VISHAY
PRECISION
GROUP

JetWeigh-5
Weight/Center-of-Gravity
DataFile Retrieval

User Manual

6190085-01 Rev. B

Aircraft Weighing System
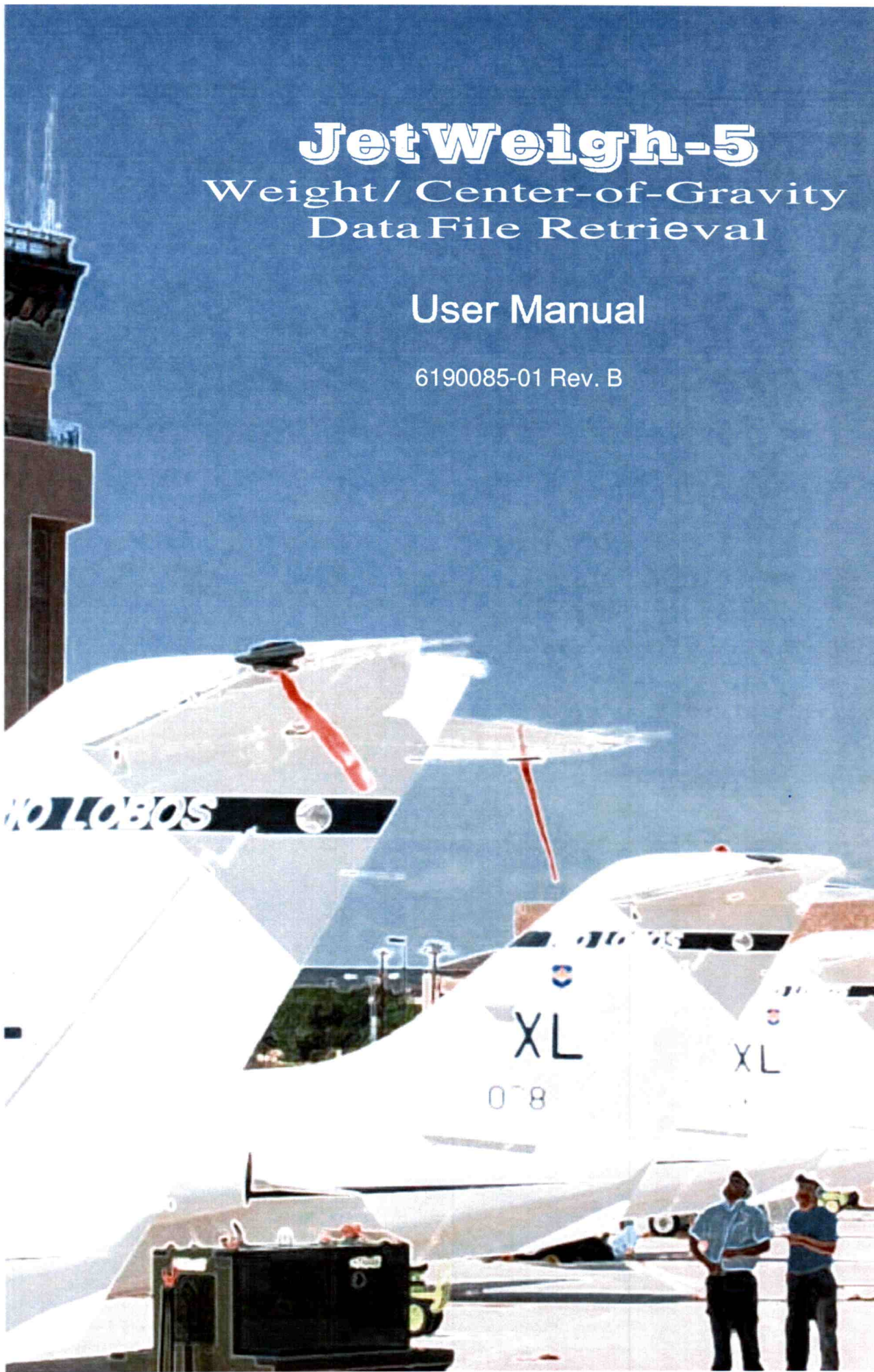
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Cover: Courtesy of USAF.

Text Conventions:

1. Membrane keys referenced in Bold Straight type: example **"Info"**
2. Touch Screen buttons or commands referenced in Bold Italics: ***"Calc Cg"***
3. Displayed Text or Parametric entry forms referenced as encased in apostrophes and italicized: example *"General Parameters"*.
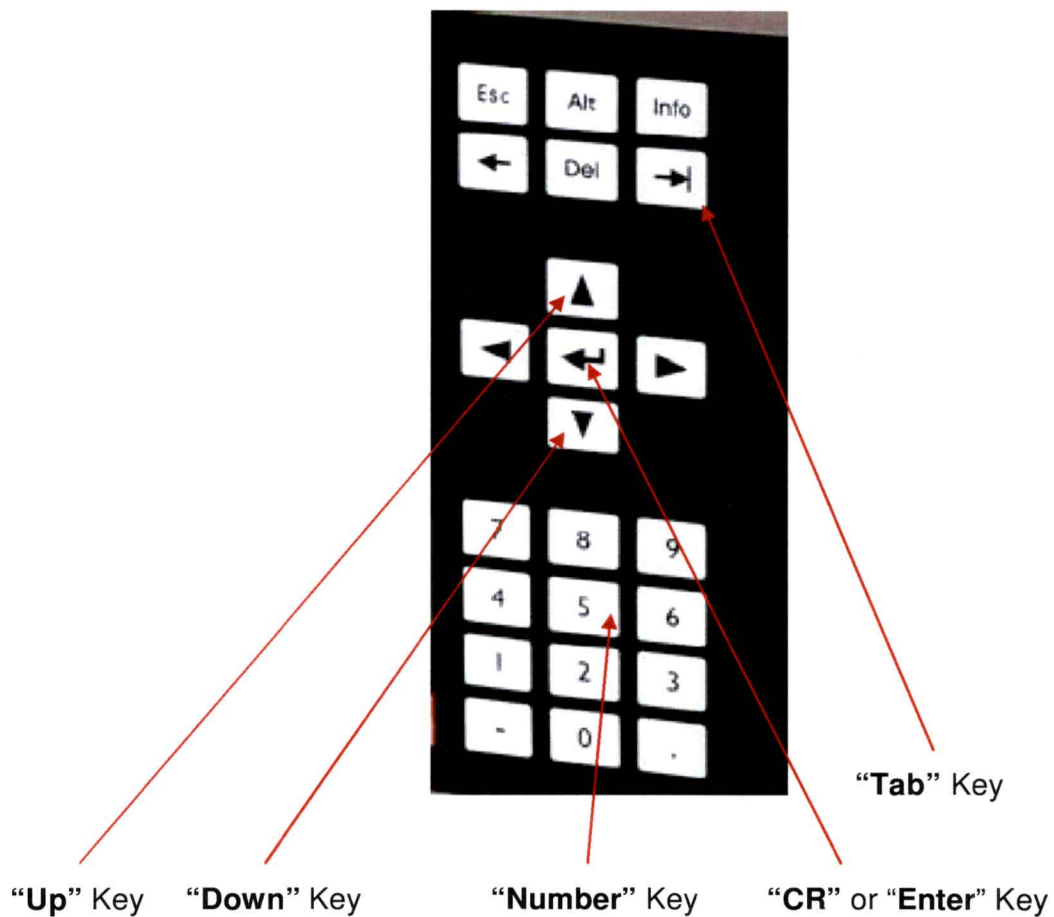

Membrane Keypad:

"Tab" Key

"Up" Key   **"Down"** Key   **"Number"** Key   **"CR"** or **"Enter"** Key

Table of Contents

Introduction

Introduction:
The JetWeigh-5 system allows Weight/Center-of-Gravity data file retrieval using "ftp" (File Transfer Protocol). This requires a network cable to connect the JetWeigh-5 Ethernet port to the Network Port of a Desk Top computer. This transfer takes place using an application. (Set Up file for the application on a disk provided with the system).

Section I
The first section details a procedure for assigning a fixed IP (Internet Protocol address) to the JetWeigh-5 system. This needs to be performed just once. The IP address is the identifying address for ftp (File Transfer Protocol) data transfers.

Section II
The second section details the procedure for installing the retrieval program on your Desk Top. This is the application that controls the data transfer operations between the Desk Top computer and the JetWeigh-5 system.

Section III
The third section details the nuts and bolts operations of the retrieval program. If you are familiar with Windows operations you will quickly recognize the easy and intuitive procedures. Note that during the transfer from the JetWeigh-5 system, the data file is saved in a default folder located in the same folder where the application is installed. This provides an automatic back up of the data file. *However, we strongly recommend you move the data file to a different location, preferably one located on a secure server!*

Section IV
The last section details the structure of the data file record. The record structure is "comma delimited" and the "End of Record" is a Carriage Return character. A "comma delimited record" is compatible with most spread sheet and word processing programs. One record is generated for every aircraft that is weighed.

Section I   Define IP address

1.1 *(Skip to Section III if JetWeigh-5 system IP address has been defined)*. Check with your Network Administrator for a valid IP address. For illustrative purposes, let us assume that your Network Administrator has assigned an IP address of **192.168.158.19** for the JetWeigh-5 system.

1.2 On the JetWeigh-5 operators panel, press the membrane key marked **Info**. An alphanumeric keypad will be displayed on the screen. Using a **Touch screen** scribe, enter the assigned password.

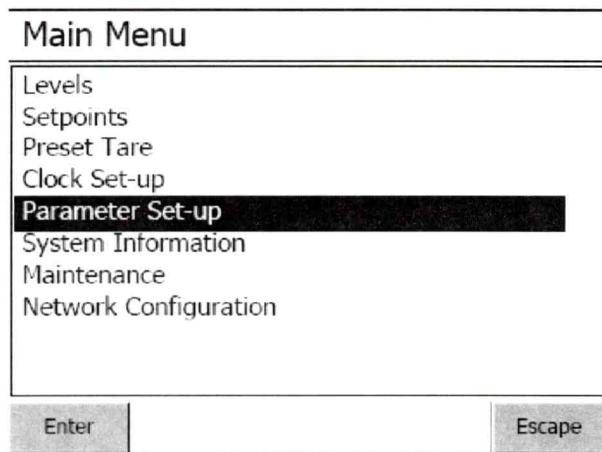**1.3** You will now observe a *Main Menu* displayed on the screen (Fig. 1.0).

Main Menu

Levels
Setpoints
Preset Tare
Clock Set-up
Parameter Set-up
System Information
Maintenance
Network Configuration

Enter		Escape

Fig. 1.0

Use the **Down** membrane key, and navigate to the menu item *Network Configuration*. Push **Enter** on the membrane keypad.

1.4 The basic *Network Configuration* screen displays. Use the **Down** key on the membrane keypad to the menu selection *Use the following IP address*. Next, press on the **Tab** key of the membrane keypad.

1.5 The cursor will now be stationed on the first block of the IP address group. Remember that the IP address is specified as four groups of three numeric digits. Observe also there are four blocks on each line of the screen image. The cursor should now be located on the first block. Use the **numeric** keys of the membrane keypad to enter the first three digits of the IP address i.e. 192.

1.5.1 The cursor will automatically advance to the second numeric block. Enter the next three numeric digits of the IP address i.e. 168 using the numeric keys of the membrane keypad.
1.5.2 The cursor will automatically advance to the third numeric block. Enter the next three numeric digits of the IP address i.e. 158 using the numeric keys of the membrane keypad.
1.5.3 The cursor will automatically advance to the last numeric block. Enter the last three numeric digits of the IP address i.e. 19 using the numeric keys of the membrane keypad.

1.6 The cursor will now advance to the *Subnet Mask* entry blocks.
Enter the number *255* in the first three blocks using the procedure defined in **1.5.** *In the last block enter 000.*

1.7 Now, the *Default Gateway*
Note that the fixed IP address we are attempting to define is **192.168.158.19.**
1.7.1 In the first numeric block of the *Default Gateway* enter the number *192 (exactly like the first three digits of the IP address in our example).*
1.7.2 In the second block of the *Default Gateway* enter the next three digits of the IP address i.e. 168.
1.7.3 In the third numeric block enter the next three digits of the IP address i.e. 158.
1.7.4 *In the last numeric block enter a 000. This numeric block of the Default Gateway must always be a 000.*

1.8 When all entries are completed, based on our example, the display screen of the JetWeigh-5 system will appear as shown below:
IP Address: 192 168 158 19
Subnet Mask: 255 255 255 000
Default Gateway: 192 168 158 000
If incorrect, use the **Tab** membrane key to position the cursor to the numeric block in error and edit.

1.9 Finally, push on the **Enter** button of the membrane keypad. The screen will once again display the *Main Menu*. The IP address has been saved in the JetwWeigh-5 memory. Push the **Esc** key on the membrane keypad to return to the main display.

Section II   Install Application

2.0 *(Skip to Section III if application is already installed in the Desk Top)* This is the application that handles the protocols to access the Weight/Center-of-Gravity data file from the JetWeigh-5 system. As a user, you need to install this program on the Desk Top computer being used. Remember that after retrieval the user will have the choice to save the file in a secure location.

2.1 Insert the system CD provided into the CD drive of your computer. On the main display of the computer navigate the cursor to *My Computer* and then **left double click** the mouse.

2.1.1 You will now see a list of all the mass storage devices attached to the computer. Use the mouse to move the cursor to the CD ROM drive icon. **Left double click** the mouse again. The contents of the CD-rom drive will now be displayed.
2.1.2 Locate the folder "WtCgDataFile". Move the cursor to the folder icon and **left double click** again.
2.1.3 Now, move the cursor to the folder icon "Package", and **left double click**. From the item list of files, locate "setup.exe" with your cursor and **double left click** one last time.

2.2 The installation will now proceed. Follow the instructions during installation. Choose the default values all the time. If during the install you see a message that states, *"A file being copied is older than an existing file on your system"*, choose *"keep existing file"*.

2.3 Set Up will install the retrieval program in the "Program Files" folder of the root directory (C:), inside another folder named "JW5". (Install path: C:\ProgramFiles\JW5\)

2.4 In this procedure you will create a short cut for the retrieval application on the Desk Top computer.
2.4.1 Left double click on "My Computer". From the exposed list, **left double click** on the "C:" drive.
2.4.2 Locate the folder "Program Files" and **left double** click.
2.4.3 Now locate the folder "JW5", and **left double click.**
2.4.4 Locate the file "JW5Data", and **right click** the mouse.

2.4.5 From the drop down list of items move the cursor to "Send To". From the list of possible choices, move cursor to *"Desk Top"* and **left click** the mouse.

2.5 Your Desk Top should now display a "VISHAY" Icon with program name "Shortcut to JW5Data". Follow the procedure below to edit the label to "JW5 data".
2.5.1 Navigate the cursor using the mouse to the Vishay Icon and **right click.**
2.5.2 From the drop down list move cursor over *Rename* and **left click** the mouse.
2.5.3 Using the full keypad of the Desk Top edit the text to "JW5 Data". When finished editing, **left click** the mouse.

Section III   Retrieving Data File

3.0 The Weight/Center-of-Gravity Data file may be retrieved from the JetWeigh-5 system for archival storage on a Desk Top computer. Once retrieved, the data contained therein is available for further analysis and documentation.

3.1 To begin, connect the Desk Top Network port to the Ether Net port of the JetWeigh-5 system (Use the Network cable supplied). Power **"ON"** the JetWeigh-5 system.

3.2 On the Desk Top computer, move the cursor on the VISHAY Icon, and **left click** the mouse.

3.2.1 If you are a first time user, you will see a screen message prompting for the definition of a new password. Move the cursor on **OK** and **left click** the mouse to begin the procedure for defining a new password.

*If you are **not a first time user**, you will see a screen (Fig. 3.3) requesting a password entry.*
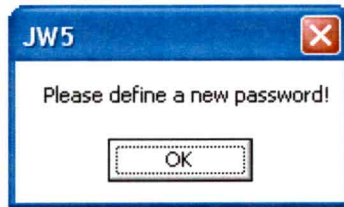

Fig. 3.1

3.2.2 Left click on *OK*. The **New Password** screen(Fig. 3.2) shall display. Use the keyboard to enter a custom password (Max. size 20 characters). Move the cursor on the **Save** button and **left click** the mouse.
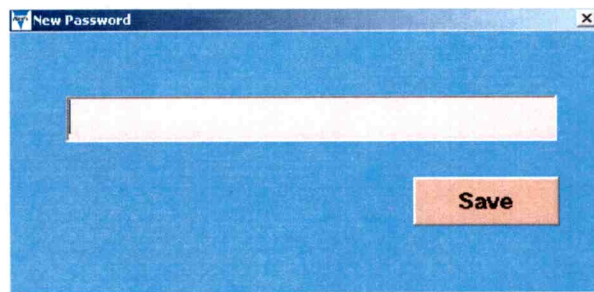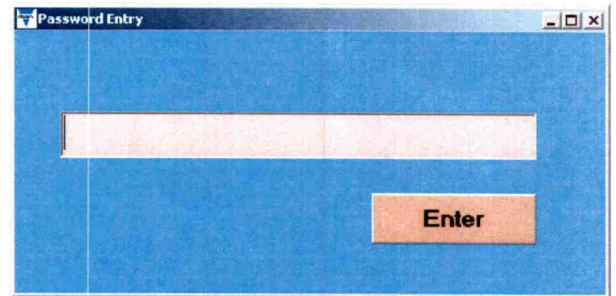

Fig. 3.2
New Password Screen

Fig. 3.3
Password Entry

3.3 If the password is correct, the image shown in Fig. 3.4 shall display. If the password is incorrect the application will terminate.
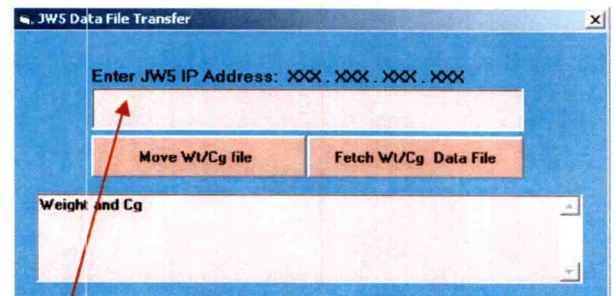

IP address   **Fig. 3.4**
          Main Screen

3.4 Using the Desk Top keypad enter the IP address of the JetWeigh-5 system. For illustrative purposes, we will assume that the IP address of the JetWeigh-5 system is **192.168.158.19**. After completion of entry, the screen should appear as shown in Fig. 3.5
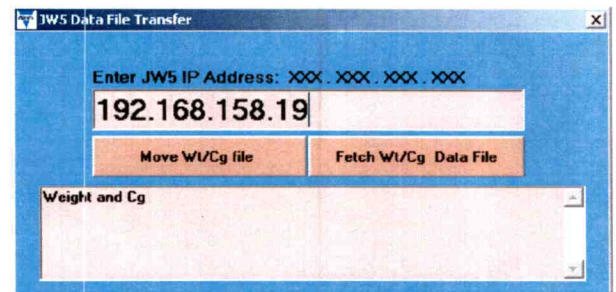

Fig. 3.5
IP Address entry

3.5 To begin retrieving the data file from the JetWeigh-5 system, move cursor to the button marked **Fetch Wt/Cg data file** and **left click** the mouse.

3.5.1 Data file retrieval will now begin. On completion of a successful retrieval, the message shown (Fig. 3.5) shall display.
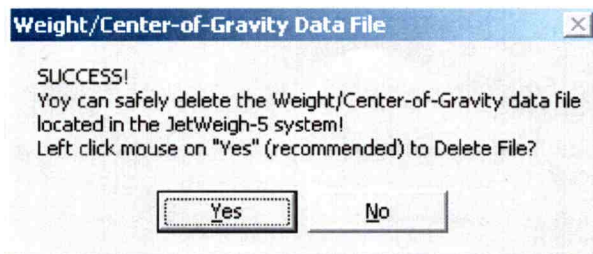

Fig. 3.5

3.5.2 Now that the file has been successfully retrieved, it is highly recommend that the data file in the JetWeigh-5 system be deleted. **Left click** the mouse on **Yes** to delete the file. Otherwise, **Left click** on No

3.6 The application will perform the selected action and the computer screen shall display as shown in Fig. 3.6.
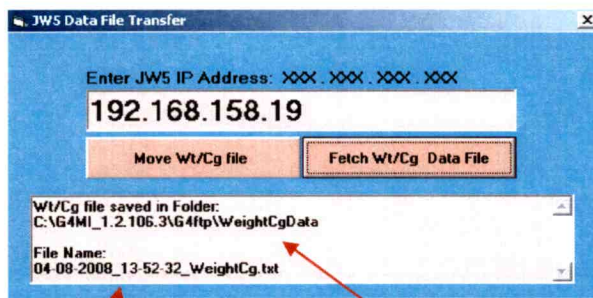

Fig. 3.6

Name of text file as saved   *Folder where saved*
Note: Time and Date stamp.

3.7 The data file **must** be moved to a secure location. To do this, move the cursor on the **Move Wt/Cg File,** and **left click** the mouse. A save dialog box (Fig. 3.7) will open.
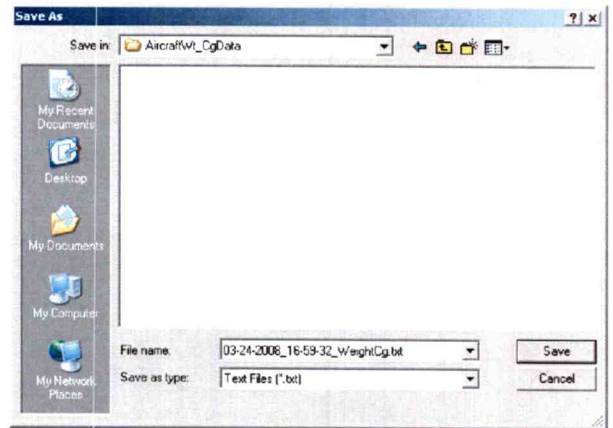

Fig 3.7
Save Dialog Box

3.7.1 Select the location of the destination folder and **left click** on **Save.**
Warning: *The move operation is a procedure that must be performed immediately after the retrieval.*

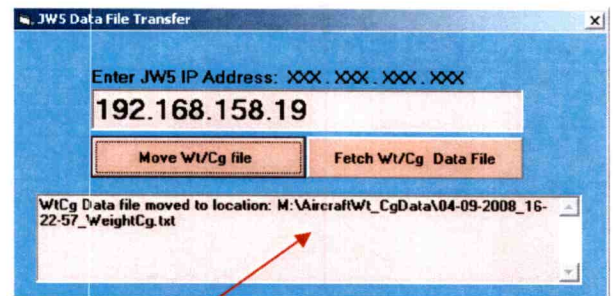After the "save", screen shall display as shown in (Fig. 3.8).

Fig. 3.8
After Save image

Destination folder

Section IV <u>Data File Structure</u>

4.0 The Data file structure is a "comma" delimited text file with a "carriage return" as the End –Of-Record. There may be more than one record in the file. *Please note that the colors Red, Yellow, Blue, Green, and White refer to channel markings.*

4.1 Below is a list of the fields in each record.

1.	Date and Time (mm/dd/yyyy, HH:MM:SS)
2.	Serial Number of Aircraft
3.	Aircraft Model
4.	Units of force measurement
5.	Units of length measurement
6.	User Site Latitude
7.	User Site Elevation
8.	Gravitational Correction Factor
9.	Datum to Left Wheel (Red)
10.	Datum to Right Wheel (Yellow)
11.	Datum to Nose/Tail Wheel (Blue)
12.	Datum to Left Rear Wheel (Green)
13.	Datum to Right Rear Wheel (White)
14.	LEMAC
15.	MAC
16.	Tail or Nose wheel?
17.	Force Left wheel (Red)
18.	Stable or Forced (Red)
19.	Force Right Wheel (Yellow)
20.	Stable or Forced (Yellow)
21.	Force Nose/Tail wheel (Blue)
22.	Stable or Forced (Blue)
23.	Force Left Rear Wheel (Green)
24.	Stable or Forced (Green)
25.	Force Right Rear Wheel (White)
26.	Stable or Forced (White)
27.	Unloaded Force Left wheel (Red)
28.	Stable or Forced (Red)
29.	Unloaded Force Right Wheel (Yellow)
30.	Stable or Forced (Yellow)
31.	Unloaded Force Nose/Tail wheel (Blue)
32.	Stable or Forced (Blue)
33.	Unloaded Force Left Rear Wheel (Green)
34.	Stable or Forced (Green)
35.	Unloaded Force Right Rear Wheel (White)
36.	Stable or Forced (White)
37.	Stated Empty Weight
38.	Empty weight as measured sum
39.	Total Moment around Datum Line
40.	"Cg" as displaced from Datum Line
41.	Mean Aerodynamic Chord

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