AD-A238 155
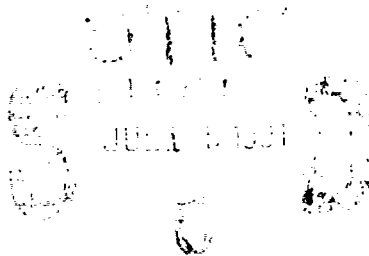
User's Guide to the U.S. Navy Insensitive Munitions Information System Munition Status Information Center

by

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DECEMBER 1990

**NAVAL WEAPONS CENTER
CHINA LAKE, CA 93555-6001**

91-04944

Naval Weapons Center

FOREWORD

The Navy Insensitive Munitions Information System comprises three databases: Munitions Status Information Center (MSIC), Insensitive Munitions Engineering Technology (IMET), and Energetic Materials Information Center (EMIC). The MSIC has been designed to provide real-time status of Navy weapon response to IM testing. The IMET will provide real-time reporting of insensitive munitions (IM) technology, plans, prognoses, and progress. The EMIC will provide IM and performance-related properties of energetic materials. Explosives, propellants, and pyrotechnics will be included.

This document provides users with a "step-by-step" approach to access MSIC data. The programs to support the data files have been written in a user-friendly, menu-driven environment to allow non-computer-oriented professionals to access and manipulate the data.

This report has been reviewed for technical accuracy by John Fontenot, Code 3208.

Approved by
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11 December 1990

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The Munitions Status Information Center (MSIC) is a database that contains test information and results on munitions exposed to insensitive munitions-related stimuli. The data files are programmed in a user-friendly, menu-driven environment to allow non-computer-oriented professionals to access and manipulate the data. This document is written with a step-by-step approach to access the MSIC data.

14. SUBJECT TERMS

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INTRODUCTION

The U.S. Navy Insensitive Munitions information System (NIMIS) Program was initiated because the profusion of data relati :g to the Navy's Insensitive Munitions (IM) program, although available, was widely scattered. The goal of the NIMIS Program has been to not only gather all obtainable IM-related material, but to incorporate it into a user-friendly, relational database that would allow easy manipulation of the data.

Programs have been written and refined to allow the entry and use of (1) weapon response to fast cookoff, slow cookoff, bullet impact, fragment impact, and sympathetic detonation testing, and (2) generic IM engineering development test results. The programs are usable with IBM, IBM compatible, and Macintosh .- sonal computers.

BACKGROUND

U.S. Navy IM program policy was set by the Chief of Naval Operations in May 1984 (Reference 1) in response to a growing desire to improve the performance of weapons exposed to unplanned hazardous stimuli. On 22 May 1985, the technical requirements for IM were published by the Naval Sea Systems Command (NAVSEA) (Reference 2). Both documents have been updated since that time. As of this printing, References 3 and 4 are the latest iterations.

In accordance with Navy policy, all new Navy weapons are being developed to meet IM goals. Those already in the field or under development are also required to meet these objectives, with complete transition to an insensitive arsenal targeted for 1995. Fleet readiness and operational capability are to be maintained throughout this evolution.

Policy dictates that a munition shall respond with no more than a burning reaction to IM stimuli with the exception of the sympathetic detonation (SD) stimulus, in which case the munition shall not sympathetically detonate.

IM test procedures are described in several documents: fast cookoff (Reference 5), slow cookoff and bullet impact (Reference 6), and fragment impact (Reference 7). These procedures will be revised and clarified, then incorporated along with procedures for sympathetic detonation and safety testing in the latest revision of DOD-STD-2105 (Reference 8).

A burning reaction is defined as ignition and burning of a weapon's energetic material; mild release of combustion gases following melting or weakening of the warhead or rocket motor case due to thermal or impact stresses is allowed. Any debris must remain in the immediate area of the event, although case closures may be dislodged by internal pressure and thrown up to about 50 feet. Beyond that distance, however, they must not be hazardous fragments, which are defined as those with an impact energy of greater than 58 ft-lb (79 joules).

Navy IM requirements are applicable to all munitions carried aboard Navy ships and aircraft no matter the source of design or manufacture, excluding strategic and nuclear weapons.

Technical coordination of the NIMIS Program undertaken by the Navy has been assigned to the Naval Weapons Center (NWC), China Lake, Calif. Two of the three databases proposed by NWC are nearing completion, and the third is currently under way.

The Navy IM Information System comprises three databases:

1. Munitions Status Information Center (MSIC)
2. Insensitive Munitions Engineering Technology (IMET)
3. Energetic Materials Information Center (EMIC)

The MSIC has been designed to provide real-time status of Navy weapon response to IM testing. The IMET will provide real-time reporting IM technology, plans, and progress. The EMIC will provide IM and performance-relevant properties of energetic materials. Explosives, propellants, and pyrotechnics will be included.

This document has been prepared specifically for the use of MSIC.

MUNITIONS STATUS INFORMATION CENTER

The Munitions Status Information Center (MSIC) is a set of data files designed and organized to contain test information and results on munitions exposed to IM-related stimuli. A set of programs was written to support the data files in a user-friendly, menu-driven environment to allow non-computer-oriented professionals to access and manipulate the data. Presently, there are more than 1500 test records in the MSIC with additional entries incorporated each week. Fleet configurations for each weapon and its container(s) are provided.

Data groupings provide simple breakdowns of munition configurations: test setups, procedures, and results in both summary and field* formats. Information notation in fields permits the use of fundamental search routines. Also included is bibliographic data reference information including a point of contact.

---

* Field refers to a position in the computer that holds data.

The data in this system are entered into three separate data files: (1) general test data, (2) individual component data, and (3) reference data. The files are linked by an eight-character alphanumeric code unique to each test. The code is called the "test ID number" and was designed to give information to the user as well as link the files (see Figure 1a).

GA   BI - 03   P

EXAMPLES OF
TEST ID NUMBER

TOFC-01
GABI-02P
27SC-03W
SKFI-04A

TEST ITEM
IDENTIFICATION

TEST REFERENCE
NUMBER

TEST STIMULUS

ABBREVIATED WEAPON NAME
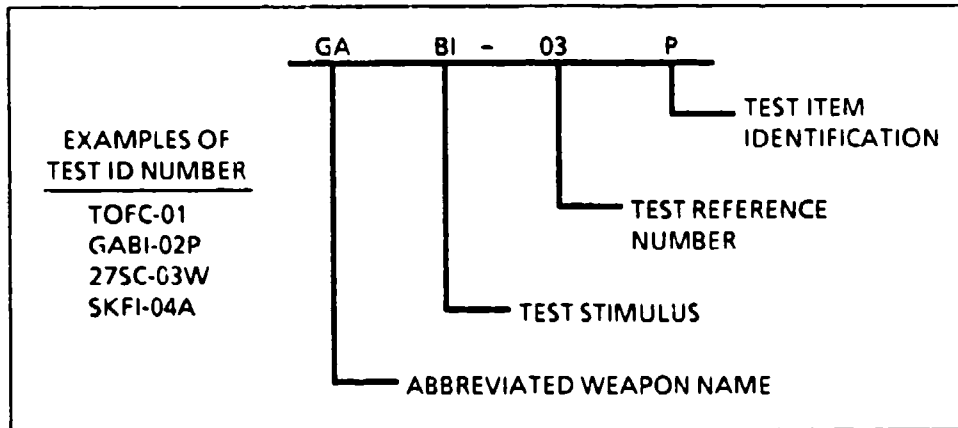
FIGURE 1a. Elements of the Test ID Number.

The first two alphas are an abbreviation of a weapon name, the second two refer to the test stimulus, the numerics provide the link between the three files, and the last alpha indicates whether the test item was an all-up round (A), a rocket motor (P), a warhead (W), or a subcomponent, such as an igniter, fuze, or booster (C). Tests of cartridge-actuated devices (CAD), aircrew escape propulsion systems (AEPS), or pyrotechnics have no alpha following the link number.

In addition to the test ID number, each reference file has its own document serial number incorporating the month and year of publication and the test stimulus (see Figure 1b). Both numbers are displayed on each screen of test data.

89   09   1   00

STIMULI

1 = FAST COOKOFF
2 = SLOW COOKOFF
3 = BULLET IMPACT
4 = FRAGMENT IMPACT
5 = SYMPATHETIC
    DETONATION
7 = MULTIPLE STIMULI
9 = IM-RELEVANT DOCUME
    CONTAINING NO TESTS

DOCUMENT REFERENCE
NUMBER

STIMULUS

MONTH DOCUMENT WAS PUBLISHED

YEAR DOCUMENT WAS PUBLISHED
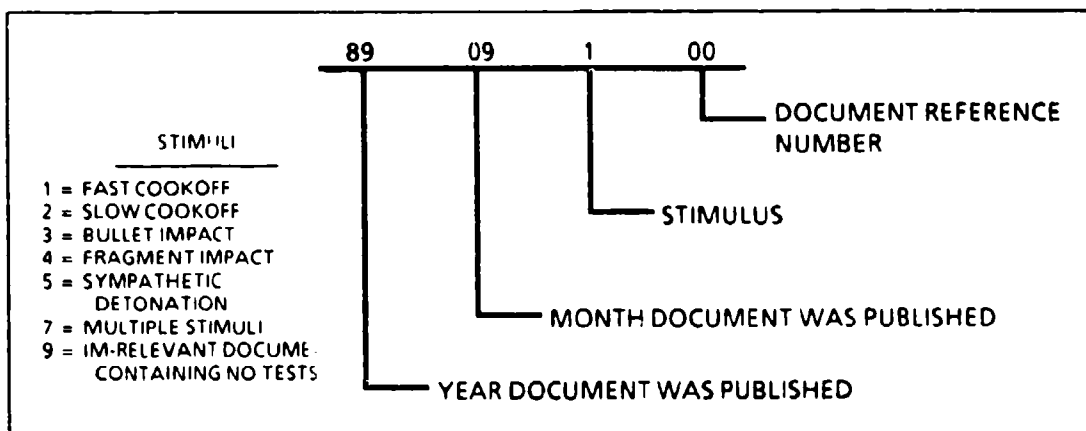
FIGURE 1b. Elements of the Document Serial Number.

Options available to the user include data viewing, printing, and manipulation. A summary program will be available in the future. The summary will generate a tabular synopsis of a weapon's reaction to the various IM tests. From the *View Existing Data* option on the *Main Menu*, you can choose to view all test data, including the source data for each test. Also available is the option to examine only the source data. All test records include source data, but not all source data are associated with a particular test. Thus, more source records are available if independent access is chosen.

The procedure in this document provides you with a "step-by-step" approach to access the MSIC data. Examples of the various screens are shown on a shaded background and are identified by a figure number. In the text the names of the screens are shown in italics. Sample printouts are provided for selected options. What you are to do and the computer prompts and messages, as well as practice examples, are provided in tabular form. The required keystrokes appear in bold face type set in brackets, for example **[N]**. On some illustrations, a shaded area marks an area of inverse video that will appear on your computer screen.

A letter providing installation methods will be part of the installation package, which will be formally published at a later date. Presently you can obtain a copy of the preliminary installation package from EG&G Washington Analytical Services Center, Inc., Attn: Patty Hardekopf; 1396 Piccard Drive; Rockville, Maryland 20850. The MISC and IMET diskettes are also available from EG&G.

DATA DICTIONARY

The NIMIS program package includes several documents, one of which is the "data dictionary." This dictionary will prove to be beneficial if used in conjunction with this document, the user's guide (NWC TP 7068). The data dictionary contains specific information pertaining to data field lengths, data types, and data descriptions. The following example comprises cartridge-actuated devices (CADs) and aircrew escape propulsion systems (AEPS) data dictionary entries.

Abbreviation	Weapon name	Definition
EI	Electrical items	CADs that are electrically initiated to perform a work function.
BI	Ballistic items	CADS that are initiated using ballistic (gas) pressure to perform a work function.
DC	Delay cartridges	CADS that accept an input, burn a specified time, and perform a work function.
ET	Explosive transfer lines	Sealed in lines to transfer a signal form input to output device.
ST	Special CAD items	CADs designed for unique aircraft egress requirements.
US	Underseat rockets	AEPS underseat rocket motors.
RC	Rocket catapults	AEPS self-contained rocket catapults.
LR	Large rocket motors	AEPS including rocket motors containing more than 0.5 lb of propellant.
SR	Small rocket motors	AEPS including rocket motors containing less than 0.5 lb of propellant.

GETTING STARTED
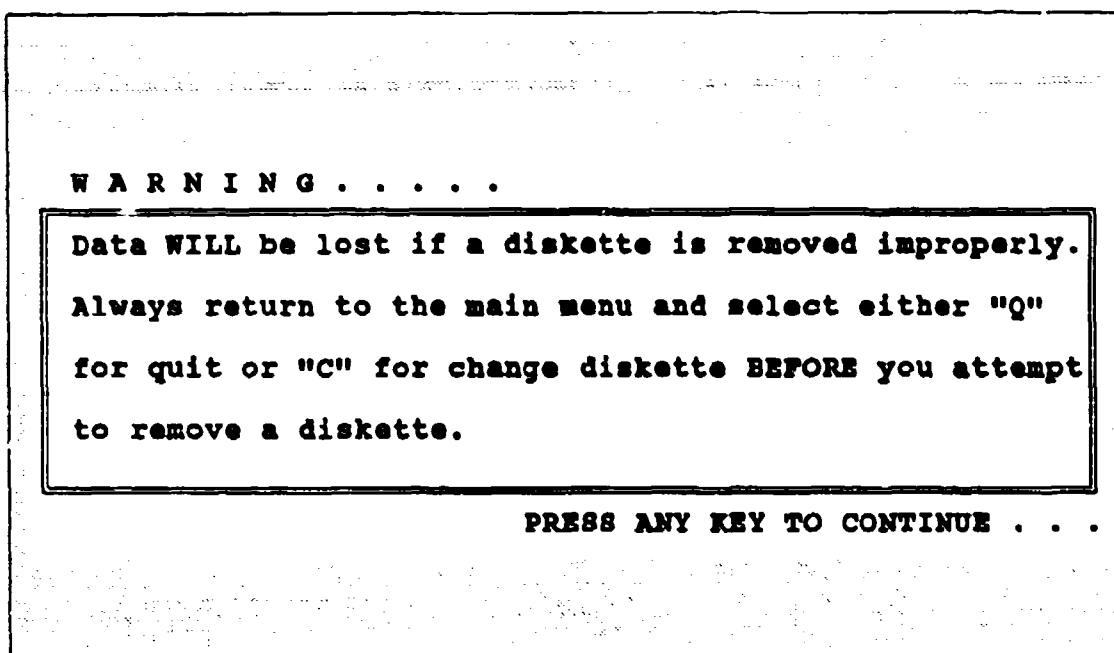
FIGURE 2. Initial Screen.

When using the IBM PC, the diskette can be removed while the program is running. Observe the WARNING to prevent destruction of data.

What You Do	Prompts/Comments
1) Open program	Prompt: Press any key to continue ...
	The *Opening Screen* will appear.

OPENING SCREEN


```
MMMM                    MMMM  SSSSSSSSSS  IIIIIIII  CCCCCCCCCCCC
M m M                   M m M  Ss s s s S  I i i i I  C c c c c c C
Mm m M                  M m mM  S sSSSSSSS  III i III  Cc CCCCCCCCCC
M mM mM                 M mXm M  Ss S       Ii iI      C cC
Mm MM mM                M mMM mM  S sS       I i I      Cc C
M mM M mM           M mM Mm M  Ss S       Ii iI      C cC
Mm M  M mM      M mM M mM  S sS       I i l      Cc C
M mM    M mM   M mM  Mm M  Ss SSSSSSS  Ii iI      C cC
Mm M      M mM M mM  M mM  S s s s sS  I i I      Cc C
M mM       M mM mM   Mm M  SSSSSSSs S  Ii iI      C cC
Mm M        M m M    M mM           S sS  I i I      Cc C
M mM           MmM    Mm M          Ss S  Ii iI      C cC
Mm M            M     M mM           S sS  I i I      Cc C
M mM                  Mm M  SSSSSSSs S  IIIi iIII  C cC
Mm M                  M mM  S s s s sS  I i i i I  Cc C
M mM                  MMMM  SSSSSSSSSS  IIIIIIII  C cC
Mm M                                            Cc C
M mM                   MUNITIONS STATUS          C cCCCCCCCCCC
Mm M                   INFORMATION CENTER        Cc c c c c cC
MMMM                       7 Sep 1989            CCCCCCCCCCCCC

       WHAT DRIVE ARE THE PROGRAM FILES IN [A,B,C or D] ?
```

FIGURE 3. Opening Screen.

This screen continues to appear as you answer the computer prompts.

No [N] should be entered in response to the third prompt on the first program boot for the day. (The system will update the files.) If you are working with diskettes, [N] must be entered each time you exit the program and use a different diskette. The yes [Y] response is simply a timesaver when you are sure the index files are updated and correct. The *Main Menu* (Figure 4) screen will appear after either.

■ Practice Example	Prompts/Comments
1) Open program	Prompt: What drive are the Program files in (A,B,C or D)?
2) Type: A, B, C or D	Prompt: What drive are the Data files in (A,B,C or D)?
3) Type: A, B, C or D	Prompt: Are the files currently indexed on Drive (Y/N) ?
4) Type: N	The *Main Menu* will appear.

SELECTION OF PROGRAM OPTIONS

Each section in this document will guide you as you choose the various options and menus. The *Main Menu* screen (Figure 4) shows the options that can be selected. The |A| Add New Data and |E| Edit Existing Data options are not available for general use; these options are for users responsible for data gathering.

Most of the following options are available to you:

|V| — View Existing Data lets you view data by test.
|C| — Change Diskettes permits the changing of diskettes as desired.
|P| — Print Data lets you print data by file or by test.
|S| — Run Summary of Data permits a summary of programs by munition.
|L| — List or Locate shows a test by user-specified conditions.
|M| — Select Munitions shows the munition from which you search for data.
|Q| — Quit Program lets you quit the program.

NOTE: Options |C|, |S|, and |M| are not currently available for the Macintosh version of this program. You will be able to obtain options |S| and |M| at a later date.

Options |S| and |M| are not available for the IBM and IBM compatible version of this program at this time; they will be made available at a later date.

The remainder of this document is devoted to explaining each option. Also, there are practice examples for you to follow so that you become familiar with the organization of the data and the various options provided in this program.

[V] — VIEW EXISTING DATA

FIGURE 4. Main Menu Screen.

From the *Main Menu*, shown in Figure 4, if you select the View Existing Data option [V], the *Selection of Data* screen (Figure 5) will appear. Selecting [1] Source Information allows you to move among the document records, but the test data are not accessible at the same time. The first of a series of screens is identified as *Screen 1 of 1* (Figure 5); there will no test ID number referenced at the top of the screen. (The detailed steps for this procedure, as well as further discussion, are provided in the following section.)

NOTE: At some point, you may enter [E] to exit, which will return the system to the *Main Menu*.

■ Practice Example	Prompts/Comments
1) Type: **V**	Prompt: Please make a selection (V,P,S,L,C OR Q) ?
	The *Selection of Data* screen will appear.

```
Do you want to VIEW data on :

    [1] Source Information
    [2] All Test Data


  Please make a selection from the above :
  Enter a [0] to Return to Main Menu ->  0
```
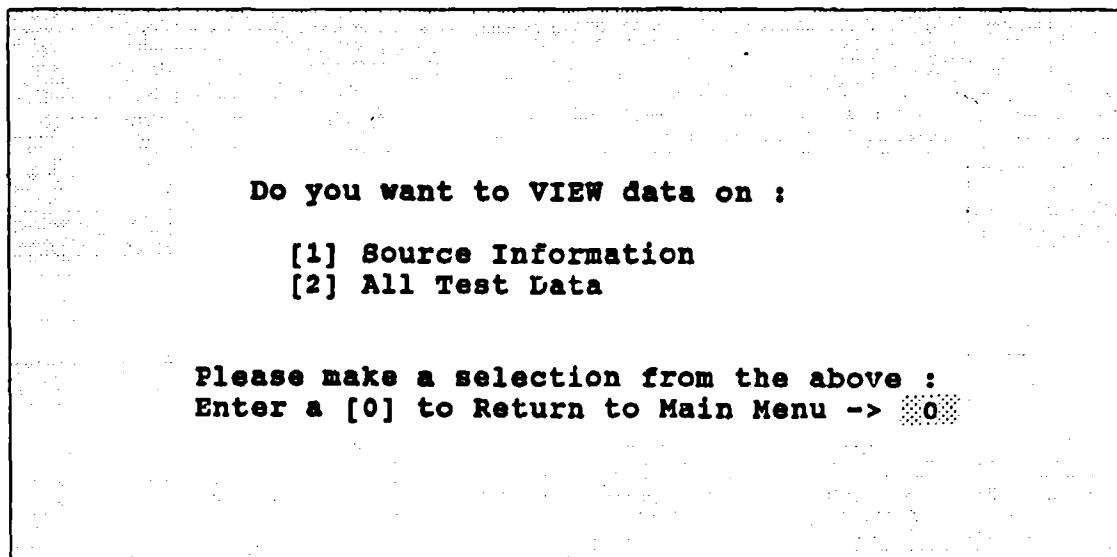
FIGURE 5. Selection of Data Screen.

Selection of Data. This menu is generated when you select either |A| Add New Data, |E| Edit Existing Data, or |V| View Existing Data options from the *Main Menu*. It asks what data you want to work with:

|1|— Source Information refers to data on the reference documents, which is separated from test information because documents may be entered into the system without having related test records. To access these unrelated document records, the source information must be accessed independently from the test data.

|2|— All Test Data allows you to access the test data as well as the related document data.

■ Practice Example	Prompts/Comments
1) Type: **2**	Prompt: Please make a selection from the above. Enter a [0] to return to the Main Menu -> 0
	The *Test Screen 1 of 4* will appear.

NOTE: A zero will always appear in the field that follows the prompt: "Enter a |0| to return to the Main Menu-> 0." To exit, type |00| or type |0| and press <RETURN> key.

Accessing Data Files

General test information is arranged and displayed on the first two screens. From the *Test Screen 1 of 4* screen you can move through the files by entering responses to program prompts displayed at the bottom of the screen. The message at the top of the screen makes it possible for you to always know exactly where you are in the program. The identifiers at the top of the screen will remain the same as you answer the prompts at the bottom of the screen (Figures 6a, 6b, and 6c). These illustrations show typical screens using pseudo data.

```
Review Status: PL              Test Screen 1 of 4              Test 1 of 5
Update :   /   /
                         Doc_serial: 6701700
                    Test_id Number: 48BI-01W

                    Munition Nomen:
                     Munition Name: 4.85" NEAR
                     Munition Type: ROCKET
                      Munition Mod:
              Data Classification: U

                         Stimulus: BULLET IMPACT
                      Test Number: TM-121
             Test or Analysis ?: TEST
                       Test Date: 01/01/66
                       Procedure: WR-50
              Baseline Test:Y      Standard Test?:
           Procedure :
           A STANDARD .20 CAL NONINCENDIARY BALL PROJECTILE WAS FIRED AT THE
           WARHEAD.   THE DISTANCE FROM WEAPON TO TARGET WAS 500 YDS.

       Do you want to change [T]est, change [S]creen on, or [P]rint this test ?
               Enter a selection (T,S,P or E to Exit) please..
```

FIGURE 6a. Test Screen 1 of 4 Screens.

If you select [P] Print This Test from this screen, the complete data sheet will be printed. The printing option is discussed and an example of a complete data sheet is shown beginning on page 29.

[T] — Change Test

■ Practice Example	Prompts/Comments
1) Notice the identifiers at the top of the screen that tell which screen is displayed, how many tests in the file, and which one is now displayed	Message: Test Screen 1 of 4 Test 1 of 5
2) Type: T	Prompt: Do you want to change [T]est, change [S]creen on or [P]rint this test? Enter a selection (T,S,P or E to exit) please..
3) Notice that Test Screen 1 of 4 remains the same as your selections are guided via the prompts at the bottom of the screen.	

```
Review Status: FL          Test Screen 1 of 4          Test 1 of 5
Update :   /  /
                      Doc_serial: 6701700
                  Test_id Number: 48BI-01W

                  Munition Nomen:
                  Munition Name: 4.85" NEAR
                  Munition Type: ROCKET
                   Munition Mod:
            Data Classification: U

                        Stimulus: BULLET IMPACT
                     Test Number: TM-121
              Test or Analysis ?: TEST
                      Test Date: 01/01/66
                       Procedure: WR-50
              Baseline Test:Y      Standard Test?:
           Procedure :
           A STANDARD .20 CAL NONINCENDIARY BALL PROJECTILE WAS FIRED AT THE
           WARHEAD.  THE DISTANCE FROM WEAPON TO TARGET WAS 500 YDS.

       Do you want to change [T]est, change [S]creen on, or [P]rint this test?
                  Enter a selection (T,S,P or E to Exit) please..
```

FIGURE 6b. Test Screen 1 of 4 Screens.

[L] — Locate a Test

The Locate option [L] helps you find a particular file. To use the [L] Locate option, you must know at least some of the test ID you want to access (as little as the weapon name abbreviation will suffice). As you become familiar with this system and the data, the Locate function will become more useful.

There is an area of inverse video (shaded) at the bottom of the screen for you to enter the desired field content. Figure 6c shows that fast cookoff for BRAG (another pseudo weapon) [BRFC-] has been entered.

The following abbreviations are used for the various stimuli.

FC — fast cookoff
SC — slow cookoff
BI — bullet impact
FI — fragment impact
SD — sympathetic detonation

```
Review Status: FL              Test Screen 1 of 4              Test 1 of 5
Update  :   /  /
                        Doc_serial:  6701700
                  Test_id Number:  48BI-01W

                  Munition Nomen:
                   Munition Name:  4.85" NEAR
                   Munition Type:  ROCKET
                    Munition Mod:
             Data Classification:  U

                        Stimulus:  BULLET IMPACT
                     Test Number:  TM-121
              Test or Analysis ?:  TEST
                       Test Date:  01/01/66
                       Procedure:  WR-30
             Baseline Test:Y      Standard Test?:
          Procedure :
          A STANDARD .20 CAL NONINCENDIARY BALL PROJECTILE WAS FIRED AT THE
          WARHEAD.  THE DISTANCE FROM WEAPON TO TARGET WAS 500 YDS.


          Enter the test_id of the record you want to locate->BRFC-
```

FIGURE 6c. Partial Test ID Number Used to Locate Test.

NOTE: When you select the Locate option, the test ID number you are presently viewing will appear in the area of inverse video. It will be replaced as you type in the desired (new) test ID number.

	Practice Example	Prompts/Comments
1)	Type: **L**	Prompt: Change screen [F]orward, [B]ackward, [L]ocate a test or [E]xit ? Enter a selection (F,B,L or E to exit) please..
2)	Type: **PEBI-01W**	Message: Enter the test_id of the record you want to locate->

Although the illustrations in Figures 6a through 6c show pseudo data, for this practice example you access actual test data for Penguin by entering [PE] to locate the first occurrence of Penguin in the file, [BI] to locate the first occurrence of a Penguin bullet impact test, and [-01W] to locate that specific test [PEBI-01W]. (NOTE: Unless you know that the specific test is in the file, do not enter a complete test ID) number.)

When you have located the file, you have the option to change the test [T], change the screen on this test [S], or print this test [P].

[S] — Change Screen

	Practice Example	Prompts/Comments
1)	Notice the identifiers at the top of the screen that tell which screen is displayed, how many tests in the file, and which one is now displayed	Message: Test Screen 1 of 4 Test 1 of 3
2)	Type: **S**	Prompt: Do you want to change [T]est, change [S]creen on or [P]rint this test? Enter a selection (T,S,P or E to exit) please..
3)	Type: **F**	Prompt: Change screen [F]orward, [B]ackward or [E]xit? Enter a selection (F,B or E to exit) please.. The *Test Screen 2 of 4* will appear.

General Test Information, Screen 2

FIGURE 7. Test Screen 2 of 4 Screens.

	Practice Example	Prompts/Comments
1)	Notice identifiers at the top of the screen that tell you which screen is displayed, how many tests in the file, and which one is now displayed	Message: Test Screen 2 of 4 Test 1 of 3
2)	Type: S	Prompt: Do you want to change [T]est, change [S]creen on or [P]rint this test? Enter a selection (T,S,P or E to exit) please..
3)	Type: F	Prompt: Change screen [F]orward, [B]ackward or [E]xit? Enter a selection (F,B or E to exit) please.. The *Test Screen 3 of 4* will appear.

Component Data, Screen 3

```
                        Test Screen 3 of 4
                          Component Data

                   DOC_SERIAL: 8504700
              TEST_ID NUMBER: BRFC-01A

         PART NOMENCLATURE:
                  PART TYPE:
                  PART NAME: TIVS
         ***Part name must have data entered to accept component.
              ENERGETIC LOAD: BLC & ALUM OXIDE
            QUANTITY (WEIGHT): .015 LBS
               METRIC WEIGHT: 0.0068 KG
               PART REACTION: DETONATION
             TIME TO REACTION: 00:10:56

         TOP DRAWING NUMBER:
                 SPEC NUMBER:

                         Component 1 of 5

      Do you want to change [C]omponent or change [S]creen on this test ?
              Enter a selection [C,S or E to Exit) please..
```

FIGURE 8. Test Screen 3 of 4 Screens.

This screen shows a single component from the test and gives a little detail. There may be several components in a test (i.e., warhead, booster, rocket motor), thus this screen may be repeated several times to display all of the components for one test.

What You Do	Prompts/Comments
1) Notice screen identifier located in the top center of the screen that tells you which screen is displayed and the screen title	Message: Test Screen 3 of 4 Component Data
2) Notice the display near the bottom of the screen that tells you how many components there are and which one is currently displayed	Message: Component 1 of 3

■ Practice Example	Prompts/Comments
1) Type: **S**	Prompt: Do you want to change [C]omponent or change [S]creen on this test? Enter a selection (C,S or E to exit) please..
2) Type: **F**	Prompt: Change screen [F]orward, [B]ackward or [E]xit? Enter a selection (F,B or E to exit) please..
	The *Test Screen 4 of 4* will appear.

Test Data Reference for Test ID Number, Screen 4

```
                          Screen 4 of 4
                Test Data Reference for Test_id number BRFC-01A
                -------------------------------------------------
Document Classification : U

Doc Title : BRAG AIR VEHICLE DEVELOPMENT TEST PROPULSION AND ORDNANCE SAFETY
            TEST REPORT.


            Report No. : NAVAIR 32050-351 NA
            Report Date : 04/01/85
         Report Status : FINAL
              IMET (Y/N):

         Point of Contact (Name, Agency , Phone)
         -----------------------------------------
         WILL BOX, NAVAIR, AUTO PARK, CA, 619-371-2830


Document Serial Number : 8504700

     From here, you may change screens [B]ackward to the component data,
   or you may change screens [F]orward to the first screen of this test.
             Please enter your selection [F,B or E to Exit] ?
```
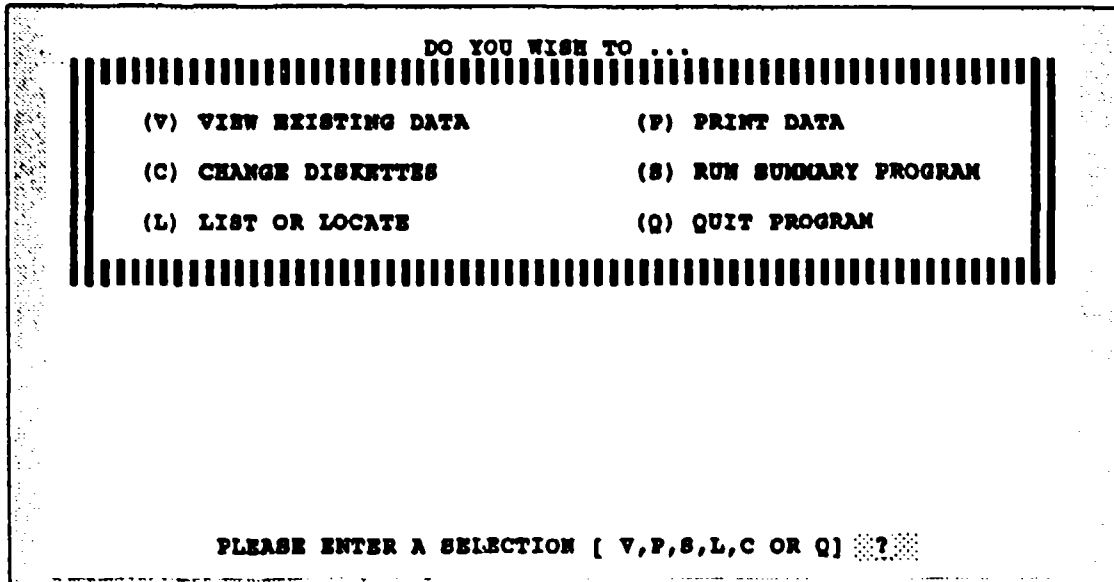
FIGURE 9. Screen 4 of 4 Screens.

You are now on the final screen of data for a single test. The screen in Figure 9 shows source information for the test. You may not change tests from this screen, nor can you change to another document. You can only change screens forward to *Test Screen 1 of 4* (the first screen of general test information) or backward to *Test Screen 3 of 4, Component Data.*

■ Practice Example	Prompts/Comments
1) Notice screen identifier located in the top center of the screen that tells which screen is being displayed and its title	Message: Screen 4 of 4 Test Data Reference for Test_id number
2) Type: E	Prompt: From here you may change screen [B]ackward to the component data or you may change screens [F]orward to the first screen of this test. Please enter your selection (F,B or E to exit) ? The *Main Menu* screen will appear.

[C] — CHANGE DISKETTE
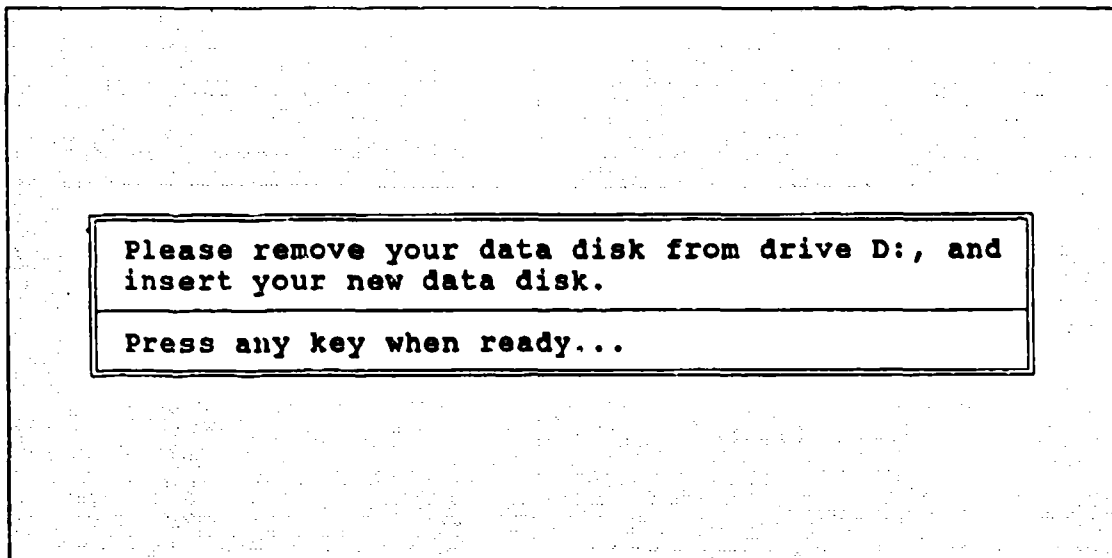
FIGURE 10a. Main Menu Screen.

From the *Main Menu*, when you select the [C] Change Diskette option, the screens shown in Figure 10b then Figure 10c will appear to guide you. When you are finished, the system will return to the *Main Menu*.

FIGURE 10b. Change Diskette Instructions.

Is this data diskette currently indexed on drive B: [Y/N]? Y
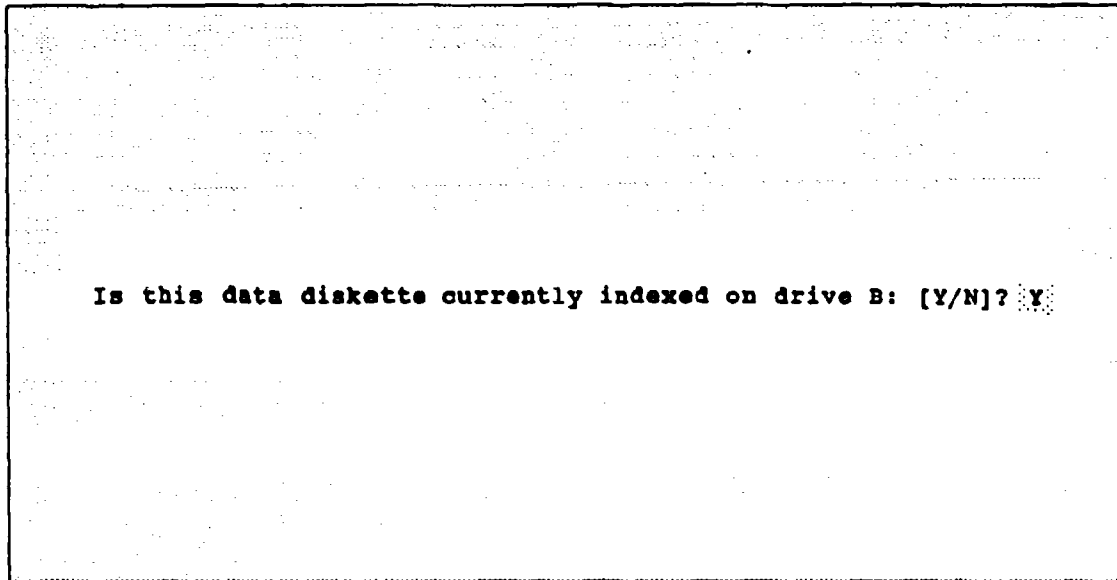
FIGURE 10c. Instructions Continued.

■ Practice Example	Prompts/Comments
1) Type: **N**	Prompt: Is this data diskette currently indexed on drive D: [Y/N] ?
	The system returns to *Main Menu*.

[P] — PRINT DATA


```
                        DO YOU WISH TO ...
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||

     (V) VIEW EXISTING DATA        (P) PRINT DATA

     (C) CHANGE DISKETTES          (S) RUN SUMMARY PROGRAM

     (L) LIST OR LOCATE            (Q) QUIT PROGRAM

 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||



         PLEASE ENTER A SELECTION [ V,P,S,L,C OR Q]  ?
```

FIGURE 11. Main Menu Screen.

You have now returned to the *Main Menu* screen. Since you know that |A|, |E|, and |V| work in the same manner, now try the Print Data |P| function. Two types of printout are available with this option:

|1|— Print Test Data will print out all of the data in the three data groups on each test in an orderly and arranged manner.

|2|— Print Component Data prints out the component data of a test.

|3|— Exit Without Printing returns the system to the *Main Menu* screen.

Selection of either |1| or |2| generates the *Print Options* screen.

The *Print Data* prompt (Figure 12) will appear when you follow the Practice Example.

■ Practice Example	Prompts/Comments
1) Type: **P**	Prompt: Please enter selection (A,E,V,P,L,C,M or Q) ?
	The *Print Data* prompt will appear.

DO YOU WISH TO ...

(V) VIEW EXISTING DATA		(P) PRINT DATA
(C) CHANGE DISKETTES		(8) RUN SUMMARY PROGRAM
(L) LIST OR LOCATE		(Q) QUIT PROGRAM

Do you wish to set a filter condition before printing [Y/N] ?

FIGURE 12. Print Data Prompt on Main Menu.

Setting Filter Conditions. Setting filter conditions allows you to choose one to five fields to specify desired printout result. The procedure is given in the Practice Examples.

To continue without setting filter conditions, respond [N] to the prompt displayed on the screen. The *Print Data* screen (Figure 14a) will appear, and you will follow the procedure beginning on page 29. All test records on floppy disk will be printed. If your data are on the hard disk, every record for every weapon will be printed.

■ Practice Example	Prompts/Comments
1) Type: **Y**	Prompt: Do you wish to set a filter condition before printing [Y/N] ?
	The *Set Filter* screen will appear.

Figure 13a shows a sampling of various filter conditions. The illustration shows that [18] has been selected. Notice that the area of inverse video changes as you make entries (Figures 13b and 13c) following the Practice Examples.

```
  Command -> SET FILT


        [01] TEST ID NUMBER              [14] MUNITION NOMENCLATURE
        [02] DOC_SERIAL NUMBER           [15] MUNITION MODIFICATION
        [03] PART NOMENCLATURE           [16] NSN NUMBER
        [04] PART NAME (WARHEAD,FUSE,ETC.) [17] NALC NUMBER
        [05] PART TYPE (ADAPTER,INERT,ETC.) [19] DATA TYPE (TEST OR ANALYSIS)
        [06] EXPLOSIVE LOAD              [20] TEST STIMULUS
        [07] EXPLOSIVE LOAD WEIGHT       [21] TEST DATE
        [08] COMPONENT REACTION          [22] PROCEDURE
        [09] TIME TO REACTION            [23] HAZARDOUS  FRAGMENTS
        [10] METRIC WEIGHT               [24] RATIONAL/COMMENT
        [11] TOP DRAWING NUMBER          [25] BASELINE TEST
        [12] SPEC NUMBER                 [26] STANDARD TEST
        [13] MUNITION NAME               [27] INET DOCUMENT


         ENTER FROM 1 TO 5 FIELDS TO WHICH YOU WISH TO SET CONDITIONS
         FOR YOUR COMMAND.  ENTER A [0] TO END YOUR SELECTIONS. 21

             TEST DATE
  ENTER [<],[<=],[>],[>=],[=] or [#] TO SELECT A SEARCH RANGE.
```

FIGURE 13a. Set Filter Screen.

■ Practice Example	Prompts/Comments
1) Type: **18**	Prompt: Enter from 1 to 5 fields which you wish to set conditions for your command. Enter a [0] to end your selections.
	Message: Test Date
2) Type: ■	Prompt: Enter [<], [<=], [>], [>=], [=], or [#] to select a search range.
3) Press <RETURN>	Message: Test Date =

```
Command -> SET FILT


       [01] TEST ID NUMBER            [14] MUNITION NOMENCLATURE
       [02] DOC_SERIAL NUMBER         [15] MUNITION MODIFICATION
       [03] PART NOMENCLATURE         [16] NSN NUMBER
       [04] PART NAME (WARHEAD,FUSE,ETC.)  [17] NALC NUMBER
       [05] PART TYPE (ADAPTER,INSRT,ETC.) [19] DATA TYPE (TEST OR ANALYSIS)
       [06] EXPLOSIVE LOAD            [20] TEST STIMULUS
       [07] EXPLOSIVE LOAD WEIGHT     [21] TEST DATE
       [08] COMPONENT REACTION        [22] PROCEDURE
       [09] TIME TO REACTION          [23] HAZARDOUS  FRAGMENTS
       [10] METRIC WEIGHT             [24] RATIONAL/COMMENT
       [11] TOP DRAWING NUMBER        [25] BASELINE TEST
       [12] SPEC NUMBER               [26] STANDARD TEST
       [13] MUNITION NAME             [27] IMRT DOCUMENT


      ENTER FROM 1 TO 5 FIELDS TO WHICH YOU WISH TO SET CONDITIONS
      FOR YOUR COMMAND.  ENTER A [0] TO END YOUR SELECTIONS. 21


            TEST DATE =
    ENTER [<],[<=],[>],[>=],[=] or [#] TO SELECT A SEARCH RANGE.
```

FIGURE 13b. Prompt to Set Condition, Test Date.

■ Practice Example	Prompts/Comments
1) Type: **01/01/90**	Message: Test Date = 01/01/90
2) Type: **Y**	Prompt: Are you satisfied with the above condition [Y/N] ?
3) Type: **Y**	Prompt: Are you ready to execute the command [Y/N] ?
4) Type: **00**	The *Print Data* screen will appear.

27

```
Command -> SET FILT


     [01] TEST ID NUMBER                [14] MUNITION NOMENCLATURE
     [02] DOC_SERIAL NUMBER             [15] MUNITION MODIFICATION
     [03] PART NOMENCLATURE             [16] MSN NUMBER
     [04] PART NAME (WARHEAD,FUSE,ETC.) [17] MALC NUMBER
     [05] PART TYPE (ADAPTER,INERT,ETC.)[19] DATA TYPE (TEST OR ANALYSIS)
     [06] EXPLOSIVE LOAD                [20] TEST STIMULUS
     [07] EXPLOSIVE LOAD WEIGHT         [21] TEST DATE
     [08] COMPONENT REACTION            [22] PROCEDURE
     [09] TIME TO REACTION              [23] HAZARDOUS  FRAGMENTS
     [10] METRIC WEIGHT                 [24] RATIONAL/COMMENT
     [11] TOP DRAWING NUMBER            [25] BASELINE TEST
     [12] SPEC NUMBER                   [26] STANDARD TEST
     [13] MUNITION NAME                 [27] INET DOCUMENT

        ENTER FROM 1 TO 5 FIELDS TO WHICH YOU WISH TO SET CONDITIONS
        FOR YOUR COMMAND.   ENTER A [0] TO END YOUR SELECTIONS. 21

              TEST DATE =    01/01/90
   ENTER [<],[<=],[>],[>=],[=] OR [#] TO SELECT A SEARCH RANGE.
```

FIGURE 13c. Selection of Test Date.

```
  Command -> SET FILT


     [01] TEST ID NUMBER                [14] MUNITION NOMENCLATURE
     [02] DOC_SERIAL NUMBER             [15] MUNITION MODIFICATION
     [03] PART NOMENCLATURE             [16] MSN NUMBER
     [04] PART NAME (WARHEAD,FUSE,ETC.) [17] MALC NUMBER
     [05] PART TYPE (ADAPTER,INERT,ETC.)[19] DATA TYPE (TEST OR ANALYSIS)
     [06] EXPLOSIVE LOAD                [20] TEST STIMULUS
     [07] EXPLOSIVE LOAD WEIGHT         [21] TEST DATE
     [08] COMPONENT REACTION            [22] PROCEDURE
     [09] TIME TO REACTION              [23] HAZARDOUS  FRAGMENTS
     [10] METRIC WEIGHT                 [24] RATIONAL/COMMENT
     [11] TOP DRAWING NUMBER            [25] BASELINE TEST
     [12] SPEC NUMBER                   [26] STANDARD TEST
     [13] MUNITION NAME                 [27] INET DOCUMENT

        ENTER FROM 1 TO 5 FIELDS TO WHICH YOU WISH TO SET CONDITIONS
        FOR YOUR COMMAND.   ENTER A [0] TO END YOUR SELECTIONS. 21

           ARE YOU SATISFIED WITH THE ABOVE CONDITION (Y/N)   ?
        A REPLY OF (Y)ES WILL ADD THE ABOVE CONDITION TO THE COMMAND.
```

FIGURE 13d. Final Prompt to Select of Test Date.

When you have completed the procedure for setting filter conditions, the *Print Data* screen (Figure 14a) will appear.

[1] — Print Test Data

```
JJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJ
JJ                                          JJ
JJ    [1] PRINT TEST DATA              JJ
JJ                                          JJ
JJ    [2] PRINT COMPONENT DATA         JJ
JJ                                          JJ
JJ    [3] EXIT WITHOUT PRINTING        JJ
JJ                                          JJ
JJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJ


PLEASE ENTER YOUR SELECTION [ 1,2 OR 3 ]  1
```

FIGURE 14a. Print Data Screen.

The Practice Example in this section describes the steps for executing the [1] Print Test Data option.

Printing Options. The data gathered and input for the MSIC system are contained on diskettes and grouped by munition. You have two options for printing or you can exit this menu:

[1]— Print Entire File allows you to print all of the data for a specific munition.*

[2]— Select Records for Print lets you select specific tests for printing. Selection of this option generates a screen displaying all of the test ID numbers of the tests in the data files; you may view all of the test ID numbers available, then enter as many test IDs as you desire.

[3]— Exit Print Option lets you leave the *Print Options* screen. The system returns to the *Main Menu* screen.

■ Practice Example	Prompts/Comments
1) Type: **1**	Prompt: Please enter your selection (1,2 or 3). The *Print Options* screen will appear.

---

* CAUTION: Selecting [1] prints the entire file. Be aware of the number of records because there is no way to interrupt the printing function.

```
                    PRINT OPTIONS
11111111111111111111111111111111111111111
11                                      33
11    [1]  PRINT ENTIRE FILE            33
33                                      33
33    [2]  SELECT RECORDS TO PRINT      33
33                                      33
33    [3]  EXIT PRINT OPTION            33
33                                      33
33333333333333333333333333333333333333333

     Please enter your selection ?
```
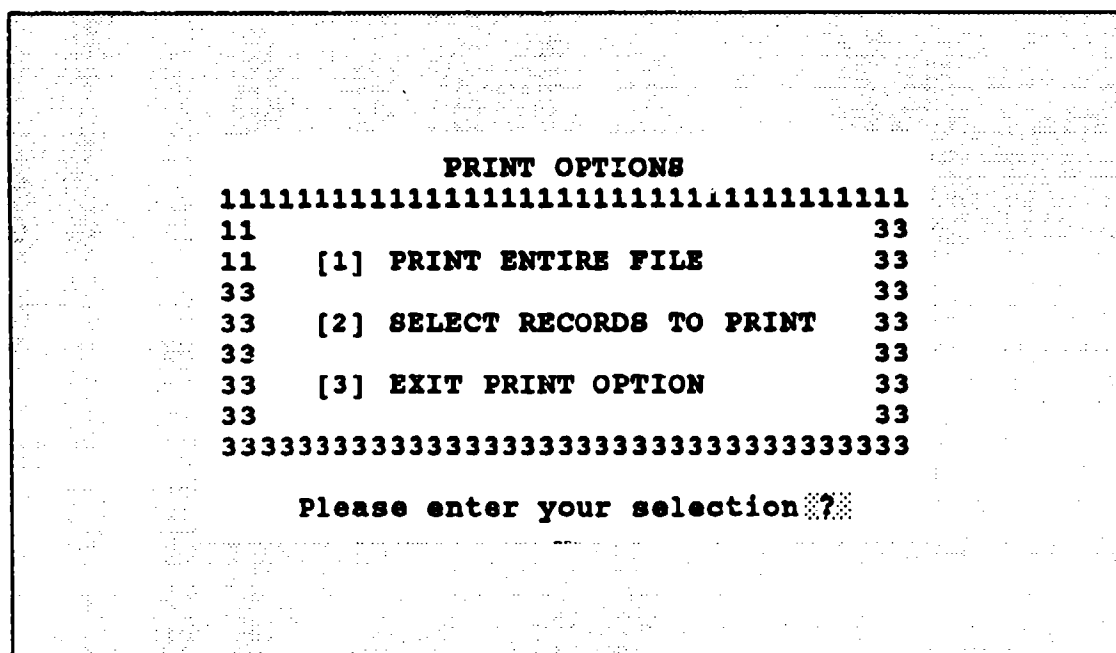
FIGURE 14b. Print Options Screen.

■ Practice Example	Prompts/Comments
1) Type: **2**	Prompt: Please enter your selection ?
	The *Available Test_id for Printing* screen will appear.

Figure 15a shows a sample screen of test ID numbers available for printing. Each screen can contain up to 30 test ID numbers. The system will generate as many screens as needed until you have viewed all of the test ID numbers desired and you end the selection process.

```
        1 BRFC-03A           2 BSFI-01P           3 HNSD-01P
        4 NRBI-01W           5 RESC-01W           6 RMFC-01P
        7 WFBI-01C




There are  1 screen(s) of 30 records max each that may be selectively
printed.  Enter the number adjacent to the test_id you wish to print.
Enter [0] to end selections.->  :::0:::
```
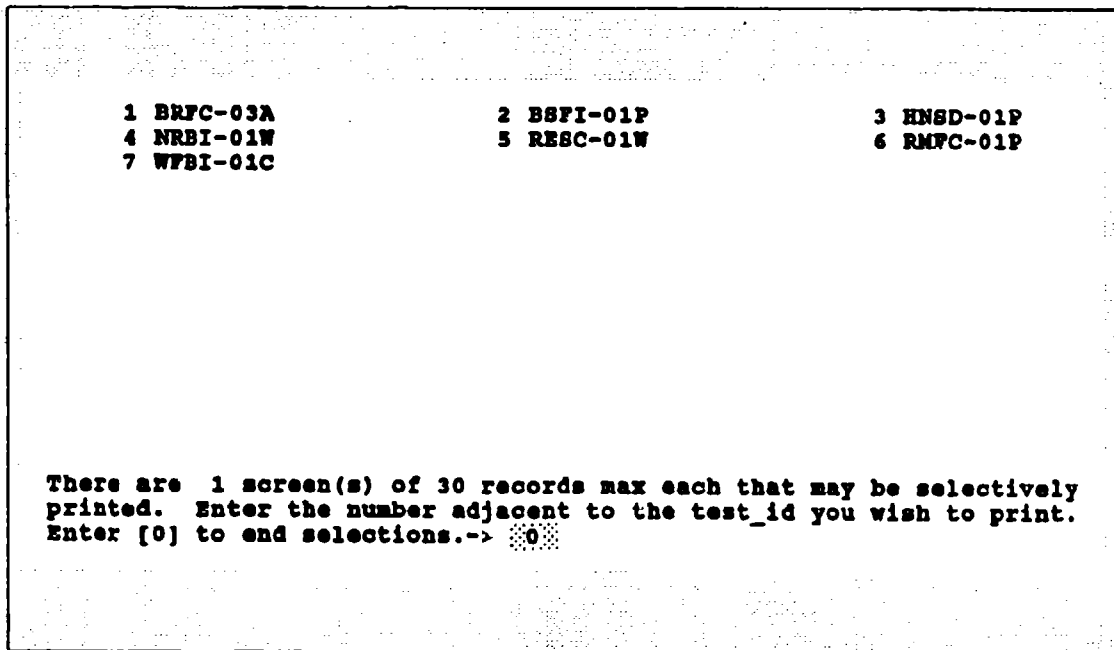
FIGURE 15a. Sample Screen of Available Test IDs for Printing.

■ Practice Example	Prompts/Comments
1) Type: **01** You may enter as many numbers as there are available. You must enter 0 before a 1-digit number.	Prompt: Enter the number adjacent to the test_id you wish to select. Re-enter the adjacent number for tests you wish to de-select. Enter [0] to end selections. -> 0
2) Notice your selections will be highlighted as you enter the two-digit identifier.	
3) Type: **00**	When printing is completed, the system returns to the *Main Menu*.

A pri...out of test data for a pseudo weapon is shown in Figure 15b. When printing is completed, the system returns to the *Main Menu*.

```
DATE   : 08/24/90           PRELIMINARY

OHEB Consensus : PASS                 Review Status :  F


Munition Identification         Document Serial Number : 8504700
MISSILE : BRAG MK 82                    Test ID Number : BRFC-03A
Munition Modification:
NSN Number:              NALC Number:


                            Energetic           Quantity
Test Item Components        Material        U.S.        Metric
TIVS                        BLC & ALUM OXIDE   .015 LBS   0.0068 KG

                    Summary Test Results

Test Date : 04/26/84
Video Project Number:
Stimulus  : FAST COOKOFF TEST
Baseline Test: Y        Standard Test: N          Time  To
Conclusion(s) :                                   Reaction
              TIVS : DETONATION                   00:10:56


Config :   THE TEST ITEM WAS AN AUR WITH A TIVS UNIT INSTALLED.


Procedure : MIL-STD-1648A(AS)
            THE TIME TO 1000 F FLAME TEMP WAS :40 SEC.


Comments : THE MISSILE TIVS SHAPE CHARGE DETONATED AT :56 AFTER IGNITION.
           03:00 AFTER THE TIVS FUNCTIONED, THE NOSE CONE WAS EJECTED AND FOUND
           17 FT FROM THE A-FRAME.  TIP OF THE CONE WAS 30 FT AWAY FROM THE PIT
           A 14" X 16" PIECE OF MELTED ALUMINUM BENEATH THE ITEM WAS REMOVED.
           WARHEAD VENTED AND BURNED.


Hazardous Frags : N
                    Source Information


Title :   BRAG AIR VEHICLE DEVELPOMENT TEST PROPLUSION AND ORDNANCE SAFETY
          TEST REPORT

Report Number          : NAVAIR 32050-351 NA
Document Classification : UNCLASSIFIED
Test Number            : SEC 12-11 A
Report Date            : 04/01/85
Data Type              : TEST
Report Status          : FINAL


Point Of Contact
WILL BOX, NAVAIR, AUTO PARK, CA. 619-371-2830
```
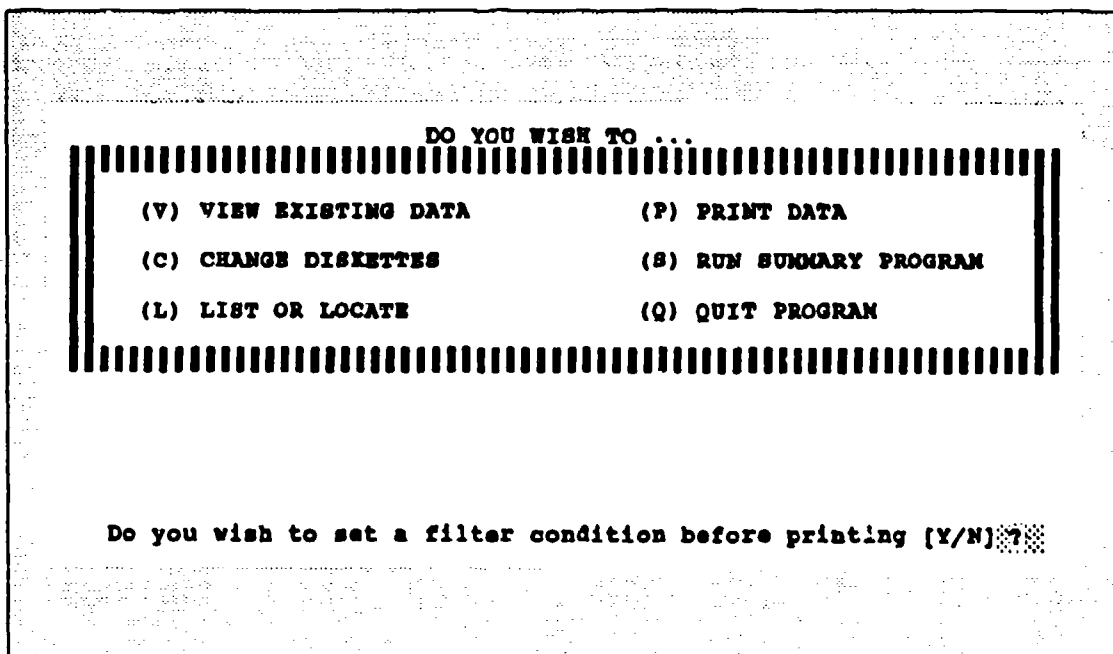
FIGURE 15b. Sample Printout of Test Data for Pseudo Weapon.

This concludes operation of the [1] Print Test Data option.

[2] — Print Component Data

You have now returned to the *Main Menu* screen (Figure 16).


```
                          DO YOU WISH TO ...
║▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌║

     (V)  VIEW EXISTING DATA          (P)  PRINT DATA

     (C)  CHANGE DISKETTES            (S)  RUN SUMMARY PROGRAM

     (L)  LIST OR LOCATE              (Q)  QUIT PROGRAM

║▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌▌║



     Do you wish to set a filter condition before printing [Y/N]?
```

FIGURE 16. Main Menu Screen.

Again working from the Print Data [P] menu (Figure 17), the Practice Example in this section describes the steps for executing the [2] Printing Component Data option.

■ Practice Example	Prompts/Comments
1) Type: **P**	Prompt: Please enter selection (V,P,S,L,C or Q) ?
2) Type: **N**	Prompt: Do you wish to set a condition before printing [Y/N] ?
	The *Print Data* screen will appear.

If you want to set conditions before printing, respond [Y]; you will follow the steps beginning on page 42, "Setting Conditions for List."

```
JJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJ
JJ                                        JJ
JJ     [1]  PRINT TEST DATA              JJ
JJ                                        JJ
JJ     [2]  PRINT COMPONENT DATA         JJ
JJ                                        JJ
JJ     [3]  EXIT WITHOUT PRINTING        JJ
JJ                                        JJ
JJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJJ


PLEASE ENTER YOUR SELECTION [ 1,2 OR 3 ]
```

FIGURE 17. Print Data Screen.

Following the steps in the Practice Example, the *Print Options* screen (Figure 18) will appear. When you select [3] Exit Without Printing, the system returns to the *Main Me..u* screen.

■ Practice Example	Prompts/Comments
1) Type: **2**	Prompt: Please enter your selection (1,2 or 3). The *Print Options* screen will appear.

```
                    PRINT OPTIONS
11111111111111111111111111111111111111
11                                      33
11     [1]  PRINT ENTIRE FILE          33
33                                      33
33     [2]  SELECT RECORDS TO PRINT    33
33                                      33
33     [3]  EXIT PRINT OPTION          33
33                                      33
3333333333333333333333333333333333333333

          Please enter your selection ?
```

FIGURE 18. Print Options Screen.

34

Printing Options. Definitions of the print options displayed on the *Print Options* screen are repeated here for convenience.

[1] — Print Entire File allows you to print all of the data for a specific munition.*

[2] — Select Records for Print lets you select specific tests for printing. Selection of this option generates a screen displaying all of the test ID numbers of the tests in the data files; you may view all of the test ID numbers available, then enter as many test IDs as you desire.

[3] — Exit Print Option lets you leave the *Print Options* screen. The system returns to the *Main Menu* screen.

■ Practice Example	Prompts/Comments
1) Type: **2**	Prompt: Please enter your selection ? The *Available Test_id for Printing* screen will appear.

Figure 19 shows a sample screen of test ID numbers available for printing. Each screen can contain up to 30 test ID numbers. The system will generate as many screens as needed until you have viewed all of the test ID numbers desired and you end the selection process by entering [00].


```
1 BRFC-03A          2 BSFI-01P          3 HNBD-01P
4 NRBI-01W          5 RESC-01W          6 RMFC-01P
7 WFBI-01C
```

```
There are  1 screen(s) of 30 records max each that may be selectively
printed.  Enter the number adjacent to the test_id you wish to print.
Enter [0] to end selections.-> :0:
```
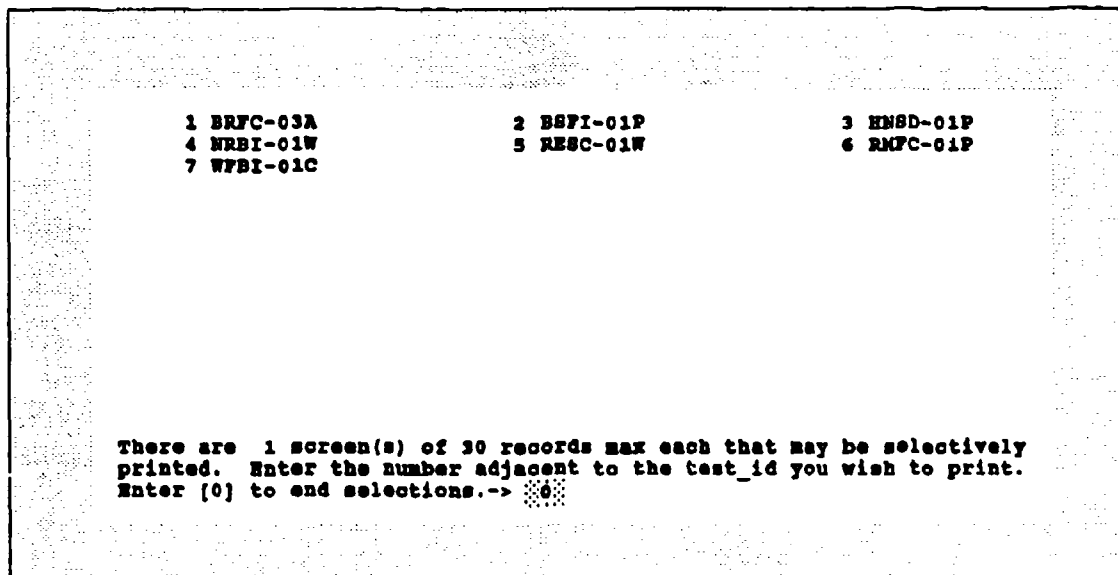
FIGURE 19. Sample Screen of Available Test IDs for Printing.

* CAUTION: Selecting [1] prints the entire file. Be aware of the number of records because there is no way to interrupt the printing function.

■ Practice Example	Prompts/Comments
1) Type: **01**	Prompt: Enter the number adjacent to the test_id you wish to select. Re-enter the adjacent number for tests you wish to de-select. Enter [0] to end selections. -> 0
2) Press <RETURN>	
3) Type: **02**	
4) Press <RETURN>	
5) Type: **03**	
6) Press <RETURN> You may enter as many numbers as there are available. You must enter 0 before a 1-digit number.	
7) Notice your selections will be highlighted as you enter the two-digit identifier.	
8) Type: **00**	When printing is completed, the system returns to the *Main Menu*.

The examples shown in Figure 20, although for pseudo weapons, are typical of component data printouts. When printing is completed, the system returns to the *Main Menu*.

DATE: 08/24/90

MUNITION NAME : HARDNOSE MK 99
TEST ID NUMBER: HNSD-01P

ENERGETIC MATERIAL

COMPONENT NAMES	QUANTITY	SPEC NO.	TOP DRAWING NO
MK 99 ROCKET MOTOR DONOR	REDFRO 20 8C LBS		
MK 99 ROCKET MOTOR ACCEPTOR	REDFRO 20 80 LBS		

(a)

FIGURE 20. Sample Printouts of Component Data.

DATE: 08/24/90

MUNITION NAME : BRAG MK 82
TEST ID NUMBER: BRFC-03A

COMPONENT NAMES	ENERGETIC MATERIAL QUANTITY	SPEC NO.	TOP DRAWING NO
TIVS	BLC & ALUM OXIDE .015 LBS		

(b)

DATE: 08/24/90

MUNITION NAME : BLUE STAR MK 13
TEST ID NUMBER: BSFI-01P

COMPONENT NAMES	ENERGETIC MATERIAL QUANTITY	SPEC NO.	TOP DRAWING NO
MK 13 ROCKET MOTOR	HARDEX 82 LBS		

(c)

FIGURE 20. (Contd.)

This concludes operation of the [2] Print Component Data option.

[S] — RUN SUMMARY PROGRAM. This option is not for general use and is not disussed in this document.

[L] — LIST OR LOCATE

DO YOU WISH TO ...

(V) VIEW EXISTING DATA   (P) PRINT DATA

(C) CHANGE DISKETTES   (S) RUN SUMMARY PROGRAM

(L) LIST OR LOCATE   (Q) QUIT PROGRAM

PLEASE ENTER A SELECTION [V,P,S,L,C OR Q] ?

FIGURE 21. Main Menu Screen.

The [L] List or Locate option allows you to find, list, or look at test data that meet certain user-defined conditions. As you become more familiar with the system and the data, this function becomes more useful.

▓ Practice Example	Prompts/Comments
1) Type: **L**	Prompt: Please enter a selection (V,P,S,L,C or Q).
	The *List or Locate* screen will appear.

[1] — List to Screen and [2]—List to Printer

DO YOU WISH TO ...

[1] LIST TO SCREEN

[2] LIST TO PRINTER

[3] LOCATE A RECORD

[4] EXIT THIS OPTION

Enter your selection [1,2,3 or 4]

FIGURE 22. List or Locate Screen.

The options for [1] List to Screen and [2] List to Printer do the same thing, but the list is printed when [2] is selected. Choosing either list option ([1] or [2]) lets you list (select) the contents of one to five data sheets (fields).

■ Practice Example	Prompts/Comments
1) Type: 1	Prompt: Enter your selection (1,2,3 or 4)
	The *Field Selection* screen will appear.

Following the Practice Example, the next section shows you how to use the [1] List to Screen option. When either [1] or [2] is selected, searching is done through the Component file; therefore, if more than one component of a single test is found that meets all conditions set, the same test ID number will be displayed for each occurrence.

```
[01] TEST ID NUMBER                    [14] MUNITION NOMENCLATURE
[02] DOC_SERIAL NUMBER                 [15] MUNITION MODIFICATION
[03] PART NOMENCLATURE                 [16] NSN NUMBER
[04] PART NAME (WARHEAD,FUSE,ETC.)     [17] MALC NUMBER
[05] PART TYPE (ADAPTER,INSRT,ETC.)    [19] DATA TYPE (TEST OR ANALYSIS)
[06] EXPLOSIVE LOAD                    [20] TEST STIMULUS
[07] EXPLOSIVE LOAD WEIGHT             [21] TEST DATE
[08] COMPONENT REACTION                [22] PROCEDURE
[09] TIME TO REACTION                  [23] HAZARDOUS  FRAGMENTS
[10] METRIC WEIGHT                     [24] RATIONAL/COMMENT
[11] TOP DRAWING NUMBER                [25] BASELINE TEST
[12] SPEC NUMBER                       [26] STANDARD TEST
[13] MUNITION NAME                     [27] INST DOCUMENT


     ENTER FROM 1 TO 5 FIELDS TO WHICH YOU WISH TO SET CONDITIONS
     FOR YOUR COMMAND.  ENTER A [0] TO END YOUR SELECTIONS.  0
```

FIGURE 23a. Field Selection Screen for List Option.

Field Selections for List Option. For both List to Screen [1] and List to Printer [2] options you may view the contents of up to five data fields. It is recommended that you select the test ID number [01] as one of fields so that if more information on the listed data is needed, the file can be accessed by the test ID number. The system automatically ends the selection process when you have selected five fields. If you choose less than five fields, you must enter [00] to tell the system that you have completed the selection procedure.

■ Practice Example	Prompts/Comments
1) Type: 01, 08, and 21	Prompt: You may select from 1 to 5 fields to list out from those listed
2) Type: 00	above. Enter a [0] to end your selections. 0
	The *List* screen will appear.

The Command line will build (Figures 23b, 23c, and 23d) until you have entered five selections or you end the selection processs by entering [00] or [0] < RETURN >.

FIGURE 23b. Field Selection Screen With One Selection Shown on Command Line.

FIGURE 23c. Field Selection Screen With Two Selections Shown on Command Line.

NOTE: Disregard "B >" on the Command line; it is an internal computer command.

```
Command -> LIST Test_id,Reaction,B->test_date
        [01] TEST ID NUMBER            [17] MALC NUMBER
        [02] DOC_SERIAL NUMBER         [18] DATA CLASSIFICATION
        [03] PART NOMENCLATURE         [19] DATA TYPE (TEST OR ANALYSIS)
        [04] PART NAME (WARHEAD,FUZE,ETC.)  [20] TEST STIMULUS
        [05] PART TYPE (ADAPTER,INERT,ETC.) [21] TEST DATE
        [06] EXPLOSIVE LOAD            [22] PROCEDURE
        [07] EXPLOSIVE LOAD WEIGHT     [23] HAZARDOUS FRAGMENTS
        [08] COMPONENT REACTION        [24] RATIONAL/COMMENT
        [09] TIME TO REACTION          [25] BASELINE TEST
        [10] METRIC WEIGHT             [26] STANDARD TEST
        [11] TOP DRAWING NUMBER        [27] INET DOCUMENT
        [12] SPEC NUMBER               [28] DOCUMENT CLASSIFICATION
        [13] MUNITION NAME             [29] DOCUMENT TITLE
        [14] MUNITION NOMENCLATURE     [30] DOCUMENT DATE
        [15] MUNITION MODIFICATION     [31] REPORT NUMBER
        [16] NSN NUMBER                [32] CONTACT (POC)

        YOU MAY SELECT FROM 1 TO 5 FIELDS TO LIST OUT FROM THOSE
        LISTED ABOVE.  ENTER A [0] TO END YOUR SELECTIONS.   0
```

FIGURE 23d. Field Selection Screen With Three Selections Shown on Command Line.

Setting Conditions for List. When you have finished selecting fields, you may set some conditions for searching the data files. If you respond yes [Y] to the computer prompt, the screen will change as shown in Figure 23e.

```
Command -> LIST Test_id,Reaction,B->test_date
        [01] TEST ID NUMBER            [17] MALC NUMBER
        [02] DOC_SERIAL NUMBER         [18] DATA CLASSIFICATION
        [03] PART NOMENCLATURE         [19] DATA TYPE (TEST OR ANALYSIS)
        [04] PART NAME (WARHEAD,FUZE,ETC.)  [20] TEST STIMULUS
        [05] PART TYPE (ADAPTER,INERT,ETC.) [21] TEST DATE
        [06] EXPLOSIVE LOAD            [22] PROCEDURE
        [07] EXPLOSIVE LOAD WEIGHT     [23] HAZARDOUS FRAGMENTS
        [08] COMPONENT REACTION        [24] RATIONAL/COMMENT
        [09] TIME TO REACTION          [25] BASELINE TEST
        [10] METRIC WEIGHT             [26] STANDARD TEST
        [11] TOP DRAWING NUMBER        [27] INET DOCUMENT
        [12] SPEC NUMBER               [28] DOCUMENT CLASSIFICATION
        [13] MUNITION NAME             [29] DOCUMENT TITLE
        [14] MUNITION NOMENCLATURE     [30] DOCUMENT DATE
        [15] MUNITION MODIFICATION     [31] REPORT NUMBER
        [16] NSN NUMBER                [32] CONTACT (POC)

        YOU MAY SELECT FROM 1 TO 5 FIELDS TO LIST OUT FROM THOSE
        LISTED ABOVE.  ENTER A [0] TO END YOUR SELECTIONS.   0

        Do you want to set some conditions for your list [Y/N]  Y
```

FIGURE 23e. Field Selection Screen With Conditions Prompt.

■ Practice Example	Prompts/Comments
1) Type: **Y**	Prompt: Do you want to set some conditions for the list (Y/N) ?
	The *Condition* screen will appear.

Your response will lead to the *Condition* screen (Figure 24a) to allow your selection of the desired conditions. The Command line continues to show the selections you have already made, while the conditions available appear in the listing. You are limited to five conditions.

```
Command -> LIST Test_id,Reaction,3->test_date


        [01] TEST ID NUMBER                    [14] MUNITION NOMENCLATURE
        [02] DOC_SERIAL NUMBER                 [15] MUNITION MODIFICATION
        [03] PART NOMENCLATURE                 [16] NSN NUMBER
        [04] PART NAME (WARHEAD,FUZE,ETC.)     [17] NALC NUMBER
        [05] PART TYPE (ADAPTER,INERT,ETC.)    [19] DATA TYPE (TEST OR ANALYSIS)
        [06] EXPLOSIVE LOAD                    [20] TEST STIMULUS
        [07] EXPLOSIVE LOAD WEIGHT             [21] TEST DATE
        [08] COMPONENT REACTION                [22] PROCEDURE
        [09] TIME TO REACTION                  [23] HAZARDOUS  FRAGMENTS
        [10] METRIC WEIGHT                     [24] RATIONAL/COMMENT
        [11] TOP DRAWING NUMBER                [25] BASELINE TEST
        [12] SPEC NUMBER                       [26] STANDARD TEST
        [13] MUNITION NAME                     [27] INET DOCUMENT


             3->Stimulus ?

        WOULD YOU LIKE TO SEE THE LIST OF EXISTING FIELD ENTRIES [Y/N] ?
```

FIGURE 24a. Condition Screen.

■ Practice Example	Prompts/Comments
1) Type: **20**	Prompt: Enter from 1 to 5 fields to which you wish to set conditions for your command. Enter a [0] to end your selections.
2) Type: **Y**	Prompt: Would you like to see the list of existing field entries [Y/N] ?
3) Notice the position of the pointer as you type the appropriate response.	The list appears on the screen.

At this point the computer prompt asks if you want to see a list of what is actually in the file in that field. Follow the Practice Example to select this option. Figure 24b is the list that will be displayed on the computer screen.

If you already know what you want, this list can be by-passed by responding [N].

```
BULLET IMPACT          BULLET IMPACT TEST       FAST COOKOFF
FRAGMENT IMPACT        SLOW COOKOFF             SYMPATHETIC DETONATION




                  B->Stimulus ?  FAST COOKOFF
          Enter '=' (equal to) or '#' (not equal to)
```
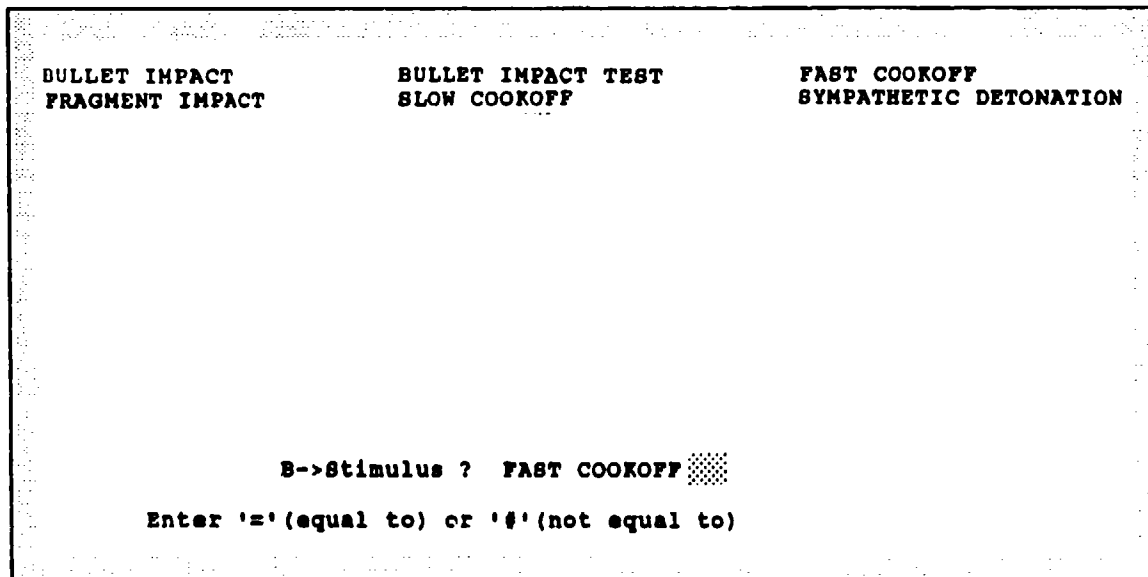
FIGURE 24b. Example of List of Stimuli.

Figure 24b shows that Fast Cookoff has been typed; the area of inverse will show your selections as you follow the Practice Example.

■ Practice Example	Prompts/Comments
1) Type: **Fast Cookoff**	Message: B->Stimulus ?
2) Press <RETURN>	Prompt: Enter '=' (equal to) or '#' (not equal to)
3) Type: ■	
4) Press <RETURN>	The *Condition* screen appears on the screen.

After entering the stimulus, you return to the *Condition* screen (Figure 25a). The illustration shows that [17] Test Stimulus was selected, then fast cookoff was typed in. The area of inverse video is indicated. If you answer yes [Y], the condition is added to the Command line. If you answer no [N], the condition is abandoned and the Command line remains the same.

```
Command -> LIST Test_id,Reaction,B->test_date
FOR B->Stimulus = 'FAST COOKOFF'


              [01] TEST ID NUMBER               [14] MUNITION NOMENCLATURE
              [02] DOC_SERIAL NUMBER            [15] MUNITION MODIFICATION
              [03] PART NOMENCLATURE            [16] NSN NUMBER
              [04] PART NAME (WARHEAD,FUZE,ETC.) [17] NALC NUMBER
              [05] PART TYPE (ADAPTER,INERT,ETC.) [19] DATA TYPE (TEST OR ANALYSIS)
              [06] EXPLOSIVE LOAD               [20] TEST STIMULUS
              [07] EXPLOSIVE LOAD WEIGHT        [21] TEST DATE
              [08] COMPONENT REACTION           [22] PROCEDURE
              [09] TIME TO REACTION             [23] HAZARDOUS  FRAGMENTS
              [10] METRIC WEIGHT               [24] RATIONAL/COMMENT
              [11] TOP DRAWING NUMBER           [25] BASELINE TEST
              [12] SPEC NUMBER                 [26] STANDARD TEST
              [13] MUNITION NAME               [27] INST DOCUMENT

            ENTER FROM 1 TO 5 FIELDS TO WHICH YOU WISH TO SET CONDITIONS
            FOR YOUR COMMAND.  ENTER A [0] TO END YOUR SELECTIONS.  0
```

FIGURE 25a. Condition Screen.

Three of the fields are treated as special cases: Time to Reaction, Test Date, and Component Reaction. You are given the option of using equality or inequality symbols in setting the conditions ($<$, $< =$, $>$, $> =$, $=$, or $\#$).

The *Condition* screen will continue to appear and the area of inverse video will show your selections as you make entries (Figures 25b and 25c).

■ Practice Example	Prompts/Comments
1) Type: **21**	Prompt: Enter from 1 to 5 fields to which you wish to set conditions for your command. Enter a [0] to end your selections.
2) Type: **>**	Message: Test Date
3) Press <RETURN>	Message: Test Date >
4) Type: **01/01/86**	Message: Test Date > 01/01/86
Notice the area of inverse video where the cursor guides your entries.	The Command line changes as conditions are set.

```
Command -> LIST Test_id,Reaction,B->test_date
 FOR B->Stimulus = 'FAST COOKOFF'


        [01] TEST ID NUMBER                  [14] MUNITION NOMENCLATURE
        [02] DOC_SERIAL NUMBER               [15] MUNITION MODIFICATION
        [03] PART NOMENCLATURE               [16] NSN NUMBER
        [04] PART NAME (WARHEAD,FUSE,ETC.)    [17] NALC NUMBER
        [05] PART TYPE (ADAPTER,INERT,ETC.)   [19] DATA TYPE (TEST OR ANALYSIS)
        [06] EXPLOSIVE LOAD                  [20] TEST STIMULUS
        [07] EXPLOSIVE LOAD WEIGHT           [21] TEST DATE
        [08] COMPONENT REACTION              [22] PROCEDURE
        [09] TIME TO REACTION                [23] HAZARDOUS   FRAGMENTS
        [10] METRIC WEIGHT                   [24] RATIONAL/COMMENT
        [11] TOP DRAWING NUMBER              [25] BASELINE TEST
        [12] SPEC NUMBER                     [26] STANDARD TEST
        [13] MUNITION NAME                   [27] INET DOCUMENT

        ENTER FROM 1 TO 5 FIELDS TO WHICH YOU WISH TO SET CONDITIONS
        FOR YOUR COMMAND.  ENTER A [0] TO END YOUR SELECTIONS. 21

              TEST DATE >
  ENTER [<],[<=],[>],[>=],[=] or [#] TO SELECT A SEARCH RANGE.
```

FIGURE 25b. Condition Screen With One Condition Selected.

```
 Command -> LIST Test_id,Reaction,B->test_date
  FOR B->Stimulus = 'FAST COOKOFF'


        [01] TEST ID NUMBER                  [14] MUNITION NOMENCLATURE
        [02] DOC_SERIAL NUMBER               [15] MUNITION MODIFICATION
        [03] PART NOMENCLATURE               [16] NSN NUMBER
        [04] PART NAME (WARHEAD,FUSE,ETC.)    [17] NALC NUMBER
        [05] PART TYPE (ADAPTER,INERT,ETC.)   [19] DATA TYPE (TEST OR ANALYSIS)
        [06] EXPLOSIVE LOAD                  [20] TEST STIMULUS
        [07] EXPLOSIVE LOAD WEIGHT           [21] TEST DATE
        [08] COMPONENT REACTION              [22] PROCEDURE
        [09] TIME TO REACTION                [23] HAZARDOUS   FRAGMENTS
        [10] METRIC WEIGHT                   [24] RATIONAL/COMMENT
        [11] TOP DRAWING NUMBER              [25] BASELINE TEST
        [12] SPEC NUMBER                     [26] STANDARD TEST
        [13] MUNITION NAME                   [27] INET DOCUMENT

        ENTER FROM 1 TO 5 FIELDS TO WHICH YOU WISH TO SET CONDITIONS
        FOR YOUR COMMAND.  ENTER A [0] TO END YOUR SELECTIONS. 21

              TEST DATE >   01/01/86
  ENTER [<],[<=],[>],[>=],[=] or [#] TO SELECT A SEARCH RANGE.
```

FIGURE 25c. Condition Screen With Two Conditions Selected.

After entering the desired equality or inequality symbol in the test condition, enter the date to be used for the comparison. After you have completed building the conditions, the computer asks if you are satisfied with the above condition. If you answer yes [Y], the condition is added to the Command line. If you answer no [N], the condition is abandoned and the Command line remains the same. The command line is cleared to start again.

When you have entered five conditions or have completed the selection process by entering [00], the system makes a final prompt for your approval (illustrated in Figure 25d). You may execute the command [Y] or cancel [N], but you may not modify it.

```
Command -> LIST Test_id,Reaction,B->test_date
FOR B->Stimulus = 'FAST COOKOFF' .AND. B->test_date > CTOD("01/01/86")


      [01] TEST ID NUMBER                [14] MUNITION NOMENCLATURE
      [02] DOC_SERIAL NUMBER             [15] MUNITION MODIFICATION
      [03] PART NOMENCLATURE             [16] NSN NUMBER
      [04] PART NAME (WARHEAD,FUZE,ETC.) [17] NALC NUMBER
      [05] PART TYPE (ADAPTER,INERT,ETC.)[19] DATA TYPE (TEST OR ANALYSIS)
      [06] EXPLOSIVE LOAD                [20] TEST STIMULUS
      [07] EXPLOSIVE LOAD WEIGHT         [21] TEST DATE
      [08] COMPONENT REACTION            [22] PROCEDURE
      [09] TIME TO REACTION              [23] HAZARDOUS  FRAGMENTS
      [10] METRIC WEIGHT                 [24] RATIONAL/COMMENT
      [11] TOP DRAWING NUMBER            [25] BASELINE TEST
      [12] SPEC NUMBER                   [26] STANDARD TEST
      [13] MUNITION NAME                 [27] INERT DOCUMENT


          ARE YOU READY TO EXECUTE THE COMMAND [Y/N] ?
```

FIGURE 25d. Condition Screen With Final Approval Prompt.

■ Practice Example	
1) Type: **Y**	Prompt: Are you ready to execute the command (Y/N)?
	When the listing is completed, the system returns to the *List or Locate* screen.

When you follow this Practice Example, execution of the commands will generate a list of test ID numbers and test dates of all fast cookoff tests on file that occurred after 1 January 1986 (Figure 26).

```
Record#    TEST_ID   B->STIMULUS              B->TEST_DATE
       6   BSFI-01P  FRAGMENT IMPACT          10/20/89
       7   HNSD-01P  SYMPATHETIC DETONATION   08/08/88
       8   HNSD-01P  SYMPATHETIC DETONATION   08/08/88
       4   RESC-01W  SLOW COOKOFF             05/29/89
       1   RMFC-01P  FAST COOKOFF             04/05/88
       2   RMFC-01P  FAST COOKOFF             04/05/88
       3   RMFC-01P  FAST COOKOFF             04/05/88
       5   WFBI-01C  BULLET IMPACT            10/26/89
```

FIGURE 26. Sample Listing of Pseudo Information.

This concludes the Practice Example. The options and associated screens used were:

[L] List or Locate
　　[1] List to Screen
　　　　Field Selection
　　　　List
　　　　Condition-building (developing the Command line)

When you select the *List to Printer* option, you will follow the same procedure shown on page 39, except you will enter [2] instead of [1] at the List or Locate Screen.

[3] — Locate a Record

This section describes how to use the [3] Locate a Record option. The procedure for setting conditions is similar to that used for the list options [1] or [2] (page 39).

When a [3] Locate a Record command is selected, the system starts at the top of the file and locates the first occurrence of a record that meets the specified command. The search is done through the Component file; therefore, if more than one component of a single test is found that meets all conditions set, the same test ID number will be displayed for each occurrence.

```
                    DO YOU WISH TO ...

              [1]  LIST  TO  SCREEN

              [2]  LIST  TO  PRINTER

              [3]  LOCATE  A  RECORD

              [4]  EXIT  THIS  OPTION


        Enter your selection [1,2,3 or 4]
```

FIGURE 27. List or Locate Screen.

■ Practice Example	Prompts/Comments
1) Type: **3**	Prompt: Enter your selection (1,2,3 or 4).
	The *Field Selection* screen will appear.

Field Selections for Locate Option. First you select a field; then you set its conditions. The screen continues to appear and the Command line will build as you set conditions until you have entered five selections or you end the selection process by entering [0] or |0| < RETURN >. Computer prompts guide your selections.

```
Command -> LOCA


      [01] TEST ID NUMBER              [14] MUNITION NOMENCLATURE
      [02] DOC_SERIAL NUMBER           [15] MUNITION MODIFICATION
      [03] PART NOMENCLATURE           [16] MSN NUMBER
      [04] PART NAME (WARHEAD,FUSE,ETC.)  [17] NALC NUMBER
      [05] PART TYPE (ADAPTER,INERT,ETC.) [19] DATA TYPE (TEST OR ANALYSIS)
      [06] EXPLOSIVE LOAD              [20] TEST STIMULUS
      [07] EXPLOSIVE LOAD WEIGHT       [21] TEST DATE
      [08] COMPONENT REACTION          [22] PROCEDURE
      [09] TIME TO REACTION            [23] HAZARDOUS  FRAGMENTS
      [10] METRIC WEIGHT               [24] RATIONAL/COMMENT
      [11] TOP DRAWING NUMBER          [25] BASELINE TEST
      [12] SPEC NUMBER                 [26] STANDARD TEST
      [13] MUNITION NAME               [27] IMET DOCUMENT


        ENTER FROM 1 TO 5 FIELDS TO WHICH YOU WISH TO SET CONDITIONS
        FOR YOUR COMMAND.   ENTER A [0] TO END YOUR SELECTIONS. [0]
```

FIGURE 28a. Field Selection Screen for Locate a Record Option.

The Practice Examples explain what to do, step by step, and the illustrations show the results.

■ Practice Example	Prompts/Comments
1) Type: **18**	Prompt: Enter from 1 to 5 fields to which you wish to set conditions for your command. Enter a [0] to end your selections. 0
	Message: Test Date
2) Type: **<**	Prompt: Enter [<], [<=], [>], [>=], [=] or [#] to select a search range.
3) Press <RETURN>	Message: Test Date <
4) Type: **01/01/90**	Message: Test Date < 01/01/90
5) Type. **Y**	Prompt: Are you satisfied with the above condition [Y/N] ?
	The condition appears on the Command line.

Setting Conditions for Locate Option. You are limited to five conditions. As you enter the number next to the field descriptor, the field name appears in an inverse video area at the bottom of the screen. Figures 28b and 28c show the changing screen, and Figure 28d shows the conditions set on the Command line, as you follow the Practice Example.

```
Command -> LOCA


        [01] TEST ID NUMBER                      [14] MUNITION NOMENCLATURE
        [02] DOC_SERIAL NUMBER                   [15] MUNITION MODIFICATION
        [03] PART NOMENCLATURE                   [16] NSN NUMBER
        [04] PART NAME (WARHEAD,FUSE,ETC.)       [17] NALC NUMBER
        [05] PART TYPE (ADAPTER,INSERT,ETC.)     [19] DATA TYPE (TEST OR ANALYSIS)
        [06] EXPLOSIVE LOAD                      [20] TEST STIMULUS
        [07] EXPLOSIVE LOAD WEIGHT               [21] TEST DATE
        [08] COMPONENT REACTION                  [22] PROCEDURE
        [09] TIME TO REACTION                    [23] HAZARDOUS  FRAGMENTS
        [10] METRIC WEIGHT                       [24] RATIONAL/COMMENT
        [11] TOP DRAWING NUMBER                  [25] BASELINE TEST
        [12] SPEC NUMBER                         [26] STANDARD TEST
        [13] MUNITION NAME                       [27] INST DOCUMENT


        ENTER FROM 1 TO 5 FIELDS TO WHICH YOU WISH TO SET CONDITIONS
        FOR YOUR COMMAND.  ENTER A [0] TO END YOUR SELECTIONS. 21

               TEST DATE
    ENTER [<],[<=],[>],[>=],[=] or [#] TO SELECT A SEARCH RANGE.
```

FIGURE 28b. Locate Screen With Enter Test Date Equality or Inequality Prompt.

```
Command -> LOCA


        [01] TEST ID NUMBER                      [14] MUNITION NOMENCLATURE
        [02] DOC_SERIAL NUMBER                   [15] MUNITION MODIFICATION
        [03] PART NOMENCLATURE                   [16] NSN NUMBER
        [04] PART NAME (WARHEAD,FUSE,ETC.)       [17] NALC NUMBER
        [05] PART TYPE (ADAPTER,INSERT,ETC.)     [19] DATA TYPE (TEST OR ANALYSIS)
        [06] EXPLOSIVE LOAD                      [20] TEST STIMULUS
        [07] EXPLOSIVE LOAD WEIGHT               [21] TEST DATE
        [08] COMPONENT REACTION                  [22] PROCEDURE
        [09] TIME TO REACTION                    [23] HAZARDOUS  FRAGMENTS
        [10] METRIC WEIGHT                       [24] RATIONAL/COMMENT
        [11] TOP DRAWING NUMBER                  [25] BASELINE TEST
        [12] SPEC NUMBER                         [26] STANDARD TEST
        [13] MUNITION NAME                       [27] INST DOCUMENT


        ENTER FROM 1 TO 5 FIELDS TO WHICH YOU WISH TO SET CONDITIONS
        FOR YOUR COMMAND.  ENTER A [0] TO END YOUR SELECTIONS. 21

               TEST DATE < 01/01/90
    ENTER [<],[<=],[>],[>=],[=] or [#] TO SELECT A SEARCH RANGE.
```

FIGURE 28c. Locate Screen With "Less Than 1 January 1990" Entered.

```
Command -> LOCA
 FOR B->test_date < CTOD("01/01/90")


        [01] TEST ID NUMBER              [14] MUNITION NOMENCLATURE
        [02] DOC_SERIAL NUMBER           [15] MUNITION MODIFICATION
        [03] PART NOMENCLATURE           [16] NSN NUMBER
        [04] PART NAME (WARHEAD,FUSE,ETC.) [17] MALC NUMBER
        [05] PART TYPE (ADAPTER,INERT,ETC.) [19] DATA TYPE (TEST OR ANALYSIS)
        [06] EXPLOSIVE LOAD              [20] TEST STIMULUS
        [07] EXPLOSIVE LOAD WEIGHT       [21] TEST DATE
        [08] COMPONENT REACTION          [22] PROCEDURE
        [09] TIME TO REACTION            [23] HAZARDOUS  FRAGMENTS
        [10] METRIC WEIGHT               [24] RATIONAL/COMMENT
        [11] TOP DRAWING NUMBER          [25] BASELINE TEST
        [12] SPEC NUMBER                 [26] STANDARD TEST
        [13] MUNITION NAME               [27] IMET DOCUMENT


        ENTER FROM 1 TO 5 FIELDS TO WHICH YOU WISH TO SET CONDITIONS
        FOR YOUR COMMAND.  ENTER A [0] TO END YOUR SELECTIONS.  0
```

FIGURE 28d. Locate Screen With One Condition Selected.

The system continues in the Locate option for you to select more fields (Figure 29). The illustration shows that |20|, Stimulus, has been selected.

```
Command -> LOCA
 FOR B->test_date < CTOD("01/01/90")


        [01] TEST ID NUMBER              [14] MUNITION NOMENCLATURE
        [02] DOC_SERIAL NUMBER           [15] MUNITION MODIFICATION
        [03] PART NOMENCLATURE           [16] NSN NUMBER
        [04] PART NAME (WARHEAD,FUSE,ETC.) [17] MALC NUMBER
        [05] PART TYPE (ADAPTER,INERT,ETC.) [19] DATA TYPE (TEST OR ANALYSIS)
        [06] EXPLOSIVE LOAD              [20] TES. STIMULUS
        [07] EXPLOSIVE LOAD WEIGHT       [21] TEST DATE
        [08] COMPONENT REACTION          [22] PROCEDURE
        [09] TIME TO REACTION            [23] HAZARDOUS  FRAGMENTS
        [10] METRIC WEIGHT               [24] RATIONAL/COMMENT
        [11] TOP DRAWING NUMBER          [25] BASELINE TEST
        [12] SPEC NUMBER                 [26] STANDARD TEST
        [13] MUNITION NAME               [27] IMET DOCUMENT



            B->Stimulus ?

        WOULD YOU LIKE TO SEE THE LIST OF EXISTING FIELD ENTRIES [Y/N]  ?
```

FIGURE 29. Field Selection Screen for Locate a Record Option.

■ Practice Example	Prompts/Comments
1) Type: **20**	Prompt: Enter from 1 to 5 fields to which you wish to set conditions for your command.
The area of inverse video guides your entry.	Message: B–>Stimulus ?
2) Type: **Y**	Prompt: Would you like to see the list of existing field entries [Y/N] ?
	The list of stimuli appears on the screen.

BULLET IMPACT   **BULLET IMPACT TEST**   **FAST COOKOFF**
FRAGMENT IMPACT   **SLOW COOKOFF**   **SYMPATHETIC DETONATION**

B–>Stimulus = FAST COOKOFF

ARE YOU SATISFIED WITH THE ABOVE CONDITION [Y/N] ?
A REPLY OF (Y)ES WILL ADD THE ABOVE CONDITION TO THE COMMAND.

FIGURE 30. List of Stimuli.

Follow the Practice Example to select the stimulus.

If you already know what you want, this list can be by-passed by responding [N].

Practice Example	Prompts/Comments
The area of inverse video guides your entry.	Message: B->Stimulus ?
1) Type: **Fast Cookoff**	
2) Press <RETURN>	
3) Type: *	Message: B->Stimulus = Fast Cookoff
4) Type: **Y**	Prompt: Are you satisfied with the above condition [Y/N] ?
5) Type: **00**	The condition appears on the Command line.
6) Type: **Y**	Prompt: Are you ready to execute the command [Y/N] ?

Figure 31a shows that a record is found that meets the conditions set, and the computer asks if you want to view the entire record [Y/N]. The illustration also shows the completed Command line.

```
Command -> LOCA
  FOR B->test_date < CTOD("01/01/90") .AND. B->Stimulus = 'FAST COOKOFF'


        [01] TEST ID NUMBER            [14] MUNITION NOMENCLATURE
        [02] DOC_SERIAL NUMBER         [15] MUNITION MODIFICATION
        [03] PART NOMENCLATURE         [16] NSN NUMBER
        [04] PART NAME (WARHEAD,FUSE,ETC.)  [17] NALC NUMBER
        [05] PART TYPE (ADAPTER,INSRT,ETC.) [19] DATA TYPE (TEST OR ANALYSIS)
        [06] EXPLOSIVE LOAD            [20] TEST STIMULUS
        [07] EXPLOSIVE LOAD WEIGHT     [21] TEST DATE
        [08] COMPONENT REACTION        [22] PROCEDURE
        [09] TIME TO REACTION          [23] HAZARDOUS FRAGMENTS
        [10] METRIC WEIGHT             [24] RATIONAL/COMMENT
        [11] TOP DRAWING NUMBER        [25] BASELINE TEST
        [12] SPEC NUMBER               [26] STANDARD TEST
        [13] MUNITION NAME             [27] TEST DOCUMENT


Record# TEST_ID
    1  RMFO-04P
          DO YOU WISH TO VIEW THE ENTIRE RECORD OF TEST DATA [Y/N] ?
```

FIGURE 31a. Condition Screen, Conditions Set.

◼ Practice Example	Prompts/Comments
1) Type: **Y**	Prompt: `Do you wish to view the entire record of test data [Y/N] ?` The test record will appear on the screen.

If you want to print the record, you must return to the *Main Menu* and select the Print or View option (refer to page 29).

Notice in Figures 31b and 31c the identifiers at the top of the screen that tell which screen is displayed, how many tests there are in the file, and which test is now displayed. You can move among the test screens but you can't change tests. You must exit [E], at which time you are asked if you wish to continue the Locate command (Figure 31c). A yes [Y] response will continue the locate process; the system searches for the next record that meets the specified conditions. A no [N] response exits the option and returns the system to the *List or Locate* screen.

```
Review Status: CW           Test Screen 1 of 4              Test 1 of 7

                      Doc_serial: 8805100
                 Test_id Number: RMFC-01P

                 Munition Nomen: MK-12
                  Munition Name: ROCKET MOTOR
                  Munition Type: MISSILE
                   Munition Mod: WASWINDER
                           MPN #:        -   -   -
                           NALC #:
            Video Project Number:
                        Stimulus: FAST COOKOFF
                     Test Number: CC4-133
              Test or Analysis: TEST
                      Test Date: 04/05/88
                      Procedure: MIL-STD-4040
          Baseline Test: Y        Standard Test: Y      IMET Document: N
          Procedure:
         AVERAGE FLAME TEMP. 1800 F.


       Do you wish to change screens (F)orward,(B)ackward or (E)xit to assist ?
```

FIGURE 31b. Test Data Screen 1 of 7 Screens.

```
Review Status: CW              Test Screen 1 of 4              Test 1 of 7

                     Doc_serial: 8805100
                 Test_id Number: RMFC-01P

                 Munition Nomen: MK-12
                  Munition Name: ROCKET MOTOR
                  Munition Type: MISSILE
                   Munition Mod: WASWINDER
                           NSN #:      -   -   -
                          MALC #:
          Video Project Number:
                       Stimulus: FAST COOKOFF
                    Test Number: CC4-133
              Test or Analysis: TEST
                      Test Date: 04/05/88
                      Procedure: MIL-STD-4040
          Baseline Test: Y        Standard Test: Y      IMET Document: N
          Procedure:
          DO YOU WANT TO CONTINUE THE LOCATE COMMAND [Y/N] ?
```

FIGURE 31c. Locate Continuation Prompt.

■ Practice Example	Prompts/Comments
1) Type: Y	Prompt: Do you want to continue the locate command [Y/N] ? The system will search for another record that meets the set conditions..

If you respond no [N], the *List or Locate* option screen will appear.

[9] — Time to Reaction

This section guides you through the selection of another condition that is treated as a special case: [09] Time to Reaction. The process begins by your selecting the [3] Locate a Record option on the *List or Locate* screen (Figure 32).

DO YOU WISH TO ...

[1] LIST TO SCREEN

[2] LIST TO PRINTER

[3] LOCATE A RECORD

[4] EXIT THIS OPTION

Enter your selection [1,2,3 or 4]

FIGURE 32. List or Locate Screen.

■ Practice Example	Prompts/Comments
1) Type: **3**	Prompt: Enter your selection (1,2,3 or 4).
	The *Locate* option screen will appear.

FIGURE 33. Locate Option Screen.

Figure 34a shows the *Condition* screen. Computer prompts guide your selections, and areas of inverse video guide your entries. The Practice Exercises explain what to do, step by step.

FIGURE 34a. Condition Screen for Locate Option.

■ Practice Example	Prompts/Comments
1) Type: **09**	Prompt: Enter from 1 to 5 fields to which you wish to set conditions for your command. Enter a [0] to end your selections.
2) Type: **>**	Message: Time to Reaction
3) Press <RETURN>	Message: Time to Reaction >
4) Type: **00:00:30**	Message: 00:00:30

The Condition screen continues to appear and the area of inverse video changes as you enter conditions (Figures 34b).

```
Command -> LOCA


        [01] TEST ID NUMBER              [14] MUNITION NOMENCLATURE
        [02] DOC_SERIAL NUMBER           [15] MUNITION MODIFICATION
        [03] PART NOMENCLATURE           [16] NSN NUMBER
        [04] PART NAME (WARHEAD,FUSE,ETC.)  [17] NALC NUMBER
        [05] PART TYPE (ADAPTER,INERT,ETC.) [19] DATA TYPE (TEST OR ANALYSIS)
        [06] EXPLOSIVE LOAD              [20] TEST STIMULUS
        [07] EXPLOSIVE LOAD WEIGHT       [21] TEST DATE
        [08] COMPONENT REACTION          [22] PROCEDURE
        [09] TIME TO REACTION            [23] HAZARDOUS  FRAGMENTS
        [10] METRIC WEIGHT               [24] RATIONAL/COMMENT
        [11] TOP DRAWING NUMBER          [25] BASELINE TEST
        [12] SPEC NUMBER                 [26] STANDARD TEST
        [13] MUNITION NAME               [27] INERT DOCUMENT

        ENTER FROM 1 TO 5 FIELDS TO WHICH YOU WISH TO SET CONDITIONS
        FOR YOUR COMMAND.  ENTER A [0] TO END YOUR SELECTIONS.  9

        TIME TO REACTION >   00:00:30
    ENTER [<],[<=],[>],[>=],[=] or [#] TO SELECT A SEARCH RANGE.
```

FIGURE 34b. Condition Selected.

■ Practice Example	Prompts/Comments
1) Type: **Y**	Prompt: Are you satisfied with the above condition [Y/N] ?
	The condition appears on the Command line.

The Time to Reaction > 00:00:30 appears in the area of inverse video in Figure 34b. It will be set and appear on the Command line when you answer [Y] to the computer prompt. Figure 34c shows the screen after you have set the command.

```
Command -> LOCA
 FOR Reacttime > '00:00:30'


       [01] TEST ID NUMBER                    [14] MUNITION NOMENCLATURE
       [02] DOC_SERIAL NUMBER                 [15] MUNITION MODIFICATION
       [03] PART NOMENCLATURE                 [16] NSN NUMBER
       [04] PART NAME (WARHEAD,FUZE,ETC.)     [17] NALC NUMBER
       [05] PART TYPE (ADAPTER,INERT,ETC.)    [19] DATA TYPE (TEST OR ANALYSIS)
       [06] EXPLOSIVE LOAD                    [20] TEST STIMULUS
       [07] EXPLOSIVE LOAD WEIGHT             [21] TEST DATE
       [08] COMPONENT REACTION                [22] PROCEDURE
       [09] TIME TO REACTION                  [23] HAZARDOUS  FRAGMENTS
       [10] METRIC WEIGHT                     [24] RATIONAL/COMMENT
       [11] TOP DRAWING NUMBER                [25] BASELINE TEST
       [12] SPEC NUMBER                       [26] STANDARD TEST
       [13] MUNITION NAME                     [27] INET DOCUMENT

         ENTER FROM 1 TO 5 FIELDS TO WHICH YOU WISH TO SET CONDITIONS
         FOR YOUR COMMAND.  ENTER A [0] TO END YOUR SELECTIONS.  0
```

FIGURE 34c. Condition Appears on Command Line.

Practice in the Locate a Record option continues in the next section.

[8] — Component Reaction

This section guides you through the selection of |08| Component Reaction. Figure 35a shows the *Condition* screen; Figure 35b is the *Value* screen. The Practice Exercises explain what to do, step by step.

```
Command -> LOCA


        [01] TEST ID NUMBER              [11] TOP DRAWING NUMBER
        [02] DOC_SERIAL NUMBER           [12] SPEC NUMBER
        [03] PART NOMENCLATURE           [13] MUNITION NAME
        [04] PART NAME (BOOSTER,FUZE,ETC.) [14] MUNITION NOMENCLATURE
        [05] PART TYPE (ADAPTER,FUZE,ETC.) [16] DATA TYPE (TEST OR ANALYSIS)
        [06] EXPLOSIVE LOAD              [17] TEST STIMULUS
        [07] EXPLOSIVE LOAD WEIGHT       [18] TEST DATE
        [08] COMPONENT REACTION          [19] PROCEDURE
        [09] TIME TO REACTION            [20] HAZARDOUS FRAGMENTS
        [10] METRIC WEIGHT

        ENTER FROM 1 TO 5 FIELDS TO WHICH YOU WISH TO SET CONDITIONS
        FOR YOUR COMMAND.  ENTER A [0] TO END YOUR SELECTIONS.  0
```

FIGURE 35a. Condition Screen for Locate Option.

■ Practice Example	Prompts/Comments
1) Type: **08**	Prompt: Enter 1 to 5 fields to which you wish to set conditions for your command. Enter a |0| to end your selections. The *Value Selection* screen will appear.

Below are listed the reactions encountered in this information center.
They are listed in descending order of severity with "DETONATION"
counted as the most severe case and "NO TEST" counted as the least.

DETONATION	= 10
SYMPATHETIC DETONATION	= 9
EXPLOSION	= 8
PROPULSION	= 7
DEFLAGRATION	= 6
UNDETERMINED	= 5
BURNING	= 4
NO SYMPATHETIC DETONATION	= 3
NO REACTION	= 2
NO TEST	= 1

ENTER THE VALUE ASSIGNED TO THE REACTION YOU WISH TO SEARCH FOR ->   0

FIGURE 35b. Value Selection Screen.

Classes of Reactions. The *Value Selection* screen displays the classes of reactions dealt with in this system. You are first prompted to enter the level of reaction that will be used in the comparison condition. Figure 35c is an example for selection of |04| Burning. As you follow the Practice Example, the area of inverse video will change, as shown in Figures 35c and 35d, and the Command line is set as shown in Figure 35e.

■ Practice Example	Prompts/Comments
1) Type: **04**	Prompt: Enter the value assigned to the reaction you wish to search for ->
	Message: Burning
2) Type: **>**	Prompt: Enter [<], [<=], [>], [>=], [=], or [#] to select a search range.
3) Press < RETURN >	
	Message: > Burning
3) Type: **Y**	Prompt: Are you satisfied with the above condition [Y/N] ?
	The condition appears on the Command line of the *Condition* screen.

Below are listed the reactions encountered in this information center.
They are listed in descending order of severity with "DETONATION"
counted as the most severe case and "NO TEST" counted as the least.

```
            DETONATION                      = 10
            SYMPATHETIC DETONATION          = 9
            EXPLOSION                       = 8
            PROPULSION                      = 7
            DEFLAGRATION                    = 6
            UNDETERMINED                    = 5
            BURNING                         = 4
            NO SYMPATHETIC DETONATION       = 3
            NO REACTION                     = 2
            NO TEST                         = 1
```

ENTER THE VALUE ASSIGNED TO THE REACTION YOU WISH TO SEARCH FOR ->   4

        Reaction > BURNING

        ARE YOU SATISFIED WITH THE ABOVE CONDITION (Y/N) ?
    A REPLY OF (Y)ES WILL ADD THE ABOVE CONDITION TO THE COMMAND.

FIGURE 35c. Value Screen Prior to Use of "Enter" <RETURN> Key.

Command -> LOCA
   FOR Reacttime > '00:00:30' .AND. reaction > BURNING

```
    [01] TEST ID NUMBER              [14] MUNITION NOMENCLATURE
    [02] DOC_SERIAL NUMBER           [15] MUNITION MODIFICATION
    [03] PART NOMENCLATURE           [16] NSN NUMBER
    [04] PART NAME (WARHEAD,FUZE,ETC.) [17] NALC NUMBER
    [05] PART TYPE (ADAPTER,INSERT,ETC.) [18] DATA TYPE (TEST OR ANALYSIS)
    [06] EXPLOSIVE LOAD              [20] TEST STIMULUS
    [07] EXPLOSIVE LOAD WEIGHT       [21] TEST DATE
    [08] COMPONENT REACTION          [22] PROCEDURE
    [09] TIME TO REACTION            [23] HAZARDOUS  FRAGMENTS
    [10] METRIC WEIGHT               [24] RATIONAL/COMMENT
    [11] TOP DRAWING NUMBER          [25] BASELINE TEST
    [12] SPEC NUMBER                 [26] STANDARD TEST
    [13] MUNITION NAME               [27] INERT DOCUMENT
```

    ENTER FROM 1 TO 5 FIELDS TO WHICH YOU WISH TO SET CONDITIONS
    FOR YOUR COMMAND. ENTER A [0] TO END YOUR SELECTIONS. 0

FIGURE 35d. Value Screen After Selection Confirmed With "Enter" Key and Prior to Final Confirmation.

```
Command -> LOCA
 FOR Reacttime > '00:00:30' .AND. reaction  > BURNING


        [01] TEST ID NUMBER              [14] MUNITION NOMENCLATURE
        [02] DOC_SERIAL NUMBER           [15] MUNITION MODIFICATION
        [03] PART NOMENCLATURE           [16] NSN NUMBER
        [04] PART NAME (WARHEAD,FUSE,ETC.)   [17] NALC NUMBER
        [05] PART TYPE (ADAPTER,INSRT,ETC.)  [19] DATA TYPE (TEST OR ANALYSIS)
        [06] EXPLOSIVE LOAD              [20] TEST STIMULUS
        [07] EXPLOSIVE LOAD WEIGHT       [21] TEST DATE
        [08] COMPONENT REACTION         [22] PROCEDURE
        [09] TIME TO REACTION           [23] HAZARDOUS  FRAGMENTS
        [10] METRIC WEIGHT              [24] RATIONAL/COMMENT
        [11] TOP DRAWING NUMBER         [25] BASELINE TEST
        [12] SPEC NUMBER               [26] STANDARD TEST
        [13] MUNITION NAME             [27] INST DOCUMENT


             ARE YOU READY TO EXECUTE THE COMMAND [Y/N] ?
```

FIGURE 35e. Reaction Value Appears on Command Line of Condition Screen.

When selections have been completed, the screen remains the same, but another prompt appears. Follow the Practice Example to continue the Locate option.

■ Practice Example	Prompts/Comments
1) Type: Y	Prompt: Are you ready to execute the command [Y/N] ?
2) Type: 00	The *Viewing* screen will appear.

```
Command -> LOCA
 FOR Reacttime > '00:03:00' .AND. reaction > BURNING


        [01] TEST ID NUMBER              [14] MUNITION NOMENCLATURE
        [02] DOC_SERIAL NUMBER           [15] MUNITION MODIFICATION
        [03] PART NOMENCLATURE           [16] NSN NUMBER
        [04] PART NAME (WARHEAD,FUSE,ETC.) [17] NALC NUMBER
        [05] PART TYPE (ADAPTER,INSRT,ETC.) [19] DATA TYPE (TEST OR ANALYSIS)
        [06] EXPLOSIVE LOAD              [20] TEST STIMULUS
        [07] EXPLOSIVE LOAD WEIGHT       [21] TEST DATE
        [08] COMPONENT REACTION          [22] PROCEDURE
        [09] TIME TO REACTION            [23] HAZARDOUS  FRAGMENTS
        [10] METRIC WEIGHT               [24] RATIONAL/COMMENT
        [11] TOP DRAWING NUMBER          [25] BASELINE TEST
        [12] SPEC NUMBER                 [26] STANDARD TEST
        [13] MUNITION NAME               [27] INRT DOCUMENT


Record#  TEST_ID
      9  BRFC-03A
            DO YOU WISH TO VIEW THE ENTIRE RECORD OF TEST DATA [Y/N] ?
```

FIGURE 36a. Locate Screen With View Prompt.

■ Practice Example	
1) Type: **Y**	Prompt: Do you wish to view the entire record of test data (Y/N) ? The test records will be displayed on the screen.

The system will execute the command, shown at the top of the screen, to locate the first record of a component that had a reaction more severe than <u>burning</u> that occurred after <u>30 seconds</u>. The test ID number of the test record found is shown at the bottom of the screen in Figure 36a.

After the command is executed, the test ID number of the first record found that meets the specified conditions is displayed (Figure 36b), and you are given the option of viewing the test.

The identifiers at the top of the screen tell which screen is displayed, how many tests there are in the file, and which test is now displayed. You can move among the test screens (forward [F] or backward [B], but you can't change tests. Figure 36 is the final screen. To find another test you must exit [E] and return to the *List* or *Locate* screen.

```
Review Status: F            Test Screen 1 of 4              Test 1 of 7

                    Doc_serial: 8504700
                Test_id Number: BRFC-03A

                Munition Nomen: MK 82
                 Munition Name: BRAG
                 Munition Type: MISSILE
                  Munition Mod:
                         MSN #:      -   -   -
                        NALC #:
        Video Project Number:
                      Stimulus: FAST COOKOFF
                   Test Number: SEC 12-11 A
              Test or Analysis: TEST
                     Test Date: 04/26/84
                     Procedure: MIL-STD-1648A(AS)
          Baseline Test: Y       Standard Test: N      IMET Document: n
          Procedure:
        THE TIME TO 1000 F FLAME TEMP WAS :40 SEC.


    Do you wish to change screens (F)orward,(B)ackward or (E)xit to assist  ?
```

FIGURE 36b. Test Screen 1 of 4 Screens, Test Data.

```
                            Screen 4 of 4
                 Test Data Reference for Test_id number BRFC-03A
                 -----------------------------------------------
    Document Classification : U

    Doc Title : BRAG AIR VEHICLE DEVELPOMENT TEST PROPLUSION AND ORDNANCE SAFETY
               TEST REPORT


            Report No. : NAVAIR 32050-351 MR
           Report Date : 04/01/85
          Report Status : FINAL
              IMET (Y/N):

            Point of Contact (Name, Agency , Phone)
            ----------------------------------------
            WILL BOX, NAVAIR, AUTO PARK, CA. 619-371-2830


    Document Serial Number : 8504700

        From here, you may change screens [B]ackward to the component data,
        or you may change screens [F]orward to the first screen of this test.
        Do you wish to change screens (F)orward,(B)ackward or (E)xit to assist  ?
```

FIGURE 36c. Test Screen 4 of 4 Screens, Documentation Data.

When you have finished viewing the data and enter [E], a prompt asks if you want to continue the Locate command. When you respond yes [Y], the system will look for the next record with the conditions you have set. If the system does not find a record meeting the set condition, you are so informed and the system returns to the *List or Locate* menu.

This concludes the discussion and presentation of Practice Examples.

SUMMARY

The MSIC allows you to view, manipulate, and print data in selected formats. A program that prints a summary of all testing recorded in the databases or of tests conducted with a specific weapon is planned.

CONCLUSIONS

Steady use of the preliminary MSIC database for more than three years has shown it to be a valuable tool for the insensitive munitions community. It was released for distribution at end of fiscal year 1989. Releasing authority lies with the Naval Sea Systems Command (NAVSEA 662), Washington, D.C. 20362-5101.

Two insensitive munitions databases are scheduled for release for the

OTHER NIMIS DATABASES

INSENSITIVE MUNITIONS ENGINEERING
TECHNOLOGY (IMET)

This database will allow you to view, manipulate, and print generic insensitive munitions (IM) advanced development technology methods and testing data in a manner similar to the MSIC.

Screens display the technology concept, such as preferential insulation technique (PIT), thermite case penetrator (TCP), or thermally activated safe/arm device (TASAD), applicable weapons, problem under consideration, IM stimulus to be addressed, test data, test item configuration and energetic materials, and reference document(s). The IMET has been programmed, but not yet released.

The IMET database can be manipulated in a manner similar to the MSIC and will be as simple t simpler, for the layman to use. None of the databases, either operational or planned, will require computer literacy to operate.

The IMET, soon to be operational, will expand the scope of available data to include insensitive munitions advanced development data relating to generic IM concepts under development at various laboratories.

ENERGETIC MATERIALS INFORMATION
CENTER (EMIC)

The EMIC programming effort is under way as of this printing. The purpose of the EMIC is to make energetic materials data, such as that found in the *Navy Explosives Handbook* (Reference 9), easily accessible and manipulable. It will include IM and performance-related data on high explosives, propellants, and pyrotechnics.

When completed by incorporation of the IMET, FMCIS, and EMIC, the NIMIS will provide a useful tool to all of the IM community, from those engaged in energetic material research through weapon designers and developers to project and program managers.

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