ARDS USER'S MANUAL: COMMENT MANAGEMENT

By
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ARDs USER'S MANUAL: COMMENT MANAGEMENT

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The Automated Requirements Development System (ARDS) is a set of software tools that supports the requirements development activities for ESD system acquisition programs. ARDS runs on the MITRE BBC UNIX facility and interfaces with the WORD-11 and DEC stand-alone word-processing systems. This document describes how to use the comment management software package in ARDS to manage written comments on specifications and other documents.
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SECTION 1
INTRODUCTION

This document presents instructions for use of the Automated Requirements Development System (ARDS) Comment Management capabilities. The ARDS software tools help ESD program offices to generate and maintain system requirements specifications. In particular, Comment Management provides the capability to collect comments on a draft specification from diverse sources, store the comments, and produce consolidated reports which are used to identify changes needed to the draft specification. This controlled method of managing the revision of a specification based on review and comment allows the revision to proceed in an efficient manner.

ARDS was developed at MITRE under ESD/MITRE Project 5720, "Embedded Computer Systems Engineering and Applications". The ARDS document analysis capability\(^1\) has been widely used in ESD programs since 1981. The Comment Management capability has been used extensively in 1982 to support management of comments for the Space Defense Operations Center (SPADOC) program.

CONCEPT OF OPERATION

An ESD program office has several jobs during the acquisition of a system that involve the review of a document, the preparation of comments about the document, and the merging of those comments into an organized report. When the program office prepares a system specification, it distributes a draft to other agencies for review. It uses the comments that are received to improve the next draft of the specification. If ESD is participating in a joint program, the program office may have to review a specification prepared by some other agency. In that case, it must generate a set of coherent and organized comments instead of revisions to the specification. Later in the system life-cycle, when the system is being developed, the program office must review and comment on many contractor reports. The ARDS Comment Management software supports these comment handling jobs, which often involve many geographically dispersed people operating under severe time constraints.

The primary product of the software is a report containing the comments that have been made on a document. The report can contain all comments on a document, or it can be limited, for example, to comments from a single source or to comments of a given type. The comments can be sorted in various ways, the most common being by page and paragraph number of the document about which the comments were made. The report, which is made available as a printout or as a computer file, can be requested in a format appropriate for an informal and interim product or a formal and final product. The report may or may not contain information about the disposition of the comments by the program office, e.g., "incorporated in specification" or "not relevant".

This is how the ARDS software can be used by a program office to support comment management activities. A draft specification is distributed by the program office to the agencies that must review it. Instructions for the preparation of comments in the ARDS format are attached to the specification. The reviewers prepare their comments and have them entered into a word processor as a memo or a letter. Each reviewing agency transmits its memos to the ARDS system, using a local communications link or a network such as the ARPANET. The memos are entered into the comment database. When all comments on the specification have been received, or when the revision of the specification must be started, a report is generated from the data base. The most likely report at this time is one containing all comments on the specification, sorted by the page and paragraph number of the specification material that is referenced by the comment. The specification manager reviews the comments and distributes them to the people responsible for responding to the comments. Each person reviews the comments for the assigned sections, identifying and resolving conflicts, and determining what revisions to make. If the program office must give feedback to the originators of comments, or if it chooses to keep records, the disposition of each comment is noted as the revisions are made. The dispositions are later entered into the data base. Disposition reports can then be prepared for the comments from each agency or for all comments received.

When the program office must review a specification or report that it receives, the comments are prepared by ESD and MITRE reviewers, entered into a word-processing system, and transmitted to the ARDS Comment Management system. When all comments have been received, the person responsible for coordinating comments on the document under review generates a report with the comments sorted in page and paragraph order. He reviews the comments to eliminate redundancy and conflicts. The report identifies the source of each comment, so the coordinator can discuss a comment with its author, if necessary. The editing is done on a hardcopy report and then
transcribed into the comment data base. Several editing passes may be required to achieve a coordinated set of comments. When coordination has been accomplished, a final report is generated for transmittal to the organization that requested the review.

FUNCTIONS

The five functions that Comment Management supports through a menu driven display interface (illustrated in section 4), in their usual chronological order, are:

initialize;
enter comments from memos into the data base;
edit comments in the data base;
assign dispositions to comments; and
generate reports.

Initialize

Data base initialization is required for each document for which comments are to be collected. This is accomplished with the DOCUMENT INITIALIZATION display. When the desired document name is entered, the system is ready to accept comments on that document.

Enter Comments

Following initialization of the document, memos containing comments are transferred to ARDS. The ARDS Comment Management software accepts comments prepared in memo format using the MITRE standard WORD-11 word-processing system and DEC WS/78 and DECmate stand-alone word-processing systems. Once the transfer has been completed, the operator selects memo processing and identifies the document. The PROCESS MEMO display then lists the memos which have been transferred and the operator selects the desired memo for processing.

The processing cycle contains two components: 1) a format check of the memo and comments and 2) the entry of the comments into the data base. The second step is done only if the first step format check does not find any errors. In this case (no errors) a memo Acceptance report is generated--available for on-line display.
and printout—and the comments are entered in the data base. If errors are detected in the format of the memo or the comments, a Memo Error report is generated which identifies each error in the memo. This report is also available for on-line display and printout. Using the report, the operator can correct the memo errors on-line and resubmit the memo.

**Edit Comments**

Comments resident in the data base can be edited using the retrieve and edit capabilities provided on the PROCESS MEMO display. The memo containing the comment (or comments) to be edited is retrieved from the data base, edited, and then reprocessed. Processing a memo already contained in the data base results in the deletion of all comments associated with the old memo and entry of the comments contained in the new version of the memo.

The entire data base can also be edited—comments individually edited, comments combined, comments added or deleted—by editing a produced report and resubmitting it as a memo under a new version number of the document. The new version number will contain the edited comments while the old version number will contain the comments as originally submitted.

**Assign Dispositions**

Comment Management provides the capability to associate dispositions with each comment received. Typically, the dispositions are assigned following the review of the consolidated comment reports, and can note such results as: duplicate comments, consolidated comments, document sections changed as a result of the comment, or other user-definable results. The user can define the number, variety, and text of dispositions. Two interactive procedures are provided which allow definition of individual free text dispositions, or the definition of standard disposition categories.

**Generate Reports**

Both during the comment collection process and after all comments have been collected, reports can be constructed. Each report is a stored sequence of comments. The range of the report, or number of comments included in the report, is selectable and can be comments from a selected reviewer, from a selected memo, comments on a selected paragraph, comments of a particular type, or all
comments received to date. The comments which are included in the selected range will be sorted and prepared in a report format which can be displayed or printed. The user-selectable sort options are by page number, paragraph number, type, memo name, or reviewer. Since reports are generated on request and not stored, each report is current and will include all comments processed and entered to date which meet the range criterion. The reports can be viewed on-line or printed. Reports can be prepared with or without the associated dispositions in a variety of unpaged and paged formats.

ORGANIZATION OF USER'S MANUAL

The following paragraphs summarize the contents of this manual.

Section 2, Use of Comment Management Capabilities, describes the recommended method of managing the comment review process within a project.

Section 3, Comment Management Procedures, describes the operator actions required to process the memos previously transferred to ARDS. The operations described include: entering comments into the data base, assigning dispositions to comments, and producing reports.

Section 4, User-System Interface, contains printouts of the displays used by the operator to perform the processing functions.

Section 5, Sample Reports and Disposition Codes, contains example reports showing the various report formats.

Section 6, Formats for Comment Entry, describes the method of preparing comments in memo format for entry in the comment management data base.

Appendix A, Procedures for Transferring WORD-11 Memos, describes the procedures for transferring a memo (formatted as described in section 4) from the WORD-11 system to the ARDS system.

Appendix B, Procedures for Transferring DEC WS/78 or DECMate Memos, describes the procedures for transferring a memo (formatted as described in section 6) from a stand-alone DEC system to the ARDS system.

Appendix C, DEC WS/78 and DECMate CX Communications Configuration, describes the procedure for configuring a DEC WS/78 or DECMate to communicate with ARDS.
Appendix D, Alternate Keywords, shows alternate keywords which will meet the memo format requirements.

Appendix E, Identification Code Usage, describes the recommended method of assigning document and memo names.

Appendix F, Tape Volume Procedures to Archive, Reload, and Backup, describes optional procedures to archive, checkpoint, and reload the data base as well as to maintain multiple data bases on tape using comment management utility programs.

Appendix G, Comment Management File Structure, shows the internal file structure used by Comment Management.

Appendix H, Utility Programs, describes six programs that are available in addition to the on-line display interface.

Appendix I, RAND Editor Function Key Definitions, shows the definitions of terminal keys for the editor used within Comment Management.
SECTION 2

USE OF COMMENT MANAGEMENT CAPABILITIES

This section describes the systems which are used to perform the comment management functions, the personnel resources required, and the details associated with setting up the user account.

FACILITIES

The comment management software resides on the MITRE/Bedford Computer Center (BCC) UNIX\(^2\) facility and is designed for use with a DEC VT100 or VT103 terminal. In this manual a reference to VT100 applies to the VT103 as well. A separate UNIX user account is required for each project using the ARDS software. The software will build files and maintain data within the login account from which the software is invoked.

Additional systems which can be involved in the Comment Management process are the MITRE WORD-ll word-processing systems and user’s stand-alone DEC WS/78 or DECMate word-processing systems. Normally, the comments to be processed are prepared in memo format using one of these systems. The procedures for transferring the memos to Comment Management are described in Appendices A and B.

ADMINISTRATION

The administrative resources required to apply Comment Management depend on the volume of data to be handled. If many documents are to be handled, with a large number of comments anticipated, more administrative effort is required than for one or two documents. In general, the administrative effort required to keep track of memos received and processed is proportional to the number of different documents involved.

For sizable on-going applications, we recommend that a system administrator be assigned to oversee the overall comment management process. The administrator must be familiar with the contents of this user's manual and have reasonable knowledge of UNIX and the RAND editor.

\( ^2\)UNIX is a trademark of Bell Laboratories.
The administrator is responsible for defining the naming conventions for documents and memos, assigning individual names, and resolving any naming errors which may arise in data entry. The administrator must identify the word-processing systems to be used and the format conventions to be used in the preparation of memos. The administrator must inform the comment authors and the data entry personnel of the requirements on the proper method of formatting comments and memos.

The administrator should serve as the central point for defining comment disposition categories and the procedures for assigning comment dispositions. The administrator may also be responsible for setting comment cut-off dates, defining standard report options, setting up distribution channels for memos and reports, and archiving comments on documents which have completed the review cycle. The administrator may also correct errors in the data base which can occur due to errors made in transferring or naming memos and documents.

This user’s manual is intended to serve as a guide and reference to the administrator.

GETTING STARTED

There are two aspects to setting up a user account for Comment Management. First, the ".path" file in the user account must be changed to allow access to the Comment Management programs which reside, execute only, in an ARDS account. Second, a few directories and files must be created in the user account. Following these two steps, the Comment Management software will create the environment required for execution.

The ARDS support personnel can assist in setting up a user account but, for your information, the following steps are required:

1. Change the set path command in the ".cshrc" file in your home directory to include /usfl/cprg/bin.

2. Make directories, "cmt.mgt" and "ards", in the user login directory.

3. If the memo encryption facility is to be used, contact the ARDS support personnel to establish an encryption password.

Further initialization steps are accomplished by selection of the initialization option on the Comment Management main menu display.
SECTION 3
COMMENT MANAGEMENT PROCEDURES

This section describes the procedures for using the interactive display capabilities to perform the Comment Management functions. It is helpful to refer to sections 4 and 5 while reading this section. Section 4 contains images of the displays used and describes the particulars of data entry actions. Section 5 contains sample reports.

ACCESS TO COMMENT MANAGEMENT DISPLAYS

Comment Management is one component of ARDS. Access to the software is obtained from the ARDS Options Menu display. That display is obtained by entering:

    ards <CR>

after you have logged into UNIX. Selection of the Comment Management option code produces the COMMENT MANAGEMENT (CM) menu which is used to select the individual Comment Management functions.

DOCUMENT INITIALIZATION

New document names are defined to the system by selecting the initialization option on the CM menu. When the DOCUMENT INITIALIZATION display is received, enter the document name. The name will be repeated on the display. Check the exact spelling. If it is correct, enter "c <CR>" to confirm; if it is not, enter the name desired. More document names can then be entered or entry of <CR> will return to the CM menu.

The system will perform all required actions to prepare Comment Management to handle comments on the initialized document names.

DOCUMENT SELECTION

While using the Comment Management display interface, one document name is selected as the "selected document" and all actions taken refer to this document, until a different document name is selected. Selection of the "selected document" is accomplished with the DOCUMENT SELECTION display obtained from the CM menu.
This display lists all document names which are available in the user's account. New names are added using the DOCUMENT INITIALIZATION display. If no document names are listed, the desired names must be initialized as previously described.

To select one of the available documents as the "selected document", enter the document name. The system will automatically return to the CM menu. Note that the selected document name is always displayed in the first line of the display following the display code name.

MEMO DECRYPTION

Depending on which option was selected in transferring memos from the originating word-processing system, the memos will reside in Comment Management in either encrypted or clear form. Encrypted memos must be decrypted prior to processing. Clear memos are available for processing without decryption.

Memos are decrypted using the MEMO DECRYPTION display obtained from the CM menu. Entering the password (established as described in section 2) results in the decryption of all encrypted memos. Following decryption, a list of the decrypted memos showing their associated document names is displayed using the RAND Editor. This list should be checked against any records of memos transferred. Entering the RAND Editor "quit" command will result in a return to the CM menu.

MEMO PROCESSING

Comments are entered into the data base from the received memos using the PROCESS MEMO display obtained from the CM menu. Note that memos are processed separately for each document. The PROCESS MEMO display will list the memos ready for processing associated with the currently selected document. To process memos associated with other documents, the selected document name must be changed.

To process one of the available memos, enter the option code for processing and the memo name.

The system will remember the last valid memo name entered, which will appear at the top of the display following the selected document name.
At the conclusion of processing, the results will be displayed. There are two possible results: either the memo was accepted (it contained no format errors) and the comments contained in the memo were entered in the data base, or the memo was rejected (it contained format errors) and no changes were made to the data base.

If the memo was accepted, enter <CR> to return to the PROCESS MEMO display to select another memo to process. Continue this procedure until the PROCESS MEMO display list is exhausted.

If the memo was rejected, the errors must be corrected and the memo reprocessed.

To identify the errors, enter the option code to display the error report which will then appear using the RAND Editor. There are two categories of errors: first, errors in the ATTACHMENT header portion of the memo preceding the comments; and second, errors in the individual comment headers.

**Attachment Header Error Correction**

Errors in the ATTACHMENT header will be identified and stop further processing of the memo. These errors include:

- Lack of the word "ATTACHMENT" preceding the four header lines.
- Lack of one of the required four ATTACHMENT header lines.
- An error in the spelling of one of the required keywords in any of the four lines.
- A different document name appearing in the ATTACHMENT header than the name of the currently selected document.
- A different memo name appearing in the ATTACHMENT header than the name of the memo selected for processing.

Errors in the document or memo names are potentially serious and can result in comments from the memo being erroneously referred to the wrong document or identified as coming from the wrong organization. If there is doubt as to the correctness of these numbers, refer to the memo originator or typist. If it is then determined that the errors are a result of typographical errors in the memo, the errors can be corrected on-line. If it is determined that the memo was transferred into ARDS with the wrong document or memo name, request a printout of the error report from the MEMO
PROCESSING COMPLETE display and provide it to the administrator responsible for name consistency. Then skip any further processing steps for this memo.

To correct the typographical type errors, "quit" the RAND Editor, and return to the PROCESS MEMO display. On this display enter the option code for memo editing. This will display the memo using the RAND Editor and the required corrections can be made. When the memo is displayed, various control characters (AH, AL, AM, etc.) may also be displayed. Ignore the control characters. Then "quit" the RAND Editor.

Enter the option code for processing to reprocess the corrected memo. After processing, the MEMO PROCESSING display will report the memo accepted or rejected due to errors in the comment header lines.

**Comment Header Error Correction**

Errors in the individual comment headers are identified in the error report by:

ERROR # ***** reason for error

This line will precede the line in the memo causing the error. The types of errors which can be identified include:

- Invalid comment number sequence - no duplicate or decreasing comment numbers are allowed.
- Invalid comment number - not between 1 and 999 followed by a period.
- Missing or invalid reviewer's initials field.
- Unrecognizable page number.
- Unrecognizable paragraph, table, figure, appendix, or index reference.

These error messages can also occur due to:

- Comment headers with more than two lines.
- Lack of a blank line following the comment header.
Dividing a two-line comment header in the middle of a field.

These errors can be corrected with the PROCESS MEMO display edit option as described for the ATTACHMENT header errors.

One last check is made on the memo. The comments are counted as individually checked, and the count compared to the count declared in the ATTACHMENT header. If the counts do not agree, an error message is placed at the end of the error report. To correct this error, count the real number of individual comments in the memo and place this number in the number of comments line in the ATTACHMENT header.

Memo Retrieval

As described previously, memos can be edited prior to entry of the comments into the data base. Using the retrieval option on the MEMO PROCESSING display, memos can also be edited after the comments have been entered in the data base. This is accomplished with a retrieve/edit/process cycle which results in the deletion of comments from the data base which are associated with a particular memo number and the entry of comments from a new memo with the same memo number.

To edit one or more comments in the data base, or to delete one or more comments from the data base, retrieve the memo in which the comments were originally submitted. This is accomplished by entering the option code for retrieval and the name of the previously processed memo which contained the comments. The memo will then be available for editing and reprocessing. Enter the option code for editing and the memo number. Make the desired changes (edit individual comments or delete specific comments) on the memo using the RAND Editor. If comments are added or deleted, make sure to change the comment count in the memo ATTACHMENT header. "Quit" the RAND Editor and enter the option code for processing.

At this point, a message will appear which states that the memo selected for processing has already been entered in the data base. Entering the confirmation code results in the deletion of all comments originally submitted on the memo (and any dispositions) and addition of all comments now contained in the memo.

This can also be an indication of error. If a memo is transferred with a duplicated memo number and selected for processing, the already existing memo message will appear. Confirmation at this point will result in the loss of the original
memo comments. If there is any suspicion of duplicate memo names, do not confirm the replacement and report the error to the administrator responsible for name consistency.

REPORT PREPARATION

Comment Management provides the ability to produce a variety of reports from the data base. All reports consist of a sequence of comments. The particular types of comments to be included in the report can be specified as can the order in which the comments will appear and the format of the report.

Report Types

There are three types of reports:

Standard Report. This report is a listing of numbered comments.

Disposition Report. This report is a listing of numbered comments, each with its assigned disposition. Only comments which have had dispositions assigned will appear in this report.

Entry Report. This report is a listing of numbered comments, each followed by a checklist of codes which are used in the assignment of dispositions. Use of this special report is described later in the discussion on Disposition Assignment. Only comments which have not had dispositions assigned will appear in this report.

Report Formats

Each type of report can be requested in one of three formats. Additionally, each type of report format is available in paged form, with one leading report header and individual page headers, and in unpaged form with only the leading report header. The paged form is used for reports to be printed and distributed. The unpaged form is used for reports to be stored as UNIX files for subsequent editing.

The three report formats are logline, interim, and final.

Logline Format

In this format each comment appears with its original memo comment number and with additional information (contained on a logline which
precedes each comment) on how the system classified the comment. This can be used to check on exactly how each comment header was interpreted by the system. A typical logline is:

(#1) 3 ABC ADCOM-1 SPEC.1 P3.4 S 0034 ADCOM-1/3

There are 9 fields interpreted as follows:

First  = (#1) logline flag
Second  = comment number within original memo
Third  = reviewer's initials
Fourth  = original memo name
Fifth  = document name
Sixth  = paragraph, table, reference, etc.
Seventh  = type: specific, general, clerical
Eighth  = page number reference
Ninth  = system storage name for the comment (memo name/comment number)

Note that the system currently uses only the first page reference encountered in the page field of the comment header. This is considered the primary page reference and used for sorting reports by page. The same procedure holds for the paragraph, table, reference field, etc.

**Interim Format**

In this format the comments are renumbered and each comment appears as entered on the original memo, with the original memo name added to each comment following the comment header. This report is used for the review process when all comments on a document are reviewed. The original memo name is added to provide comment traceability back to the originating organization which, in conjunction with the reviewer's initials, defines the source of the comment.

**Final Format**

In this format the comments are renumbered and all traceability removed from each comment. The memo name, defining the originating organization, is not added, and the reviewer's initials are deleted from the comment header. This format is appropriate for a report which is to be released to a contractor or other organization outside of the review process.
Certain selection criteria can be specified to select which comments from the total quantity of comments on a selected document in the data base will be included in the report. The selection criteria are:

- **type** = either comments of a selected type (specific, general, or clerical) or all comments pertaining to the selected document are included in the report.

- **paragraph** = only those comments referring to the selected paragraph will be included in the report. This criterion is implemented hierarchically; that is, if paragraph 3.0 is selected, comments referencing any subparagraph (i.e., 3.1, 3.4.2, etc.) will be included. Obviously, a uniform document paragraph structure is required and must be used in the comment header reference fields.

- **memo** = only those comments received in the selected memo will be included in the report.

- **memo group code** = only those comments received from an organization with the selected group code will be included. This capability assumes that the memo naming convention described in appendix E is followed. This convention requires that the leading portion of the memo name be an alphanumeric code reserved for each organization.

- **reviewer's initials** = only those comments from a selected reviewer will be included in the report.

- **disposition type** = only those comments which have been assigned the selected disposition code will be included in the report. This selection option is available only for disposition type reports. The disposition codes referred to are described in the section on Disposition Assignment.
Report Sort Order

After the comments which are to appear in the report are selected, the order in which they will appear can be defined. The order is defined by the two sort keys entered. The first sort key entered is the primary key and the second sort key entered is the secondary key. The report produced will contain the comments ordered first by the primary key and then, for equal primary key values, by the secondary sort key. For example, if the first sort key selected is "type" and the second sort key selected is "page"; the report will contain all clerical comments at the beginning of the report followed by all the general type comments and followed by all specific comments. Then, within each type of comment group, the comments will be ordered by increasing page number.

If only one sort key is selected, the second sort key is defaulted to the comment reviewer's initials.

The available sort key options are:

- comment type (specific, clerical, general)
- paragraph number (assumes uniform paragraph numbering on the document)
- page number (assumes either uniform increasing numeric pages within the document or a section-page notation)
- memo number (will automatically order by organization if the appendix E memo-naming convention is used)
- author's initials

Generating a Report

This section describes how to generate one of the reports just described. All reports are generated from the data base on request.

From the CM menu, enter the option code for report preparation. This provides the REQUEST FOR REPORT display. Enter the series of entries required to produce the desired report. The entries will consist of option letters (as defined on the display) and one selection parameter value (following the selection code letter). The entries should be separated by a blank space.
Entry of a correct parameter sequence will result in display of the REPORT REQUEST ACKNOWLEDGMENT display. This display will describe the characteristics of the report being prepared. No entries can be made while the report is being prepared.

When the report generation activity is completed, the results will be displayed. If no comments in the data base met the selection criterion specified (e.g., all comments on paragraph 3.2.5.1 were requested and no comments had been received on that paragraph) no report is prepared. Otherwise, the report is available for display, printout, or filing.

To printout a copy of the generated report, enter the print option code.

To display the report on-line using the RAND Editor, enter the display option code. The report cannot be modified while in the editor.

To file a copy of the report in a UNIX file for possible subsequent editing, enter the file option code. This will move a copy of the report to the user's login directory using the document name as the filename. Note that for a given document, each file request will overwrite the last report filed on that document. To preserve the last filed report, it must be renamed prior to generation of a new report. This must be done using the UNIX capabilities after exiting from Comment Management.

The print, file, and display options can be exercised in any order any number of times. Therefore, each time the print option code is entered, another copy of the report will be printed.

DISPOSITION ASSIGNMENT

Comment disposition assignment is the method of associating a resolution to each comment. The author of each comment presumably noted an error, omission, or ambiguity in the reviewed document which led to the submission of the comment. The assignment of dispositions to comments is to insure that all of these errors are resolved, specify how they were resolved, and report the resolution back to the original author of the comment.

In Comment Management there are two methods of assigning comments. The first is to identify the comment and then directly enter the text of the disposition. This procedure is described later in this section as the free text, disposition entry method. The second is a more efficient method using codes which refer to
standard disposition texts. Prior to assigning the dispositions, standard disposition categories are defined, short text explanations defined, and short codes assigned to each disposition category. Assigning the dispositions to comments is then accomplished by interactively entering the appropriate code in a preformatted report. The text explanations are then automatically entered as the dispositions. This is the normal method of assigning dispositions.

The actions associated with assigning dispositions are selected on the COMMENT DISPOSITION display obtained from the CM menu. Selecting the appropriate option code on this display will provide either:

- the DISPOSITION CODE DEFINITION display,
- the DISPOSITION ASSIGNMENT display, or
- the FREE TEXT DISPOSITION ENTRY display.

The procedure consists of first defining a set of standard dispositions and assigning short code names to them. This initializes the standard dispositions and need only be done once for any number of documents. Then a Disposition Entry report is generated as previously described. This report consists of a cover page which shows the text associated with each disposition code and a sequence of comments each followed by a checklist of the disposition codes. This report is provided to the reviewers who check one of the codes for each comment and then return the report. A Disposition Assignment report is then generated on-line which contains a special entry field for each comment. The user then transcribes the disposition codes checked from the entry report to the assignment report on-line. The system processes this report creating the disposition texts for each comment. Request of a Disposition report will now provide each comment and the text of its assigned disposition. For added flexibility, the disposition texts can be defined such that when the codes are transcribed to the Assignment report, extra words can be entered which are automatically inserted in the standard disposition text.

### Disposition Code Definition

Prior to assigning dispositions using the code method, the codes must be defined and the disposition text for each code entered. New disposition codes can be assigned at any time, but for consistency in the assignment of dispositions, it is recommended that the full set of codes be thought out and defined at one time.
Once the codes to be used and the associated text are known, the DISPOSITION CODE DEFINITION display is used to enter them into the system. The procedure is:

Enter the first code to be defined on the display. It is recommended that short codes be used for convenience in entry. This brings up a template display using the RAND Editor. The template will contain a line similar to:

\[ \text{wl} = \]

(assuming the disposition code entered was \text{wl})

Type the disposition text starting one space after the "=". One or more lines can be entered. If word substitutions are to be made in the text of the disposition at assignment time, place "__" (underline characters) at the position in the text where the substitutions are to appear. The standard placement is either at the end of the disposition text:

\[ \text{wl} = \text{withheld.} \__ \]

or, on a separate line for longer disposition texts such as:

\[ \text{wl} = \text{withheld: Reviewers do not agree.} \__ \]

Following the entry of the disposition text, "quit" the RAND Editor to return to the DISPOSITION CODE DEFINITION display to specify another disposition code.

Refer to section 5 for a suggested list of disposition codes.

Disposition Assignment

When the comments on a document have been entered in the database and dispositions are to be assigned, the first step is to print an Entry report to be distributed to the reviewer responsible for selecting dispositions. When the report is returned, the DISPOSITION ASSIGNMENT display is used to prepare an assignment report. The Assignment report must be specified with the same selection and sort criteria as the entry report. This will insure that the comments will appear in the same order.
When the Assignment report has been generated by the system, the DISPOSITION ASSIGNMENT display will be received. To enter the dispositions, select the option code to display the Assignment report, which will appear using the RAND Editor.

On the Assignment report, each comment is followed by:

Disposition: __

The code checked by the reviewer on the entry report is typed over the "__". If additional words are to be substituted in the text of the disposition, these must be typed after the code and separated by spaces. For example:

If the disposition text for code w1 is:

Withheld.__

Entering

Disposition: w1 Classified Comment

Results in assignment of the following disposition to the comment:

Withheld. Classified Comment

The easiest way to enter the disposition codes is to use the search capability of the RAND Editor. Search on "__". This results in a one-key tab to each code entry position and fast entry of the codes if the reports have the same sort order.

Not all dispositions must be assigned at one time. Skipping over any code entry position is allowed. Only the comments which have valid disposition codes entered in their entry position will be assigned dispositions. Each time the Assignment report is created, it will contain only comments which do not have dispositions assigned. Similarly, any Entry report requested will contain only comments which do not have dispositions assigned. This allows an incremental assignment of dispositions. Each set of Entry and Assignment reports contains only comments which have not been assigned dispositions. Note the similarity with the Disposition report which only contains comments which have had dispositions assigned. The Standard report, on the other hand, will contain comments independently of whether dispositions have been assigned.

Following entry of the disposition codes and substitution words on the Assignment report, "quit" the RAND Editor. This returns to
the DISPOSITION ASSIGNMENT display. To perform the actual assignment of the dispositions selected on the Assignment report, enter the option code to commit the assignment. The dispositions will now appear on Disposition reports when requested.

FREE TEXT DISPOSITION ENTRY AND EDIT

Occasionally, dispositions will be specified which do not fit in one of the predefined standard categories. These are entered using the FREE TEXT DISPOSITION ENTRY display. On this display enter the option code for entering a disposition and the memo name and comment number (that the comment was assigned within the memo). This information is available on reports prepared in either logline or interim format, i.e., memo name/comment number. This will bring up a template similar to that used for disposition code definition. Enter the desired disposition text as for disposition code definition. One or more lines can be entered. Quitting the RAND Editor returns to the FREE TEXT DISPOSITION ENTRY display, and commits the disposition assignment.

The FREE TEXT DISPOSITION ENTRY display can also be used to edit the previously defined disposition text of any comment.

USAGE STATISTICS

The current counts of memos, comments, and dispositions ordered by document name may be obtained from the USAGE STATISTICS display selectable from the CM menu. The statistics can be printed or displayed. Since the user must wait while the display is constructed, printouts are recommended. This can take five to ten minutes for a large data base.

This data provides a convenient method of checking on whether all comments have had dispositions assigned.
SECTION 4

USER-SYSTEM INTERFACE

This section contains images of the Comment Management displays and describes the entries required on the displays. Figure 4-1 shows the organization of the Comment Management displays.

The Comment Management menu display is obtained by selection of the Comment Management option code on the ARDS Options display. The options display is obtained by entering the command "ards." The entries required to move from display to display are specifically illustrated on the display images, figures 4-2 through figures 4-15, at the end of the section.

The following generalities hold:

"RETURN" (shown in examples as <CR>) always obtains the previous display (except when using the RAND editor).

"o" always returns to the Comment Management menu.

"h" always goes to a help display that describes the options available at that point.

A special note on the RAND editor is appropriate. The RAND editor is a powerful, general-purpose text editor used in Comment Management to display report products on-line and in specific instances where interactive editing is required. Figure 4-1 shows which Comment Management displays use the RAND editor. For most users the RAND editor is used only to display reports which are displayed "write-protected". In these cases only three commands are required.

For the VT100 keyboard, these are:

Page Forward = 9 on the numeric keypad

Page Backward = 3 on the numeric keypad

Quit = <CNTL> z
Figure 4-1. Display Organization
ENTRIES ON DISPLAYS

Most displays require a single entry—a single-character option code or the number of a document or memo. In these cases a prompt of the form:

Return to CM menu,
Select option:

will appear. Entry of the required option (or number) followed by a "RETURN" will result in selection of the option.

In some cases more than one parameter (option codes, document numbers, or memo numbers) is required to make a selection. The entries must be entered sequentially on the same line, in the order indicated, separated by spaces, and followed by a RETURN.

An example of a prompt requiring multiple entries is:

Return to CM menu, or
Select option code and memo number:

An appropriate entry for this prompt is:

d SYNCC-10 <CR>

Another example is:

Return to CM menu, or
Enter in sequence CONTENT FORMAT SELECTION SORT1 SORT2
Select options:

An appropriate entry for this prompt is:

s f t a t p <CR>

DISPLAYS

The remainder of this section contains images of the Comment Management displays which indicate the specific entries required to move from display to display as shown in figure 4-1.
The displays are organized as follows:

- om COMMENT MANAGEMENT
- omi DOCUMENT INITIALIZATION
- oms DOCUMENT SELECTION
- omd MEMO DECRYPTION
- omm PROCESS MEMO
- omp MEMO PROCESSING COMPLETE
- omr REQUEST FOR REPORT
- oma REPORT REQUEST ACKNOWLEDGMENT
- omc COMMENT DISPOSITION
- omcd DISPOSITION CODE DEFINITION
- omca DISPOSITION ASSIGNMENT
- omcaa DISPOSITION ASSIGNMENT
- omcf FREE TEXT DISPOSITION ENTRY
- omu USAGE STATISTICS
COMMENT MANAGEMENT

s = document Selection
m = Memo processing
r = Report request
c = Comment disposition
i = document Initialization
d = Decryption
u = statistics on Use

Return to ARDS options, or
Select option:

ERROR MESSAGES
---- not recognized.
No document selected.

ADVISORY MESSAGES
Select document.

Figure 4-2. Comment Management
DOCUMENT INITIALIZATION

Enter the name of the document for which you wish to store comments in the database. The name may consist of from two to eight alphanumeric characters, optionally followed by a period and one or two digits.

Document: ___

Return to CM menu, or
Specify document name:

ERROR MESSAGES
Document name ___ improper format.
Document name ___ already exists. Specify different name.

ADVISORY MESSAGES
Document name ___ initialized.

Figure 4-3. Document Initialization
The currently selected document is ____.

Documents available for selection include:

Return to CM menu, or
Enter document name:

ERROR MESSAGES
Document name ____ not recognized.

ADVISORY MESSAGES

Figure 4-4. Document Selection
MEMO DECRYPTION

Entry of your decryption password here will cause all encrypted memos in your account to be decrypted. They will then be available for normal processing.

After the decryption is complete, a list of the decrypted memos will be displayed to you. Check this list against your log of encrypted memos.

The password will not be displayed as you enter it.
PROCESS MEMO

If the desired memo is already selected, enter the option code only. Otherwise, enter the option code and the name of the memo.

p = Process memo

e = Edit memo (expert users only)

r = Retrieve and edit previously entered memo (expert users only)

The input queue for ____ now contains the following memos:

Return to CM menu, or
Select option code (and memo name):

ERROR MESSAGES

Only 2 input fields separated by spaces are allowed.
Memo ____ not available in data base.
Memo ____ not recognized.
____ not recognized.
Memo now in process with another operator. Make another selection.
No memo selected. Specify option and memo.
Comments from memo ____ are already in the data base.
Enter c to confirm their replacement with the contents of this memo
Nothing to confirm.

ADVISORY MESSAGES
Processing initiated on memo ____.

Figure 4-6. Process Memo
Memo processing is complete. The comments have been entered in the data base.

You may display the processing results and/or obtain a print.

\[ d = \text{Display (expert users only)} \]
\[ p = \text{Printout} \]

Return to process memo display, or
Select option:

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

ERROR MESSAGES
__ not recognized.

ADVISORY MESSAGES
Print of processing results can be picked up at the computer center.

Figure 4-7. Memo Processing Complete
## Request for Report

### Report CONTENT:
- **s** = standard
- **e** = with disposition entry codes
- **d** = with dispositions

### Report FORMAT:
- **i** = interim, paged
- **l** = with log lines, paged
- **fu** = final, unpaged
- **lu** = with log lines, unpaged

### Comment SELECTION:
- **t** + code = type (g,s,c or a for all)
- **p** + number = paragraph in document
- **m** + memo name = source memo
- **i** + capitalized initials = reviewer
- **o** + group code = organization
- **d** + code = disposition type (for d report only)

### Comment SORT keys:
- (two may be chosen)
  - **t** = by comment type
  - **p** = by paragraph number
  - **n** = by page number
  - **m** = by memo name
  - **i** = by reviewer’s initials

---

### Error Messages
- Either 5 (one sort key) or 6 (two sort keys) entries are needed.
- ___ is not a valid report CONTENT.
- ___ is not a valid report FORMAT.
- ___ is an invalid SELECTION type code.
- The SELECTION reviewer’s initials must be 2 or 3 capital letters.
- ___ is not an available SELECTION memo name.
- ___ is an invalid SELECTION paragraph number format.
- ___ is not an available SELECTION organization code.
- The d SELECTION is only allowed for d CONTENT reports.
- ___ is not a defined SELECTION disposition code.
- ___ is an invalid SELECTION option.
- ___ is not a valid SORT key.

---

### Advisory Messages

---

Figure 4-8. Request for Report
REPORT REQUEST ACKNOWLEDGEMENT

A ___ report
in ___ format,
including ___,
sorted by ___, and ___.

has been prepared and is ready for display and/or printout.

d = Display (expert users only)
p = Printout
f = File copy in directory ___
under filename___

Return to request another report, or
Select option:

ERROR MESSAGES
____ not recognized.

ADVISORY MESSAGES
A print of the report can be picked up at the computer center.

Figure 4-9. Report Request Acknowledgment
Comment dispositions can be entered in the comment database and included in reports. Codes for commonly specified dispositions can be defined and used to facilitate disposition data entry.

\[ \begin{align*} 
\text{d} &= \text{Define disposition code} \\
\text{a} &= \text{Assign disposition codes to comments} \\
\text{f} &= \text{Enter free text disposition for a comment} 
\end{align*} \]

Return to CM menu, or
Select option:

ERROR MESSAGES
___ not recognized.

ADVISORY MESSAGES

Figure 4-10. Comment Disposition
A disposition code and its associated text can be created or modified. The code is used to enter disposition information for comments. The text is printed in reports.

Enter "all" to obtain a current listing of codes.

Enter a two-character code to review, modify, or create the text associated with a code. Placement of "___" in the text allows insertion of variable information when a comment disposition assignment is made.

Return to assign dispositions, or
Enter 'all' or disposition code:

Figure 4-11. Disposition Code Definition
DISPOSITION ASSIGNMENT

If you are working from a disposition entry report, specify the selection and sort parameters from that report to obtain a display for the on-line assignment of disposition codes. Otherwise, specify convenient values.

Comment SELECTION:
- t + code = type (g,s,c or a for all)
- p + number = paragraph in document
- m + memo name = source memo
- i + capitalized initials = reviewer
- o + group code = organization
- d + code = disposition type (for d report only)

Comment SORT keys: (two may be chosen)
- t = by comment type
- p = by paragraph number
- m = by memo name
- i = by reviewer's initials

Return to select disposition action, or
Enter in sequence SELECTION SORT1 SORT2
Select options:

ERROR MESSAGES
Either 3 (one sort key) or 4 (two sort keys) options must be entered.
___ is an invalid SELECTION type code.
The SELECTION reviewer's initials must be 2 or 3 capital letters.
___ is not an available SELECTION memo name.
___ is an invalid SELECTION paragraph number format.
___ is not an available SELECTION organization code.
___ is an invalid SELECTION option.
___ is not a valid SORT key.

ADVISORY MESSAGES

Figure 4-12. Disposition Assignment

45
A comment disposition assignment report, including ____, sorted by ____ and ____, has been prepared and is ready for assignment of dispositions.

- d = Display assignment report
- c = Commit entered assignments
- p = Printout assignments

Return to specify another report, or
Select option:

ERROR MESSAGES
___ not recognized.

ADVISORY MESSAGES
___ comments have no disposition assigned.
All disposition codes entered have been assigned.
A print of the codes entered can be picked up at the computer center.

Figure 4-13. Disposition Assignment
A free text disposition can be entered for any comment if the coded dispositions are not appropriate.

r = Review comment

d = enter or modify comment Disposition

ERROR MESSAGES
No more than 3 input fields may be entered.
Memo ____ not recognized.
Comment ____ not recognized.
____ not recognized.

ADVISORY MESSAGES

Figure 4-14. Free Text Disposition Entry
To obtain counts of the number of memos, comments and dispositions associated with each document currently contained in the data base, select either the display or print option code.

Note - for a large data base, this display will take a significant time to prepare.

  p = Print
  d = Display

Return to CM menu, or
Select option:

ERROR MESSAGES
___ not recognized.

ADVISORY MESSAGES
Data generation initiated. Wait for display.
Printout ordered. Pick up at computer center.

Figure 4-15. Usage Statistics
SECTION 5
SAMPLE REPORTS AND DISPOSITION CODES

This section contains examples of the various reports generated by Comment Management and provides a sample list of disposition codes with disposition text. The first few pages of each report are shown. These reports are based on comments received on the SPADOC consolidated specification, but have been modified to better demonstrate features of Comment Management. In particular, the assigned dispositions are fictitious.

MEMO

This is an example of a memo submitted for processing. It is the basis for the next three reports. The comments in it are included in the other reports in this section.
ATTACHMENT

Memo Name: MK71W-16
Document Name: spec
Organization: WTHF, Washington
Number of Comments: 7

1. RT CJS; Page 4; Figure 1: S
   ICC is not a part of CSR.

2. RT CJS; Page 35; Para 3.2.1.4.4: C
   Item 3 is missing.

3. RT CJS; Page 37; Para 3.2.1.4.7: C
   "an" should be "and".

4. RT CJS; Page 34; Para 3.2.2.2: S
   "m" should be "7m".

5. RT CJS; Page 44; Para 3.7.4.1.2.1.10: S
   Change "... trackball, joystick" to "... trackball,
   joystick or other cursor control mechanism".

6. RT CJS; Page 95; Section 3.7.4.1.2.1.15: S
   Add new Section
   Fixed and Variable Function Keys. In order to minimize the
   number of operator key strokes, provide more flexible use of
   the CRT screen for data, and provide the capability to
   display only those functions available to a specific
   position, fixed and variable function keys shall be employed.

7. RT CJS; Page 101; Para 3.7.4.2.2: S
   Add to end of any sentence "except by privileged portions of
   the operating system."

8. RT CJS; Page 105; Para 3.7.4.2.3.1.4: S
   Add sentence to end of first paragraph: "Forms shall provide
   capability to advance the cursor position to each blank
   portion of the form for which data is to be entered."
MEMO ERROR REPORT - ATTACHMENT HEADER ERRORS

This report is produced when errors are detected in the attachment header during memo processing. Note that the memo does not have the optional cover letter.
MEMO REJECTED - CORRECT IDENTIFIED ERRORS AND RESUBMIT

1. **RI CJS; Page 5; Figure 15:**
   - IEC is not a part of CJS.

2. **RI CJS; Page 35; Para 3.2.1.4.41 C**
   - Item 3 is missing.

3. **RI CJS; Page 37; Para 3.2.1.4.7; C**
   - "or" should be "and".

4. **RI CJS; Page 42; Para 3.2.2.21.5**
   - "or" should be "if".

5. **RI CJS; Page 43; Para 3.7.4.1.2.1.10; B**
   - Change "... trackball, joystick" to "... trackball, joystick or other cursor control mechanism".

6. **RI CJS; Page 45; Section 3.7.4.1.2.1.48; S** and new Section
   - Fixed and Variable Function Keys. In order to minimize the number of operator key strokes, provide more flexible use of the CRT screen for data, and provide the capability to display only those functions available in a specific position, fixed and variable function keys shall be employed.

7. **RI CJS; Page 141; Para 3.7.4.2.21; S**
Add to end of 2nd sentence "except by privileged portions of the operating system."

8. RI CJS; Page 105; "para 3.7.4.2.3.1.41; S

Add sentence to end of first paragraph: "Forms shall provide capability to advance the cursor position to each blank portion of the form for which data is to be entered."
MEMO ERROR REPORT - COMMENT HEADER ERRORS

This report is produced when errors are found in the comment headers or comment numbering during memo processing.
ERROR 1 ****** Invalid comment number sequence, 1 to 1

1. HI CJS; Page 35; Para 3.2.1.4.41 C
   Item 3 is missing.

ERROR 2 ****** The reviewer’s initials are missing

4. HI CJS; Page 391; Para 1.2.2.21 S
   “On” should be “Off”.

5. HI CJS; Page 94; Para 3.7.4.1.2.1.181 S
   Change “... trackball, joystick” to “... trackball, joystick or other cursor control mechanism”.

6. HI CJS; Page 45; Section 3.7.4.1.2.1.181 S; Add new Section
   Fixed and Variable Function keys. In order to minimize the number of operator key strokes, provide more flexible use of the CRT screen for data, and provide the capability to display only those functions available to a specific position, fixed and variable function keys shall be employed.

7. HI CJS; Page 11; Para 3.7.4.2.71 S
   Add to end of 2nd sentence “except by privileged portions of
the operating system."

8. RI CJSS Page 105; Para 3.7.4.2.3.1.4f 8

Add sentence to end of first paragraph: "Forms shall provide capability to advance the cursor position to each blank portion of the form for which data is to be entered."

ERROR 3 ****************************************
9 comments processed
Does not agree with given count 7
NOTE: Check for incorrect use of 1 (one)
in place of 1 (one) in comment numbers.
***********************************************
MEMO ACCEPTANCE REPORT

This report is produced following the successful processing of a memo.
### ATTACHMENT

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<td>MITRE Washington</td>
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1. **CJS** *w71w=36* csdec P1 S 0068 *w71w=36/1
   - **HI CJS; Page A; Figure 11; S**
     - ICC is not a part of CSK.

2. **CJS** *w71w=36* csdec P3.2,1,4,4 C 0039 *w71w=36/2
   - **HI CJS; Page 35; Para 3.2,1,4,4; S**
     - Item 3 is missing.

3. **CJS** *w71w=46* csdec P3.2,1,4,7 C 0037 *w71w=36/3
   - **HI CJS; Page 37; Para 3.2,1,4,7; S**
     - "an" should be "are".

4. **CJS** *w71w=36* csdec P3.2,2,2 S 0039 *w71w=36/4
   - **HI CJS; Page 42; Para 3.2,2,2; S**
     - "an" should be "an".

5. **CJS** *w71w=46* csdec P3.7,4,1,2,1,10 S 0093 *w71w=36/5
   - **HI CJS; Page 44; Para 3.7,4,1,2,1,10; S**
     - Change "... trackball, joystick" to "... trackball, joystick or other cursor control mechanism".

6. **CJS** *w71w=36* csdec P3.7,4,1,2,1,15 S 0085 *w71w=36/6
   - **HI CJS; Page 45; Section 3.7,4,1,2,1,15; S** Add new Section
     - Fixed and Variable Function Keys. In order to minimize the number of operator key strokes, provide more flexible use of the CRT screen for data, and provide the capability to display only those functions available in a specific position, fixed and variable function keys shall be employed.

7. **CJS** *w71w=36* csdec P3.7,4,1,2,2 S 0101 *w71w=36/7
7. RI CJS; Page 101; Para 3.7.4.2.2; S

Add to end of 2nd sentence "except by privileged portions of the operating system."

81) 8 CJS \#71\=-: csspec P.7.4.2.3.1.4 S 0105 \#71W-36/8
8. RI CJS; Page 105; Para 3.7.4.2.3.1.4; S

Add sentence to end of first paragraph: "Forms shall provide capability to advance the cursor position to each blank portion of the form for which data is to be entered."
STANDARD REPORT - LOGLINE FORMAT

This report is an example of a standard unpaged logline format report. The logline format is used primarily to resolve comment header problems that result in unintended placement of comments in sorted reports.
Standard Comment Management Report

In unposted online format, including all comments entered to date, sorted by comment type and page number.

(1) 6 JED 073H-125 cspec RF C 0040 073H-125/6
6. RI JEF; Page 43; FIGURE 8; C
   Should contain a legend defining the interconnections shown as in the draft Specification.

(1) 2 CJS *71H=36 cspec P3.2.1.4.4 C 0045 *71H=36/2
2. RI CJS; Page 35; Para 3.2.1.4.4; C
   Item 4 is missing.

(1) 3 CJS *71H=36 cspec P3.2.1.4.7 C 0047 *71H=36/3
3. RI CJS; Page 37; Para 3.2.1.4.7; C
   "an" should be "any".

(1) 10 JED 073H-124 cspec P3.2.4.1.1 C 0043 073H-124/10
10. RI JED; Page 43; Para 3.2.4.1.1 to 3.2.4.1.1; C
   The abbreviations NCT, "ct, "pt, "dv are confused and disagree with the glossary. NCT is used to represent recovery time and mean recovery time. Once the conclusion is straightened out, left over glossary definitions (i.e., "ct, "vct) should be removed.

(1) 4 GK *71H=15 cspec P3.2.4.1 C 0049 *71H=15/4
4. RI JEF; Page 43; Para 3.2.4.1; C
   Last line - there is a "*" after "that" - it should be eliminated.

(1) 5 GK *71H=15 cspec P3.2.4.1.1 C 0043 *71H=15/5
5. RI JEF; Page 43; Para 3.2.4.1.1; C
   Sixth line - underline "ct" to indicate mean. (Not the first two "ct's, which are generic).

(1) 6 GK *71H=15 cspec P3.2.4.1.4 C 0043 *71H=15/6
6. RI JEF; Page 43; Para 3.2.4.1.4; C
   Last line - underline "ct" to indicate mean.

(1) 9 JEF *7H=175 cspec P3.2.4.1.6 C 0044 *7H=175/9
61
The acronym A/SD stands for "Administrative and Supply Delay" not Administrative and Logistics Supply Delays.

\[(\text{SI})\] 8 JED MD73B=125 cspec P3.3.8.4.2 C 0055 MD73B=125/8

8. RI JED; Page 55; Para 3.3.8.4.2 C

"b" = "If" should be "If Then Else"
"c" = "Do" should be "Do While"
"d" = "Do" should be "Do Until"

\[(\text{SI})\] 9 GK MD718-15 cspec P4.4.4.1 C 0131 MD718=15/9

9. RI GK; Page 131; Para 4.4.4.1 C

Third line - add "of" after requirements and before 3.2.3.1.

\[(\text{SI})\] 1 GK MD718-27 cspec P1.0 G = MD718-27/1

1. RI GK; MTBF Requirements; G

- MTBF requirements must be derived by the contractor. The contractor is obligated to allocate MTBF values down through the functional levels to the LRU's. These will become the MTBF requirements (specified) for individual units when approved by the government.

The test limits, 0-1 and 0-0, become very relevant when viewed with respect to the specified values which the contractor derives. In the older MIL-STD-781A, the 0-0 was the specified value and the 0-1 was defined as the minimum acceptable value of MTBF. In the newer MIL-STD-781C, the 0-1 is the lower test MTBF which defines the boundary of unacceptability. It is still desired to have the true MTBF of the unit under test approach 0-0, the upper test value. Thus, it is essential that the government examine the specified MTBF(s) and evaluate them with respect to the 0-1(s) and 0-0(s) which the contractor chooses to use prior to start of testing. It is a way of assuring minimum government risk. The 0- should be at or very near the specified MTBF and the 0-1 should be determined from the 0-0 using the discrimination ratio (2/1) required by Test Plan VII C para specification paragraph 4.4.1.2.1.

\[(\text{SI})\] 2 GK MD718-27 cspec P1.0 G = MD718-27/2

2. RI GK; G

- Need to insure full operational recovery, including critical data; not just the restart and operation of equipment, which may have been redundant.

\[(\text{SI})\] 3 GK MD718-27 cspec P1.0 G = MD718-27/3

3. RI GK; G

Disagree with deletion of formulas and replacement with
STANDARD REPORT - INTERIM FORMAT

This report is an example of a standard paged interim format report. Comments are numbered sequentially. The source memo name and comment number are retained in the second line of each comment.
Standard Comment Management Report

In named interim format, including all comments entered to date, sorted by comment type and page number.

1. RI JEd: Page 1: Figure 81 C
   40738-125/6
   Should contain a legend defining the interconnections shown as in the draft specification.

2. RI CJS: Page 35: Para 3.2.1.4.4 C
   40714-18h/2
   Item 3 is missing.

3. RI CJS: Page 37: Para 3.2.1.4.7 C
   40714-18h/3
   "an" should be "and".

4. RI JEd: Page 43: Para 3.2.4.1.1 to 3.2.4.1.5 C
   40738-125/1
   The abbreviations "ct, Mct, 4ct, Pmdt" are confused and disagree with the glossary. "ct" is used to represent recovery time and "mean recovery time". Since the confusion is straightened out, left over glossary definitions (i.e., "ct", "mct") should be removed.

5. UI Jk: Page 41: Para 3.2.4.11 C
   40714-15/4
   Last line - there is a "#" after "that" - it should be eliminated.

6. UI Jk: Page 41: Para 3.2.4.11 C
   40714-15/3
Sixth line - underline Mct to indicate mean. (Not the first two Mct's, which are generic).

7. RI GK; Page 44; Para 3.2.4.1.4; C
   40719-15/6
   Last line - underline Mct to indicate mean.

8. RI JED; Page 44; Para 3.2.4.1.6; C
   4073B-125/9
   The acronym A/SO stands for "Administrative and Supply Delay" not Administrative and Logistics Supply Delays.

9. RI JED; Page 55; Para 3.3.8.4.2; C
   4073B-125/8
   "b" - "If" should be "If Then Else"
   "c" - "Do" should be "Do While"
   "4" - "Do" should be "Do Until"

10. RI GK; Page 131; Para 4.4.4.1; C
    40719-15/9
    Third line - add "of" after requirements and before 3.2.3.1.

11. RI SK; "ITF Requirements; G
    40719-27/1
    ITF requirements must be derived by the contractor. The contractor is obligated to allocate MTBF values down through the functional levels to the LRU's. These will become the MTBF requirements (specified) for individual units when approved by the government.

    The test limits, O=1 and O=0, become very relevant when viewed with respect to the specified values which the contractor derives. In the older MIL-STD-781A, the O=0 was the specified
STANDARD REPORT - FINAL FORMAT

This report is an example of a standard paged final format report. Note that the information about the source memo, the original comment number, and the reviewer does not appear in this format.
Standard Comment Management Report

In paged final format, including all comments entered to date, sorted by comment type and page number.

1. Page 8; Figure 8; C
   Should contain a legend defining the interconnections shown as in the draft Specification.

2. Page 15; Para 3.2.1.4.4; C
   Item 3 is missing.

3. Page 37; Para 3.2.1.4.7; C
   "an" should be "and".

4. Page 43; Para 3.7.4.1.1 to 3.2.4.1.5; C
   The abbreviations "ct, mct, mpt, mpt" are confused and disagree with the glossary. mct is used to represent recovery time and mean recovery time. Once the confusion is straightened out, left over glossary definitions (i.e., Mct, Mct) should be removed.

5. Page 43; Para 3.7.4.1; C
   Last line - there is a "*" after "that" - it should be eliminated.

6. Page 43; Para 3.7.4.1.1; C
   Sixth line - underline Mct to indicate mean. (not the first two "ct"s, which are generic).

7. Page 43; Para 3.2.4.1.4; C
   Last line - underline Mct to indicate mean.
8. Page 44; Para 3.2.4.1.6; C

The acronym A/SD stands for "Administrative and Supply Delay" not Administrative and Logistics Supply Delays.

9. Page 55; Para 3.3.8.4.2; C

"b" = "If" should be "If Then Else"
"c" = "Do" should be "Do While"
"d" = "Do" should be "Do Until"

10. Page 131; Para 4.4.4.1; C

Third line - add "or" after requirements and before 3.2.3.1.

11. MTRF Requirements; G

MTRF requirements must be derived by the contractor. The contractor is obligated to allocate MTRF values down through the functional levels to the LRU's. These will become the MTRF requirements (specified) for individual units when approved by the government.

The test limits, 0=1 and 0=0, become very relevant when viewed with respect to the specified values which the contractor derives. In the older XIL-STO-7418, the U=0 was the specified value and the 0=1 was defined as the minimum acceptable value of MTRF. In the newer XIL-STO-741C, the 0=1 is the lower test MTRF which defines the boundary of unacceptability. It is still desired to have the true MTRF of the unit under test approach 0=0, the upper test value. Thus, it is essential that the government examine the specified MTRF(s) and evaluate them with respect to the 0=1(s) and 0=0(s) which the contractor proposes to use prior to start of testing. It is a way of assuring minimum government risk. The 0= should be at or very near the specified MTRF and the 0=1 should be determined from the 0=0 using the discrimination ratio (2/1) required by "Test Plan III C per specification paragraph 4.4.1.7.1.

12. G

We need to insure full operational recovery, including critical data; not just the restart and operation of equipment, which may have been redundant.
13. G

Disagree with deletion of formulas and replacement with definitions.

14. G

The glossary needs to be updated. MAL3 - this acronym is no longer used and has been replaced by ALASAT. The following are not defined in the glossary: \( \text{Mmaxct} \) (p. 42, 43), \( \text{ADOC} \) (p. 21, para 3.1.5.2.1.10), \( \text{MIJI} \) (p. 22, 23, para 3.1.5.2.2.8).

15. Page 41; Figure 1; S

TCC is not a part of CSS.

16. Page 15; Para 3.1.5.1.21; S

This exclusion should be added after "... and organizations": "(with the exception of certain SCI owner/operator dedicated circuits).".

17. Page 70, 71; Para 3.1.5.2.2.1; S

The SPADOC 4/ALASAT, SPADOC 4/ALCC interfaces have not been addressed. Control will come from the SPADOC 4A Watch Center through the ADOC and KOCC to the ALASAT. Alert/Execution orders will come from the Watch Center through the PMOC and ALCC to the ALASAT." Based upon Block 4A's interaction with the above systems section 3.1.5.2.1 of the Spec, should address the SPADOC/KOCC, ALCC and ALASAT interfaces.

According to SJET reviewer SH (ADC/XWSC) the interface between SPADOC 4 and the System Controller or the SCC "day shop" has not been defined and needs to be.

18. Page 25; Para 3.1.5.2.2.11; S

The last sentence is incomplete. It should continue with "specified in ICD "o. THO."
DISPOSITION ENTRY REPORT

This report is an example of a Disposition Entry report which is distributed to reviewers for selection of comment dispositions. A list of disposition codes and associated text is shown on the first page.
**ARDS - AUTOMATED REQUIREMENT DEVELOPMENT SYSTEM**

**COMMENT MANAGEMENT DISPOSITION ENTRY REPORT**

This report is distributed to users to assign dispositions to comments received on this document. Most comments will fit into one of the defined standard categories. To select a standard assignment, circle the desired code in the list which follows each comment. Note that some dispositions also require specification of a comment number reference. The number of the comment which covers this topic should be entered in the reference area provided.

Dispositions which do not fit any of the standard categories can be specified in freetext form and attached to this report.

**STANDARD DISPOSITION SELECTIONS AVAILABLE**

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Disposition Entry Report

In panel interim format, including all comments entered to date, sorted by comment type and page number.

1. RI JFU: Page 47, Figure 81 C

Should contain a legend defining the interconnections shown as in the draft specification.

Select one of the following disposition codes:

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Add reference if required: ____________

2. RI CJH: Page 15, Para 3.2.1.4.4 C

Item is missing.

Select one of the following disposition codes:

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Add reference if required: ____________

3. RI CJH: Page 47, Para 3.2.1.4.7 C

"an" should be "and".

Select one of the following disposition codes:

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Add reference if required: ____________

4. RI JFU: Page 47, Para 3.2.4.1.1 to 3.2.4.1.5 C

Add reference if required: ____________
DISPOSITION ASSIGNMENT REPORT - BEFORE CODE ENTRY

This report is an example of the report which is used on-line to enter the disposition codes specified by the reviewers on the Disposition Entry report. The codes are entered in the underlined fields provided.
Disposition Assignment Report

In unnumbered line format, including all comments entered to date, sorted by comment type and page number.

(1) 6 JFU MD736-125 cspec 8A C 0008 MD736-125/6

6. M 1 JU; Date 12 Figure 8; C

Should contain a legend defining the interconnections shown as in the draft specification.

Disposition: --

(1) 2 CJS 771-56 cspec P3.2.1.4.1 C 0035 MD716-36/2

2. M1 CJS; Page 35; Para 3.2.1.4.1; C

Item 3 is missing.

Disposition: --

(1) 3 CJS 771-56 cspec P3.2.1.4.1 C 0037 MD716-33/3

3. M1 CJS; Page 33; Para 3.2.1.4.1; C

"an" should be "and".

Disposition: --

(1) 10 JUJ 771-16 cspec P3.2.1.4.1 C 0013 MD716-128/4

10. M1 JUJ; Page 13; Para 3.2.4.1.1 to 3.2.4.1.3; C

The abbreviations 'ct', 'act', 'cot', 'mut' are confused and disagree with the glossary. 'ct' is used to represent recovery time and mean recovery time. Once the confusion is straigntened out, left over glossary definitions (i.e., 'ict, 'oct') should be removed.

Disposition: --

(1) 4 GJ 771-16 cspec P3.2.4.1 C 0043 MD716-15/4

4. M1 GJ; Page 13; Para 3.2.4.1; C

Last line - there is an "&" after "that" - it should be eliminated.

Disposition: --

(1) 5 GJ 771-16 cspec P3.2.4.1.1 C 0043 MD716-15/4
5. RI Gk; Page 43; Para 3.2.4.1.1 C

Sixth line - underline Met to indicate mean. (Not the first two Met's, which are generic).

Disposition: __

(s1) 6 Gk 071R-15 cspec P3.2.4.1.4 C 0043 MD718-15/6

6. RI Gk; Page 43; Para 3.2.4.1.4 C

Last line - underline Met to indicate mean.

Disposition: __

(s1) 9 JED 073B-125 cspec P3.2.4.1.6 C 0044 MD738-125/9

9. RI JED; Page 44; Para 3.2.4.1.6 C

The acronym A/SN stands for "Administrative and Supply Delay" not Administrative and Logistics Supply Delays.

Disposition: __

(s1) 6 JED 073B-125 cspec P3.3.8.4.1 C 0045 MD738-125/8

8. RI JcO; Page 55; Para 3.3.8.4.2 C

"b" - "If" should be "If Then Else"
"c" - "Do" should be "Do While"
"d" - "Do" should be "Do Until"

Disposition: __

(s1) 9 Gk 071R-15 cspec P4.4.4.1 C 0131 MD718-15/9

9. RI Gk; Page 131; Para 4.4.4.1 C

Third line - Add "of" after requirements and before 3.2.3.1.

Disposition: __

(s1) 1 Gk 071R-27 cspec P1.0 G = MD71R-27/1

1. RI Gk; STAF requirements; G

STAF requirements must be derived by the contractor. The contractor is obligated to allocate STAF values down through the functional levels to the LRU's. These will become the STAF requirements (specified) for individual units when approved by the Government.

The test limits, L-1 and D-0, become very relevant when viewed with respect to the specified values when the contractor
DISPOSITION ASSIGNMENT REPORT - AFTER CODE ENTRY

This report shows the Assignment report with the disposition codes as they would be entered on-line.
Disposition Assignment Report

In unaged loxline format, including all comments entered to date, sorted by comment type and page number.

(1) 6 JEU 8073-123 cspec PR C 0006 W073-125/6
6. RT JDU: Page 43 Figure 41 C

...should contain a legend defining the interconnections shown as in the trait specification.

Disposition: vs

(1) 2 CJS 771-16 cspec P3.2.1.4.4 C 0035 W71-76/2
2. RT CJS: Page 35: Para 3.2.1.4.4 C

Item 2 is missing.

Disposition: vs

(1) 3 CJS 771-16 cspec P3.2.1.1.7 C 0037 W71-76/3
3. RT CJS: Page 37: Para 3.2.1.1.7 C

"an" should be "any".

Disposition: vs

(1) 10 JEU 773-146 cspec P3.2.1.1.1 C 0050 W73-125/10
10. RT JEU: Para 41: Para 3.2.1.1.1 to 3.2.1.4.1 C

The abbreviations: act, "act" not, "not" are confused and disagree with the glossary. act is used to represent recovery time and mean recovery time. Since the confusion is straightened out, left over glossary definitions (i.e., "act, not) should be removed.

Disposition: vs

(1) 4 GR 871-15 cspec P3.2.4.1 C 0043 W71-15/4
4. RT GR: Para 43: Para 3.2.4.1 C

Last line - there is a "a" after "that" - it should be eliminated.

Disposition: vs

(1) 5 GR 871-15 cspec P3.2.4.1.1 C 0043 W71-15/5

77
Sixth line - underline text to indicate mean. (Not the first two text's, which are generic).

Disposition: 11 #1

(1) 6 GK 0718-15 cspec P3.2.4.1.4 C 0043 MD71B-15/6

Last line - underline text to indicate mean.

Disposition: #13 General Comment #1

(1) 9 JEO MD73B-125 cspec P3.2.4.1.6 C 0044 MD73B-125/9

The acronym A/SD stands for "Administrative and Supply Delay" not Administrative and Logistics Supply Delays.

Disposition: #6

(1) 9 JEO MD73B-125 cspec P3.3.8.4.2 C 0055 MD73B-125/8

"b" - "If" should be "If Then Else"

c" - "On" should be "On while"

4" - "On" should be "On Until"

Disposition: 1

(1) 9 GK 0718-14 cspec P4.4.4.1 C 0131 MD71B-15/9

Third line - add "of" after requirements and before 3.2.3.1.

Disposition: 11 #2

(1) 1 GK 0718-27 cspec P1.0 G = 0718-27/1

1. GI GA: "MIF requirements; G

MIF requirements must be derived by the contractor. The contractor is obligated to allocate MIF values down through the functional levels to the LRU's. These will become the MIF requirements (specified) for individual units when approved by the government.

The test limits, 0-1 and 0-0, become very relevant when viewed with respect to the specified values which the contractor
COMMENT DISPOSITION REPORT

This report shows the comments with associated dispositions that are a result of making the code assignment shown on the previous Disposition Assignment report.
Comment Disposition Report

In paged interim format, including all comments entered to date, sorted by comment type and page number

RI JED, Page 8, Figure 8: C
MD738-125/6

Should contain a legend defining the interconnections shown as in the draft specification.

Disposition
Withheld Unnecessary tutorial comment

RI JED, Page 35, Para 3.2.1.44: C
MD71W-36/2

Item 3 is missing.

Disposition
Withheld Not applicable to this Document

RI JED, Page 37, Para 3.2.1.47: C
MD71W-36/3

"an" should be "and"

Disposition
Withheld Not applicable to this Document

RI JED, Page 43, Para 3.2.4.11 to 3.2.4.15: C
MD738-125/10

The abbreviations Mct, Mct, Mpt, Mpt are confused and disagree with the glossary. Mct is used to represent
recovery time and mean recovery time. Once the confusion is straightened out, left over glossary definitions (i.e., Mict, Moct) should be removed.

Disposition:
Incorporated in General comment.

5 RI JED; Page 44; Para 3.2.4.1.6; C
MD73B-125/9

The acronym A/SD stands for "Administrative and Supply Delay" not Administrative and Logistics Supply Delays.

Disposition
Incorporated in General comment.

5 RI JED; Page 55; Para 3.3 B 4.2; C
MD73B-125/8

"b" - "IF" should be "If Then Else"
"c" - "Do" should be "Do While"
"d" - "Do" should be "Do Until"

Disposition
Incorporated in General comment.

5 RI JUS. Page 8; Figure 1; S
MW71W-36/1

TCC is not a part of CSS

Disposition
Withheld Not appropriate
SECTION 6
FORMATS FOR COMMENT ENTRY

This section describes two formats: a manual preparation format which shows the information required for each comment and a memo format which defines the form in which comments must be submitted to the ARDS Comment Management software.

COMMENT SUBMISSION FORM

The Comment Submission Form can be used to record comments in the appropriate format for preparation of memos and subsequent entry into the ARDS Comment Management data base. An example of the Comment Submission Form is shown in figure 6-1.

The form is divided into four sections: General Information, Comment Type Information, Optional Topic, and Comment Text:

General Information

Four entries are required:

the name of the reviewed document or specification,
the name or initials of the reviewer,
the name of the reviewers' organization, and
the current date.

Comment Type Information

Three types of comments are allowed:

Specific - A technical comment dealing with a specific part(s) of the document.

Clerical - The identification of a typographical, grammatical, or organizational error.
Figure 6-1. Comment Submission Form
General - A technical or organizational comment which
deals with the document as a whole, or does not
fit into the specific or clerical type
categories.

One of these must be selected with a check mark.

If General type is selected, no further entries are required in
the type information section.

If Specific or Clerical type is selected, the page containing
the text commented on must be identified. One (or more) paragraph,
figure, table, index, or appendix reference must also be identified.
Multiple pages, paragraphs, figures and tables can be identified.

Optional Topic

Up to six words may be recorded to identify such things as
technical areas, priority, etc.

Comment Text

Required comment description. Any free-form text is allowed.

MEMO FORMAT

The previous text describes the form for manually preparing
comments. However, ARDS Comment Management accepts comments
prepared in the form of a memo generated using WORD-11, DEC WS/78 or
DECMate word-processing systems. This means that manually prepared
comments must be compiled in memo form using a word-processing
system and then transferred to ARDS.

The manual submission form identifies the information required
to store and retrieve comments; the following specifies the format
in which the information must appear in a memo to be automatically
processed. Inspection of the sample memo in figure 6-2 now will
make it easier to understand the memo format descriptions that
follow.

Memos containing comments to be entered into the comment
management data base are composed of three sections:
To: F. D. Coordinator  
From: R. M. Reviewer  

Subject: Review of Assigned Sections Of Draft Specification  
          CNCE AN/TYQ-16, 14 March 1980  

Copies to: Distribution  


As requested in reference 1, a review of the AN/TYQ016 Draft Specification has been conducted. The attachment to this memo contains comments on Paragraphs 3.1 through 3.2.1 inclusive. Comments on Paragraph 3.7.1 plus the figures attached to the specification will be provided in a follow-up memo.

R. M. Reviewer

RMR:stm

---

Figure 6-2. Example WORD-11 Comment Memo

85
1. RI ABC; Network Terminology

Throughout the document insert "Network" between Communications and Control.

2. RI XYZ; Page 11; Para. 3.2.1.2.3.b; S

The first sentence should be expanded to associate level designations A, B and C with each designated CSCE. These levels are defined in paragraph 3.1.1.2.5.5.

3. RI IJK; Page 13; Para. 3.2.1.2.4a to 3.2.1.2.4c, 3.4.1.2.3.a; S; Missing Component References

Each processor equipped element identified in these paragraphs should have its specification listed on Page 4 under paragraph 3.2.C 2 TRI-TAC Specifications.

4. RI ABC; Page 11; Para. 3.1.4.2.4.a; S

Remove the last sentence from paragraph (a) and incorporate the requirements into subparagraphs (b) and (c) as applicable.

5. RI XYZ; Page 11; paragraph 3.1.1.2.4.c ; C

On line three insert "Voice" between "digital" and "orderwire".

6. RI IJK; Page 12; Para. 3.1.1.2.5; S; Organizational Changes

This paragraph and its subparagraphs should be relocated such that they precede paragraph 3.1.1.2.3. This will identify and describe the various elements and facilities prior to their discussion in paragraphs 3.1.1.2.3 and 3.1.1.2.4.

Figure 6-2. Example WORD-11 Comment Memo (Concluded)
Memo cover letter - optional
Attachment header - mandatory
Comment list - mandatory

Memo Cover Letter

The optional memo cover letter may contain any text in any format (with the single exception that the word "ATTACHMENT" or "Attachment" appearing alone on a line is not allowed). The end of this section is defined by the occurrence of the attachment header.

Attachment Header

The attachment header is composed of a sequence of five non-blank lines which may have any number (including zero) of blank lines in between.

The first non-blank line must have the word "ATTACHMENT" (or Attachment) alone on the line. This is the key to identify the end of the memo cover letter and the start of the attachment header.

The next four non-blank lines must contain four parameters and keywords in the following format:

    keywords parameter

No words other than the keywords and parameter separated by blanks are allowed on these lines.

The four required parameter lines are:

- "Memo Name" memo name
- "Document Name" document name
- "Organization" organization name
- "Number of Comments" comment count

These four lines may occur in any order. The words "Memo Name", "Document Name", "Organization", and "Number of Comments" are keywords and must appear exactly as shown, but not including the quotation marks.

Following "Memo Name" and one or more spaces must be the name of this memo in the format "mmmmm-nnnn" where "mmmmm" is the five-character alphanumeric portion and "nnnn" is a one, two, three,
or four digit numeric portion. This memo name is sometimes referred to as a memo number. It usually identifies the originating organization in the first five characters.

Following "Document Name" and one or more spaces must be the name and the version of the specification to which the comments are addressed. The required format is "ssssss.vv", where "ssssss" is two to eight alphanumerics identifying the document and "vv" is an optional one or two digits identifying the document version.

Following "Organization" and one or more spaces must be the name of the organization providing the comments. There is no required format for the organization name; it is not used by Comment Management.

Following "Number of Comments" and one or more spaces must be the numerical count of the number of comments contained in the memo attachment. This count is used to insure that the correct number of comments are processed.

The following is an example of the attachment header format:

ATTACHMENT

<table>
<thead>
<tr>
<th>Memo Name</th>
<th>ADCOM-3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Document Name</td>
<td>USAF.1</td>
</tr>
<tr>
<td>Organization</td>
<td>Air Force Space Division</td>
</tr>
<tr>
<td>Number of Comments</td>
<td>16</td>
</tr>
</tbody>
</table>

Comment List

The comment list is a sequence of comments each separated by two blank lines. Each comment must have the proper format: comment header followed by one blank line followed by one or more lines of explanatory text.

The comment header preceding each comment must conform to the following format. The format consists of one to six fields contained on one or two lines:
comment number field
reviewer's initials field
page field,
reference field,
type field, and
topic field.

For example, a typical comment header would be:

1. RI ABC; Page 72; Para 3.5.7.2.1a; Specific;
   System Recovery Time

   This header would be followed by the free-form text of the
   comment discussion in a form similar to this paragraph.

The mandatory comment number field must occur first in the
leftmost character position. It consists of a number of one to
three digits followed by a period, followed by a space. That is,
"nnn.", where "nnn" may be a one to three digit number from 1 to
999. The space following the comment number field separates it from
the following fields.

The numbering of comments within any one memo must be in
increasing order (although sequential numbering is not required).
This is to insure that duplicate comment numbers are not used.

The remaining fields may occur in any order but must be
separated by semicolons. If the comment header requires two lines,
the line separation must occur between fields (not within a field).
This means that the first line of a two-line comment header must end
with a semicolon. For report format consistency it is recommended
that the described field sequence be used.

The reviewer's initials field consists of the keyword "RI"
followed by two or three capital letters. This allows comments from
a number of reviewers to be contained in one memo. Note that the
memos may contain comments from many reviewers within one
organization. One organization can provide any number of memos,
however, distinguished by the numeric portion of the memo name.

The page field consists of the keyword "Page" (or a legal
variant as described in appendix D) followed by a space and one or
more page numbers. If more than one page number is to be cited, the
page numbers must be separated by the word " to " (preceded and
followed by a space) or a comma, ",". (For example, "Pages 12 to
15" refers to pages 12 through 15 and "Pages 12,15,64" refers to
pages 12 and 15 and 64). Page numbers can be decimal numeric or
small letter Roman numerals. Documents which use section-page
notation where the document section number (or Appendix letter) is followed by a dash "-" followed by the page number within the section are also accommodated.

Comment Management uses only the first page number cited for sorting. Therefore, the primary page reference should appear first.

The reference field consists of a series of references separated by commas (,). A maximum of four separate references are allowed, i.e.:

reference 1, reference 2, reference 3, reference 4

However, note the limitation of two lines maximum for the comment header.

Each individual reference consists of a keyword followed by a space followed by parameters. There are five different types of references, each using a particular keyword or legal variant of a keyword. (See appendix D for alternate keywords.) The five types are:

**Section or Paragraph**

Keyword is "Para" (or legal variant)
Parameters are paragraph numbers
i.e.: 3.5.2.7.a

**Figure**

Keyword is "Figure" (or legal variant)
Parameters are figure numbers
i.e.: 16 or 5-3

**Table**

Keyword is "Table" (or legal variant)
Parameters are table numbers
i.e.: 16 or 5-3

**Index**

Keyword is "Index"
Parameters are name of index
i.e.: of Acronyms
Appendix

Keyword is "Appendix" (or legal variant)
Parameters are name of appendix
i.e.: of Abbreviations or B

As with the page field, more than one set of parameters may follow a keyword--each set separated by the word " to " or comma ",". As defined for the page field, the word " to " denotes "through" and the comma denotes "and". This capability is not allowed for index and appendix type references. Also, as noted for the page field, Comment Management uses only the first reference.

For example, the following reference field could be constructed:

Paras 3.5.2 to 3.5.6, Tables 16,18,19, Figures 14 to 16,18

The type field consists of a single keyword "General", "Specific", or "Clerical" (or the corresponding abbreviations, G, S, or C).

The optional topic field may contain a user-selected topic, such as more detailed type classifications or priority designations. The field is restricted to a maximum of six words on a single line with no included punctuation. The keywords "Page", "Para", "Table", "Index", and "Appendix", and legal variations of these keywords may not appear in this field. This field is supported for allowing more description in the comment headers. It is included in the prepared reports but is not used by Comment Management.

As stated previously, the comment header can consist of one to six fields. The rules defining which fields must appear depend on the type of comment. There are three types of comments: General, Specific, and Clerical. A general comment refers to overall aspects of the document under review. A specific comment refers to a particular technical aspect of the document described in a particular section. A clerical comment refers to an editorial or typographical problem in a particular section. The rules for specific and clerical type comments are the same.
General Comment Header Rules

A general comment header may consist of:

The comment number field and the reviewer's initials field.

The comment number field, the reviewer's initials field and a topic field.

The comment number field, the reviewer's initials field, a topic field, and the type field "General" or "G".

Page identifications and/or section references should not occur in general comment headers. If a page or section reference is desired, the comment type should be specific or clerical. This is not a fixed rule; see the comment header default section.

Specific and Clerical Header Rules

A specific or clerical comment header may consist of:

The comment number field, the reviewer's initials field, a page field, a reference field, and a type field.

The comment number field, the reviewer's initials field, a page field, a reference field, a type field, and a topic field.

Both a page identification and a reference identification should occur in a specific or clerical comment header. Again, reference the comment header default section.

Example Legal Comment Headers

1. RI ABC
   - comment type is default to General

2. RI ABC; General
   - general unclassified comment

3. RI ABC; Format Conventions
   - general comment with topic; default to general type
4. RI ABC; General; Format Conventions
   - declared general comment with topic

5. RI ABC; Format Conventions; General
   - same as 4 but fields reordered

6. RI ABC; Page 6; Para 3.2; Specific
   - minimum specific comment header

7. RI ABC; Page 6; Para 3.2; Clerical
   - minimum clerical comment header

8. RI ABC; Para 3.2; Page 6; Specific; Acronym Errors
   - specific comment header with topic

9. RI ABC; Typographical Errors; Page 6; Para 3.2; Clerical
   - clerical comment with topic

10. RI ABC; Pages 12 to 18; Paras 3.2 to 3.5, 6.4, Figure 43; Specific; MIL-STD Abb. eviation Discrepancies
    - multiple reference specific comment header on two lines

Example Illegal Comment Headers

General Errors
   - missing mandatory comment number and reviewer's initials

1. RI ABC; Page 32; General
   - if a page identification is made the comment type should be either specific or clerical
Comment Header Defaults

The previous section defines the desired format and informational content of the comment headers associated with each comment. However, in practical use, it is often the case that reviewers submitting comments will not specify the total amount of information required for a comment. For example, specific comments will not have page or paragraph references, or certain reviewers will want to assign page or paragraph references to General type comments. Recognizing these practical operational problems, the Comment Management software will allow as correct comment headers which do not absolutely follow the previously described definitions. This is accomplished by assigning default values for missing parameters and allowing otherwise inappropriate combinations of fields. The following default conventions are used:

For a Missing Type Field.

If a page or paragraph reference is cited, the type is defaulted to "Specific".
4. RI ABC; General; Format Conventions
   - declared general comment with topic

5. RI ABC; Format Conventions; General
   - same as 4 but fields reordered

6. RI ABC; Page 6; Para 3.2; Specific
   - minimum specific comment header

7. RI ABC; Page 6; Para 3.2; Clerical
   - minimum clerical comment header

8. RI ABC; Para 3.2; Page 6; Specific; Acronym Errors
   - specific comment header with topic

9. RI ABC; Typographical Errors; Page 6; Para 3.2; Clerical
   - clerical comment with topic

10. RI ABC; Pages 12 to 18; Paras 3.2 to 3.5, 6.4, Figure 43; Specific; MIL-STD Abbreviation Discrepancies
    - multiple reference specific comment header on two lines

Example Illegal Comment Headers

General Errors

   - missing mandatory comment number and reviewer's initials

1. RI ABC; Page 32; General
   - if a page identification is made the comment type should be either specific or clerical
If no page or paragraph reference is cited, the type is defaulted to "General".

For a Missing Page Field.

The page number is defaulted to a value which places it at the beginning of a report sorted by page.

For a Missing Paragraph Field.

The paragraph reference is defaulted to a value (paragraph 1.0) which places it at the beginning of a report sorted by paragraph.

For Declared General Type Comments.

Page and/or paragraphs references are allowed.

With the described defaults, the minimum comment header lines become:

1. RI ABC
   is the minimum General comment header

1. RI ABC; Page 5

or

1. RI ABC; Para 2.3

or

1. RI ABC; S
   are the minimum Specific comment headers

1. RI ABC; Page 5; C

or

1. RI ABC; Para 2.3; C

or
1. RI ABC; C

are the minimum Clerical comment headers

Additionally, the following are allowed:

1. RI ABC; Page 5; G
1. RI ABC; Para 2.3; G
1. RI ABC; Page 5; Para 2.3; G

Implementation of the defaults decreases substantially the number of errors which are identified in processing memos and, consequently, the time required to correct the errors and resubmit the memo. The cost, however, is that since page and paragraph entries are not required, their absence is not detected as an error. This can create situations where a minor format error can mask a page or paragraph reference. For example, the following header:

1. RI ABC; Page 5, Para 3.2;

Would be interpreted as a general comment from reviewer ABC without page or paragraph references which would be defaulted to page 0 and paragraph 1.0. This is due first to the misspelling of the page keyword which, through lack of a valid keyword, causes the field between the semicolons to be interpreted as a topic field and ignored; and second, to the use of a comma in place of a semicolon between the page and paragraph fields which hides the Para keyword. Therefore, both the page and paragraph references are lost and the defaults used.

The correct format of this comment header line is:

1. RI ABC; Page 5; Para 3.2

NOTE: The last semicolon on a comment header line is optional.

Deliberate omission of parameters and use of the default capability can decrease the value of the sorted reports. The page and paragraph numbers provided by the reviewers in the comment headers are used to sort the comments in the reports. Comments without valid page and paragraph numbers cannot be sorted properly.
APPENDIX A

PROCEDURES FOR TRANSFERRING WORD-11 MEMOS

Two methods of transferring memos from WORD-11 to ARDS Comment Management are available. The first uses the WORD-11/UNIX direct link communications capability provided by the BCC as augmented by an ARDS display interface. The second uses standard nine-track tape as the exchange medium. In either case, the memos to be transferred must first be converted into printer-image form in WORD-11. Before starting the transfer, be sure that Comment Management has been initialized to accept inputs for the document(s) for which the memos have comments. See DOCUMENT INITIALIZATION in section 3.

WORD-11 MEMO PREPARATION

This section describes the procedures for creating a printer image of a document (memo) in WORD-11. The following conventions are used in these procedures to show what you must key in at your terminal:

<CR> means carriage return using the RETURN key.

[description] means enter the kind of information described between the brackets. For example, [document name] means key in the name of the document.

c means key in a lower case "c", i.e., any letters or words or numbers not enclosed in brackets should be keyed in exactly as shown.

<CTRL> means depress the CTRL key while entering the letter that follows.

Login to WORD-11

To login to WORD-11 from a VT100 or VT103 terminal, hit the "RETURN" key. If you are prompted with:

MITRE SYSTEM #?
enter:

[system number] <CR>

For example:

22 <CR>

If you are prompted with:

Enter MITRENET Service Name:

enter:

[service name] <CR>

For example:

WORD2 <CR>

If you are prompted with neither of the above, slowly hit the "BREAK" key four times and then hit the "RETURN" key. When prompted with:

MITRE System #

try logging in again. If you need help, call the User Support Center at 617-271-2222.

When prompted with a message like the following:

RSTS V7.0-07 WORD-11 (WD2) KB62 02-Sept-82 04:05 PM #

enter your account number followed by a carriage return. You will then be prompted with:

Password:

Enter the password of your account.

After the login, the broadcast messages will be displayed. After reading the broadcast message(s), enter a carriage return.
Select the Word Processing Option (WP)

Following the broadcast message(s), the Office Systems Menu will be displayed. From this menu, select the Word Processing option:

```
wp <CR>
```

At this point, the Main Menu of the Word Processing options will be displayed.

Select the File(s) To be Transferred

Look at the WORD-11 index to determine which files are to be transferred. If you already know which files are to be transferred, you may omit this step. To look at the index, enter:

```
i <CR>
```

On scratch paper list the number of all of the memos that are to be transferred. This paper will serve as a check to ensure that all memos have been transferred. Also record the number of the account into which you are currently logged. You will need the account number later if you are not transferring the memo via tape. Now get back to the Main Menu. This is done hitting the "gold" key and then entering the letter "m".

Create a Printer-Image File of the Memo

From the Main Menu, select the print option and enter the number of the memo whose printer-image you are going to create. This is done by entering:

```
p [memo name or number] <CR>
```

You are now in the Print Menu and ready to create a printer-image file of the memo. The memo must have the following characteristics:

Contains no page numbers.

Contains no blank pages for figures or tables.

Be a single-spaced document with double spacing between paragraphs
The printer setting displayed must be changed to meet the requirements of Comment Management. To save the current printer setting, enter the "ss" command followed by a single digit. For example,

`ss 9 <CR>`

CAUTION: If this account is used by more than one person, you should check to see which numbers are available for saving printer settings.

Now change the printer settings to adhere to figure A-1. To make a change to the printer settings, type the two-letter identifier followed by a space and the argument "YES", "NO" or a number depending on the type of parameter required. After all changes have been made, save the new printer setting by entering the "ss" command followed by a single digit not used above. For example,

`ss 8 <CR>`

The printer-image file is created by entering the direct output, "dt", option with a file name. The Comment Management naming convention is the memo sequence number followed by a period and the department number.\(^1\)

To indicate the name of the printer-image file to WORD-II, enter:

`dt [sequence number.department number] <CR>`

For example:

`dt 1234.D73 <CR>`

To indicate that all settings are correct and that you are ready to create the printer image of your memo, enter:

`yes <CR>`

When the printer-image file has been created, you will be returned to the Main Menu. Entering "yes" created the printer-image file and

\(^1\) The file name must consist of one to six alphanumeric characters, a period plus a one to three alphanumeric character extension.
**Print Menu**

**Form or Direct Output**  FO/DT LINEPRINTER  (Form)

<table>
<thead>
<tr>
<th>Setting</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Printer Margin indent</td>
<td>PM 0</td>
</tr>
<tr>
<td>Lines in top margin</td>
<td>TM 0</td>
</tr>
<tr>
<td>Lines in bottom margin</td>
<td>BM 0</td>
</tr>
<tr>
<td>Lines per page</td>
<td>PS 66</td>
</tr>
<tr>
<td>Automatic page breaking</td>
<td>AP YES</td>
</tr>
<tr>
<td>First page to print</td>
<td>FR 1</td>
</tr>
<tr>
<td>Last page to print</td>
<td>TO 0</td>
</tr>
<tr>
<td>Bin select</td>
<td>BS 0</td>
</tr>
<tr>
<td>Copies to print</td>
<td>CP 1</td>
</tr>
<tr>
<td>Stop every page</td>
<td>SE NO</td>
</tr>
<tr>
<td>Initial page number</td>
<td>IP 1</td>
</tr>
<tr>
<td>Create index</td>
<td>IN NO</td>
</tr>
<tr>
<td>Create table of contents</td>
<td>TC NO</td>
</tr>
<tr>
<td>Print header</td>
<td>PH NO</td>
</tr>
<tr>
<td>Delete after printing</td>
<td>DE NO</td>
</tr>
<tr>
<td>Letter quality printer</td>
<td>LQ NO</td>
</tr>
<tr>
<td>Print priority</td>
<td>PR 0</td>
</tr>
<tr>
<td>Print option</td>
<td>PO 0</td>
</tr>
</tbody>
</table>

Type the letters and value and press RETURN.
Type GO and press return if all settings are correct.

---

**Figure A-1.** WORD-11 Printer Settings for Comment Management
stored the memo with the new printer settings. At this time you should restore the original printer settings. This is done by entering:

```
p [memo name or number] <CR>
```

This retrieves the memo with the new printer settings. Restore the original printer settings by entering the following commands:

```
rs 9 <CR>
ss <CR>
o <CR>
```

If you wish to create another printer-image file, select the Print Option with your memo name or number. If the number 8 was used to store the Comment Management required printer setting, enter:

```
rs 8 <CR>
```

Now enter the "dt" command. For example:

```
dt 1235.D73 <CR>
```

After the printer-image file has been created, restore the printer settings as indicated above. Continue this process until a printer-image file has been created for each memo.

**Exit WORD-11**

After the printer-image files have been created for each memo that is to be transferred, exit the WORD-11 Word Processing mode by entering:

```
f <CR>
```

You are now out of the WORD-11 Word Processing mode and in the Office Systems Menu. At this point, logout out of WORD-11 by entering:

```
lo <CR>
```
If the memos are to be transferred by the direct link, continue with the procedures described below in FILE TRANSFER. Otherwise, follow the procedures under TAPE TRANSFER. Use of the FILE TRANSFER capability is recommended.

FILE TRANSFER

Login to UNIX

After the WORD-11 logout statistics have been displayed, slowly hit the "BREAK" key four times. Now hit the "RETURN" key. If are prompted with:

MITRE System #?

enter:

11 <CR>

for the UNIX system. If you are prompted with:

Enter MITRENET Service Name:

enter:

unix <CR>

for the UNIX system. When prompted with:

login:

enter your UNIX login name followed by a carriage return. Then enter the password of the account if requested.

Transfer a Copy of the Printer-Image File to UNIX

You can transfer a copy of the printer-image file created in WORD-11 to your UNIX account via the file transfer program, "get.memo". You will be shown a series of displays during the execution of the "get.memo" program in order to obtain the information needed to perform the requested transfers.

In general, to return to a previous display, enter:

<CR>
To return to the "get.memo" overview from any display, enter:

```
  o <CR>
```

To obtain help from any display, enter:

```
h <CR>
```

To exit the program at any time, enter:

```
o <CR>
```

to get to the overview display. Then enter:

```
e <CR>
```
to exit.

To execute the "get.memo" program, enter:

```
get.memo <CR>
```

You will be prompted with:

```
h = Help
c = Continue
e = Exit
```

If you have already created the printer-image files as directed above, you are now ready to supply the WORD-11 information necessary to transfer the files. Continue by entering:

```
c <CR>
```

If the printer-image files have not been created, enter:

```
e <CR>
```
to terminate the "get.memo" program. Now follow the procedures at the beginning of this appendix for creating printer-image files.

If you continue, you will be prompted with:

```
Enter the document name:
```

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Enter the name of the document to which the memo you are transferring applies. To indicate that the document name is correct, enter:

c  <CR>

to continue with the transfer process or enter a new document name. Entering a new document name will change the last document name entered.

You are now ready to enter the name of the printer-image file to be copied to UNIX. When prompted with:

Enter file name:

enter the printer-image file name followed by a carriage return. For example:

1234.D73  <CR>

The transfer program changes the printer-image file name into a memo name acceptable to Comment Management. It reverses the first and last parts of the name and substitutes a "-" for the ".". For example, the printer-image file name:

1234.D73

is changed to the memo name:

D73-1234

which is in the correct format.

The next display will show the printer-image file name and the associated Comment Management memo name. If the memo name is unsatisfactory, enter:

m [memo name]  <CR>

(where "memo name" is the new memo name). If you want to change the printer-image file name that you just entered, enter:

w [printer-image file name]  <CR>
When both the memo and printer-image file names are acceptable as displayed, enter:

```
c <CR>
```
to confirm the names.

If another memo is to be transferred for this document, enter the printer-image file name and confirm the file name and Comment Management memo name as before. When all the memos that are to be transferred for the selected document have been specified and you are prompted with:

```
Return to change document name, or enter printer-image file name, or
Enter d for done:
```

enter:

```
d <CR>
```
for done and continue with the transfer process.

A review of the files to be transferred for the document you specified will be displayed. If more files for that document need to be added to the list, return to the previous display by entering a carriage return when prompted with:

```
Return to alter current list, or enter m for more, or
Enter c to confirm the above transfer:
```

If you desire to transfer files associated with other documents than the one specified, enter:

```
m <CR>
```
This will bring you back to the start of the transfer program so that you may specify another document and the files associated with it, as you did for the first document specified.

Once all the files to be transferred, for all of the documents, have been specified, enter:

```
c <CR>
```
This indicates that you are ready to start the actual transfer.
In order to transfer the files from WORD-11 to UNIX, a connection will be made by the transfer program to WORD-11 via the Micom. Therefore, you should login to WORD-11 as you normally do when prompted. To review this procedure, see Login to WORD-11 at the beginning of this appendix.

**Selecting the Word Processing Option (WP)**

Following the broadcast message(s), the Office Systems Menu will be displayed. At this point, enter the RSTS access code. The RSTS access code can be obtained from the WORD-11 system programmer. To contact the WORD-11 system programmer, call the User Support Center (617-271-2222) at the Bedford Computer Center. If you should need to get back into the the WORD-11 system, enter:

```
word11 <CR>
```

When prompted with:

```
Ready
```

enter the following commands exactly as shown:

```
-: <CR>
```

```
~<getfile <CR>
```

You will see a series of commands and "Ready" prompts being displayed. This is the actual transfer(s) taking place. Ignore these commands and wait until you are asked to review the transferred files on the TRANSFER COMPLETE display.

If you mistype the first command (i.e.; the "-:") enter the two commands again exactly as shown above. If you mistype the second command, enter the second command again as shown above.

**Exit File Transfer**

When the transfers have been completed, a list of successful transfers and a list of doubtful transfers will be displayed. A transfer will typically be in the doubtful list because the printer-image file you specified could not be found. A file will not be found either because the file name was misspelled when entered in the transfer program or because the file does not exist.
in the WORD-11 account. Use the review option to look at the doubtful transfers. If a file could not be transferred successfully, the file on the UNIX system will contain an error message.

To review a file from either list, via the RAND editor, enter:

\[ r \text{ [file name]} \quad <CR> \]

When prompted with:

Enter r and file name to review, m for more transfers, or Enter e to exit:

see section 4, USER-SYSTEM INTERFACE, for an explanation of how to use the RAND editor.

If more transfers or re-transfers are desired, enter:

\[ m \quad <CR> \]

To exit the transfer program when all desired transfers have been done, enter:

\[ e \quad <CR> \]

---

**TAPE TRANSFER**

**Get a Tape**

Call the Bedford Computer Center desk (617-271-3379) and tell the person that answers that you wish to transfer a file from WORD-11 to UNIX. If the person taking the call cannot handle your request, ask to speak to someone who can. When you have a person that can help you, ask him to mount an "unprotected" scratch tape on the WORD-11 system which has your stored memos. Be sure that you get the number or name of the scratch tape.

**Exit WORD-11 and Enter RSTS**

The printer-image file has been created and you are now ready to copy the file to tape. Exit the WORD-11 Word Processing mode by entering:

\[ f \quad <CR> \quad \text{(exit WORD-11)} \]
You are now out of the WORD-11 Word Processing mode and in the Office Systems Menu. At this point, enter the RSTS access code. The RSTS access code can be obtained from the WORD-11 system programmer. To contact the WORD-11 system programmer, call the User Support Center (617-271-2222) at the Bedford Computer Center. If you should need to get back into the WORD-11 system, enter:

```
word11 <CR>
```

**Copy the Printer-Image File to Tape**

Make sure that the tape is mounted and the tape is at its load point by entering the command:

```
run prog:rewind
```

If you are prompted with:

```
Ready
```

your tape is mounted. If any of the following messages appear:

- ?Magtape select error at line 10
- ?Device not available at line 10
- DEVICE HUNG OR WRITE LOCK...

it indicates that your tape has not yet been mounted. Wait a few minutes and try again.

Copy your printer-image file(s) to tape by entering the command:

```
run prog:wrtape <CR>
```

When prompted with:

```
What file will be written to tape?
```
enter the name of the printer-image disk file (file just created with "dt") to be copied to tape. If several memos are to be transferred, they can be put on the same tape. When prompted again with:

\textbf{What file will be written to tape?}

enter the next printer-image file name. All memos put on a tape, however, should contain comments on the same document. After the last printer-image file has been copied, enter:

\texttt{exit <CR>}

to terminate the program. If the error message:

\textbf{DEVICE HUNG OR WRITE LOCK...}

appears, call the Bedford Computer Center desk (617-271-3379). Ask if your tape has a "write" ring. If the tape does not have a "write" ring, have one inserted and again enter these commands:

\texttt{run prog:rewind <CR>}
\texttt{run prog:wrtape <CR>}

Your tape is now ready for transferring your memo to UNIX.

If you wish to see what is actually on the tape, enter the command:

\texttt{run prog:seetape <CR>}

when prompted with "Ready". When you have seen enough, enter:

\texttt{<CTRL> c}

When the tape has been created, you should remove all of the created printer-image files. See DELETING PRINTER-IMAGE FILES IN RSTS at the end of this appendix.

\textbf{Logout of RSTS}

To logout of the RSTS system, enter:

\texttt{bye/f <CR>}

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Login to UNIX

After the WORD-11 logout statistics have been displayed, slowly hit the "BREAK" key four times. Now hit the "RETURN" key. If you are prompted with:

MITRE System #?

enter:

11 <CR>

for the UNIX system. If you are prompted with:

Enter MITRENET Service Name:

enter:

unix <CR>

for the UNIX system. When prompted with:

login:

enter your UNIX login name followed by a carriage return. Then enter the password of the account if requested.

Copy the Tape to Disk

Mount your tape in UNIX by executing the command:

mntape [tape number] <CR>

For example:

mntape 5035 <CR>

When the command is entered, you will immediately get a message indicating the drive on which the tape will be mounted. Wait until the operator gives you a ready message before executing the "dd" command. If you do not receive the message within five minutes, call the operator at 617-271-3379.
The "dd" command will copy the WORD-11 tape to disk creating one disk file. To copy the tape execute:

```
dd if=/dev/mt[tape drive] of=cmt.mgt/ws78/[document]/[memo]
```

where "tape drive" is the drive on which your tape is mounted, "document" is the name of the document on which you have comments, and "memo" is the memo name. The "dd" command will respond with the number of records copied in and the number of records written to the output file when the tape is finished copying.

If several memos are transferred on the same tape, they are all put in the "memo" file. They must be separated into individual files before they can be processed. Ask ARDS personnel for help to do this.

**Dismount the Tape**

To dismount your tape, enter:

```
umntape [tape drive] <CR>
```

where "tape drive" is the drive on which your tape is mounted.

**DELETING PRINTER-IMAGE FILES IN RSTS**

Follow the procedures for logging into WORD-11 as previously discussed. When in the Office Systems Menu, enter the RSTS access code. The RSTS access code can be obtained by calling the User Support Center at 617-271-2222. When prompted with:

```
Ready
```
you can delete the printer-image files by entering:

```
pip <CR>
```

When prompted with:

```
#```
enter the name of the printer-image file to be deleted, followed by "\/de". When the last file has been deleted, exit the "pip" program by entering "<CTRL> c". For example:

    pip <CR>
    # 1234.D73/\de  <CR>
    # 1235.D73/\de  <CR>
    # <CTRL> c

will delete the printer-image files, "1234.D73" and "1235.D73".
APPENDIX B

PROCEDURES FOR TRANSFERRING DEC WS/78 OR DECMATE MEMOS

Transferring a memo generated on either a DEC WS/78 or DECMate word-processing system is an interactive procedure using the communications capability of the system. The following procedure assumes use of a DEC system with the communications option and a system diskette with the CX communications configured as described in Appendix C.

Depending on the exact type of connection (direct cable connection, acoustic coupler modem, or push-button/telephone-connected modem), the procedure for establishing the connection will vary.

Before starting the transfer, be sure that Comment Management has been initialized to accept inputs for the document(s) that the memos have comments about. See Document Initialization in section 3.

The following conventions are used in these procedures to show what you must key in at your terminal.

<CR> means carriage return using the RETURN key.

description means enter the kind of information described between the brackets; for example, [document name] means key in the name of the document.

c means key in a lower case "c", i.e., any letters or words or numbers not enclosed in brackets should be keyed in exactly as shown.

<CTRL> Means depress the "CTRL" key while entering the letter that follows.
EDIT THE DOCUMENT

Before the document is transferred, make sure the left margin is zero. This is done by reviewing the print option. To review the print option, enter the Print Menu by entering the command:

```
GOLD m
p <CR>
```

When in the Print Menu, enter the name of the document as directed. After the name has been entered, the current print settings will be displayed. Check the number of spaces allowed to be added to the left margin. If the number is not zero, enter the command:

```
pm 0 <CR>
```

Store the print setting by entering the command "ss" followed by a single digit. For example:

```
ss 9 <CR>
```

The single digit represents the print format name. If you should have to transfer the document again, use the same digit.

GET THE TRANSFER FORMAT

Get the Main Menu and Systems Options Menu by entering the commands below. The "so" command can be entered after "GOLD m" even though the "so" command is not currently displayed on the terminal screen.

```
GOLD m
so <CR>
```

After the System Options Menu has been displayed, secure the correct transfer format by entering the command:

```
cd 0.6 <CR> (WS/78)
```

or

```
cd 0.2 <CR> (DECMate)
```

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This step assumes the system disk has the "CX" communication option setup, the same as the standard Comment Management system disk. See appendix C for the procedure to set the "CX" communications configuration for UNIX.

Get the Main Menu and request the Character Transmission Package by entering the following commands:

```
GOLD m
cx <CR>
```

GET INTO UNIX

The procedures below describe the use of a Bell Data Set 212A. If you are using some other type of data set, adjust the procedures accordingly. If you have questions, contact the ARDS support personnel at 617-271-7864. When the Communications Menu appears with the option "KH HS" at the bottom of the screen:

- Press the "TALK" button on the telephone and dial the appropriate telephone extension.
- Press the "DATA" button on the telephone when the computer answers with a high-pitched tone and hang up the phone.
- Enter a carriage return. (Two may be required).

If you are promoted with:

```
MITRE System #?
```

Enter:

```
1 <CR>
```

for the UNIX system. If you are prompted with:

```
Enter MITRENET Service Name:
```

Enter:

```
unix <CR>
```
for the UNIX system. When prompted with:

```
login:
```

you are now ready to login to UNIX. Enter your login name followed by a "<CR>" and your password followed by a "<CR>".

If you should get the message "Login incorrect", try the login procedures again.

TRANSFER THE FILE

Transfer the file to Comment Management by entering either of the commands below when prompted with "%".

```
cm.transfer <CR> (includes memo encryption)
```

or

```
cm.enter <CR> (no encryption)
```

This command initiates a program which conducts the ARDS side of the memo-transfer procedure. It will prompt for entries.

Enter the encryption password when prompted (cm.transfer selection only).

Enter the document name when prompted.

Enter the memo name when prompted.

The program will then display the document and memo names for verification. If they are correct, enter:

```
y <CR>
```

and you will continue.

If they are incorrect, enter:

```
n <CR>
```

and you will be prompted for new names.
The program will prepare Comment Management to receive the transfer, but you must enter:

```
\r (no <CR>)
```

which escapes back to the WS/78 operating system.

When the Communications Menu appears with "KS HS" at the bottom, enter:

```
dh <CR>
```

This changes the bottom line of the screen to KS HS DH. The system will then prompt for the WS/78 name (number) of the document. Enter the number followed by a carriage return:

```
[number] <CR>
```

At this point, the document file will be displayed on the screen of the terminal as it is transmitted, line by line.

After the last line of the document has been displayed, enter:

```
<CR>
```

```
<CTRL> d (this terminates the file input)
```

An option to review the received memo is provided. To review enter:

```
y <CR>
```

The memo is displayed as it was received. If this review is selected, the option to store a successfully transferred memo or to delete an unsuccessfully transferred memo will be presented:

```
y <CR> will store the memo
n <CR> will delete the memo
```

If "y" is selected or "n" was selected as the review option, then the memo will be stored.

An option to transfer another memo is then presented. To transfer another memo, enter:

```
y <CR>
```

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You will be again prompted for the document name and the memo name.

If you select:

\[ n <\text{CR}> \]

the controlling program will end and the "&" prompt will be presented.

To end the procedure, enter:

\[ \text{logout} <\text{CR}> \]

At the login message, enter:

\[ \text{ (return to WS/78)} \]

When the communication option display appears, enter:

\[ \text{GOLD m} \]

to return to the WS/78 Main Menu.

This concludes the transfer procedure.
APPENDIX C

DEC WS/78 and DECMATE CX COMMUNICATIONS CONFIGURATION

There are two parts to configuring the CX Communications option: 1) creating a protocol description file on the system disk and 2) setting the asynchronous communications characteristics on the System Options menu.

The following file must be created on the DECMate or WS/78 system disk:

```
send
eol cr
```

This file can be assigned any file number but the following convention has been used in the past:

- 0.6 on WS/78
- 0.2 on DECMate

The procedure for setting the "CX" communications options for compatibility with an acoustic coupler connection to UNIX is the following:

Enter:

```
GOLD m
```

to obtain the Main Menu. Then enter:

```
so <CR>
```

to obtain the System Options Menu.

Set the options as follows:

<table>
<thead>
<tr>
<th>Option</th>
<th>Value</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CP</td>
<td>standard</td>
<td>Communications Protocol</td>
</tr>
<tr>
<td>BC</td>
<td>No</td>
<td>Buffer Control</td>
</tr>
<tr>
<td>B</td>
<td>B 300</td>
<td>Baud Rate</td>
</tr>
<tr>
<td>P</td>
<td>no</td>
<td>Parity</td>
</tr>
<tr>
<td>D</td>
<td>8</td>
<td>Data Bits</td>
</tr>
<tr>
<td>S</td>
<td>2</td>
<td>Stop Bits</td>
</tr>
<tr>
<td>DP2</td>
<td>300</td>
<td>Secondary Port Rate</td>
</tr>
</tbody>
</table>
If the current selections do not agree with the above list, the selections can be changed using the procedures described in:

This appendix lists alternate keywords which can be used interchangeably on comment memos:

<table>
<thead>
<tr>
<th>ATTACHMENT</th>
<th>ATTACHMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attachment</td>
<td>Attachment</td>
</tr>
<tr>
<td>Para</td>
<td>Para</td>
</tr>
<tr>
<td>para</td>
<td>para</td>
</tr>
<tr>
<td>Paras</td>
<td>paras</td>
</tr>
<tr>
<td>paras</td>
<td>Paragraph</td>
</tr>
<tr>
<td>Para.</td>
<td>para.</td>
</tr>
<tr>
<td>Section</td>
<td>section</td>
</tr>
<tr>
<td>sec.</td>
<td>Sec.</td>
</tr>
<tr>
<td>Sections</td>
<td>sections</td>
</tr>
<tr>
<td>Page</td>
<td>Page</td>
</tr>
<tr>
<td>page</td>
<td>page</td>
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<tr>
<td>PAGES</td>
<td>Pages</td>
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<td>PAGES</td>
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<tr>
<td>pg.</td>
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<td>Pg.</td>
<td>Pg.</td>
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<tr>
<td>pg</td>
<td>Pge</td>
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<td>Pgs</td>
<td>pgs.</td>
</tr>
<tr>
<td>pgs</td>
<td>pgs</td>
</tr>
<tr>
<td>PP</td>
<td>pp</td>
</tr>
<tr>
<td>pp</td>
<td></td>
</tr>
<tr>
<td>Figure</td>
<td>Figure</td>
</tr>
<tr>
<td>--------</td>
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<td>figure</td>
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<td>Fig</td>
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<td>fig</td>
<td>Fg</td>
</tr>
<tr>
<td>Figures</td>
<td>figures</td>
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APPENDIX E
IDENTIFICATION CODE USAGE

Comment Management provides protection against invalid and duplicate document and memo names. The following format conventions should be followed:

FOR DOCUMENTS

Each document must be assigned a unique name. This is accomplished using the INITIALIZATION display selected from the Comment Management main menu. The format consists of the document name optionally followed by a period "." and a numeric version number.

The document name must be from one to eight alphanumerics -- small letters, capital letters, or numeric characters. The version number (if used) must be one or two numeric characters. No other characters are allowed.

Some example document names are:

MCDRL107
MCDRL107.1
MCDRL107.01
document
Document.3

FOR MEMOS

To allow selecting comment reports sorted by different organizations which are commenting on one document, the memo names must start with an organization code. Thus, when a report with a range or sort selection of "memo name" is selected, the report will be also sorted by organization.

The basic required format for memo names is five alphanumerics characters (small letters, capital letters, and numeric characters) followed by a mandatory dash "-" followed by from one to four numeric characters. No other characters are allowed.
Some example memo names are:

mem01-1
mem01-0001
MD71B-56
ESCD4-23
ESCD2-3

The last three examples show the use of an organization code in the memo name. Selecting a report range of organization MD71B, for example, will result in a report containing only memos submitted by that organization. If this convention is used, selecting a sort by memo name with a range of "all" will group all of the memos by organization automatically. The report range option of organization assumes this structure for the memo names.
APPENDIX F

TAPE VOLUME PROCEDURES TO
ARCHIVE, RELOAD, AND BACKUP

A tape is the appropriate medium to use for off-line storage of comments (archives) and for creating separate volumes when large numbers of documents and comments must be managed. The following procedure describes the use of utilities provided by Comment Management to copy an entire data base to tape, to remove the data base, and to reload the data base from tape.

The utilities used are:

- cm.archive
- cm.reload
- cm.REMOVE

When using tape, a two-tape, alternating scheme is recommended to provide recent backup. Hardcopy logs are also recommended. A sample log for tape usage history is shown in figure F-1 in Appendix F.

ARCHIVE

Mount the tape on which the files are to be archived. If this is the first archive of the data base, use a new tape. If this is not the first archive of the data base (the current data base is the result of a previous reload operation), use the alternate tape. See the Reload section for a description of the alternating tape procedure.

Enter:

```
  cm.archive <CR>
```

This will archive all files to the tape following "y <CR>" responses to the prompts. A "n <CR>" response will abort the archive.

Write the number of the archived tape in the log. The data base is now on tape in a format used by the reload routine.
Project: ________
Date: ________

System Loaded
Tape Number: ________
Time: ________

Process Cycle
Number WS/78 Log Entries: ________
Number Files in WORD-11: ________
Process Start Time: ________
Process End Time: ________
Reports Generated: ________ ________ ________ ________
Problems: __________________________________________

System Archived
Tape Number: ________
Time: ________
DISK CLEAR: ________

Figure F-1. Sample Tape Log Page
RELOAD

Enter:

cm.REMOVE <CR>

This will delete ALL Comment Management data base files in the user account when the prompt is acknowledged by "YES <CR>". This leaves an empty data base in which to install a new data base from tape.

Mount the tape to be reloaded. Alternate the use of two tapes. Check the last tape log entry to determine the number of the last tape which was archived and use the same one. Write the number of the tape used in the new log entry. After new comments are processed, the comment files will be archived to the other tape.

The purpose behind this procedure is to insure the existence of at least one good tape copy--at most one day behind in currency.

For example:

Day 1

Reload Tape A.
Add comments to the data base.
Archive the data base to Tape B.
Remove data base (optional).

Day 2

Reload Tape B.
Add comments to the data base.
Archive data base to Tape A.
Remove data base (optional).

Day 3

Reload Tape A.
Add comments to the data base.
Archive data base to Tape B.
Remove data base (optional).

Note that either Tape A or B will be totally current with the other missing, at most, one day's (or session's, if comments are collected less frequently than each day) comments.

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IT IS IMPORTANT THAT THE TAPES BE ALTERNATED PROPERLY

If the tapes are alternated properly and the current tape is lost for some reason, the older tape can be updated by adding (reprocessing) the missing comments.

After the tape is mounted, login and enter:

   cm.reload <CR>

This will re-install all of the Comment Management files following "y <CR>" responses to the prompts. A "n <CR>" response will abort the reload.
While the internal file structure of Comment Management is transparent to the user, it is of interest to the user familiar with UNIX. Sophisticated users can use UNIX utilities to perform functions on the data base contents and backup files not provided by Comment Management. However, this can result in loss or contamination of the data base; prior to any such actions, the data base should be checkpointed using the archive/reload procedures described in appendix F.

Figure G-1 identifies the directory and file structure within the directory "cmt.mgt", which is created in the user's login directory as described in section 2.

The functions of the main directories are the following:

ws78 This directory contains memos which are ready to be processed. The memos are grouped by document name in subdirectories. The memos are removed after processing.

w1lqueue This directory contains memos which are being processed. The memos are grouped, by document name, in subdirectories. A memo is moved from ws78 to w1lqueue when it is selected for processing and removed when processing is completed. This directory serves as a locking mechanism to prevent two operators from processing the same memo. Existence of a memo in this directory means that it is being processed.

enter This directory contains memos which have been checked and are ready for entry of the comments into the data base. The memos are grouped by document name in subdirectories. The memos are removed when the comments are entered in the data base.

ws78b This directory contains memos which have been successfully processed. The memos are grouped by document name in subdirectories. A memo is moved from ws78 to ws78b following entry of the comments.
Figure G-1. Comment Management File Structure
into the data base. Use of the retrieve option on the PROCESS MEMO display results in copying the memo from ws78b to ws78 for resubmission.

**data.base**  
This directory contains comments and control information (loglines). The data is grouped by document name in subdirectories. Each document name subdirectory contains two logline files of control information (logline2 is not currently used) and a subdirectory for each memo. Each memo subdirectory contains the comments received on that memo--one comment per file. The comment filename is its original comment number from the memo.

**ws78cpt**  
This directory contains memos in encrypted form. The memos are grouped by document name in subdirectories. The decryption action decrypts the memos and moves them to ws78 for processing.
APPENDIX H

UTILITY PROGRAMS

Comment Management programs which are not part of the display interface are utility programs. There are seven utility programs:

- cm.archive
- cm.REMOVE
- cm.reload
- cm.transfer
- cm.enter
- cm.repair
- get.memo

The archive and reload utilities are described in appendix F and are used in creating tape volumes.

The transfer, enter, and get.memo utilities are described in appendix B and are used in moving memos from word-processing systems to Comment Management.

The repair utility is used to correct certain situations which arise because the Comment Management display interface does not provide the capability to delete memos, documents or disposition codes. Because of the sensitive nature of delete actions, it is recommended that these actions be limited to a system administrator who has access to the repair utility.

The repair utility provides four functions:

Delete a memo

Two options are provided: first, to delete a memo which has been transferred to Comment Management but not processed, and second, to delete a memo which has been processed and entered into the data base. This corrects situations in which a memo has been transferred with an improper name or to the wrong document. Note that if a memo has been processed, deleting it with this utility still leaves a copy in the backup directory (ws78b). It can be retrieved later from the PROCESS MEMO display.
**Move or rename a memo**

This allows a memo to be renamed or transferred from one document to another. This is useful if a memo was transferred with the wrong name or to the wrong document, but the memo is not to be deleted. The old document name and memo name are entered and the new document name and memo name are also entered. Two options are provided: first, to move or rename a memo which has not been processed, and second, to move or rename a memo which has been processed. If the memo has been processed, it will be deleted from the data base under the old document name and placed in the input queue of the new document name ready for processing. It must be then reprocessed.

**Remove a document name**

This action removes all comments for the document name from the data base and "de-initializes" the document name. Following this action, there will be no trace of the document in the system. It should be used carefully.

**Cancel disposition codes**

This action deletes all previously assigned disposition codes. A new set of disposition codes must then be entered. If any comments have been assigned dispositions, the disposition texts will remain unchanged.

The repair utility should prove sufficient to correct most common errors. To correct more complicated errors, the normal UNIX utilities can be used by personnel familiar with both UNIX and the Comment Management file structure.
APPENDIX I

RAND EDITOR FUNCTION KEY DEFINITIONS

Key definitions for the RAND editor used by Comment Management on the BCC UNIX system are shown in figure I-1. These key definitions are for the DEC VT100 or VT103 terminal. Further information about the RAND editor is available from the BCC in "The RAND Editor, MITRE Version," 4/23/80.
VT103 Functions

Keyboard format:

<table>
<thead>
<tr>
<th>KEY</th>
<th>Legend</th>
</tr>
</thead>
<tbody>
<tr>
<td>ctrl</td>
<td>(ESC for numbers)</td>
</tr>
<tr>
<td>graphics mode</td>
<td></td>
</tr>
</tbody>
</table>

See following pages for abbreviations

<table>
<thead>
<tr>
<th>KEY</th>
<th>Legend</th>
</tr>
</thead>
<tbody>
<tr>
<td>q</td>
<td>save</td>
</tr>
<tr>
<td>w</td>
<td>exec</td>
</tr>
<tr>
<td>e</td>
<td>r</td>
</tr>
<tr>
<td>t</td>
<td>insert</td>
</tr>
<tr>
<td>y</td>
<td>split</td>
</tr>
<tr>
<td>u</td>
<td>graf</td>
</tr>
<tr>
<td>l</td>
<td>tab</td>
</tr>
<tr>
<td>o</td>
<td>cport</td>
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<tr>
<td>p</td>
<td>port</td>
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<td>]</td>
<td>}</td>
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<tr>
<td>_</td>
<td>sub</td>
</tr>
<tr>
<td>^</td>
<td>RETURN</td>
</tr>
<tr>
<td>\</td>
<td>quote</td>
</tr>
</tbody>
</table>

Function key Layout:

Original Cursor Keys:

<table>
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<tr>
<th>v</th>
<th>^</th>
<th>&lt;</th>
<th>&gt;</th>
</tr>
</thead>
<tbody>
<tr>
<td>open</td>
<td>fill</td>
<td>tpin</td>
<td>insert</td>
</tr>
</tbody>
</table>

TAB key = tab
BACKSPACE key = back erase
DELETE key = delch
LINE FEED key = arg

BREAK key SHOULD NOT BE USED

VT103 Attribute Characters

<table>
<thead>
<tr>
<th>Char in meaning</th>
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<tbody>
<tr>
<td>Graphics</td>
</tr>
<tr>
<td>(</td>
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<td>)</td>
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<td>=</td>
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</tbody>
</table>

Figure I-1. RAND Editor Key Definitions for the VT100 Terminal

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Abbreviations:

any
matches any character in a search pattern
arg
enter argument—same as break key
backup
backup to last viewed line
blnk
blank an area of text
BREAK
avoid this key—causes terminal problems in editor
BS
backspace key — backspace/erase function
cport
change port
close
delete line
column
display current cursor column
ctrl
control key—hold down with key for some functions
ctl{ specifies left bracket in raw mode for control codes
ctlj specifies right bracket in raw mode for control codes
cursor > < 'v
cursor controls
def
define function, to define macros
delch
delete a character
DELETE
performs delch function
enter
to enter text in middle of a defined macro
exec
append a line; (with arg function) execute shell command
ESL
used to specify alternate functions for numbers
fill
fill text
flag
flag line for future reference
graf
enter/exit graphics mode
goto
goto line
home
cursor home
insert
enter/exit insert mode
keep
keep all characters typed
last
(ARG mode) enter distance to last line of file in ARG field
left
move text left in window
LHk FEEL
line feed—argument (arg) function
line + -
forward (+) or previous (-) partial page
margin
set left margin (default: screen edge)
oct1
allows entering characters by entering their octal code
open
open up (insert) blank line in text
ovrly
overlay text with last picked data
page + -
next (+) or previous (-) page
pick
pick up copy of text and hold
port
divide screen into more than one port
put
put data last picked
quit
exit editor
quote
enter next lowercase key as control char
raw
enter/exit raw mode, displaying all control codes
NTRk
carriage return
right
move text right in window
replace word
replace word function
save
save file
search + -
search forward (+) or back (-) for string
split
split long line at word boundary near screen border
subut
substitute command
tab < >
tab to next or previous (<) or next (>) tab stop
tabword < >
tab to next (>) or previous (<) word
tpinsert
enter temporary insert mode (exit by moving cursor off line)
trans
transparent mode—not implemented yet, but planned
use
use (change to) named file or default alternate
wrap
exit/enter wrap mode with automatic margin wraparound
xchng
exchange data with last picked data

Figure I-1. RAND Editor Key Definitions for the VT100 Terminal (Concluded).