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## Nellis Air Force Base Package





**For FS 2004**
**Fall 2009**
**Project Manager: Edith Black**

This package, from Military AI Works, depicts aircraft of the United States Air Force that are based at Nellis Air Force Base in Nevada including the USAF Air Demonstration Squadron, better known as *The Thunderbirds*. Nellis AFB is an integral part of the United States Air Force's Air Combat Command and is known around the world as the "Home of the Fighter Pilot." It is the pinnacle of advanced air combat aviation training. The base's all-encompassing mission is accomplished through an array of aircraft including: O/A-10A/C, F-15C/D, F-15E, F-22A, F-16C/D all represented in this extraordinary package. In addition Military AI Works has constructed the most comprehensive scenery ever created for Nellis Air Force Base for the *Flight Simulator* series featuring over 100 custom designed objects and photorealistic textures based on actual images taken at Nellis AFB. Over a year in the making, the Nellis AFB package is one of the largest and most comprehensive packages ever created by MAIW. In addition, this package features a first for Military AI Works, ground based AI vehicles that move about the scenery. We hope you enjoy this package.

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# 1. About MAIW

Military AI Works (MAIW) is a loosely affiliated, international group of flightsim enthusiasts who share the common goal of seeing realistic military AI traffic in MS Flightsim.  Our goals:

1) Produce <u>only</u> high-quality, freeware packages and products
2) Create military AI traffic accurately within the bounds of MS Flightsim
3) Promote new freeware military AI models, scenery and products
4) Advance military AI modeling of countries around the globe
5) Respect the rights of designers and contributors

To learn more about MAIW or to become a contributor, visit our website at
[http://www.militaryaiworks.com](http://www.militaryaiworks.com).

# 2. Credits

Models:
- F-16C/D Fighting Falcon by Henry Tomkiewicz
- F-15C/D/E by Nick Black
- M1025 Humvee by Edith Black
- F-22A by Nick Black
- O/A-10A/C by Rysiek Winawer

AFCADs:
- Edith Black
- Desmond Burrell

Flight Dynamics:
- Mike "mikewmac" MacIntyre
- Henry Tomkiewicz

Effects:
- Mike "mikewmac" MacIntyre
- Henry Tomkiewicz
- Edith Black
- Steve Holland
- John Stinstrom
- Nick Needham

Repaints:
- Graham King
- Mike Pearson
- Mark Walsh

Voicepacks:
- Edith Black
- Desmond Burrell

Custom Scenery:
- Edith Black
- John Stinstrom

Object Libraries:
- Edith Black
- John Stinstrom

Flightplans:
- Desmond Burrell
- Edith Black

Serial Research:
- Marco Kosterman

Beta Testing:
- MAIW Beta Team


# 3. Units Included in this Package

**<u>USAF Air Demonstration Squadron – F-16C/D</u>**

16<sup>th</sup> Weapons Squadron – F-16C/D



17<sup>th</sup> Weapons Squadron – F-15E



66<sup>th</sup> Weapons Squadron – O/A-10A/C

### 433rd Weapons Squadron — F-15C/D, F-22A



### 64th Aggressor Squadron — F-16C



### 65th Aggressor Squadron — F-15C/D

**422<sup>nd</sup> Test Evaluation and Squadron – F-16C/D, F-15C/D/E, A-10C, F-22A**



# 4. Installation

**Step 1) Install this package**

**1a)** Install the package in accordance with the on-screen prompts from the installer.

**Step 2) Remove duplicate AFCAD files**

Open your "Flight Simulator 9/Addon Scenery/scenery" folder and remove any previously installed AFCAD's for the following airports (e.g. "AF2_XXXX.bgl," "AF2_XXXX_DEFAULT_XX.bgl" or "PAI_AF2_XXXX_DEFAULT.bgl") NOTE: LEAVE ALL AFCADS BEGINNING WITH "MAIW" as they were installed with step 1:

KLSV

NOTE:  Failure to remove these duplicate files may result in problems with AI aircraft parking and operation.  It is recommended you move these to a temporary folder instead of deleting them. However, you should not need them again as the AFCADs included in this package are thoroughly researched and highly detailed.  If you are using different add-on scenery for the above airfield, it is recommended you do NOT remove the AFCAD for the add-on scenery, but instead remove the MAIW AFCAD file (e.g. MAIW_AF2_EXXX_DEFAULT.bgl) after installation.


## Step 3) Install callsign voicepacks

**3a)** If you don't have the EditVoicepack 3.1 freeware installed, download it and install it by [clicking here](clicking here).

**3b)** Run EditVoicepack and import all vcpmod files included in with this installation

**3c)** Choose "Import" from the "File" menu

**3d)** Find the folder "Flight Simulator 9\Military AI Works\USA\USAF\Nellis AFB\Voicepack Mods" in the "Look in:" window

**3e**) Select all the files and click open The following callsigns should be added:

ANGRY
BAT
CHECK
COBRA
COWBOY
CYLON
FLANKER
HOG
MIG
PYTHON
RAPTOR
SANDY
STRIKE
THUNDERBIRD
VEGAS
VENOM
VIPER
1LSV
2LSV
3LSV
4LSV
5LSV
6LSV
2MUO
3MUO
HIF5
HIF6
1TUL


**3f)** Update the Voicepack for FS9 by choosing "Update Voicepack" from the "File" menu-- ensure the "Custom/Callsigns" box is checked in the left hand window.  (note: the update may take a few minutes—do not attempt to start FS9 until the update is complete.  Look for "Ready" in the lower left corner)

**3g)** When ready press save to keep the modifications

**Step 4) Install Custom Scenery**

Included in this package is the superb scenery of Nellis AFB by Edith Black and John Stinstrom. To install this scenery you need to do the following:

1)  The folders "MAIW Nellis AFB (KLSV)", "MAIW Scenery Library Objects" and "MAIW Land Class" have already been installed into the "Addon Scenery" folder of your FS directory.  In order to activate this scenery you must start FS9, go to Settings and find the Scenery Library.

2)  Click on "ADD AREA" and navigate to the "MAIW Nellis AFB (KLSV)" folder and add that folder, then navigate to the "MAIW Scenery Library Objects" folder and add it to your scenery library.  Finally add the last folder, "MAIW Land Class" in the same way.  <span style="color:red">***Note it is important that you place the "MAIW Land Class" folder and "MAIW Scenery Library Objects" folder as far down your addon scenery list as possible by using the Move Down button.  Ideally they should be lower than any other scenery you may have added and just above the default FS9 scenery libraries.  The "MAIW Land Class" folder should be below the "MAIW Scenery Library Objects" folder.  This will assure that you do not have any missing scenery or land class.</span>

1)  3)   Shut down FS and then when you restart, the scenery will be installed and ready to use.
4)  The scenery can be customized to your liking through the removal of various files and the use of alternate textures.  Please be sure to read the additional Readme file located in the "MAIW Nellis AFB (KLSV)" scenery folder which explains more about the scenery and how to customize it to your liking.  Additional information about the ground AI vehicles is also contained within this Readme file.
***That's it!  You've successfully installed this package.***



# 5. Troubleshooting

**Problems addressed:**

**Problem: "I've installed the package, but there are no Military AI aircraft at the airports"**

Potential issue:  FS9 AI traffic density set too low
Fix action:  In FS9, set the AI traffic density slider to at least 30%.


**Problem: "When I go to an airport, there are AI planes parked on top of one another"**

Potential issue:  Multiple AFCADs active for the same airport
Fix action:  Using Windows Explorer, open the folder "Flight Simulator 9/Addon Scenery/Scenery."  Look for duplicate entries for the following airport identifier:

KLSV

Files may be named in several ways.  The most common are "AF2_KXXX.bgl," "AF2_KXXX_DEFAULT_XX.bgl" and "PAI_AF2_KXXX_DEFAULT.bgl."  Keep the file names starting with MAIW and remove all others with duplicate airport identifiers.

**Problem: "I can't find the aircraft in the aircraft selection menu"**

Issue:  These are AI aircraft and have been programmed to not show up in the flyable aircraft selection menu
Fix action:  If you simply must select these aircraft, use an editing program such as AirEd and change the Aircraft type from "2" to "0"

**Problem: "When the Military AI planes talk to ATC, they use only numbers, not callsigns"**

Potential issue:  Callsign Voicepacks were not installed correctly
Fix action:  Run the EditVoicepack software.  Look for the following callsigns in the "custom modifications/callsigns" section of the program:

ANGRY
BAT
CHECK
COBRA
COWBOY
CYLON
FLANKER
HOG
MIG
PYTHON
RAPTOR
SANDY
STRIKE
THUNDERBIRD
VEGAS
VENOM
VIPER
1LSV
2LSV
3LSV
4LSV
5LSV
6LSV
2MUO
3MUO
HIF5
HIF6
1TUL

If any of these are missing, choose "File/import" and open the appropriate .vcpmod file in the folder:-
"Flight Simulator 9\Military AI Works\USA\USAF\Nellis AFB\Voicepack Mods"

Once this is complete, or if all callsigns are present, ensure the "Custom/Callsigns" box is checked in the left hand window and choose "File/Update Voicepack" to install them into FS9 (this may take a few minutes, do not open FS9 until the lower left of the EditVoicepack screen says "Ready.")

**Problem: "I'm following the Military AI aircraft, and they won't come back for touch-and-gos"**

Potential issue:  You're following your AI aircraft
Fix action:  Stop following your AI aircraft.  For some reason, a watched AI aircraft does not always behave the way it is programmed to.  If you wait for the aircraft at the airport, it will arrive on schedule

**Problem: "I don't see the AI ground vehicles"**

Potential issue:  Under the traffic controls menu, you don't have the "General Aviation" tick box checked.
Fix action:  Check the selection box marked "General Aviation" making sure your AI traffic slider is set at 50% or higher.

**Problem:   "When I select "KLSV" in the airport selection menu, instead of "Nellis AFB", I get "Nellis Ground AI Routes" or "Nellis Jolly Pad"**

Potential issue:  Due to the close proximity of the other two afcads that make up the scenery, the selection menu is getting confused and displaying the incorrect locations.
Fix action:  There is no action required, even though the selection window may indicate one of the other two locations, as long as you have entered the correct ICAO airport identifier, you will still boot up in that location.
Note:  This issue also occurs when selection LSV0 or LSV1 as your starting location.

**Problem:  "When I view the Jolly Pad area from the Nellis tower view, I can not see the surface textures for the ramp areas and taxiways at the Jolly Pad location"**

Potential issue:  The LSV0 (Nellis Jolly Pad) afcad file is purposely kept independent from the main KLSV afcad to prevent AI from one, crossing over to the other.  Additionally this allows helicopter AI traffic (not part of this package) to use the LSV0 afcad independently from the main KLSV afcad and prevents helicopters from interfering with fixed wing traffic at the main base.
Fix action:  You can try to add the Jolly Pad area by creating that entire section as part of the main KLSV afcad file instead of using two separate afcad files.  This is not recommended as it will cause conflicts between any fixed wing traffic operating from the main Nellis runways and any rotoary wing traffic trying to use the fake runway at the Jolly Pad area.



# 6. Notes and Resources

For users who have previously installed Michael MacIntyre's excellent Thunderbirds Formation Flight Demonstration Package or the MAIW 1st Anniversary Airshow Package you may already have a set of AI Thunderbird models and textures. This will not interfere with the Nellis AFB package in any way, however you may be duplicating aircraft. The model folders in the two previous packages are named:

**"HTAI F16C USAF_ADS_1 Otis AI" 1-8**

The Thunderbird folders for the Nellis package are named:

**"MAIW_HTAI_F16C_USAF_ADS_1" 1-8**

Very similar but different. Again this will not have an effect on any of the packages involved but you may wish to combine the folders at some point to save space. If you need help please visit the MAIW forums. The Thunderbirds have their own separate flight plan file included in this package to make it easier to manage. The traffic slider percentage for the Thunderbirds flight plans is set to a very low value of 10%. During testing it was noted that higher traffic percentages introduced so much traffic into the base that the Thunderbirds have trouble all arriving and departing in sequence without having multiple go arounds or ending up being separated by other AI traffic while waiting to depart. Ideally the Thunderbird AI aircraft should all taxi out together and take off right after one another in sequence. Due to the limitations of the FS2004 AI engine, each aircraft's flight plan must be spread out by several minutes instead of one right after another. Failure to do so results in the aircraft taxiing out of numerical order. Every effort has been made to assure the aircraft arrive and depart in numerical order. Leaving you traffic percentage slider at 10% should assure that this will happen. At percentage values above this number, other AI traffic may interfere with the Thunderbirds arrival and departure sequences causing them to depart and arrive out of numerical order.

The Nellis AFB Package features some new effects for the F-16s and F-15E's. The F-16C/D models have new nav light effects that flash in sequence as seen in real life. This appears to be a setting that can be selected by the pilot inside the cockpit of the real aircraft so that the nav lights either steadily flash or remain on continuously. The names of the new F-16 nav light effects are:

**fx_f16_strobeRED.fx**
**fx_f16_strobeGREEN.fx**
**fx_f16_strobeWHITE.fx**

Both of the Aircraft.cfg [Lights] sections for the F-16C/D models are set to use these new effects. If you don't like them you can simply change them for the original effects that come with the Henry Tomkiewicz model and are included in the Effects folder of this package as well.

The F-15E is using a extended time version of its custom afterburner effect made by Steve Holland. During testing some of the aircraft had their afterburner effect disappearing before they even left the ground. So the extended version simply makes the afterburner effect last

longer and therefore should allow it to be visible for the entire takeoff roll and initial climb of the F-15E Strike Eagles.  It does not change the length of the effect as it comes out of the tailpipe.  Note that this effect is only used on the F-15E model.  The new effect is named:

**fx_nbai_F15_ab_extended.fx**

Again if you don't like it you can always change it back to the original which has been included in previous MAIW packages featuring the NBAI F-15E.

This package was built by the Military AI Works online community.  If you are interested in making Military AI traffic more realistic, visit this site!

Flightplans:
The Flightplans are fictional, but have been researched via Internet and message forums.  We have tried to make the plans as "realistic" as possible and have had to use our own judgment.  Aircraft in this package fly to bases that may need you to download a separate AFCAD for the aircraft to show up there, AFCADs may be found at Avsim.com, Flightsim.com and the Project AI Afcad site

All Flightplans were created using Notepad.
Flightplans were installed using Lee Swordy's TrafficTools freeware traffic compiler.

Callsigns:
The callsigns used in this package are actual callsigns used by these units, based on information obtained in manuals and on internet.

All callsigns were created using the ingenious EditVoicepack freeware.  This program is extremely simple and fun to use—if you need a new AI callsign, give it a try!

AFCADs:
All AFCADs were created using Lee Swordy's AFCAD v2.21.  Similar programs such as the payware program AFX and the newly released freeware program Airport Design Editor will do the same thing and offer even more functionality for airport design.

Scenery:
The Nellis scenery was created using several programs including FS Design Studio (FSDS) by Abacus and SBuilder by Luis Sa.

# 7. Permissions and Disclaimers

Adverse Effects:
The contents of this package should not adversely affect your FS9 setup or computer operation if installed according to the instructions. The authors make no guarantee and bear no responsibility for adverse operation or lost/overwritten files on your computer.

Use of Contents:
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Upload to FSPLANET.com will never be allowed by Military AI Works.

Any questions, suggestions and feedback on the contents may be directed to the forums at www.militaryaiworks.com.

Sources:
All information used to create this package was obtained via online, open-source research. All flight plans and schedules, while reasonable for military units, are fictional.

Thanks to everyone who made this possible.