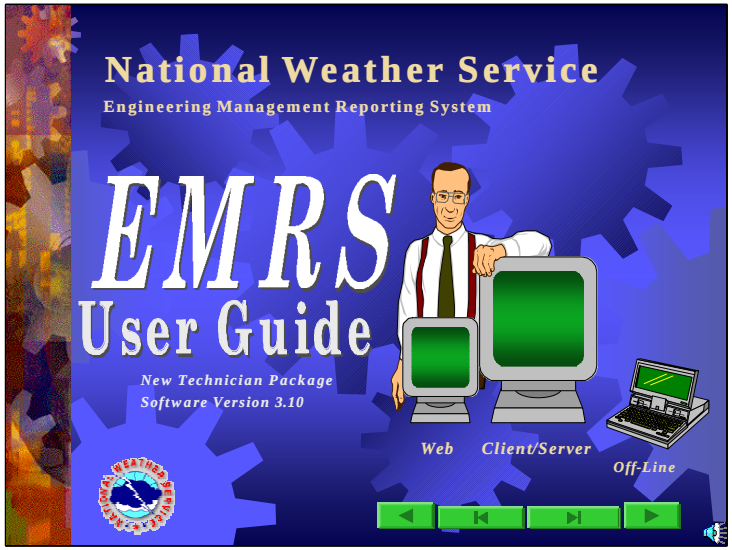
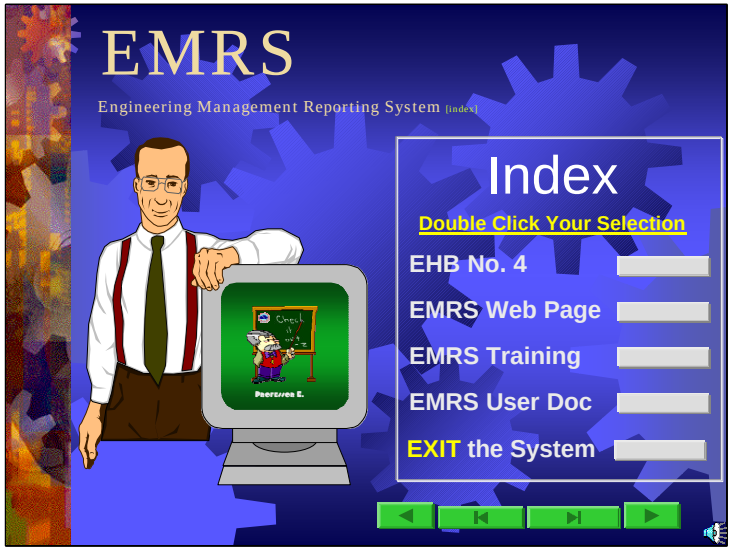


EMRS *Training Module*
Software Version 3.10

DRAFT - May 25, 2000

Welcome to the ***National Weather Service (NWS) Engineering Management Reporting System (EMRS) Training Module*** for the EMRS data entry software release version 3.10. This training module was developed by the EMRS group in conjunction with the NWS Field Requirements Team and the NWS Training Center (NWSTC). Copies of the training module, CD ROM and users manual can be obtained through the NWSTC.

The CD ROM can be run on any IBM or 100% compatible machine with a Pentium 266 MHZ processor or better and at least 64 MB of RAM. The software runs best with ***Microsoft Internet Explorer 5.0*** or higher. The machine should be fully multimedia capable to take advantage of the video and audio embedded in the training module. However, the module can be run on some low end machines.

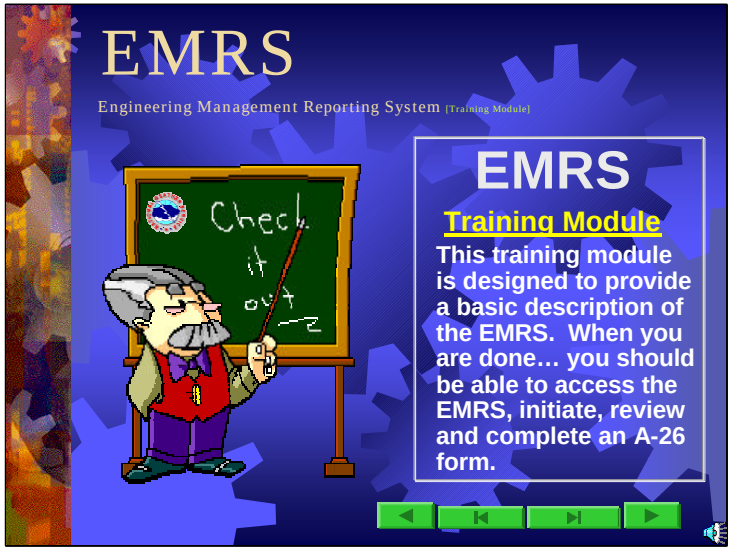


EMRS *Training Module*
Software Version 3.10

DRAFT - May 25, 2000

This ***Training Module*** can be run from your personal computer or laptop with or without a live internet connection. From your computer… you can access Engineering Handbook No. 4, the EMRS Web Page, the EMRS Training, and EMRS User documentation. When using a machine that does not have an internet connection you will not be able to access live web pages.

The training module will interact with you as you proceed through the training. Each screen has a GUI with navigation capability. You can point and click your choice, move from screen-to-screen or allow the training module to guide you through each session. Periodically you will reach a screen that requires your input. These screens are strategically placed to enhance the training experience. To begin… click the gray button to the left of your choice listed on this ***Index*** page.

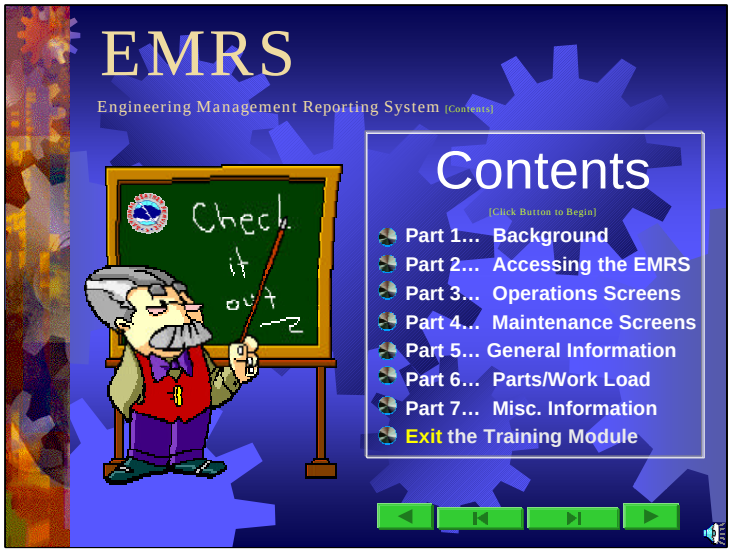


EMRS *Training Module*
Software Version 3.10

DRAFT - May 25, 2000

You should receive this training module as part of your initial orientation to the Weather Forecast Office (WFO). It is one of the many items you will receive designed to familiarize you with NWS operations and systems. Sometime later you will attend the ***Introduction to NWS Systems*** course. This is a 3 day resident training course offered by the NWSTC.

The Introduction to NWS Systems course will provide you with an overview of the NWS organizational structure including the NWS Headquarters, Regional Headquarters, and the WFO. The course will provide an introduction to the hardware and software architecture of NWS systems. It will also introduce you to the many acronyms and unique terminologies used by the NWS and other federal agencies.



EMRS *Training Module*
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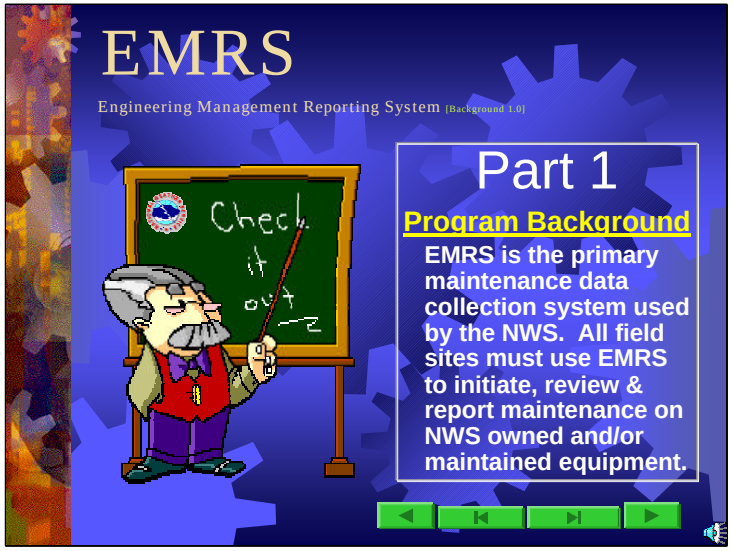
The ***Table of Contents*** allows you to go directly to the section of the module that you wish to review. If this is your first time using the EMRS training module you should start at the beginning with Part 1. If you are returning to the training after being away from your desk or tending to other important tasks... you can pick up where you ended during your previous session.

The gray buttons on the left side of the white box are hyperlinks to the indicated sections. If you are in manual mode you can simply point, click and begin your training session. To exit EMRS Training and return to the Index... click the gray button located on the left side of the words "Exit the Training Module". If you are running the training module in automatic mode the screen will advance to Part 1 now...

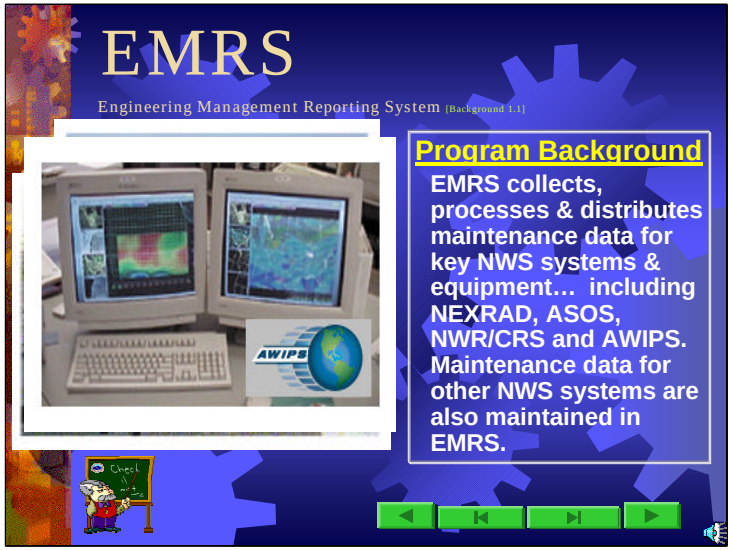


EMRS *Training Module*
Software Version 3.10

DRAFT - May 25, 2000

The ***Primary Mission of the NWS*** is to provide weather, hydrologic, and climate forecasts and warnings for the United States, its territories, adjacent waters and ocean areas, for the protection of life and property and the enhancement of the National economy. To facilitate this mission, the NWS tracks more than 35,000 pieces of equipment located at more than 3,000 sites via the EMRS.

The EMRS is the primary source of maintenance information utilized in assessing the operational reliability and maintainability of these equipment. All field sites are required to use the EMRS to document maintenance accomplished to NWS owned and or maintained weather surveillance systems or equipment. The maintenance performed by the NWS electronics staff is a key component to the operational readiness of the NWS.



EMRS *Training Module*
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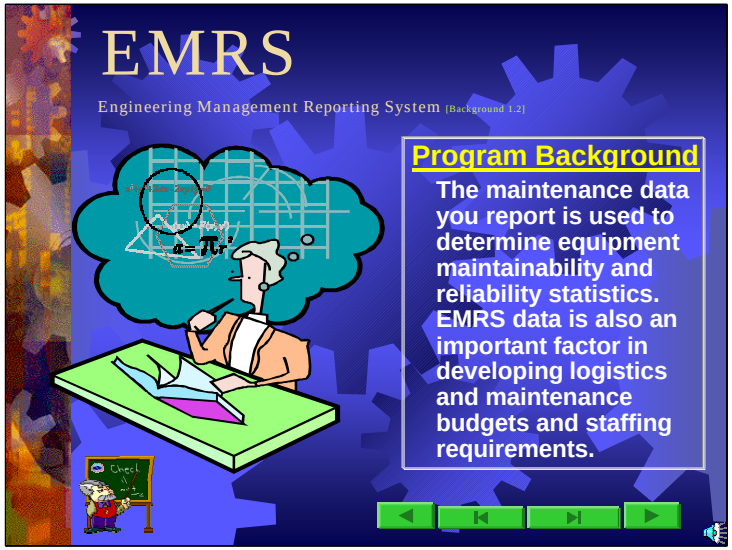
The **Primary Mission of the EMRS** is to collect and disseminate reliability and maintainability data for weather surveillance equipment and systems which the NWS electronics staff have maintenance and/or system administration responsibility. This equipment may not be owned by the NWS. Many systems maintained by the NWS are owned and/or operated by other Federal agencies or private cooperators.

The EMRS is a primary source for maintenance data for many "NWS Modernization" systems including NEXRAD, ASOS, NWR/CRS, and AWIPS. The EMRS will also be used to collect maintenance data for the new upper air systems. In addition to these new systems the EMRS is also the primary source of maintenance data for important legacy systems and equipment.



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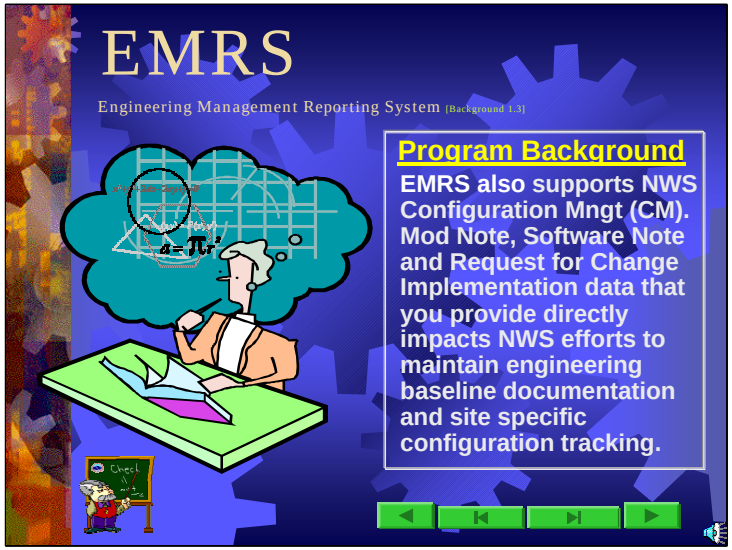
The ***Maintenance Data*** provided by the NWS electronics staff is a vital component of the operational readiness of the NWS. The data that you report is used to determine how operational NWS systems and equipment perform. EMRS data is used to determine Service Availability [A(s)] and is an important factor in developing logistics models and maintenance budgets. The data is also used to form the basis for electronics staff requirements.

EMRS data provides a statistical model for equipment reliability and maintainability from the NWS field electronics staff point of view. This information is typically combined with depot maintenance data and operational readiness requirements to provide a full spectrum of engineering management and performance measures.



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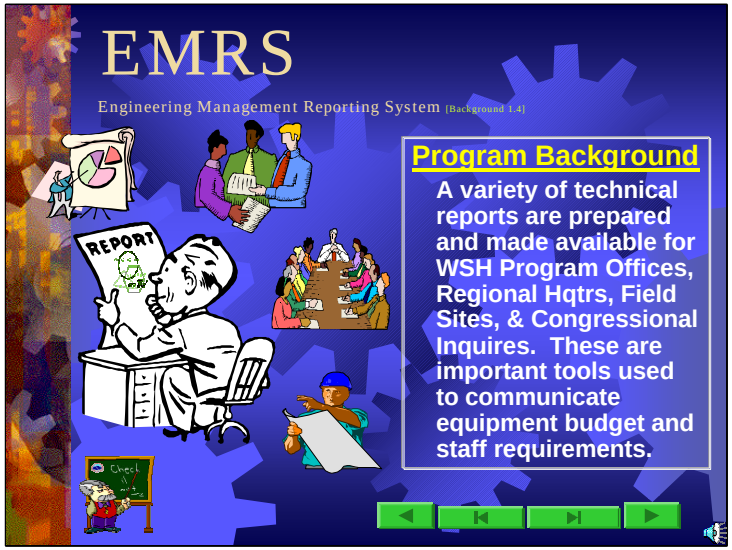
The NWS ***Configuration Management (CM) Branch*** directs product identification, configuration control, auditing, and status accounting for all systems that are under formal CM processes. The CM Branch reviews configuration changes, supports and performs baseline documentation validation, performs site-specific impact analysis of proposed changes, assures proper identification schemes are applied, and validates changes through audit processes.

CM data including maintenance and engineering baseline documentation, engineering and maintenance support information, and site specific configuration data is maintained by the CM Branch. The NWS programs currently under formal CM processes are ASOS, NEXRAD, AWIPS and CRS.



EMRS *Training Module*
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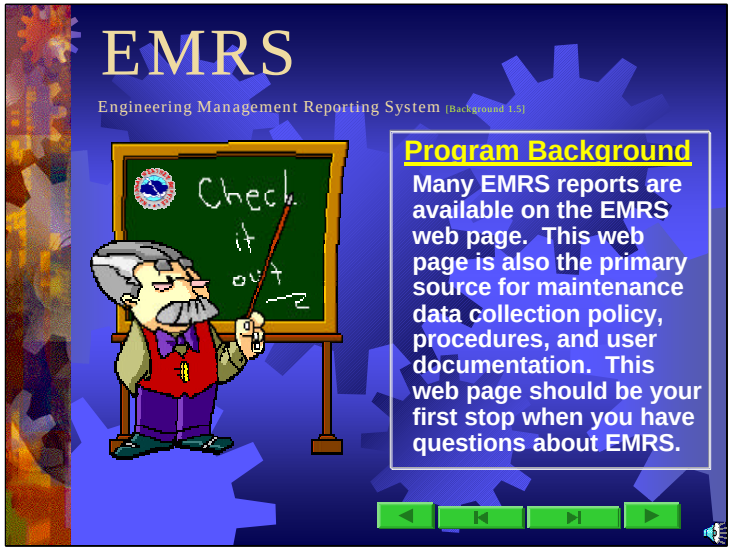
The ***EMRS Data*** is the basis for technical reports primarily used to characterize the performance of operational NWS weather surveillance systems and equipment. However, EMRS data has been requested for use in other management directed studies. It is important to note that many of the decisions made using EMRS data have current and future impacts on the NWS electronics maintenance program.

EMRS reports are prepared for Congressional inquires, NWS Headquarters Program Offices, Regional Headquarters and Field Sites. These reports are important tools used to communicate equipment performance and budget projections. The data is also a key component of NWS electronics maintenance workload analysis.



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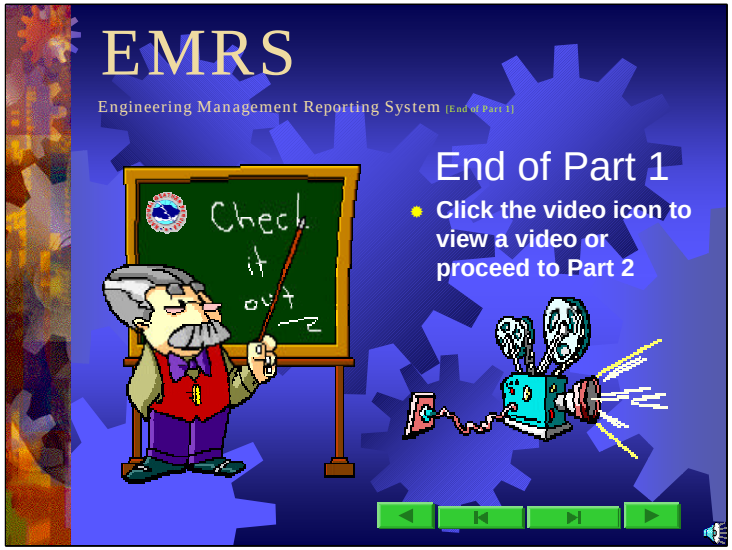
The ***EMRS Web Page*** is used to disseminate reliability and maintainability data to the EMRS user community. This web page is also a source for "up-to-date" maintenance data collection policy, procedures, and documentation. All EMRS user documentation and bulletins are also posted to the web page. This page does not replace the current process which distributes all official NWS policy statements and maintenance data reporting guidance as "hard copy" documentation. The field electronics staff will continue to receive these documents through that process.

The EMRS web page should be your first stop when you have questions. The page is logically structured and updated on a daily basis. There are also options for you to subscribe to the EMRS news service, participate in discussions, view documentation, follow the progress of special projects and generate reports.



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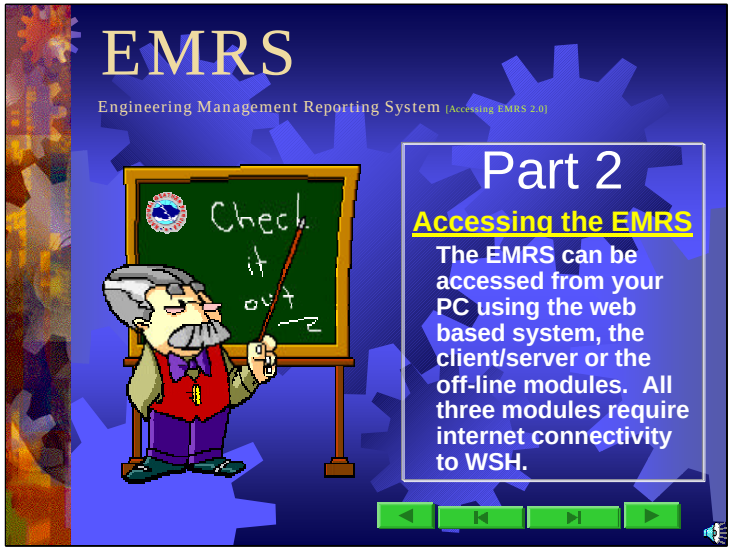
This is the end of Part 1. There is a short video which will provide a review of the items which were just discussed. You can watch the video or use the navigation buttons to continue. To watch the video… you should "Click" on the projector icon with your mouse. Depending on your computer system settings you may get a message warning you about viruses and asking if you want to proceed. To proceed you must "Click" the "OK" button. You may also be asked to save the video program to disk. Do not save this program to disk. Run the program from its current location. You will then be asked if you want to install and run the video. Click yes to run the video.

When the video is done ***you must close*** the Lotus ScreenCam control window before you continue. You "Click" the "X" button in the upper right hand corner of the control panel to close the window. After closing this window use the navigation buttons to proceed to Part 2.



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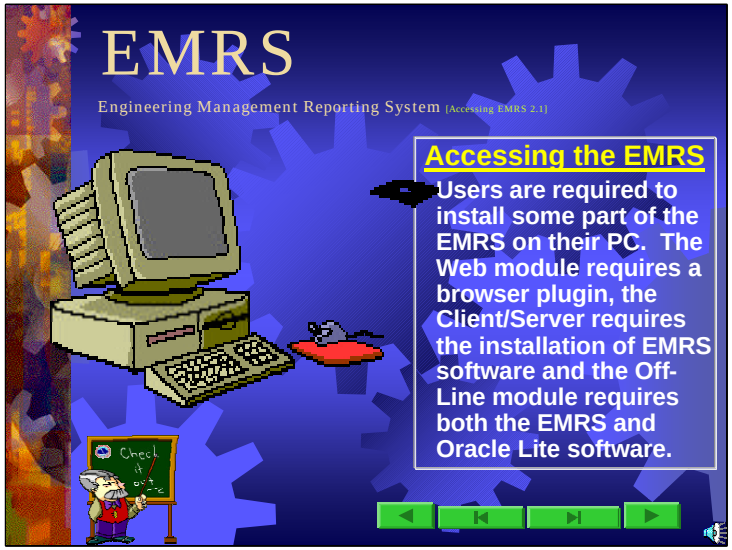
The ***EMRS Data Entry System*** is an ORACLE based application that may be used via the World Wide Web, as a Client Server application, or in an Off-Line mode. All three modules have an identical graphical user interface. Each module requires internet connectivity to transmit and receive data from the central database located at the WSH in Silver Spring MD. However, the Off-Line module maintains a local database and only connects to the central database when requested by the user.

Internet connectivity is a vital part of the EMRS. Each user must determine which EMRS module works best for his/her site. The Web based module requires good internet connectivity to function properly. The Off-Line module was developed for sites with bad internet connectivity. The Client Server module will function across the entire spectrum but optimum performance is reached when a site has good internet connectivity.



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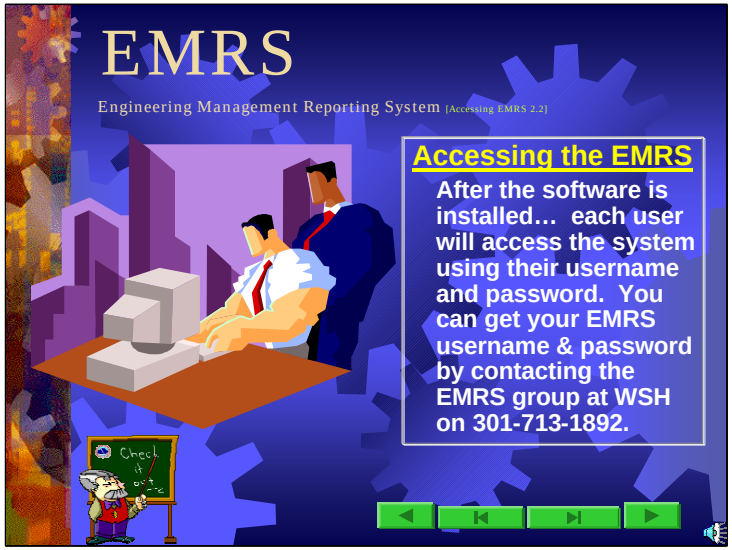
The ***Web Based Module*** requires that you have a browser (Internet Explorer 4.0 or higher or Netscape 4.0 or higher). In addition to a web browser you will need the ORACLE JInitiator plugin for the particular browser you are using. The ***Client Server Application*** requires the user to install the EMRS data entry software on their computer. The ***Off-Line Module*** requires both the EMRS software and the ORACLE Lite application (Version 3.50).

You can get all EMRS software by contacting the EMRS group at WSH. The ORACLE Lite software must be purchased by you. The EMRS group can provide you with purchase information for ORACLE Lite. The EMRS group will also be available for technical assistance during installation and/or use of all the EMRS applications. You can contact the EMRS Group on 301-713-1892.



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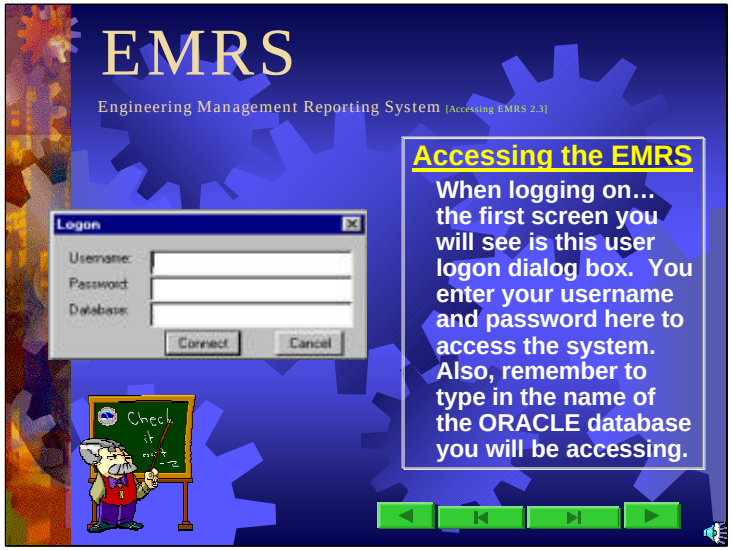
The ***EMRS*** is accessed using your Regional Username, Password, and Database identification code. Each Region is given a unique Username and Password. You can get a Username and Password by contacting the EMRS Group at WSH.

You can access the EMRS from any computer that has the EMRS software installed. However, all three EMRS data entry modules require a live internet connection to transfer data to and from the central database at WSH. The EMRS Off-Line module does allow access for data entry without a live internet connection. However, a live connection will be required when you begin the data transfer process. The Off-Line module maintains a local EMRS database. Consequently, users of the Off-Line module will be responsible for database maintenance and back_up activities.



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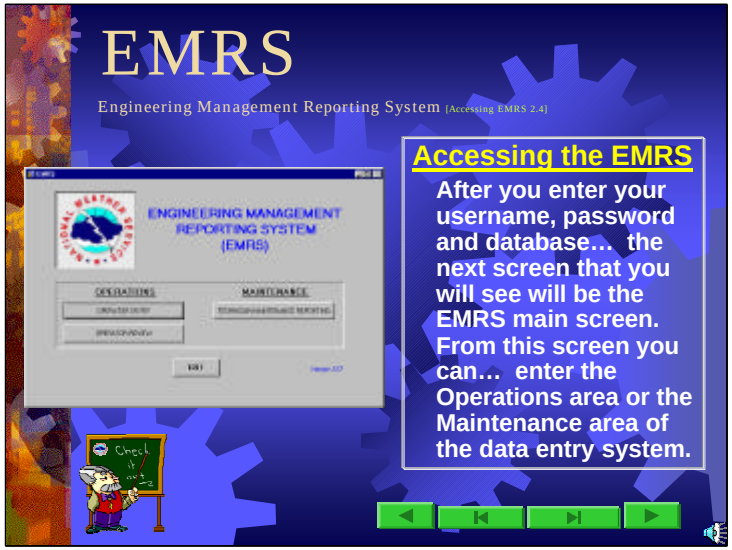
The ***Username, Password and Database*** must be typed into the logon dialog box. You should see this dialog box immediately after starting the EMRS application. To start the EMRS data entry system on your computer you should:

1. Click the ***Start*** button
2. From the start menu select ***Programs***
3. From the programs menu select the ***EMRS*** program group
4. From the EMRS program group click the ***EMRS Client Server 3.10*** icon



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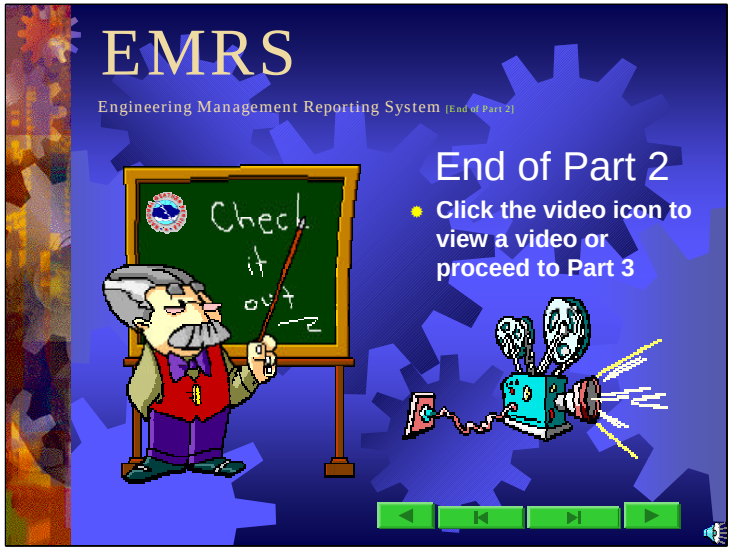
Congratulations… You have successfully accessed the Engineering Management Reporting System. You will use the EMRS to initiate maintenance events and monitor the progress of maintenance activity from beginning to end. You will also use the EMRS to document maintenance accomplished to equipment for which you have maintenance and/or system administration responsibility.

The EMRS main screen has options to select operator entry, operator review, or technician maintenance reporting. The next five sections of this training module will describe these options in detail. You will learn how maintenance activities are initiated, monitored and documented via the EMRS.



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This is the end of Part 2. There is a short video which will provide a review of the items which were just discussed. You can watch the video or use the navigation buttons to continue. To watch the video… you should "Click" on the projector with your mouse. Depending on your computer system settings you may get a message warning you about viruses and asking if you want to proceed. To proceed you must "Click" the "OK" button. You may also be asked to save the video program to disk. Do not save this program to disk. Run the program from its current location. You will now be asked if you want to install and run the video. Click yes to run the video.

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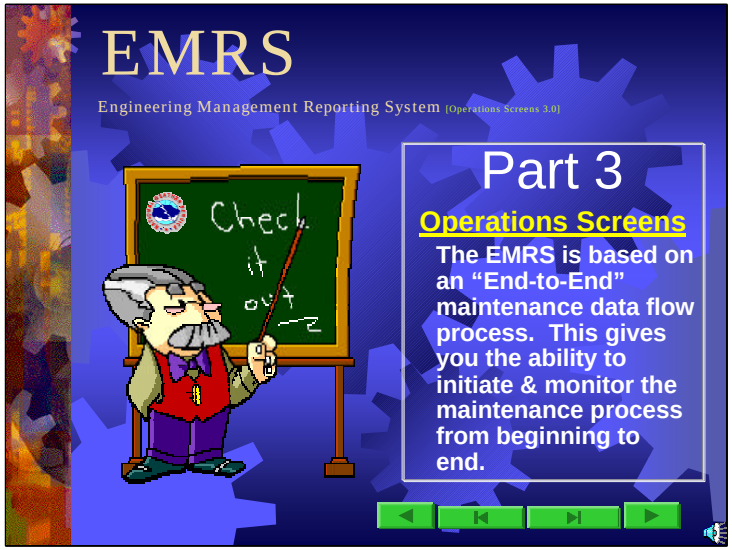

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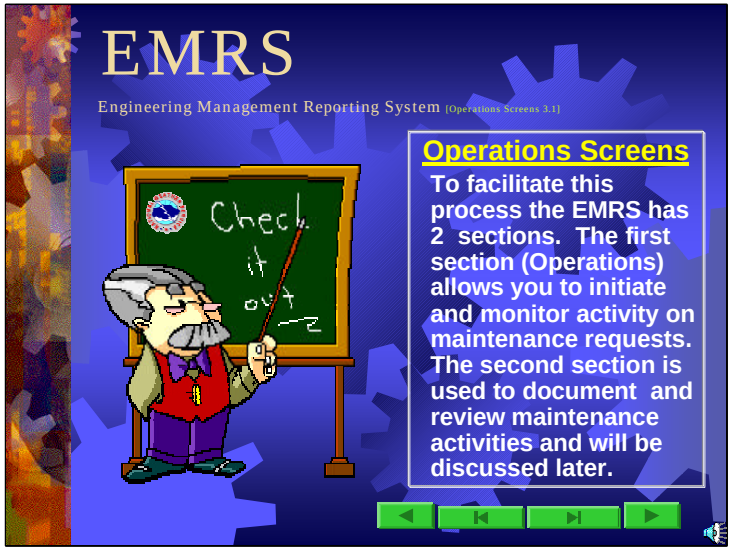
The ***End-to-End Maintenance Data Flow Process*** allows the entire WFO staff to participate in the process of ensuring the operational readiness of the WFO. The equipment operators can initiate A-26 records for failures and problems that occur... The electronics staff and/or system administrators can acknowledge the failure/problem report by accessing the A-26... After the failure/problem is resolved the electronics staff and/or system administrator can document the resolution.

The EMRS provides a color coded status graphic for the maintenance event at each stage in the process (Beginning, In Process, & End). Newly submitted items appear in red, acknowledged/on hold items appear in yellow, and completed items appear in green. WSH, Regional Hqtrs, or WFO staff can use EMRS to monitor the progress of any maintenance event.



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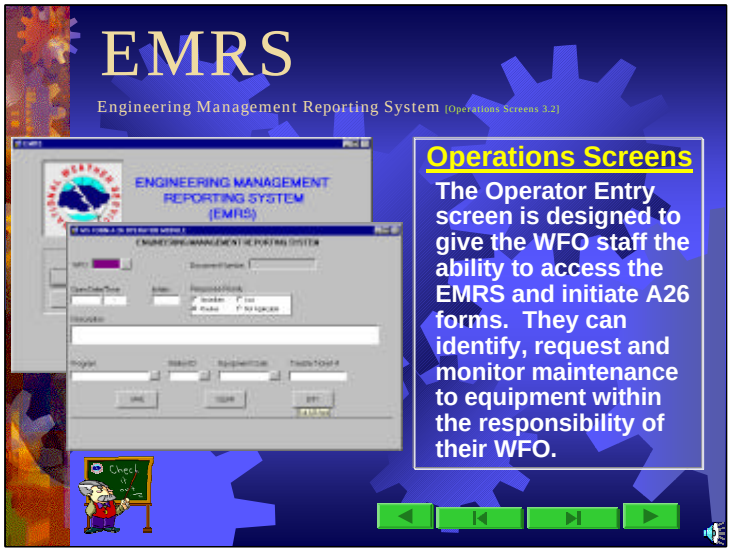
The **Operations Section** of the EMRS was developed to capture the data required to initiate a maintenance request and to provide a tool to monitor the progress of maintenance activity on the event. The WFO staff typically initiates the maintenance event. However, the EMRS has the flexibility to allow maintenance events to be initiated by the Regional Hqtrs or the WSH. Maintenance activity can then be monitored by the person responsible for initiating the event.

The ***Maintenance Section*** of the EMRS is typically used by the person responsible for completing the maintenance activity. You can document the maintenance you accomplish and if you are not finished… you can place the A-26 document on hold to be completed at a later time. The Maintenance section will be discussed in detail later parts 4-7 of this training module.



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The **Operations Section** of the EMRS has options for Operator Entry and Operator Review. The Operator Entry screen is used to initiate a maintenance request. Maintenance requests are documented and saved using this screen. The Operator Review screen is used to review the progress of a maintenance request. You can query and view the status of a previously submitted maintenance request.

Maintenance can be requested by the WFO staff, the Regional Hqtrs, or the WSH. The Operator Review screen can provide a ***"Snap Shot"*** of all current maintenance activities at the WFO. The WFO Staff, Regional Hqtrs and WSH can have up-to-date status on maintenance requests using the EMRS end-to-end maintenance data flow process.

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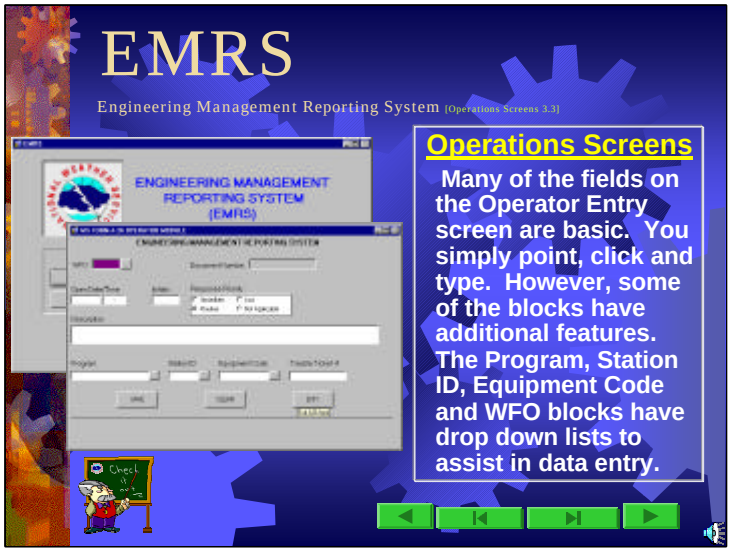

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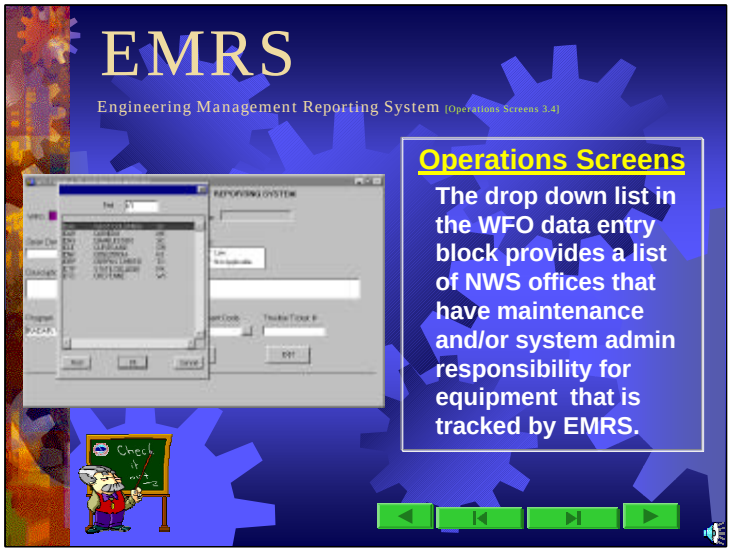
The ***Operator Entry Screen*** functions much the same as most Windows based applications. You simply select or type the requested information into the form using the keyboard and/or mouse. The first field on the screen is the WFO data entry field. You must type in or select your WFO before you can move to any of the other fields on this screen.

The drop down lists for WFO, Program, Station ID, and Equipment Code are designed to facilitate data entry. Valid selections for these fields can be viewed by clicking on the drop down list activation button. This button is located to the right of the data entry block. You can also activate the list by using the F9 function key.



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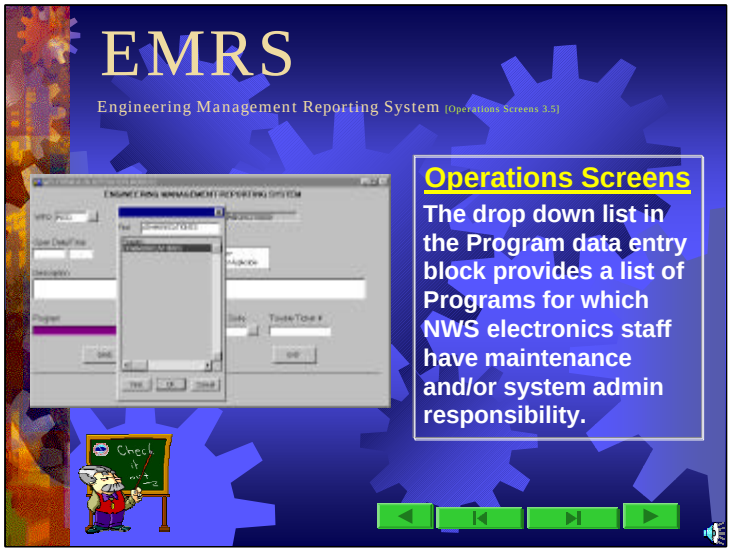
The ***WFO Drop Down List*** displays information that is maintained in the EMRS equipment population data base and in the National Weather Service Location Identifier (NWSLI) system. It is important that each site reviews and verifies that they are properly identified in this list. If your site is not listed you should contact the EMRS Group.

The drop down list has an incremental search capability. You can activate this utility by typing the first character in the 3-5 character site identifier. As you begin typing the list will be incrementally narrowed based on the characters you type. You can select your choice at any time or complete the entry of the Site ID and press enter.



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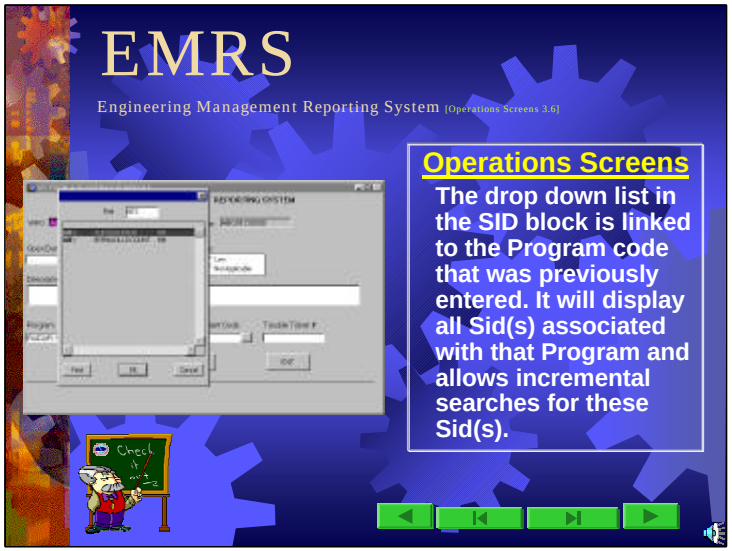
The ***Program Drop Down List*** displays codes for each of the major NWS Program areas. There is also a miscellaneous program code (MISC) which is used to cover items such as Personal Computers, FAX Machines, Telephones, Vehicles and other equipment not specifically related to a major program.

The drop down list has an incremental search capability. You can activate this utility by typing the first character in the Program code. As you begin typing the list will be incrementally narrowed based on the characters you type. You can select your choice at any time or complete the entry of the Program code and press enter.



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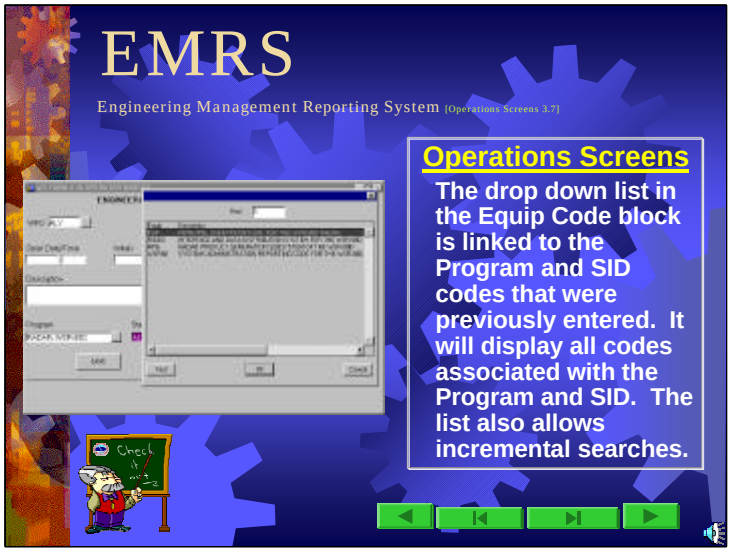
The ***Site ID Drop Down List*** has a special relationship to the WFO and Program which were previously entered. The EMRS will display only valid Site ID selections. To be a valid selection option the Site ID must have equipment for the Program which you entered... and must have equipment listed under the maintenance responsibility of your WFO.

The drop down list has an incremental search capability. You can activate this utility by typing the first character in the 3-5 character site identifier. As you begin typing the list will be incrementally narrowed based on the characters you type. You can select your choice at any time or complete the entry of the Site ID and press enter.



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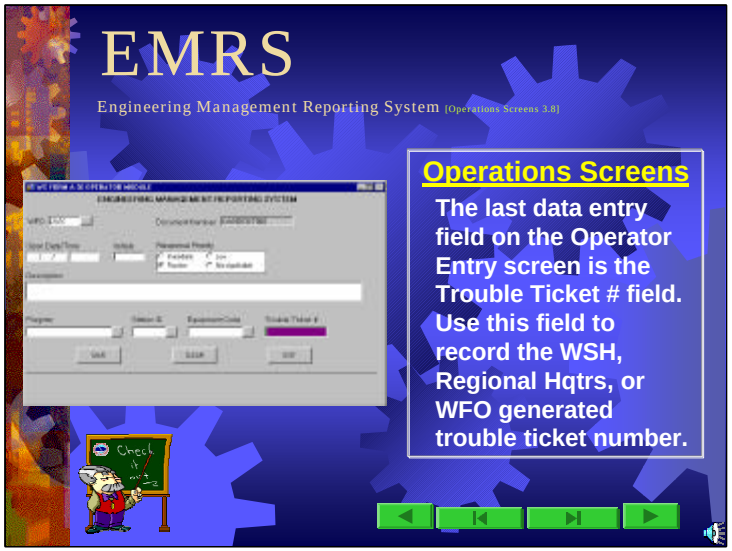
The ***Equipment Code Drop Down List*** has a special relationship to the WFO, Program and Site ID which were previously entered. The EMRS will display only valid Equipment code selections. To be a valid selection option the Equipment code must be located at the Site ID... must be listed for the Program which you entered... and must be listed under the maintenance responsibility of your WFO.

The drop down list has an incremental search capability. You can activate this utility by typing the first character in the Equipment code. As you begin typing the list will be incrementally narrowed based on the characters you type. You can select your choice at any time or complete the entry of the Equipment code and press enter.



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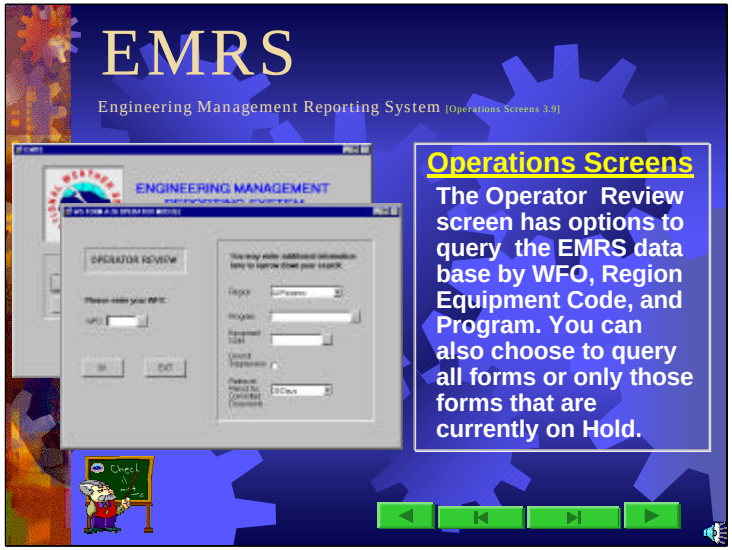
All ***Maintenance*** to Weather Service owned and/or maintained equipment is documented via the EMRS. Many times maintenance may be initiated by a process outside of the EMRS. EMRS reporting must be completed for these maintenance events regardless of how the events are initiated.

The AOMC is responsible for monitoring the ASOS and initiating maintenance on ASOS equipment. When maintenance is required the AOMC will contact the WFO staff. The AOMC Trouble Ticket Number is used to track the maintenance event. The AOMC Trouble Ticket Number should be typed into the Trouble Ticket # field on the Operator entry screen when the WFO staff initiates the A-26 form.



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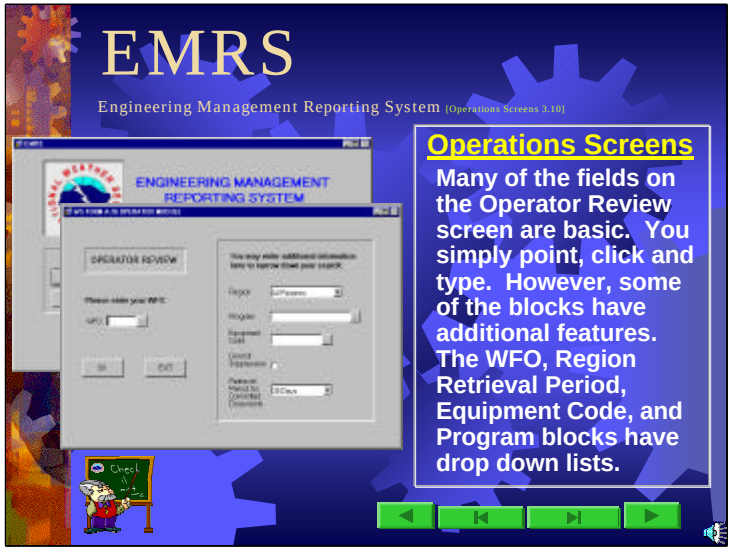
After maintenance is requested by the WFO staff, the Regional Hqtrs, or the WSH the ***Operator Review Screen*** can be used to monitor maintenance activity. This screen allows you to query the EMRS by selecting query criteria displayed on the screen. The WSH can query for items related to a particular Program, the Regions can perform Region specific queries and the WFO staff can query items related to their WFO.

The Operator Review screen utility facilitates the end-to-end maintenance data flow process by providing status on maintenance activity. All EMRS users have access to the Operator Review screen. Each maintenance event is listed in a color coded graphic which quickly allows the status of the event to be determined and monitored.



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The ***Operator Review Screen*** functions much the same as most Windows based applications. You simply select or type the requested information into the form using the keyboard and/or mouse. However, you must have a WFO or Region selected before you can perform a query.

The drop down lists for WFO, Region, Program, and Equipment Code are designed to help customize your query. Valid selections for these fields can be viewed by clicking on the drop down list activation button. This button is located to the right of the data entry block. You can also activate the list by using the F9 function key.

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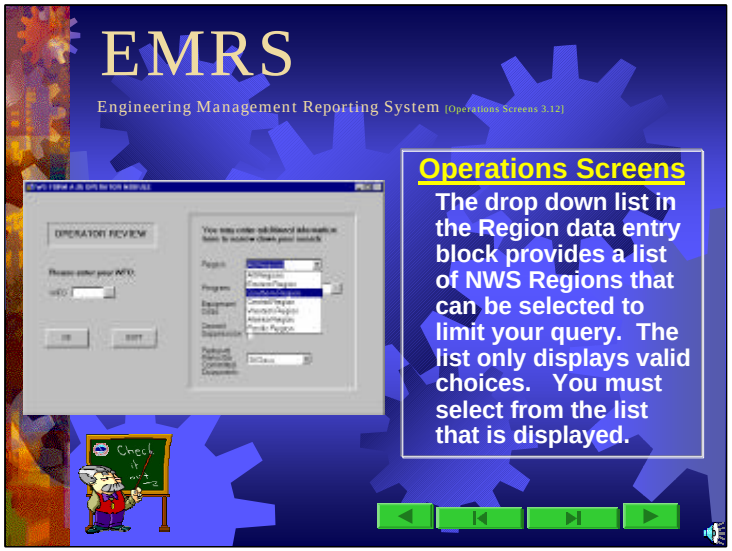
The ***WFO Drop Down List*** displays a list of all the sites that currently have maintenance and/or system administration for equipment tracked by EMRS. This information is maintained in the EMRS equipment population data base and the NWSLI. It is important that each site reviews and verifies that they are properly identified in this list. If your site is not listed you should contact the EMRS Group.

The drop down list has an incremental search capability. You can activate this utility by typing the first character in the 3-5 character site identifier. As you begin typing the list will be incrementally narrowed based on the characters you type. You can select your choice at any time or complete the entry of the Site ID and press enter.



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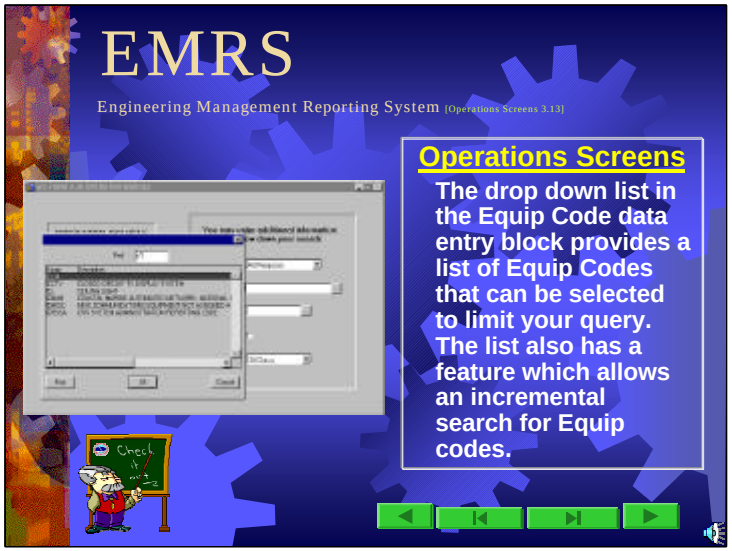
If you choose to use the ***Region*** or any of the other ***additional information*** in your query… you must ensure that your selections are consistent. If your selection of query criteria is inconsistent… your query will return a “no records found” message. An inconsistency can occur when the WFO you select is not located in your Region selection.

The Region drop down list displays a list of valid NWS Regions. This is a basic pull down list utility. This list displays the 6 NWS Regions and does not have an incremental search utility. You must select one of the Regions listed if you wish to use Region in your query.



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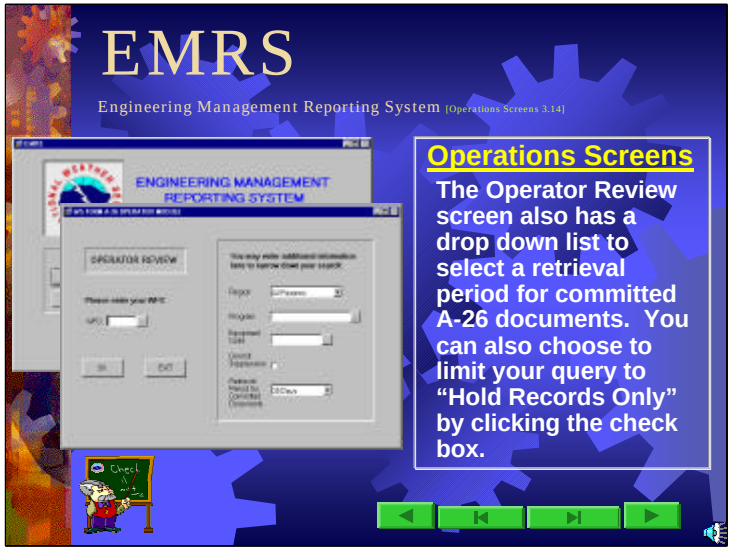
The ***Equipment Code Drop Down List*** displays a list of all valid Equipment Codes currently tracked by EMRS. This information is maintained in the EMRS equipment list data base. If you perform maintenance to an equipment which does not have a specific Equipment Code or is not covered by a Miscellaneous Equipment Group Code … you should contact the EMRS Group for guidance on maintenance reporting.

The drop down list has an incremental search capability. You can activate this utility by typing the first character in the Equipment Code. As you begin typing the list will be incrementally narrowed based on the characters you type. You can select your choice at any time or complete the entry of the Equipment Code and press enter.



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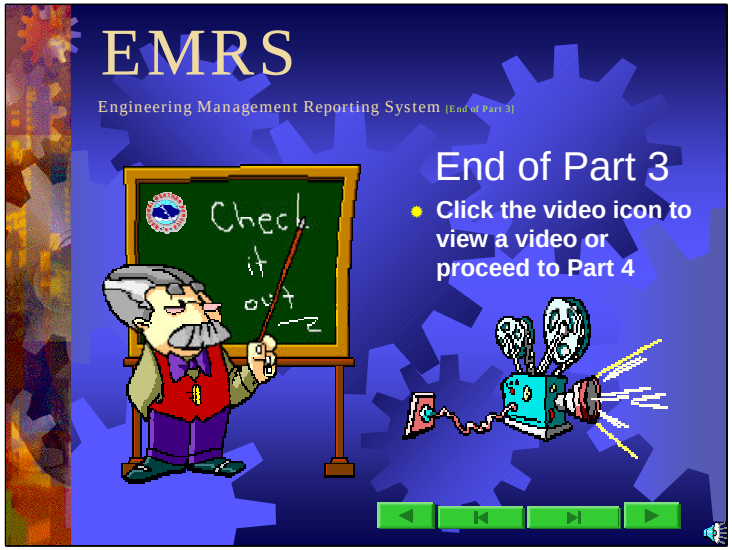
The ***Operator Review Screen*** default retrieval period is 30 days. The Operator Review screen will retrieve all hold records and all records committed within the last 30 days. You can customize your query by selecting *additional information* in your query or choosing another retrieval period for committed records.

The drop down list for retrieval period displays a list of valid retrieval periods. This is a basic drop down list utility. The list currently displays one period and does not have an incremental search utility. You must select the 30 day period if you wish to use Retrieval Period in your query. However, other options will be added in future software releases.



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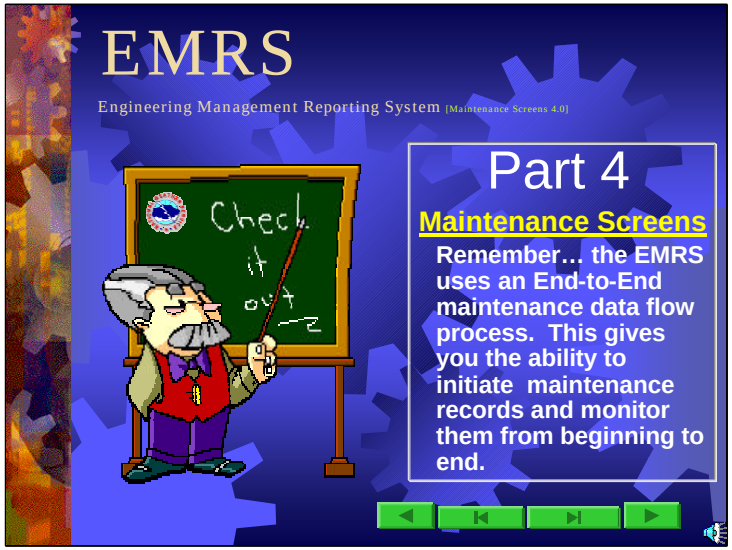
This is the end of Part 3. There is a short video which will provide a review of the items which were just discussed. You can watch the video or use the navigation buttons to continue. To watch the video… you should "Click" on the projector with your mouse. Depending on your computer system settings you may get a message warning you about viruses and asking if you want to proceed. To proceed you must "Click" the "OK" button. You may also be asked to save the video program to disk. Do not save this program to disk. Run the program from its current location. You will now be asked if you want to install and run the video. Click yes to run the video.

When the video is done ***you must close*** the Lotus ScreenCam control window before you continue. You "Click" the "X" button in the upper right hand corner of the control panel to close the window. After closing this window use the navigation buttons to proceed to Part 4.



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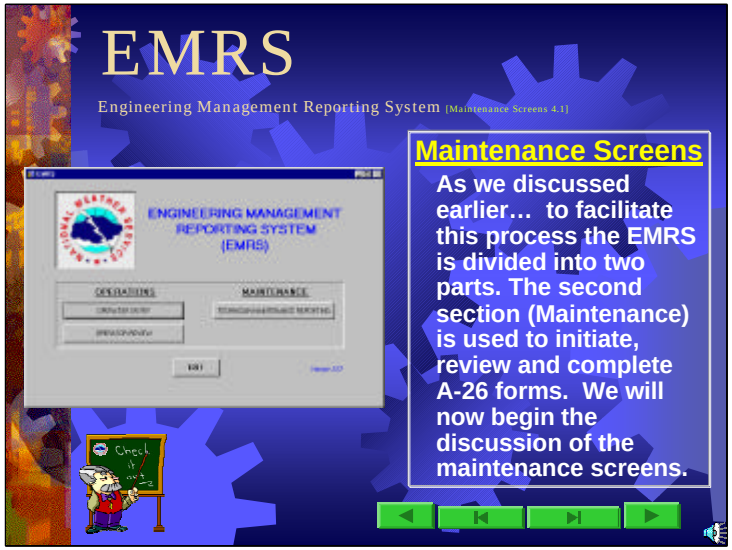
The ***End-to-End Maintenance Data Flow*** process allows operators to initiate A-26 records for failures and problems that occur… electronics staff and/or system administrator to acknowledge failure/problem reports… and after the failure/problem is resolved the electronics staff and/or system administrator can document the resolution.

The EMRS can provide a “snap shot” of the current maintenance activities at the WFO. This is particularly important when the completion of particular activities (special test, engineering modifications, etc.) have very high priorities. The WSH, Regional Hqtrs, or WFO staff can use the EMRS to monitor the progress of these high priority events.



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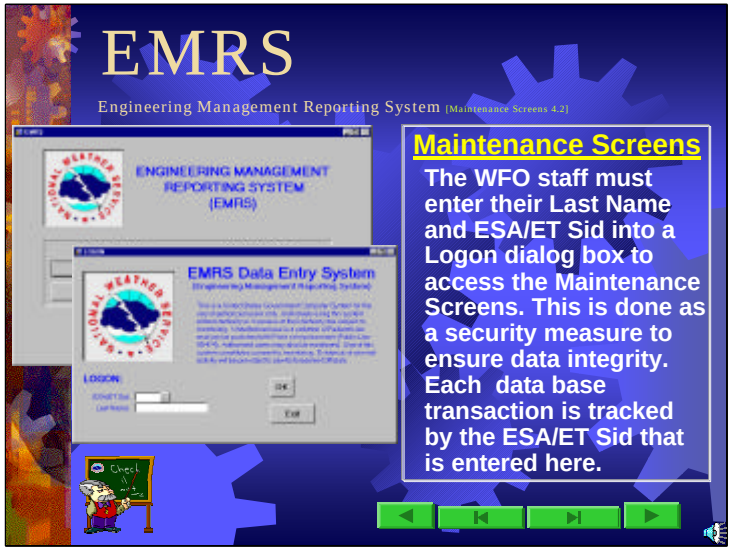
The ***Maintenance Screens*** are used to initiate maintenance events, acknowledge maintenance requests and to document the resolution of failures or problems. The WFO staff can access this part of the EMRS to report Corrective Maintenance or Preventive Maintenance… to document the implementation of Engineering Modification (Software & Hardware)… to report Equipment Management activities (Activation, Deactivations, Sys Admin, etc.) and to ensure proper accounting of electronics equipment workload.

Both the Electronics Staff and the Operations Staff should document maintenance and/or system administration activities that they accomplish on operational equipment and systems under the maintenance responsibility of the WFO. The end-to-end process assumes full participation by the entire WFO staff.



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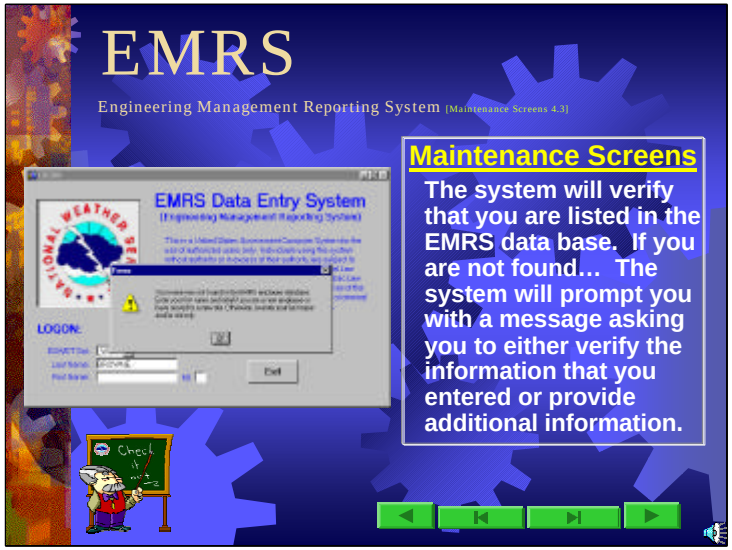
The ***Electronics Staff*** should use their last name and ESA/ET Sid to access the EMRS maintenance data entry screens. The electronics staff information is maintained in an EMRS data base and is used to verify staffing levels for the electronics staff at the WFO. It is important that you verify you are properly identified in this list. If you are not listed you should contact the EMRS Group.

The ***Operations Staff*** should use the last name “Operations” and their ESA/ET Sid to log on to the EMRS maintenance data entry screens. There is currently no requirement to maintain an operations staff data base in EMRS. Consequently, the Operations Staff can all use this generic nomenclature to log onto the EMRS.



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There may be a number of reasons why your name was not found in the EMRS data base…

a) you are a new staff member

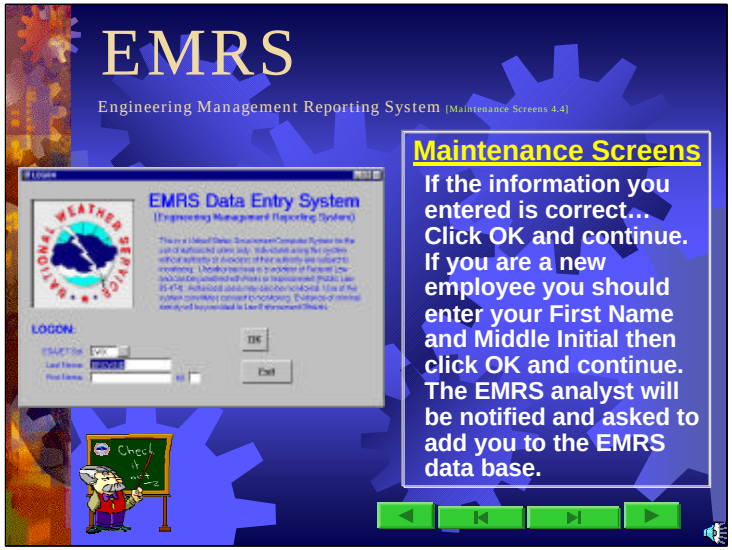
b) you are a temporary staff member

c) you entered the wrong ESA/ET Sid

d) you last name was entered incorrectly

e) the EMRS data base is incorrect

If you are not found the EMRS will notify you with a warning message. This is just a warning. You will still be allowed to access the system. However, you will be asked to provide additional information.



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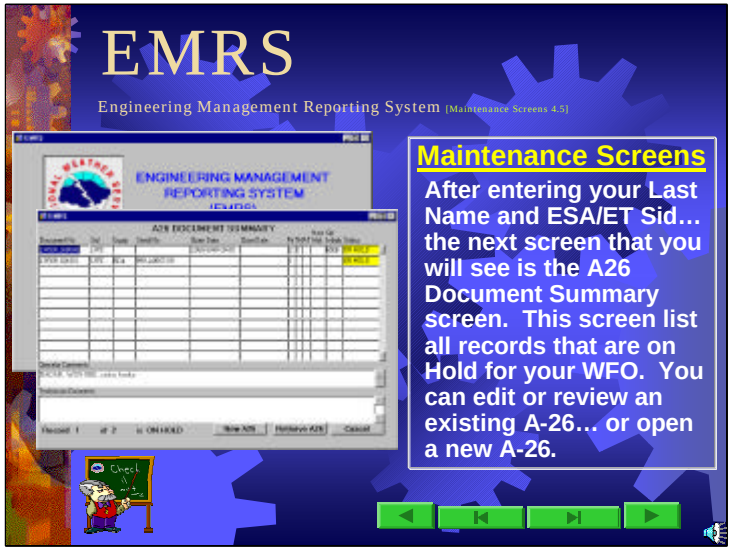
Before proceeding you should check the ESA/ET Sid and verify the spelling of your last name. If these items are correct and you are…

a) a new staff member, or

b) a temporary staff member

…please enter the additional information requested by the system. This will allow the EMRS analyst to properly update the EMRS data base. If you entered the correct information and the system does not find you… You should contact the EMRS group.



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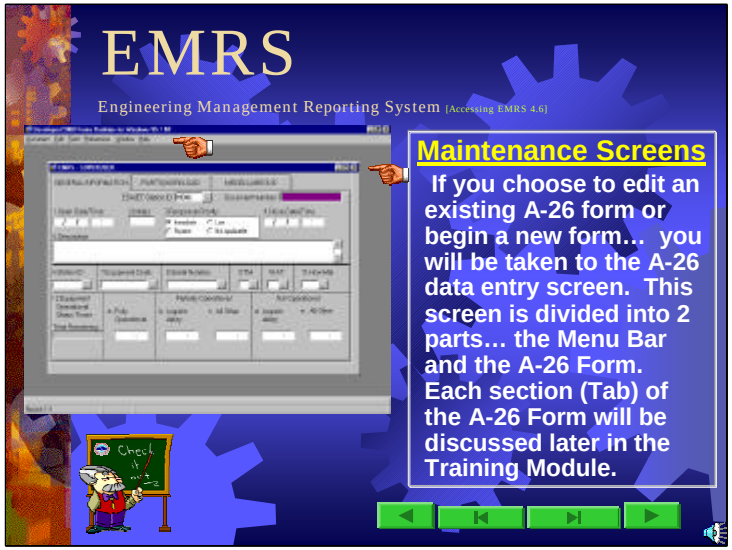
The ***A-26 Document Summary Screen*** allows you to quickly see all the A26 forms that are currently on hold for the ESA/ET Sid that you entered when you logged on. This screen is designed to provide you with summary information about individual A-26 forms. The screen displays 14 of the 18 data entry fields that are on the A-26 Form in a quick review format.

The summary screen can be used to… select a document to acknowledge a maintenance request… select the A-26 to complete the document… select the document to add additional information… or select the document to remove/delete it from the database. This screen will appear each time you access the Maintenance Screens.



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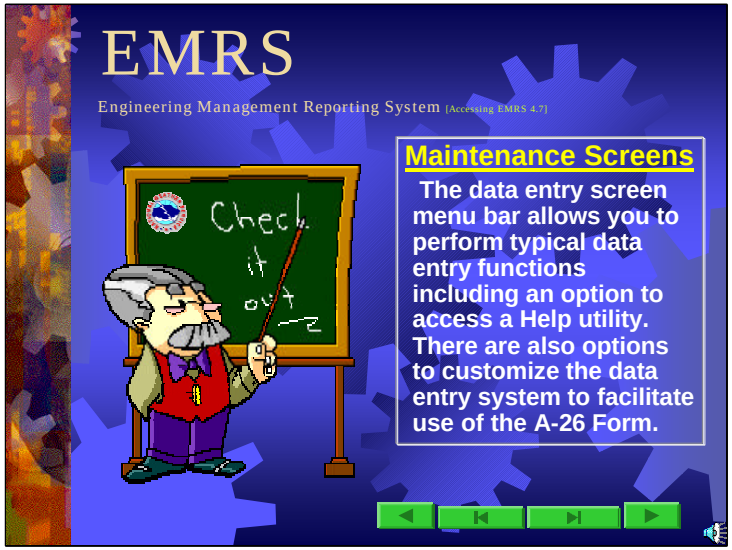
The two parts of the ***A-26 Data Entry Screen*** function much the same as most Windows based applications. The menu bar allows you to access drop down menu lists to perform typical data entry operations. The A-26 form was designed to facilitate maintenance documentation. You simply select or type the requested information into the form using the keyboard and/or mouse.

Many of the features that will be discussed in the next few pages are currently available in EMRS Software Version 3.10. However, some of the features that will be discussed are future enhancements. Any functionality not currently available will not appear as an active item on the menu selection list.



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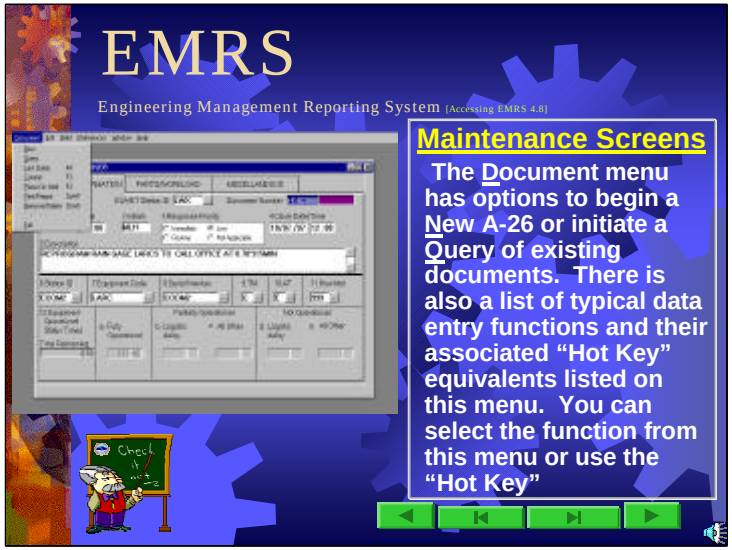
The ***Menu Bar*** functions much the same as most Windows based applications. You simply point, click and select the menu item you wish to access. If you prefer to use your keyboard to choose menu items... press the ***Alt*** key to activate the menu bar. Use the ***Left*** and ***Right*** arrow keys to highlight the menu item you want... then use the ***Up*** and ***Down*** arrow keys to select the command you want. Press the ***Enter*** key to activate the highlighted command.

You could, alternatively, press ***Alt***+ the underlined letter on the Menu Bar to activate a menu; press ***Alt+D*** for example to open the ***Document*** menu and then press the underlined letter in the command you want to activate.



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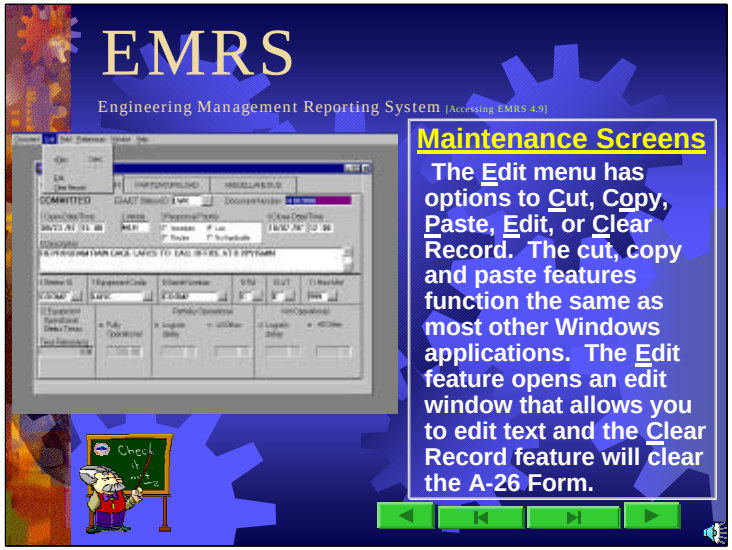
The **Document Menu** functions much the same as most Windows based applications. You simply point, click and select the menu item you wish to access. This menu has "hot key" functionality in addition the typical shortcut key utility. Both the hot keys and the shortcut keys can be used at any time.

New	- Opens a new A-26
Query	- Opens the Query Screen
Last Query	- Performs the last query and displays a summary screen
Commit	- Saves a completed A-26
Place On Hold	- Place an A-26 on hold to complete at a later time
Print/Report	- Print an A-26 summary report
Remove/Delete	- Delete an A-26



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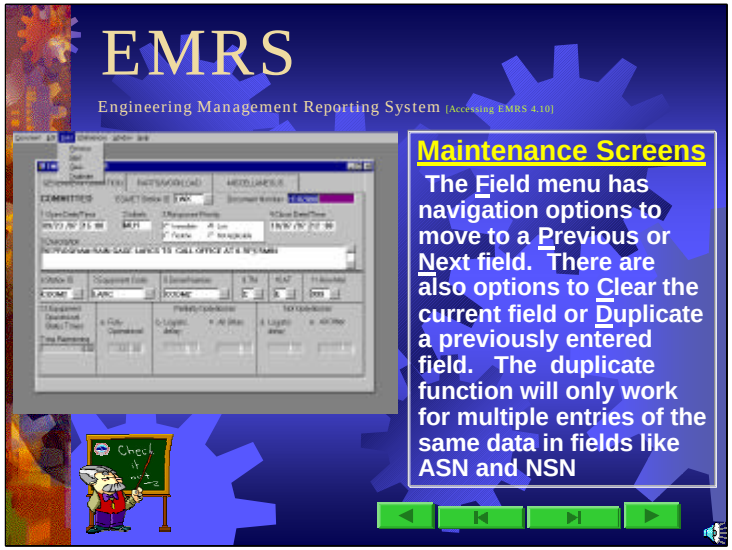
The ***Edit Menu*** functions much the same as most Windows based applications. You simply point, click and select the menu item you wish to access. This menu has typical shortcut key utility. The shortcut key can be used at any time.

Cut	- Removes selected text and copies to clipboard
cOpy	- Copies selected text to clipboard
Paste	- Pastes text from clipboard
Edit	- Opens text editor window
Clear Record	- Clears A-26 from screen



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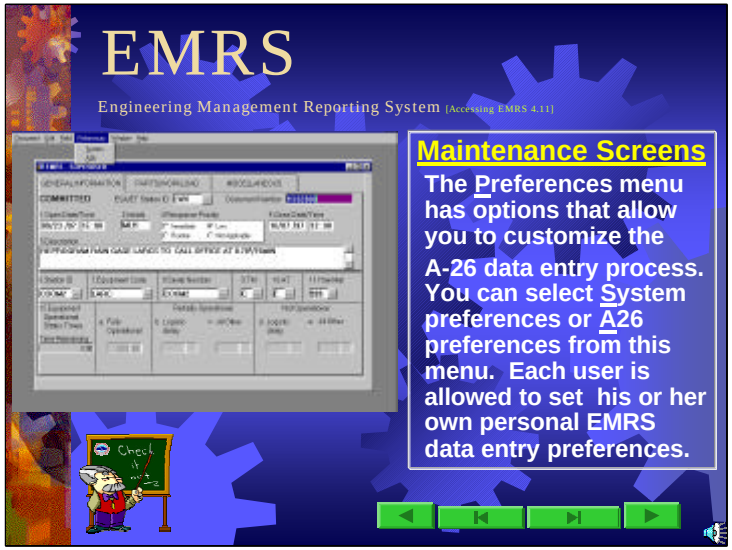
The ***Field Menu*** functions much the same as most Windows based applications. You simply point, click and select the menu item you wish to access.

Previous	- Moves the cursor to previous field
Next	- Moves cursor to next field
Clear	- Clears current field
Duplicate	- duplicates previous entry



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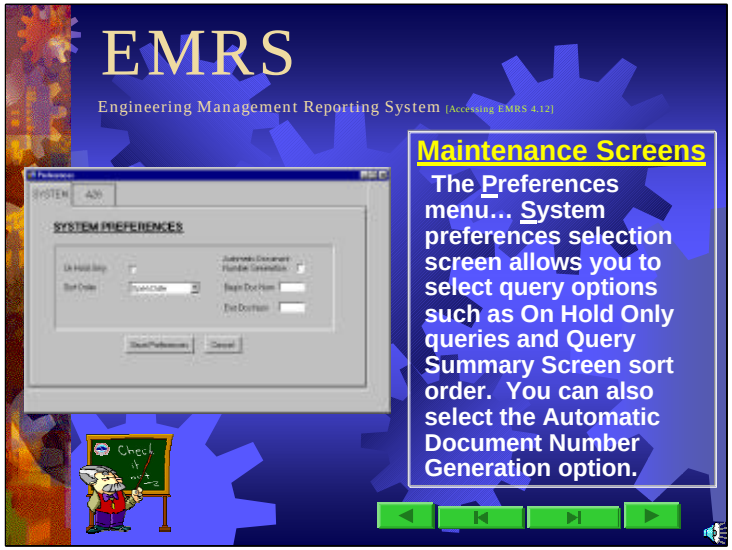
The ***Preferences Menu*** functions much the same as most Windows based applications. You simply point, click and select the menu item you wish to access.

System	- Opens the System Preferences selection screen
A26	- Opens the A-26 Preferences selection screen



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The ***System Preferences*** selection screen functions much the same as most Windows based applications. You simply select or type the requested information into the form using the keyboard and/or mouse.

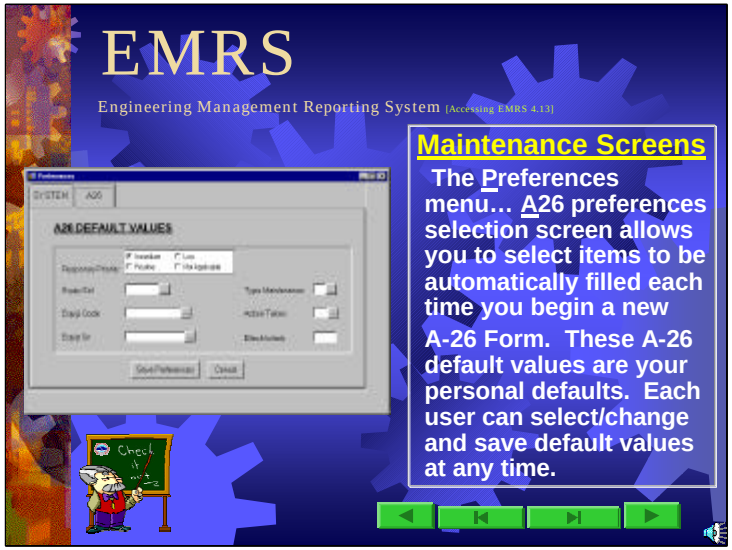
On Hold Only - When checked query operations will default to on hold records only

Sort Order - Select default sort order for query operations

Automatic Document Number Generation - When checked document numbers are automatically generated

Begin Doc Num - Sets the beginning sequence number for automatically generated document numbers

End Doc Num - Sets the ending sequence number for automatically generated document numbers



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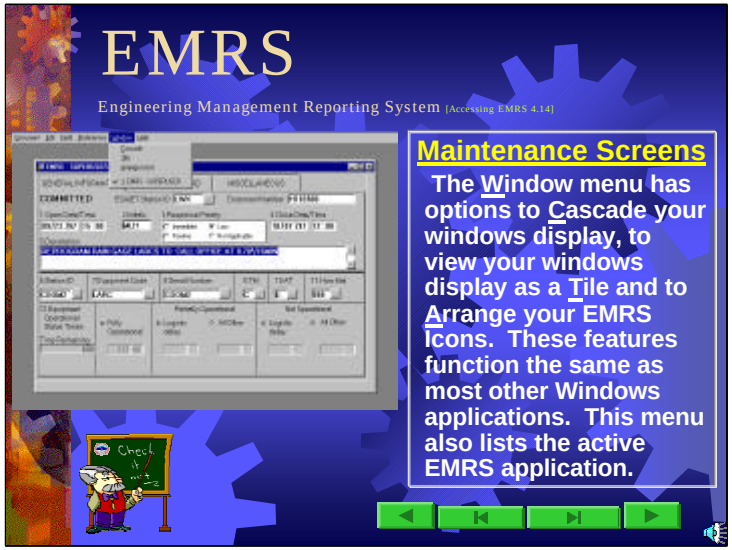
The ***A26 Preferences*** selection screen functions much the same as most Windows based applications. You simply select or type the requested information into the form using the keyboard and/or mouse.

Response Priority	- Sets default Response Priority for all new A-26 forms
Equip Sid	- Sets default Equipment Site Id for all new A-26 forms
Equip Code	- Sets default Equipment Code for all new A-26 forms
Equip Sn	- Sets default Equipment Serial Number for all new A-26 forms
Type Maintenance	- Sets default Type Maintenance code for all new A-26 forms
Action Taken	- Sets default Action Taken code for all new A-26 forms
Eltech Initials	- Sets default Eltech Initials for all new A-26 forms



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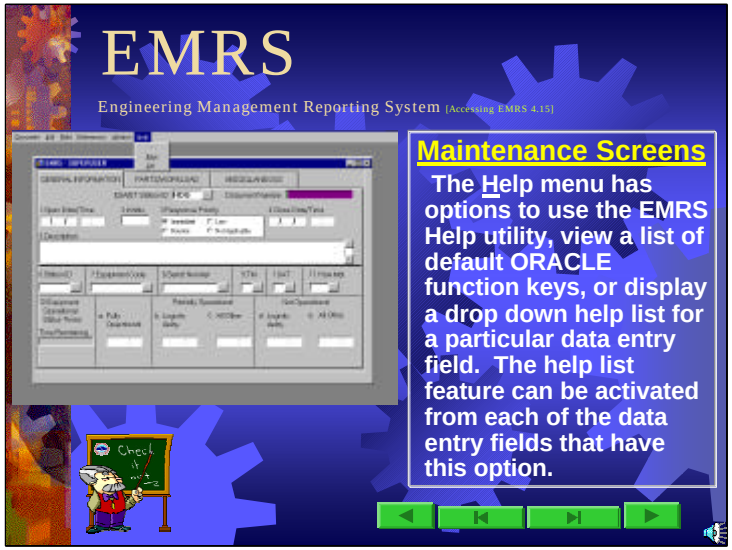
The ***Window Menu*** functions much the same as most Windows based applications. You simply point, click and select the menu item you wish to access.

Cascade	- [Reserved for future utility]
Tile	- [Reserved for future utility]
Arrange Icons	- [Reserved for future utility]
Active Window Display	- Lists the name of the active EMRS window



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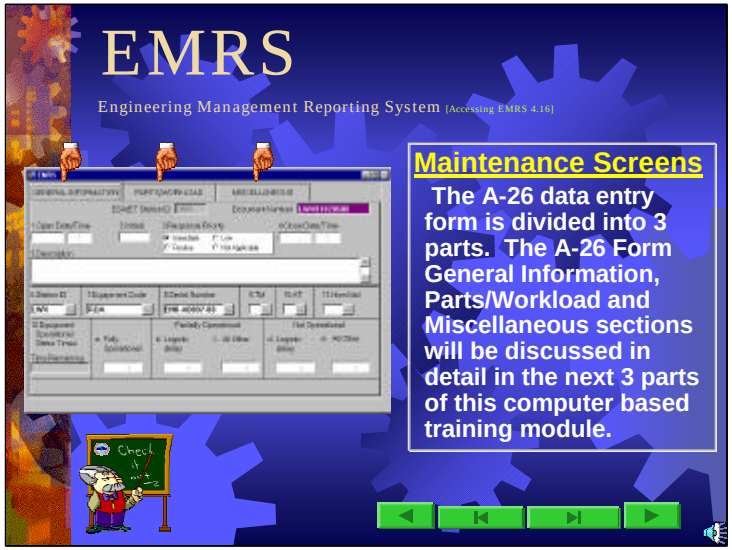
The ***Help Menu*** functions much the same as most Windows based applications. You simply point, click and select the menu item you wish to access.

Help	- [Reserved for future utility]
Keys	- Displays a list of default ORACLE function keys
List	- Activates Drop down list for current data entry field



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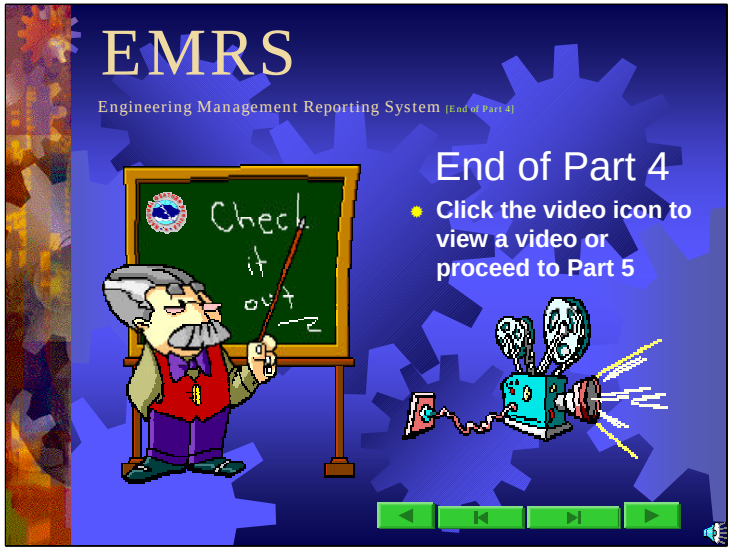
The ***A-26 Form*** is divided into three sections to facilitate maintenance data entry. Each section (Tab) has a logical grouping of data entry fields. The first Tab describes… when the failure/problem occurs… what equipment was affected, and how the equipment was affected . The General Information Tab is the most important part of the A-26.

The second and third Tabs on the A-26 collect parts failure information, equipment work load data, maintenance comments, miscellaneous special purpose data and configuration management data. While the General Information Tab is the most important, all the data on the A-26 is collected because of a WSH, Regional Hqtrs, or field office requirement. Sections 5 through 7 of this training module will discuss all three A-26 Tabs in detail.



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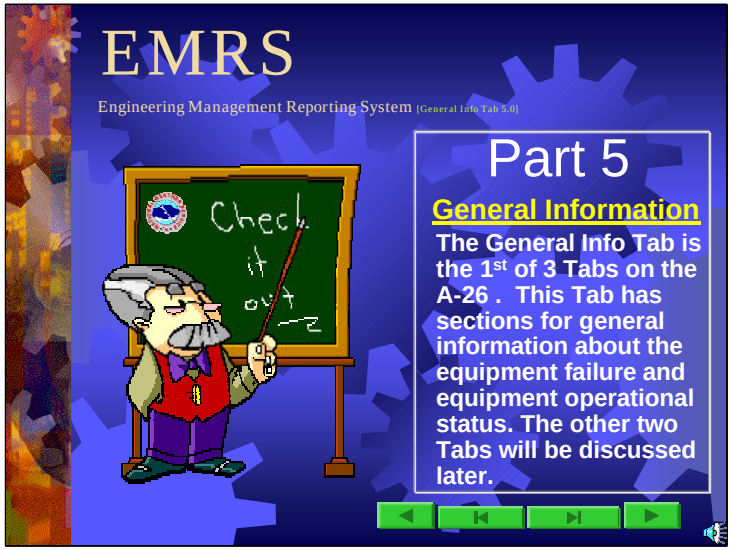

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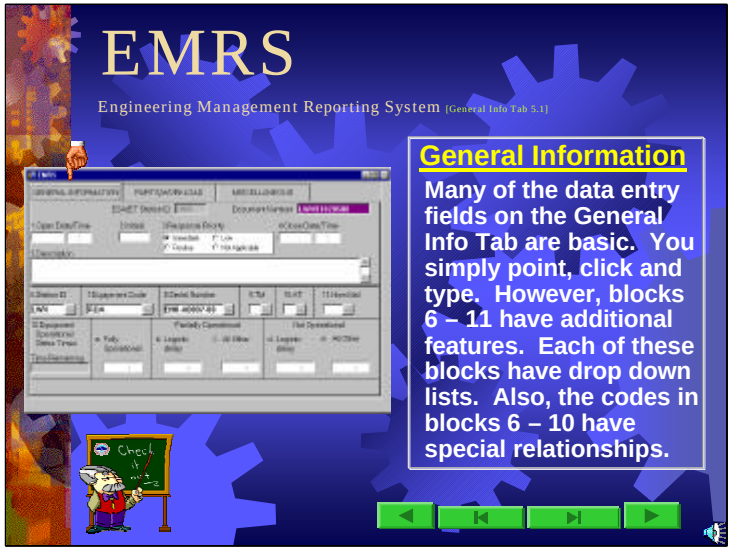
The ***General Information Tab*** is the part of the A-26 that is used to initiate a maintenance event. Both the Operations, and the Maintenance screens collect "General Information". WSOM Chapter A-14 requires the WFO staff to initiate maintenance events by completing designated areas on the A-26.

In the most general case… block(s)_1-3, 5,6, & 7 are used to describe… when the failure/problem occurs… what equipment was affected, and how the equipment was affected . These field are completed by the electronics staff and the operations staff when initiating a maintenance event that they have the responsibility for resolving. Equipment operators, who wish to initiate maintenance events for resolution by other WFO staff, should use the Operations Screens.



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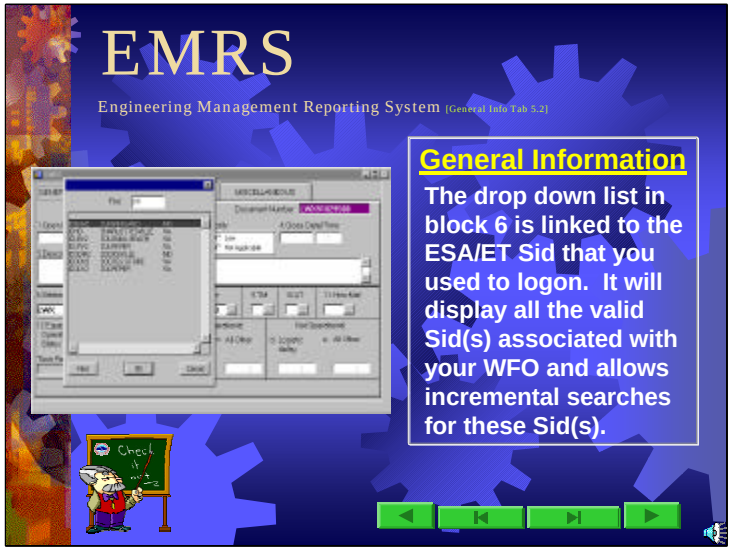
DRAFT - May 25, 2000

The ***General Information Tab*** functions much the same as most Windows based applications. You simply select or type the requested information into the form using the keyboard and/or mouse. The drop down menus in block(s)_6 – 11 also have typical Windows functionality including a incremental search utility.

In addition to this typical functionality the drop down menus in block(s)_6-10 have dynamic lists. These data entry fields have pull down menu lists that change to ensure that the codes listed apply to the particular maintenance event being documented. Each of these lists and their special relationships will be described on the next few pages.



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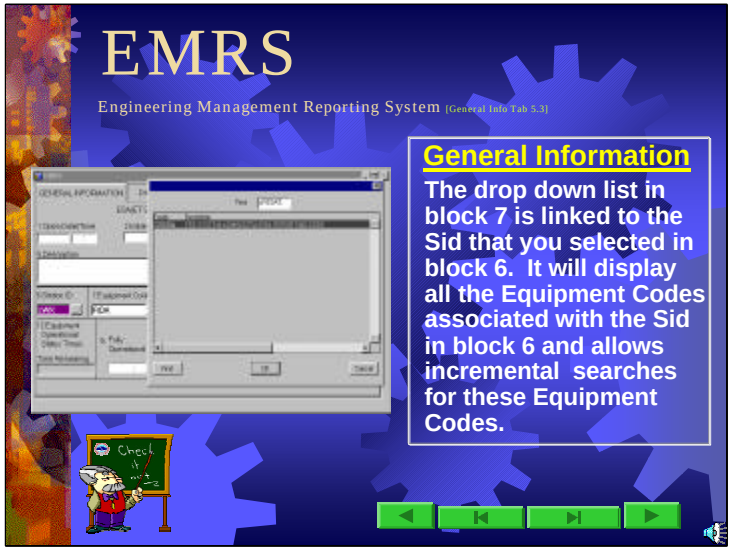
The ***Station ID (SID) Drop Down List*** will only display the SID(s) for equipment that your ESA/ET SID maintains. The list is generated from the EMRS equipment population data base. It is important that each office reviews and verifies that all their SID(s) are properly displayed in this list. If you maintain equipment at an SID that is not listed you should contact the EMRS Group.

The drop down list is dynamic and will be different for each ESA/ET SID used to log on to the Maintenance screens. However, If you perform maintenance to equipment that is not listed… you will be able to use the EMRS to document the maintenance. You may not be able to select the SID from the drop down list. However, you can type the correct SID using the keyboard.



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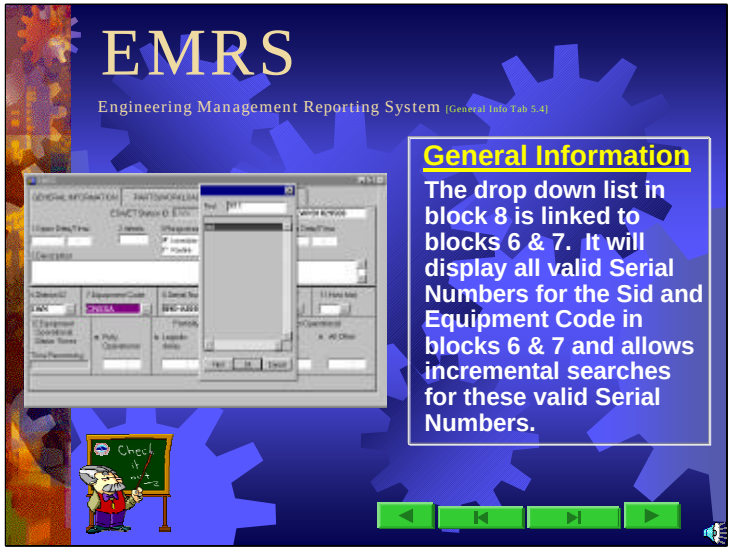
The ***Equipment Code*** drop down list will only display the equipment codes for equipment that is physically located at the SID entered in block_6. The list is generated from the EMRS equipment population data base. It is important that each office reviews and verifies that all their equipment is properly displayed in this list. If you maintain equipment that is not listed you should contact the EMRS Group.

The drop down list is dynamic and will be different for each SID entered in block_6. However, If you perform maintenance to equipment that is not listed... you will be able to use the EMRS to document the maintenance. You may not be able to select the equipment code from the drop down list. However, you can type the correct equipment code using the keyboard.



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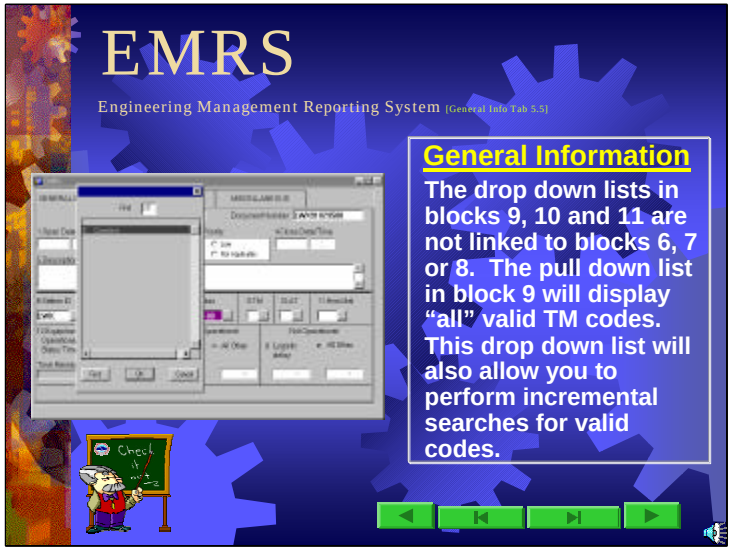
The ***Serial Number*** drop down list will only display serial numbers for equipment codes entered in block_7 that are physically located at the SID entered in block_6. The list is generated from the EMRS equipment population data base. It is important that each office reviews and verifies that all their equipment serial numbers are properly displayed in this list. If you maintain equipment that is not listed you should contact the EMRS Group.

The drop down list is dynamic and will be different for each SID and equipment code entered in block(s)_6 & 7 respectively. However, If you perform maintenance to equipment that does not have a serial number listed… you will be able to use the EMRS to document maintenance. You may not be able to select the serial number from the drop down list. However, you can type the correct equipment code using the keyboard.



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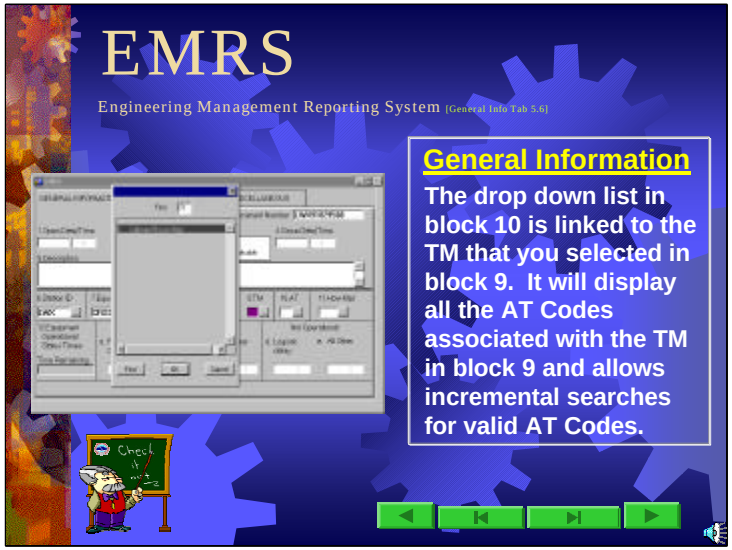
Each ***Type Maintenance Code*** can be used with any equipment code… Benchwork, Corrective, Equipment Mgmt, Modification, Special Activity, Software, and Preventive/Routine maintenance can be performed and documented on any equipment. The drop down list will display all valid Type Maintenance Codes. Type Maintenance Codes describe the particular maintenance that is required.

The drop down list can be used to select the particular maintenance type or you can type the correct Type Maintenance Code using the keyboard.



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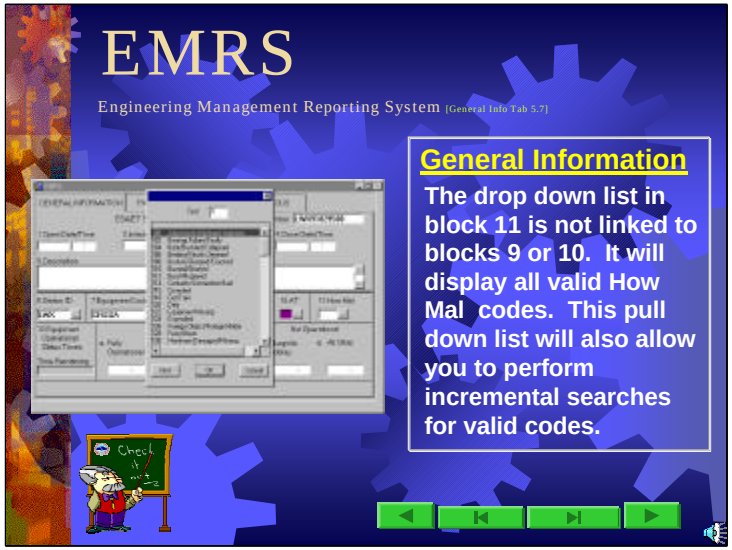
The ***Action Taken Code*** drop down list will only display Action Taken Codes that are related to the Type Maintenance Code entered in block_9. The list is generated from the EMRS data entry code relationship data base. If you have questions about particular code relationships you can contact the EMRS Group or review the code descriptions in EHB-4. The Action Taken Code describes the action taken to resolve the failure/problem.

The drop down list is dynamic and will be different for each Type Maintenance Code entered in block_9. You must type or select one of the codes listed in this screen. If you wish to change your Type Maintenance selection… you should first clear the Action Taken Code in block_10.



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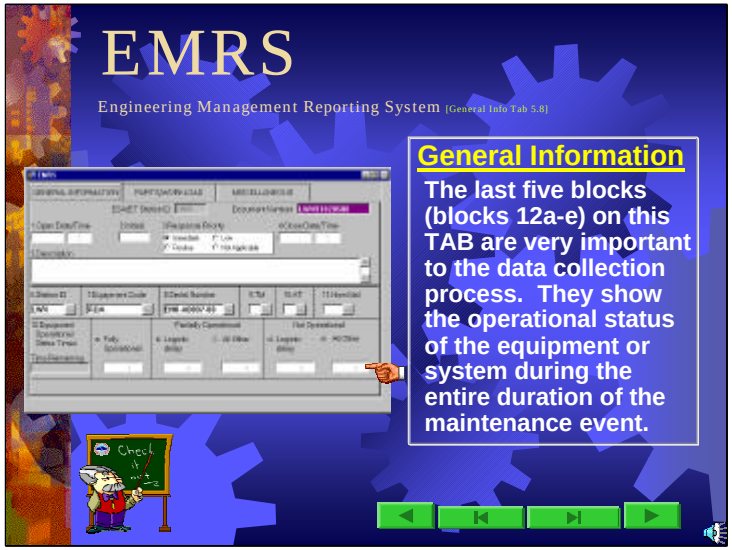
Each ***How Malfunction Code*** can be used with any equipment code… the PHYSICAL & MECHANICAL, ELECTRONIC & PARAMETER, ENVIRONMENTAL & MISCELLANEOUS, SOFTWARE and NO DEFECT codes can be used to describe a particular malfunction of any equipment. The drop down list will display all valid How Malfunction Codes. The How Malfunction Code describes the particular malfunction from the perspective of the field staff.

The drop down list can be used to select the particular malfunction type or you can type the correct How Malfunction Code using the keyboard.



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The ***Operational Status Times*** documented in block(s)_12a-e describe how the equipment in block_7 was or was not operating during a particular maintenance event. You should use these blocks to describe how long the system or equipment listed in block_7 was:

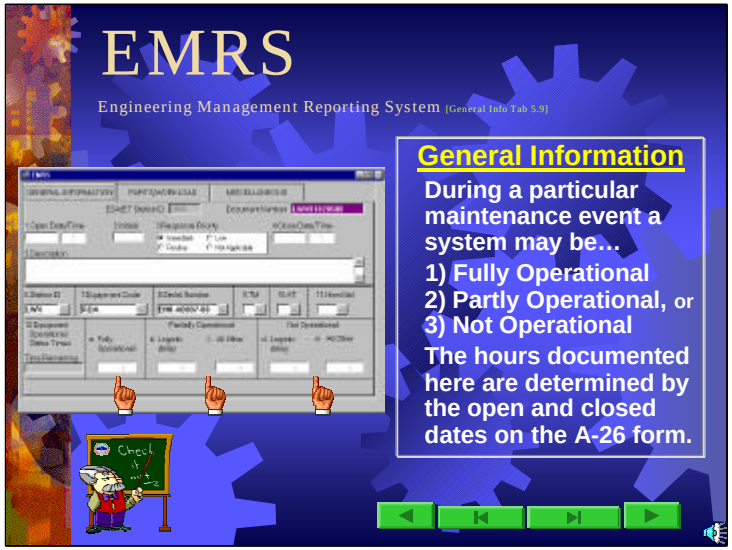
a) Fully Operational

b) Partly Operational (during logistics delays)

c) Partly Operational (for all other reasons including maintenance)

d) Not Operational (during logistics delays)

e) Not Operational (for all other reasons including maintenance)



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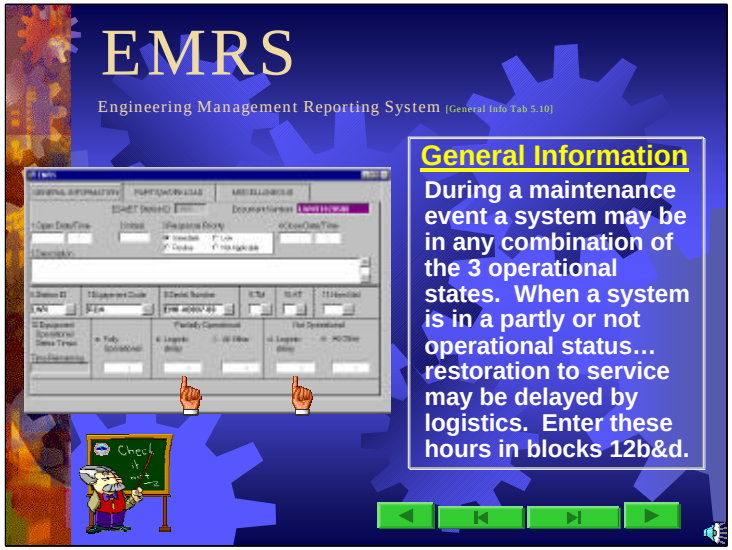
Not all maintenance reporting requires that you document operational status times. However, when required document the following in block(s)_12a-e.

Fully Operational - number of hrs a particular equipment was fully operational during a maintenance event. The equipment could perform all its primary functions.

Partly Operational - the number of hrs a particular equipment was partly operational during the maintenance event. The equipment could perform at least one of its primary functions.

Not Operational - number of hrs a particular equipment was not operational during the maintenance event. The equipment could not perform any of its primary functions during the maintenance event.



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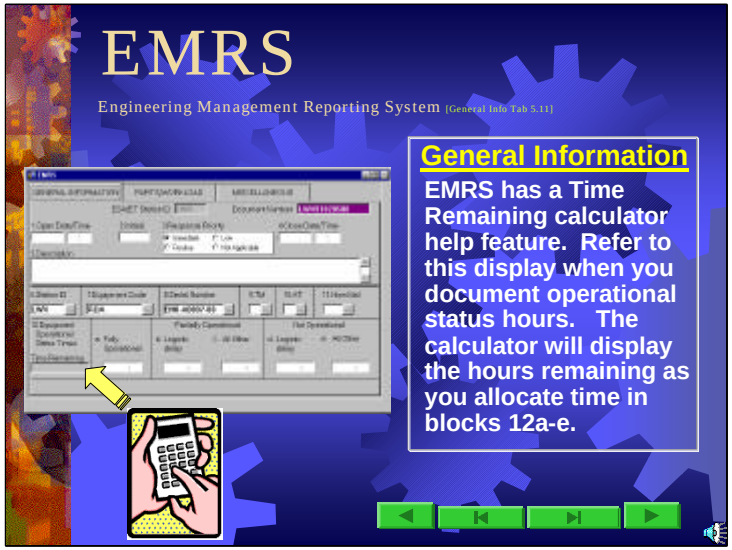
When required you should document logistics delay operational status times. During a particular maintenance event the equipment could be partly operational or not operational while waiting for parts. Enter the number of hours in the particular operational status block for any maintenance event that is delayed while you:

a) order a part and wait for delivery

b) return to the WFO to retrieve a part

c) drive to a local source to purchase a part



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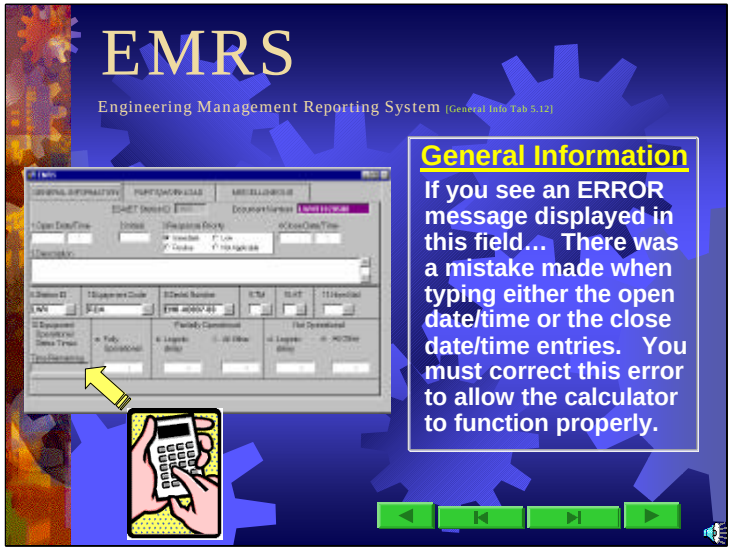
The ***Time Remaining Display*** is designed to facilitate the allocation of operational status time. This data entry "help" feature is active only when both the Open and Close data and time data entry fields are filled.

Use the Time Remaining display to allocate the number of operation status hours in block(s)_12a-e. The Time Remaining calculator feature calculates the number of hours between the Open and Close date and time blocks on the A-26. As you enter time in any of the operational status time blocks the calculator will display the number of hours that remain.



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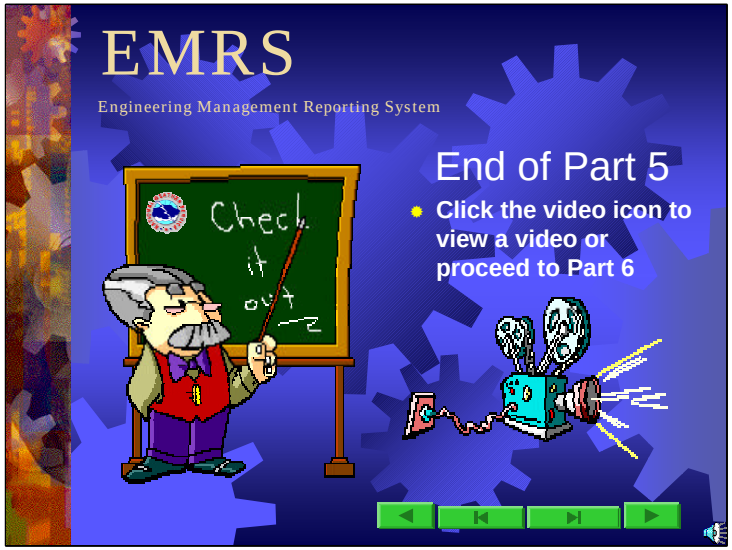
The ***Time Remaining Display*** may be unable to calculate the time between the Open and Close date and time data entry blocks. This typically happens when there was a data entry error. You should verify that the Open and Close dates and times are correctly entered into block(s)_1 & 2.

The ERROR message will clear when the correct dates and times are entered into block(s)_1 & 2. After the corrections are made you will see the number of hours between the Open and Close date and time blocks on the A-26. Continue to allocate hours in block(s)_12a-e until there are zero hours remaining.



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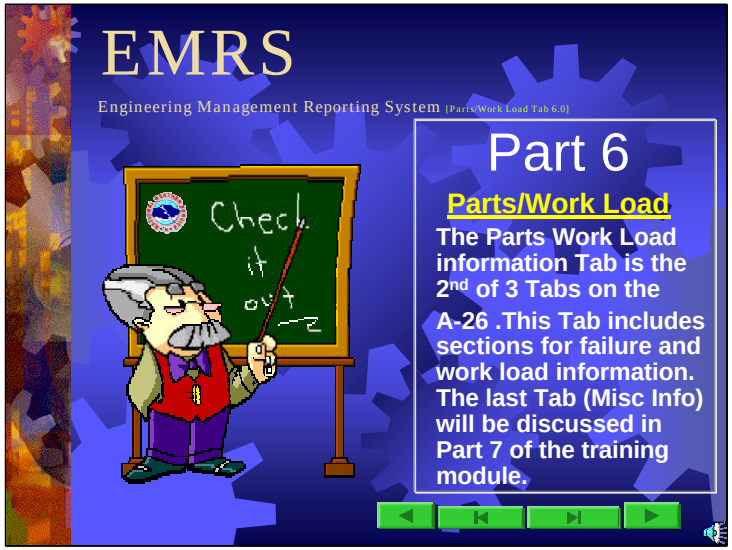
This is the end of Part 5. There is a short video which will provide a review of the items which were just discussed. You can watch the video or use the navigation buttons to continue. To watch the video… you should "Click" on the projector with your mouse. Depending on your computer system settings you may get a message warning you about viruses and asking if you want to proceed. To proceed you must "Click" the "OK" button. You may also be asked to save the video program to disk. Do not save this program to disk. Run the program from its current location. You will now be asked if you want to install and run the video. Click yes to run the video.

When the video is done ***you must close*** the Lotus ScreenCam control window before you continue. You "Click" the "X" button in the upper right hand corner of the control panel to close the window. After closing this window use the navigation buttons to proceed to Part 6.



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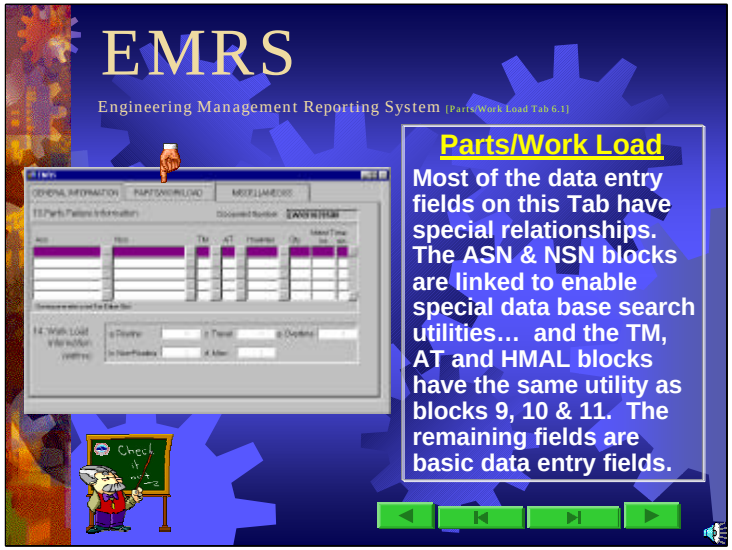
The ***Parts/Work Load Tab*** is the section of the A-26 that is used to document information related to maintenance activity on parts and the hours associated with the maintenance event. Both the Parts Failure Information section and the Work Load Information section is completed by the person responsible for documenting the maintenance event.

In the most general case… block_13 is only used when the maintenance performed requires a corrective, preventive, modification, or special activity to a part (LRU). However, block(s)_14a-e should have at least one entry for each maintenance event being documented. Both sections are completed by the electronics staff and/or the operations staff when documenting maintenance that is accomplished to electronics equipment tracked by EMRS.



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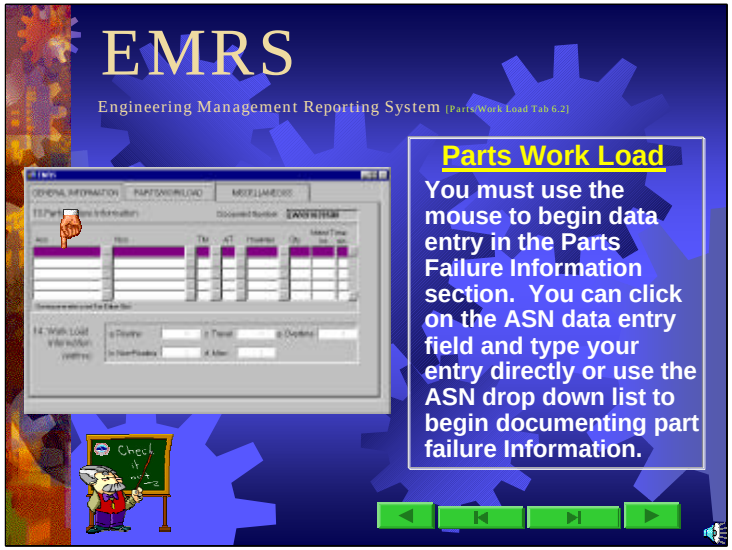
The ***Parts/Work Load Tab*** functions much the same as most Windows based applications. You simply select or type the requested information into the form using the keyboard and/or mouse. The drop down menus in block_13 also have typical Windows functionality including a incremental search utility.

In addition to this typical functionality the drop down menus in block_13 have dynamic lists. These data entry fields have drop down lists that change to ensure that the codes listed apply to the particular maintenance event being documented. Each of these lists and their special relationships will be described on the next few pages.



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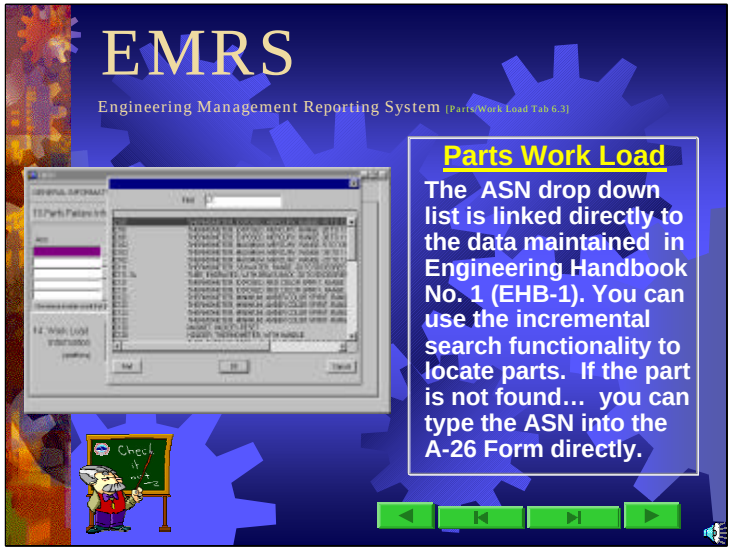
The **Parts Failure Information** section of the A-26 Form is a special data entry screen called a data entry grid. This grid has special features and has unique navigation requirements. You must "Click" on one of the data entry fields or activate one of the drop down list with the mouse to begin documenting parts failure information.

When navigating within the data entry grid you will have to use both the keyboard and the mouse. To move forward to the next data entry field you can press the Tab or Enter key. However you must use the mouse to move to a previous field or to begin data entry on a new line.



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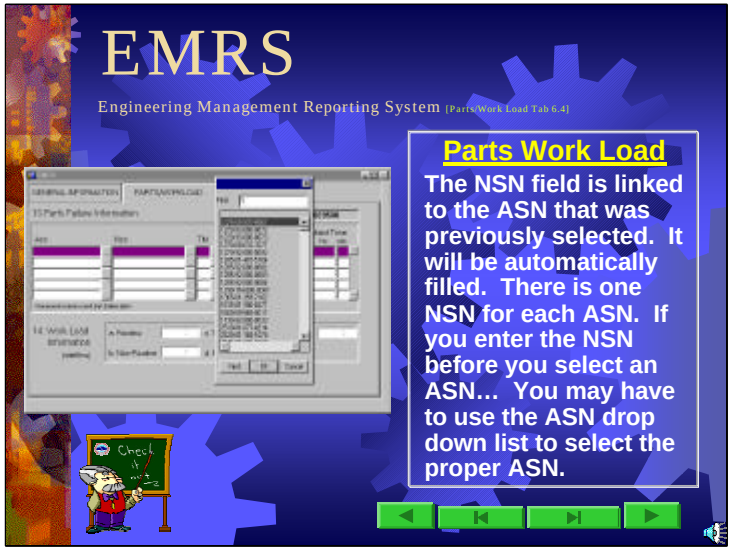
The ***Agency Stock Number (ASN) Drop Down List*** will display all valid ASN(s). The ASN list is generated from a data base created using the Engineering Handbook No.1 (EHB-1). This EMRS EHB-1 data base is updated on a monthly basis.

The drop down list displays all ASN(s) that are currently in the EMRS EHB-1 data base. However, the data base may not currently list the ASN for the part (LRU) you wish to document. You may not be able to select the ASN from the drop down list. You can type the correct ASN using the keyboard. If you do not know the ASN type the word NONE.



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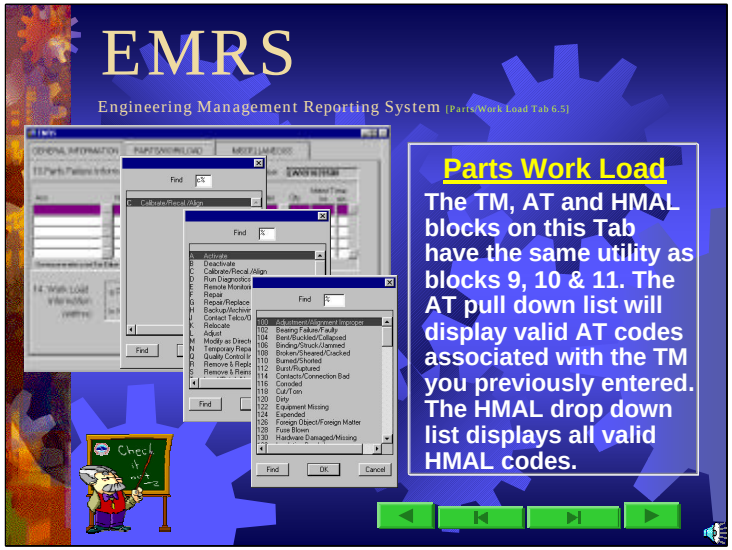
The ***National Stock Number (NSN)*** drop down list will only display valid NSN(s) that correspond to the ASN you entered previously. The list is generated from an EMRS EHB-1 data base . If you did not enter an ASN in the previous block the drop down list will display all valid NSN(s).

The drop down list is dynamic and will be different for each ASN you enter. There should be one NSN displayed in the list for each ASN that you enter. However, the data base may not currently list a corresponding NSN for the ASN you entered. You may not be able to select the NSN from the drop down list. You can type the correct NSN using the keyboard. If you do not know the NSN type the word NONE.



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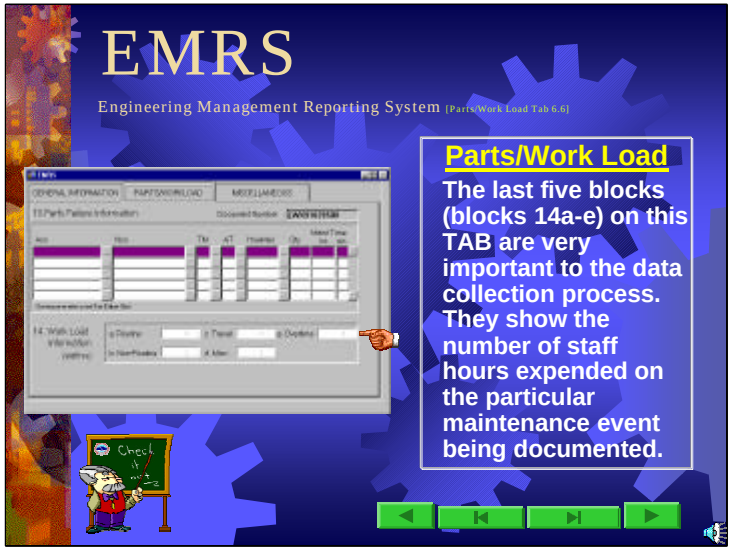
The **Parts Failure Information** documented in block_13 uses the same Type Maintenance (TM), Action Taken (AT) and How Malfunction (HMAL) coding scheme as the Equipment Information section of the A-26. However the information documented in block_13 is part (LRU) specific and may be different for each part listed.

The TM drop down list will display all valid TM codes and the AT drop down list is dynamic and will be different for each TM code you previously entered for the part (LRU) on this line. You must type or select one of the codes displayed on this list. If you wish to change the TM code you entered for this part (LRU)… you should first clear the AT code.



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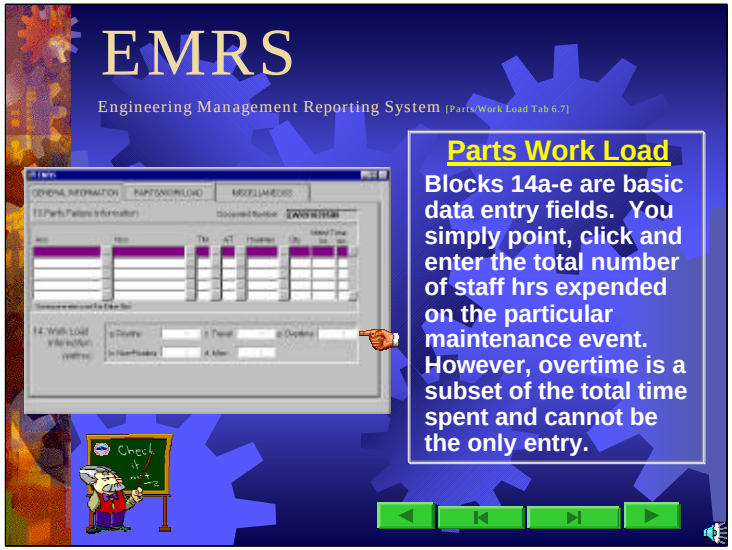
The **Work Load Information** section of the A-26 is used to document the Staff Hours expended on maintenance events. If more than one person participates in the particular maintenance event… you should document the total number of staff hours expended on the maintenance event.

The hours documented here are also used to determine the total electronics work load at a WFO. In addition to specific system related equipment A-26 documentation… special codes have been established to document the staff hours expended on activities not directly related to maintenance. Activities such as training and office administration are also documented using the A-26. You should document the hours expended on these activities as directed by WSH.



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The ***Work Load Information (staff hours)*** documented in block(s)_14a-e describe how many staff hours were expended to perform the activities described on this particular A-26. You should use these blocks to document the total number of staff hours expended in the specific areas below:

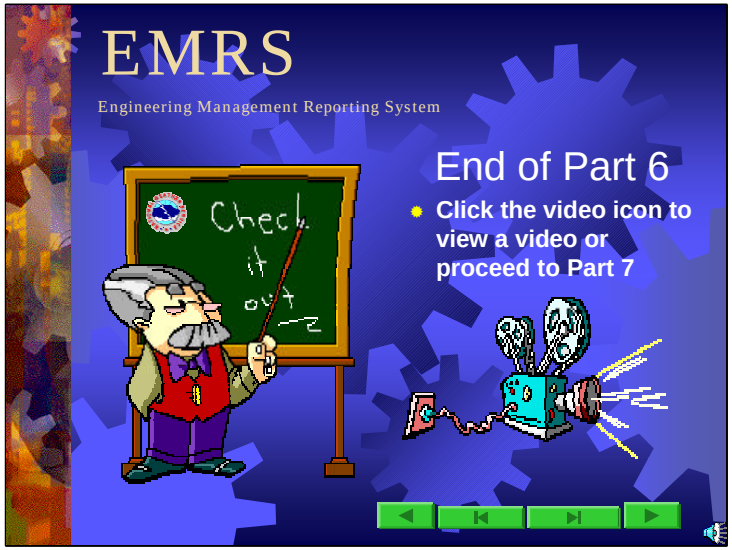
a) Routine (Routine/Preventive maint. activities)

b) Non-Routine (Corrective maint. activities)

c) Travel (Time spent in travel to maint. site)

d) Misc. (Time spent performing misc. activities)

e) Overtime (Time spent while in overtime status)



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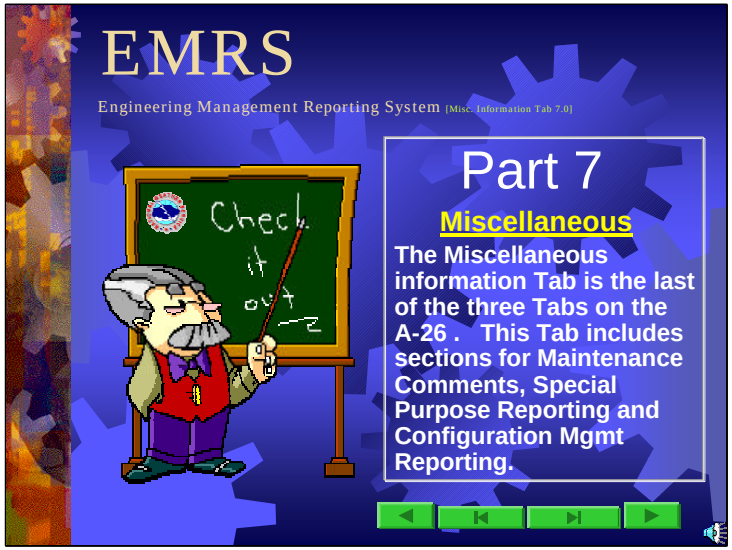
This is the end of Part 6. There is a short video which will provide a review of the items which were just discussed. You can watch the video or use the navigation buttons to continue. To watch the video… you should "Click" on the projector with your mouse. Depending on your computer system settings you may get a message warning you about viruses and asking if you want to proceed. To proceed you must "Click" the "OK" button. You may also be asked to save the video program to disk. Do not save this program to disk. Run the program from its current location. You will now be asked if you want to install and run the video. Click yes to run the video.

When the video is done ***you must close*** the Lotus ScreenCam control window before you continue. You "Click" the "X" button in the upper right hand corner of the control panel to close the window. After closing this window use the navigation buttons to proceed to Part 7.



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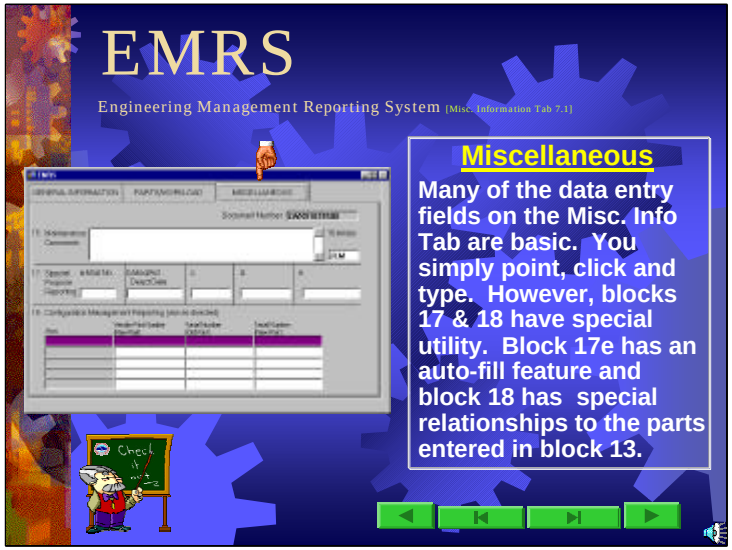
The ***Miscellaneous Information Tab*** is the part of the A-26 that is primarily used to document Maintenance Comments and NWS program specific information required to completely describe the maintenance event. Program specific documentation may include Modification Note numbers, Modification dates, Activation dates and Deactivation dates. CM information is also documented here.

In the most general case… block(s)_15 & 16 are to be completed for each A-26. These blocks describe… What was done to resolve the failure or problem and who was responsible for completing the maintenance. The remaining blocks (block(s)_17 & 18) are to be used as required to document special information.



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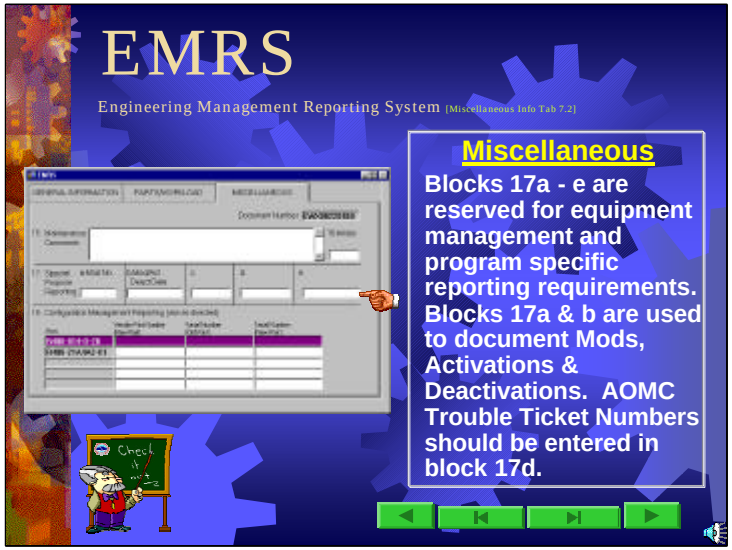
The ***Miscellaneous Information Tab*** functions much the same as most Windows based applications. You simply select or type the requested information into the form using the keyboard and/or mouse. This Tab has no drop down menus. However, block(s)_17b & 18 (ASN) have special auto-fill utilities.

Block_17b will be automatically filled when documenting activations, deactivations, and engineering modifications. The close date that was entered in block_4 will be used to automatically fill block_17b. The data entry fields in block_18 are used to document CM information related to the parts listed in block_13. The ASN data entry field in block_18 will be automatically filled as you enter ASN information into block_13.



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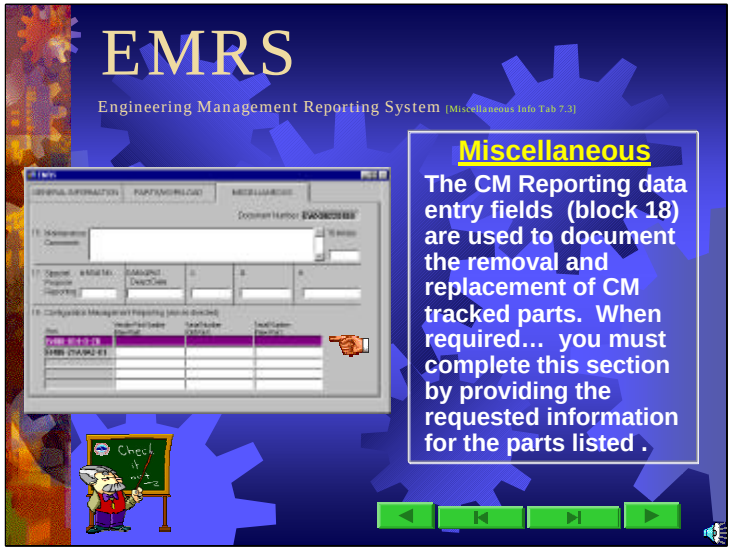
The ***Special Purpose Reporting*** section of the A-26 is primarily used to document the implementation of Engineering Modification Notes, Software Notes, Maintenance Notes and other WSH directed activities. However, block(s)_17c-d have been reserved for NWS Program specific data collection requirements.

ASOS maintenance is typically initiated by the AOMC. The WFO is responsible for ensuring that AOMC initiated maintenance requests are accomplished. The AOMC Trouble Ticket Number is used by the AOMC to track the maintenance event. The AOMC Trouble Ticket Number should be displayed in block_17d for maintenance events initiated by the AOMC. If there is no entry in block_17d… type the AOMC Trouble Ticket number in block_17d.



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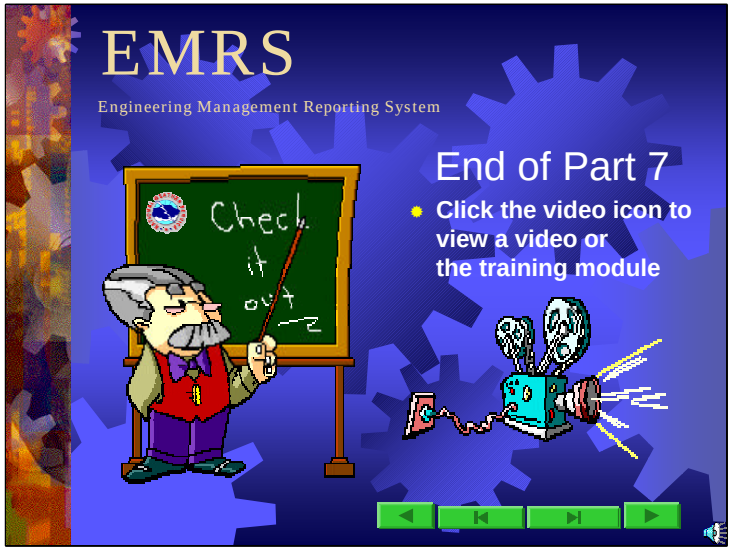
The Configuration Management Reporting section of the A-26 should be used as directed by WSH. Specific CM reporting requirements are documented in EHB-4 for systems under formal CM processes. These systems include ASOS, AWIPS, NEXRAD, and NWR/CRS.

In the most general case…when parts (LRUs) are removed and replaced, modified or otherwise changed you should document the required information in block_18. Specifically all parts (LRUs) removed and replaced on the ASOS, AWIPS, NEXRAD, or NWR/CRS require you to document the Vendor Part Number of the new part (LRU), the Serial Number of the new part (LRU) and the Serial Number of the old part.



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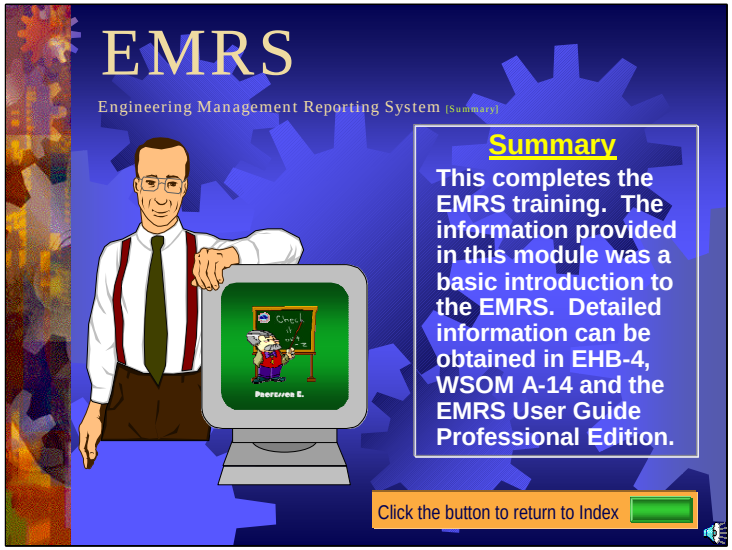
This is the end of Part 7. There is a short video which will provide a review of the items which were just discussed. You can watch the video or use the navigation buttons to EXIT the training module. To watch the video… you should "Click" on the projector with your mouse. Depending on your computer system settings you may get a message warning you about viruses and asking if you want to proceed. To proceed you must "Click" the "OK" button. You may also be asked to save the video program to disk. Do not save this program to disk. Run the program from its current location. You will now be asked if you want to install and run the video. Click yes to run the video.

When the video is done ***you must close*** the Lotus ScreenCam control window before you continue. You "Click" the "X" button in the upper right hand corner of the control panel to close the window. You can now click EXIT to return to the Index.



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The ***EMRS User Guide (New Technician Package)*** training module was developed to supplement your initial orientation to the Weather Forecast Office (WFO). The basic information provided here was designed to familiarize you with the purpose, operation and use of the EMRS. You should now be able to access the EMRS, initiate, review and complete an A-26 form.

In addition to the information presented here you are responsible for reviewing all EMRS documentation. The Weather Service Operations Manual, Chapter A-14, the Engineering Handbook No. 4, and the EMRS User Guide Professional Edition contains detailed information about the EMRS. These documents should be reviewed for specific NWS policy, maintenance data collection guidance and system usage instructions. To return to the ***Index***... click the green button at the bottom of this page.

Visit the EMRS World Wide Web site at http://cmhome.nws.noaa.gov/emrs/ for information about other EMRS products