigned the same Unit Number. Similarly, all of the devices on a specific route could be grouped together and given the same Unit Number.

SAMPLE PRESSUREMAP REPORTS

The preceding glossary of terms pertains to the fields in many of the reports PressureMAP can generate. Examples of most of these reports are provided in this section.

Dispatch Priorities Report

PressureMAP Dispatch Priorities not only analyzes, prioritizes and specifies the day's five most critical dispatches, but it also tells you how to correct the problem causing each dispatch.

With each dispatch reported, a task number, device number, alarm condition and priority level is displayed. A more detailed report can be obtained for any of the noted dispatches by selecting one of the task numbers listed in the Dispatch Report. Please note that beginning with PressureMAP Version 26 seven digit hexadecimal task numbering is used. The first three digits represent the numeric Julian date, where January 1 equals 001. The four alphanumeric characters listed after the Julian date represent a hexadecimal base 16 order number assigned by the system. With hexadecimal numbering up to 65,535 unique task numbers are represented by unique four-character alphanumeric designations.

```
Dispatch Priorities (Day 002)                          PressureMAP XX.XX.XX
01/02/2010  14:57                              System Studies Incorporated
------------------------------------------------------------------------------

1. SCRUZ7
---------

Task #  Device #  Condition                                            Level
-------  --------  -------------------------------------------------    ------
0020760  T -010    UG Cable PSI TD dropped  6.0 psi in under 24 hrs     ****
                   ALRM                                                 ACKN
002012A  T -112    Manifold flow increased  8.0 scfh in under 24 hrs    ****
                   ALRM   ACKN                                          MNTC
00201FA  T -044    Manifold flow increased  7.9 scfh in under 24 hrs    ****
                                                                       ALRM
0020614  T -126    Aerial Cable PSI TD dropped 3.0 psi in under 24 hrs   **
                                                                       CONS
002C801  T -030    Underground PSI TD came into error (OPEN) in 48 hrs   **
                                                                       CONS
System Alarms for SCRUZ7
------------------------

Task #   Error #  Condition                                            Level
-------  -------  ------------------------------------------------     ------
0020089    375    Can't connect to socket (SCRUZ7)                     ****
                                                                        ALRM


Task Dispatching for which Task #?
```

REPORT 4-1: DISPATCH PRIORITIES

Detailed Task Report

The Detailed Task Report (Report 4-2) provides data concerning the device signaling a dispatch and a list of devices that have been affected by the dispatch condition. In addition to this information, a recommended leak locating procedure and graphic is given to help minimize the time spent correcting the problem.

```
Task Dispatching Info for <OFFICE, TASK#, DEVICE>       PressureMAP XX.XX.XX
07/02/2010  17:29                                 System Studies Incorporated
-------------------------------------------------------------------------------
Task #   Device #    Condition                                          Level
-------  ----------- ----------------------------------------------------------
1830011   T -069     Manifold/meter panel flow gained 5.0 scfh in 24 hr   ****

                     Reading was 11.0 scfh at 14:18 on 07/02/02 VALIDATED


Task Dispatch Procedure #3

Probable Cause:  Leak Close to Flow Device, Construction
     Intervention, Pair Trouble.
Procedure:  Use Worksheets B or C to Determine Area of Search /
     Locate Trouble / Check the Cable Pair.

Device #:  T -069                        Type:  MF  Range: 20.0  S-M: 15.0
Address:   MH-5, CENTER AVE              Loc:   26 Pipe:    A  OAU: 18.7
Sheath(s): 01    07    13

Cable:   01     Prim Pair:   896     Sec Pair:   R    Sort Key:
Plat #:         Stickmap:    1       Phone:
Latitude:  N36+25.999               Longitude:  E122+15.000

Office 1 Loc:  25     Distance 1 (kf):  3.0     Field 1 Loc:  27
Office 2 Loc:         Distance 2 (kf):          Field 2 Loc:

Remarks:
Readings   Curr Last  Tdy  -1   -2   -3   -4   -5   -6  Wk-1 Wk-2 Wk-3 Wk-4
---------- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ----
Calculated: 11.0 11.0 11.0  6.0  5.5  6.0  6.0  5.5  6.0  6.0  6.0  6.0  6.0
===============================================================================
===============================================================================
Device #:  T -068                        Type:  UP
Address:   MH-4, CENTER AVE              Loc:   25 Pipe:    A
Sheath(s): 01

Readings:  Curr Last  Tdy  -1   -2   -3   -4   -5   -6  Wk-1 Wk-2 Wk-3 Wk-4
---------- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ----
Calculated:  6.5  6.5  6.5  8.0  8.0  8.0  8.0  8.0  8.0  8.0  8.0  8.0  8.0

************************  PROJECTED LEAK LOCATION  ************************
*                                                                        *
*                                 LOC   26                               *
*        <- OFFICE          MH-5, CENTER AVE              FIELD ->        *
*                          TD T -069      TYPE MF                         *
*   MH-4, CENTER AVE               11.0 SCFH                              *
*                                       |                                *
*<  25>--------------------[  LEAK  ]   |                                *
*              <- 3.0KF ->          \   |                                *
*                                    \  |                                *
*                                       |                                *
*                                       |                                *
*************************************************************************
```

REPORT 4-2: DETAILED TASK REPORT

Device History Report

The Device History Menu gives nine report options: history of the entire office, history of all devices on a pipe/sector, at a location code, at a manhole/address, on a cable/sheath, by type, all devices disabled, by current reading, and a Non-Variance Report ("Stuck" TDs).

Selecting *History of all devices by current reading*, and then entering device type **UP** and a reading **<3.0** from the Device History Menu will display a report similar to the one below.

```
Device History of COWTOWN, UP <3.0 Readings            PressureMAP XX.XX.XX
07/02/2010  11:41                             System Studies Incorporated
-----------------------------------------------------------------------------

                .READING. .........SETTLED READINGS......... ......AVERAGES.....
  Device #  TP Curr Last  Tdy  -1   -2   -3   -4   -5   -6   Wk-1 Wk-2 Wk-3 Wk-4
 ---------- -- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ----
   002-12   UP  2.5  2.5  2.5  2.5  2.5  2.5  2.5  2.5  2.5  2.5  2.5  2.5  2.5
    Pipe: A        Location:  601                MH-601 6TH & OAK PPE PTD
   002-13   UP  1.5  1.5  1.5  1.5  1.5  2.0  2.0  2.0  2.0  2.2  2.2  2.0  2.5
    Pipe: E        Location:  226                MH-226 C/O 6TH & YUBA BHAA-4
   002-27   UP  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0  1.0
    Pipe: D        Location:  262                MH 262 RAMIREZ & 11TH KDAC-6
   002-28   UP  0.5  0.5  0.5  0.5  0.5  0.5  0.5  0.5  0.5  0.5  0.5  0.5  0.5
    Pipe: D        Location:  262                MH 262 RAMIREZ & 11TH ADTC-6
   002-31   UP  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
    Pipe: D        Location:  262                MH 262 RAMIREZ & 11TH PPD
```

REPORT 4-3: HISTORY OF ALL UP DEVICES WITH A READING OF < 3.0

Selecting device type **ALL** and a reading of **OPEN** from the Device History Menu will display a report similar to the one below.

```
Device History of APTOS2, "ALL OPEN" Readings          PressureMAP XX.XX.XX
07/02/2010  09:16                             System Studies Incorporated
-----------------------------------------------------------------------------
                .READING. .........SETTLED READINGS.............AVERAGES......
  Device #  TP Curr Last Tdy  -1   -2   -3   -4   -5   -6  Wk-1 Wk-2 Wk-3 Wk-4
 -------- -- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ----
 T -065    UP OPEN OPEN OPEN OPEN  9.0  9.0  2.0 OPEN  9.0  1.0  8.5  3.3  5.7
 T -088    AP OPEN OPEN OPEN OPEN OPEN OPEN OPEN OPEN OPEN OPEN OPEN OPEN OPEN
```

REPORT 4-4: HISTORY OF ALL DEVICES WITH A READING OF OPEN

The following examples show device histories in "Browser" and extended (**X**) formats for PIPE AC in the APTOS2 office. Listing by device number (as shown in the first example) is the default version of the report generated. A listing by access number is generated by using the **#** command function—for example, **2#**, as shown in the sample screen that follows.

```
Keystrokes: [Quit <Esc>] [Down 'J'] [Up 'K'] [Help 'H'] [Print 'P']
[Search Forward 'F'] [Search Back 'B'] [Search Next 'N']

-------------------------------------------------------------------------------
                          Device History of APTOS2, Pipe AC
            .READING. .........SETTLED READINGS......... ......AVERAGES.....
Device # TP  Curr Last  Tdy  -1   -2   -3   -4   -5   -6  Wk-1 Wk-2 Wk-3 Wk-4
-------- --  ---- ----  ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ----
T -004   EP   8.5  8.5   8.5  8.5  8.5  8.5  8.5  8.5  8.5  8.5  8.5  8.5  8.5
T -009   SF  15.0 15.0  15.0 15.5 15.0 15.5 15.0 15.0 15.0 15.5 15.5 15.0 15.0
T -013   UP   8.0  8.0   8.0  8.5  8.5  8.5  8.5  8.5  8.5  8.4  8.3  8.5  8.5
--- More Below -----------------------------------------------------------------
```

REPORT 4-5: DEVICE HISTORY LISTING (BY DEVICE NUMBER)

```
Keystrokes: [Quit <Esc>] [Down 'J'] [Up 'K'] [Help 'H'] [Print 'P']
[Search Forward 'F'] [Search Back 'B'] [Search Next 'N']


-------------------------------------------------------------------------------
                          Device History of APTOS2, Pipe AC
            .READING. .........SETTLED READINGS......... ......AVERAGES.....
Access # TP  Curr Last  Tdy  -1   -2   -3   -4   -5   -6  Wk-1 Wk-2 Wk-3 Wk-4
-------- --  ---- ----  ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ----
013-17   UP   8.0  8.0   8.0  8.5  8.5  8.5  8.5  8.5  8.5  8.4  8.3  8.5  8.5
013-18   UP   8.0  8.0   8.0  8.0  8.0  8.0  8.0  8.0  8.0  8.0  8.0  8.0  8.0
013-19   UP   7.0  7.0   7.0  7.0  7.0  7.0  7.0  7.0  7.0  7.0  7.0  7.0  7.0
013-22   EP   8.5  8.5   8.5  8.5  8.5  8.5  8.5  8.5  8.5  8.5  8.5  8.5  8.5
016-36   SF  15.0 15.0  15.0 15.5 15.0 15.5 15.0 15.0 15.0 15.5 15.5 15.0 15.0
--- More Below -----------------------------------------------------------------
```

REPORT 4-6: DEVIE HISTORY LISTING (BY ACCESS NUMBER)

```
Device History of APTOS2, Pipe S1                     PressureMAP XX.XX.XX
07/02/2010  09:53                              System Studies Incorporated
-------------------------------------------------------------------------------
            .READING. .........SETTLED READINGS.............AVERAGES......
Device #  TP Curr Last Tdy  -1   -2   -3   -4   -5   -6  Wk-1 Wk-2 Wk-3 Wk-4
-------- --  ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ----
T -006    SF 39.0 39.0 37.0 37.0 39.0 39.0 39.0 42.0 42.0 31.7 27.7 23.7 18.4
          Pipe: S1    Location: 0       OAU: 5.7      CO PIPE PANEL-S1
T -009    MF  2.2  2.2  2.2  3.0  3.0  3.0  3.0  2.2  2.2  2.1  2.2  2.1  2.2
          Pipe: S1    Location: 2       OAU: 4.2      L0004 MH-9 7TH-WALNUT
T -038    UP  6.5  6.5  6.5  6.5  6.5  6.5  6.0  6.0  5.5  7.3  7.5  7.9  8.2
          Pipe: S1    Location: 4                     L0004 MH-16 7H-MONTANA
```

REPORT 4-7: 2X (EXTENDED PIPE/SECTOR) DEVICE HISTORY REPORT

Specific Device Reports

In each report example shown below, data from a different type of monitoring system is presented.
Each Specific Device Report outlines a device's "statistics" through the various fields in the report.

```
Specific Device Information for <OFFICE>              PressureMAP XX.XX.XX
07/02/2010  14:33                             System Studies Incorporated
--------------------------------------------------------------------------
Device #:  APP      Access #: 001-06      Type: SF  Range:  19.0  S-M:  2.2
Address:   A PIPE                          Loc:  0  Pipe:   A    OAU:  2.8
TD Type:   RF/19.0
Sheath(s): MAW

Cable:        63   Prim Pair:  1225    Sec Pair:          Sort Key:
Plat #:            Stickmap:      1
Phone:
Latitude: N36+25.999     Longitude:  E122+15.000

Office 1 Loc:          Distance 1 (kft):        Field 1 Loc:
Office 2 Loc:          Distance 2 (kft):        Field 2 Loc:

Remarks: SF READS 1.2 SCFH HIGHER THAN ACTUAL/TER

Readings    Curr Last  Tdy  -1   -2   -3   -4   -5   -6  Wk-1 Wk-2 Wk-3 Wk-4
--------    ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ----
            3.4  3.4  3.4  0.7  0.7  0.7  0.7  0.7  0.7  0.7  2.6  1.9  0.1
```

REPORT 4-8: SPECIFIC DEVICE INFORMATION FOR A 289H LSS

```
Specific Device Information for <OFFICE>              PressureMAP XX.XX.XX
07/02/2010  13:03                             System Studies Incorporated
--------------------------------------------------------------------------
Device #:  P -007                      Type:  BP
Address:   MH-23 RIVER ST.             Loc:  145    Pipe:   B

Sheath(s): 04

Cable:       14   Prim Pair:   2435    Sec Pair:         Sort Key:
Plat #:      C-8  Stick Map:   4OF7
Module:      ST   Phone #: 475-1278    TP:         B   CKT #:       T444
Priority:    2    Level:       7.0
Latitude:                      Longitude:

Office 1 Loc: 144         Distance 1 (kft) 2.8        Field 1 Loc:
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
----------  ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ----
            7.0  7.0  7.0  7.0  7.0  6.5  6.5  6.5  6.5  7.4  8.5  8.8  8.4
```

REPORT 4-9: SPECIFIC DEVICE INFORMATION FOR A CHATLOS SYSTEM

```
Specific Device Information for <OFFICE>              PressureMAP XX.XX.XX
07/02/2010  14:33                               System Studies Incorporated
--------------------------------------------------------------------------------

Device #:  T -006                        Type:  EP
Address:   MH-93,RIO DEL MAR             Loc:    10   Pipe:    A

Sheath(s): 05

Cable:       PP    Prim Pair:   73    Sec Pair:     R    Sort Key:    WEST
Plat #:     1A-3   Stick Map:   2
Unit #:        1   Line #:       4    Module:      SUB   Input #:        6
Threshold:     2   Phone #:
Latitude:                      Longitude:

Office 1 Loc: 9                 Distance 1 (kft) 3.1         Field 1 Loc:
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
----------  ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ----
            9.4  9.4  9.4  9.4  9.4  9.4  9.4  9.4  9.4  9.3  9.4  9.3  9.3
```

REPORT 4-10: SPECIFIC DEVICE INFORMATION FOR A SPARTON SYSTEM

```
Specific Device Information for <OFFICE>              PressureMAP XX.XX.XX
07/02/1986  12:46                               System Studies Incorporated
--------------------------------------------------------------------------------
Device #:  BAA03       Access #:  007A      Type:  UP
Address:   MH-20 SOQUEL                      Loc:   15  Pipe:    BA
Sheath(s): 02

Cable:       02    Prim Pair:   704    Sec Pair:       Sort Key:
Plat #:     UG-7   Stick Map:     5
Phone: 555-1278
Latitude:                      Longitude:

Office 1 Loc: 14                Distance 1 (kft) 2.9         Field 1 Loc: 16
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
----------  ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ----
            6.5  6.5  6.5  6.5  6.5  6.5  6.5  6.5  6.5  6.5  6.4  6.5  6.5
```

REPORT 4-11: SPECIFIC DEVICE INFORMATION FOR AN E2A SYSTEM

```
Specific Device Information for <OFFICE>              PressureMAP XX.XX.XX
07/02/2010 12:46                              System Studies Incorporated
-----------------------------------------------------------------------------
Device #:  A-035                           Type: MF  Range:   19.0 S-M: 2.2
Address:   MH 58 EAST HIGH AVE             Loc:   21 Pipe:    A   OAU: 2.8
Sheath(s): 07      13

Cable:        14   Prim Pair:     73   Sec Pair:          Sort Key: EAST
Plat #:    A-48   Stickmap:      5
Callouts:         Priority:           Ty:                CKT #:
Input #:          Addr #:             Escalator:         Settle Tm:
Delay:            Phone #:            Low Thrsh:         High Thrsh:
Trend:            Trend Signed:   N   TD Steps:      20  Monitor Leg: T-R

Latitude:  N30+15.456    Longitude:  E130+25.789

Office 1 Loc:     20     Distance 1 (kft):   2.7    Field 1 Loc:     24
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
--------     ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ----
             1.5  1.4  1.4  1.6  1.5  1.5  2.0  2.0  2.0  2.0  2.0  2.5  2.5

06/29/94  15:11  DEVICE WILL BE WIRED BY JIM ON TUESDAY, CALL JULIE TO ENABLE
IT   PHONE HER AT 555-5555

Manifold/PSI:   2.2
              07/05/06
         07      2.5
         13      1.4
```

REPORT 4-12: TMACS 1000 INFORMATION WITH MANUALLY ENTERED COMMENTS AND CABLE READINGS

```
Specific Device Information for <OFFICE>              PressureMAP XX.XX.XX
07/02/2010  13:03                             System Studies Incorporated
-----------------------------------------------------------------------------

Device #:Q=01+02+127 Access #:Q+01+02+127  Type: MF Range: 270.0 S-K: 35.0
Address: LOCATION 1                         Loc: 1 Pipe:   B    OAU: 1225
Sheath(s): 1234

Cable:       1234   Prim Pair:     1   Sec Pair:    1   Sort Key:     1
Plat #:   UG5677   Stick Map:    1/1
TY-K:      XXXX   A:            X    CIRC:      XXXX
Level 1:   XXXX   Level 2:    XXXX
Latitude:          Longitude:

Office 1 Loc:              Distance 1 (km)            Field 1 Loc:
Office 2 Loc:              Distance 2 (km)                 Field 2
                               Loc:

Remarks:

Readings     Curr Last  Tdy   -1   -2   -3   -4   -5   -6  Wk-1 Wk-2 Wk-3 Wk-4
----------   ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ----
             219  219  219  219  219  219  219  219  219  219  219  219  219
```

REPORT 4-13: SPECIFIC DEVICE INFORMATION FOR A LANCIER SYSTEM

```
Specific Device Information for <OFFICE>              PressureMAP XX.XX.XX
07/02/2010  13:03                           System Studies Incorporated
-------------------------------------------------------------------------------

Device #:01-001     Access #:01-001         Type: UP
Address: PIAZZA 1                           Loc:  1  Pipe:   N
Sheath(s): 135

Cable:      7911   Prim Pair:      1   Sec Pair:     1   Sort Key:      1
Plat #:   UG4439   Stick Map:    1/1
Nicotra Type: XXX   Relay:      X
Thr 1:       XXXX  Thr 2:   XXXX
Latitude:                     Longitude:

Office 1 Loc:              Distance 1 (km):            Field 1 Loc:
Office 2 Loc:              Distance 2 (km):            Field 2 Loc:

Remarks:

Readings    Curr Last  Tdy  -1   -2   -3   -4   -5   -6  Wk-1 Wk-2 Wk-3 Wk-4
----------  ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ----
            48.2 48.2 48.2 48.2 48.2 48.3 48.1 48.2 48.1 48.2 48.2 48.3 48.2
```

REPORT 4-14: SPECIFIC DEVICE INFORMATION FOR A NICOTRA SYSTEM

Cable Readings Display

The Cable Readings portion of the Specific Device Information screen is only accessible if there is at least one sheath designation in the `Sheath(s)` field of the primary device screen. The sheaths displayed are pulled from device data information, and the **Manifold/PSI** and cable readings are manually entered from the PressureMAP Specific Device Information Menu or PressureMAP Data Entry. (Please refer to the TMACS sample screen above.)

Field Accessible Device Comments

The field accessible device comment section of the Specific Device Information screen, which can be accessed from the PressureMAP Specific Device Information Menu or PressureMAP Data Entry, gives field maintenance technicians the ability to input device-related notes. These comments are date/time stamped when entered and can contain up to two lines of text, which equals 124 characters. Comments are displayed below the **Readings** history fields. An example is shown above in the TMACS 1000 Specific Device Information screen. (The **Remarks** field above the Readings is reserved for notes input by office Data Entry.)

System Indexing

The reports produced by this option will list individual indexes for each pipe route, remote dryer and central office sector in an office. To obtain an index, a route must have at least one flow device, one pressure device, a calculated OAU value, and at least 80% of the office's non-disabled devices must have valid readings. In addition to the individual route indexes, a consolidated index is calculated for the entire office. For each pipe in the office, a report will be generated which displays the total sheath mileage, the last seven daily indexes and the last four weekly index averages.

```
0. SYSTEM
---------
                ..........INDEXES.......................AVERAGES......
Office          Today  -1   -2   -3   -4   -5   -6   Wk-1 Wk-2 Wk-3 Wk-4
------          -----  ---- ---- ---- ---- ---- ---- ---- ---- ---- ----
COEURDALENE      78    78   77   77   77   75   75   81   82   84   86
HAYDEN LAKE      88    88   88   88   94   88   87   88   88   88   88
KENNEWICK        72    72   72   69   71   70   70   76   65   62   62
POST FALLS       85    85   84   82   82   80   80   91   91   91   92
NORTH RICHLA     78    77   78   78   78   78   77   81   82   82   82
RICHLAND         60    63   63   69   69   69   65   70   67   71   68
MEADOW SPRIN     70    72   70   70   66   66   65   70   63   60   56

1. COEURDALENE
--------------
                   ...........INDEXES.......................AVERAGES......
Pipe    S/Mi    Today  -1   -2   -3   -4   -5   -6   Wk-1 Wk-2 Wk-3 Wk-4
----    ----    -----  ---- ---- ---- ---- ---- ---- ---- ---- ---- ----
CO      5.5      84    84   84   84   84   82   84   85   85   86   86
N1      2.2      84    86   86   86   86   86   86   87   88   88   88
N2      1.6      92    92   92   92   92   92   92   92   92   90   88
N3      0.8      40    40   40   40   40   40   40   40   40   40   40
S1      4.5      44    44   41   41   39   33   29   56   62   69   77
S2      9.3      91    91   90   90   90   89   89   92   92   92   93
W1      0.8      92    92   92   92   92   92   92   92   92   92   92

Office  24.7     78    78   77   77   77   75   75   81   82   84   86
```

REPORT 4-15: SYSTEM INDEX REPORTS

CPAMS INFORMATION
Device Log Report

The Device Log Report lists comprehensive information about each device located in an office. Once printed, the Device Log can be saved and used as a valuable reference, showing the actual data contained in your PressureMAP database.

CPAMS Information varies the report format slightly from one CPAMS type to the next. For example, on Chatlos systems, the Device Log Report is sorted by Device Number; but for Sparton systems, the report sorts devices first by Unit Number, then by Line Number, and then by Device Number. The 289H LSS lists devices by access number (card/chassis position, then sequential device number).

The Extended Device Log Report is obtained by entering the letter *X* after you have selected the Device Log option from the CPAMS Info Menu (for example, at the CPAMS Info Menu `Choice?` prompt, enter *2x <Return>*). The extended data contains sheath information (cables fed by flow-monitored devices), a remarks line, a location code listing, and office and field footage information.

```
<OFFICE NAME> Device Log (page 1)                    PressureMAP XX.XX.XX
07/02/2010  16:41                              System Studies Incorporated


--------------------------------------------------------------------------

            Device Information last edited on  06/26/10


                               OAU/           Prim   Prim  Sec   Phone#
 Device #     T     TD Type     Ran   Sheath  Pipe   Cable  Pair  Pair   Addr#
----------    --  ------------- ---  -------  ----  ------- ----- ----- --------

  001-01     SF    RF/100.0     100    36.0   1A      HC    47
             CO P-PANEL #1                    Plat#:        Stickmap:    2
             Latitude: N39+20.000            Longitude: W123+50.000

  001-02     DF    RF/47.5      47.5   13.8   C0-1    HC    31
             CO P-PANEL #1                    Plat#:        Stickmap:    2
             Latitude: N39+20.000            Longitude: W123+50.000

  001-03          UP    CPA/30.0             34   1A      42   1119  1121
             MH-45                            Plat#:  5      Stickmap:    2
             Latitude: N39+26.020            Longitude: W123+52.000

  001-04          UP    CPA/30.0             09   1A      42   1144   919
             MH-27A, BLEEKER&PINE            Plat#:  5      Stickmap:    2
             Latitude: N39+42.000            Longitude: W123+53.020

   001-05    MF    CF/19       19.5    8.5        37    617    621
MH-31, ELM/4TH AVE.           Plat#:  4      Stickmap:    2
             Latitude: N39+05.000            Longitude: W123+38.000

 001-A1-001A UP      APA              04   B1     1121 A1-12    33
             BACKALLEY WY. & 6TH            Plat#:  5      Stickmap:    1
             Latitude: N39+15.000            Longitude: W123+38.030

 001-A1-002A UP      APA            1414   B1     1110   A1     22
             MH-17, LINDEN WY.              Plat#:  7      Stickmap:    1
             Latitude: N39+10.043            Longitude: W123+39.000
```

REPORT 4-16: STANDARD DEVICE LOG (289H LSS CPAMS)

Device Log by Location Report

The Device Log by Location Report groups information regarding the devices found at a specified location. To determine a specific location code, you must reference the stickmap(s) which pertain to the particular office in question.

In contrast to the Device Log Report, the Device Log by Location Report always sorts its data in the same fashion, regardless of the type of CPAMS. In this report, data is sorted first by the stickmap number, then by the Location Code and finally by the Device Number.

A Device Log by Location Report will automatically be generated when you select the item from the CPAMS Info Menu. Once the report is completed, you will be returned to this menu.

```
SOQUEL7 Device Log (Stick map 1, page 1)              PressureMAP  XX.XX
01/02/2010  16:42                           System Studies Incorporated
-----------------------------------------------------------------------------

                   Device Information last edited on  12/26/10

            OAU/                            Prim  Prim  Sec  Phone#/ Lin
 Device    T  Ran Shth  Pipe  Inp# Mod Un Th Cabl  Pair  Pair  Addr#   no.
--------  -- --- ----- ----  ---- --- -- -- ----- ----- ----- -------- ---


*** 0 ***   CENTRAL OFFICE SECTOR
---------------------------------
T -001   SF   50   6.0   A     4 DED 02 05                                4
T -004   SF   50   1.4   D     7 DED 02 05                                7
T -005   DF   20   6.4   CO    8 DED 02 02                                8
T -006   DF   20   6.4   CO    9 DED 02 02                                9

*** 1 ***   MH-89 OCEAN ST./JENNY    Plat #: 1A-44
---------------------------------------------------
T -016   UP        3-79  CO    19 DED 02 03    09  1787                  19

*** 2 ***   MH-47 ROLLING HILLS RD.   Plat #: 1A-9
---------------------------------------------------
T -007   UP       15-73  CO    10 DED 02 04    01  1907                  10
T -008   UP       15-79  CO    11 DED 02 03    01  1910                  11
T -009   UP        3-81  CO    12 DED 02 03    01  1912                  12
T -010   UP        9-84  CO    13 DED 02 03    01  1915                  13
T -011   UP        9-67  CO    14 DED 02 03    01  1917                  14
T -012   UP       75-67  CO    15 DED 02 03    01  1920                  15
T -013   UP       51-57  CO    16 DED 02 03    01  1922                  16
T -014   PP              A     17 DED 02 03    01  1924                  17
T -015   EP              D     18 DED 02 03    01  1925                  18

*** 3 ***   MH-49 MITCHELL ST.
-----------------------------------
T -105   MF   20   1.2 RD-H       DED 02 02

*** 11 ***   AERIAL MITCHELL
---------------------------
T -102   MF   20   1.4   D         DED 02 02

*** 12 ***   5202 PACIFIC STREET MALL    Plat #: 1A2-A
------------------------------------------------------
T -032   BP        6-73 RD-D    35 DED 02 04    05   446                 35
T -033   BP        6-73 RD-D    36 DED 02 01    05   496                 36

*** 13 ***   GRAHAM ROAD
----------------------------
T -103   MF   20   2.8 RD-D       DED 02 02

*** 14 ***   MH-57 3RD ST. Plat #: 1A2-22
---------------------------------------
T -035   UP        3-67 RD-D    38 DED 02 04    06   376                 38
T -036   UP        4-74 RD-D    39 DED 02 01    06   380                 39
T -037   EP             RD-D    40 DED 02 04    06   387                 40
```

REPORT 4-17: DEVICE LOG BY LOCATION

Device Status Report

Option #4 of the CPAMS Info Menu enables you to access key information for the devices in an office in a report format similar to what is provided in a Sparton Status Report. Reports can be generated to show the alarm status for all of the devices in an office, or filtered according to Priority Level. The Device Status Report consolidates information located on other PressureMAP reports such as Dispatch Priorities, extended Device Histories and Device Logs. It provides concise data for

making comparisons of recent device readings and evaluating alarmed devices. Devices in the report are ordered according to the same sorting criteria used for the Device Log.

The format of the report varies slightly depending upon what type of monitor you have: 289H LSS, Sparton or Chatlos. Notice that the principal difference in format among these three reports is the column(s) of data located after the *Address* column. The Sparton report includes *Mod* (Module) and *Inp* (Input #) columns; the Chatlos report displays a *CKT* (Circuit #) column; and the 289H LSS report excludes these additional columns, displaying *TP* (Type) as the first column of information after the Address information.

Reports can be generated to show the alarm "status" for all of the devices in an office, or filtered according to Priority Level. (Priority levels are described in the PressureMAP section of the Operations manual.)

```
Device Status for <OFFICE NAME> (page 1)              PressureMAP  XX.XX.XX
01/02/2010  12:46                              System Studies Incorporated
-----------------------------------------------------------------------------

             Device Information last edited on 12/26/10

Device #      Address             Mod Inp TP  Pipe  Curr  Tdy  TD-1  Status
----------    ----------------------  --- --- --   ----  ----  ----  ----  ------
 T -006       MH-42, Spruce St./Goose DED   3 UP    1A   4.5   7.5   7.5   ****
 T -007       MH-47, Linden & Moyer   DED   4 UP    1A   3.0   6.5   6.5   ****
 T -010       MH-112, Richardson & Gr SUB   7 MF    2A  17.2  17.4  11.6   ****
 B -021       MH-5, So. B-40 & Broadw BIN 116 CA    4A   2.5   2.5         --**
 B -022       MH-11, Broadway & Ocean BIN 117 $A    4A   3.6   3.6         --**
```

REPORT 4-18: DEVICE STATUS REPORT (SPARTON MONITOR)

```
Device Status for <OFFICE NAME> (page 1)              PressureMAP  XX.XX.XX
01/11/2010  12:46                              System Studies Incorporated
-----------------------------------------------------------------------------

             Device Information last edited on 10/11/10

Device #      Address             CKT     TP  Pipe  Curr  Tdy  TD-1  Status
----------    ----------------------  ------ --   ----  ----  ----  ----  ------
 ST-0006      MH-42, Spruce St./Goose NW-89  UP    1A   4.5   7.5   7.5   ****
 ST-0006      MH-47, Linden & Moyer   NW-90  UP    1A   3.0   6.5   6.5   ****
 ST-0006      MH-112, Richardson & Gr NW111  MF    2A  17.2  17.4  11.6   ****
 ST-0006      MH-5, So. B-40 & Broadw SW-06  UP    3A   2.5   2.5         --**
 ST-0006      MH-11, Broadway & Ocean SW-07  UP    4A   3.6   3.6         --**
```

REPORT 4-19: DEVICE STATUS REPORT (CHATLOS MONITOR)

```
Device Status for <OFFICE NAME> (page 1)           PressureMAP  XX.XX.XX
01/22/2010  12:46                              System Studies Incorporated
--------------------------------------------------------------------------

Device Information last edited on 11/26/10

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 4-20: DEVICE STATUS RPORT (289H LSS MONITOR)

Device Status by Pipe Report

The next option on the CPAMS Info Menu (Option #5) produces a report similar to the ones shown above, except that the format of the information presented even more closely resembles an actual Sparton device status report. Also, as the name implies, report data is organized by pipe route, beginning with the CO and working numerically outward.

Three report variations are provided, one each for the Sparton, Chatlos and 289H LSS monitors. For the most part, the data presented on these three reports is identical, except for the first few columns on the left that appear before the *Location* column. Reports for the 289H LSS and the Chatlos monitors contain two leading columns of data (*Device #* and *Access #* for the 289H, and *Device #* and *Circuit #* for the Chatlos). The Sparton report contains four leading columns (*No.*, *Device #*, *Mod*, and *Inp*).

The remaining seven columns of data that are common to all three reports are *Location*, *TP*, *Curr*, *Tdy*, *Wk-1*, *Alrm* and *In*. This last column, *In*, pertains to the number of days that a device has been in alarm. The three reports shown below illustrate the format variations and type of data presented on the Device Status by Pipe Route Report for each of the three primary monitor types.

```
Device Status by Pipe Report for <OFFICE NAME>           ReportMAP XX.XX.XX
10/23/2010 09:21                    Page 1           System Studies Incorporated
--------------------------------------------------------------------------------


 Pipe Route CO
 --------------

 Device #    Access #    Location                       TP Curr Tdy  Wk-1 Alrm In
 ---------- ----------  ----------------------------- -- ---- ---- ---- ---- --
  (B207)     003-23     DRYER A FAILURE                CA   OK   OK   OK
  (B208)     003-24     DRYER B FAILURE                CA   OK   OK   OK

 Pipe Route 1A
 --------------

 Device #    Access #    Location                       TP Curr Tdy  Wk-1 Alrm In
 ---------- ----------  ----------------------------- -- ----- ---- ---- ---- --
   001       001-02     CO AP FTD RT 1A                SF 50.0 50.0 50.0     * 18
   002       003-03     CO AP PTD RT 1A                SP 10.5 10.5 10.3
   003     002-A5-100   W HWRD/ELAKE FTD  MH GG107 1/2 MF  0.9  0.8  0.8
   004     001-A3-001   2115 EASTLAKE DR       MH K52  UP  2.6  2.6  2.6
   005     001-A3-002   2115 EASTLAKE DR       MH K52  UP  4.6  4.5  4.5
   007     001-A3-003   2115 EASTLAKE DR       MH K52  UP  3.7  3.7  3.5
   008     001-A3-004   373                            EP  6.8  6.8  6.8     R  0
   009     001-15       S PDL/E PDL FTD 1A02    MH K45 MF  6.6  6.5  6.6
   010     001-A3-008   SPDL/FAIRVIEW 1APP A3-8 MH K38 EP  3.1  3.0  2.8     * 94
   011     001-A3-005   SPDL/FAIRVIEW 1AC  A3-5 MH K38 UP  4.1  4.1  4.1
   012     001-A3-006   SPDL/FAIRVIEW 1AB  A3-6 MH K38 UP  3.9  3.8  4.0

Pipe Route 2A
 --------------

 Device #    Access #    Location                       TP Curr Tdy  Wk-1 Alrm In
 ---------- ----------  ----------------------------- -- ---- ---- ---- ---- --
   013       001-03     CO AP FTD RT 2A                SF 44.4 44.0 43.6     * 11
   014       001-04     CO AP PTD RT 2A                SP 10.0 10.0 10.0
   015       001-05     RASC/HOWARD FTD   MH FG017 1/2 MF 2.4  2.4 2.2
```

REPORT 4-21: DEVICE STATUS BY PIPE REPORT (289H LSS)

```
Device Status by Pipe Report for <OFFICE NAME>          ReportMAP XX.XX.XX
10/24/2010  14:47                   Page 1        System Studies Incorporated
--------------------------------------------------------------------------------


 Pipe Route CO
 ---------------

 Device #    Ckt#    Location                       TP Curr Tdy  Wk-1 Alrm In
 ----------  ------  ------------------------------ -- ---- ---- ---- ---- --
 MA-0001     MA0001  DRYER RUNTIME SYS1             DC  OK   OK   OK **** 46
 MA-0002     MA0002  DRYER RUNTIME SYS2             DC  OK   OK   OK
 MA-0003     MA0003  DRYER HI FLOW ALARM            DC  OK   OK   OK
 MA-0004     MA0004  DRYER HI OUTPUT PRES           DC  OK   OK   OK
 MA-0005     MA0005  DRYER LO OUTPUT PRES           DC  OK   OK   OK
 MA-0006     MA0006  DRYER HUMIDITY SYS 1           DC  OK   OK   OK
 MA-0007     MA0007  DRYER HUMIDITY SYS 2           DC  OK   OK   OK
 MA-0008     MA0008  DRYER COMPRESOR TEMP           DC  OK   OK   OK
 MA-0009     MA0008  DRYER CABINET TEMP             DC  OK   OK   OK
 MA-0010     MA0010  DRYER COMP1 SHUTDOWN           DC  OK   OK   OK
 MA-0011     MA0011  DRYER COMP2 SHUTDOWN           DC  OK   OK   OK
 MA-0013     MA0013  DRYER COMP MAINT              DC  OK   OK   OK
 MA-0014     MA0014  DRYER POWER ALARM             DC  OK   OK   OK
 ST-0004     NC1     ANSON-PIPE FLOW CA1A           DF  2.5  2.5  2.5 ---R 46
 ST-0009     CA01    R1315 S COMM.-EP               AP  4.5  4.5  5.2

 Pipe Route 1
 ---------------

 Device #    Ckt#    Location                       TP Curr Tdy  Wk-1 Alrm In
 ----------  ------  ------------------------------ -- ---- ---- ---- ---- --
 ST-003      SW-03   CO AP FTD RT 1                 SF 31.5 31.2 29.8
 ST-004      SW-22   CO AP PTD RT 1                 SP 10.2 10.2 10.3
 ST-021      SW-21   BROADWAY & OCEAN ST.           UP  3.5  3.2  7.2 ****  3
 ST-022      SW-22   BRIXBY & KELP                  UP  7.2  7.0  7.0
 ST-023      SW-23   WILSHIRE & FREDERICK           MF 10.4 10.4 10.2
```

REPORT 4-22: DEVICE STATUS BY PIPE REPORT (CHATLOS)

```
Device Status Report by Pipe for <OFFICE NAME>              ReportMAP XX.XX.XX
10/25/2010 11:06                    Page 1          System Studies Incorporated
--------------------------------------------------------------------------------


Pipe Route CO
--------------

No.  Device #   Mod Inp Location                      TP Curr Tdy  Wk-1 Alrm In
---  ---------- --- --- ----------------------------- -- ---- ---- ---- ---- --
  1  (B -001)   0.0 134 -48 VOLT FUSE ALARM           CA  CLR  CLR  CLR
  2  (B -002)   BIN   2 DRYER FAILURE ALARM UNIT A     CA  CLR  CLR  CLR
  3  (B -007)   BIN   8 DRYER FAILURE ALARM UNIT B     CA  CLR  CLR  CLR
  4  (B -012)   BIN  13 DRYER FAILURE ALARM UNIT C     CA  CLR  CLR  CLR
  5  (B -017)   BIN  18 DRYER FAILURE ALARM UNIT D     CA  CLR  CLR  CLR
  6  (B -004)   BIN   3 SYSTEM PRESSURE EMERGENCY      CA  CLR  CLR  CLR
  7  (B -003)   BIN   9 BONAVENTURE/PONCE DE LEON PMT  CA  CLR  CLR  CLR

 Pipe Route 0
 --------------

No.  Device #   Mod Inp Location                      TP Curr Tdy  Wk-1 Alrm In
---  ---------- --- --- ----------------------------- -- ---- ---- ---- ---- --
  1  T -490     DED  66 C O AIR PIPE FLOW TD    MH ES4 SF 99.0 99.0 99.0 ---R 22
  2  T -491     DED  76 C O AIR PIPE PRESSURE TD MHES4 SP 10.5 11.3 11.2
  3  T -492     DED  61 CO AIR PIPE FLW RT SMF2 MHPM28 SF 99.2 99.2 99.2
  4  T -493     SUB 277 CO AIR PIPE PRS RT SMF2 MHPM28 SP  9.5  9.5  9.3

 Pipe Route 1A1
 --------------

No.  Device #   Mod Inp Location                      TP Curr Tdy  Wk-1 Alrm In
---  ---------- --- --- ----------------------------- -- ---- ---- ---- ---- --
  1  T -190     DED   1 C O AIR PIPE FLOW TD  RT 1A1   SF 89.5 89.5 88.0
  2  T -191     SUB  17 C O AIR PIPE PRESSURE TD RT 1A SP  9.5  9.5  9.5
  5  T -194     DED  21 C O DIST FLOW TD RT 1A         DF 54.1 54.2 51.6    R  0
  6  T -195     SUB  72 12-70-AT 1100 SPRING ST        UP  3.6  3.6  4.4    *  1
  7  T -197     SUB  88 C0X-51-AB W PTREE/14TH ST MH J UP  1.7  1.6  2.8   **  8
  8  T -199     SUB  80 09-40-AD W PTREE/14TH ST  MH   UP  6.0  6.0  6.0
  9  T -200     SUB  81 21-57-AE W PTREE/14TH ST MH    UP  3.1  3.1  2.8    *  8
 10  T -201     SUB  85 18-57-AG W PTREE/14TH ST  MH   UP  4.5  4.5  4.2    *  8
 11  T -202     SUB  79 09-71-AH W PTREE/14TH ST  MH   UP  6.5  6.5  6.5
 12  T -204     SUB  86 24-71-AL W PTREE/14TH ST  MH   UP  2.9  2.9  3.0    *  8
 13  T -207     SUB  90 21-83-AQ W PTREE/14TH ST  MH   UP  7.0  7.0  7.0
```

REPORT 4-23: DEVICE STATUS BY PIPE REPORT (SPARTON)

Device Discrepancy Report

For certain monitor types (Chatlos L3, Hercules 740 and 940, Sparton 5300B and 5318) PressureMAP provides a way to show the differences between a PressureMAP device record (what has been programmed into PressureMAP during data entry) and the device information that has been programmed into the CPAMS monitor. This information is presented in a Device Discrepancy Report, which displays two lines of data for each device where a discrepancy has been detected.

It is important to note that the report provides device differences relative to PressureMAP. That is, for every PressureMAP device in an office, the CPAMS monitor is checked to compare the differences in data between the monitor and PressureMAP. This report **does not** show devices which are programmed into the CPAMS monitor, but are not in the PressureMAP device record. Because the monitor types from which this report are generated differ in data format structure, the contents of the Device Discrepancy Report for Chatlos/Hercules monitors and for Sparton monitors are also slightly different. The following screen samples illustrate these differences.

```
Device Discrepancy for <OFFICE NAME> (page 1)         PressureMAP XX.XX.XX
08/28/2010  11:02          *Schedule Off*        System Studies Incorporated
-----------------------------------------------------------------------------

                  Device Information last edited on   08/11/10


Device #      TP  Circuit  PR  Alrm  Address
-----------   -   ------   -   ---   --------------------


  MA-0001     D     ADRY    1   N/C  CO AIR DRYER NO 1
  MA-0001     D     ADRY    1   N/O  CO AIR DRYER NO 1

  ST-0011     B     AD2     2   3.0  SHED @ 1378 SEIS LAG
  ST-0011     B     AD2     1   3.0  SHED @ 1378 SEIS LAG

  ST-0012     B     AD3N    1   3.0  PED28 1378N/SEIS LAG
  ST-0012     B     AD2N    1   3.0  PED28 1378N/SEIS LAG
```

REPORT 4-24: DEVICE DISCREPANCY REPORT (CHATLOS/HERCULES)

```
Device Discrepancy for <OFFICE NAME> (page 1)         PressureMAP XX.XX.XX
08/28/2010  11:02          *Schedule Off*        System Studies Incorporated
-----------------------------------------------------------------------------

Device #      Unit Line  Inp  Mod Thr  Prio   Location
-----------   --   ---   ---  --- --   -----  ------------------------------

  B -002       1    1     1   BIN  -   MAJOR  002 ROYAL GORGE STREET
-----------   Device not found in SPARTON 5300B

  T -002       1    2     2   DED  1   MAJOR  002 TWO ST
  T -002       1    2     2   DED  2   MAJOR  002 100 EAST MAIN STREET

  T -003       1    3    21   DED  1   MAJOR  003 THREE ST
  T -003       1    3     3   DED  1   MAJOR  003 THREE ST

  T -005       1    3     5   DED  1   MAJOR  005 EAST MAIN
  T -005       1    4     5   DED  1   MAJOR  005 EAST MAIN

  B -027       2    1     7   NON  +-  MAJOR  027 TWENTYSEVEN
  B -027       2    1     8   NON  +-  MAJOR  027 TWENTYSEVEN
```

REPORT 4-25: DEVICE DISCREPANCY REPORT (SPARTON)

CableMAP REPORTS

CableMAP, using the information stored in its database, is capable of producing reports using two format types, the Summary Activity Log and Complete Activity Log, which are selected from the CableMAP Master Menu. The Summary Activity Logs option prints summary reports so that you can examine current construction and maintenance activities, recent closures, and the recent activity of all technicians logged into the system. Complete Activity Logs allow you to view or print activity records in a format that duplicates the CableMAP data entry screen.

Both options have the ability to create eleven different types of cable activity reports. Reports generated can be sorted into the following categories:

- All Cable Activity in the Cable Activity Log
- Activity by an Opening Number
- All Activity for a given Day, Week or Month
- All Activity by a Specified Technician
- All Activity by Job/Task Number
- All Activity by an Address or Manhole
- All Activity by PressureMAP Location Code
- All Activity on a Pipe
- All Activity for a Cable/Count
- All Activity Not Yet Closed
- Recent Activities for all Technicians (TechFinder)

Please note that CableMAP allows for "advance closings" of cable activities to streamline the database maintenance process. An advance closing date and time may be entered manually when an activity is opened, or the Standard Closing Time option may be set so that CableMAP automatically fills in the `Closing Date` and `Closing Time` fields whenever a new activity is opened. The automatic closing date and time may be accepted or changed, or blanked out to prevent automatic closing. (For more information, please refer to the CableMAP section of the Data Entry manual.)

After the advance closing date and time have passed, the system will automatically close the activity, log the closing date and time, and issue a Closing Number with the identifying prefix AUT. This daily function is coordinated with the MAP System's schedule to ensure that open activities are automatically closed in a timely manner and do not interfere with detection and delivery of alarms.

```
 Activities on File (page 1)                      CableMAP XX.XX.XX
 04/28/2010  11:38                        System Studies Incorporated
 --------------------------------------------------------------------------

3. SIMMSBY
 -----------
CON1631746 04/12/2010 08:49     CLOSED        CON1750482 04/25/2005 15:45
 L.C. GREEN                                   Job/Task #:  1492
 MH-10, SUTTER/E CLIFF                        Loc(s): 2    3
 555-4848                                     Time on Job: 12:45
 Field Rpt Code:   123A     Dsp/Cause: 1234-567   Travel Time:  1:00
 02:1201-1300
 TROUBLE ON PAIR, POSSIBLE SHORT
 CLEARED SHORT
 At AERIAL RISER, CRN SUTTER/E CLIFF

 MNT1810460 04/26/2010 13:19     TEMP CLOSED      AUT1857457 04/27/2005 11:30
 NORM RUNWOOD                                 Job/Task #:  181046
 MH-3, LANDING/E CLIFF                        Loc(s): 2    4
 555-1234                                     Time on Job:  10:01
 Field Rpt Code:   321B     Dsp/Cause: 1234-555   Travel Time:   1:30
 181046    ST-0002  UG Cable PSI TD dropped  4.0 psi in 24 hrs        ****
 TASK ASSIGNMENT BY VICKKI

 MNT1850489 04/05/2010 09:45     *OPEN*
 CP OAKES                                     Job/Task #: 185795
 MH-8, BRONSON/WOODS                          Loc(s): 5    6
 555-5777                                     Time on Job:  01:53
 Field Rpt Code:   399B     Dsp/Cause: 1234-599   Travel Time:
 185795    ST-0003 UG Cable PSI TD dropped  3.0 psi in 24 hrs        ****
 TASK ASSIGNMENT BY DONNA, HEAVY TRAFFIC AT 5:00 PM

 TOTAL TIME FOR ACTIVITIES LISTED                           24:39
```

REPORT 4-26: SUMMARY CABLE ACTIVITIES LOG

```
Activities on File (page 1)                        CableMAP XX.XX.XX
04/11/2010 12:41                           System Studies Incorporated
--------------------------------------------------------------------------
Opening #: CON1550812     Opening Date: 04/05/2010)     Opening Time: 12:07
Closing #:                Closing Date:                 Closing Time:

Office name: SANTA CRUZ          Job/Task #: 12345       Time on Job:   4:12
Technician:  CRAIG                                       Travel Time:   0:00
Address:     2-1340 E CLIFF DR                           Fld Rpt Code:  1234
Phone:       555-1212                                    Dsp/Cause: 1234-123
Location(s): A                   Pipe(s):   A
Cable/Count: 1234:1233-1234

Trouble Rpt/Test: CUTOVER 50 PAIRS
Remark/Work Done:
Trouble Site:    MH-21


- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -

Opening #: RPR1550999     Opening Date: 04/05/2010 (094)   Opening Time: 14:07
Closing #:                Closing Date:                     Closing Time:

Office name: APTOS               Job/Task #:12346        Time on Job:   6:28
Technician:  BILL WALL                                   Travel Time:   0:00
Address:     MH 58 CLIFF AVE                             Fld Rpt Code:  3488
Phone:       555-2233                                    Dsp/Cause: 1234-889
Location(s): 21 22 35            Pipe(s): A
Cable/Count:
Trouble Rpt/Test:
Remark/Work Done:
Trouble Site:
- - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - - -
```

REPORT 4-27: COMPLETE CABLE ACTIVITIES LOG

CableMAP Screens on a Hand-Held Terminal

By using the Hand-Held Terminal login, you are able to log, edit, view and close cable openings from the field. The following section shows CableMAP screens similar to what is displayed on a hand-held terminal, and describes the fields included in each screen.

```
Open #  CON2018517
04/28/2010   14:09
Close #
04/28/2010   17:30
Jobtime:       0:03  Travel Time:  0:00
Job/Task # <JOB NUM>
<TECHNICIAN>
<ADDRESS>
<PHONE>
Fld Rpt Code: <XX>  Dsp/Cause: <DSP/CA>
Loc # <XX>
Pipe: <XX>
<CABLE:COUNT-COUNT>
Trouble Rpt/Test: <TROUBLE RPT OR TEST>
Remarks/Work Done: <REMARKS>
Trouble Site: <TROUBLE SITE>

VIEW ACTIVITY
```

REPORT 4-28: VIEW OPEN CONSTRUCTION LOG

```
Open #  MNT2018417
04/28/2010   14:07
Close # MNT2018708
04/28/2010   14:12
Jobtime:        0:05   Travel Time:   0:00
Job/Task # <TASK NUM>
<TECHNICIAN NAME>
<ADDRESS>
<PHONE>
Fld Rpt Code: <XX>   Dsp/Cause: <DSP/CAU>
Loc # <XX>
Pipe: <XX>
<DISPATCH CONDITION>
Trouble Rpt/Test: <TROUBLE RPT OR TEST>
Remarks/Work Done: <REMARKS>
Trouble Site: <TROUBLE SITE>
```

REPORT 4-29: MAINTENANCE ACTIVITY DATA LOG

When logging an opening, the following information must be entered: office name, activity type, technician's name, job or task number, address, phone, location code, pipe, and cable/count. If a maintenance activity is to be logged, the job/task number should be the same 6 digit number as the Dispatch Task which is being worked on.

Although the hand-held terminal user has wide data access and input privileges, there are some limitations to using this equipment. For example, to keep important data from being corrupted by unauthorized access, some of the data input fields, such as opening and times and dates, are locked on the hand-held screen. These fields can be edited on the full-sized CableMAP screen.

Open #

The Opening (or Activity) Number can be a maximum of fourteen characters in length. This number always has CON, MNT, RPR, or MSC for the first three characters. It can be automatically assigned by CableMAP, or the last eleven characters can be changed to conform to an individual numbering method. CableMAP will not generate a Closing Number until the Closing Time has passed.

Numbers automatically assigned by CableMAP are three characters and eleven digits in length. The first three characters in a Cable Opening Number represent construction or maintenance activity. The next three digits represent the current day, displayed as a Julian date. The last eight digits are random, as chosen by the program.

Close #

The Closing Number is similar to the Opening Number in that both are a maximum of fourteen characters in length, and both can be customized or automatically chosen by CableMAP. System-generated Closing Numbers conform to the same numbering method as the automatic Opening Numbers. However, if an advance closing time has been entered for an activity, the system will automatically close the activity after that time has passed and issue a Closing Number with AUT for its first three characters.

Opening Date

The `Opening Date` data field displays both a MM/DD/YYYY format and a Julian date format.

Closing Date

Like the Opening Date, the Closing Date is expressed in two formats: the MM/DD/YYYY format and the Julian date format. If a Standard Closing Time has been set in CableMAP Configuration, CableMAP will assign a real date value, according to how the activity's Opening Time relates to the Standard Closing Time.

Opening Time

All times in CableMAP are written in a 24-hour clock format, with 13:00 representing 1:00 p.m. Times are written to the nearest minute.

Closing Time

Like the Opening Time, the Closing Time is written in a 24-hour clock format. If a Standard Closing Time has been set in CableMAP Configuration, that default time value will be displayed.

Jobtime

The Jobtime data field contains the hours and minutes spent working on the particular activity. This field is calculated by CableMAP from the opening and closing times and cannot be modified. The time clock will stop when the activity is temporarily closed and restart when the activity is reopened.

Technician

The name of the technician logging the cable opening. A maximum of 20 characters is allowed. When logging and opening the program will not advance until a name is typed in.

Job/Task

A Job/Task Number entry is also mandatory when logging an opening. All Maintenance Activity Task Numbers should be the same 6 digit number as the Dispatch Task which is being worked on.

Address

The address can be a maximum of 30 characters long and must be entered when logging an opening. Many telcos include a street address and a manhole number.

Phone

The phone number field contains the number where the technician can be reached. This field is 20 characters long, and can contain an area code, extension, or pager number.

Pipe

In this field, you can enter the name of up to six pipes, which can be up to four characters long.

Location

The location field contains the PressureMAP Location Codes for all of the Locations that may be affected by the cable opening. Any location within the pneumatic section in which this cable opening is located should be included in this list. Up to 4 location codes can be entered.

Cable/Count

This field appears in Construction Activity screens. It may include only alphanumeric characters and the following entries, ":", "-", "/", "". The entry must be formatted like the following example: `9999:9999-9999`

Trouble Rpt/Test

>   At this prompt, enter the reported condition or test that justifies the logging of a new activity. Up to 60 characters may be entered.

Remarks/Work Done

>   Remarks/Work Done data field allows you to enter special remarks of up to 70 alphanumeric characters.

Logging a Cable Closing with a Hand-Held Terminal

When closing a cable activity, you will be prompted to enter information into the following fields:

Travel Time

>   This field is used to track the amount of time the technician spends traveling to and from the work site.

Fld Rpt Code

>   The field `Report Code` is a five character alphanumeric field that corresponds to the code entered on a technician's time report, creating a audit link from the activity to the reported time.

Dsp/Cause

>   This eight character field corresponds to the "Status/Disposition/Cause Code" used by many Telco forms. The entry in this field is usually a four digit number and a three digit number, separated by a dash.

Remarks/Work Done

>   The `Remarks/Work Done` data field allows special remarks of up to 70 alphanumeric characters to be noted with a specific cable activity.

Trouble Site

>   This 60-character field describes the actual work site/location and corresponds to the "Trouble Location" field used by auditors for quality inspections of completed work.

AlarmMAP REPORTS
Dispatch Histories Reports

The Dispatch Histories function searches for dispatches and assembles a report which lists all alarms associated with any of these characteristics: a particular task number, device number, pipe route, PressureMAP location number, and dispatch log entry type. Dispatch Histories enables the PressureMAP user to trace the history of a particular alarm to determine whether it was dispatched to the correct report centers, acknowledged (and by whom), and corrected or aged according to the PressureMAP aging system. Beginning with PressureMAP Version 27 reading histories (`Last Rdg`, `Tdy Rdg`, `-1 Rdg`, etc.) were added to the report.

```
View Dispatch Histories for (office name) (page 1)        AlarmMAP XX.XX.XX
8/05/2010  15:55                                 System Studies Incorporated
-----------------------------------------------------------------------------

Task Number: 2180001                Device Number: 002-01
Entry Type:  DELIVERED ALL CENTERS  Entry Time:    5/27, 15:38
Level:       **                     Location:      4
Dispatch:    UG Cable PTD lost  3.0 psi in 72 hr
Disp. Code:  2700                   Device Type:   UP
Rdg. Time:   5/27, 7:00:02  (REAL)  Reading:       3.0 psi
Last Rdg:    2.0                     Tdy Rdg:       3.0
-1 Rdg:      4.0                     -2 Rdg:        5.0
-3 Rdg:      6.0                     -4 Rdg:        7.0

Task Number: 2180003                Device Number: 002-01
Entry Type:  CLR DELIVERED ALL CENTERS Entry Time:  5/27, 15:38
Level:       ***                    Location:      4
Dispatch:    UG Cable PTD lost  3.0 psi in < 48 hr
Disp. Code:  8580                   Device Type:   UP
Rdg. Time:   5/27, 15:37:26 (CALL)  Reading:       1.0 psi
Last Rdg:    2.0                     Tdy Rdg:       3.0
-1 Rdg:      4.0                     -2 Rdg:        5.0
-3 Rdg:      6.0                     -4 Rdg:        7.0
Old Level:   **
Old Disp.:   UG Cable PTD lost  3.0 psi in 72 hr
```

REPORT 4-30: DISPATCH HISTORIES REPORT

Alarm vs Time of Day Report

The Alarm vs Time of Day Report option enables you to view all of the devices that have come into alarm during each of the twelve daily calling cycles so that you can analyze the daily occurrences of alarms in a given office (by device type), compare them with alarms in other offices, and identify general trends in alarming.

```
Alarm vs Time of Day Report                          AlarmMAP XX.XX.XX
08/12/2010  10:58                             System Studies Incorporated
-------------------------------------------------------------------------

    <OFFICE NAME> - Dates 7/4 through 8/3, Period 00:00 to 23:59 Hours


                     Midnight    6AM         Noon        6PM
Device Number  Type  00  02  04  06  08  10  12  14  16  18  20  22  Total
-------------  ----  --- --- --- --- --- --- --- --- --- --- --- ---  -----
001-A1-001A    UP     3   2   2                   1                       8
002-A1-001A    MF                 1  12           1                      14
  001-10       CA    30           1                                      31
  001-11       UP         4                                               4
  001-12       UP                             6               1           7
  002-13       MF     5                                1           2       8
    Etc.


                     --- --- --- --- --- --- --- --- --- --- --- ---  -----
          Totals     38   6   3   1  12           7   1   1   1       2    72
```

REPORT 4-31: ALARM VS TIME OF DAY REPORT

Daily Alarm Summary Report

This report displays the number of alarms as a function of day of the week. It allows you to identify the number of alarms that have been generated for each device in the selected office for the current day and for the past seven consecutive days, and the weekly totals for each of the previous four weeks.

```
Daily Alarm Summary Report                              AlarmMAP XX.XX.XX
08/12/2010  10:59                             System Studies Incorporated
-------------------------------------------------------------------------

       <OFFICE NAME> - Dates 6/29 to 8/3, Period 00:00 to 23:59 Hours

Device      Type Today  -1  -2  -3  -4  -5  -6  -7  Wk-1 Wk-2 Wk-3 Wk-4 Total
---------   ---- -----  --- --- --- --- --- --- --- ---- ---- ---- ---- -----
001-A1-001A  UP          3   2   1               1                          7
002-A1-001A  MF                      1  10           1         2           14
   001-10    CA             11           1                                 12
   001-11    UP     2        4                                              6
   001-12    UP                              6            1                 7
   002-13    MF          5                           1         2            8
   001-07    $P                  2       1       1                          4
      etc.
                   -----  --- --- --- --- --- --- --- ---- ---- ---- ---- -----
       Totals      2      8  19   3   1  13   1   7   2    1    3    2     58
```

REPORT 4-32: DAILY ALARM SUMMARY REPORT

Alarm Summary Report

The Alarm Summary Report offers you quick access to dispatch alarm totals in three categories for each device in an office: normal alarms (those "created" during the program's scheduled calling cycle); filtered alarms (those alarm conditions that have been designated for filtering during specified time periods and/or days); and inflated alarms (those alarm conditions that continued to worsen before the original alarms were cleared or aged).

The report consists of the six columns shown below. Device numbers and device types are listed in the first two columns, while the next three columns indicate how many of the three alarm types occurred for each device during the viewing period. The last column on the right provides individual alarm totals for each of the devices in the office, and the total number of each type of alarm is provided at the bottom of the report.

```
Alarm Summary Report                                      AlarmMAP XX.XX.XX
08/12/2010  10:59                                System Studies Incorporated
----------------------------------------------------------------------------

         <OFFICE NAME> - Dates 7/4 to 8/3, Period 00:00 to 23:59 Hours


                    Alarms      Alarms      Alarms      Total
Device      Type    Created     Filtered    Inflated    Alarms
---------   ----    -------     --------    --------    -------
001-A1-001A  UP        3           1           1           5
002-A1-001A  MF        1           0           0           1
   001-10    CA        6           0           0           6
   001-11    UP        4           2           3           9
   001-12    UP        0           1           0           1
   002-13    MF        3           2           1           6
   001-07    $P        1           0           0           1
      etc.

                    -------     --------    ---------   -------
         Totals       18           6           5          29
```

REPORT 4-33: ALARM SUMMARY REPORT

Alarm vs Device Type Report

The Alarm vs Device Type Report enables you to view the total number of Four Star Alarms created for each device type for a specified time period. You can also view the total number of alarms for **all** offices (by office) in a summary format, and compare the offices' totals to identify the office(s) that you wish to examine in more detail. Beginning with PressureMAP Version 25, it is also possible to generate an expanded report when ALL offices are selected by entering *4x* from the Alarm vs Device Type Report Menu. This expanded output is the detail shown for an individual office, but it includes each of the offices in the system. Following are examples of an individual office's report, a summary report comparing all offices, and expanded report for all of the offices in the PressureMAP system.

```
Alarm vs Device Type Report                               AlarmMAP XX.XX.XX
08/12/2010  10:36                                System Studies Incorporated
-----------------------------------------------------------------------------

         <OFFICE NAME> - Dates 7/13 through 8/12, Period 00:00 to 23:59 Hours


                                          Total    Number  Number   Number
Device Type                               Devices  Alarms  Disabled Open/Short
----------------------------------------  -------  ------  -------- ----------
$F - High Priority Flow TD                   1        1                 1
CA - Compressor/Dryer Contact Alarm          1        1                 1
KA - Alternating Contact Alarm               6        3        2        3



----------------------------------------  -------  ------  -------- ----------
     Totals                                  8        5        2        5
```

REPORT 4-34: ALARM VS. DEVICE TYPE REPORT

Notice that alarm occurrences are listed in the report for each of the device types represented in the Device Type column. The second column on the report shows the total **current** number of devices of each type, regardless of the alarm state and independent of the time period selected. The third column lists how many Four Star Alarms have been generated for the device type during the viewing period. The fourth column displays the **current** number of disabled devices of the indicated type

(independent of the time period selected). The last column lists the total number of alarms for each type during the viewing period for which the reading was OPEN or SHRT. The totals for the four numeric value columns are displayed at the bottom of the report.

```
Alarm vs Device Type Report                              AlarmMAP XX.XX.XX
08/12/2010  10:36                               System Studies Incorporated
------------------------------------------------------------------------------

      ALL OFFICES - 7/13 through 08/12, Period 00:00 to 23:59 Hours

                                     Total    Number  Number    Number
Office Name                          Devices  Alarms  Disabled  Open/Short
------------------------------------ -------  ------  --------  ----------
SIMOFF                                  5        3                  3
NEWOFF                                 12        7        1         3
CEDAR CITY                              1
AAB                                    10        5        2         5


------------------------------------ -------  ------  --------  ----------
Totals                                 28       15       3        11
```

REPORT 4-35: ALARM VS DEVICE TYPE SUMMARY REPORT FOR ALL OFFICES

Notice that alarm occurrences are listed in the report for each of the offices shown in the Office Name column. The second column on the report shows the total **current** total number of devices for each office, regardless of their alarm state and independent of the time period selected. The third column lists how many Four Star Alarms have been generated for all device types in the office during the viewing period. The fourth column displays the **current** total number of disabled devices for the entire office, independent of the time period selected. The last column lists the total number of alarms for all device types during the viewing period for which the reading was OPEN or SHRT. The totals for the four numeric value columns are displayed at the bottom of the report.

```
Alarm vs Device Type Report                          AlarmMAP XX.XX.XX
12/03/2010  09:53                             System Studies Incorporated
--------------------------------------------------------------------------------

              <OFFICE NAME1> - Dates 11/3 to 12/3, Period 00:00 to 23:59 Hrs


                                       Total    Number  Number   Number
      Device Type                      Devices  Alarms  Disabled Open/Short
---------------------------------------- ------- ------- -------- ----------
$A   High Priority Contact Alarm           1       2
$P   High Priority Pressure TD             8       4                  2
BP   Buried Cable Pressure TD              5       2                  2
CA   Compressor/Dryer Contact Alarm        1       2


---------------------------------------- ------- ------- -------- ----------
      Totals                              15      10                 4


==========================================================================
              <OFFICE NAME2> - Dates 11/3 to 12/3, Period 00:00 to 23:59 Hrs


                                       Total    Number  Number   Number
      Device Type                      Devices  Alarms  Disabled Open/Short
---------------------------------------- ------- ------- -------- ----------
      No alarms for this office.


---------------------------------------- ------- ------- -------- ----------
       Totals


==========================================================================
              <OFFICE NAME3> - Dates 11/3 to 12/3, Period 00:00 to 23:59 Hrs


                                       Total    Number  Number   Number
      Device Type                      Devices  Alarms  Disabled Open/Short
---------------------------------------- ------- ------- -------- ----------
$P   High Priority Pressure TD             4       1
SF   Source Flow TD                        1       1
UP   Underground Cable Pressure TD         2       1


---------------------------------------- ------- ------- -------- ----------
       Totals                             7       3


==========================================================================
              <OFFICE NAME4> - Dates 11/3 to 12/3, Period 00:00 to 23:59 Hrs


                                       Total    Number  Number   Number
      Device Type                      Devices  Alarms  Disabled Open/Short
---------------------------------------- ------- ------- -------- ----------
$F   High Priority Flow TD                 1       1
$P   High Priority Pressure TD             2       1
UP   Underground Cable Pressure TD         2       2


---------------------------------------- ------- ------- -------- ----------
       Totals                             5       4


==========================================================================
              <OFFICE NAME> - Dates 11/3 to 12/3, Period 00:00 to 23:59 Hrs


                                       Total    Number  Number   Number
      Device Type                      Devices  Alarms  Disabled Open/Short
---------------------------------------- ------- ------- -------- ----------
$P   High Priority Pressure TD             2       1


---------------------------------------- ------- ------- -------- ----------
       Totals                             2       1

Hit <Enter> to continue..
```

REPORT 4-36: ALARM VS DEVICE TYPE REPORT (EXPANDED OUTPUT FOR ALL OFFICES)

Alarm Reports on Alphanumeric Pagers

When an alphanumeric pager is a designated alarm center, the output of the alarm is condensed to fit the pager's limited display space, which is typically 4 lines by 20 characters. Because only the essential alarm information is sent, you should log into the MAP System to see the complete Alarm Information Report before proceeding to the alarm location. The alarm information sent to the pager includes the office name, task number and any related cable activity information, device number, device type, device reading and dispatch condition. Report 4-37 shows possible Alarm Dispatches received on an alphanumeric pager with a 4 line by 20 character display screen, and Report 4-38 contains an example of a Cleared Alarm display.

```
DISPLAY                       DESCRIPTION

CULVER CITY                   Office name
Alarm 277010                  Task number
001-01 UP @ 1.0               Device number/type/reading
Dropped 4.0 psi               Dispatch condition

or

CULVER CITY                   Office name
Alarm 277010(CONS)            Task number (Activity)
001-01 UP @ 1.0               Device number/type/reading
Dropped 4.0 psi               Dispatch condition
```

REPORT 4-37: POSSIBLE ALPHANUMERIC PAGER ALARM REPORT

```
DISPLAY                       DESCRIPTION

CULVER CITY                   Office name
Alarm 277010                  Task number
001-01 UP                     Device number/type
Cleared                       Current status
```

REPORT 4-38: POSSIBLE ALPHANUMERIC PAGER CLEARED ALARM DISPLAY

Brief Report

The MAIL alarm report format is preceded by a brief alarm data "header" that includes the system number and name. When the BRIEF REPORT email alarm option is selected from the AlarmMAP editor, the alarm report information is abbreviated to fit the pager screen display (see REPORT 4-39). Notice that the office name and system number appear in the Subject line. To accommodate the special formatting by some pager companies, the office name is also displayed in the main body of the alarm below the Subject line. In the example below, the office name is "Hasalarms" and the system number is 3366.

```
Subject: PMAP ALARM- HASALARMS [3366]

Office: HASALARMS
PMAP Device:  001-01
PMAP Reading:  2.2 psi
PMAP Task #:  2070103
Lost  4.4 psi
----- Dispatch Alarm NOT Auto-Ack'd -----
```

REPORT 4-39: BRIEF REPORT ALARM (EMAIL FOR PAGER DISPLAY)

Condensed Report

Beginning with Version 26, alphanumeric pagers can also receive emailed notification for multiple alarms in a single report (REPORT 4-40). The format of this report is similar to the Brief Report described above, but its content is much different. Rather than provide device number, reading and task number information, it identifies the PressureMAP System number, the office designation, the number of alarms generated, and a message requesting that you refer to the PressureMAP System to obtain more details about the alarms.

Please note that in order to receive Condensed Reports on your pager, you will first need to set the One Report Regular Alarm Threshold in the AlarmMAP editor. (See "Alarm Filtering" in the AlarmMAP Data Entry section of the *MAP System Data Entry Manual*.) This filter identifies how many alarms must be generated in an office before the Condensed Report is emailed. A similar type of Condensed Report is also provided for cleared alarms.

```
Subject: PMAP ALARM- HASALARMS [3366]

PMAP System: 3366
PMAP Office: HASALARMS
PMAP Alarms: 4
Consult the MAP System for Details
----- Dispatch Alarm -----
```

REPORT 4-40: Condensed Report Alarm (email for pager display)

Viewing Alarm Error Files

Option 4 of the User Initiated Operations Menu gives you the ability to view the error files created by AlarmMAP, offering you two types of alarm error files to view, Incomplete CPAMS Alarms and Unrecognizable CPAMS Alarms. Depending upon the capabilities of the terminal you are using, the program will display the files that are available for viewing in either a menu or a selector format.

```
Keystrokes: [Quit <Esc>] [Down 'J'] [Up 'K'] [Help 'H'] [Print 'P'] [Info 'I']
            [Search Forward 'F'] [Search Back 'B'] [Search Next 'N'] [Erase 'E']

Incomplete CPAMS Alarms for <OFFICE NAME>
-------------------------------------------------------------------------------
########## ALARM-IN-ERROR ######## 01/26/10 12:40:38 ttyA1 ################
(syntax error found in alarm)
^G*******  ALARM  ^G*******  ALARM  ^G*******  ALARM  ^G*******
 UNIT # 1  979 WEST AIR PRESSURE MONITOR

 DATE:  WED - JAN 26 2010
 TIME:  1238

   - TRANSDUCERS -
 NO. LOCATION                      ~
########## END-BAD-ALARM ###############################################

########## ALARM-IN-ERROR ######## 01/27/10 09:59:54 ttyA1 ################
(syntax error found in alarm)
^G*******  ALARM  ^G*******  ALARM  ^G*******  ALARM  ^G*******
 UNIT # 1  979 WEST AIR PRESSURE MONITOR

 DATE:  THU - JAN 27 2010
 TIME:  0954

   - TRANSDUCERS -
 NO. LOCATION                      ~
########## END-BAD-ALARM ###############################################
```

REPORT 4-41: ALARM VS. DEVICE TYPE REPORT

CUSTOM REPORTS

The last option of the User Initiated Operations Menu gives you the ability to generate reports that utilize the data gathered by the MAP System, but are not offered through any of the MAP software modules. These "custom" reports are created by System Studies per customer request, with additional reports added to the MAP software as the need arises.

The Standards Report option in the Custom Reports Menu comes with the PressureMAP software. The SQI Report, OAU Report, Alarm Report, Flat Cable Report, Standards -B Report, Standards Report (Rev. C) and Standards Report (Rev. D) are available for your PressureMAP system in the form of an incremental update. Before you can access one of these reports, you must install the Incremental Update Disk supplied by System Studies; procedures are located in the MAP System Installation Manual.

Depending upon the capabilities of the terminal you are using, the program will display the report in either a standard report or a browser format. If your terminal is not "browser capable" (i.e., most hard-copy terminals), the report will simply be printed. However, if you can utilize the browser function of the MAP Program, you will be able to search the report contents, move through the report a page at a time, print the report, or export the report to a DOS formatted floppy disk. The examples shown in this section are from a "browser capable" terminal.

Standards Report

The Standards Report lists the number and percentage, by transducer type, of devices in a specified office or group of offices that are not to standard on the selected day. The report does not include disabled devices, and no report will be produced for a disabled office. The standard for each device type may be changed by accessing the Office Information Screen of PressureMAP Data Entry.

A report can be generated using device data for any day within the last five weeks. Please note: for dates more than a week previous to the current date, the report is looking at weekly averages rather than daily readings. Therefore, if a report is run for a date older than seven days, it may not show the same readings it would have displayed when that date was more current. Since non-numeric (verbose) reading output cannot be averaged, history older than seven days may not be available for verbose readings.

Effective with Version 20.01, the report was modified to display the total number of devices with valid and verbose readings for each device type, and the totals for devices with verbose (non-valid) readings. In addition, you may enter a "Group Heading" to describe the contents of the report.

The report's six columns of data contain the following information for the selected office and date. Data is compiled for the most common PressureMAP device types (excluding contact alarms, contactors, etc.). If more than one office is selected, a device total and percentage for the selected offices will follow the last office report. (Please note that the sample screen displays the group heading "EAST SIDE.") If the System Office (Office 0) is selected, the report will consist of only the system total and averages.

```
Standards Report EAST SIDE (page 1)                      ReportMAP XX.XX.XX
05/21/2010  15:08                               System Studies Incorporated
-----------------------------------------------------------------------------

                         Total    Non-Rdg    TD Count   Percent
                          TD      (verbose)  Not Std/   Not Std/
Type of TD's      Std    Count     Count     Over OAU   Over OAU
--------------    -----  -------   -------   --------   --------
                        -- 2. <EAST SIDE> (05/18/10) --
Aerial PTD's      2.0      2         1           0        50.0
Buried PTD's      3.0      4         2           0        50.0
Mid/End PTD's     7.5      1         0           1       100.0
High Prio PTD's   6.0      1         0           1       100.0
Manifold FTD's             1         0           0         0.0
--------------    -----  -------   -------   --------   --------
Office Totals              9         3           2        55.6
```

REPORT 4-42: STANDARDS REPORT

Type of TD's

This field indicates the device type the information line pertains to. The following device types can appear under this column: Aerial PTD, Aerial Single-feed PTD, Buried PTD, Buried Single-feed PTD, Underground PTD, Underground Single-feed PTD, Mid/End Pipe PTD, Delivery PTD, High Priority PTD, Source FTD, Distribution Panel FTD, Manifold FTD, and High Priority FTD.

Std

The Office Standard for the pressure device type designated in the information line. This standard is set in the Office Information screen through PressureMAP data entry.

Total TD Count

> The total number of devices with either a valid reading or a verbose reading for the report date, excluding devices disabled for indexing and/or dispatching. Please note that reading data is only available for devices that are currently in the PressureMAP database; the report will not reflect devices that have been deleted.

Non-Rdg (verbose) Count

> The total number of devices with verbose readings (not including disabled devices).

TD Count Not Std/Over OAU

> This field indicates number of devices with a valid reading (excluding disabled devices) that are below the Office Standard for pressure, or above the individual flow device's OAU value. For flow devices that do not have an OAU value entered in data entry, an OAU value of 0.0 is used to calculate this report section.

Percent Not Std/Over OAU

> This field contains the averaged percentage of devices that are either Not Std, Over OAU, or Non-Rdg. This value is generated by adding columns four and five, and dividing this number by the total number of devices from column three.

Office Totals

> This row of data provides key information in four categories: Total TD Count (total number of transducers entered in the PressureMAP database for the office), Non-Reading (verbose) Count (total number of transducers with verbose readings for the office), TD Count–Not Standard/Over OAU (valuable for targeting offices with high numbers of devices that deviate from the standard), and Percentage of Non-Standard/Over OAU devices in the office (provides an indication of which offices would benefit most from concentrated maintenance efforts).

SQI Report

The SQI Report, which can be generated for an individual office, a selected group of offices, or all of the offices in your MAP System, provides a variety of information about individual pipes routes and the quality of the air pressure system. A report can be generated for any day within the last five weeks. Please note: for dates more than a week previous to the current date, the report is looking at weekly averages rather than daily readings. Therefore, if a report is run for a date older than seven days, it may not reflect the same reading values it would have used to calculate the SQI when that date was more current. Since non-valid (verbose) reading output cannot be averaged, an SQI older than seven days may not be available.

Displayed information includes the selected report date, office(s) name, pipe count, sheath miles, number of devices, disabled devices, number of alarms, number of pipes with an SQI of less than 80, and the office SQI average.

```
SQI Report (page 1)                              ReportMAP XX.XX.XX
05/21/2010  15:08                      System Studies Incorporated
-------------------------------------------------------------------
                 ---------- 02/18/10 ---------- 02/13  02/13  02/06
                 PIPE   SHEATH  # OF  DISABLED  # OF   PIPES  OFFICE
       OFFICE    COUNT  MILES  DEVICES DEVICES  ALARMS <80 SQI  SQI
------------------ ------ ------ ------ ------ ------ ------ ------
 16. FOXWORTH        16    127    255     0      0      16     78

 17. JUNCTION        15     84    171     0      6      15    N/A

 18. CROCKETT         2    N/A      6     1      2       2     64

------------------ ------ ------ ------ ------ ------ ------ ------
Above Office Totals  33    211    432     1      8      33     71

System Totals        45    433    572     2     16      45     70
```

<p align="center">REPORT 4-43: SQI REPORT</p>

Pipe Count
>   This field indicates the current total number of air pipes or routes for the office.

Sheath Miles
>   This field contains the current total calculated sheath miles for the office.

# of Devices
>   This field shows the current number of non-disabled devices.

Disabled Devices
>   The current total number of devices disabled.

# of Alarms
>   The total number of alarms for each office that occurred on the report date. A value of "N/A" will appear when there is no dispatch log file for the day selected.

Pipes <80 SQI
>   This field contains the number of pipes below the SQI threshold of 80 on the selected report date.

Office SQI
>   This field provides the weekly average office SQI for the seven days ending on the date listed. If the date specified is older than one week, the weekly SQI averages (week-1, week-2, etc.) are used to calculate this value.

OAU Report

The OAU Report lists the total number of MF devices in each selected office on the day the report is generated. It also sorts the MF devices into seven different categories: below OAU, under 10% of OAU, 10% over OAU, 20% over OAU, 50% over OAU, number of flow devices with verbose readings, and the percentage of flow devices <= 20% over OAU. Disabled devices are not included in the OAU calculations.

A report can be generated using device data for any day within the last five weeks. Please note: for dates more than a week previous to the current date, the report is looking at weekly averages rather than daily readings. Therefore, if a report is run for a date older than seven days, it may not reflect the same reading values it would have used for the OAU breakdown when that date was more current.

Effective with Version 20.01, the OAU Report was extended to include specific device information in up to five distinct categories. This additional capability is available when you request the report for an individual office, for a date within the last six days. The enhanced detail is not shown if you select multiple offices or a report date older than six days.

```
OAU Report (page 1)                                      ReportMAP XX.XX.XX
05/21/2010  13:25              *Schedule Off*         System Studies Incorporated
---------------------------------------------------------------------------------
Pressure readings from 05/11/10

                          # MF    # MF   # MF   # MF   # MF   # MF   # MF    % MF
                          Below   Under  10%    20%    50%    Read   Total   <= 20%
            OFFICE        OAU     10%    Over   Over   Over   Prob           Over
--------------------      ------  ------ ------ ------ ------ ------ ------  ------
 26. Liveoak                  0      0      0      1      2      0      3     0.0



Reading is 20% over OAU
-----------------------

Device #      Address                           Loc   Pipe  OAU   Rdg
-----------   -------------------------------   ----  ----  ----  ----
001-15        400 HYDE                           01    A    6.3   9.3


Reading is 50% over OAU
-----------------------

Device #      Address                           Loc   Pipe  OAU   Rdg
-----------   -------------------------------   ----  ----  ----  ----
001-06        200 BROADWAY                       02    B    1.5   5.0
001-10        300 FRONT                          06    D    3.1   5.0
```

REPORT 4-44: OAU REPORT FOR SINGLE OFFICE WITH ENHANCED DEVICE DETAIL

If more than one office is selected, a total of each report field for the selected offices will follow the last office report, excluding any disabled offices (see Report 4-45).

```
OAU Report (page 1)                                      ReportMAP XX.XX.XX
08/21/2010  15:08                               System Studies Incorporated
-------------------------------------------------------------------------
Readings from 08/04/10
                             # MF   # MF   # MF   # MF   # MF   # MF    #
MF    % MF
                       Below Under  10%    20%    50%    Read   Total <= 20%
        OFFICE          OAU   10%   Over   Over   Over   Prob          Over
--------------------   ----- ----  ----   ----   ----   ----   ----   ----
 16. FOXWORTH           126    3     2      0      0      1     133    98.5

 17. JUNCTION            30    1     0      4      1      1      50    62.0

 18. CROCKETT            84   14     8      7      1      5     131    80.9

 21. WESTSIDE            46    9     2      6      4      1      71    80.2

--------------------   ----- ----  ----   ----   ----   ----   ----   ----
Totals                 286   27    12     17      6      8     385    84.4
```

REPORT 4-45: OAU REPORT

MF Below OAU

This field contains the total number of MF devices for the office (not including disabled devices), that were reading below their individual OAU value on the day selected for the report. Also included in this field are the devices reading 0 SCFH.

MF Under 10%

The total number of MF devices for the office (not including disabled devices), that had readings that were above OAU but less then 10% above the OAU on the day selected for the report.

The next three fields list the number of MF devices for the office that were reading the indicated percentage above their individual OAU value on the day selected for the report. The percentage values that are included in the report are: 10% over, 20% over, and 50% over.

MF Read Prob

The sixth column contains the number of MF devices with verbose readings (e.g., OPEN, SHRT, PAIR), excluding devices that are disabled.

MF Total

The seventh column contains the total number of MF devices in the office, not including devices that are disabled.

% MF <= 20% Over

This field indicates the percentage of MF devices reading equal to or below 20% over their OAU value (not including disabled devices). This value is generated by adding the first three columns and dividing this number by the total number of devices from column seven.

The definitions for the additional specific device information fields shown in the first sample OAU Report (REPORT 4-44) are as follows:

Device #
>   The device number of each device in the selected OAU reading category. The device type for all of these devices is MF.

Address
>   The address for the device being reported.

Loc
>   The PressureMAP location number for the device.

Pipe
>   The pipe with which the device is associated.

OAU
>   The OAU for the device being reported.

Rdg
>   This field corresponds to the Tdy reading on the Specific Device Information screen.

Alarm Report

The Alarm Report, which can be generated for an individual office, a selected group of offices, or all of the offices in your MAP System, provides important information concerning the distribution of four star alarms. A report can be generated for any day within the last five weeks. However, if an office has been disabled, a report will not be generated. Displayed information includes the office(s) name, date selected, task number, time of day the alarm was created, time sent and destination (Alarm Center). If no alarms were generated for a selected office(s) on the date specified, PressureMAP will generate an appropriate message.

```
Alarm Report (page 1)                                    ReportMAP XX.XX.XX
08/10/2009 15:08                                    System Studies Incorporated
-------------------------------------------------------------------------------

 TASK #    CREATED          SENT TO                    ACKNOWLEDGED BY
--------   -------   -------------------------   -----------------------------
                           -- 14. MTVERNON (08/05/09) --
34800B9    07:59   07:59 PRINTER                07:59    PRINTER
3480D32    08:26   08:26 PRINTER                08:26    PRINTER

                           -- 15. UHRADD92 (08/05/09) --
                              Sorry, No Data Available.

                           -- 16. FOXWORTH (08/05/09) --
                               No Four Star Alarms.

                           -- 17. JUNCTION (08/05/09) --
3480056    08:40   09:00 D PAWSON
                   09:05 CORY                   09:05 aa CORY
3480057    08:41   09:01 D PAWSON
                   09:05 CORY                   09:05 aa CORY
3480058    08:41   09:03 D PAWSON
                   09:05 CORY                   09:05 aa CORY


--------   -------   -------------------------   -----------------------------
                           -- System (08/05/09) --
                               No Four Star Alarms.
```

REPORT 4-46: ALARM REPORT

Task

The seven-digit number generated by PressureMAP that identifies the specific alarm listed in the report. This number can be cross-referenced to the Task # that originally appeared on the Dispatch Priorities list or the Detailed Task Report.

Created

This field indicates the time of day that each of the listed alarms in an office originally occurred.

Sent to

This field identifies the Alarm Center or person who received the alarm identified in the task number, as well as the time of day that the alarm was sent. Typically, the time listed is the same or very close to the time listed in the CREATED data field.

Acknowledged by

This field lists the name of the printer, device or person who acknowledged the alarm, and the time of day that the alarm was acknowledged.

Flat Cable Report

The Flat Cable Report can be generated for an individual office, a selected group of offices, or all of the offices in your MAP System. The report lists all devices that have a verbose reading or a pressure reading of 1.0 PSI or less on the specified date. The "trigger" date can be any day within the last five weeks. Please note that for dates more than a week previous to the current date, the report is looking at weekly averages rather than daily readings. Therefore, if a report is run for a date older than seven days, it may not show the same readings it would have displayed when that date was more current. Since non-numeric (verbose) reading output cannot be averaged, history older than seven days may not be available for verbose readings.

Devices are grouped by offices (if more than one office is requested), and then by reading category (e.g., <= 1.0). Displayed information includes the selected report date, office(s) name, type of reading, device #, device type, and the current device reading history. Disabled devices are included in the report; however, a report will not be generated for a disabled office.

```
Flat Cable, Verbose Readings Report                      ReportMAP XX.XX.XX
04/06/2010   12:16         *Schedule Off*       System Studies Incorporated
--------------------------------------------------------------------------------

.. READING. .........SETTLED READINGS.........   ......AVERAGES......
Device #   TP Curr Last Tdy   -1   -2   -3   -4   -5   -6  Wk-1 Wk-1 Wk-1 Wk-1
---------- -- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ---- ----
  -- 3. ROSEVILLE (04/04/10) --   ALL OPEN Readings
 002-25   EP OPNI OPNI OPNI OPNI OPNI OPNI OPNI OPNI OPNI OPNI OPNI OPNI OPNI

  -- 23. SUNNYVALE (04/04/10) --   ALL <= 1.0 Readings
 T -107   UP  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
 T -108   UP  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0

  -- 23. SUNNYVALE (04/04/10) --   ALL NSE Readings
 T -169   BP  NSE  NSE  NSE  NSE  NSE  NSE  NSE  NSE  NSE NSE   NSE  NSE

  -- 38. SW289 (04/06/10) --   ALL SHRT Readings
 001-01   KA SHRT SHRT SHRT SHRT SHRT SHRT SHRT SHRT SHRT SHRT SHRT SHRT SHRT

  -- 38. Sw289 (04/06/10) --   ALL VOLT Readings
 001-23   UP VOLT VOLT VOLT VOLT VOLT VOLT VOLT VOLT VOLT VOLT VOLT VOLT VOLT
 002-08   UP VOLT VOLT VOLT VOLT VOLT VOLT VOLT VOLT VOLT VOLT VOLT VOLT VOLT

  -- 58. TRAINING (04/06/10) --  ALL <= 1.0 Readings
 001-02   SP  0.0  0.0  0.0  0.0  0.0 10.2 10.1 10.1 10.1 10.1 10.1 10.1 10.1
 001-04   DP  0.0  0.0  0.0  0.0  0.0 10.3 10.3 10.1 10.1 10.1 10.1 10.1 10.1
 001-05   UP  0.1  0.0  0.1  0.0  0.0 10.2 10.1 10.1 10.1 10.1 10.1 10.1 10.1

  -- 58. TRAINING (04/06/05) --  ALL OPEN Readings
```

REPORT 4-47: FLAT CABLE REPORT

Standards -B Report

The Standards -B Report lists the number and percentage, by transducer type, of devices in a specified office or group of offices that are not to standard on the selected day. The reading data is based on devices that are currently in the PressureMAP database, and will not reflect devices that have been deleted. The report does not include devices disabled from indexing and/or dispatching, and no report will be produced for a disabled office. The standard for each device type may be changed by accessing the Office Information Screen of PressureMAP Data Entry. The Standards -B Report is almost exactly like the Standards report except that the readings over OAU are not counted and do not contribute to Percent Not Std.

A report can be generated using device data for any day within the last five weeks. For the current date, readings are derived from the Today (Tdy) column in PressureMAP. If the **Tdy** column is blank, it is considered to be a verbose reading. (For information on verbose readings, see Appendix 1 of this manual.) Please also note: for dates more than a week previous to the current date, the report is looking at weekly averages rather than daily readings. Therefore, if a report is run for a date older than seven days, it may not show the same readings it would have displayed when that date was more current. Since non-numeric (verbose) reading output cannot be averaged, history older than seven days may not be available for verbose readings.

The report's six columns of data contain the following information for the selected office and date. Data is compiled for the most common PressureMAP device types (excluding contact alarms, contactors, etc.). If more than one office is selected, a device total and percentage for the selected offices will follow the last office report. (Please note that the sample screen, SCREEN 7-40, displays the group heading "EAST SIDE.") If the System Office (Office 0) is selected, the report will consist of only the system total and averages.

```
Standards -B Report EAST SIDE (page 1)                    ReportMAP XX.XX.XX
05/21/2010  13:13                                   System Studies Incorporated
--------------------------------------------------------------------------------

                          Total    Non-Rdg
                           TD      (verbose)  TD Count   Percent
Type of TD's      Std     Count     Count     Not Std    Not Std
--------------   -----   -------   -------   --------   --------
                        -- 2. <EAST SIDE> (05/18/10) --
Aerial PTD's      2.0       2         1          0        50.0
Buried PTD's      3.0       4         2          0        50.0
Mid/End PTD's     7.5       1         0          1       100.0
High Prio PTD's   6.0       1         0          1       100.0
Manifold FTD's              5         1          -        20.0
--------------   -----   -------   -------   --------   --------
Office Totals              13         4          2        46.2
```

REPORT 4-48: STANDARDS –B REPORT

Type of TD's

This field indicates the device type the information line pertains to. The following device types can appear under this column: Aerial PTD, Aerial Single-feed PTD, Buried PTD, Buried Single-feed PTD, Underground PTD, Underground Single-feed PTD, Mid/End Pipe PTD, Delivery PTD, High Priority PTD, Source FTD, Distribution Panel FTD, Manifold FTD, and High Priority FTD.

Std

The Office Standard for the pressure device type designated in the information line. This standard is set in the Office Information screen through PressureMAP data entry.

Total TD Count

The total number of devices with either a valid reading or a verbose reading for the report date, excluding devices disabled from indexing and/or dispatching. Please note that reading data is only available for devices that are currently in the PressureMAP database; the report will not reflect devices that have been deleted.

Non-Rdg (verbose) Count

The total number of devices with verbose readings (not including disabled devices).

TD Count Not Std

This field indicates the number of devices with a valid reading (excluding disabled devices) that are under the Office Standard for pressure. No count is made for flow devices, regardless of the reading.

Percent Not Std

This field contains the averaged percentage of devices that are either Not Std or Non-Rdg. For flow devices, the percentage includes Non-Rdg devices only. This value is generated by adding columns four and five, and dividing this number by the total number of devices from column three.

Office Totals

This row of data provides key information in four categories: Total TD Count (total number of transducers entered in the PressureMAP database for the office), Non-Reading (verbose) Count (total number of transducers with verbose readings for the office), TD Count–Not Standard (valuable for targeting offices with high numbers of devices that deviate from the standard), and Percentage of Non-Standard devices in the office (provides an indication of which offices would benefit most from concentrated maintenance efforts).

Standards Report (Rev. C)

The Standards Report (Rev. C) lists the number and percentage, by type, of devices in a specified office or group of offices that are not to standard on the selected day. The report does not include disabled devices, and no report will be produced for a disabled office. The Standards Report (Rev. C) is similar to the Standards Report; but it includes contactors and contact alarms, and readings over OAU are not counted and do not contribute to Percent Not Std. The standard for each pressure device type may be changed by accessing the Office Information Screen of PressureMAP Data Entry.

A report can be generated using device data for any day within the last five weeks. Please note: for dates more than a week previous to the current date, the report is looking at weekly averages rather than daily readings. Therefore, if a report is run for a date older than seven days, it may not show the same readings it would have displayed when that date was more current. Since non-numeric (verbose) reading output cannot be averaged, no history older than seven days is available for verbose readings, such as those for contactors and contact alarms.

The report's six columns of data contain the following information for the selected office and date. Data is compiled for the most common PressureMAP device types (including contact alarms, contactors, etc.). If more than one office is selected, a device total and percentage for the selected offices will follow the last office report. (Please note that the sample screen displays the group heading "EAST SIDE.") If the System Office (Office 0) is selected, the report will consist of only the system total and averages.

```
Standards Report (Rev. C) EAST SIDE (page 1)                ReportMAP XX.XX.XX
05/21/2010  12:33                                    System Studies Incorporated
--------------------------------------------------------------------------------


                      Total    Non-Rdg    Device
                      Device   (verbose)  Count     Percent
Type of Device   Std  Count    Count      Not Std   Not Std
--------------   ---- -------  -------    --------   --------
                        -- 4. <EAST SIDE> (05/21/10) --
Contactor's      OK       1       0          1        100.0
Contact Alarm's  OK      24       0          0          0.0
Undgnd PTD's     5.2      1       0          0          0.0
Mid/End PTD's    5.2    196       0          0          0.0
High Prio PTD's  5.9     87       0          3          3.4
Distribut FTD's        134       0          -          0.0
Manifold FTD's         203       0          -          0.0
High Prio FTD's          9       0          -          0.0
--------------   ---- -------  -------    --------   --------
Office Totals          655       0          4          0.6
```

REPORT 4-49: STANDARDS REPORT (REV C)

Type of Device

This field indicates the device type the information line pertains to. The following device types can appear under this column: Contactor, Contact Alarm, Aerial PTD, Aerial Single-feed PTD, Buried PTD, Buried Single-feed PTD, Underground PTD, Underground Single-feed PTD, Mid/End Pipe PTD, Delivery PTD, High Priority PTD, Source FTD, Distribution Panel FTD, Manifold FTD, and High Priority FTD.

Std

The Office Standard for the pressure device type designated in the information line. This standard is set in the Office Information screen through PressureMAP data entry. The value **OK** is displayed for contactors and contact alarms.

Total Device Count

The total number of devices with either a valid reading or a verbose reading for the report date, excluding devices disabled for indexing and/or dispatching. Please note that reading data is only available for devices that are currently in the PressureMAP database; the report will not reflect devices that have been deleted.

Non-Rdg (verbose) Count

The total number of devices with with verbose readings, and of contactors and contact alarms whose readings are *not* **OK** or **ALRM**. (The count does not include disabled devices.)

Device Count Not Std

This field indicates the number of devices with a valid reading (excluding disabled devices) that are under the Office Standard for pressure and of contactor or contact alarm devices that are reading **ALRM**. No count is made for flow devices, regardless of the reading. Disabled devices are not included in the count.

Percent Not Std

This field contains the averaged percentage of devices that are either Not Std or Non-Rdg. This value is generated by adding columns four and five, and dividing this number by the total number of devices from column three. For flow devices, the percentage includes Non-Rdg devices only.

Office Totals

This row of data provides key information in four categories:

- Total Device Count—total number of transducers, contactors and contact alarms entered in the PressureMAP database for the office.
- Non-Reading (verbose) Count—total number of transducers, contactors and contact alarms with non-valid readings for the office.
- Device Count Not Standard—valuable for targeting offices with high numbers of devices that deviate from the standard.
- Percentage of Non-Standard devices in the office—indicates which offices would benefit most from concentrated maintenance efforts.

Standards Report (Rev. D)

The Standards Report (Rev. D) lists the number and percentage, by type, of devices in a specified office or group of offices that are not to standard on the selected day. The reading data is based on

devices that are currently in the PressureMAP database, and will not reflect devices that have been deleted. The report does not include devices disabled from indexing and/or dispatching, and no report will be produced for a disabled office. The Standards Report (Rev. D) is similar to the Standards Report, but it includes contactors and contact alarms. A line displaying statistics for underground pressure devices below 3.0 PSI has been added, and the flow standards have been customized to values defined by Verizon. The standard for each pressure device type may be changed by accessing the Office Information Screen of PressureMAP Data Entry.

A report can be generated using device data for any day within the last five weeks. For the current date, readings are derived from the Today (Tdy) column in PressureMAP. If the Tdy column is blank, it is considered to be a verbose reading. (For information on verbose readings, see Appendix 1 of this manual.) Please also note: for dates more than a week previous to the current date, the report is looking at weekly averages rather than daily readings. Therefore, if a report is run for a date older than seven days, it may not show the same readings it would have displayed when that date was more current. Since non-numeric (verbose) reading output cannot be averaged, no history older than seven days is available for verbose readings.

The report's six columns of data contain the following information for the selected office and date. Data is compiled for the most common PressureMAP device types. If more than one office is selected, a device total and percentage for the selected offices will follow the last office report. (Please note that the example, REPORT 4-50, displays the group heading "EAST SIDE.") If the System Office (Office 0) is selected, the report will consist of only the system totals and averages.

```
Standards Report (Rev. D) EAST SIDE (page 1)              ReportMAP XX.XX.XX
06/05/2010  12:33                                    System Studies Incorporated
-------------------------------------------------------------------------------

                        Total    Non-Rdg   Device
                        Device   (verbose)  Count    Percent
Type of Device   Std    Count     Count    Not Std   Not Std
--------------  -----  -------   -------   --------  --------
                     -- 4. <EAST SIDE> (06/05/10) --
Aerial PTD's     2.0      2         2          0      100.0
Undgnd PTD's    <3.0     78        72          0       92.3
Undgnd PTD's     5.0     78        78          0      100.0
Mid/End PTD's    7.5     12        12          0      100.0
50.0 SCFH FTD's 31.0      7         7          -      100.0
19.0 SCFH FTD's 17.0     21        21          -      100.0
--------------  -----  -------   -------   --------  --------
Office Totals    0.0    120       120          4      100.0
```

REPORT 4-50: STANDARDS REPORT (REV D)

Type of Device

This field indicates the device type the information line pertains to. The following device types can appear under this column: Contactor, Contact Alarm, Aerial PTD, Aerial Single-feed PTD, Buried PTD, Buried Single-feed PTD, Underground PTD (UP, TP, WP), Underground Single-feed PTD, Mid/End Pipe PTD (EP, PP), Delivery PTD (CP, DP, SP, RP, FP), High Priority PTD, and flow devices in the ranges listed below.

Std

The standard for the device type designated in the information line. For pressure devices this value is the Office Standard that is set in the Office Information screen through PressureMAP data entry. For flow devices the standard values are:

Device Range	Standard
950.0	846.0
475.0	425.0
200.0	178.0
190.0	178.0
/100.0	76.0
95.0	76.0
50.0	31.0
47.5	31.0
20.0	17.0
19.0	17.0
9.5	7.0

The message **<3.0** is displayed in the special statistics line for UP devices below 3.0 PSI.

Total Device Count

The total number of devices with either a valid or a non-valid (verbose) reading for the report date, excluding devices disabled for indexing and/or dispatching. Please note that reading data is only available for devices that are currently in the PressureMAP database; the report will not reflect devices that have been deleted.

Non-Rdg (verbose) Count

The total number of pressure and flow devices with verbose readings. (The count does not include disabled devices.)

Device Count Not Std

This field indicates the number of devices with a valid reading that are under the Office Standard for pressure or over the flow standard configured for this report. Disabled devices are not included in the count.

Percent Not Std

This field contains the averaged percentage of devices that are either Not Std or Non-Rdg. This value is generated by adding columns four and five, and dividing this number by the total number of devices from column three.

Office Totals

This row of data provides key information in four categories:

- Total Device Count—total number of transducers entered in the PressureMAP database for the office.
- Non-Reading (verbose) Count—total number of transducers with non-valid readings for the office.
- Device Count Not Standard—valuable for targeting offices with high numbers of devices that deviate from the standard.

■   Percentage of Non-Standard devices in the office—indicates which offices would benefit most from concentrated maintenance efforts.

Note that the special statistics for UP devices below 3 PSI are not added into the Office Totals.

SBC Standards Report

The SBC Standards Report lists the number and percentage, by type, of devices in a specified office or group of offices that are not to standard on the selected day. The reading data is based on devices that are currently in the PressureMAP database, and will not reflect devices that have been deleted. The report does not include devices disabled from indexing and/or dispatching, and no report will be produced for a disabled office. The standard for each device type may be changed by accessing the Office Information Screen of PressureMAP Data Entry.

A report can be generated using device data for any day within the last five weeks. For the current date, readings are derived from the Today (Tdy) column in PressureMAP. If the `Tdy` column is blank, it is considered to be a verbose reading. (For information on verbose readings, see Appendix 1 in this manual.) Please also note: for dates more than a week previous to the current date, the report is looking at weekly averages rather than daily readings. Therefore, if a report is run for a date older than seven days, it may not show the same readings it would have displayed when that date was more current. Since non-numeric (verbose) reading output cannot be averaged, history older than seven days may not be available for verbose readings.

The report's eight columns of data contain the following information for the selected office and date. Data is compiled for the most common PressureMAP device types (excluding contact alarms, contactors, etc.). If more than one office is selected, a device total and percentage for the selected offices will follow the last office report. If the System Office (Office 0) is selected, the report will consist of only the system total and averages.

```
Standards Report (Rev. D) EAST SIDE (page 1)              ReportMAP XX.XX.XX
06/05/2010  12:33                                 System Studies Incorporated
-----------------------------------------------------------------------------


                       Total    Non-Rdg   Device
                       Device   (verbose)  Count    Percent
Type of Device   Std   Count     Count    Not Std   Not Std
--------------  -----  -------  -------   --------  --------
                        -- 4. <EAST SIDE> (06/05/10) --
Aerial PTD's     2.0      2         2         0       100.0
Undgnd PTD's    <3.0     78        72         0        92.3
Undgnd PTD's     5.0     78        78         0       100.0
Mid/End PTD's    7.5     12        12         0       100.0
50.0 SCFH FTD's 31.0      7         7         -       100.0
19.0 SCFH FTD's 17.0     21        21         -       100.0
--------------  -----  -------  -------   --------  --------
Office Totals    0.0    120       120         4       100.0
```

REPORT 4-51: SBC STANDARDS REPORT

Type of TD's

This field indicates the device type the information line pertains to. The following device types can appear under this column: Aerial PTD, Aerial Single-feed PTD, Buried PTD, Buried Single-feed PTD, Underground PTD, Underground Single-feed PTD, Mid/End Pipe PTD, Delivery PTD, High Priority PTD, Source FTD, Distribution Panel FTD, Manifold FTD, and High Priority FTD.

Std

The Office Standard for the pressure device type designated in the information line. This standard is set in the Office Information screen through PressureMAP data entry.

Total OAU

This field contains the total OAU value of all flow devices that have a valid reading on the report date (not including disabled devices). For flow devices that do not have an OAU value entered in data entry, an OAU value of 0.0 is used when this report section is calculated.

Total Pres/Flow

This field contains the combined value for the device type the information line pertains to. This column will contain the total flow or pressure readings for devices that have a valid reading on the report date.

TD Count

The total number of devices with either a valid reading or a verbose reading for the report date, excluding devices disabled for indexing and/or dispatching. Please note that reading data is only available for devices that are currently in the PressureMAP database; the report will not reflect devices that have been deleted.

Average Pres/Flow

This field contains the averaged pressure or flow value for devices with valid readings.

TD Count Not Std/Over OAU

This field indicates the number of devices with a valid reading (excluding disabled devices) that are below the Office Standard for pressure, or above the individual flow device's OAU value. For flow devices that do not have an OAU value entered in data entry, an OAU value of 0.0 is used to calculate this report section.

Percent Not Std/Over OAU

This field contains the averaged percentage of devices with a valid reading that are over the Office Standard for pressure, or above the individual flow device's OAU value. For flow devices that do not have an OAU value entered in data entry, an OAU value of 0.0 is used to calculate this report section.

Office Totals

Provides key information in four categories:
- Total OAU—total of the OAU values entered in the PressureMAP database for the office.
- TD Count—total number of transducers entered in the PressureMAP database for the office.
- Device Count Not Standard—valuable for targeting offices with high numbers of devices that deviate from the standard.

- ▪ Percentage of Non-Standard devices in the office—indicates which offices would benefit most from concentrated maintenance efforts.

Quality Report

A new Quality Report, available starting with PressureMAP Version 25, combines data from several PressureMAP reports into a format that represents more inclusive office quality information than the SQI report. When this custom report is enabled for a system, two report formats are provided: a menu-based PressureMAP report (verbose mode) and a comma delimited format (CDF) file that is generated daily by the MAP Scheduler and available for uploading to a remote computer via file transport protocol (FTP). The verbose mode is intended for an interactive user who wants to access report information from PressureMAP, and not just see the data in CDF format.

Note: The Quality Report must be installed on your system as a supplemental update, similar to the Flat Cable Report, the SQI Report, Standards Report, etc.

VERBOSE MODE
The Quality Report in verbose mode is shown below. In this mode the report assumes the look of other PressureMAP Standards Reports. It includes eight columns of data as shown in REPORT 4-52 below:

```
Quality Report (page 1)                                  ReportMAP XX.XX.XX
11/23/2009  15:08                                  System Studies Incorporated
--------------------------------------------------------------------------------

                        ---------- 11/23/09 ------------------------------------
        OFFICE          DISABLED VERBOSE    ALARM AVE SQI  NO SQI  NOT STD   FLAT
--------------------    -------- -------    ----- -------  -------  -------   ----
  52. QUALITY              8.3%     8.3%     0.0%   84.4     0.0%    36.4%    8.3%

  57. TUESDAY              0.0%    12.5%     0.0%   93.0    50.0%    37.5%   12.5%
```

REPORT 4-52: QUALITY REPORT

When you select the option number for the Quality Report (typically option #2) from the Custom Reports Menu, you can enter a single office, a range of offices or "ALL." Report data for each office is displayed on a single row with the office name identified in the first column. Following is a description of the other data field columns.

Disabled
This column contains the percentage of monitoring devices in the office that are entered in the PressureMAP database, but have been selectively disabled in the Office Information section of the PressureMAP editor.

Verbose
Indicates the percentage of devices in the office that generate a verbose, non-numerical reading (excluding disabled devices). Devices reading OK and CLR are not included.

Alarm
Displays the percentage of devices in four star alarm status for the day on which the report was generated.

Ave SQI

> This column indicates the seven day SQI average for the office.

No SQI

> Lists the percentage of devices that have no SQI value for the current day.

Not Std

> The entry in this column represents the percentage of devices that are not standard for the current day.

Flat

> Identifies the percentage of devices that are verbose or are reading between 0.0 and 1.0 PSI for the current day. Devices reading OK and CLR are not included.

CHARACTER DELIMITED MODE

There are two ways to access and view the Quality Report in comma delimited format: 1) within PressureMAP after the display of data in the verbose mode, and 2) by uploading the CDF file that is generated daily by the PressureMAP Scheduler and then importing it into a spreadsheet application or text editor. Please note that the type of data provided differs slightly from the verbose mode Quality Report, as explained below.

Viewing CDF Data in PressureMAP

After the Quality Report is generated for the selected office or offices, a prompt displays which enables you also to view the report output for the selected office(s) in comma delimited format without leaving PressureMAP. If you type *Y* and *<Return>* in response to the `Send the CDF file to the screen: Y(es),N(o)?` prompt, you will see data similar to what is shown below.

```
Send the CDF file to the screen: Y(es),N(o) ? y

office,           office, tot, num, num, num, tot, num, tot,  num,  ave, num
number,             name, dev,disa,verb,alrm, std,!std,pipe,no sqi, sqi,flat
 52,              QUALITY,  12,   1,   1,   0,  11,   3,   2,     0, 84.4,   1
 57,              TUESDAY,   8,   0,   1,   0,   8,   2,   2,     1, 93.0,   1

Custom Reports                                        ReportMAP XX.XX.XX
11/23/2009  09:24             *Schedule Off*          System Studies Incorporated
-------------------------------------------------------------------------------

Custom Reports
--------------
  1. Standards Report
  2. Quality Report
  Q. Quit

Choice? q
```

REPORT 4-53: : CDF FILE IN PRESSUREMAP MENU

Notice that the Custom Reports Menu re-displays after the CDF data, so you can exit Custom Reports and access other PressureMAP menus. Notice also that CDF data is supplied only for the offices you selected when you launched the Quality Report in the verbose mode.

Uploading CDF Data via File Transport Protocol (FTP)

When the Custom Report has been enabled for your system via a supplemental update, and the PressureMAP Scheduler has been modified by the System Studies Technical Support Department to include instructions to write the report in CDF mode, it will then be possible to upload the CDF file. This file, named *quality.txt*, is located in the directory, */usr1/reports/Quality/*. Unlike the CDF data that is sent to the PressureMAP screen after answering *Y(es)* to the **Send the CDF file to the screen: Y(es),N(o)** prompt, the CDF file contains report information for all of the offices in the PressureMAP system, rather than just the selected offices. The file is different from a similar file written for the verbose mode, named *user_quality.txt*. Separate files are created to prevent the overwriting of the scheduled CDF report.

The primary advantage of making the Quality Report available in comma delimited format is that it can be used to assist you in creating custom spreadsheets of the PressureMAP data. Once it has been uploaded, the CDF file can then be imported into a spreadsheet, such as Microsoft Excel, and customized to produce a variety of desired spreadsheet possibilities. To access the CDF file for use in other applications, follow the steps below.

CDF Data Field Descriptions

The CDF Quality Report data generated by PressureMAP differs from the verbose report. For one thing, it does not include data as percent value. It also contains more data fields as described below. The format of the CDF quality.txt files is shown below:

```
office,  office,   tot,  num,   num,   num,   tot,  num,   tot,   num,    ave,   num
number,   name,    dev,  disa,  erb,   alrm   td,   !std,  pipe,  no sqi, sqi,   flat
                                       ,
52,      QUALITY,  12,   1,     1,     0,     11,   3,     2,     0,      84.4,  1
57,      TUESDAY,  8,    0,     1,     0,     8,    2,     2,     1,      93.0,  1
```

office number
   Designates the office number.

office name
   Designates the office name.

tot dev
   Indicates the total number of devices in the each office selected

num disa
   Lists the number of disabled devices in each office.

num verb
   Lists the number of verbose devices in each office, except OK and CLR.

num alrm
   Indicates the number of 4 star alarms for today.

tot std
   Lists the total number of pressure and flow devices used to determine the pressure and flow standards.

num !std
Represents the number of pressure and flow devices that are not reading standard or better.

tot pipe
Lists the total number of pipe routes.

num no sqi
Indicates the number of pipes that do not have an System Quality Index (SQI) value.

ave sqi
Lists the seven day SQI average.

num flat
Indicates the number of devices that are reading verbose or, for pressure transducers, those that are reading between 0.0 and 1.0 PSI.