Welcome to **F/A-18 Hornet 3.0**. This document provides a QuickStart guide as
well as a partial list of keyboard commands to help you in evaluating the
simulation. GSC has gone to great lengths to obtain absolutely accurate
information on all aspects of the F/A-18 avionic subsystem, as well as to
provide an extremely high-fidelity flight model. With frame rates of 20FPS at
1024x768, and over 140 keyboard commands, this simulation is designed to be
cutting edge in terms of sophistication and fidelity.

Graphic Simulations Corporation (GSC) has been making flight simulators for
Macintosh computers for over 5 years. Each product in our line has been
awarded top-flight simulator of the year at one time or another. Our first
entry into the DOS/Windows world was in providing the graphics engine for
Warbirds, the popular online Internet-based multiplayer WWII simulation. We
use a proprietary differential algorithm for flat-shading and dynamic
lighting, in conjunction with extremely high polygon counts. The result is
frame rates of 20FPS at 1024x768 on high-end Pentiums and similar performance
at 640x480 on midrange Pentiums. This performance level is equal to, or higher
than any currently available flight simulation. We are determined to provide a
FLUID simulation because we feel, next to realism, it is probably one of the
most important aspects of a flight simulation. No matter how pretty it is, if
it doesn't feel like flight, the game's over before it gets off the ground.

The learning curve for this simulation, while fairly steep, can be traversed
quickly by using the built-in training classes and reference manual provided
in the full version. Although there is no way to introduce all the features of
the actual product in this small demonstration version, it will serve to give
you a taste of what's available.

IMPORTANT NOTES:

Requirements for Windows:
- F/A-18 Hornet 3.0 requires a Pentium platform running either Window's
  '95 or Window's NT 4.

- 16MB RAM

- Microsoft Direct-X 2.0 or higher

- Joystick calibration should be performed in Windows 95 or via the
  calibration option in the F/A-18 Hornet 3.0 preferences. Calibration
  should then be performed once again while in flight via the **"control-
  J"** key combination.

THE DEMO:

Given the advanced nature of this simulation, we have provided a fully
functional avionics and weapons suite on which to base your evaluation. This
demo provides all the functionality of the actual product, with the following
exceptions:

- Operations are limited to a single mission in the Hawaiian training
  theater
- Training classroom and printed documentation is not available
- Kuwait theater of operations is not available
- Network play is not available

• Replays cannot be saved

This demo will function as a stand-alone replay viewer if left idle for 30 seconds. We have provided six replays of various missions within the training theater. These replays will randomly cycle through various missions of the full version's training area. These replays may also be accessed through the **Replay Room.**

INTERFACE:

The F/A-18 Hornet interface provides a series of areas, or rooms, each providing a specific function. These areas are all accessible from the **Tab buttons** to the right of the **Kneepad.** The **Main Room**, which resembles the cockpit of an F/A-18, provides the following three areas for interface navigation, mission information, and settings.

• **DDI**: Monochrome CRT with buttons surrounding it. Clicking these buttons allows the user to navigate through the various menu options and selections.

• **Kneepad**: Small rectangular note pad to the right of the DDI. The kneepad contains "pages" of information and/or buttons used to select various options. Mission briefings are also displayed here.

• **Tabs**: Positioned to the right edge of the kneepad. The tabs allow the user to navigate to different areas of the interface, such as the classroom, film library, or debrief room.

Using the interface is as simple as clicking (with the mouse) on any DDI button or any active button or field on the Kneepad. For example: To change the monitor resolution, click on the **Settings** DDI button and then click on the **Preferences** button. The monitor resolutions appear in the lower right-hand corner of the kneepad. Click on the desired resolution.

The kneepad tabs are used to navigate to other rooms of the interface. The five tabs are located to the right side of the kneepad:

• **Flight:** Provides a shortcut directly to the Preflight page using current theater and mission settings. (Note: Only the Training Theater is available in the demo.)

• **Training**: Goes to the Training Classroom which provides extensive online tutorial and video sequences. (Note: No training topics are provided in the demo.)

• **Debrief**: Shows the debriefing for the last mission flown, and allows replays to be saved.

• **Replay**: Goes to the Replay Room, where previously saved video can be recalled and viewed.

QUICKSTART:

Although the only way to properly learn F/A-18 Hornet 3.0 would be to purchase the full version, we'll attempt to talk you through a quick flight designed to get you off the ground, make use of some simple radar techniques, and employ a weapon or two. Press **"P"** to pause the simulation, should you need to catch up.

1) Click the **"Mission"** button on the left side of the DDI.
2) You can read the mission briefing on the kneepad by clicking on the **"Pagecurl"** in the lower-right corner of the kneepad.
3) The "Takeoff and flight" mission will be the only one available, since this is the demo version of F/A-18 Hornet 3.0.
4) Press the flashing **"Preflight"** button in the top-right corner of the DDI.
5) Click on the **"Air-Grd"** button on the DDI to load your plane with a typical air-to-ground weapons loadout.
6) Press the flashing **"Fly"** button in the top-right corner of the DDI.

There will be a pause while the mission loads....

7) You'll appear at the hold-short line at the south end of Barber's point N.A.S., facing west.
8) Press the **"4"** key to switch to "Situational Awareness" view. You can look around with the arrow keys.
9 Use the arrow keys to look to the left. An aircraft is currently on approach. While we wait for that plane to land, let's try some of the other views available in F/A-18 Hornet.
10 Press the **"3"** key to go to an external view of your Hornet. You can use the **arrow keys** to change the direction you're viewing the plane from, and the **"9"** and **"0"** keys can be used to zoom in and out.
11) Press **"shift-3"** to go to an external view of your wingman. He should be taxiing onto the runway for takeoff.
12) Press **"shift-T"** to contact the tower and request clearance for takeoff. The tower will tell you to hold for traffic, since your wingman is preparing to takeoff.
13) Press the **"1"** key to switch back to the cockpit view.
14) Start the engines with the **"=/+"** key. Wait while the engines spool up to idle.
15) Look down into the cockpit with the **"2"** key. The engine RPM in the lower-left corner of the screen should be about 60%. If the throttle is advanced too far and the plane is rolling, you can press the **"spacebar"** to engage/disengage the wheel brakes.
16) Press the **"M"** key five times to show the map display in the center DDI. You will see your Hornet's location in Hawaii.

Once the tower has cleared you to takeoff...

17) Press the **"1"** key to switch to the main cockpit view.
18) Use the **"=/+"** and **"-/_"** keys to adjust the throttle to 70 RPM (as indicated in the left DDI as N1 RPM). The engine will reach that power setting (as indicated in the left DDI as N2 RPM).
19) As the aircraft begins to move forward, begin a 90 degree right turn using the mouse, keyboard, or joystick (depending on the preferences settings). Taxi onto the active runway facing down the length of the runway.
20) Press the **"spacebar"** to engage the wheel brakes and stop the plane.
21) When the plane is stopped and is facing down the length of the runway, use the **"=/+"** key to increase power to 100 percent, then

release the wheel brakes with the **"spacebar"**.
22) Steer the aircraft down the runway, applying slight back pressure on the stick.
23) At approximately 130 knots as indicated in the boxed field near the left center of the HUD, begin to pull back on the stick.
24) As the aircraft begins to lift off the ground, raise the landing gear by pressing the **"G"** key.
25) Begin a right turn to a heading of approximately 100 degrees as indicated by the numbers along the top edge of the HUD. Line up the inverted V (caret) at the top center of the HUD with the numeral - 100, which will indicate a heading of 100 degrees magnetic.
26) Pull back slightly on the stick and climb to an altitude of about 2000 feet (as indicated by the boxed field near the right center of the HUD). Level off at this altitude.

Time to shoot down an air target...

27) Activate the radar by pressing the **"R"** key. The radar will initialize to Range While Search air-to-air mode and will be displayed in the right DDI.
28) Press the **"Q"** key to cycle to Track While Scan mode. The current mode is indicated in the upper-left corner of the display by the acronym TWS.
29) After a few seconds at least one aircraft should be visible on the radar as indicated by an upside-down U symbol with a 'tail' extending in the direction of its current flight path. If there is nothing visible on the display, slowly circle around until a target appears.
30) Cycle through targets with the **"\"** key until the desired contact is selected. The selected contact (called the 'launch & steering target') will now provide additional information on the display related to speed, closure, relative altitude, etc. (i.e. buy the game and find out!)
31) Now lock (slave) the radar to the L&S target by pressing **"Q"** once more.
32) The radar should now be in Single Target Track mode (STT), and the radar dish will attempt to stay locked onto the target.
33) When the target is acquired, a target designator box (TD box) will appear in the HUD at the location of the contact.
34) Press the **"["** (left bracket) key twice, to cycle to an AIM-120 missile. This will be indicated at the lower center of the HUD by "120" followed by "X" where X is the number of missiles remaining (in this case 2).
35) Steer the aircraft so that the TD box is located in or near the center of the small circle located in the center of the HUD. This circle is called the Normalized In Range Display (NIRD) and is used for all radar command guidance missile launches.
36) A small Steering Dot will be visible near the TD box. Maneuver the Steering Dot into the NIRD in order to provide appropriate launch parameters to the weapon. The Steering Dot represents the lead-computation angle currently being considered by the selected weapon.
37) Fly with the Steering Dot maintained in the NIRD until a SHOOT cue flashes over the target designator box.
38) Fire the AIM-120 using either the trigger or the **"enter**/**return"** key.

39) You may watch the missile approach the target by pressing the **"7"** or **"8"** keys.
40) You may view the target itself with the **"5"** key.
41) You may exit the simulation at any time by pressing **"shift-ESC"**

Keyboard Command Reference:

__Key__	__Command__

Aircraft

Key	Command
Keypad 4	Aileron Left
Keypad 6	Aileron Right
Keypad 8	Elevator Down
Keypad 5	Elevator Up
,	Rudder Left
/	Rudder Center
.	Rudder Right
=	Increase Thrust
-	Decrease Thrust
Backspace/Delete	Afterburner
Spacebar	Speed Brake/Wheel Brakes
G	Gear
F	Flaps
H	Hook
shift D	Dump Fuel
shift F	Refuel
shift S	Service (refuel/rearm)
shift E	Eject
D	Damage Display
E	Engine Display

HUD Options

Key	Command
control A	HUD Altitude Toggle
control B	HUD Brightness
control C	HUD Clutter Reject
control H	HUD Hide

Navigation

Key	Command
A	Autopilot Toggle
shift A	Autopilot Mode Cycle
W	Waypoint Cycle
T	TACAN Cycle
L	ILS Toggle
M	Moving Map/Scale
N	Navigation/HSI Scale

```
Radar

R                    AA/AG Radar Toggle
Q                    Radar Sub-mode Cycle
B                    Radar Standby
I                    IFF Interrogate
Tab                  Range Decrease
shift Tab            Range Increase
shift R              ACM Cycle
shift Q              AACQ Toggle
control R            Silent Mode
```

Scan Volume
```
Z                    Decrease Azimuth
X                    Decrease Elevation
shift Z              Increase Azimuth
shift X              Increase Elevation
```

Target Selection
```
shift up arrow      TDC Up
shift down arrow    TDC Down
shift left arrow    TDC Left
shift right arrow   TDC Right
\                    Designate/Cycle
shift \              Undesignate/TDC Stow
```

Weapons
```
S                    Stores Display
[                    Cycle AA Weapons
]                    Cycle AG Weapons
shift-]              CCIP/Auto Toggle
J                    Jettison Station Select
'                    Release Flare
;                    Release Chaff
C                    ECM Toggle
Enter/Return         Designate/Release
```

```
         Electro-optical
O                    E/O Weapon Cycle
ctrl -               Zoom Out
ctrl =               Zoom In
ctrl up arrow        Slew Up
ctrl down arrow      Slew Down
ctrl left arrow      Slew Left
ctrl right arrow     Slew Right
ctrl \               Target Cycle
```

Harm
```
U                    HARM Display
control \            Target Cycle
```

Views
```
1                    Cockpit
2                    Cockpit Lookdown
3                    External
4                    SA/Padlock
5                    Radar/E-O Target
```

```
6                   Ground/Tower
7                   Weapon External
8                   Weapon Eye
shift 1             Tail #1
shift 2             Tail #2
shift 3             Wingman External
shift 4             Padlock Wingman
shift 5             Left Stores
shift 6             Centerline
shift 7             Right Stores
shift 8             Left Wing
shift 9             Fuselage
shift 0             Right Wing
shift backspace     Aspect View
```

View Modifiers
```
down arrow          Look Back/Tilt Down
left arrow          Look/Pan Left
up arrow            Look/Tilt Up
right arrow         Look/Pan Right
9                   Move Camera In
0                   Move Camera Out
shift =             Optical Zoom In
shift -             Optical Zoom Out
```

Simulation Environment
```
shift escape        Exit Flight
control F           Fast-time Toggle
Escape              Reset Current Mission
P                   Pause Flight
control E           Earlier Time
control L           Later Time
control N           Night Time
control J           Calibrate Joystick
control U           Unlock Replay Views
control I           Hide Instrumentation
```

Radio Voice Messaging
```
shift G             Ground Control
shift T             Control Tower
shift O             Flight Ops
shift C             Approach Control
shift L             Landing Signal Officer
shift '             Net Radio Message
```

Wingman Commands
(shift modifies commands for wingman #2)

```
        Engagement
F1              Help Me
F2              Engage/Protect
F3              Resume Mission
F4              Go Home


     Attack Formations
F5              Bracket Left
F6              Bracket Right
```

```
        F7                    Split High
        F8                    Split Low

            Standard Formations
        F9                    Echelon
        F10                   Trail
        F11                   Combat Spread
        F12                   Lead
```

The good news is: you just got your target. The bad news is: you just killed a friendly aircraft! Help save lives by buying F/A-18 Hornet and reading the documentation!

F/A-18 Hornet can be found at a retailer near you for around 50 bucks. GSC can be located on the Web at www.graphsim.com. At the time of this writing, our web page was undergoing changes. Please bear with us as we get the site updated. We can be reached via voice at (972) 386-7575.

Thanks very much and enjoy!
Graphic Simulations Corporation (GSC).