Chapter 3

INTRODUCTION

This section of the CopperWATCH documentation describes how to build the database required for the cable theft monitoring application. It includes procedures for entering office information for a uM260 Micro Monitor, adding XC Device Type information, setting up one or more reporting Alarm Centers, and establishing calling time schedules for the centers (including holidays, weekdays, and weekends).

Before performing the procedures described below, the uM260 equipment first needs to be installed in the designated office. Please follow the installation instructions provided with the equipment. You will also need to obtain the required IP Address information for LAN-connected equipment or set up high-speed modems for dial-up communications. Office monitors that use modems will also require a Digi PortServer. If necessary, consult with company IT personnel for help setting up monitor communications equipment. You will also need to obtain a login and password for CopperWATCH. This information is required to access the program and perform the required data entry.

OFFICE INFORMATION DATA ENTRY

The procedures below describe how to define and create a uM260 office in CopperWATCH. This process begins at the System Options Menu (SCREEN 3-1). You will first need to enter your login and password information to access System Options.



SCREEN 3-1: SYSTEM OPTIONS MENU

Procedure:

 From the System Options Menu Choice? prompt, select Item 2 (MAP Data Entry), followed by <*Return>*.

After the data entry option has been selected, the screen will display the MAP Data Entry Menu, as shown in SCREEN 3-2.

MAP Data Entry 12/30/2012 13:05	MAP Series XX.XX.XX System Studies Incorporated
MAP Data Entry	
1. CopperWATCH Data Entry 2. ReportMAP Data Entry	
3. AlarmMAP Data Entry 4. Special Data Entry Q. Quit	
Choice?	

SCREEN 3-2: MAP DATA ENTRY MENU

 Select option 1, CopperWATCH Data Entry, from the MAP Data Entry Menu Choice? prompt followed by <*Return>*.

If you do not wish to create or update office and device information in CopperWATCH, you can return to the System Options Menu from the MAP Data Entry Menu by entering **Q** <**Return>**.

Once CopperWATCH Data Entry has been selected, the program will display the Data Entry Screen where you can begin to set up the uM260 office for CopperWATCH. All of the CopperWATCH editor functions begin and end at the Data Entry Screen (SCREEN 3-3). The first and second lines of this screen list the editing options followed by a status line which displays a message prompt.



SCREEN 3-3: DATA ENTRY SCREEN

 From the Data Entry Choose an option prompt, enter the letter A to create a new office. Follow the selection with <*Return>*. When the Add a New Office command is selected, the program will respond with:

Name of office to add:

4. Type the name of the office being created and press <Return>.

Once you have entered an office name for the uM260 monitor, the *Office Information Screen* will appear as shown in SCREEN 3-4. The office name that you typed will be entered

automatically into the appropriate data field, and the cursor will be positioned in the field labeled *Monitor type*.

```
Info about <OFFICE NAME>: Keypad Field Control, <Esc> finish screen,
        <Return> next field, <Backsp> delete char, <Ctrl B> previous field
Enter Office Information
       - - - - - - - - - - - - - - - -
File date: 8/30/2012 (242)
                                       Last edited: 8/30/2012
Office name: <YOUR OFFICE>
                                        Monitor type:
Phone number:
Office mode: ENABLED
Baudrate: 1200
                                        User Defined Devices: OFF
Password 1:
                                        Trunk/Toll Tolerance: 80 ohms
                                       MAP alert baudrate: 2400
MAP alert #:
                                        Alert sensitivity: 3
Remarks:
Pressure:PSIFlow: SCFHAerial std:2.0Buried std:3.0Delivery std:7.5Flow std:1.25
                                                     Distance: S-M
                                                      Undgnd std: 5.0
```

SCREEN 3-4: OFFICE INFORMATION SCREEN

With the cursor positioned in the *Monitor type* field, type *um* and press *<Return>*. (You can also press and hold the *Shift* key, then press either *>* or *<* repeatedly until *SSI UM260* displays. Release the keys, press *<Return>*.) A few of the data fields on the Office Information Screen will change, as shown in SCREEN 3-5, to reflect data entry options for the uM260 monitor type.

Info about <office name="">: Keypad Field Control, <esc> finish screen, <return> next field, <backsp> delete char, <ctrl b=""> previous field</ctrl></backsp></return></esc></office>				
Enter Office	Information			
File date:	8/30/2011 (242)		Last edited:	8/30/2011
Office name: Phone number: Office Mode:	<your office=""></your>		Monitor type:	SSI UM260
Baudrate: Password 1: Password 2: MAP alert #: Modem Site:	38400		User Defined Device Elevation: MAP alert baudrate: Alert sensitivity:	s: OFF 0 feet 9600 3
Remarks:				
Pressure: Aerial std: Delivery std:	PSI 2.0 7.5	Flow: SCFH Buried std: Flow std:	Dis 3.0 Und 1.25	tance: S-M gnd std: 5.0

SCREEN 3-5: UM260 OFFICE INFORMATION SCREEN

- 5. The minimal information required for a uM260 office designation for CopperWATCH is listed below. Any of the other default data field values or empty data fields on the Office Information Screen are not used for CopperWATCH.
 - Office Name designates Central Office or cabinet installation
 - Monitor Type requires SSI UM260
 - Phone Number used to enter the assigned phone number for a modem version of the uM260, or the IP address and port designation for LAN communications
 - Office Mode the default ENABLED value is required
 - Baud rate requires an entry for uM260 offices using modem communications
 - User Defined Devices the default OFF value needs to be changed to ON
 - MAP Alert # contains the phone number or IP network connection that the uM260 monitor will use to send out alerts to CopperWATCH

For a modem-equipped monitor, you will need to enter *T* (for tone) or *P* (for pulse) dialing in the *Phone number* field, followed by the actual area code and phone number that CopperWATCH will use to contact the monitor. For a uM260 equipped with a network connection to CopperWATCH, enter the IP Address in this field. The entry needs to be prefaced with **IP=** followed by the **IP Address**, a colon (:), then the designated port used by the LAN connection. The port number specified for the uM260 monitor is 10001.

The entry in the *MAP alert* # field specifies the phone number or IP Address that the uM260 uses to send out its alerts to CopperWATCH. For Micro Monitors equipped with an on-board modem, enter the appropriate phone number used for communications, including any prefixes or pauses that are required. For the LAN version, the entry requires a leading **T** followed by the **IP Address**, a colon (:), then the designated port used by the LAN connection, and a final **T**. SCREEN 3-6 shows the required Office Information for a uM260 monitor with a LAN connection to the CopperWATCH software. Please note that for CopperWATCH all of the data fields after and below *MAP alert* # do not require an entry.

```
Info about <OFFICE NAME>: Keypad Field Control, <Esc> finish screen,
        <Return> next field, <Backsp> delete char, <Ctrl B> previous field
Enter Office Information
File date:
            8/30/2011 (242)
                                        Last edited:
                                                             8/30/2011
Office name: <YOUR OFFICE>
                                        Monitor type:
                                                             SSI UM260
Phone number: IP=10.1.2.11:10001
Office Mode: ENABLED
Baudrate:
            38400
                                         User Defined Devices: ON
Password 1:
                                                             0 feet
                                        Elevation:
                                        MAP alert baudrate: 9600
Password 2:
MAP alert #: T10.1.2.14:3002T
                                        Alert sensitivity: 3
Wire Center:
Remarks:
Aerial std: 2.0
Delivery std: 7.5
                            Buried std: 3.0
Flow std: 1.25
                                                       Undqnd std: 5.0
```

SCREEN 3-6: UM260 OFFICE INFORMATION SCREEN (FOR LAN CONNECTION)

6. Once you have entered the required data for the Office Information Screen, press *Esc* and the software will display the following prompt on the status line above the office file date information:

Correct? Y[es], N[o], T[throw away changes]

Before responding, check that the data on the Office Information Screen has has been entered correctly and make any changes if necessary.

7. When you have confirmed that the information is correct, enter **Y** and *Return* to save the data.

SPECIFIC DEVICE DATA ENTRY

The information below describes the procedures for entering XC device information in CopperWATCH. An XC Device Type represents a Cable Theft Monitoring Contactor. This type of contactor has a corresponding *CL/THEFT* Transducer Type designation, which identifies it as a current loop contact alarm used for cable theft detection.

XC Device Type Designations

An XC Device Type needs to be assigned to each of the Cable Section Locators (CSLs) that are installed on a monitored cable's *Detection* and *Verification Pairs*.

- The Detection Pair is divided into segments by installing up to seven (7) Cable Section Locater (CSL) devices in the field at specific locations along the cable length. The shorter the distance between CSL devices, the more manageable the cable section is for alarm response personnel. Understandably, it may be necessary to stretch the spacing of CSL devices in some applications, but an effort should be made to keep the distances between them reasonably short.
- The Verification Pair requires the installation of a single CSL device at or near the end of the monitored cable. Its primary purpose is to verify the condition reported for the Detection Pair. This correlation between pairs provides undisputed evidence that an actual cable cut has occurred rather than just the possibility of pair trouble on one or both of the individual pairs.

BASE DEVICE EXPLANATION

In addition to the XC devices assigned to the individual CSLs, an XC Device Type is required for the *base device* associated with each monitoring pair. The base device identifies the starting location of the monitored cable section. Although this "device" does not correspond to an actual CSL, it is significant for several reasons:

 By definition the base device has a *Loop* value of 0, which is used to detect a cable cut that occurs prior to the first CSL location. This area represents the entire span between the termination block where the pair is wired and the first CSL location in the field. In some cases, it is desirable to specify the starting location for the base device at a point along the monitoring pair away from the block (for example, where a cable exits the underground via a riser). 2. By convention the CopperWATCH *Device* # used for the base device is associated with the location suffix 0 (for example, 2-01.0). Entering the "0" suffix when adding a device in the Specific Device Information editor produces two data fields, *Detection Pair* and *Verification Pair*, which do not appear in the editor for the other XC devices.

These important data fields specify the pair designation, or *Access #*, for all CSLs installed on the same monitored loop (such as 002-03, 002-04, etc.). They make it possible for CopperWATCH to correlate the Detection and Verification pairs for alarm confirmation.

Note: When you enter a base device number for either a Detection Pair (e.g. 2-01.0) or a Verification Pair (e.g. 2-02.0), the CopperWATCH editor converts the device number to its Access # equivalent and automatically updates the *Detection Pair* data field with the information. This feature was built into the application as a safeguard for installations where only a Detection Pair is used for monitoring. If you use both a Detection Pair and a Verification Pair, which is the recommended and more accurate monitoring method, you will need to change the automatically-updated Detection Pair when entering base devices for your Verification Pairs.

In addition to the base device type designations, CopperWATCH uses other important data field information for XC devices when reading the designated monitoring pairs and preparing alarm information. As mentioned previously, the value entered in the *Loop* data field is used to identify the section of cable where the cut has occurred. The *Address* field provides short, descriptive information about the actual location of the CSL device. The first 70-character line of the *Remarks* field can be used to provide helpful information for alarm responders about the location of the relevant cable section (between two XC devices) and how to locate/access the cable. A second line of data in the *Remarks* field is particularly important because it can be used to specify the direct phone number of law enforcement personnel who have jurisdiction in the area. If *Latitude* and *Longitude* information is entered for the XC devices, a link to a Google map can be provided. The map highlights the cable section that has been cut and shows surrounding terrain and/or cross street information.

Note: Currently the Google map used with CopperWATCH highlights only the roadway between two identified XC device locations. The actual monitored cable could take a path that is different from what is depicted on-screen. For example, the cable could run down an alley or pathway behind buildings or other structures on the identified roadway. That's why the entered *Remarks* information is so relevant and important.

CopperWATCH Data Entry Form

The specific requirements for CopperWATCH data entry are explained in the following subsections. To help with the organization of data, both initially during the uM260 installation and prior to the actual data entry process, a CopperWATCH Data Entry Form has been provided. The person who installs the uM260 equipment will typically supply a completed copy of the form for each monitored cable (see Example 3-1). If this information has not been provided, you will need to contact the individual(s) responsible for the installation and wiring of the monitoring pairs to obtain the required data. A blank copy of this form is provided at the end of this manual in Appendix 1 to assist with data collection.

831 (831					21014	10
(800) (831) (831)	a Cruz, CA 95062) 475-5777) 247-8255) 475-9207 FAX airtalk.com	Data Entry Form	C	AN/Tel Infr 1stalled By	5. [IT:10.1.2. 7. DAVIE 3/19/13	0
Law Enforcement C	ontact Information:	(831) 555-0911 SANTA CRUZ POLICE DEPART	IMENT, (CALIFOR	NIA	
Telco Alarm Contac	t Information:	JOHN SMITH - JS7341@TELCO.COM, ROB DA	NIS - R	D1362@	TELCO.COM	
Detection Pair Inforr Maximum of 7 CSL per Ca	mation — Cable #:	09 Pair #: 401 uM260 Access #	: 000	5-01		
Device #	Address (30 characters	i max)	Loop	Norm	Latitude	Longitude
2-01.0	EAST CLIFF DR	(@ 14TH AVE	0.0	12.0	N36+57.831	W121+59.511
Remarks (70 chara	acters max): AERIAI	L CABLE NORTH OF E CLIFF DR, FROM 14TH AN	V WEST	TO PROS	SPECT ST	
2-01.1	EAST CLIFF DR	C @ PROSPECT ST	3.0	12.0	N36+57.798	W121+59.711
Remarks: AF	ERIAL CABLE RUN	S NORTH OF E CLIFF DR, SOUTH OF SCHWAN	LAKE			
2-01.2	EAST CLIFF DR	O TTH AVE	6.0	12.0	N36+57.790	W121+59.913
Remarks: AE	ERIAL CABLE EAS	T OF 7TH AV FOR 2 BLOCKS, FROM E CLIFF TO	D CARM	EL ST		
2-01.3	7TH AVE @ CA	RMEL ST	9.0	12.0	N36+57.907	W121+59.900
Remarks: AE	ERIAL CABLE EAS	T OF 7TH AV FOR 2 BLOCKS, FROM CARMEL 5	5T TO E	ATON ST		
2-01.4	7TH AVE @ EA:	TON ST	12.0	12.0	N36+58.054	W121+59.878
Remarks:						
Remarks:						
Remarks:						
//////////////////////////////////////	ormation — Cable #:	09 Pair #: 402 uM260 Access	#: 00	2-02		
Device #	Address (30 characters	; max)	Loop	Norm	Latitude	Longitude
2-02.0	EAST CLIFF DR	(@ 14TH AVE	0.0	12.0	N36+57.831	W121+59.511
2-02.4	7TH AVE @ EAT	TON ST	12.0	12.0	N36+58.054	W121+59.878

EXAMPLE 3-1: DATA ENTRY FORM FOR MONITORED CABLE

Device Data for a New Office

The information below explains which specific data fields in the device data editor need to be completed when assigning individual XC devices (refer to SCREEN 3-8 on page 3-13). Please note that not all of the fields in the editor are not required for CopperWATCH, but the important ones are explained below:

 Device #. This number identifies the base device or Cable Section Locator (CSL) installed on the monitoring pair. Device numbering consists of the Access # (see explanation in next bullet) followed by a period (.) and a single identifying digit. The first Device # assigned to a Detection Pair or Verification Pair designates the base device. It requires a zero designation (for example, 2-01.0, 2-02.0, 2-03.0, etc.). The other devices on the pair represent actual CSL device locations, and they require sequential numbering beginning with the number one (such as 2-01.1, 2-01.2, 2-01.3, etc.).

Please note that only two device numbers are required for a Verification Pair, one for the base device (2-02.0) and one for the CSL installed at the end of the monitored cable (2-02.1).

Access #. This number designates one of the 16 possible monitoring pairs that can be physically wired to the uM260 Micro Monitor. Eight odd-numbered Access #s are used for the Detection Pairs (002-01, 002-03, 002-05, 002-07, 002-09, 002-11, 002-13 and 002-15). Eight even-numbered Access #s are used for the Verification Pairs (002-02, 002-04, 002-06, 002-08, 002-10, 002-12, 002-14 and 002-16).

The Access # field does not display in the device data editor if the User Defined Devices data field in the office information editor is not changed from the default OFF value to ON. If User Defined Devices is set to OFF, CopperWATCH will extract the correct Access # from the Device # entered.

- *Type*. For the cable theft monitoring application, all device numbers are assigned an *XC* Device Type.
- Loop. This field is used to designate the milliampere output reading of the Cable Section Locator (CSL) associated with the specific XC device. Because there are no actual CSL devices installed at the uM260 monitor location, the first *Device* # assigned to each monitoring pair (2-01.0, 2-02.0, etc.) requires a 0.0 mA entry in the *Loop* field.

All other CSLs installed in the field provide a 3.0 mA output. Since there is only one CSL device used per Verification Pair, the total Loop value of the XC device assigned to the CSL at the end of the Verification Pair will be 3.0 mA. Detection Pair Loop reading values are cumulative for each CSL location. For example, the first one installed on the pair would have a Loop value of 3.0 mA; the second one, 6.0 mA; the third one, 9.0 mA, etc.

Address. One of the important identifying elements in a CopperWATCH-issued alarm is the address information. This field is used to specify where the base device or CSL device is installed along the monitored cable section. On the alarm format it identifies one of the two locations that define the targeted cable section. For example, a typical alarm might specify:

CABLE CUT BETWEEN TWO LOCATIONS: LOCATION 1: EAST CLIFF DR @ PROSPECT ST LOCATION 2: EAST CLIFF DR @ 7TH AVE

The CopperWATCH data entry editor will allow you to enter up to 30 characters in the *Address* field. It is recommended that you enter the most pertinent and descriptive address information possible.

- Norm. The milliampere value entered in this data field represents the cumulative total output of the CSL devices installed on the monitoring pair. For example, an XC Device on a Detection Pair with six CSL devices would require that you enter 18.0 in the Norm field. This value needs to be entered for each of the XC Devices associated with that Detection Pair. Because a Verification Pair requires only one installed CSL device, the Norm value for both XC Devices on Verification Pairs will be 3.0 mA.
- **TD Type**. CopperWATCH automatically updates this field to include *CL/THEFT* when you enter "XC" in the *Type* data field. The CL/THEFT TD Type denotes a Current Loop Contact Alarm, used for cable theft detection.
- Cable. This field is used to designate the monitored cable. When performing data entry, you will notice that there is also a Sheath(s) data field. For CopperWATCH only the Cable field needs to be updated.
- Detection Pair. After you enter the XC device type designation in the Type data field, the program automatically displays the applicable Access # (monitoring pair) information in the Detection Pair field. If the device you are entering pertains to a Verification Pair, however, you will need to specify the appropriate Detection Pair in this field.

The actual Detection Pair is the one on which multiple CSL devices can be installed. If the device data you enter pertains to a CSL device (for example, a *Device* # designation of 2-03.1, 2-03.2, etc.), you will need to enter a non-zero value in the *Loop* field. Doing so removes the display of the *Detection Pair* and *Verification Pair* data fields in the editor. This function helps to simplify the data entry process.

- Verification Pair. This field displays the Access # of the correlating Verification Pair. You will
 need to enter this information only once for the base device, as explained above.
- *Remarks*. There are two 70-character lines of data that can be entered into this field. Both lines have significant importance for the alarm information generated by CopperWATCH. For example, the first line of data can be used to designate the path that the cable follows between two CSL devices or the base device and a CSL device. To assist law enforcement personnel, information should be included that describes the location of the cable in relation to the *Address* field locations. For example, it could include the following:

```
CABLE CUT BETWEEN TWO LOCATIONS:
LOCATION 1: EAST CLIFF DR @ 14TH AVE
LOCATION 2: EAST CLIFF DR @ PROSPECT ST
REMARKS: AERIAL CABLE RUNS NORTH OF E CLIFF DR, FROM 14TH AVE
WEST TO PROSPECT ST
```

The second 70-character line in the editor's *Remarks* field can be used to record the Law Enforcement Contact Information, which appears near the top of the alarm format:

CONTACT: SANTA CRUZ CA PD - (831) 555-0911

- Latitude. If available, enter the Latitude information for the XC device location.
- Longitude. If available, enter the Longitude information for the XC device location.

As mentioned previously, the Latitude and Longitude coordinates are particularly helpful when generating a CopperWATCH alarm. The data makes it possible to include a link in the CopperWATCH alarm to a Google map. When clicked, the link launches a browser window with a map that displays a highlighted representation of the cable section in alarm.

Please note that CopperWATCH Version 2 uses the *Degrees and Decimal Minutes* format for latitude and longitude (example: 36.963883 and -121.992167). If desired, you can use the *Degrees, Minutes, Seconds* format, and CopperWATCH will convert the entry to the appropriate format.

Entering Device Data

After the Office Information Screen has been completed for the new uM260 office, CopperWATCH will automatically display the individual device information editor (SCREEN 3-7). The cursor will be placed in the *Device #* field, waiting for input of the first device data associated with the office CO devices in the worksheet.

Add device to <your office="">: <ctrl r="">, <ctrl f=""> more, <esc> finished <return> next field, <backsp> delete char, <ctrl b=""> previous field1 Enter device number or <return> to quit.</return></ctrl></backsp></return></esc></ctrl></ctrl></your>			
Device #: Address: TD Type: Sheath(s):	Access #:	Type: Loc:	Pipe:
Cable: Plat #:	Prim Pair: Stickmap:	Sec Pair:	Sort Key:
Remarks:			
Readings Curr	Last Tdy -1 -2	-3 -4 -5	-6 Wk-1 Wk-2 Wk-3 Wk-4

SCREEN 3-7: DEVICE INFORMATION EDITOR

Procedure:

 One approach to device data entry is to enter all of the devices required for a Detection Pair sequentially, followed by the devices for the associated Verification Pair. Using this strategy, first specify the base device number uM260 location. This Device # is designated by a period (.) and zero (0) after the hyphenated portion of the number.

Assuming you are starting with the first Detection Pair, type **2-01.0** in the *Device* # field and press **<***Return>*. The cursor advances to the *Access* # data field.

- 2. Enter the Access # that represents the monitoring pair—in this example, 002-01 follow by *<Return>*. This Access # would apply to each of the devices (2-01.0, 2-01.1, 2-01.2, etc.) on the Detection Pair. The Access # for the corresponding Verification Pair would be 002-02.
- 3. Next enter the Device Type, which is always **XC** for the CopperWATCH application. Press *Return>* to advance to the *Loop* data field.

Notice also that after you enter the XC designation in the *Type* field, CopperWATCH eliminates many of the data fields in the initial Device Information Editor and displays the ones that pertain more specifically to CopperWATCH (SCREEN 3-8).

- 4. Enter the Loop value for the location's XC device which, in this case, is **0.0** and press *Return>*.
- *Note*: CopperWATCH expects the value entered in the *Loop*, *Norm* and *Tolerance* data fields to include a decimal and a zero in the tenths position, such as 0.0, 3.0, 6.0, etc. If you intend to enter a value of 3.0 by just typing "3", for example, CopperWATCH interprets the entry as 0.3. In this case you would need to enter "3.0" or "30".
 - 5. Next, enter the *Address* information for the XC device followed by *<Return>*. Thirty characters, including spaces, are allowed for the address information. After you have entered the descriptive address information, the cursor advances to the *Loc* field.
 - Location (*Loc*) information is not actually required for CopperWATCH, but it can be used to designate monitoring pair device positioning: the base XC device is zero (0); each additional XC device designation on the monitoring pair—those that represent CSL devices in the field—is assigned a sequential number (1, 2, 3, etc.). Press *<Return>* to advance to the next field.
 - With the cursor positioned in the *Norm* field, enter the cumulative milliampere value of all the CSLs that are (or will be) installed on the pair. Press *Return>* after you specify the total mA value.
 - 8. Since the next field, *TD Type*, is automatically populated with *CL/Theft* when you entered the XC Device Type, press *<Return>* again to advance to the *Tolerance* field.
 - 9. Enter the desired value in the *Tolerance* field. The smaller the value, the less chance there is of having CopperWATCH generate a verbose (*Pair*) reading on the device. The default value for this field is 1.0 mA. Enter a desired Tolerance value or press *Return>* to accept the default and advance to the *Sheath(s)* field.

For CopperWATCH, the *Sheath(s)* field does not require an entry. Press *Return>* again to advance to the *Cable* data field.

- 10. Next, enter the *Cable* designation. This information does not appear on the actual alarm output, but it is important for record keeping. After you have specified the cable that contains the monitoring pairs, press *<Return>*. The cursor advances to the *Detection Pair* field.
- 11. This field is automatically populated with the pair designation used in the *Access #* field. It appears after you enter the XC Type designation. Please note that you may have to correct this entry if you are entering data for a Verification Pair because the data entry editor automatically places the pair information in the *Detection Pair* field.

Enter the correct Detection Pair information, if necessary, and press *Return>* to advance to the *Verification Pair* data field.

- 12. Enter the designated Verification Pair information and press <Return>.
- 13. The cursor advances to the *Remarks* data field. This important information will appear in the CopperWATCH alarm format as described on page 3-9. Two 70-character lines of data can be entered in this field.

At this point, you will to press *Ctrl F* to advance to the next editor screen, which contains the *Latitude* and *Longitude* data fields.

14. With the cursor positioned in the *Latitude* field, enter the latitude coordinate for the specific XC device in either the *degrees, minutes, seconds* format, as show below, or in *degrees and decimal minutes*. If you are unsure of the format required, type a value and press *Return*. The application will prompt you for the following format:

Enter: xdd+mm.mmm, x is 'N' or 'S', dd is degrees, and mm.mmm is minutes

Once you have entered the latitude data and pressed *Return>*, CopperWATCH will convert it to the degrees and decimal minutes format and advance the cursor to the *Longitude* data field.

15. Enter the corresponding longitude coordinate using either *degrees or decimal minutes* or this format:

Enter: xddd+mm.mmm, x is 'E' or 'W', ddd is degrees, and mm.mmm is minutes

Press *Return>* and CopperWATCH displays the required format. This completes the procedure for entering an individual XC device for CopperWATCH. The remaining *Office 1 & 2 Loc, Distance 1 & 2* and *Field 1 & 2 Loc* data fields do not pertain to this monitoring application.

16. Press *Esc* to complete the data record. The software responds with:

Correct? Y[es], N[o], T[hrow away changes]

17. If the information is correct, press **Y** and **<Return>**. If you need to make any changes, press N <Return>, and the cursor will reappear in the last editor field. Then press <Ctrl B> to go back through the individual data fields, where you can then make your changes.

SCREEN 3-8 shows the type of information that would be included on the initial data screen for the first device entered on a Detection Pair. The second part of this data entry screen is shown in SCREEN 3-9.

```
Add device to <YOUR OFFICE>: <Ctrl R>, <Ctrl F> more, <Esc> finished
        <Return> next field, <Backsp> delete char, <Ctrl B> previous field1
_____

        Device #:
        2-01.0
        Access #: 002-01
        Type: XC
        Loop:
        0.0

        Address:
        EAST CLIFF DR & 14TH AVE
        Loc:
        0
        Norm:
        12.0

        TD Type:
        CL/THEFT
        Tolerance:
        1.0

Sheath(s):
Cable:
          PG24
Detection Pair: 002-01
Verification Pair: 002-02
Remarks: AERIAL CABLE NORTH OF E CLIFF DR, FROM 14TH AV WEST TO PROSPECT ST
        (831) 555-0911 SANTA CRUZ POLICE DEPARTMENT, CALIFORNIA
             Curr Last Tdy -1 -2 -3 -4 -5 -6 Wk-1 Wk-2 Wk-3 Wk-4
Readings
-------
               _____
```

SCREEN 3-8: XC DEVICE INFORMATION FOR LOCATION ZERO

SCREEN 3-9: XC DEVICE INFORMATION SCREEN 2 (LATITUDE / LONGITUDE)

Repeat the procedure described above for the other devices on the pair and the corresponding Verification Pair.

Removing/Adding/Changing a Device

If it becomes necessary to remove or add a CSL device to a monitoring pair, or even to change the device record for an existing device, you can do so easily using the Data Entry editor. This subsection describes how to access the necessary screens to make the necessary additions/changes.

Procedure:

- 1. You will first need to log into the system, if you have not already done so, and choose option **2**, *Select MAP Data Entry from the System Options Menu*. (Refer to page 3-1 for information on accessing this menu.)
- 2. At the MAP Data Entry Screen, select option **1**, CopperWATCH Data Entry. This produces the Data Entry Menu (SCREEN 3-10).

Data Entry: A[dd a new office], I[nfo about an office], S[pecific device info], D[elete an office], R[ecover from hardware failure], M[ore], Q[uit]			
Choose an option:			

SCREEN 3-10: DATA ENTRY SCREEN

3. Select *S*, Specific Device Info, and *Return>*. The program responds with the following prompt:

Specific Device Info for which office?

4. Type the number of the CopperWATCH-monitored office whose data you would like to edit. This produces the Device Data Editor Screen (SCREEN 3-11). Once again, the Access # data field only displays if you have set the User Defined Devices to ON in the Office Information Screen.

Device Info for CWATCH DEMO: V[iew device info], C[hange device info], A[dd new devices], R[emove old devices], D[isable a device], Q[uit]			
Choose an opt	cion:		
Device #: Address: TD Type: Sheath(s):	Access #:	Type: Loc:	Pipe:
Cable: Plat #:	Prim Pair: Stickmap:	Sec Pair:	Sort Key:
Remarks:			
Readings	Curr Last Tdy -1	-2 -3 -4 -5	-6 Wk-1 Wk-2 Wk-3 Wk-4

SCREEN 3-11: DEVICE DATA EDITOR

Select the desired device editing option from the menu choices at the top of the screen. For example, if you need to change data for an existing device, you would type *C* and *<Return>*. The cursor then moves into the *Device* # field, and the following prompt appears:

Enter device number or <Return> to quit.

- 6. Enter the *Device* # (2-01.0, for example) and *<Return>*. The cursor then advances to the next data field. You can edit the information there or use the navigational tools to advance to the desired data field(s).
- 7. When you have finished making the necessary changes, press *<Esc>*. The cursor moves to the prompt line near the top of the screen, and displays to the following:

Correct? Y[es], N[o], T[hrow away changes]

- 8. Type your selection followed by *Return>*. If you are changing device data, for example, and you enter *Yes* to the prompt, the cursor moves back to the *Device* # field where you can select another device to modify. If you answer *No*, the cursor returns to the last occupied data field where you can continue editing. If you chose to *Throw away changes*, the cursor moves back to the *Device* # field.
- To exit the Device Data Editor at any time, press <*Esc>*. The *Choose an option* prompt displays, and you can select other editing functions or press *Q* <*Return>* to back out of the editor.

ALARM CENTER DATA ENTRY

The CopperWATCH application requires that you define one or more Alarm Centers for each office (wire center) that has been set up for cable theft monitoring. An Alarm Center is a location or device designation where CopperWATCH will send immediate notification of a cut cable. A total of 72 different centers can be entered into the Alarm Center database.

Creating Alarm Centers, as well as modifying and deleting established Alarm Center data, is accomplished via the the AlarmMAP Data Entry Options Menu. This menu can be accessed by first choosing item 2 from the System Options Menu. This selection generates the MAP Data Entry Menu as shown in SCREEN 3-12.



SCREEN 3-12: MAP DATA ENTRY MENU

Procedure:

1. Select the third option from the MAP Data Entry Menu to access the AlarmMAP Data Entry Options Menu. Follow your selection with *Return>*. The screen below displays.



SCREEN 3-13: ALARMMAP DATA ENTRY OPTIONS MENU

2. Choose option **1**, *Alarm Centers*, followed by *<Return>* to begin setting up the Alarm Centers for CopperWATCH. When *Alarm Centers* is chosen from the AlarmMAP Data Entry

Options Menu, the Alarm Center Data Entry Screen will be displayed, as shown in SCREEN 3-14.

```
Alarm Centers: A[dd a new center], I[nfo about a center], D[elete a center],
Q[uit]
Choose an option:
--------
Centers
-------
```

SCREEN 3-14: ALARM CENTER DATA ENTRY SCREEN

This screen consists of three sections. The top two lines of data display the Alarm Center Function Menu. This menu lists the various editor functions available when creating and editing the Alarm Center database. Below the menu display is the program status line, which will at first display the prompt:

Choose an option:

When accessing the Center Data Entry Screen for the first time (as in SCREEN 3-14), no Alarm Center names will appear in the Alarm Center Listing, since none have yet been entered into the system. However, once the data entry procedures have been completed, the Alarm Center Listing will contain the names of all the centers which have been input into the Alarm Center database. In all, the Alarm Center Listing may contain up to 72 different Alarm Center names.

Adding Alarm Center Information

The first item on the screen's Function Menu, "Add a new center," generates the editor screen used to establish a new Alarm Center in the CopperWATCH database.

 From the Alarm Centers Screen, select option A to create a new Alarm Center. Press
Return> to complete your selection.

When you choose to create a new Alarm Center, the following AlarmMAP prompt will be displayed on the status line:

Name of center to add:

4. Type the name of the new Alarm Center that you wish to create and press <Return>.

Alarm Center names may be composed of up to 20 alphanumeric characters. However, when referenced in the various call time files used by AlarmMAP, Alarm Center names will be truncated to 10 characters due to space limitations within the screen. Because of this, each Alarm Center name must be unique within the first 10 characters of the name. Offices and Alarm Centers should never share the same name. Some words and types of

punctuation are reserved by the program and may NOT be used in an office or Alarm Center name. These reserved names and punctuation forms include:

<u>Reserved Names</u>: all, system, short, long, accept, diagnose

```
<u>Reserved Punctuation</u>: \ / | , . < > ? ; : " { } [ ] ! @ # $ % & * ( ) _ + = '
```

Once a new Alarm Center name has been entered, the screen will display the Alarm Center Information Screen, containing information similar to what is shown in SCREEN 3-15. This screen lists all the data fields which make up the information describing an Alarm Center. When the Alarm Center Information Screen is first accessed, the cursor will be placed in the *Baudrate* data field.

```
Center Add: Keypad Field Control, <Esc> end screen, <Ctrl L> redraw screen

<Return> next field, <Backsp> delete char, <Ctrl B> previous field
Center name: COPPER_THEFT1 Baudrate: 1200
Phone number: T123-4567 Modem Site: LOCAL
Delivery mode: SUMMARY REPORT Clear mode: NOT DELIVERED
Remarks:
Offices:
```

SCREEN 3-15: ALARM CENTER INFORMATION SCREEN

Once all the Alarm Center Data Records have been created, they will be placed in the file which makes up the Alarm Center database.

5. Complete the Alarm Center Data Record by filling in all the appropriate data fields shown on the Alarm Center Information Screen.

ALARM CENTER DATA FIELDS

To complete an Alarm Center Data Record, all of the information that pertains to a particular Alarm Center must be entered correctly into the appropriate data fields of the Alarm Center Information Screen. Guidelines for entering Alarm Center information in the appropriate fields are given below.

Below are descriptions of each of the various data fields that make up an Alarm Center Data Record.

Center Name

This data field displays the name of the new Alarm Center, as entered at the Center Entry Screen prompt.

Baudrate

This field contains the modem baudrate for the Alarm Center. Valid entries are 110, 300, 1200, 2400, 4800, 9600, 19200 and 38400. By default, this field is set to 1200 baud. If the speed of communications is 1200 baud, then no change needs to be made to this field. To step through a list of the baud rates, press the > or < keys. For a network-connected (IP) Alarm Center, baudrate is not applicable; consequently, it does not require any editing.

Phone Number

The *Phone Number* designation in the Alarm Center setup process is much more inclusive than the name indicates. With Local Area Networks, email, alphanumeric pagers, cell phones, etc., there are numerous other possible alarm delivery methods. These other methods require special entries in the Alarm Center *Phone number* data field as described in the underlined subsections below.

Sending Alarms via Modem

For standard modem alarm distribution, enter the telephone number of the designated Alarm Center into this 60-character data field. Before entering the phone number, however, be sure to test the complete dialing sequence of the number.

The complete phone number must be used, including any and all supplemental prefixes in the numeric sequence. Some examples of a prefix may be the 9 used in Centrex telephone systems (used to initiate calls outside the system) or the 1 that is needed to initiate a long distance call. Also, time any pauses that need to be made in order to receive dial tone or make a circuit connection. Wherever a delay is noted, insert a **W** in the telephone number string. A **W** in the number sequence will instruct the PressureMAP modem to wait for dial tone before continuing with the dialing.

Inserting a capital **T** at the beginning of the phone number sequence instructs the modem to use tone dialing. It is important to note that not every telephone exchange has this capability. Because of this, CopperWATCH will default to pulse dialing if the telephone number string does not begin with a T. If a phone number sequence needs to utilize both pulse and tone dialing, inserting a capital **P** in the sequence will instruct the modem to use pulse dialing.

Sending Alarms to a Printer(s)

The *Phone number* field can also specify a network printer as a dispatch alarm delivery site. Entering just the word PRINTER establishes the printer attached to the computer that contains the CopperWATCH as the location which receives system threatening alarm data.

Sending Alarms via LAN (MAIL)

Alarms sent via a LAN (Local Area Network) to the mailbox of a user on the LAN provide a brief alarm data header that precedes the alarm report in the email message. This data includes the system name and number. To send email alarm reports, the prefix **MAIL** must be listed first in the *Phone number* field, followed by a space and then the name of the recipient (up to 55 characters in length). The recipient's name **MUST** be entered **EXACTLY** the same as the name the LAN mail (email) system uses (i.e., upper and lower case letters can be used to enter this name). You should be able to obtain a list of mail users and their aliases from your email System Administrator.

The following example depicts the information that needs to be entered in the *Phone number* data field for a user named Richard Ruth who has an alias of *rickruth* and receives his mail via the server BELLNET: *MAIL rickruth*. In addition, the mail server function needs to be configured and enabled before the alarms will be sent. Using the example above, the server name BELLNET must be entered via Network Administration before AlarmMAP can send alarms to the mailbox of the LAN user, Richard Ruth.

If the network or mail delivery function is disabled via Network Administration, any alarms that are in the queue (i.e., not yet delivered), will cause a Four Star System alarm to be generated. The contents of the alarm mail messages will be logged to the Undeliverable Mail Log File, which can be accessed and viewed using the View MAP Data Files menu option of the User Initiated Operations menu.

Sending Alarms via LAN to Multiple Email Addresses Defined as One Alarm Center

Using this capability significantly reduces the number of Alarm Centers that otherwise would be required to route alarms to desired recipients. In order to set up this capability, you will first need to type the word, *LIST*, into the *Phone number* field in the Alarm Center Information Screen (SCREEN 3-10 above). When you press *<Return>* to advance to the next field, you will notice that the *Baudrate* and *Modem Site* data fields will be disabled. You will also notice that a prompt appears on the command line asking if you would like to **Change email address** <code>list Y[es], N[o]</code>. Typing **Y** produces a new editor screen (Email List Editor Screen) where you can enter individual email addresses and descriptions. Type your list of email addresses (and descriptions, if desired) and press *<Esc>*. The program will then ask if the information is correct: **Correct? Y[es], N[o], T[hrow away changes]**. Typing **N** returns you to the Email List Editor Screen where you can make corrections, entering **T** discards your entry(s) and returns you to the Alarm Center Editor Screen; and typing **Y** saves your entry(s) and places you in the Alarm Center Editor Screen where you can continue entering center information.

Sending Alarms to Pagers via Email (Brief Report)

Some pagers have the capability of receiving email-generated messages (pages). For this type of equipment, you can set up an Alarm Center as an email pager and have AlarmMAP generate an abbreviated alarm report called a Brief Report (SCREEN 3-12). To designate this type of Alarm Center, you will need to type the word *MAIL* in the *Phone number* data field followed by the email address (pager callout phone number and domain name) of the intended recipient (e.g.: MAIL 8314755777@mypagercompany.com). You will also need to specify Brief Report as the designated *Delivery mode* in the Alarm Center Information editor.

Sending Multiple Alarm Notification to Pagers via Email (Condensed Report)

Another version of the Brief Report is provided for AlarmMAP users who would like to receive a single email notification via pager when multiple alarms develop in their CopperWATCH system. As with the Brief Report, you will need to enter MAIL in the *Phone number* field followed by the appropriated email address used for the pager service. The Condensed Report is a hybrid version of the Brief Report and One Report delivery modes. In order to receive a Condensed Report, you must first designate an Alarm Threshold for One Report (refer to Alarm Filtering in this section). If the number of alarms generated in an office exceeds the threshold value entered, AlarmMAP will send a Condensed Report to your pager. This report identifies the PressureMAP system, the PressureMAP office in which the alarms originated, the number of alarms generated, and a message advising you to check the PressureMAP software for additional information.

Sending Alarms to a Cell Phone via Email SMS (Short Message Service)

Another email delivery capability is text messaging from a cell phone service provider via SMS. Almost all cell phone subscription plans provided by wireless carriers include inexpensive SMS messaging service. The first requirement for this alarm distribution option is to confirm that the alarm recipient's cell phone service provider offers SMS messaging service. If so, you can set up an Alarm Center designation for a cell phone and provide the required information in the *Phone Number* field of the Alarm Center Editor. When setting up the Alarm Center, you need to preface the number with the word MAIL. Then enter your text message email address—in this case, your 10-digit cell phone number and service provider. The following examples show the type of information needed in this data field for some of the more common SMS providers:

- MAILphonenumber@vtext.com (Verizon)
- MAILphonenumber@txt.att.net (AT&T)
- MAILphonenumber@qwestmp.com (Qwest)
- MAILphonenumber@tmomail.net (T-Mobil)

Like the email to pager alarm distribution setup described above, you will also need to specify either Brief Report or Condensed Report as the designated *Delivery mode* in the Alarm Center Information editor. Receiving Condensed Reports on your cell phone requires that you first set an Alarm Threshold for One Report in the Alarm Filtering menu (see explanation near the end of this section).

Sending Alarms via a Network Connection (IP Address)

To send alarms via an installed network connection, enter the IP address of the Alarm Center in the *Phone number* data field as shown below. (Consult the local network administrator for the necessary IP address and port number information.) To specify a network connection in this data field, the IP address is prefaced with *IP*= and followed by a colon (*:*) and the port number:

Phone number: IP=xxx.xxx.xxx:<port number>

Brief Report and Condensed Report Delivery modes (and Clear modes) are allowed for a console center and network centers. These are Alarm Centers whose phone entry begins with "IP=" followed by an IP address and port number.

Modem Site

This field only appears if your CopperWATCH system has at least one Digi PortServer II configured in Network Administration. It selects which PortServer will be used by CopperWATCH to send alarms to the Alarm Center. Toggling the data field, using the > or < keys, will display the valid *Modem Site* entries. When the desired entry is displayed, press <**Return>** to accept.

Delivery Mode

When an alarm is detected in CopperWATCH 2.0 (receipt of multiple alerts from the uM260 monitor), an alarm is distributed concurrently to each of the Alarm Centers in the applicable Call Time list. No acknowledgment is required and multiple attempts (five by default) are made to deliver the alarm to a center if the first attempt is unsuccessful.

Clear Mode

As Dispatch Alarms clear, they are marked as cleared but not removed from the Dispatch List. These marked dispatch alarms are then distributed by AlarmMAP. The Dispatch Condition and Information remain the same, but the star level is replaced with "CLRD."

AlarmMAP delivers these Cleared Dispatch Alarms to the Alarm Center(s) specified for the current Call Time. Since it is no longer a requirement for Cleared Dispatch Alarms or Priority

Alarms to be acknowledged at one of the Alarm Centers, they are removed from the dispatch list once they are sent to the assigned Alarm Centers or the maximum number of unsuccessful delivery attempts has been made.

The Clear Mode option uses the same dispatch mode that is available for the Delivery Mode. When the cursor is in the *Clear mode* data field, you can step through a list of these modes by pressing > or <. The Cleared Dispatch Alarm can be sent with or without regular Dispatch Alarms depending on how the *Delivery mode* data field is set.

Remarks

The *Remarks* data field is where you can enter special comments concerning the Alarm Center. Up to 70 characters may be entered in this field. Please note that also provides required information for formatting certain types of alarm messages. Refer to the Remarks information in Screens 3-16 and 3-17 for examples of two alarm message formats that are specified by entering RAP NONE in the *Phone number* field plus delivery information in the *Remarks* data field.

Offices

The *Offices* data field is used to designate which CopperWATCH offices (monitoring equipment locations) will send alarms to the Alarm Center. You can select the individual offices that you would like to report to the Alarm Center, or choose to designate all of the offices in your CopperWATCH system to report to the Alarm Center. By specifying *ALL* as the entry in the *Offices* data field, up to 250 offices plus the *System* office, can be set up to report to the center.

Note: System represents Office #0, which is system-wide compilation of any communications errors that pertain to the CopperWATCH offices.

The offices listed in this data field, or all of them if **ALL** was specified, will report to the Alarm Center, according to the Calling Time Schedules that have been set up. (For complete details on how to set up the Call Time Schedules, please refer to next sub-section.)

When designating CopperWATCH offices in this data field, be sure that the offices have first been input into the system. If you are unsure of the offices that have been input into the PressureMAP office database, enter a question mark ? and press <**Return**> to obtain a full listing of the available CopperWATCH offices. Then, after reviewing the offices, press any key to return to the *Offices* data field, and enter the offices that you wish to link to this Alarm Center.

Common CopperWATCH Alarm Message Types

Technicians and Asset Protection Personnel have different functions in telephone company operations, and they need different information when a Verified Copper Cable Theft in Progress alarm is generated. Field Technicians need to know what cable is affected, the device numbers involved, and the loop values of the Detection and Verification pairs. This information is not needed or desired by Asset Protection personnel. They need concise information regarding the location of the theft, and the contact information for the local law enforcement. In response to the differing needs of the Asset Protection and Field Technicians, System Studies has developed separate alarm messages.

ASSET PROTECTION ALARM MESSAGE

The Asset Protection Alarm Message contains only the relevant information needed to contact the local law enforcement. It is delivered only when a Verified Copper Cable Theft in Progress Alarm is generated. There are two types of Asset Protection Alarms: Text Message Alarms (SMS), and Email Alarms. Due to character number restraints, the Email Alarms are more detailed than the Text Message Alarms; consequently, the Text Message Alarm is generally used to alert Asset Protection personnel to check their email inbox for more detailed information.

The type of Alarm Center Information required for an Asset Protection Text Message Alarm is displayed in the first screen below, followed by the required format for an Asset Protection Email Alarm Message.

```
Center Add: Keypad Field Control, <Esc> end screen, <Ctrl L> redraw screen
<Return> next field, <Backsp> delete char, <Ctrl B> previous field
Center name: JOHN SMITH TEXT Baudrate: 1200
Phone number: RAP NONE Modem Site: DIGIBACK
Delivery mode: FULL REPORT Clear mode: NOT DELIVERED
Remarks: ALARM RPT CWATCH VALLEJO TXT-8315551234@TXT.ATT.NET
Offices:
CA LIVE OAK
```

SCREEN 3-16: ALARM CENTER INFORMATION: FOR TEXT MESSAGE TO ASSET PROTECTION PERSONNEL

```
Center Add: Keypad Field Control, <Esc> end screen, <Ctrl L> redraw screen

<Return> next field, <Backsp> delete char, <Ctrl B> previous field

Center name: JOHN SMITH EMAIL Baudrate: 1200

Phone number: RAP NONE Modem Site: DIGIBACK

Delivery mode: FULL REPORT Clear mode: NOT DELIVERED

Remarks: ALARM RPT CWATCH VALLEJO JS7341@TELCO.COM

Offices:

CA LIVE OAK
```

SCREEN 3-17: ALARM CENTER INFORMATION: FOR EMAIL MESSAGE TO ASSET PROTECTION PERSONNEL

Note: In both forms of the Asset Protection Alarm Center Information, the delivery information is entered into the *Remarks* field. In these two formats, the entry "RAP NONE" should be entered into the *Phone number* field. This entry is used to configure the Alarm Center for email delivery via the key/value alarm script.

FIELD TECHNICIAN ALARM MESSAGE

The Field Technician Alarm Message includes all of the information that is contained in the Asset Protection Alarm Message, but it also provides more technical detail for telco personnel to assist with the location and repair of cable damage. This additional technical information would delay the dispatch of Law Enforcement Officers if the Field Technician Alarm Message were to be used by Asset Protection Personnel. Field technicians need to receive alarms for monitored conditions other than just Verified Cable Theft in Progress alarms. For example, they need to be notified when conditions such as pair trouble have occurred on a Detection or Verification Pair. The Field Technician Alarm Message contains all of the information that is contained in the Asset Protection Alarm Message, but it also provides more technical detail for telco personnel to assist with the location and repair of cable damage.

The type of Alarm Center Information required for a Field Technician Email Message is displayed in the example below:

```
Center Add: Keypad Field Control, <Esc> end screen, <Ctrl L> redraw screen

<Return> next field, <Backsp> delete char, <Ctrl B> previous field

Center name:
ROB DAVIS EMAIL
Baudrate:
1200

Phone number:
MAIL RD1362@TELCO.COM
Modem Site:
DIGIBACK

Delivery mode:
FULL REPORT
Clear mode:
NOT DELIVERED

Remarks:
Offices:
CA LIVE OAK
```

SCREEN 3-18: ALARM CENTER INFORMATION: FOR EMAIL MESSAGE TO FIELD TECHNICIANS

Completing the Alarm Center Data Record

Once all the data fields for the Alarm Center Data Record have been completed, press *<Esc>* to return to the Center Information Screen status line. (An alternate method of returning to the status line is to press *<Return>* from the last data field on the screen. In the case of the Alarm Center Entry Screen, this field would be the *Offices* data field.) When you return to the status line, AlarmMAP will issue the message:

Correct? (Y(es, N(o, T(hrow away entry)

This message is asking you to double check the data which you have entered into the Alarm Center Data Record. If, after looking over the information entered, you decide that the data is correct, then enter Y to confirm the entry.

Edit an Alarm Center

The "Info about a center" option on the Center Entry Menu can be used to view or modify existing Alarm Center information. If an Alarm Center Data Record is incorrect (or if it needs updating), this option will allow you to make the necessary changes.

Procedure:

6. From the Center Entry Menu, select I followed by <Return>.

When you choose to edit information concerning an Alarm Center, AlarmMAP will issue the following prompt on the status line:

Information for which Center?

7. Enter the name or letter of the Alarm Center that you wish to edit or view. Finish your selection with *<Return>*.

After selecting a center from the Alarm Center Listing, AlarmMAP will display the appropriate Alarm Center Data Record and the status line will read:

```
Change center information? (Y(es, N(o)
```

If, after viewing the Alarm Center Data Record, you decide that you do not need to edit the data, enter **N** and press *Return* to step back to the Center Entry Menu.

8. To edit the Alarm Center data, press Y followed by <Return>.

If you confirm the request to edit the center's information, the cursor will be placed in the *Center name* data field of the Alarm Center Screen. Making use of the Editor Function Keys, move to the appropriate fields of the data record and make the necessary corrections.

After each data field has been updated, be sure to press *Return* to complete the entry of the new information into the Alarm Center Data Record.

When you have finished editing the data record, press *Esc* to return to the status line. AlarmMAP will respond with the message:

Correct? (Y(es, N(o, T(hrow away changes)

Before answering the **Correct?** prompt, take the time to review the new information entered.

 If the new Alarm Center information is correct, press Y and <*Return>* to regain the Center Entry Menu.

If the center data record still needs to be edited, then answer the **Correct?** prompt with **N**, and press **<Return>**. From here, AlarmMAP will re-position the cursor into the *Delivery mode* data field, and you may continue to make changes to the Alarm Center Data Record. Again, when the data record is complete, press **<Esc>** to return to the status line **Correct?** prompt.

The last option available from the **Correct?** prompt is to discard all changes made to the data record. By typing *T*, followed by *<Return>*, all changes made to the data record will be abandoned, and you will be returned to the Center Entry Screen.

Delete an Alarm Center

As the function name implies, the "Delete a center" menu option allows you to delete an Alarm Center from the Alarm Center database. This option of the AlarmMAP editor will erase all file data for the Alarm Center selected. In addition, it will also remove the center's name from the Alarm Center Listing.

The "Delete a Center" option does not, however, remove the references made to the Alarm Center in the various calling time files. Removing Alarm Center references must be done manually for each Calling Time Schedule that contains a reference to the Alarm Center you wish to delete. (For specific information on deleting calling times and Alarm Center references, refer to the sub-sections titled Weekday Calling Times, Saturday Calling Times, Sunday Calling Times, and Holiday Calling Times listed in this section.)

Note that you must remove all references to the appropriate Alarm Center from all calling time files BEFORE you attempt to delete an Alarm Center from the Alarm Center database.

Once all references to an Alarm Center have been removed, you can delete the Alarm Center from the database by following the editing procedures explained below.

Procedure:

10. From the Center Entry Menu, select **D**, followed by *Return*.

After selecting Delete a Center, the status line will display:

Delete which center?

11. Enter the letter or name of the center you wish to delete from the Alarm Center Listing.

After entering an Alarm Center name or letter, AlarmMAP will respond with:

Are you sure you want to delete <CENTERNAME>? (Y(es, N(o)

Before answering this prompt, make sure that the correct Alarm Center name appears on the status line. If there is any discrepancy with either the center name or letter, enter the letter **N** and press *Return>*. This entry will override the Delete command, producing a **Choose an option:** prompt on the Center Entry Menu status line.

12. If the Alarm Center name is correct, enter the letter Y, followed by <Return>.

If you have not deleted all references to the Alarm Center in the calling time files, AlarmMAP will issue a warning message, as shown in SCREEN 3-19.

```
Center "COPPER_THEFT1" may not be deleted.
This center is used by one or more of the Time files as a reporting center
for incoming alarms. To delete this center:
    1) Go back to the AlarmMAP Data Entry Menu
    2) Choose options 3 through 6 (Weekday, Saturday, Sunday, & Holiday
    Call Times) to check for use of this center.
    3) If the center is listed in a Time file:
        a) Move the cursor to the Center name.
        b) Hit the space bar once, then <Return> to remove the name.
        c) Remove all references to the center.
    4) Return to this menu and use the D(elete option to remove the center.
    Hit <Return> to continue...
```



If you receive this warning message, follow the instructions displayed on screen to delete all center references. When you have completed these procedures, you may then perform the Delete a Center function for the Alarm Center you wish to delete.

After the Alarm Center has been deleted, the screen will change to the Center Entry Screen, and you may choose another AlarmMAP Data Entry Function.

Quit Alarm Center Data Entry

The final Center Entry Menu option is Quit. As the name indicates, this option is used to exit the Alarm Center portion of the editor and return to the AlarmMAP Data Entry Options Menu. It is important that you correctly exit or log off of the MAP System before you leave the computer.

Procedure:

- 13. From the Center Entry Menu, select *Q*, followed by *<Return>*. When this option is selected, the screen will display the AlarmMAP Data Entry Options Menu. If you wish to continue working with the AlarmMAP editor, select any of the options listed on this menu. If you have finished working with the MAP programs, you may properly exit the MAP System by selecting the last menu item on each menu displayed, until you have completely exited the system.
- 14. Enter a **Q** for Quit, followed by *Return*. This step will return you to the MAP Data Entry Menu. The final step in exiting the MAP editor is to return to the System Options Menu.
- 15. Select Item **Q**, followed by *Return>* to exit the MAP Data Entry Menu. The System Options Menu will be brought up when the MAP Data Entry Menu is exited.
- 16. To completely exit the MAP System, choose the last item from System Options Menu. Follow your selection with *<Return>*.

DATES OF HOLIDAYS

AlarmMAP is structured to allow certain days of the year to be declared as holidays. By establishing specific dates in the Holiday List File, the reporting of alarms can be customized to account for special circumstances caused by holidays and vacations. On days declared as holidays, the reporting of alarms can be routed to specially designated Alarm Centers.

Make note that declaring holidays is not mandatory for the proper operation of AlarmMAP. This feature is provided in order to accommodate the requirements of various Operating Companies whose operations and staffing change as a result of holidays and personal vacations. If your company does not utilize special holiday calling times and Alarm Center references, then you will not need to use this feature of the program. However, if you would like to have alarms reported to special locations on specific days of the year, then you will want to complete the Holidays List File and customize the calling times for the days that are considered holidays.

The first step towards creating special reporting criteria for holidays is to specify the days of the year that are to be considered as holidays. The process of establishing holiday dates is the sole function of this AlarmMAP Data Entry Function.

Procedure:

17. Select Item **2** from the AlarmMAP Data Entry Options Menu (SCREEN 3-13) to create a list of special company holidays.

When Dates of Holidays is selected, the Dates of Holidays Screen will be presented (SCREEN 3-20). This screen is divided into three sections. The first section is the Dates of Holidays Menu. Listed on the first two lines of the screen, this menu displays the options that are available through this AlarmMAP Data Entry Function.

SCREEN 3-20: DATES OF HOLIDAYS SCREENS

Below the Dates of Holidays Menu is the program status line. When the Dates of Holidays Screen is first accessed, the status line will show the message:

Enter date in "MM/DD/YY" format:

Underneath the menu and status line is the Dates of Holidays Listing. When this menu item is accessed for the first time, this area of the screen will be blank. However, as you enter specific holiday dates, these dates will be shown in this listing area. Using the Editor Function Keys, you may move about the holiday list as needed to edit any incorrect data that may have been input. These keys are discussed in the Prefix section of this manual.

Add a Holiday

The first thing to do when setting up a day of the year for special alarm reporting is to add the date to the Holiday List File. You can input an unlimited number of dates to this list, enabling you to enter holiday dates for two years or more.

Procedure:

18. From the Dates of Holidays Screen, press <*Ctrl A>*. The status line will prompt:

Enter date in "MM/DD/YY" format:

Type the date of the holiday, followed by <**Return>**.

Once you have correctly entered a holiday date, the cursor will move to the *Holiday* data field.

19. Type the name of the holiday into the field, followed by *<Return>*.

When entering holidays, note that it is not necessary to input the dates in chronological order. AlarmMAP will insert them into the Annual Holiday Schedule in the proper chronological order.

While the *Holiday* data field does not need to be filled out for the proper functioning of the program, describing the holiday will help to clarify the special date. Holiday names can be composed of 1 to 30 alphanumeric characters.

When you have finished inputting the holiday dates, press *Esc*. The cursor will return to the status line, where the following message will be displayed:

```
Correct? (Y(es, N(o, T(hrow away entry)
```

From this prompt, three responses are possible:

- If the holiday date and name are correct, respond with Y and press <*Return>* to save the data to the Holiday List File.
- If either the date or the holiday name need to be edited, answer the Correct? prompt with N followed by <Return>. This input will place the cursor back into the holiday data record, where you will be able to edit the data fields. When the two fields are correct, return to the status line by pressing <Esc> from the Holiday data field.
- If you wish to abandon the holiday entry altogether, enter *T* and press <*Return>*. This input will discard the data entered into the Holiday Date Record, and will return the cursor to the *Date* data field. From here you can re-enter the correct holiday data or press <*Esc>* to return to the status line.
- 20. If the Holiday Date Record is correct, press **Y**, followed by *Return* to save the data to the Holiday List File.

When a new Holiday Date Record is created, it will be added to the Holiday List File. Alarms generated on the dates in this file will be distributed to the Alarm Centers designated with the Holiday Call Times editor function. (For more information on setting up the Alarm Centers with the calling times, please refer to the sub-section titled Holiday Calling Times, listed later in this section.)

Delete a Holiday

If, for any reason, you find it necessary to delete a holiday (or holidays) from the Holiday List File, you will need to use the Editor Function Keys to move to the holiday you wish to delete.

Procedure:

- 21. Press <*Ctrl Y>* to move down to the date of the holiday you wish to delete.
- 22. Press *<Ctrl D>* to delete the date the cursor is on.

This option does not have an "undo" feature. If a date is mistakenly removed, you need to press *Esc* and select *T* to throw away the editing session.

23. If you wish to delete another holiday, use the Editor Function Keys described in the Prefix to move about the holiday list.

When you have finished removing all unwanted holidays from the Holiday List File, press *<Esc>*. AlarmMAP will then return to the Data Entry Options Menu.

Quit Dates of Holidays Editor

When you have finished editing the Holiday List File, press <Esc> and you will be returned to the AlarmMAP Data Entry Options Menu.

ESTABLISHING CALLING TIMES

Once you have established all the Alarm Centers and have updated the Holiday List File, you will need to designate weekday, Saturday, Sunday, and holiday calling times and alarm destinations.

Items #3, #4, #5, and #6 on the AlarmMAP Data Entry Options Menu (SCREEN 3-13) are used to set up the Calling Time Files needed to distribute system alarms. By establishing calling times and their associated Alarm Center destinations, AlarmMAP will know when and where to distribute dispatches caused by potentially damaging problems located in the pressurization system.

In all, up to 72 Alarm Centers can be set up to receive alarm messages for any given time during the day. By establishing a Calling Time List, a group of Alarm Centers is put in the sequence in which they are to be contacted during the specified period of time.

When AlarmMAP detects a Four Star Alarm, indicating a possible or confirmed cut cable, an Alarm Summary will be sent to each successive center established for the Calling Time List. The menu items Weekday Call Times, Saturday Call Times, Sunday Call Times, and Holiday Call Times are each used to establish the time of day and Alarm Center order which the alarms are to be distributed.

The four call times menu items are very similar in structure and function. The only difference among them is the actual part of the week (or given day of the year) that is affected by the setup created. While AlarmMAP requires that both weekday and weekend calling times be established, creating holiday calling times is not mandatory. The capability to develop special holiday reporting centers and calling times is provided as a tool for companies that wish to use this feature to define a special Calling Time Schedule for a given day (or days) of the year.

Weekday Call Times

After creating the Alarm Centers and establishing holiday dates, the next step when setting up AlarmMAP is to define the Weekday Calling Times.

Procedure:

24. From the AlarmMAP Data Entry Options Menu, select Item 3, and press <Return>.

When Weekday Call Times is selected, the Weekday Call Time Information Screen will be presented (shown in SCREEN 3-21).

This screen is broken up into two different sections. The first section, the Weekday Call Time Menu, is listed on the first two lines of the screen. The second section, Calling Time Schedule, is the complete series of all the individual Calling Time Lists. Each Calling Time List shows the specific calling time and sequence of designated Alarm Centers which are to be contacted during that time period.

Weekday Times: Keypad field Control, <esc> end screen, <ctrl l=""> redraw screen, <return> next field, <ctrl z=""> help</ctrl></return></ctrl></esc>
00:00

SCREEN 3-21: WEEKDAY CALL TIME INFORMATION SCREEN

Using the Editor Function Keys available through the Weekday Call Time Menu, a file is created which is used for all weekday alarm distribution. The call distribution network is based on a 24-hour schedule that is in effect from 00:00 (12 o'clock midnight) on Monday morning to 11:59 p.m. on Friday night, each week of the year.

Add a Calling Time

Call times are used to designate the Alarm Centers that will receive alarms during the weekday time periods specified. Adding a weekday calling time involves defining the actual calling time, and listing the Alarm Center references.

By default, AlarmMAP begins its calling sequence at 00:00 (12 o'clock midnight). This number will appear as the first calling time entry in each calling time option. The time 00:00 is permanent; it cannot be deleted. If no additional times are entered, all alarms occurring from midnight to midnight will be sent to the Alarm Centers entered on the first line of the Call Time Schedule. Once a calling time is added to the schedule, all alarms will be distributed to the designated Alarm Centers from the time indicated until the next time entered, or until midnight. For example, if you enter the two calling times of 8:00 and 17:00, three calling schedules will be defined. SCREEN 3-22 shows these three calling schedules and the centers that have been designated to receive alarms during the three time periods. Alarm distribution would be as follows:

- 00:00 a.m. (midnight) to 08:00 a.m Alarms would be sent to the following alarm centers: D.Soquel and C.Liveoak.
- *Note:* The current *sendalarm* process invokes a master executable which spawns an agent executable for each center. Calls are placed concurrently to the various centers regardless of their order in the Calling Time List.

- 08:00 a.m. to 17:00 (5:00 p.m.) Alarms would be sent to the following alarm centers:
 E.Bluebird, B.Console, C.Liveoak, F.Seabright, I.Main, D.Soquel, J.Aptos, K.Scotts Valley,
 G.Wrights, H.Black Rd, N.Westside, O.Summit, V.University and L.Holy City.
- 17:00 (5:00 p.m.) to 23:59 p.m. Alarms would be sent to the following alarm centers: F.Seabright, E.Bluebird, and C.Liveoak.

Weekda Enter	Weekday Times: Keypad Field Control, <esc> end screen, <ctrl l=""> redraw screen, <return> next field, <ctrl z=""> help Enter a time, use "HH:MM"</ctrl></return></ctrl></esc>				
00:00	D.SOQUEL	C.LIVEOAK			
08:00	E.BLUEBIRD D.SOQUEL N.WESTSIDE	B.CONSOLE J.APTOS O.SUMMIT	C.LIVEOAK K.SCOTTSVALL V.UNIVERSITY	F.SEABRIGHT G.WRIGHTS L.HOLYCITY	I.MAIN H.BLACKRD
17:00	F.SEABRIGHT	E.BLUEBIRD	C.LIVEOAK		
				Alarm	MAP XX.XX.XX

SCREEN 3-22: WEEKDAY CALL TIME INFORMATION SCREEN

AlarmMAP enables you to add an unlimited number of calling times within a 24-hour period. With each calling time declared, a maximum of 72 Alarm Centers can be referenced.

Procedure:

- 25. The cursor starts each editing session at the first Alarm Center in the 00:00 time. At this point, you may create a new Calling Time List, or you may add Alarm Center references to an existing time (if you are creating a new Calling Time Schedule, the only calling time listed will be 00:00).
- 26. Enter *<Ctrl A>* and the message below will appear above the Alarm Center List.

Now enter a time specification which represents the calling time that you wish to add to the Alarm Center List. Times must be specified in a 24-hour time format. For example, 1:00 p.m. will be indicated by 13:00. The indicated minutes must be separated from the hour by a colon (:).

If the time entered corresponds to a time that is already located in the Calling Time File, AlarmMAP will issue the following warning message:

Time <TIME> already exists.

Once a time has been correctly selected, AlarmMAP will position the cursor in the Calling Time Schedule, under the first Alarm Center in the respective Calling Time List. From here, enter the Alarm Centers that you wish to designate for this calling time period. Please note that the order in which centers are added is not critical. 27. Enter the name or letter of the Alarm Center that you want to designate for reporting. If you are unsure of the available Alarm Center names, enter a question mark (?), and the Alarm Center Listing will be displayed on the screen. When you have finished examining the listing, press <*Return>* and you will be returned to the position that you left before you entered the question mark.

When you have successfully entered a center name (or letter), the Alarm Center will be inserted in place of the existing Alarm Center, and the cursor and existing center will be repositioned into the next Alarm Center slot to the right.

- 28. Enter the letter or name of the next Alarm Center you wish to reference. You may enter as many as 72 Alarm Center references for a given calling time.
- 29. When you have completed entering Alarm Center references, press *Esc* to regain the status line.

The cursor will then advance to the status line and display:

Correct? (Y(es, N(o, T(hrow away entry)

Before responding to this prompt, take a look at the additions that have been made to the Call Time Schedule to be sure that the correct Alarm Centers have been set up for the time indicated.

If the schedule needs modification, then respond to the prompt with an **N**, followed by *Return>*. This will reposition the cursor in the Calling Time List, allowing corrections to be made before the data is saved to the Calling Time File.

30. If the Calling Time List is correct, answer the **Correct?** prompt by typing **Y**, followed by *<Return>*.

Answering the prompt with a *Yes* will save the Alarm Center references and exit to the AlarmMAP Data Entry Options Menu. If you wish to establish additional weekday calling times, enter **N** to the prompt and continue to add times following the procedures as described above.

When entering times, note that it is not necessary to input the calling times in chronological order. AlarmMAP will insert them into the Calling Time Schedule in the proper chronological order.

To quit the editing session, enter *Esc* at the **Enter** a **time** prompt and you will be returned to the AlarmMAP Data Entry Options Menu.

Delete a Calling Time

When you wish to remove an existing Calling Time List from the Calling Time File you need to delete the time. By following the procedures outlined below, the calling time and its associated Alarm Center references will be completely removed from the AlarmMAP database.

Procedure:

- 31. Using the Editor Function Keys, move the cursor to the Call Time you wish to remove.
- 32. Once the cursor is on the time you wish to remove, press *<Ctrl D>*. With this entry, the program deletes the calling time and its associated Alarm Center references. The screen will then change to display the newly edited Weekday Call Times.
- *Note:* This option does not have an "undo" feature. If a call time is mistakenly removed, you need to press *<Esc>* and select *T* to throw away the editing session.

Changing an Alarm Center Reference

An existing Alarm Center Call Time Schedule can be changed by either deleting an existing center reference, deleting an existing center reference and replacing it with a new center, or by inserting a new center reference in the Call Time Schedule. The Editor Function Keys, listed in TABLE 3-1, are used when deleting or inserting Alarm Center references.

KEY	DESCRIPTION
<esc></esc>	Return to previous menu
<ctrl j="">, <return> <tab>, <right arrow=""></right></tab></return></ctrl>	Move right one column
<ctrl t="">, <left arrow=""></left></ctrl>	Move left one column
<ctrl f="">, <page down=""></page></ctrl>	Scroll down one screen
<ctrl r="">, <page up=""></page></ctrl>	Scroll up one screen
<ctrl u="">, <up arrow=""></up></ctrl>	Move up one line
<ctrl y="">, <down arrow=""></down></ctrl>	Move down one line
<home></home>	Scroll up to the top
<end></end>	Scroll down to the bottom
<ctrl a=""></ctrl>	Add a new entry
<ctrl d=""></ctrl>	Delete an entry
<ctrl l=""></ctrl>	Clear and redraw the screen
<ctrl z=""></ctrl>	See this help message

TABLE 3-1: HELP MENU

Deleting an Alarm Center Reference

To remove an Alarm Center reference from the Calling Time List, position the cursor over the Alarm Center name that you wish to delete, and press the *Space Bar>* once to remove the name of a center. Complete the deletion by pressing *Return>*. (Note that it is not necessary to use the space bar to delete the entire entry.) This will delete the selected Alarm Center from the schedule and move the remaining references one space to the left, filling the vacated center slots. The cursor will then advance to the next Alarm Center position in the schedule, and you can continue to make changes to the listing.

Inserting a New Alarm Center Reference

To insert a new Alarm Center reference, type the letter or name of the center you wish to add, and press *Return>*. The new entry will be placed in the data position where the cursor is placed, and the existing center reference will be moved to the next reference position on the list.

If there are already 72 center references in the Calling Time List, the editor will not allow you to insert a new reference. Because a maximum of 72 references is allowed in each Calling Time List, you must first delete a reference if you wish to add the new one to the list.

Changing the Scheduled Call Time

If you wish to change the starting time of an entire Calling Time List, press *Ctrl T* to move the cursor back, until it is positioned over the beginning time of the listing. Type the desired starting time over the existing one, and press *Return*.

Quit the Weekday Call Time Menu

When you have finished editing the Calling Time File, press *Esc>*. With this entry, the screen will return to the AlarmMAP Data Entry Options Menu.

SATURDAY AND SUNDAY CALL TIMES

Once you have established Alarm Centers, defined holidays, and entered weekday calling times, you will need to establish the weekend Calling Time Schedules. The AlarmMAP setup procedures are achieved by designating individual calling times and an alarm destination network for Saturday and Sunday.

The Saturday and Sunday Calling Time Files created are used for all weekend alarm distribution. This distribution is based on a 24 hour schedule that is in effect from 00:00 A.M. to 11:59 P.M. Saturday and 00:00 A.M. to 11:59 P.M. on Sunday.

Creating a Calling Time Schedule for Saturday and Sunday is accomplished by using Items #4 and #5 on the AlarmMAP Data Entry Options Menu (SCREEN 3-13). To establish this schedule, use the same editing procedures that were used to create the weekday Calling Time Schedule. While the Saturday and Sunday Calling Time Schedules are set up by using the same procedures that were used for the weekday schedule, the weekend schedule is set up by using different items on the AlarmMAP Data Entry Options Menu.

Notice that the only difference between defining these two Calling Time Schedules is that the Saturday and Sunday Calling Time Schedules are defined through different options on the AlarmMAP Data Entry Options Menu. The procedure below describes the steps for setting up Saturday call times. To set up Sunday call times, select Item 5 from the AlarmMAP Data Entry Options Menu.

Procedure:

33. From the AlarmMAP Data Entry Options Menu, select Item **4**, Saturday Call Times, and press *(Return)*.

The Saturday Call Time Information Screen is presented, as shown in SCREEN 3-23. This screen is broken up into two different sections. The first section, the Call Time Menu, is listed on the first two lines of the screen. The second section, Calling Time Schedule, is the complete series of all the individual Calling Time Lists. Each Calling Time List shows the specific calling time and sequence of designated Alarm Centers which are to be contacted during that time period.

Using the Editor Function Keys available through the Call Time Menu, a file is created which is used for all alarm distributions. The call distribution network is based on a 24 hour schedule that is in effect from midnight to midnight, each week of the year.

Both the Saturday and Sunday Call Time Menus are identical in structure and in use to the Weekday Call Time Menu. A close look will reveal that the two menus list the same functions, and each menu option listed is operated in exactly the same manner. The only difference between the two menus is the time of the week that is affected by the Calling Time Schedules that are created. Because of this, if you can use the Weekday Call Time Menu, then you can use the two weekend Call Time Menus with equal ease.

Saturday Times: Keypad Field Control, <esc> end screen, <ctrl l=""> redraw so <return> next field, <ctrl z=""> help</ctrl></return></ctrl></esc>	reen,
00:00	

SCREEN 3-23: SATURDAY CALL TIME INFORMATION SCREEN

For a complete description of each of the menu items available through the Saturday and Sunday Call Time Menus, please reference the sub-sections listed earlier in this manual section which describe the corresponding operations under the Weekday Call Time Menu. Since the operations of both menu functions are the same, the only thing that will need to be done is to change any references in the text from weekday to Saturday or Sunday.

HOLIDAY CALL TIMES

As the name implies, the Holiday Calling Times option is used to designate an alarm distribution schedule for special days of the year. Unlike the weekday and Saturday and Sundays calling times (which are necessary in order for AlarmMAP to function on a day-to-day basis), establishing a Holiday Call Time Schedule is optional for the functioning of the program. However, if you have listed special days of the year in the Holiday List File, then you must set up the Holiday Calling Time Schedule for the distribution of alarms during these days. This calling schedule is in effect from 00:00 (12 o'clock midnight) to 11:59 P.M. on the dates specified in the Holiday List File.

Item #2 on the AlarmMAP Data Entry Options Menu, Dates of Holidays, is used to designate the specific dates of the year which are to be treated as holidays. If you plan to use the holiday feature of the AlarmMAP program, then you must create a list of holidays which are to be treated as special days by the alarm routing schedule.

After the holiday dates have been set up, you may then go into the sixth item on the AlarmMAP Data Entry Options Menu, Holiday Call Times, to establish a specific Calling Time Schedule for the holiday dates.

Upon selecting Holiday Call Times from the AlarmMAP Data Entry Options Menu, the Holiday Call Times Information Screen is presented. This screen is almost identical to the Weekday, Saturday, and Sunday Call Time Information Screens. The top two rows of the screen list the Holiday Call Time Menu, followed by the Holiday Call Time Schedule.

The Holiday Call Time Menu lists the same options that are available from the other two Call Time Menus. Accessing and operating each menu item is identical to the steps used to operate the options available on the Weekday Call Time Menu. Because of this, if you are familiar with the operations of the Weekday Call Time Menu, then using the Holiday Call Time Menu will present no problem.

For a full explanation of the steps needed to setup and edit the Holiday Calling Time Schedule, please refer to the instructions given for the menu functions found under the section titled *Weekday Call Times*. However, to be compatible with the holiday setup procedures, change all references in the text from Weekday to Holiday.

UPLOADING MONITOR DATA

Once the data entry procedures described above have been completed for the new uM260 monitor, CopperWATCH will upload the office and specific monitoring pair information into the monitor's database during its next scheduled call. Currently, CopperWATCH places two calls per day to its programmed monitors, at 8:00 a.m. and 8:00 p.m.

If you would like to place the office online immediately so that CopperWATCH can begin to receive alerts from the uM260, you can use the program's User Initiated Operations to force a call. The procedure below describes this process.

Procedure:

34. If you are not already in the system, log on to CopperWATCH using your assigned login and password. The entry point into CopperWATCH is the System Options Menu (SCREEN 3-24).



SCREEN 3-24: SYSTEM OPTIONS MENU

35. Select *MAP Program* by entering **1** and pressing *Return>*. The MAP Programs Menu will be displayed as illustrated below.

MAP Programs 1. CopperWATCH 2. ReportMAP 3. AlarmMAP 4. CPAMS Diagnostics 5. User Initiated Operations 0. Ouit	MAP Programs 09/07/2012 11:03	MAP Series XX.XX.XX System Studies Incorporated
	MAP Programs 1. CopperWATCH 2. ReportMAP 3. AlarmMAP 4. CPAMS Diagnostics 5. User Initiated Operations Q. Quit	

SCREEN 3-25: MAP PROGRAMS MENU

36. Enter option **5** and **<Return>**. The User Initiated Operations Menu displays as shown in SCREEN 3-26.



SCREEN 3-16: USER INITIATED OPERATIONS MENU

37. At the User Initiated Operations Menu, select option **1**, Acquire New Readings, and press *(Return)*. At this point, the program displays the following prompt:

Acquire New Current Readings for which office?

38. Enter the number of the office followed by *<Return>*.

If you do not know the office number, press the ? key and *Enter>* at the prompt. The program will then display the office selections in a browser format. Use the arrow keys to scroll down the list and highlight the desired office name. Press *Enter>*.

Next, you will see the following prompt:

```
Acquiring New Current Readings may take 30 minutes per office. Do you wish to continue? Y[es], N[o]
```

The estimated time required actually pertains to an average-sized, non-uM260 office. Acquiring new readings for a uM260 Micro that is used for cable theft monitoring is considerably faster. 39. Press **Y** and **<***Enter***>** to continue. The program displays the following status information:

```
Calling <OFFICE NAME>( IP=10.1.2.11:10001 ). [10:55].logon
Acquiring Data [10:55].
Saving data..
```

Once the data has been acquired and saved, the User Initiated Operations Menu redisplays. You can use the Q (Quit) command to back out of the various menus and log out of the program, if desired.

The office for which you just acquired readings is now now online and operational. CopperWATCH will immediately begin to receive any alerts that are detected by the uM260 on any of the monitored pairs.