



National Aeronautics and
Space Administration

George C. Marshall Space Flight Center
Marshall Space Flight Center, Alabama 35812

**STANDARD OPERATING PROCEDURE
FOR
PACRATS**

**ENVIRONMENTAL TEST FACILITY BRANCH
STRUCTURAL AND ENVIRONMENTAL TEST DIVISION
TEST LABORATORY
ENGINEERING DIRECTORATE**

THIS PROCEDURE DOES NOT CONTAIN HAZARDOUS OPERATION

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**STANDARD OPERATING PROCEDURE
FOR
PACRATS**

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1.0 GENERAL INFORMATION

1.1 PURPOSE

The purpose of this procedure is to direct operation of Payloads and Components Real-Time Automated Test System (PACRATS) data acquisition software used at the Environmental Test Facility (ETF).

1.2 SCOPE

This procedure prescribes how to setup the PACRATS data acquisition software used in the ETF data acquisition computers, located in Buildings 4612, 4619 and 4620.

1.3 APPLICABLE DOCUMENTS

MPR 8715.1	Marshall Safety, Health, and Environmental (SHE) Program
ET24-ETF-OWI-001	Environmental Test Facility Test Operations

1.4 SAFETY

All test personnel working in this facility shall be familiar with the safety documents listed above, and shall report any safety hazards or unsafe practices to the ETF Branch Chief or the 4620/4619/4612 Building Manager Assistant.

1.5 EMERGENCY TELEPHONE NUMBERS

In case of an emergency, call **911**;

Medical	911
Ambulance	911
Fire	911
Security	911
Chemical Spills	911

Other numbers that can be used to obtain information about emergencies, security, and safety are:

Medical Center	544-2390
Security	544-4357
Safety	544-0046
Utilities	544-3919
Other Assistance	544-4357 (4-HELP)

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1.6 RESPONSIBILITIES

ETF personnel shall be responsible for the safe operation during data acquisition. These responsibilities include safety for personnel and the facility.

Other task assignments and responsibilities at the ETF shall be in accordance with ET24-ETF-OWI-001 and the applicable test chamber facility operating procedure (FOP).

2.0 DESCRIPTION OF PACRATS

PACRATS is data acquisition software developed by Marshall Space Flight Center (MSFC) personnel. The software can be configured for various numbers of data recording channels and for various instruments. Additionally the computer can display the desired units of measured conditions by adjusting the instruments output mathematically in the PACRATS software.

3.0 OPERATING PACRATS

3.1 COLD START

3.1.1 Switch **ON** the computer.

3.1.2 Wait for the Log-On screen to appear then **PRESS Ctrl+Alt+Del** together.

3.1.3 Verified the User Name is **etf**, then **TYPE** the password and **PRESS** enter. If the password is unknown, contact the ETF Electrical System Manager for the latest password.

3.2 CREATE A TEST FILE

3.2.1 **OPEN** the Test folder on the Desktop.

3.2.1.1 If a Test folder is not on the Desktop of a computer running Window XP, select the **Start** button, then **My Computer**, then **Local Disk C**, then **Program Files**, then **PACRATS**, then **TEST**.

3.2.1.2 If there is no Test folder on the desktop of a computer running Window NT, select the **Start Button**, then **Programs**, then start **Windows NT Explorer** by double clicking it with the left mouse button. Then **OPEN C:\PACRATS\TEST**.

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- 3.2.2 In the Test folder **OPEN** the file BlankTest.tst or use a test file from a similar previous test.
- 3.2.3 If the Test file you have chosen does not have enough lines of code to cover all measurements on the test, **OPEN** the Masterlist file in the Test folder. Reshape the windows as needed so that both windows can be seen on the screen.
- 3.2.4 Copy and Paste needed lines of code from the Masterlist file to the Test file. To copy, place the cursor to the left of the line of code in the Masterlist file, press the left mouse button while dragging across the line to be copied. Once all text needed is highlighted, select Copy from the Edit pull-down menu. To paste, place the cursor in the beginning position of the new line of code in the Test file, then select Paste from the Edit pull-down menu.
- 3.2.5 If the Test file has lines of code not needed, highlight the excess lines of code, then delete or cut that line by using the Edit pull-down menu.
- 3.2.6 Edit the Test file test name, number, description and date.
- 3.2.7 Select **SAVE-AS** from the File pull-down menu. Type in the new name for the Test file. Then Select **SAVE**

3.3 START A TEST

- 3.3.1 **RUN PACRATS** by double clicking the PACRATS icon on the desktop.
- 3.3.2 Type **LOGON** and press the **ENTER** key.
- 3.3.3 Type in the account **ETF** and press the **TAB** key.
- 3.3.4 Type in the password and press the **ENTER** key. If the password is unknown, contact the ETF Electrical Systems Manager. At the present time the password is PACRATS but it may change in the future. The message in the lower right should show User ETF Logged On.
- 3.3.5 Type START TEST *name*, where *name* is the actual test name for the Test file created in 3.2.7 and press **ENTER**. (For example if you save the Test file in 3.2.7 as XRCF, then type START TEST XRCF). The right bottom corner should now show TEST STARTED.
- 3.3.6 **OPEN** a Work Space or create a new Work Space. The work space provides a view of the data being input to PACRATS.

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3.3.7 When ready to record the data type **SET RECORD ON** and press **ENTER**. The right corner should show RECORDING DATA TO FILE.

3.4 STOP A TEST

3.4.1 Type **SET RECORD OFF** and press the ENTER key to stop data recording. The bottom right corner should show STOP RECORDING DATA.

3.4.2 Type **STOP TEST *name***, where *name* is the actual test name for the Test file created in 3.2.7 and press **ENTER** key. The right bottom corner should show STOPPED TEST.

3.4.3 Type **EXIT** and press the **ENTER** key. The PACRATAS program should close.

3.5 ADNORMAL SHUTDOWN

If the computer has an unplanned shutdown, complete Section 3.3 to restart the test data recording.