

3-321-2840

**KRT**  
**SOFTWARE**  
P.O. BOX 41395  
ST. PETERSBURG, FLORIDA  
33743

F-16 Flight Simulator

from KRT software

Copyright 1983

by

Ken Elder and Randy Wright

Congratulations! You have just purchased the finest instrument flight simulator available. Every attempt has been made to make this program as realistic as possible. You can takeoff, do aerobatics, navigate a course, fly at almost Mach 3, and perform instrument landings.

It is our policy to support our software as much as possible and part of this is to make our software user friendly. This program, although containing machine code routines and graphics, is therefore stored and driven from basic. It is compatible with both disk and non-disk systems. A simple csave or save command will copy it. Out of respect for the work we put in to make this so easy for you, PLEASE DO NOT ALLOW OTHERS TO MAKE COPIES! This software is copyrighted and KRT software reserves all rights.

The software does not use the Poke speedup, but will work with it if you manually Poke 65495,0 before running. The break key is disabled but reset still works.

This flight simulator will be upgraded to visual (through the windscreen) flight and completely machine code in the future. You, as original purchaser, will be entitled to these upgrades when available, at little or NO cost depending on the upgrade. We are trying to maintain an up to date owner's list so that everyone can be contacted as changes are available.

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**F16 DISK 1.1 INSTRUCTIONS**

If you have the 1.1 Disk Basic Rom you must follow these additional instructions. You can tell if you have the 1.1 Rom since your computer will say Disk Extended Basic 1.1 when you turn it on.

Before loading the f16 program, make sure you type PCLEAR 6 and press ENTER. Then CLOAD the program but don't run it. Type DEL-50 and press ENTER. The program is now ready to run or save to disk by SAVE"F16K2".

We apologize for this inconvenience and will eliminate it in future versions.

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F - 16

HIGH PERFORMANCE  
INSTRUMENT FLIGHT SIMULATOR

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INSTRUCTIONS

TO RUN: You need EXTENDED BASIC and 32K . Have both joysticks back towards you before starting.

TYPE: PCLEAR 6:CLOAD:ENTER Then RUN

If this is your 1st time just press "ENTER" when it asks for aileron , pitch sensitivity and flight plan ; it will default to the lowest settings and no flight plan. The instrument panel will be displayed; the instrument needles will appear but nothing will happen as long as you have both sticks back.

If you've already flown this simulator then you may want to increase aileron (roll) sensitivity or elevator (pitch) sensitivity. You may also want to ask for a flight plan.

When the picture comes on, the windscreen should be blue. If not see section on screen colors.

CONTROL SUMMARY:

RIGHT JOYSTICK : Forward - Full Thrust

Back - Zero Thrust

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LEFT JOYSTICK : Forward - Down Elevator  
(nose down)

Back - Up Elevator (nose up)

Left - Left Aileron (bank)

Right - Right Aileron (bank)

Joysticks are proportional but non-linear: there is a "deadband" near center due to the lack of centering springs on most joystick controllers. The further you push the stick the quicker things happen.

### KEYS USED:

'F' : Flaps down (optional)

'T' : Flaps up (optional)

'D' : Landing Gear Down

'U' : Landing Gear Up

'C' : Toggles between day/night  
flying screen  
(optional)

### INSTRUMENT SUMMARY:

HEADS UP DISPLAY: Upper center white square on windshield. Does the functions of ground based radar, glide slope indicator and runway view for takeoff and landing. In radar mode, the centered, inverted 'Y' represents the runway and

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glidepath entrance. The wide vertical line represents the runway, the trailing lines south of the runway are the glideslope entrance area, and the moving dot is your aircraft position. North is towards the top and East is to the right. The glide slope mode is automatically triggered by flying to the approach pattern South of the runway when altitude is below 5000 ft. The cross hairs represent the glide slope indicators and are centered if you are on the glide path. Steer towards them if they are not centered. Below 1000 ft the heads up display gives a runway view if you are taking off or landing.

**FLIGHT COMPUTER:** The top rectangle on the instrument panel. Displays various messages during the flight. This information is at times very helpful when you're having problems.

**ARTIFICIAL HORIZON:** Below flight computer display on left hand side. Works very realistically except code has not yet been added to distinguish between ground and sky so if you roll or loop inverted you must remember you did it and the horizon line will move opposite your pitch control input. In other words, when inverted the elevator control and the climb rate reverses as in actual flight.

**CLIMB RATE INDICATOR:** Right of Artificial Horizon. Dual rates show low as well as high climb rates. Note when inverted, pulling back on the stick gives you a negative climb rate - just like the real thing.

**COMPASS:** Lower left screen - self-explanatory.

**ALTIMETER:** Right of compass - dual rate; right side reading is from 0 to 1000 ft; left side is from 0 to 90000 ft. The aircraft is limited by the onboard computer from altitudes

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above 80000 ft, however, you can try to climb higher but the computer will take over and keep you just above 80000.

**MACH METER/AIRSPEED INDICATOR:** Right and above Altimeter. Upper scale is Mach number and will not go above 1 if you didn't retract the gear and flaps. Lower scale is Airspeed and is valid up to Mach 1. 120 MPH is stall speed.

**FUEL/THRUST INDICATOR:** Below Mach/Airspeed Indicator. Fuel is upper scale, thrust is lower. Burns fuel proportional to thrust setting, if you run out of fuel thrust goes to zero and you must deadstick it. GOOD LUCK !

**GEAR/FLAP INDICATORS:** Below compass. You must retract both to reach full speed. Use keys and hold down for a moment - in up position the top light is on; down - the bottom light is on. Remember it takes a few seconds to accomplish the up and down cycles so be patient.

### **FLYING NOTES:**

Be sure to have some back stick when you start to takeoff or the plane will takeoff, nose over and crash before you know what happened! As soon as you break ground center the stick and keep the artificial horizon just below the airplane. If you keep the stick back you'll loop into the ground!

The controls are very sensitive, especially if you increase sensitivity when prompted during start up. A sensitivity of 1 is the default value. You are a real fighter pilot if you increase sensitivity to 10! You may roll or loop, however, some maneuvers may scramble the compass or artificial horizon. If you scramble the instruments and don't want to fight trying to unscramble them then reset and run the

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program again. A 90 degree climb or dive causes the artificial horizon to become a dot at the top or bottom of the gauge.

Do aerobatics at your own risk!

The rudder is automatically coordinated as needed; you don't need to worry about it though this may result in barrel rolls. Application of a touch of elevator at the right time will make them more axial.

If you line up between the lines below the runway and are below 5000 ft altitude the glide slope indicator comes on automatically. If you center the indicators and fly directly down the glide path you will see the runway. A proper flare and landing gear down will result in a good landing.

You can fly down and flare for landing and then takeoff again if you want to, although it will pause and display the landing results ! Your flare and vertical descent rate determines whether or not you land smoothly, damage the aircraft, or crash. The lower you get the smaller vertical descent rate you need ( a climb rate slightly below zero).

There is a night flying option which darkens the screen. It does not affect any other part of the program. To use this, press the 'C' key and hold it down until the screen darkens. This may be reversed at any time by again pressing the 'C' key and holding it until the screen returns to normal.

If you press the 'y' key when it asks for a flight plan, you will see a series of lines drawn on the heads-up display. The challenge is to follow the path and land without running out of fuel.

This program uses the highest resolution graphics available but with more than the normally available two colors. Do to

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the computer's hardware, the extra colors will be either blue or orange; this changes randomly with each reset. The windscreen was designed to be blue. If it is not then push the reset button and type 'RUN' again. You may have to do this more than once to get the blue color. Of course, if orange doesn't bother you then leave it. - this does not affect operation of the program.

This simulation is intended to be as realistic as possible and therefore no points are awarded for staying on flight plan, etc. The landing is difficult, but so is a realistic instrument landing. If you have comments, suggested modifications, etc please contact KRT software and we will try to supply you a custom version. Remember this simulator will be upgraded in the future and you as original purchaser will be entitled to the upgrades at little or no cost depending on the extent of the upgrade.