

**FLIGHT MANUAL**  
**for the package**  
**F-4F Phantom II “Professional”**



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## The F-4F Phantom II

The Air Force received from 1973 to 1975 a total of 175 F-4F Phantom II for use as fighters and fighter bombers. Of these, 110 F-4F were combat performance increased from 1991 to 1996.

She was modernized with a Hughes APG-65 radar and the ability to use the AIM-120 AMRAAM missile. Have also been installed including the following systems: Honeywell H-423 navigation system, GEC Avionics CPU-143 / A digital computer, Mil Std 1553R digital data bus and a Litton ALR-68 (V) -2 radar detectors.

Since 2004, the Phantom will now be replaced by the Euro Fighter. The JG 73 "Steinhoff" was is made between 2004 and 2006 and the JG 74 to the end of 2008 converted to the euro fighter, which replaces the now obsolete phantom. The decommissioning of the JG 71 "Richthofen" is planned for late 2012.

## F-4F Phantom II improvements

The F-4F Phantom II is derived from the F-4E version that meets the requirements of the Air Force. It was built in large part by German companies under license.

The changes include, among others:

- improved braking system,
- a revised cockpit layout and
- a simplified radar.



## The General Electric J79 engine

The F-4F Phantom II is powered by two J79 - powered jet engine. Each engine produces a thrust of about 52.8 kN and 79.6 kN with afterburner without. The J79 - jet engine is a turbojet - drive by General Electric and was in the 1950s - developed years ago. MTU in Germany has made this engine for the German F-4F Phantom II under license.



1. Starting system of the left engine
2. Power generator of the left engine
3. Air intake of the right engine
4. 17-stage compressor
5. Combined pipe - ring - Chamber
6. Three-stage turbine with afterburner behind
7. Turbine outlet having a variable exhaust nozzle

### Technical data of the F-4F Phantom:

Length:	19,20 m
Span:	11,77 m
Height:	5,02 m
Wingarea:	49,24 m <sup>2</sup>
Empty weight:	13.757 kg
Start weight:	26.300 kg
Engine:	2 TL General Electric J79-GE-17
Performance:	51,8 kN (5.280 kp)
Performance with afterburner:	78,1 kN (7.965 kp)
Speed limit (air to air mission):	2.417 km/h
Speed limit (air to ground mission):	2.335 km/h
Speed limit (in the near of surface):	1.464 km/h
Landing speed:	270 km/h
Climb time of 9.000 m:	1 min 30 s
Maximum limit height:	18.182 m
Maximum range:	2.560 km
Maximum start distance:	1.000 m
Maximum landing distance:	900 m
Crew:	2 Mann



## The external model



A - Starter cars RST 180

B - Pitot tube

C - Cannon

D - Right engine air intake

E - Center gear

F - AIM-9 short-range missile

G - Additional tank

H - Right wing tip

I - Aileron (Roll Aileron)

J - Flaps

K - AIM-120 B "AMRAAM" L - J79 - jet engine

M - Horizontal stabilizer (elevator)

N - Harken landing for aircraft carrier landings

O - Para Brake extended

P - Fin

Q - Left wing tip

R - Slats

S - Air refueling probe

T - Anti-collision light (strobe)

U - Ladder

V - Two man cockpit

## The F-4F Phantom cockpit – panel



V1 - Visor projection

V2 - Visor selection switch

R1 - Radar switches

R2 - Radar display

AN - Animation switch, see in animations

A1 - Autopilot Display: IAS / Mach, Alt, VS

A2 - Autopilot switch: AP, HDG and TRK

A3 - Autopilot switch: ALT, MACH, IAS, APR

G - Gear lever

R - Radio Frequency knob

E - Master switch for electrical

P - Primary Attitude and Navigation Instruments

T - Displays for engine monitoring, fuel and TAS

F - Flaps lever

C - Canopy open / close

## Animations



LD - Ladder on / off

PRA - Para Brake in contact with the ground

TR - MAN tractor activate

WM - Wingman view (2nd and 3rd airplane airplane)

CLR - Close all animations



WM - Wingman view (2nd and 3rd airplane airplane)



LD - Ladder on / off



PRA - Para Brake in contact with the ground





TR - MAN tractor activate



Air refueling nozzle open / close, see

## Lower panel



- A - Status of landing gear position
- B - Elevator trim
- C - Boost pump display left and right engine
- D - Flaps indicator
- E - Status displays such as autopilot and light switches
- F - Warning lights
- G - Microsoft Flight Simulator icons
- H - Panels on / off



- R - Radar control switch
- S1 - Left engine thrust levers
- S2 - Right engine thrust lever
- E1 - Engine master switch
- E2 - Start switch left and right engine
- E3 - Fuel supply left / right
- E4 - Tailhook
- F - Flight-refueling retracting
- T - Trim switch for yaw, roll, pitch



- R1 - Radio selection
- R2 - Setting radio frequency
- R3 - Identify radio
- N1 - NDB display
- N2 - Indicator NAV,Squawk
- N3 - Setting frequency
- N4 - Select NAV or Squawk
- L1 - Cockpit light switch
- L2 - illumination switch

## ATC - ID entering in the German F-4F Phantoms



Entering the ID code at the German F-4F Phantom example of the ID code 38 + 63  
*All screenshots are from German MS Flight Simulator version.  
Please think for your own language.*

LUFTFAHRZEUG AUSWÄHLEN

<b>Luffahrzeughersteller</b> F-4F Phantom, AFS-pro	<b>Beschreibung</b> The McDonnell Douglas F-4 Phantom is a two-seat, twin-engined, all-weather, long-range supersonic fighter-bomber originally developed for the U.S. Navy by McDonnell Aircraft. Proving highly adaptable, it became a major part of the air wings of the U.S. Navy, Marine Corps, and U.S. Air Force. In 1973, under the "Peace Rhine" program the
<b>Luffahrzeugmodell</b> 1. Jg 73	<b>Leistungsdaten</b> length: 19,20 m span: 11,77 m height: 5,02 m wingarea: 49,24 m2
<b>Abweichung</b> a.Front seater	
<b>FS-Name</b> 3743 <input type="button" value="Ändern..."/>	

HILFE    ABBRECHEN    OK

When "select aircraft" name change FS.



You can now enter a unique ID number. Please without the cross (plus sign)!  
 You can enter all the numbers from 0000 to 9999.  
 For example, the 3743 for the German ATC - ID code: 37 + 43



## Keyboard layout

Button	Description
+ - (No numeric keypad)	Zoom in the virtual cockpit and external model: (no numeric keypad, but in block letters) Virtual cockpit, zoom size recommendation: Factor 0,40
<b>STRG E</b>	Engines start
<b>SHIFT E</b>	Canopy open / close
<b>G</b>	Gear down or up
<b>#</b>	Airbrake down or up
<b>F2, F3</b>	Less thrust, more thrust
<b>F5, F6, F7, F8</b>	Keys locked, Eurofighter have not flaps
<b>SHIFT 2,3,4,5</b>	Under panel display
<b>SHIFT 6,7,8</b>	MFD left to right / from

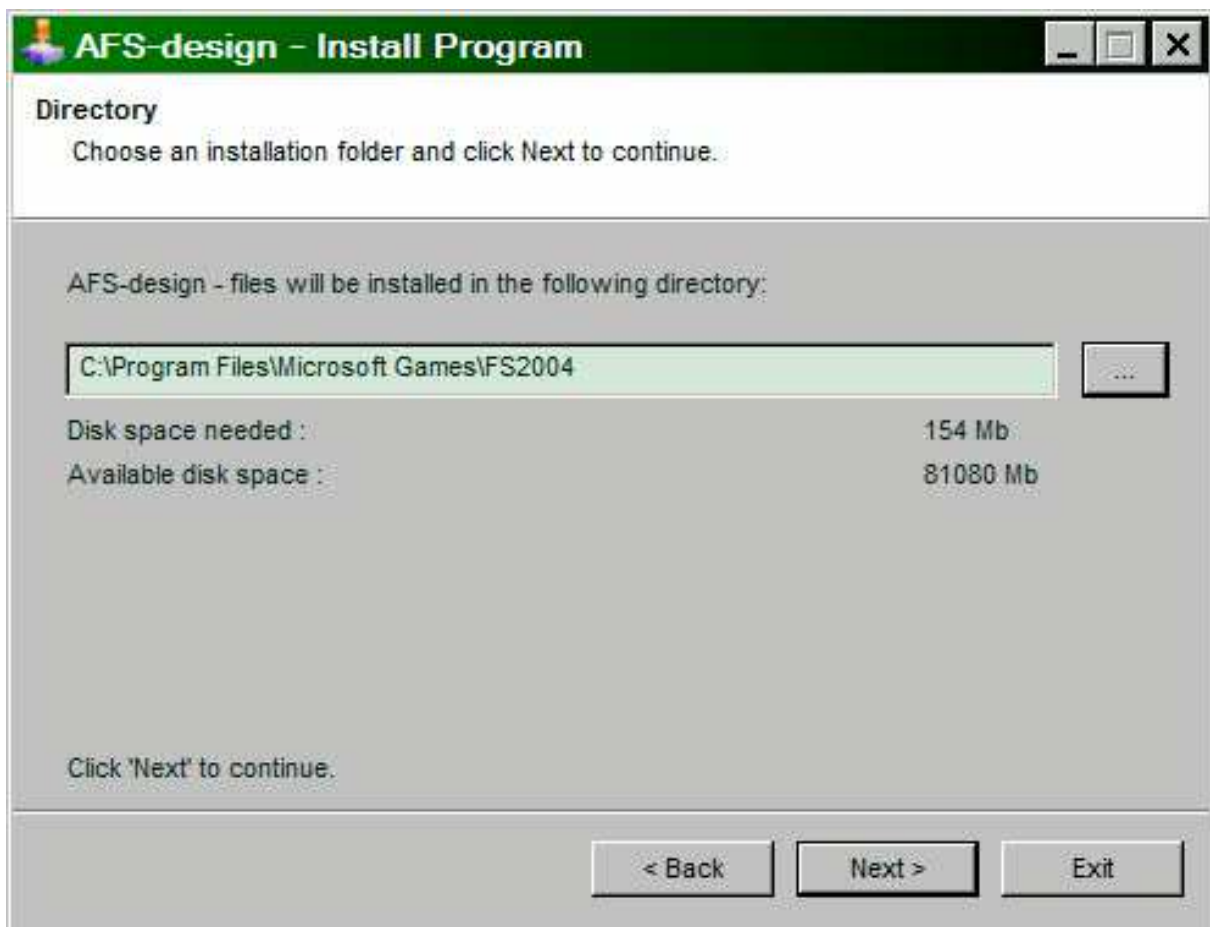
Please use a suitable joystick for Flight Simulator. Recommend to a joystick with throttle and rudder control, eg Logitech Extr.3D Pro.

## System requirements

System:	Windows 98 SE / Me / 2000 / XP or Vista
FS VERSION:	FSX (SP1, SP2, Acceleration Pack) and FS2004
Filesize:	61 MB
Filesize hard drive:	1,6 GB
INSTALLATION:	EXE. file
PUBLISHER:	AFS-design
HOMEPAGE:	<a href="http://www.afs-design.de">http://www.afs-design.de</a>
SUPPORT mailto:	<a href="mailto:info@afs-design.de">info@afs-design.de</a>
FS VERSION:	FSX (SP1, SP2, Acceleration Pack) and FS2004
Control:	Joystick, Keyboard and mouse

## Installation for FS2004

1. For FS2004 download the „AFS-\_\_\_\_-FS9.exe“ to a temporary directory of your choice.
2. Please start the „AFS-\_\_\_\_-FS9.exe“ and install.

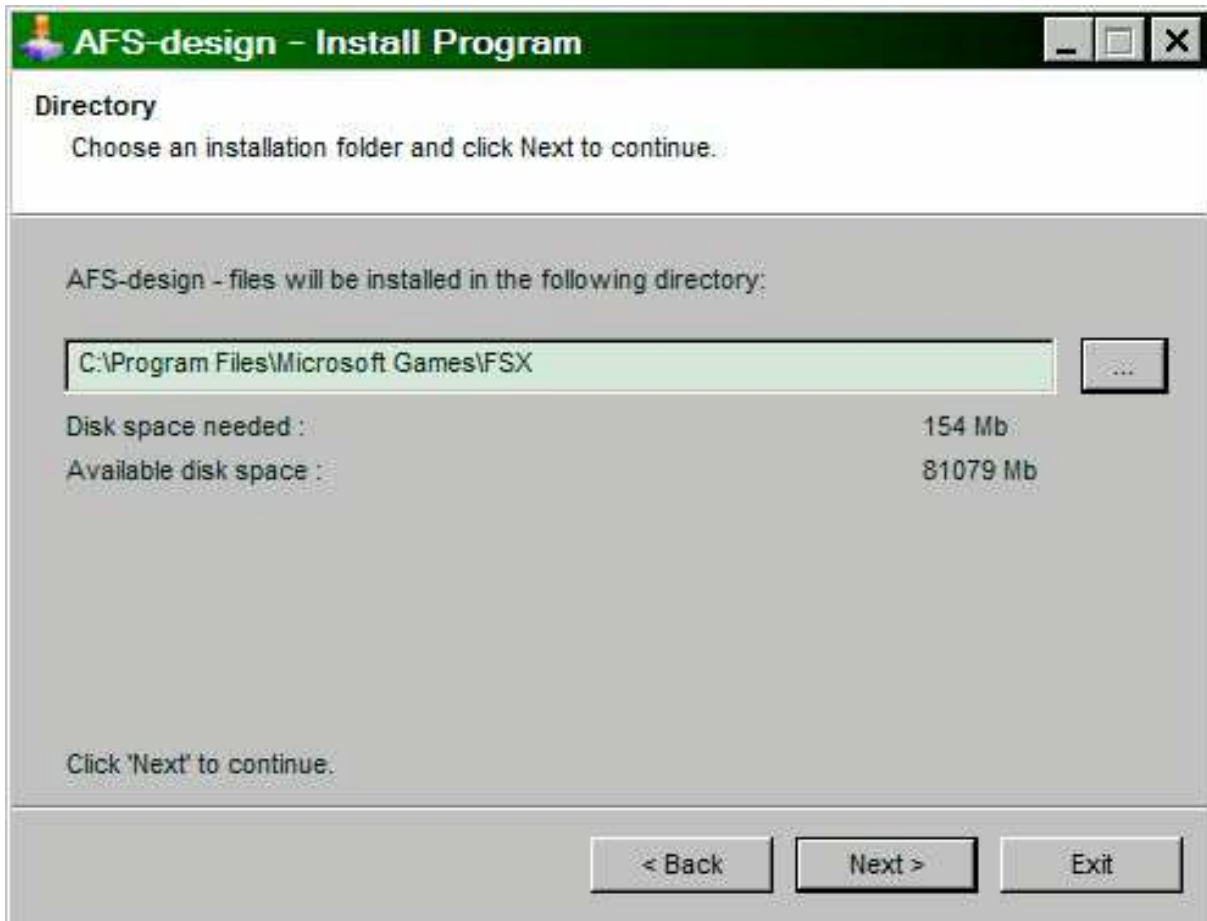


3. Set in ... the main directory from FS2004, when not automatic choice.
4. Than start the Flight Simulator.

Please use the AFS-\_\_\_\_-FS9.exe only for **FS2004** (= **FS9** ).  
The textures are not suitable for the FSX.

## Installation for FSX

1. For FSX download the „AFS-\_\_\_\_-FSX.exe“ to a temporary directory of your choice.
2. Please start the „AFS-\_\_\_\_-FSX.exe“ and install.



3. Set in ... the main directory from FSX, when not automatic choice.
4. Than start the Flight Simulator

Please use the AFS-\_\_\_\_-FSX.exe only for **FSX**  
The textures are not suitable for the FS2004.



## Choice a Airplane

- Start your Flight Simulator
- Select under "Free Flight" and "aircraft"
- Select „F-4F Phantom, AFS-pro“

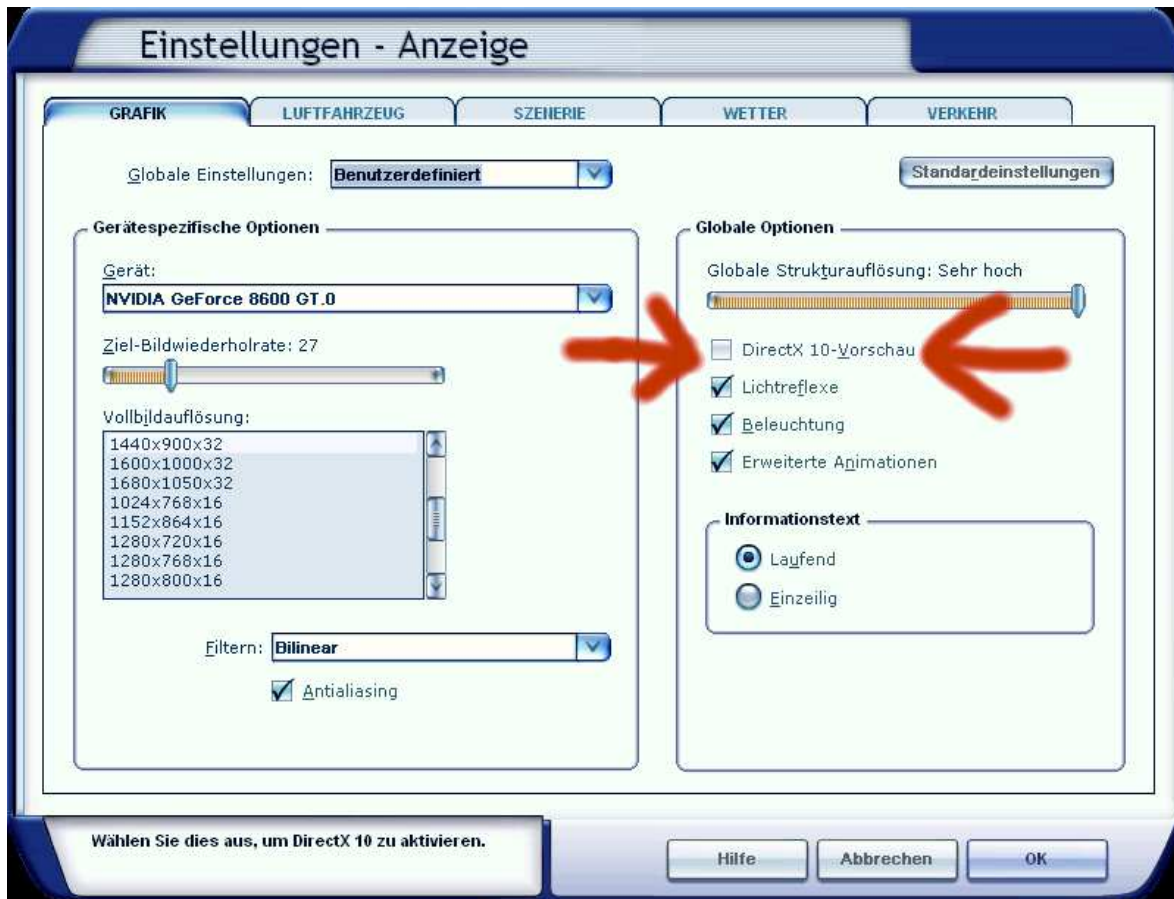


- Choose from several different Air Force repaints
- These can be as single-seater, a two-seater or as an instructor open.
- In the FS2004 version is available also a formation flight model.
- Check the load
- Start selection

## Problem with DirectX in FSX (SP2) – when required only

This program use DirectX9 only. Please switch out DirectX 10 trailer !

1. Install this add-on
2. Start the Microsoft FSX
3. Choose a plane your choice
4. Start the simulation (click start)
5. In the simulation switch button "ALT"
6. Choose options / adjustment / display (graphic settings)
7. In the graphic settings windows choose graphic
8. Deactivate "DirectX 10 trailer" in small box ( without camisole )
9. Exit the FSX, and start the FSX new !



*All screenshots are from German MS Flight Simulator version.  
Please think for your own language.*

## Troubleshooting

Trouble	Suggested solution
<b>The "F-4F Phantom, AFS-pro" can not show in the menu of FSX or FS2004</b>	Usually there are no problems during installation. Sometimes, however, if the FSX or FS2004 is not in the Windows registry. Then you must enter the correct directory from the Microsoft Flight Simulator in the installation manual. Enter only the root directory of FSX or FS2004 on. Never in the subfolders, e.g. the "Aircraft" folder. See also chapter: „ <b>Installation FS2004 / FSX</b> “
<b>The "F-4F Phantom, AFS-pro" can not still show.</b>	The downloads are there as FSX and FS2004 version as. Never use the FS2004 version in the FSX install or vice versa. Have you downloaded the correct version?
<b>Black model in FSX</b>	Please turn off the DX10 preview and lighting in FSX. See the previous page!
<b>Black mirror</b>	Please see "ALT" key => options => settings => display => aircraft to check for "Reflections" set
<b>The FSX jerky</b>	Please with this free tool to improve your FSX. Thus, the FSX will never stutter again. <a href="http://www.venetubo.com/fsx.html">http://www.venetubo.com/fsx.html</a>
<b>ATC - Id is displayed at the German F-4F Phantom</b>	Please enter only four numbers in a range from <b>0000</b> to <b>9999</b> , with no spaces. Sun are e.g. The figures for <b>3127</b> the ATC - ID <b>31 + 27</b> .
<b>ATC ID is black</b>	Please check the ATC - ID code was entered correctly, <u>without spaces or letters</u> .
<b>Cockpit set to close</b>	Zoom in the virtual cockpit and external model with key "+" and "-" (no numeric keypad, but in block letters) Virtual cockpit, zoom size recommendation: Factor 0,40.
<b>Artificial horizon jerky</b>	Is normal and is located on the Microsoft Flight Simulator.
<b>No screen, MAN tractor, head and Wingman visible</b>	See chapter: "Animations"

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## Right

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