F-19 STEALTH FIGHTER

Technical Supplement
Atari ST & Commodore Amiga

F-19
STEALTH FIGHTER

Required Equipment

Please note that this simulation requires a minimum of 512 K of RAM. A colour monitor or television is required for the ST version.

This simulation can be run entirely from the keyboard, with mouse and keyboard, or with joystick and keyboard. A joystick greatly improves the "feel" and realism, and is therefore strongly recommended.

Installation

The F-19 Stealth Fighter manual asks you to install the simulation onto back-up Floppy Disks. This is only necessary for IBM PC compatible versions. You do not need to install Atari ST or Commodore Amiga versions.

Your pilot records will be automatically saved to disk A, provided that it is write-enabled prior to loading.

Atari ST

Turn off your computer and remove all unnecessary peripherals. Insert Disk A into the internal drive and switch on the computer. The program will auto-load. Please follow any on-screen prompts. (If you have an additional external drive, disk B may be inserted into this drive, and will be automatically accessed by the computer when necessary).

Commodore Amiga

Turn off your computer and remove all unnecessary peripherals. Insert Disk A into the internal drive and switch on the computer. The program will auto-load. Please follow any on-screen prompts.

In the vast majority of cases a loading problem is not because of faulty software, but either an incorrect loading proceedure or a hardware fault.

Please ensure that the loading instructions have been correctly executed. The commonest hardware failures are due to a misalignment of the heads in the disk drive. Such faults may be detected by loading the game on another computer. (Either use a friend's machine or ask the software store from which the game was purchased to test it).

Alternatively, a virus may have transferred into your hardware from another piece of software. Pirated copies of games are an incredibly common source of viruses. It always pays to own original software.

In the unlikely event of a software fault,.please return the complete package, with receipt to the place of purchase. MicroProse regret that goods cannot be replaced unless bought from the company directly.

If you have any difficulty whilst loading F-19, or need help whilst running the simulation, MicroProse will be happy to help you on the Helpline. Please ring (0666) 504399.

FACT OR FICTION ? : THE DEVELOPMENT OF "F-19 STEALTH FIGHTER"

November 10, 1988 (Washington D.C.): Today the U.S. Air Force announced the existence of an operational stealth fighter aircraft. This single seat, dual-engine jet was constructed by the Lockheed Corporation. built with bipartisan congressional support, it has been operational since 1983 with the 4450th Tactical Group, based on the Tonopah Airfield at Nellis Air Force Base, Nevada.

Technical specifications, possible missions, and operations have not been disclosed. However, design features and the use of A-7 trainers suggest that the plane is intended for clandestine reconnaissance, ground attack, and air-to-air ambushes. In short, the US Air Force's actual stealth fighter is amazingly similar to MicroProse's "F-19 Stealth Fighter" simulation, published for IBM PC compatible machines twelve months prior to the actual plane's disclosure. It is known that the Air Force uses the designation "F-117A" instead of "F-19".

Stealth Fighter

1978: Lockheed receives the program "go ahead" from the U.S Department of Defense.

1981: Lockheed test-flies the new Stealth Fighter.

1983: The U.S. Air Force accepts delivery of the first fighters and the 4450th TG becomes an operational unit.

1986: A fatal Stealth Fighter crash in Bakersfield, California is hushed up by the Air Force before the news media discovers what happened.

1987: MicroProse first publishes a Stealth Fighter computer simulation for IBM PC compatible machines.

1988: The U.S. Air Force admits that Stealth Fighters

have been operational for the last five years.

1989: MicroProse begin work in the UK on "F-19 Stealth Fighter" for Atari ST and Commodore Amiga machines. The decision is taken to retain the original characteristics of MicroProse's "F19 Stealth Fighter", as a testament to the accuracy of MicroProse's research, and to enhance the simulation by including an option to see the actual F-117A plane in external 3-D views.

1990: Atari ST and Commodore Amiga versions are released.

Diagrams of F-19 and F-117A
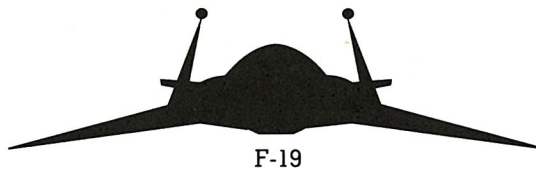
F-19

F-117A

Pre-Flight Options

Method of Control

Once the game has loaded, you will be asked to select your method of control, by pressing one of the numeric keys on the keyboard, as follows;

1. Mouse

2. Joystick

3. Keyboard

The Pilot Roster

The original pilot roster will be automatically updated after each mission, provided that you have write-enabled your disk A. You do not have to 'install' the simulation onto back-up Floppy Disks.

Intelligence Briefing

Move the Controller up and down the list of options to highlight one, and press the Selector to toggle that option on and off.

To receive specific data on an item displayed on the map, move the Controller over that item on the map.
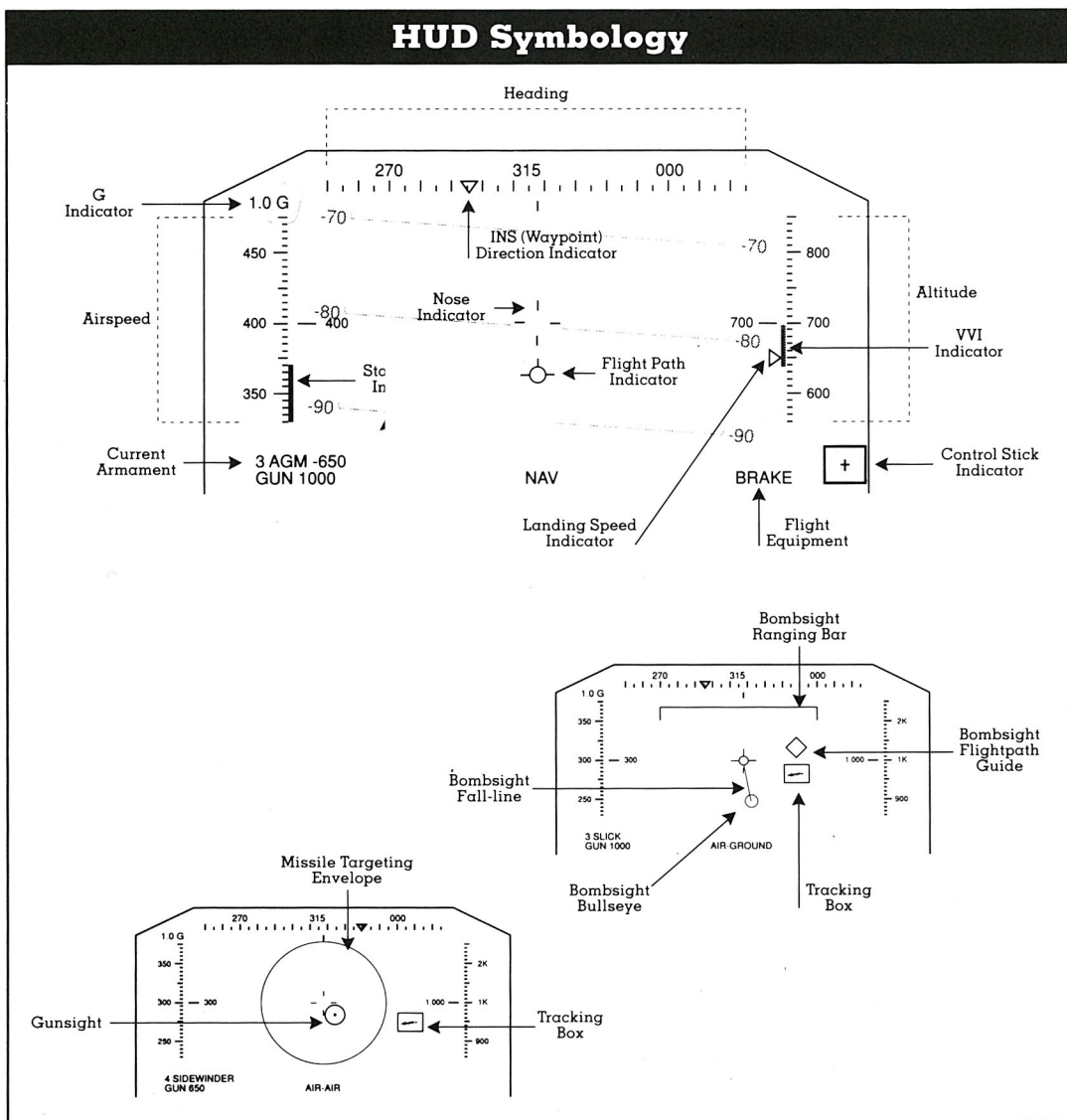
External Aircraft Views

As explained on the previous page, MicroProse's Software Engineers have added the option to view your plane in Slot View, Chase Plane, Side View, Tacti View or Inverse Tacti View, as either the F-19 or F-117A.

Your choice of plane is made immediately after the Mission Briefing, and before choosing the armaments for your mission.

In-Flight

The star system has been accurately mapped and is visible during night missions. It appears on screen as it would according to your actual position and heading. It is therefore possible to navigate by the stars!

HUD Symbology

Heading

270   315   000

G Indicator — 1.0 G

-70   -70   800

Airspeed

450

INS (Waypoint) Direction Indicator

Nose Indicator

400 — 400   -80   700 — -80   700

Altitude

VVI Indicator

Sta In

350   -90   600

Current Armament — 3 AGM -650 GUN 1000

-90

Control Stick Indicator

NAV   BRAKE

Landing Speed Indicator   Flight Equipment

Bombsight Ranging Bar

270   315   000

1.0 G

350   2K

300 — 300   1 000 — 1K

Bombsight Flightpath Guide

Bombsight Fall-line

250   900

3 SLICK GUN 1000   AIR-GROUND

Bombsight Bullseye   Tracking Box

Missile Targeting Envelope

270   315   000

1.0 G

350   2K

300 — 300   1 000 — 1K

Gunsight

250   900

Tracking Box

4 SIDEWINDER GUN 650   AIR-AIR

7

Preflight & PostFlight Options

Controller	joystick,	or arrow keys,	or mouse
Selection	joystick button,	or return key,	or left mouse button

Control Stick

Pitch Down	stick forward,	or up-arrow,	or mouse forward
Roll right	stick right,	or right-arrow,	or mouse right
Roll left	stick left,	or left-arrow,	or mouse left
Pitch Up	stick back,	or down-arrow,	or mouse back
Down & right	stick forward & right,	or up & right,	or forward & right
Down & left	stick forward & left,	or up & left,	or forward & left
Up & right	stick back & right,	or down & right,	or back & right
Up & left	stick back & left,	or down & left,	orback & left

Adjust stick sensitivity   'Ins' key

   (tiny, small and medium stick movement)

Throttle

Max Pwr (maximum power)	Shift and '+=' key
Incr (increase throttle)	'=' key
Decr (decrease throttle)	'-' key
No Pwr (no power)	Shift and '-_' key

Other Flight Controls

Gear (landing gear toggle)	'6' key (on main keyboard)
Flaps (extend/retract toggle)	'9' key (on main keyboard)
Brakes (on/off toggle)	'0' key (on main keyboard)
Autopilot (on/off toggle)	'7' key (on main keyboard)
Accel (accelerated) time	Shift and 'Z' key
Norm (normal) time	Shift and 'X' key

Out-of-Plane Viewing

Slot View	Shift and 'F1' key
Chase Plane	Shift and 'F2' key
Side View	Shift and 'F3' key
Missile View	Shift and 'F4' key
Tacti view (you & enemy)	Shift and 'F6' key
Invrs tacti (enemy & you)	Shift and 'F7' key

Out-of-Cockpit Viewing

View ahead	Shift and '?/' key
View rear	Shift and '>.' key
View left	Shift and '<,' key
View right	Shift and 'M' key

Other View Keys

Zoom (view or map)	'z' key
Unzoom (view or map)	'x' key
View Angle (narrow or wide)	'c' key

Cockpit Controls

Cockpit View	'F1' key
HUD Modes	'F2' key
CRT Maps (toggles left-side CRT)	'F3' key
Data (on right-side CRT)	'F4' key
Ordnance (on right-side CRT)	'F5' key
System Damage (on right-side CRT)	'F6' key
ILS (on/off the HUD)	'F9' key
Mission (on right-side CRT)	'F10' key
Eject (bail out)	Shift and 'F10' key

INS (Inertial Navigation System)

Select Waypoint (on right-side CRT)	'F7' key
Change Waypoint (on both CRTs)	'F8' key
Reset Waypoint (all)	Shift and 'F8' key
Select/Change Previous Waypoint	Minus (-) key on numeric keypad
Select/Change Next Waypoint	Plus (+) key on numeric keypad
Move Waypoint Up (changing pt)	Up-arrow (numeric keypad '8') key
Move Waypoint Down (changing pt)	Down-arrow (numeric keypad '2') key
Move Waypoint Left (changing pt)	Left-arrow (numeric keypad '4') key
Move Waypoint Right (changing pt)	Right-arrow (numeric keypad '6') key

Tracking Camera (appears on right-side cockpit CRT)

Cam Ahead	'/' key
Cam Rear	'.' key
Cam Left	'm' key
Cam Right	',' key
Select Target (in current view arc)	'b' key
Designate New Target (ahead only)	'n' key

Armaments

Ordnance (on right-side CRT)	'F5' key		
Select Ordnance	space bar		
Bay Doors (toggles open/closed)	'8' key (on main keyboard)		
Fire Ordnance		or return key,	or right mouse button
Fire Cannon	joystick button,	or backspace key,	or left mouse button

Defences

Flare (drop one cartridge)	'1' key (on main keyboard)
Chaff (drop one cartridge)	'2' key (on main keyboard)
IR Jammer (toggles on/off)	'3' key (on main keyboard)
ECM (radar jammer on/off)	'4' key (on main keyboard)
Decoy (drop one)	'5' key (on main keyboard)

Pause (press any key to un-pause)	Alt and 'p' key
"Boss" (hides simulation)	Alt and 'b' key
Quit	Alt and 'q' key
Resupply (training only)	Alt and 'r' key
Change missions to training	Alt and 't' key

Keyboard Control Stick Adjust   'Ins' key

keybd sensitivity 3 = keypress causes large stick movement

keybd sensitivity 2 = keypress causes moderate stick movement (default)

keybd sensitivity 1 = keypress causes small stick movement

Volume Adjust (4 sound levels)   Alt and 'v' key

sound level 3 = all sounds

sound level 2 = all sounds except engine background noise (default)

sound level 1 = firing and explosions only (no warning sounds)

sound level 0 = no sound

Detail Adjust (2 levels)   Alt and 'd' key

detail level 1 = maximum detail on Tactical and Track Cam displays

detail level 0 = normal detail on Tactical and Track Cam displays

Slew Controls (4 directions)

slew north (training only)	Alt and 'i' key
slew west (training only)	Alt and 'j' key
slew south (training only)	Alt and 'k' key
slew east (training only)	Alt and 'l' key

Notes on Simulation Controls

Change Mission to Training (Alt and 't' key) Tapping this key converts your current mission into a training mission. This means that henceforth enemy weapons do no damage. Tapping Alt 't' again exits training.

Once a mission is converted to training you cannot score any points for it, even if you toggle training off again. However, the slew controls and resupply key only function when training is active.

Keyboard Control Stick Adjust ('Ins' key) This regulates the amount of control stick movement a keypress causes. We recommend you use this key frequently when flying, and always set the sensitivity to "1" on your final approach to landing.

Detail Adjust (Alt and 'd' key) The detail displayed on the Tactical and Track Cam displays may be altered from normal (detail level = 0) to maximum (detail level = 1). The tactical display shows all the 16 km grid lines at maximum detail, and the Track Cam update will appear to be smoother.

Slew (Alt and 'i','j','k','l' keys) These keys function only in training. Tapping the key "teleports" your aircraft in that direction. The distance you're "teleported" varies with the current Zoom/Unzoom scale of the satellite/radar map. Slew is an excellent way to check out the region whilst training.

Display Colours

HUD Targeting Colours

Black Rectangle	Ineffective Weapon (day)
Brown Rectangle	Ineffective Weapon (night)
White Rectangle	Effective Weapon
White hexagon	Effective Weapon, locked on target
Red hexagon	Highly effective weapon, locked on target

EMV Scale Colours

Red line	Enemy Ground radar, has not detected you
Orange line	Enemy Ground radar, has poor detection
Yellow line	Enemy Ground radar, which detected you
Light blue line	Enemy Aircraft radar, has not detected you
White line	Enemy Aircraft radar, which detected you

Damage Tattletales

Blue	System functioning
Red	System failure (damaged or destroyed)

Autopilot Light

White	Autopilot On
Black	Autopilot Off

Landing Gear Light

Black	Landing Gear Up
Flashing White	Landing Gear Down at too high a speed
White	Landing Gear Down

Other Warning Lights

Bright Colour	On
Black	Off

Satellite/Radar Map

Flashing White Dot	Your Aircraft
Flashing Yellow-Red	Mission objective on ground
Blinking Red	Mission objective in air
Red Dot	Other Aircraft
Black Dot	Ground Radar
Yellow Dot	Enemy Radar
Dotted Line	Pulse Radar
Solid Line	Doppler Radar
White Dot	Takeoff and landing locations

Tactical Display

Grey squares	16km grid
Yellow Radar Dish	Ground Radar
Blue Boat	Warship Radar
Grey Rectangle	Airfield
Red Crossed Circle	Other Ground Targets
Grey airplane	Your F-19
Grey outline	Decoy
White Dots	Chaff
Red & Yellow burst	Flare
Blue Plane	Plane at higher altitude
Light Red Plane	Plane at similar altitude
Yellow Plane	Plane at lower altitude
Yellow Line	Radar-guided missile
Red Line	IR-guided missile
Yellow Line	Visually guided missile
White Line	Missile fired from F-19
White-boxed object	Current target (in your tracking system)
Colour-boxed object	Source of enemy radar signal

INS Waypoints Fuel Bar

Black region	Fuel consumed
White Region	Fuel for flight to current waypoint
Blue Regions	Fuel for flight to other waypoints
Yellow Region	Reserve Fuel

When flying a mission don't expect the enemy to act randomly or stupidly. They have a surprising amount of intelligence. Fighters and AWACS planes patrol to cover radar weak spots, or protect especially important areas.

If you're spotted, interceptors are scrambled and vectored to your last known location. If they lose sight of your F-19, they investigate your last known position, but will eventually give up and go home. In addition, enemy aircraft and radar operators become more aggressive, sometimes even frantic, after they have repeated sightings, or have suffered a few losses.

The best way to get all the trouble you can handle is to engage "regular" or better enemies, and to loiter about the scene of a battle. Conversely, the best way to avoid trouble is to disappear from sight as quickly as possible. In general, trying to take on the entire enemy defence system with one F-19 is very unwise!

CREDITS

F-19 Stealth Fighter is brought to the Atari ST and Commodore Amiga thanks to:

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Many thanks to our colleagues in MicroProse USA for producing the brilliant original. Full credits for their work can be found in the manual.

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